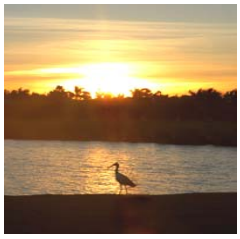


Center Lake

Development of Regional Impact

Rj WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

May 12, 2010

Mr. Phil Laurien, Executive Director
East Central Florida Regional Planning Council
631 North Wymore, Suite 100
Maitland, Florida 32751

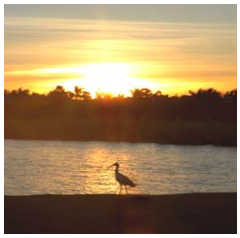
Dear Mr. Laurien:

Rj Whidden and Associates, Inc. as Agent for Center Lake Properties, LLLP is pleased to submit this 2nd response to your request for additional information relative to the Center Lake DRI project in accordance with Section 380.06, Florida Statues.

This document has been provided to the individuals and agencies stated in the distribution list as provided by the East Central Florida Regional Planning Council on January 19, 2010. As always, we look forward to working with you and the staff of the East Central Florida Regional Planning Council on this application.

Respectfully yours,

Rj Whidden, President



Center Lake

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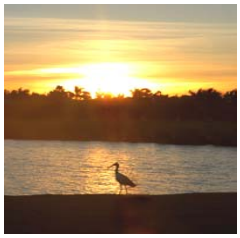


Center Lake

Development of Regional Impact

List of Exhibits

Exhibit 1 – Illustrative Plan

Exhibit 2 – Revised Map D – Existing Land Use Map

Exhibit 3 – Revised Map H – Concept Plan

Exhibit 4 – Draft Rummel Road Extension Agreement

Exhibit 5 – Residential Density Program Exhibit

Exhibit 6 - Service Availability Letter from City of St. Cloud

Exhibit 7 – Revised Map I-2 – Post Development Drainage Plan

Exhibit 8 – Revised Habitat Management Plan

Exhibit 9 – Revised Question 12D

Exhibit 10 – Traffic Appendices Table of Content

Exhibit 11 A – Revised Map J-1

Exhibit 11 B – revised Map J-2

Exhibit 12A – 2015 Project Distribution and Background

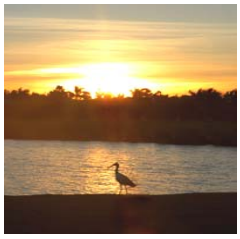
Exhibit 12 B – 2020 Project Distribution and Background

Exhibit 13 A – Revised Table 21-E.2

Exhibit 13 B – Revised Table 21-F.1

Exhibit 13 C – Revised Table 21-F.2

Exhibit 14 – Signalized Intersection Release 5.21



Center Lake
Development of Regional Impact

2nd Response to Agency Request for Additional Information

East Central Florida Regional Planning Council

Maps and Question 10 – Project Description

1. **How exactly will this mixed use project fit into the surrounding areas mixed use designations to the north, low density, mixed use (pending and rural enclave to the west and low density to the west? It appears that the mixed use designation is strung to a larger area to the north and east.**

   This mixed use project will fit exactly into the surrounding areas as required by the Osceola County Future Land Use Element (FLUE) policies governing the Mixed Use Districts. The development will also be governed by the adoption of the Osceola County Smartcode that is required to implement the land use policies of the Comprehensive Plan. The applicant can only represent property under their ownership subject to the legal description of this DRI. The applicant can not assume responsibility to enforce the Mixed Use District policies outside of the boundaries of this DRI. However, the applicant has provided an Illustrative Plan for Mixed Use District 7, attached hereto as Exhibit 1 that includes the DRI boundary and the surrounding properties both within Mixed Use District 7 and within the surrounding land use districts. This Illustrative Plan has been provided as an example of how the development entitlements requested by this application can be implemented in compliance with the Osceola County Comprehensive Plan. It is not intended for, and shall not be considered a binding plan on the proposed DRI nor the surrounding properties. The Osceola County zoning process, governed by the pending Smartcode shall govern future development plans, including any binding site plans and construction plans required by Osceola County.

2. **On Map D, explain the uses in the "unincorporated" areas.**

   Map D does not include any "unincorporated" areas. It does include "incorporated" areas, one of which is adjacent to the southern boundary of the Center Lake DRI. This "incorporated" area is within the City of St. Cloud as shown on Map A. The applicant has revised Map D to shown specific land use districts within the City of St. Cloud. Please see Revised Map D, Existing Land Use Map attached hereto as Exhibit 2.

3. **For the table on page 12 (presumably Table 10 A), please identify the amount of development by phase for the Neighborhood Center areas and the Community Center separately.**

   The table on page 12 presented in the 1st Request for additional Information (RAI) was prepared using form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, Florida Administrative Code (FAC). It is based on FAC Chapter 28-24. Since the FAC does not differentiate between non-residential uses within a Neighborhood Center or a Community Center the applicant did not separate the uses. If the ECFRPC desires more specific information in the future, the applicant recommends that the required form RPM-BSP-ADA-1 be revised to request such detailed information.

For convenience of this review the applicant has separated the non-residential uses within the Neighborhood Center and the Community Center and labeled the table as Table 10-A-1. Please see Revised Table 10-A-1 below:

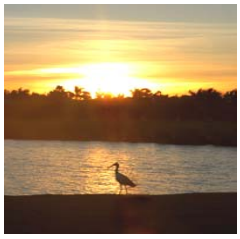
Revised Table 10-A -1
Proposed Development Program by Phase

Map H Concept Plan	Land Use	FAC 28-24.	Phase 1 2011 - 2015	Phase 2 2016-2020	Total Build-Out
SFR (1)	RES	.028	300 du	728 du	1028 sfr dus
MFR (2)	RES	.028	882 du	1463 du	2345 mfr dus
Neighborhood Center	Retail / Service	.031	30,000 sf	70,000 sf	100,000 sf
Community Center	Retail / Service	.031	30,000 sf	40,000 sf	70,000 sf
Neighborhood Center	Office	.020	20,000 sf	40,000 sf	60,000 sf
Community Center	Office	.020	10,000 sf	-0-	10,000 sf
Neighborhood Center	Civic	N/A	10,000 sf	-0-	10,000 sf
Neighborhood Center	Community	N/A	30,000 sf	-0-	30,000 sf
1 Elem. School	Institutional	.024	970 Students	N/A	970 Students

4. Please identify the acreage for the Neighborhood Center areas and the Community Center separately in Table 10.B-1.

The proposed area for the Community Center and the Neighborhood Center were identified separately in the 1st RAI, Question 10.A. - Preliminary Concept on page 10. Table 10-B-1 was prepared based on form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, FAC. It is based on the Future Land Use Cover and Forms Classification System (FLUCCS). Since the FLUCCS does not differentiate between retail and service uses (140) within a Neighborhood Center or a Community Center the applicant did not separate the uses. If the ECFRPC desires more specific information in the future, the applicant recommends that the required form RPM-BSP-ADA-1 be revised to request such detailed information.

For convenience of this review the applicant has revised Table 10-B-1 and separated the 140 use within the Neighborhood Center and the Community Center respectively. Please see Revised Table 10-B-1 below. It should be noted that the entire acreage for both the Community Center and the Neighborhood Center will be developed with infrastructure in Phase 1; however, the full development intensity proposed in each center will not be realized until Phase 2 as presented in Table 10-A-1 above.



Center Lake

Development of Regional Impact

Revised Table 10-B-1
Existing and Proposed Land Use Comparison

FLUCCS CODE	LAND USE CATEGORY	EXISTING Acres(1)	PROPOSED Acres (2)	DIFFERENCE
Lands Above the Safe Development Line				
110	Residential, Low Density	9.8	322.8	+313.0
140	Commercial Community &	-0-	5.5	+5.5
140	Neighborhood Centers	-0-	6.1	+6.1
166	Water Management Tracts	-0-	135.9	+135.9
170	Institutional	-0-	12.8	+12.8
180	Parks, Recreation, and Open Space(3)	-0-	138.9	+138.9
211	Improved Pastures (4)	725.3	83.2	-642.1
224	Abandoned Citrus Grove	129.9	-0-	-129.9
311	Herbaceous	0.7	-0-	-0.7
414	Pine Mesic Oak	61.1	37.2	-23.9
421	Xeric Oak	8.3	3.7	-4.6
427	Live Oak	15.0	15.0	-0-
434	Hardwood Coniferous Mixed	8.5	8.5	-0-
515	Ditch	4.9	0.3	-4.6
630	Wetland Forested Mixed	831.5	826.7	-4.8
641	Freshwater Marsh	40.0	39.9	-0.1
643	Wet Prairie	0.4	-0-	-0.4
814	Roads and Right of Ways	3.9	202.8	+198.9
Sub Totals:		**1839.3**	**1839.3**	**-0-**
Lands Below the Safe Development Line				
211	Improved Pastures (4)	1.3	1.3	-0-
414	Pine Mesic Oak	2.5	2.5	-0-
421	Xeric Oak	0.1	0.1	-0-
515	Ditch	0.04	0.04	-0-
520	Lake	121.4	121.4	-0-
630	Wetland Forested Mixed	47.9	47.9	-0-
641	Freshwater Marsh	0.05	0.05	-0-
Sub Totals:		**173.2**	**173.2**	**-0-**
Totals:		**2012.5**	**2012.5**	**-0-**

Source: Rj Whidden and Associates, Inc. and Modica & Associates, Inc.

(1) Pre-Development Stage

(2) Post Development Stage

(3) Park acreage includes neighborhood and community parks exclusive of park lands within the Community Center and Neighborhood Center. Approximately 37 acres of natural communities located with proposed parks have been accounted for within the respective natural community category.

(4) Improved pasture lands to remain reflect lands adjacent to wetlands to be included in buffers and lands below the safe development line. These areas will be allowed to re-vegetate to their natural communities.

5. **The response to Question 10.E on page 16 appears to be out of date. The county with the highest foreclosure rate is Osceola County, Fla., where one in every eight housing units received foreclosure filing in 2009. Please explain this dichotomy in the developer's perceived need and the outstanding supply of existing homes, foreclosed homes and homes already approved but not yet built.**

The response to Question 10.E on page 16 is based on the population projections and the analysis and demand from the Osceola County Comprehensive Plan. Regardless of current market conditions, the Osceola County Comprehensive Plan anticipates growth for a 20 year planning period as required by Chapter 163, F.S. Osceola County recognizes the current foreclosure rate and the current market conditions, however, the Comprehensive Plan also recognizes the historic growth rate for Central Florida and Osceola County in particular. The ECFRPC characterization that the current market conditions are a dichotomy to the Osceola County Comprehensive Plan Analysis and Demand is inconsistent with the requirements of the DRI process. The DRI must be consistent with and in compliance with the Local Comprehensive Plan, as required by 380.06(14)(a). Therefore, the demand analysis prepared in Question 10.E is not "out of date" as it is based on the Osceola County Comprehensive Plan data and analysis and not the current market conditions.

The developer's perceived need for the project as presented in the 1st RAI is consistent with the analysis and demand of the Osceola County Comprehensive Plan. The ECFRPC comments implies that due to the large number of available homes under current market conditions, that no need for new housing will be necessary until the available inventory has been exhausted. This assumes that the available inventory is a desired product and that the existing inventory is available in a desired area of the county. Much of the foreclosure inventory is located in areas of the county with an outdated subdivision design and a construction style that may not be desirable to the future market. The Center Lake DRI is located within Mixed Use District 7 on the Future Land Use Map of the Osceola County Comprehensive Plan. The Mixed Use District is governed by policies that change the form of development from the suburban form which has typically been developed over the past forty years in Osceola County. The county and the developer anticipate that there will be a future market for a more urban form of development for this area. Given the ongoing development in southeastern Orange County, the employment centers of Medical City located approximately 5 miles to the north of the subject site, and the proposed development of Mixed Use District 8 to the northeast of the subject site that includes additional employment centers, the developer is confident that a future market will be available for a clientele that desires a more urban form product in a mixed use urban setting.

The dichotomy identified by the ECFRPC is analogous to the recent safety issues with Toyota automobile products. These safety issues have resulted in a market decline for Toyota products. There are many Toyota vehicles that sit on car dealership lots with a limited ability to sell. Following the logic of a dichotomy then the ECFRPC would need to take the position that since not all Toyota inventory has sold; then Ford, General Motors and other automobile manufacturers should no longer be able to manufacture vehicles. It is reasonable to assume that there will always be a market for a new product, especially when it is presented in a different form or style from the available inventory currently on the market.

6. **What are the sources for population projections?**

As stated above the sources for population projections are from the data and analysis of the Osceola County Comprehensive Plan, as required for a finding of consistency with the local Comprehensive Plan, pursuant to the provisions of 380.06(14)(a), F.S.

7. Will the project annex into St. Cloud and if so, when is this anticipated?

The City of St. Cloud is the public service provider for water and wastewater to the Center Lake DRI. The City of St. Cloud requires by policy that an annexation encumbrance agreement be signed by all property owners prior to water and sewer service being provided. The developer will execute such an agreement prior to services being supplied. The City will have an opportunity to annex the project subject to compliance with state law. The developer can not anticipate when the City would desire or require annexation. Should annexation occur in the future for all or any portion of the project the developer shall identify such change in jurisdiction within the Biennial Report, pursuant to 380.06(18). Additionally, should annexation occur for the Center Lake DRI or any portion thereof, the developer shall comply with the provisions of 380.06(19)(e)2., F.S. and file an application to the local government's procedures for amendment of a development order.

8. Will any portions of the project be gated?

The applicant has not requested and does not anticipate any portions of the development to be gated. This issue will be governed by the adopted policies for the Mixed Use Districts within the FLUE of the Osceola County Comprehensive Plan and the pending Osceola County Smartcode that will be adopted ordinance to implement such policies. Specifically, FLUE Policy 1.3.12 - *Mixed Use design characteristics* requires;

"a mix of residential housing types distributed on a well-connected street system" and;
"the street pattern is a network of interconnected streets that supports the needs of all users".

These provisions will limit any gated communities to those that have no opportunity to connect elsewhere due to physical development constraints.

9. The RPC advocates low impact design of greenfield sites. The subject site has existing vegetation and natural features that have the potential to provide natural amenities to the proposed development. (p.42,D) Does the developer intend to implement low impact design practices resulting in minimum fill and regarding efforts when not in conflict with FEMA requirements? Adding fill & regarding the site has the potential to damage existing trees/vegetation & alter the natural landscape. The applicant DOES propose low impact development (p.48,6). Utilizing the existing natural environment whenever possible is part of low-impact design/development.

The developer intends to implement design practices as required by the pending Osceola County Smartcode that shall be adopted by the County to implement the policies of the FLUE. The applicant agrees that low impact design (LID) practices could potentially result in minimizing fill and alteration of the site which could promote preservation of existing site characteristics; however, engineering considerations and the permitting agency requirements for stormwater management may require fill regardless of any desire to implement LID practices. No commitment by the developer can be made at this time, due to the influences of environmental and engineering considerations and permitting agency requirements.

Since the ECFRPC advocates LID practices for all green field sites within Central Florida, the applicant recommends that the jurisdictional water management district's permitting requirements and local jurisdiction's ordinance be evaluated and adjusted to accommodate such LID principles. Current regulatory agency policies, jurisdictional policies and local ordinance conflict with optimum LID practices. The applicant assumes no responsibility to revise regulatory policies or

local ordinance and therefore shall not commit to LID design. However, the Smartcode pending adoption by Osceola County will create the opportunity to employ LID practices should they not conflict with regulatory agency policies. If Osceola County adopts such LID principles by ordinance within the Smartcode, the developer shall be required to comply.

Question 12 – Vegetation

10. **The response to question 12D states that the project has been designed to avoid impact to protected wildlife species with the exception of the gopher tortoise. It appears that the development plan will impact fox squirrel habitat and sandhill crane habitat. Please explain how the development plan will avoid impact to these species.**

The response to Question 12D has been revised to specifically address how the development plan will avoid impacts to fox squirrel and sandhill crane habitat. Please see Revised Question 12D attached hereto as Exhibit 9.

Question 14 – Water

11. **What type of non-point source pollution measures will be implemented to reduce hazardous runoff into Lake Center? Is this covered in the DEP/WMD permitting process?**

These requirements are covered in the DEP and SJRWMD permitting process. Non-point source pollution measures need to be implemented in the construction plans to acquire permits from these agencies.

Question 17 – Water Supply

12. **Please provide the letter from the water supply entity when received.**

This letter has just been received and has been provided, please see Exhibit 6, attached hereto.

13. **There appears to be grammatical error (p19, B, Article 4.2.1) water conserving" vs. "water consuming fixtures".**

Agreed. The sentence should read as follows:

"The Applicant of the proposed Center Lake DRI *anticipates a development order condition that will require the installation of water-conserving plumbing fixtures in community facilities and commercial establishments that are consistent with the State Water Conservation Act (s.553.14, F.S.)"*

Question 18 – Wastewater Management

14. **Please provide the letter from the wastewater treatment entity when received.**

This letter has just been received and has been provided, please see Exhibit 6, attached hereto.

Question 19 – Stormwater Management

15. Will the project include innovative stormwater management treatment methods such as swales, rooftop gardens or rain gardens? Please expound on the areas and types of innovative steps that will be taken.

The use of innovative stormwater treatment such as LID and creative Best Management Practices (BMP) on the Center Lake Site will be considered during the final design and permitting phase of the project. Stormwater BMPs that include rain gardens, bio-filter swales, stormwater harvesting, porous pavers and pavement, will be considered depending on the final site plan, soil conditions, and the requirements set forth by the South Florida Water Management District and the Smartcode pending adoption by Osceola County.

Question 21 – Transportation

16. Although requested, the transportation appendices do not have a table of contents which requires additional time to find something that is referenced in the text. For instance, on page 21-24, if the reviewer wants to check the background growth rates, it requires thumbing through an inch thick document. This example happens several times for each reviewer and the total wasted time is easily avoidable with a little effort on the applicant's part. Please include a table of contents and number the pages. Another option is to include small tables in the text thereby eliminating the need to search for some items.

The table of contents and numbered pages were inadvertently left out of the previous submittal. The corrected document is included with this response. Please see Exhibit 10, attached hereto.

17. All roadways and intersections listed in any tables need to be shown on map series. Please revise maps to include all roadway intersections.

Maps have been expanded as necessary to include all the study area roadway segments and intersections. Please see Exhibit 11, attached hereto.

18. No reduction for transit was taken in the analysis as explained on page 21-10 and this is understandable for the first phase. However, this is totally unacceptable for Phase 2 in 2020. Transit needs to be considered at this time in order to have a design that is amenable to transit use, such as Transit Oriented Development or Transit Ready Development.

We recognize that no reduction was taken for transit. Transit will be included as part of Osceola County's overall plan for this area as outlined in the South Lake Toho, East Lake Toho and Northeast Development Districts and pending the adoption of Smartcode by Osceola County. As part of future Monitoring and Modeling for Center Lake DRI, we will coordinate with agencies to determine an acceptable amount of transit reduction.

19. How is transit considered within the Osceola County Comprehensive Plan for the Mixed Use designation?

Provisions for transit will be included as part of Osceola County's overall plan for the Northeast District Conceptual Master Plan and pending the adoption of Smartcode by Osceola County.

20. Regarding trip generation as shown in Table 21.B.2 on page 21-12, we are concerned that the trip generation numbers for the uses are conglomerated when they should not be. As the number of units goes up, the rate comes down. The concern arises in this project because each area is so separated from the other by large wetlands. As a result, it will not function the same compared to the homes all being in one large area. Therefore, it is requested that the rates be adjusted so that the residential trip generation for each of the five main areas are calculated separately.

The rates for land uses such as residential come from the ITE Trip Generation Manual which uses surveys collected from all over the country of various sized neighborhoods. The formulas are developed as a best-fit line using the least-squares method. As the number of dwelling units increases, certain services and trip types are shared among the neighborhood as a whole and result in a slightly lower rates per unit. The surveys shown for single-family residential include neighborhoods between 1000 and 2000 homes with one that has close to 3000 homes.

The individual pods in the Center Lake DRI do not require access to external roadways to travel between them and therefore should be able to share in the internal trips, resulting in a lower rate per unit. Similarly, if trip generation for each pod were calculated separately, the gross trip generation would be higher, but could be separated out as pods in calculating internal capture, resulting in higher internal capture rates.

21. Why does the distribution of traffic to the south and east fall so dramatically from phase one to phase two?

Changes in the socioeconomic data between the two years and growth in different parts of the county contribute to the changes in distribution.

22. Please show 100% distribution clearly around site.

A graphic showing the summation of project distribution is included with this submittal. Please see Exhibit 12A (2015) and 12B (2020), attached hereto.

23. The improvements shown on Table 21.F.3 are not all buildable. What parallel facilities can be expanded to provide additional capacity? The response to 21 H does not adequately address all the improvements that require an 8 lane equivalent capacity increase. This is not acceptable. The Osceola County Comprehensive plan and this project need to identify additional facilities to handle the increase in traffic.

The construction of the internal roadway network as part of the Center Lake Ranch development will include at build-out a four-lane divided roadway that will connect from Narcoossee Road (at a realigned intersection (Ralph Miller Road at Rummel Road) to Nova Road). This will effectively create an extension of Rummel Road (Lakeshore Road) through the Ranch Development and providing a continuous network link that will form a parallel system with US 192 from Kissimmee to eastern Osceola County (Lakeshore/Rummel/Ralph Miller and Nova Road). Although the travel demand model does not specifically reflect a significant diversion of traffic to the "system" it is reasonable to assume that with its completion, a number of regional trips that otherwise would have used US 192 will shift to this parallel option.

Additionally, Osceola County has approved for transmittal a Comprehensive Plan Amendment (CPA) for the Northeast District (NED) that is consistent with the multimodal plans for the County and which includes a significant level of public transit elements that will also serve substantial trip generation from the NED and surrounding areas. It is anticipated that the CPA will be reviewed and approved during the course of this DRI Application and therefore will be a part of the Osceola County Comprehensive Plan – Transportation Element. The owner of the Center Lake Ranch has been involved in continuous coordination with the underlying applicant for the NED to assure that appropriate connectivity and roadway/transit technology design features will be available to serve the Center Lake Ranch DRI development and that proposed as part of the NED. It is also important to note that the "K" factor for US 192 reflected in the NED application from the comparison of projected AADT to the peak hour peak direction volume is in the range of .075.

24. **Question 21.I. addresses the occurrence of sidewalks, bicycle paths, internal shuttles, ridesharing and public transit. While sidewalks and bicycle paths are adequately addressed, the others are not. Internal shuttles are not appropriate, perhaps, but planning for ridesharing and public transit are appropriate. A park and ride lot needs to be identified near the main roadway near the commercial area so that when transit is available on Narcoossee Road, the park and ride lot can be used to access transit.**

Multimodal corridors are planned for all avenues and boulevards within the project.

25. **Please identify the transit requirements in the Osceola Comprehensive Plan for this area.**

Provisions for transit will be included as part of Osceola County's overall plan for the Northeast District Conceptual Master Plan and pending the adoption of Smartcode by Osceola County.

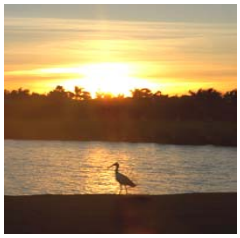
Question 24 – Housing

26. **Is it anticipated that garage apartments, accessory dwelling units or "granny flats" will be allowed or promoted? It is the council's position that they should be allowed by right.**

The applicant agrees with and appreciates the ECFRPC's position that accessory dwelling units or "granny flats" should be "allowed by right." However, the applicant is required to be in compliance with the provisions of the local jurisdiction's zoning ordinance. Osceola County is in the process of creating a Smartcode to adopt implementing ordinance for the FLUE policies governing the Mixed Use Districts. The applicant will promote accessory dwelling units, however, the applicant can not dictate ordinance to Osceola County. The applicant suggests that the ECFRPC should contact Osceola County and express the council's position that accessory dwelling units "should be allowed by right" so that the County has an opportunity to evaluate such provisions for local issues and determine the feasibility of incorporating accessory structures by right into the Smartcode.

27. Does the applicant propose to utilize energy savings appliances/devises and construction techniques for institutional, commercial and residential applications? (p.21, C, 187.201(11)(b)1,6) * (p.21, C, 187.201(18)(b)(13) It should be noted that the council recommendations will include the need to comply with energy star, dark skies, LEED or similar certification and water star certification.

As stated on page 21 of the 1st RAI, the applicant acknowledges and anticipates development order conditions proposed by the ECFRPC that will include compliance with energy star, dark skies, LEED or similar certification. The applicant also anticipates that energy issues will be addressed in the Smartcode pending adoption by Osceola County. The applicant will be required to comply with the Osceola County Smartcode and the Osceola County Building Code. The applicant suggests that the ECFRPC should contact Osceola County and the School Board of Osceola County to influence their respective building codes so that the recommendations of the ECFRPC can be applied to all development consistently. The applicant assumes no responsibility to dictate ordinance or building code to Osceola County or the School District of Osceola County.



Advanced Ecological Solutions, Inc.

1. The maps have all been revised to include the actual property boundaries extending waterward of the Safe Development Line. Since ownership does not extend into Lake Center it sets the scenario for lake front usage. Although I do see that the previously proposed park adjacent to the Safe Development Line has been moved, please discuss what activities are proposed for the lake shore. Is boating access being proposed and if so, please describe plans (e.g. whether by boat ramp, lift or other, size of vessels anticipated, motor size, etc.).

As discussed on page 14 of the 1st RAI under site constraints, the applicant has *"no activities currently proposed within the sovereign lands associated with the Center Lake DRI "*. The applicant is well aware that the Department has regulatory authority over sovereign submerged lands (SSL). The state claims ownership of all lands that fall waterward of the Ordinary High Water Line (OHWL). Further more, Osceola County has established a safe development line for all lakes at an elevation of one foot above the highest elevation of the regulated high pool. The applicant is not aware of any study establishing the OHWL for Lake Center. However, the applicant is aware and has represented that the controlled water elevation for Lake Center is 64.0 msl. Conservation Element Policy 1.2.7 of the Osceola County Comprehensive plan therefore establishes a "safe development line" for Lake Center at one foot above the 64.0 msl or a safe development line of 65.0 msl. This 65.0 msl safe development line has been illustrated on the map series for the Center Lake DRI. Additionally, Conservation Element 1.2.13 of the Osceola County Comprehensive Plan protects the integrity of surface waters by establishing the following minimum standards as they would apply to the Center Lake DRI:

- *Prohibition of construction of non-water dependent structures waterward of the safe development line.*
- *Prohibition of the use of fill below the safe development line, with the exception of permitted pilings*
- *Requirements for the removal of exotic/nuisance plant species by non-mechanical means unless otherwise approved by FDEP permit or except from permitting requirements.*

The Department has delegated the authorization for any development activity waterward of the SSL to the District through Chapter 18-21.0051, FAC. As previously stated, the applicant has no activities currently proposed within the sovereign lands of the state. This should not be interpreted that the applicant is waving any riparian rights that they may be entitled to. If any construction activities are proposed in the future within the SSL, the applicant understands all construction activity would require authorization by the District pursuant to Chapter 18-21.0051 F.A.C. Additionally, the applicant understands that if any construction activity is proposed in the future, the policies of the Osceola Comprehensive Plan will govern such activity between the safe development line and the SLL. This will further limit any development activity if proposed to water dependent structures, such as boardwalks and observation piers or other similar activity.

2. **Based on the FWC current guidelines the previously recommended parcel next to Nova Road appears to minimally meet the "acceptable" criteria and potentially could be utilized for onsite gopher tortoise preserve, although the parcel does not meet the "desirable" criteria as being optimum habitat and size. With that in mind, since the parcel is not contiguous with other native upland areas other than wetlands and lies close to Nova Road, the proposal for offsite relocation to an accepted FWC recipient site appears to be best suited option for the tortoise population.**

   This comment has been noted and is appreciated.

3. **With the onsite natural upland areas in limited quantity, will the forested portions of the areas designated as parks and recreation be preserved and utilized as passive areas to retain habitat for fox squirrel and other wildlife?**

   Fifty percent (50%) of the areas designated as parks and recreation will be preserved and used for passive recreation in order to retain wildlife habitats. These areas will provide habitat for both the fox squirrel and sandhill cranes. Of the remaining park area, designated as active park, only 20% will be grassed and irrigated.

4. **The draft Habitat Management Plan (HMP) when finalized will be incorporated into the Covenants and Restrictions. There are a few areas that need clarification or further information before finalization, as follows:**

   a. **Page 20 refers to the planting of pines being determined during the ERP process. Unfortunately the Water Management District has no regulatory authority over planting of pines for eagle habitat. The plantings needs to be determined by the site planners and biologists at the site plan approval stage and implemented as part of the construction plans as well as during periodic inspections and maintenance. Just as the plan recommends specific areas to mow to maintain sandhill forage, the plan should recommend specific areas to plant and maintain long leaf pine. Please revise plan accordingly.**

      The HMP has been revised such that it specifically complies with the applicable Habitat Conservation and Management Plan protocols of Osceola County's Land Development Code. Please see Exhibit 8, attached hereto.

      The Center Lake DRI project is unique in that it requires very minimal tree removal to facilitate development. The vast majority of the onsite uplands were historically cleared for the creation of pasture and agricultural lands; development is primarily limited to the historically cleared areas and will impact few mature pine specimens. Conversely, the expansive onsite forested wetland areas which have been less intensively subject to human disturbances and contain more significant nesting habitat for bald eagles are being preserved and managed as part of the development design.

      The applicant commits to incorporate native pine tree species in the landscape program, in order to further increase onsite nesting potential for the bald eagle. However, a specific restoration plan for longleaf pine, including monitoring and success criteria, is not required by the FFWCC or USFWS and should not be a required component of the Osceola County HCMP because the development will not significantly reduce existing bald eagle nesting habitat.

b. **Page 25 – section 4.2.2 refers to the SFWMD required wildlife monitoring plan. The SFWMD does not typically require wildlife monitoring as part of permit compliance and typically a monitoring plan is only required for onsite wetland mitigation. Any general wildlife observation that might be reported during the annual permit compliance for wetland mitigation will be limited to the five year required monitoring. The monitoring needs to be reported to the CDD or POA for review and recommendations against the requirements of the HMP.**

The HMP has been revised to require ongoing monitoring following termination of the SFWMD monitoring period, with reporting to the CDD or MPOA. Please see the revised HMP, Sections 5.4 and 5.5, attached hereto as Exhibit 8.

c. **Page 25 – section 4.2.3 refers to maintenance as required by SFWMD permits. As above indicated, this is for a limited period of time. The reporting needs to be to the CDD or POA for review and recommendations against the requirements of the HMP.**

The HMP has been revised to reflect that the standard condition of any SFWMD permit requires maintenance of nuisance and exotic vegetation within mitigation areas at 10% or below in perpetuity. Please see the revised HMP, Section 5.3, attached hereto as Exhibit 8.

d. **Page 25 – section 4.2.4 refers to reporting to the SFWMD, ECFRPC and FWC or other agency that requests a copy. The annual reports although may end after 5 years for the WMD and others, need to be continued for the CDD or POA so as to continue active review of the condition of wetlands, upland buffers and open spaces.**

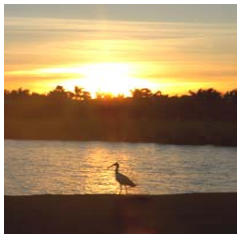
The HMP has been revised to require ongoing monitoring following termination of the SFWMD monitoring period, with reporting to the CDD or MPOA. Please see the revised HMP, Section 5.4, attached hereto as Exhibit 8.

e. **Page 27 – section 4.5 refers to Wildlife Crossings. A commitment to maintaining the connectivity that will be crossed by the internal roads, a commitment to the specific areas for box culverts or bridging is needed. Please revise the plan to state that the three main crossings will be provided either box culverts or bridging (between Wetlands 13 & 18, Wetlands 11 & 18, and Wetlands 11 & 9). All remaining internal roads can be subject to other measures for promoting wildlife movement.**

In the previous submittal, the applicant made a commitment to maintain connectivity via box culverts between Wetlands 12 & 18 and Wetlands 11 & 18. Figure 3 of the HMP has been revised, and attached hereto as Exhibit 8, to additionally depict a wildlife crossing structure beneath the roadway between Wetland 11 & Wetland 9. As requested, the Wildlife Crossings & Habitat Connectivity portion of the HMP narrative has been revised to mention these areas specifically. Please see the revised HMP, Section 4.7, attached hereto as Exhibit 8.

5. Since several proposed land uses have raised questions, it seems appropriate to meet with the applicant planners and environmental to provide clarification and further discuss possible alternate scenarios. The areas include lakeshore and adjacent uses; location of school relative to parks; fox squirrel habitat preservation; and uses of the parks and recreation areas. The applicant should coordinate with the RPC to schedule a meeting.

The applicant will meet with the ECFRPC staff and Ecological Solutions staff on the development site at the convenience of the agencies. Results of the site visit will be summarized in the next Request for Additional Information.



Florida Department of Transportation

Comment Number	Page(s)	General Areas of Concern	Specific Review Comment(s)
1	Appendix A	Methodology	**Original comment: FDOT provided several methodology comments to the applicant in July 2008. These comments pertained to existing conditions data, use of minimum K&D factors, modeling, intersection analysis, and other topics. Many of the methodology comments originally provided by FDOT were not incorporated into the analysis. Please refer back to FDOT's July 2008 methodology comments when revising the analysis.** ***Applicant Response:*** *Many of the comments from the July 2008 document were repeated in the most recently issued FDOT comments. One comment that was not addressed from the July 2008 comments is FDOT-10, the comment referencing the current TIP. An additional Appendix which contains the TIP should rectify this outstanding comment. The 2009 reanalysis addresses all comments.* **FDOT 1st Sufficiency Response: No further response is required. Specific outstanding issues are covered in other comments.** This comment was addressed in the previous submittal. No further action has been taken.
2	21-5	Existing Conditions	**Original Comment: Table 21-A.2 shown on Page 21-5 contains a significant number of changes to the existing conditions data since methodology. In particular, many of the service volumes have been increased for individual roadway segments (although the corresponding number of lanes and LOS standards have not changed). The FDOT will defer to the local city/county regarding changes in service volumes require modification:** • **US 192 from Mississippi Ave to Narcoossee Rd – Table 21-A.2 currently shows a peak hour / peak direction service volumes of 2,790, which reflects a 6-lane capacity. Please adjust the service volume back to 1,860 (as it was shown in the methodology) to reflect the existing 4-lane cross-section.** ***Applicant Response:*** *The service volumes which appear in Table 21-A.2 were taken from either the Orange County or Osceola County Roadway Network Database. If the service volumes were not available through either of these two sources, then the service volumes were taken from FDOT's 2008 Traffic Information DVD.* *The Osceola County Existing Roadway Network Capacity updated on 6/9/09 now shows the service volume on US 192 from Mississippi Ave. to Narcoossee Rd. as 1,860. This update has been included in the submission.*

			FDOT 1st Sufficiency Response: No further response is required. This comment was addressed in the previous submittal. No further action has been taken.
3	21-5	Existing Traffic Volumes	**Original Comment: The existing count data provided in Table 21-A.2 indicates that existing traffic volumes were obtained over a three year period (2006, 2007, and 2008) and represent a variety of sources (City, County, and FDOT). Per the methodology comments, please clearly document how these differing count years were rectified to a consistent 2008 "base" year**. ***Applicant Response:*** *Counts for each roadway segments were taken from the source with the most recent data and grown accordingly. Although the existing conditions analysis reflects data from several years, the historic growth procedure accounts for these varying years. The title of the table was changed to "Summary of Roadway Segment Level of Service, Existing Conditions" to avoid further confusion.* *A table comparing the historic and model growth rates now appears in Appendix F.* **FDOT 1st Sufficiency Response: The segment of US 192 from Narcoossee Rd. to Nova Rd. is shown as counted in 2009 in Table 21-A-2. However, the AADT is the same as in the ADA submission which was cited from 2007. Please correct the year presented in Table 21-A-2 and the back ground volume in the future segment analysis tables.** **Per the original comment, FDOT requests that a common existing conditions year be used to avoid issues in calculations between the existing and future years. Besides making it more difficult for FDOT to review/verify the future year background volumes, mistakes in calculations are more common when varying years of data are used on each segment. For future analysis (such as NOPC and M&M studies) please use a common analysis year for the existing conditions. No further response is necessary at this time beyond addressing the specific issue identified above on the segment of US 192.** The volumes used in Table 21-A-2 were the most current at the time of submittal. The growth from these volumes to future phase years accounts for the different "current" years.

4	21-5	Existing Traffic Volumes	**Original Comment: At the methodology stage it was requested that FDOT data be used for all segments of US 192 within the St. Cloud area since more count stations are available from this source. FDOT also provided the applicant with advance 2007 count data, which has subsequently been released on the 2007 Florida Traffic Information DVD.** **FDOT also requested at methodology that the segments along US 192 be broken into smaller sub-segments. In the first version of the methodology, the portion of US 192 through St. Cloud (now shown as Columbia to Mississippi and Mississippi to Narcoossee) was previously shown as five segments. Given the lack of uniformity of traffic volumes along US 192 through this area, it is more appropriate to have the smaller subsections to more accurately reflect the actual roadway traffic conditions.** **For the section of US 192 from Columbia to Narcoossee, please revise the analysis to use smaller subsegments and utilize the FDOT data from the 2007Traffic Information CD, per the July 2008 FDOT methodology comments.** ***Applicant Response:*** *The same roadway segment breakpoints were used as in the County's adopted concurrency table. Although there are more count stations available on the 2007 Florida Traffic Information DVD than from Osceola County's concurrency table, the counts available from Osceola County are more recent and therefore more accurate.* **FDOT 1st Sufficiency Response: On state roadways, FDOT prefers that its counts be used when data is available. FDOT counts are taken on an annual basis and have had the appropriate adjustments made to reflect an AADT volume. Within the County's database, counts span over a time period of several years; therefore, it is unclear how the County concurrency table is more recent or more accurate than the FDOT data. However, given that the counts currently being applied appear to be more conservative than the FDOT counts, FDOT has no further comment regarding the existing counts being utilized.** Comment noted. No further action has been taken.

5	21-5	Programmed Improvements	**Original Comment: FDOT reviewed the Planned and Programmed improvements listed in Table 21-A.4 against the projects shown in MetroPlan's TIP for years 2008-2012 and 2009-20013. It was noted that several of the programmed improvements listed in Table 21-A.4 have either have been removed from the 2009-2013 TIP or have construction funding beyond the three year horizon.** **Given that the MetroPlan TIP can quickly become out of date, we ask that documentation of the committed improvements be provided in the form of the FDOT adopted work program or local government CIE's (per the requirements of FAC 9J-2.045). . Please either provide documentation indicating that funding is available for construction within the next three years or remove the following projects from the list of programmed improvements:** • **Boggy Creek – Construction in 2013 is beyond the 3-year timeframe for being considered as a committed improvement.** • **Fortune Rd/Lake Shore Blvd – Per previous methodology comments, the construction dates for this improvement was not until the year 2011/2012 timeframe per the 2008-2012 TIP. This is beyond the 3-year window for consideration as a committed improvement. Additionally, the improvement could no longer be located in the 2009-2013 TIP and may have been removed.** • **Narcoossee Rd, from Jack Brack Rd to Orange/Osceola County line – 2009-2013 TIP shows construction in 2011/2012 fiscal year which is beyond the 3 year timeframe for being considered committed.** ***Applicant Response:*** *The improvement of Boggy Creek is scheduled to begin construction in 2011 which is within the 3 year time frame for being considered as a committed improvement.* *The segment of Fortune Road/ Lakeshore Blvd. was removed from MetroPlan's TIP and was therefore removed from Table 21-A.4 'Planned and Programmed Improvements.'* *The improvement of Narcoossee Road from US 192 to Rummel Road is scheduled to begin construction in 2009. The improvement of Narcoossee Road from US 192 to the Orange/ Osceola County line is scheduled to begin construction in 2010. Both segments will be under construction within the 3 year timeframe.*

			FDOT 1st Sufficiency Response: It should be noted that over a year passed between the ADA and first sufficiency responses and therefore the committed improvements lists have changed during that time period making the original comment out of date. Please verify with Osceola County staff that all assumed improvements off of the state facility are still in the local City/County CIP. The FDOT does not consider the MetroPlan TIP to be acceptable documentation since the actual local commitments may change between TIP updates. The programmed improvements shown in Table 21-A.4 were updated in January 2010 from the Osceola County TIP, Orange County TIP, Florida's Turnpike Enterprise and FDOT Work Program web site.
6	21-8	Programmed Improvements Narcoossee Road	**Original Comment: Additional coordination is required regarding the status of the Narcoossee Road widening projects.** **Since the March 2008 methodology, FDOT has requested that additional information from the Local government CIE be provided to verify the funding commitments and timing of the Narcoossee Road projects (per the requirements of FAC 9J-2.045). To date, only information from the MetroPlan TIP has been provided, which the FDOT does not consider to be acceptable documentation. In the 2008-20012 TIP, the three segments of the project were lumped together making it impossible to differentiate which projects would be funded within the three-year timeframe for inclusion as a committed improvement. The 2009-2013 TIP now breaks up the three segments and shows the segment from Jack Brack to the County line as not occurring until the 2011/2012 fiscal year. To clarify the timing and funding commitment for all segments of the Narcoossee widening, please provide the additional local CIE documentation, as requested in the methodology comments.** ***Applicant Response:*** *The TRIP funding for the segment of Narcoossee Road from Rummel Road to Jack Brack Road has been deferred, but despite the deferral of TRIP funding for this segment of Narcoossee Road, the construction schedule for the 4-lane widening of Narcoossee from US 192 to the Orange County Line has not been changed. The 4-lane widening of Narcoossee Road from US 192 to the Orange County Line is still fully-funded within the 3-Year CIP for construction and construction will move forward as originally scheduled.* **FDOT 1st Sufficiency Response: No further comment.** This comment was addressed in the previous submittal. No further action has been taken.

7	1-10	Pass-By	**Original Comment: Within Table 21-B.2, there appears to be an error in the pass-by trip calculations currently shown (29 total trips does not equal 14 in + 3 out). Please check the calculations for pass-by and revise appropriately to correct the math errors.** **Additionally, as stated in the methodology, pass-by will only be allowed if the retail component of the development is fronting a regional roadway that carries non-project traffic. Based upon the Map H it does not appear that any commercial uses are proposed along Nova Road and therefore pass-by reductions do not seem appropriate.** **Please remove the pass-by reduction from the analysis unless additional information can be provided to adequately justify the pass-by reductions.** ***Applicant Response:*** *There was an error with the outbound pass-by trip calculation which has been corrected.* **FDOT 1st Sufficiency Response: Please provide additional information on the site access points that are expected to be in place for Phase 1. It appears that the Center Lake DRI site does not extend fully to Narcoossee Road and that access to Narcoossee will be dependent upon the improvement to a property outside of the DRI's control. Please provide additional information on the timing of the construction to Narcoossee and how that might affect the potential pass-by reduction.** Center Lake DRI will extend to Narcoossee Road and connect with the existing Rummel Road intersection. Attached is a draft agreement currently being negotiated with Osceola County for realignment (Exhibit 4).
8	21-13, 21-14, 21-15	Distribution	**Original Comment: The distribution shown in Exhibits 21-B.1 and 21-B.2 do not appear to account for 100% of traffic entering or exiting the site. In addition, the lack of detail in the trip distribution figure does not allow for the tracking of the trip distribution as trips are being assigned to smaller roadways and neighborhoods.** **Please revise the trip distribution to provide more detail and ensure that the external trip distribution adds up to 100%. Project assignment for the intersection analysis could not be verified due to questions regarding the overall trip distribution. Revision of the trip distribution may affect the conclusions of the segment and intersection analyses. FDOT will provide more detailed review and comment of these areas at 1st Sufficiency.**

			Applicant Response: *The original distribution shown in Exhibits 21-B.1 and 21-B.2 did not account for 100% of traffic entering or exiting the site. More detailed cordon line graphics now appear in Appendix E which account for 100% of traffic entering or exiting the site.* **FDOT 1st Sufficiency Response: The cordon line provided in Appendix E does not show a total near 100%. However, FDOT has continued concerns with the distribution of traffic from the site. Please refer to additional FDOT comment on modeling and distribution for more details. No further response is required to Comment 8.** Comment noted. Response provided to other comments related to distribution.
9		Modeling/ Distribution	**Original Comment: Based upon a review of the model for year 2018, it appears that the trip distribution may not have been adjusted to reflect external trips only. Interaction (internal capture) between the 3 zones that represent the development result in only about 90% of the project traffic making it to the external roadway network. This may explain why the trip distribution figures do not add up to 100%.** **This distribution was applied by the applicant to the segment analysis using trip generation data that also accounted for internal capture. Therefore, if the information in the first paragraph (above) is correct, the analysis would be effectively double-counting internal capture reductions.** **The 2013 model output files containing trip distribution information were not provided to FDOT to allow for review; however, it is presumed that the same issue is also occurring in the 2013 model scenario as was identified for 2018. Please adjust the 2013 model trip distribution as necessary to ensure that it is reflecting the distribution of external trips only.** ***Applicant Response:*** *No applicant response was provided.* **FDOT 1st Sufficiency Response: This issue has been addressed through other comments. No further response is required.** This comment was addressed in the previous submittal. No further action has been taken.

10	21-13, 21-14, 21-15	Modeling / Distribution	**Original Comment: Please provide additional information to explain the high capture of trips that is occurring immediately south of the site (in the area between Nova Road and Pine Grove Road).** ***Applicant Response:*** *The high capture of trips that is occurring immediately south of the site is due to the fact that there is a major connection to the site and the model accordingly assigned a higher trip distribution rate.* **FDOT 1st Sufficiency Response: The area described in the original comment is represented in the model as TAZ 1095. The structure of the regional travel demand model structure for this TAZ does not appear to adequately account for access connections to this area at a micro-level and therefore may be misrepresenting project trip distribution and assignment to this zone. In particular, the location of the connectors provides access to Nova Rd. and Pine Grove Rd., but not US 192. The existing homes in this area all have access to US 192 through Bradley Dr. Please include this connector as well as relocating the existing connectors to the approximate location where Lake Lizzie Dr. meets Nova Rd. and Pine Grove Rd. near US 192.** The project distribution produced by the model shows that the project trip interaction with TAZ 1095 would not be affected with an additional connection to US 192 from TAZ 1095, as all trips come from the Nova Road connection. Additionally, Bradley Drive is not a regionally significant road and therefore does not need to be included in the network.
11	21-13, 21-14, 21-15	Model Data	**Original Comment: Within the model data, several inconsistencies were noted between the project development program and the values used in the ZDATA files.** • **The development program shown In Table 21-A.1 indicates that there will be no office component in Phase 1. However, the table on Page 21-13 and the ZDATA 2 file in the 2013 model shows 475 service employees. Given the lack of office in Phase 1, it appears as though the service employees in the ZDATA 2 file should be zero for Phase 1.** • **The 2018 ZDATA 1 input file shows a total single family population of 2,770. However, the calculations shown on Page 21-13 indicate that this number was supposed to be 2270. Please make the appropriate adjustments to update the ZDATA files and re-run the model.** **For the 1st Sufficiency please re-submit all revised model files, including outputs and scripts required to review and reproduce the analysis.**

			Applicant Response: *The development program and phase years for this submission have changed. All ZDATA files were updated accordingly and are included with this submission.* *According to the ITE Trip Generation Report, a school of 970 students attracts 485 service employees. Additionally, with this 2009 submission, office was added to the Phase I development program yielding a net of 594 service employees.* *The updated development program which includes 300 single family dwelling units corresponds to the single family population of 750.* **FDOT 1st Sufficiency Response: The ZDATA for the service employees (594 v 589) and school enrollment (970 v 950) differ between those listed on page 21-13 and the model files. Please revise the model accordingly.** The zdata was changed and model rerun to reflect 970 student enrollment at the school.
12	Tables 21-E.1 and 21-E.3	K and D Factors Future Conditions Analysis	**Original Comment: Please add two columns to Table 21-E.1 and 21-E.3 to show the "K" and "D" factors used in the calculation of the PM peak hour background volumes. Please also add a column to both tables that identifies the trip distribution percentage assigned to each roadway segment.** **Please note that for all FDOT facilities, the future conditions analysis must follow the guidance in the 2002 Quality/LOS Handbook regarding the use of minimum values for K100 (Page 67, Table 3-4), the use of a minimum D factor of 0.52 (Page 67) and the use of a maximum PHF of 0.95 (Page 68). The current analysis presented in the ADA analysis does not use minimum K&D factors.** ***Applicant Response:*** *Columns for "K", "D", and the trip distribution percentage were added to Tables 21-E.1 and 21-E.3.* *The minimum values of "K" and "D" were used on all segments except for those along US 192. All future intersection analyses were adjusted to include a maximum PHF value of 0.95.* **FDOT 1st Sufficiency Response: The "K" and "D" factors on US 192 must follow the guidance in the 2009 Quality/LOS Handbook regarding the use of minimum values to represent 100th highest hour conditions. The use of minimum K and D values is consistent with FDOT requirements for all other DRIs and projects along US 192, including all of the DRIs recently approved along the east side of Lake Toho. Please revise the US 192 segment analysis accordingly.**

			FDOT also has concerns with the D-factors that are being applied in the analysis along US 192. In particular, the use of various count years and count sources is resulting in extreme variations in the D-factor between some adjacent segments. For example, the segment of US 192 from Mississippi to Narcoossee is shown to have a D factor of 0.52. However, both the upstream and downstream segments are shown to have a D factor of 0.57. Please revise the D factor being applied to the segment from Mississippi to Narcoossee to provide greater consistency with the adjacent segments. Likewise, the remainder of the data should be reviewed for reasonableness to verify that the D factors being applied are appropriate. The "K" and "D" factors used in the analysis are consistent with those shown in the Osceola County Concurrency Management Database and with the actual conditions that exist on the area roadway network. We recognize that the Department prefers to use a "planning level" minimum "K" factor but in some cases, the minimum is not realistic with the current or expected conditions on facilities. Where there are significant differences between the actual and the "default" factor, it should be considered reasonable to appliy the actual "K" factor from documented sources to conduct the analysis. Otherwise, impacts can often be overstated. It is not correct to indicate that "all" other DRI's have consistently used the minimum "K" and "D" factors. For example, the approved methodology for the World Gateway DRI traffic analysis included the use of "K" factors for US 192 that are less than the minimum and based on documented data from Osceola County. Additionally, the Star Island DRI, now having received approval for the proposed mitigation plan for its impacts used alternate "K" factors for the analysis and those were also based on County data and for US 192. Also, the Green Island DRI (one of the 5 Lake Toho projects referenced by the Department) utilized "K" factors well below the minimum for US 192. This project was approved by the Department and as one suggested as an example, confirms that acceptability of using a documented "K" factor over a policy minimum. Because the DRI process requires the evaluation of all "regionally significant" roadways within the study area, the analysis necessarily includes the analysis for non-State facilities as well. Use of the documented "K" and "D" factors from the local database is the common practice for those roadways and the accepted approach by the host community. Use of a "minimum" factor that is not supported by years of documented conditions would not be consistent with those evaluations. Therefore, we believe that the use of the documented data is the more valid approach.

13	Tables 21-E.1 and 21-E.3	Future Daily Direction Traffic Volumes	**Original Comment: The background traffic volumes shown in future year segment analyses indicate a 10% to 15% decreases in traffic volume on several segments of US 192. Based upon Table 21.E-1 and 21.E-3 it appears that only model growth rates were considered in the analysis (i.e. the actual 2013 model volumes were used in the analysis instead of using existing counts grown by the appropriate model or historical growth factor). The growth rate calculations shown in Appendix E indicate that historical growth rates were supposed to be used for most of the US 192 segments to ensure that a minimum of 2% annual growth is used in the analysis per the methodology. Please revise all future year background traffic volumes such that the traffic volume growth corresponds to the rates indicated in Appendix E.** ***Applicant Response:*** *We can find no instances in which the background traffic volumes in future year segment analyses indicated a decrease in traffic volumes. For every segment of the roadway segment analysis, a minimum 2% annual growth rate was assumed.* **FDOT 1st Sufficiency Response: The FDOT concern regarding the applied growth background growth rates appears to have been addressed through the revision of Tables 21.E-1 and 21.E-3. No further comment.** This comment was addressed in the previous submittal. No further action has been taken
14	Tables 21-E.1 and 21-E.3	Future Peak Hour Direction Traffic Volumes	**Tables 21-E.1 and 21-E.3 – Future Peak Hour Direction Traffic Volumes - Original Comment: There appears to be some errors in the volume calculations within Tables 21-E.1 and 21-E.3 between the AADT and the calculated peak-hour/peak-direction volumes. An example location is the segment of Narcoossee Rd from 10th St to Rummel Rd. The Peak Hour, Peak Direction identified in the Table 21-E.1 is only 974 trips for an AADT is 43,441. Utilizing the FDOT minimum K and D factors the Peak Hour Peak Direction Volume should be 2,033. Please review all of the background volume calculations within the future conditions segment tables and make the necessary corrections.** ***Applicant Response:*** *In the example provided, the AADT of 43,441 is the model background daily volume. This number is the daily volume, as predicted by the model, multiplied by the model conversion factor. The '2013 Background Volume' column was calculated using the 'Existing Background AADTs' grown by the 'Annual Growth Rate.' The annual growth rates are in Appendix F.*

			FDOT 1st Sufficiency Response: The example presented was based on the volumes as presented in Tables 21-E.1 and 21-E.3. FDOT notes that these tables have been revised and the original comment appears to have been addressed. As noted in previous comments, the use of minimum "K" and "D" factors is necessary for all scenarios on US 192 and the rest of the study network. No further response to this comment is necessary. This comment was addressed in the previous submittal. No further action has been taken.
15	N/A	Intersection Analysis	**Original Comment: Given that other comments regarding trip distribution, pass-by volumes, and development of future intersection volumes will all have an impact on the intersection analysis - the FDOT will defer specific comments on the intersection impacts to the revised analysis at 1st Sufficiency. However, the following general comments were identified regarding the intersection analyses:** • **A maximum peak hour factor of 0.95 should be used for all intersections per the Q/LOS Handbook (page 68).** ***Applicant Response:*** *A maximum peak hour factor of 0.95 was used for all future intersection analyses.* • **Heavy vehicles and pedestrians should be included for all intersections in the analysis.** ***Applicant Response:*** *Heavy vehicles and pedestrians, as observed, were included in the HCS analyses.* • **Existing signal timings and phasing (based upon data from the maintaining agency, i.e. the actual signal timing sheets) shall be utilized under future conditions. If adjustments to the intersection timings or phasing are needed under the 2013 volume scenario, then an additional evaluation will be required to show the operations under the "improved" conditions. The project will be required to fund any proposed changes to signal timings or phasing as part of their mitigation.** ***Applicant Response:*** *The signal timings and phasing used in the intersection analyses are based on field observations which were collected over several cycles during peak hours. Because most signalized intersections analyzed are semi-actuated, it is appropriate to alter signal timings slightly to account for higher traffic volumes in future year analyses.*

			FDOT 1st Sufficiency Response: Please see comment 15a regarding additional information on input of signal timing for HCS analysis. • **All revisions to timing and phasing (for the purposes of mitigation) assumed in the analyses along FDOT facilities, including US 192, must be consistent with FDOT policies as well as the context of the surrounding roadway system. Odd cycle lengths, such as 98 or 157 seconds are generally not used and would be only applicable under fully actuated (and non-coordinated) operations. Along US 192, the signal operations are presumed to be coordinated with a common cycle length during the p.m. peak hour.** ***Applicant Response:*** *Signal phasing plans and cycle lengths provided by the counties are now included in Appendix L. The future HCS analyses were revised to reflect the cycle length provided by the counties.* **FDOT 1st Sufficiency Response: Please see comment 15a regarding additional information on input of signal timing for HCS analysis.** • **Arrival type 3 should be used for all exclusive turn lanes (since higher arrival types reflect improved platoon quality which is not applicable for the turn movements). Only the coordinated through lane groups (for example, the through movements along US 192) would have arrival types of 4.** ***Applicant Response:*** *The arrival type for exclusive turn lanes was changed to 3.* **FDOT 1st Sufficiency Response: No further comment on arrival type.** This comment was addressed in the previous submittal. No further action has been taken.

15a	N/A	Intersection Analysis	**Original Comment: Within coordinated signal systems, intersection cycle lengths should be consistent – even with actuated control. Please verify the signal cycle lengths being used based upon the time of day plans from the maintaining agency for any coordinated facilities. Actual signal timings from the maintaining agencies shall be used in the analysis and must be provided for review. Field measured timings may be shown for comparison, but should not be the primary source of timing data for the analysis.** **Please revise the existing conditions analysis and future conditions analysis to reflect the comments above. Table 21-A.3 (summary of 2008 LOS) will require updating to reflect any changes to the existing conditions analysis.** ***Applicant Response:*** *The signal cycle lengths were verified and the analyses were changed to reflect actual signal timings from the maintaining agencies. Copies of the actual signal timings from maintaining agencies are included in Appendix L.* *The existing and future conditions analyses were changed to reflect the comments. Table 21-A.3, Table 21-E.2, and Table 21-F.1 were changed to reflect the updated analyses.* **FDOT 1st Sufficiency Response: It is the preference of FDOT that intersection analysis is conducted using the maintaining agency's signal timing plans. It is understood that full actuated signals will have varying cycle lengths and green times. These intersections should be observed and a reasonable consistent signal timing be used based on the peak hour observations and cross-referenced to be within reason for the full actuated signal timings.** **For intersections with semi or fully actuated signals, the timing plans should be used as is. For semi-actuated signals, up to 4 seconds of green time may be moved from a minor street movement(s) to the mainline at the discretion of the analyst based on peak hour averages throughout the state. This accounts for early return to green on the coordinated mainline. While this variation in green times does fluctuate cycle by cycle based on traffic demand, in most coordinated systems mainline through movement splits can only increase by using side street green time. Green time of less than that shown in the timing plans should not be used. For any observed instance where the applicant feels the provided Osceola signal timings and associate green times are not representative of field conditions, please provide justification for using differing signal timing.**

			For HCS analysis purposes, the through movements for semi-actuated signal should be analyzed as Protected, not Actuated. Please adjust the intersection analysis. **Please also verify that all intersection analysis reflect the yellow and all red times. FDOT reviewers noted a couple of locations, including US 192 at Kissimmee Park Road, US 192 at Pine Grove and US 192 at Narcoossee where the all-red time was omitted for some phases. Please note that where signal timing incorporates lead/lag left turn phasing, HCS will only apply the yellow and all-red time to the ending left-turn phase that ends and will appropriately apply the identified yellow and all-red time to the green phase for a through movement that continues into the next phase. The applicant may follow-up with FDOT reviewers if additional clarification is need on this topic.** For semi- or fully actuated signals, the green times may vary based on the signal timing plans, not just with a variance of 4 seconds. The min and max greens represent the range of green times for the signal operation and the signal should be timed to provide for more efficient operations given the turning movement volumes. Overall cycle lengths are still observed. It is unclear why the through movements for semi-actuated signals should be coded as protected. If inductive loop detectors are present for the approach, then that lane group is actuated. HCS does not allow for 2-ring signal analysis like Synchro does. Therefore, overlap phases cannot be programmed accurately in HCS. Rather, the all-red phase for those movements are not shown and provide an accurate representation of a 2-ring signal phasing.
16	Table 21-F.1	Intersection Significance	**Original Comment: Per the ECFRPC methodology, intersection significance is tested for each individual lane group at the intersection based upon a 5% of the lane group capacity (from an HCS analysis of existing conditions). The analysis presented by the applicant in Table 21-F.1 shows only the "adverse approach". Please expand the significance test to show project significance for each of the individual lane groups, such that the projects impact to each of the study intersections is more transparent.** ***Applicant Response:*** *Table 21-F.1 was revised to include the tests for adversity and intersection significance for intersections that contain both significant and adverse movements. An expanded version of this table which contains all study intersections is included in Appendix N.*

			Additionally, project significance on unsignalized intersections cannot be determined using the ECFRPC methodology. A follow-up meeting with FDOT to discuss the calculation of project significance is recommended to make sure that all parties have a common understanding of how the intersection significance will be calculated. **Applicant Response:** *Noted.* **FDOT 1st Sufficiency Response: No further comment.** This comment was addressed in the previous submittal. No further action has been taken.
17	**Table 21-F.1 and HCS Analysis**	**Intersections Analysis**	**Original Comment: In the summary of Intersection Significance in Table 21-F.1, US 192 at Pine Grove shows only the NB approach, which has no approach trips assigned to it. However the SB approach, which is carrying a significant number of project trips, is over-capacity with a LOS "F". Please revise the table to accurately reflect the project impacts.** ***Applicant Response:*** *The revised Table 21-F.1 now includes intersections which contain both significant and adverse movements. All intersection movements are shown in the table in Appendix N.* **For the evaluation of the signalized alternative at this intersection, the left-turn phasing for the mainline should be protected only and should utilize a reasonable cycle length that is consistent with FDOT policies and the upstream system in St. Cloud. A ninety second cycle length would be too short on US 192 in this area based upon feedback from FDOT traffic operations.** ***Applicant Response:*** *The eastbound and westbound left turns are protected only. The geometry of the northbound and southbound legs does allow for the permissive left movement. The cycle length for this intersection was increased to 100 seconds. This intersection would not become a part of a coordinated system as US 192/ CR 15, the nearest signalized intersection, is also not a part of a coordinated system.* **FDOT 1st Sufficiency Response: No further comment.** This comment was addressed in the previous submittal. No further action has been taken.

18	Table 21-F.2	Intersections Analysis	**Original Comment: In Table 21-F2, it is identified that signalization may be needed due to this project at US 192/Nova Road. The analysis should also evaluate the need for a second EB left turn lane and second receiving lane given that the project traffic will bring this movement to over 400 vehicles per hour.** **Any changes to the cycle length for future traffic conditions must utilize a reasonably cycle length that is consistent with FDOT policies and the upstream system in St. Cloud. A ninety second cycle length would be too short on US 192 in this area based upon feedback from FDOT traffic operations.** ***Applicant Response:*** *Per the updated trip generation and phase years, US 192/ Nova Rd. no longer requires a signal as a result of this project.* **FDOT 1st Sufficiency Response: FDOT is concerned that the trip distribution/assignment to the site may be underestimating the project's impact to the intersection of US 192/Nova Road due to a heavy assignment of trips to access points on Narcoossee Road. The trip assignment places only 22 inbound trips and 21 outbound trips traveling through the US 192/Nova Road intersection during the pm peak hour. Please review the trip assignment to this intersection and verify that the existing two-way stop control will adequately accommodate Phase 1 project traffic.** We believe that the model output for the future phase years is reasonable. In Phase 1, the project distribution to Nova Road is 21.16%. In Phase 2, the distribution to Nova Road is 23.94%. No further adjustments were made to increase these percentages.
19	36	Transportation Improvements	**Original Comment: The proposed transportation improvement at the intersection Ralph Miller Road / Narcoossee Road would place a signal approximately 300 ft from the existing signal at Rummel Road / Narcoossee Road. Additional coordination is required with the reviewing agencies regarding the applicability of signal spacing standards or to evaluate opportunities for intersection re-alignment. At a minimum, additional analysis is required to evaluate the potential interaction between these two signals – particularly related to queue storage.** ***Applicant Response:*** *Ralph Miller will be realigned to connect to with Rummel Road and all future intersection analyses have been analyzed with this assumption.*

			FDOT 1st Sufficiency Response: If Ralph Miller Rd. will be re-aligned by 2015, then FDOT has no further comment. Ralph Miller Road will be realigned to the existing Rummel Road intersection as part of the Phase 1 improvements. A copy of the draft agreement currently being negotiated with the County is attached (Exhibit 4).
20	21-5	Future Service Volume	**Original Comment: Two new signals currently are proposed along US 192 (east of Narcoossee) as mitigation for Phase 1. The addition of these signals is likely to change the character of the roadway from Uninterrupted flow to an Arterial classification. This will result in a reduction in the service volumes on those segments and will need to be taken into consideration for future Phase 2 analyses.** ***Applicant Response:*** *Per the updated trip generation and phase years, only one signal is proposed along US 192 east of Narcoossee. The predicted future volumes for the roadway segments adjacent to the intersection at US 192/ Pine Grove will operate well under the existing service volume. It is not likely that the addition of this signal will cause the surrounding roadway segments to operate adversely.* **FDOT 1st Sufficiency Response: The future year 2020 segment analysis for US 192 between Narcoossee Rd. and Pine Grove Rd. should be based on a service volume of a 4 lane divided class 1 arterial. Please update this service volume on each future analysis table.** The service volume used for the segment of US 192 between Narcoossee and Pine Grove Road was taken from the Osceola County roadway network database and classifies the roadway as an uninterrupted flow highway. The service volume of 3,230 is correct for a 4-lane facility.
21	Page 12 of ADA, Q1 Part 1	Pedestrian and Bicycle Facilities	**Original Comment: Under Question 1 of the ADA, the Center Lake DRI is identified as a "sustainable community" that will be "a seamless, walk-able community…" and that "All roads, paths and trails feed the Community Center…" Furthermore, as a wetland development on isolated uplands it will be, "linked to one another by a linear park along a tree lined connecting boulevard that includes a meandering pedestrian and bike trail network."**

			FDOT will recommend that the development order recognize the DRI's commitment to bicycle/ pedestrian facilities and contain a condition requiring design guidelines for the pedestrian and bicycle facilities that would include requirements/ recognition for connections to external or adjacent bicycle/pedestrian facilities (including bike networks identified in the Osceola County Comprehensive plan). The design guidelines should also consider the use of canopies and shade trees along bicycle and pedestrian facilities, as well as provisions for bicycle parking at the village center, school and park sites. The development order should require commitments for the development to provide adequate bicycle parking facilities at the Community Center, elementary school, and at the parks or other potential trip generators within the community. ***Applicant Response:*** *Noted.* **FDOT 1st Sufficiency Response: No further comment.** This comment was addressed in the previous submittal. No further action has been taken.
22		Multimodal Considerations	**Original Comment: The current DRI plan mentions an internal system of roadways, sidewalks and bicycle facilities for the purpose of reducing traffic impacts to surrounding facilities. These options are very limited in terms of providing more viable means of transportation other than the automobile. In order to provide consistency with the Comprehensive Plan goals of providing for multi-modal opportunities for new development, the developer should coordinate with LYNX to determine whether opportunities are available for providing transit service to the proposed DRI. Pedestrian and bicycle pathways should provide easy access to a bus transportation system.** ***Applicant Response:*** *The analysis was conducted such that it does not apply a trip reduction factor for bicycle and pedestrian facilities or for public transportation. Coordination with LYNX will occur when public transportation is implemented in this area of the county and an appropriate trip reduction factor will be applied in future analyses.* **FDOT 1st Sufficiency Response: No further comment.** This comment was addressed in the previous submittal. No further action has been taken

23	21-24	Distribution/ Modeling	**NEW 1st Sufficiency Comment: FDOT is concerned with the short attenuation of project trips that is being applied. The model files provided by the applicant show that approximately 69% of the project's traffic is attenuated within a 4-mile radius of the site. Of the 40% of site generated traffic that travels beyond the 4-mile radius – over half of that traffic is shown to use Narcoossee Rd. towards SR 417. Please review the project attenuation versus average trip lengths for Osceola County.** **Please also verify that major regional attractors and all approved DRI's listed in the methodology document are included in the analysis. Based upon a review of the model files, it appears that some of the DRIs (such as Lake Nona and those in the Lake Toho area) have not been included in the modeling and may be affecting the trip distribution and trip lengths. The FDOT expects that all the approved developments listed in the methodology will be included in the modeling.** We recognize the results of the model that show 60% of the traffic is attenuated within 4 miles of the project site. Given the limited regional facilities in this area for northbound project trips to distribute on, the project distribution on Narcoossee appears reasonable. The approved methodology included as Appendix A lists the regional projects that were included in the model run.
24	Appendix E, Figures 1 and 2	Distribution/ Modeling	**NEW 1st Sufficiency Comment: Please verify the accuracy of the ZDATA, particularly related to employment, for the TAZ 1093 as shown in Appendix Figures E-1, and E-2.** **The TAZ 1093 includes all the area on the north and east sides of East Lake Toho (up to Boggy Creek Rd on the north and Narcoossee Rd on the east). This large TAZ is represented in the model with two connectors – both of which are located in the vicinity of Jones Road. This connector location is not representative of the overall TAZ access and is likely misrepresenting impacts along Narcoossee and Boggy Creek Roads. Due to the current connector placement, approximately 10% of the Center Lake DRI traffic is being attenuated to this TAZ via a connector to the south of Jones Rd. This appears unreasonable given that this location serves only a small subdivision. In addition, the ZDATA in the applicant's model files includes an employment of roughly 4200 for TAZ 1093. This employment appears to have been added by the applicant; however, it is unclear where the employment numbers were derived. Please provide additional information regarding any changes made to the ZDATA for this or other TAZ's.**

			Please verify any changes to the employment for TAZ 1093. In addition, please make any necessary adjustments to the TAZ connectors to better represent the assignment of Center Lake project trips to the residential, commercial, or employment activities within the TAZ. No adjustments in zdata were made to TAZ 1093. Zdata for this TAZ was derived from interpolating the project phase years from the adopted model year sets.
25	Appendix E, Figures 1 and 2	Distribution/ Modeling	**NEW 1st Sufficiency Comment: Please verify that the access to the site will be available in the first phase to Narcoossee Road and Jones Rd. It appears that these connections require access across properties not owned by the applicant. Therefore, FDOT requests additional information on the arrangements that have been made to facilitate access across these parcels.** **Currently, the analysis for Phase 1 includes all "potential connections" for purposes of trip distribution and assignment. If these connections will not be in place during Phase 1, please remove the connections from the model and redistribute the site traffic to the existing connection points to better represent the actual site access configuration for each individual phase.** Center Lake DRI will extend to Narcoossee Road and connect with the existing Rummel Road intersection. Attached is a draft agreement currently being negotiated with Osceola County for realignment (Exhibit 4). The property owner also has ingress/egress rights to the property through an easement connecting to Jones Road. The connection to Jones Road is part of the County's Northeast District Conceptual Master Plan, which was approved for transmittal by the Board of County Commissioners on April 19, 2010. All other potential connections have been shown by the applicant to illustrate compliance with FLUE Policy 1.3.12: Mixed Use design characteristics that requires among other characteristics; "… a well connected street system…" and; "…a network of interconnected streets…". The applicant assumes no responsibility to enforce such policies on any properties outside the boundaries of this DRI. It is the responsibility of Osceola County to enforce the connectivity issue on development plans for adjacent parcels. The applicant acknowledges that Osceola County has already required such potential access to Jones Road by the approval for transmittal of the Conceptual Master Plan for the Northeast District (Mixed Use District 8).

26	Appendix F	Growth Rates	**NEW 1st Sufficiency Comment: On sections of Narcoossee Road and US 192 (east of Mississippi Ave.) the model growth rate is showing growth to be in excess of 10% a year. Along both roadways, the analysis has generally utilized historical growth instead of considering the higher model growth rates.** **For US 192, there are a large number of DRI projects that have been approved within the vicinity of St. Cloud (including Harmony and the Lake Toho DRIs). Vested trips from these DRIs are not included in the historical growth patterns and the model growth rates appear to be better reflecting the inclusion of the approved DRI traffic. Please revise to use the model growth rates unless sufficient justification can be provided to verify that the historical growth is reasonable.** **For Narcoossee Road, the widening of the roadway will provide a high capacity direct link to SR 417, which will become an attractive route. In addition the change in character and capacity from the roadway widening may invalidate the historical growth rates due to prior limitations on capacity and corresponding operating speeds. Please review and revise the growth rates being applied to Narcoossee and provide additional justification for the growth rates that are being applied.** First, it must be considered that the methodology approved for the Center Lake DRI did not require the application of model growth rates if they were determined to be significantly inconsistent with historic trends. Second, the use of model growth rates is based on an interpolation of the land use and associated socio-economic factors that are included in the model. The model is therefore, a reflection of what may occur in any given year if the horizon year future land use actually comes to fruition. In many cases, the land use data in the models reflect the adopted condition, not the actual built or reasonable future year built condition. For example, land that has an "approval" for 4 units per acre in many cases has less than 3 units per acre constructed, and that ratio will not change in the foreseeable future. The same applies to commercial/retail projects were entitlements are incorporated into the model but the full scale of the development is substantially less when constructed. Additionally, it is recognized in the development industry and by the Department that many "approved" DRI's never reach the full level of their approved development program. Common acceptance is that the actual built portions are between 70 and 75%. This would also result in an overstatement of the "growth" forecast from the model.

			Finally, current and future conditions for growth are a direct result of the economic conditions within the region. Approval of development is not necessarily an indicator of future growth. The national recession we are involved in has been documented to have hit central Florida as hard or harder than almost anywhere else in the county. Information and findings from the top local economists (Dr. Sean Snaith, University of Central Florida and Henry "Hank" Fishkind, Fishkind and Associates) are on record indicating that Florida will not likely ever again see the growth that has been experienced in the past. In fact, recent years have shown the first "decline" in population for Florida in the last century. Additionally, there exists a substantial "reserve" of residential and a saturation of commercial/retail properties that will serve the near-term demand, postponing or "pushing" the completion of approved but undeveloped projects into the future and creating a "flat" or as some refer to it a "gravy boat" curve representing the future growth trend. All of these factors considered, the approved land use and associated background traffic forecasts from the model cannot be assumed to be more accurate than historic trend, and if corrected to reflect the economic factors that are real, may actually show less growth tha the historic trend. When you compare the forecasts for US 192 that are shown in the NED for 2025, to those shown in 2020 for the Center Lake ADA, the DRI forecasts are over 4,700 daily trips higher for a period 5 years prior. This is certainly an indication that the estimates made using the approved methodology are not indicating unreasonably low growth. Therefore, we believe that the information provided and used in the analyses is valid for conduct of the study.
27	N/A	Existing Intersection Volumes – Peak Season Adjustment	**NEW 1st Sufficiency Comment: New intersection counts were collected in November 2009 for the updated 1st Sufficiency analysis. To provide consistency with the segment analysis which evaluates the 100th highest hour, the existing intersections counts should be adjusted for peak season conditions. Please use the appropriate FDOT Peak Season Correction Factor to adjust the existing volumes and update the existing conditions intersection analysis. The peak-season adjusted existing volumes should also be the basis for developing the 2015 background volumes.** The existing volumes were adjusted by 1.03 to reflect the seasonal factor adjustment and the resulting volumes were used in the calculation of the future background volumes. The revised intersection analyses for Phase 1 reflect these.

28	21-29 through 21-31	Intersection Volumes	**NEW 1st Sufficiency Comment: The intersection volumes used in the 2015 analysis are consistently much lower than the peak hour direction volumes presented in the segments table. Please adjust the intersection volumes presented in the segments table. Please adjust the intersection volumes to more closely resemble the peak hour peak direction volumes. The application of the peak season correction factor should help to provide better consistency, but additional adjustment may be necessary in some locations.** **It is the request of FDOT that all modifications to the intersection traffic counts be presented in tabular form to allow for tracking of where adjustments were needed. Please include in this table any seasonal adjustments, growth factors, and manual adjustments needed to more closely reflect the segment conditions. This additional data could easily be added to the table in Section H of the transportation appendix.** It is acknowledged that there are discrepancies between the roadway segment volumes and the approach volumes at many of the intersections used in the analysis. The basic process used to generate the future turning movement volumes was to first use the roadway segment approach volumes. If the comparison of the future segment volumes to existing intersection approach volumes yielded unreasonably high annual growth, then historical growth was used. The future intersection volumes are based on the reasonable growth of background traffic compared to actual existing volumes. The future segment volumes are derived from applying a planning minimum K and D factor that produces unreasonably high approach volumes.
29	21-29 through 21-31	Intersection Volumes	**NEW 1st Sufficiency Comment: There appears to be some inconsistencies between the project trips identified in the segment analysis in Table 21-E.1 and the project trips assigned to the intersections on pages 21-29 through 21-31. Please review the segment and intersection trip assignment for consistency. It is recognized that there will be some variability as trips will be added/subtracted along the length of a segment. However, for the intersection of US 192/Old Hickory, the project trips assigned to this intersection appear to be higher than the trips assigned to the overall segment.** The intersection turning movement volumes and roadway segments have been reanalyzed based on other comments. Revised tables and figures are included with this submittal. Please see Exhibit 13a-13c, attached hereto.

30	Appendix I	Intersection Analysis	**NEW 1st Sufficiency Comment: At the intersection of Narcoossee Road and the new re-aligned Ralph Miller Road, please provide additional discussion on why permitted phasing is being used instead of protected left turns. Alternative lane configurations and phase arrangements may provide better operations for the approximately 165 eastbound left turns and 200 westbound left turns anticipated during Phase 1. Protected left-turn phasing should also be considered to serve the 200 southbound left-turning vehicles.** The intersection analysis for this intersection can be adjusted to provide for acceptable levels of service by providing a leading phase for the SB approach and allocating additional time to the E-W approaches. The EB and WB approaches do not require a change to protected phase and there is no need for a change in the lane configurations. Copies of the revised intersection analyses are included in PDF format, Exhibit 14, attached hereto.
31	Appendix J	Intersection Mitigations	**NEW 1st Sufficiency Comment: Additional coordination with FDOT Traffic Operations will be required to review and finalize the mitigation needs once analysis has been updated to reflect other comments regarding distribution and future intersection background traffic volume.** **At the intersection of US 192 and Narcoossee Rd., the use of a southbound overlap phase removes will likely require the removal of the northbound u-turn movement from that intersection. Verification of the u-turn demand and access implications need to be reviewed prior to approval of this mitigation.** **Please provide calculations for the cost of each identified improvement and the projects proportionate share of that cost. Cost estimates for improvements to FDOT facilities should be consistent with FDOT cost estimating practices and should include all items necessary for implementing the improvements including drainage and utility impacts, physical improvements, improvements to existing signals, etc. Any additional ROW required to implement the improvement should also be identified.** Costs for mitigating the impacts will be calculated and provided once the needed improvements have been identified.

Osceola County Development Services Department

1. **The maps provided do not show the current alignment of Jones Road. Jones Road dead ends prior to reaching Nova Road. Revise all maps to the current alignment of Jones Road.**

   The maps do show the current alignment of Jones Road. The maps do not differentiate between improved and unimproved portions of Jones Road. The maps also make no reference to the right-of-way width nor do they determine if the current right-of-way is acceptable to current County standards. For clarification, the applicant has amended the Concept Plan, attached hereto as Exhibit 3 – Revised Concept Plan to illustrate the current conditions of Jones Road. It should be noted that Jones Road connecting Narcoossee Road to Nova Road was not listed by the applicant as a planned and programmed improvement in Table 21-A.4 of the 1st RAI. Therefore, regardless of the misunderstanding or perceived misrepresentation, no credit has been taken by the applicant for the connection of Narcoossee Road and Nova Road via Jones Road.

2. **Map H – Indicate on the Map H the location of a future bicycle trail network throughout the Center Lake DRI. This trail should also be shown on subsequent maps, such as Planned Development Applications.**

   The applicant anticipates that a multi-modal transportation network will be required by Osceola County with the adoption of the Smartcode. The applicant also anticipates that the framework roadways will include provisions for bicycle facilities incorporated into the design standards. The applicant has modified the Concept Plan, attached hereto as Exhibit 3, Revised Map H - Concept Plan, to illustrate the proposed bicycle network for the development. The final design criteria for the pedestrian and bicycle network shall be subject to compliance with the Smartcode. Subsequent submittals of development applications will afford Osceola County staff to assure compliance with the Smartcode which is currently pending adoption.

3. **The Map H depicts "potential connections". How will they connections be secured, built and funded? These connections are essential to the overall connectivity of the site. Currently the only true secured roadways shown on the maps are to Starline Drive and Nova Road.**

   The applicant agrees that the potential connections are essential to maximize the connectivity of the site to future development areas adjacent to the project. As identified by County staff the applicant has secured access to Nova Road and Starline Drive. Additionally, the applicant currently has secured access to Hackney Road, Harkley Runyan Road, Ralph Miller Road and Twelve Oaks Drive. The applicant makes no representation of the current right-of-way for these roadways or the current improvements as meeting current County standards. The applicant anticipates development order conditions addressing the required improvements to the off site roadway network as is typical in any DRI Development Order.

   The applicant has coordinated a secure access to Narcoossee Road. Osceola County staff and adjacent property owners have agreed to provide right-of-way and construction of the extension of Rummel Road from Narcoossee Road to the western property line of the additional property proposed by this application. This improvement is currently under construction design and the draft agreement currently being negotiated with Osceola County facilitating such improvement is attached hereto as Exhibit 4.

All other potential connections have been shown by the applicant to illustrate compliance with FLUE Policy 1.3.12: ***Mixed Use design characteristics*** that requires among other characteristics;

"… a well connected street system…" and; "…a network of interconnected streets…".

The applicant assumes no responsibility to enforce such policies on any properties outside the boundaries of this DRI. It is the responsibility of Osceola County to enforce the connectivity issue on development plans for adjacent parcels. The applicant acknowledges that Osceola County has already required such potential access to Jones Road by the approval for transmittal of the Conceptual Master Plan for the Northeast District (Mixed Use District 8). That Conceptual Master Plan shows a connection with a framework street to the northeast portion of the Center Lake DRI. The applicant has neither intention nor desire to secure, build or fund any framework roadway network that is the responsibility of adjacent property owners. Should the applicant's transportation impacts require additional connections to roadways through private property (other than those identified above), the applicant anticipates that Osceola County will provide for solutions to secure, fund and construct off site framework roadways within the Smartcode pending adoption by the County.

4. Provide more Neighborhood Centers on Map H. due to the environmental constraints on site, the walkability is compromised. Provide a neighborhood center in each of the development pods in order to increase the walkability for future residents. A neighborhood center can start as a park with the ability to evolve to contain small scale office or retail over time. At a minimum, some type of civic use is present, such as a Neighborhood Park, plaza, square or green. By providing a focal point for local activity, a Neighborhood Center helps define the neighborhood as a specific place.

The currently adopted FLUE Policy 1.3.15: *Mix of uses within Mixed Use districts* defines the mix of uses required for Neighborhood Centers. The currently adopted policy is in conflict with the definition that County staff has provided in their request for a modification to the plan. The applicant understands that the County is in the process of amending FLUE Policy 1.3.15; however until such an amendment is adopted, the applicant can not agree to include additional Neighborhood Centers that do not meet the adopted policies of the local Comprehensive Plan.

The applicant also understands staff's request to assure a focal point for each neighborhood. As shown on the Illustrative Plan, attached hereto as Exhibit 2, the applicant has incorporated a civic and/or park use as a focal point for each neighborhood. Specific uses for each focal point will be subject to compliance with the Osceola County Smartcode, pending adoption by Osceola County. These uses will be directly dependent on the proposed mix of product and the residential density of each neighborhood. Osceola County will have the opportunity to review specific details of the focal points for each neighborhood through subsequent plan approvals.

5. **There are several small wetlands on Map H that are indicated for preservations. If the wetlands are not regionally significant can they be mitigated for in order to improve the connectivity and cohesiveness of the site?**

The applicant has proposed preservation of several small isolated wetlands within the Center Lake DRI. The applicant agrees that if these wetlands were impacted the connectivity and cohesiveness of the site could be improved. However, the applicant also understands the permitting requirements of the regulatory agencies. Jurisdictional wetland impacts proposed by the private sector must first justify avoidance and then justify minimization. The Concept Plan has been prepared with maximizing connectivity without violating agency permit policies. Jurisdictional wetland impacts have been limited to those impacts associated with the framework roadway network. These framework roadways have been aligned through jurisdictional wetlands where unimproved ranch roads exist. The impacts proposed are limited to impacts required to accommodate public standards for design of the roadways. The applicant can not justify avoidance to the isolated wetlands targeted for preservation, and therefore can not reasonably assume the ability to permit additional jurisdictional wetland impacts.

Osceola County and other public agencies are not held to the same permitting regulations. Public agencies must only justify minimization and are not required by regulatory permitting agencies to justify avoidance. Should Osceola County desire the plan to increase connectivity and cohesiveness, then Osceola County must permit and mitigate for all additional impacts to the isolated wetlands. The applicant is willing to discuss this option should the County wish to pursue their ability to permit additional jurisdictional wetland impacts other than those proposed by the current Concept Plan.

6. **Please anticipate a Development Order Condition regarding Map H. Map H provides the entitlements to the DRI but the uses can be moved internally to the site.**

The applicant understands that Osceola County will reserve the right to approve specific distribution of product and uses through their zoning process and the subsequent development plan approval process. The applicant further understands that all subsequent development plan approvals will be subject to the Smartcode pending approval by Osceola County. The applicant would request that Osceola County author any development order condition to not compromise the external roadway network based on the trip distribution presented through the ADA and subsequent RAIs and the network that will ultimately be approved with the adoption of the development order for the Center Lake DRI.

7. **Map D, rename from "Existing Land Use Map" to "Future Land Use Map". On this map show only existing/approved future land uses. Create an additional map to illustrate the pending future land use application.**

The applicant prepared the Application for Development Approval (ADA) and the subsequent modifications to specific ADA Questions in the 1st RAI using form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, FAC. If Osceola County staff believes this required form is not adequate to address the regional concerns of the proposed development, then it is recommended by the applicant that any such revisions to the required form be discussed directly with the Florida Department of Community Affairs. Until such time that the required form RPM-BSP-ADA-1 is modified, the applicant will continue to provide information in compliance with said form pursuant to Rule 9J – 2.010, F.A.C.

8. **Page 10, bullet 2. It is described that 15 acres of commercial land use adjacent to Narcoossee Road and the 5.5 acres of commercial planned at Center Lake's project entrance will function together as a community center. Once the community center plan is submitted to the County, we will be looking for a coordinated development plan which will meet the guidelines of the Mixed Use District.**

   The applicant identified the opportunity for the 5.5 acres proposed by this application and the existing 15 acres of commercial land use to "function" as a Community Center to serve the residents of the project and neighboring developments in the area. The applicant does not assume the authority to impose Mixed Use District guidelines on any properties outside of their ownership. The acreage and the intensity proposed by this application assume the existing adjacent land uses and their ability to provide services to neighboring properties. The applicant is committed to coordinate development plans with adjacent properties to the greatest extent practical. However, this shall in no way be considered an encumbrance nor a commitment for development entitlements, guidelines or standards for any properties outside of the boundaries of the Center Lake DRI. Osceola County must assume such responsibility to direct development guidelines on properties not within the ownership of the applicant. The applicant shall encourage and support such coordinated planning efforts should Osceola County establish any policy or ordinance to mandate such a process.

9. **Proposed Development Program. On page 12 the following statement is listed: "1. 1,028 single family units include conventional detached single family and detached cluster/courtyard homes. 2. 2,345 multifamily units include apartments, rentals, condominiums, town homes and attached cluster/courtyard homes."**

   a. **Town homes are a form of single family attached units. Revise your development program to reflect this.**

      The Proposed Development Program on page 12 presented in the 1st RAI was prepared using form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, FAC. Information presented is based on FAC Chapter 28-24. Since the FAC does not differentiate between residential products the applicant based the definition of product on the accepted trip generation rates of the approved Transportation Methodology and the defined Development Program of the Pre-Application conference. The applicant understands that Osceola County has considered Townhome product to be both multi-family and single family in the past. The applicant further understands that Osceola County is now considering Townhome product as single family. The applicant does not understand the specific need to address this issue through the DRI process as the regional issues of transportation, water consumption, wastewater generation, school impacts, energy impacts and others have all been addressed through the ADA and subsequent RAIs. The applicant has proposed a variety of residential product as required by the FLUE Mixed Use District policies. The applicant also assumes that a variety of residential product will be defined and governed by the Smartcode pending adoption by Osceola County. The county will have ample opportunity to define the development program through subsequent development approvals.

b. Please define attached and detached cluster/courtyard homes.

The applicant has defined a variety of residential product using industry accepted definitions of product type. The applicant understands that Osceola County does not yet have adopted ordinance to define such a variety of residential product. The applicant also anticipates that the county will have the opportunity to define such variety of residential product with the adoption of the Smartcode that will implement the FLUE policies governing the Mixed Use districts. The applicant suggests that since the pre-application presented the same variety of product and since the ADA and subsequent RAIs have been prepared to evaluate the regional issues of the proposed development as defined by 380.06 (2)b., the is no need to define specific residential product through this DRI process. All proposed product has been evaluated for regional impacts. If the county desires a definition of a variety of residential product then the applicant will evaluate any adopted ordinance defining such product and subsequently revise the development program in compliance with adopted ordinance. The applicant suggests that this issue is more appropriately addressed through the zoning process required by Osceola County ordinance.

c. Note: No large scale apartment complexes without road frameworks will be allowed in this development. The development within the mixed use districts must follow Traditional Neighborhood Design.

The applicant understands that the DRI Development Order must include a finding that the proposed development is in compliance with the local Comprehensive Plan. The applicant further understands that Osceola County will require any zoning application to be in compliance with local ordinance. When the Smartcode is adopted by the Osceola County Board of County Commissioners, the applicant anticipates development standards governing large scale apartment complexes. The applicant is committed to compliance with the Smartcode, once adopted.

10. Please revise the development program to include more non-residential uses. This will ensure the area develops as mixed use. Also the density within the Mixed Use District allows from 5 dwelling units per acre up to 25 units per acre.

The applicant has prepared the ADA and subsequent RAIs using form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, FAC. Information presented is based on FAC Chapter 28-24. The FAC categories allow for a variety of uses that will afford the developer to include a variety of non-residential uses to ensure the area develops as mixed use. The applicant anticipates that the county will adopt ordinance that requires a mix of non-residential uses that will implement the policies of the FLUE governing the Mixed Use Districts. Information presented in the ADA and subsequent RAIs has been prepared so that reviewing agencies can measure the impact of the proposed development on regional facilities and infrastructure. The applicant also understands that conditions of approval to mitigate any significant adverse impact to public facilities or infrastructure will be incorporated into the development order. The applicant is committed to compliance with the Smartcode once adopted.

The applicant is also aware that FLUE Policy 1.1.3 requires a minimum of 5.0 dwelling units per acre for the Urban Expansion Area and that FLUE policy 1.3.11 requires residential uses with densities ranging from 5 dwelling units per acre up to 25 dwelling units per acre. The applicant has proposed a development program that is in compliance with the densities required by the local Comprehensive Plan. As illustrated on the Residential Density Program Exhibit, attached hereto as Exhibit 5, the applicant meets the minimum and does not exceed the maximum range of density required by Policy 1.3.11 of the Comprehensive Plan.

11. Page 14, Unique Site Constraints: Re-define the Safe Development Line in accordance with the county Comprehensive Plan, Conservation Chapter section 1.2.7, at 1 foot above the Ordinary High Water Line (OHWL).

The applicant has defined the Safe Development Line for Lake Center based on the previously approved Comprehensive Plan policy that established a 65.0 msl safe development line for Lake Center. This was based on a control high water elevation for Lake Center of 64.0 msl. The applicant is not aware of any Ordinary High Water Line (OHWL) study prepared for Lake Center or any other controlled lake in Osceola County. If Osceola County accepts the current controlled water elevation for Lake Center at 64.0 msl, then the reference to the 65.0 msl Safe Development Line is correct and in compliance with the Conservation Element Policy 1.2.7. If Osceola County has any study or data contrary to the information provided herein, then please provide such study or data to the applicant so that legal counsel can evaluate the information and respond to any conflicting issues governing private property rights.

12. Page 14, Remove the term "Placement of Fill" as this is not allowed below the Safe Development Line in accordance with the Comprehensive Plan, Conservation Chapter 1.2.13. Additionally add the comment that no non-water dependent structures will be allowed waterward of the safe development line.

The applicant identified the regulatory authority over sovereign lands (SSL) as a design constraint on page 14 of the 1st RAI. The applicant further identified that authorization for any construction activities proposed waterward of the SSL would require authorization from the Department. Also identified were construction activities waterward of the SSL that historically has been approved by the Department including "*boardwalks, fishing piers, any type of exaction, placement of fill, etc.*" The statement also includes authorizations for such activities are delegated to the District through Chapter 18-21.0051 F.A.C.

After review of Conservation Element Policy 1.2.13, the applicant does not see any conflict with the policy and the information presented on page 14 of the 1st RAI. Specifically Conservation Element Policy 1.2.13 states:

"Prohibition of the use of fill below the safe development line, with the exception of permitted pilings."

It is the applicant's position that since the County's jurisdiction ends at the SSL, Policy 1.2.13 applies to any lands between the Safe Development Line established as one foot above the OHWL by Policy 1.2.7 and the SSL. If the applicant proposes any construction activities between the Safe Development Line and the SSL, the applicant understands that placement of fill, with the exception of permitted pilings will be prohibited. The applicant also understands that if any construction activities were proposed waterward of the SSL such activities will be permitted by the District as authorized by Chapter 18-21.0051 F.A.C.

Similarly, the applicant understands that construction of non-water dependent structures waterward of the Safe Development Line is prohibited by Policy 1.2.13. However, construction activities proposed waterward of the SSL are permitted by the District pursuant to Chapter 18-21.0051 F.A.C.

As stated on page 14 of the1st RAI, the applicant has identified that "*there are no activities currently proposed within the sovereign lands associates with the Center Lake DRI.*" This should not be interpreted that the applicant is relinquishing any riparian rights. Rather, the applicant reserves the right to permit any proposed construction activities waterward of the SSL pursuant to District authorization in accordance with Chapter 18-21.00051, F.A.C.

13. As stated in the previous round of comments, in no case shall potable or individual private wells be used to irrigate public or private turf or landscaped areas. Revise section 17, specifically 17B, 17D, and 17G to reflect this.

The applicant is not proposing to utilize any proposed wells as a primary source of irrigation for the project. As shown in the letter from Todd P. Swingle, P.E. (included as Exhibit 6), the City of St. Cloud will consider the temporary use of potable water to supply the proposed irrigation systems for the project until reclaimed water infrastructure and connectivity is installed in accordance with the City's 5-year Capital Improvement Program. The letter further states that all irrigation shall be supplied using stormwater, reclaimed water or other alternative water supply sources developed by the City. The applicant will comply with the City's requirements regarding the supply and use of irrigation water.

14. Respond to Section 17E(F.2) given that the capacity letter has not been received.

The letter has now been received, and attached hereto as Exhibit 6.

15. Question 25. Response 28. Revise the response accordingly.

a. Fire Protection. The discussion during the original ADA and what is reflected in the 1st RAI is not accurate. There is a fire station located off Nova Road. The discussion was depending on what is designed for Center Lake Development there may be a need to relocate our Fire Station 52 to a different location. There is also the possibility an additional fire station may be required. An agreeable fire station site must be provided within the boundaries of the DRI. The location needs to be on a road that will allow us the best avenue when responding.

The applicant understands that the need for fire protection may include additional sites, or relocation of existing facilities for emergency service facilities. The development program locates 5.5 acres of community center adjacent to approximately 15 acres of commercial land use near the development's entrance onto Narcoossee Road. Additionally, the development program defines 6.5 acres of Neighborhood Center in the central portion of the development. This Neighborhood Center is located along the main boulevard connecting Narcoossee Road and Nova Road. The Osceola County Comprehensive Plan Future Land Use Element (FLUE) Policy 1.3.15 requires a mix of uses within both a Community Center and a Neighborhood Center. A Neighborhood

Center is required to have 5% to 20% of Public/Civic use pursuant to FLUE Policy 1.3.15.2.d. and the Community Center is required to have 10% to 20% of Public/Civic use pursuant to FLUE Policy 1.3.15.3.d. Should Osceola County identify the need to relocate Fire Station 52 to a different location, or should the County identify the need for a new fire station site, the development program will accommodate such a need in either the Community Center or the Neighborhood Center proposed within the Center Lake DRI pursuant to FLUE Policy 1.3.15.

b. The statement that Osceola County has a "First Responder" agreement with the City of St. Cloud is not accurate. We have a mutual aid agreement with St. Cloud Fire Department. The term first responder does not exist when discussing response criteria with other agencies.

The applicant appreciates the edification of the term "first responder" and in the future will make every effort to respond with technically correct terminology acceptable to the professionals of the service.

16. Section A – Revise the introduction for the DRI to state that the connection to Narcoossee Road from the Center Lake DRI shall be via Rummel Road as indicated on Map H included within the 1st RAI.

The applicant provided the introduction to the DRI as a courtesy for reviewing agencies. The applicant referenced a revision to the development program and graphically represented the new proposed connection to the development from the Rummel Road extension on the map series. However, as illustrated on the Revised Concept Plan, attached hereto as Exhibit 3 the proposed Rummel Road extension is not the only access to Narcoossee Road. Connection to Ralph Miller Road has been maintained and connections to Jones Road that ultimately connects to Narcoossee Road are proposed. The additional property also has access to Harkley Runyan Road that ultimately connects to Narcoossee Road. The 1st RAI included modified questions from the original ADA that were effected by the revised development program or the additional property and were prepared using form RPM-BSP-ADA-1 as required by Rule 9J – 2.010, FAC. Question 21 was modified to acknowledge the proposed access via the Rummel Road extension with the trip distribution response. If any introduction is required for the development order, the applicant would be pleased to provide such revised introduction as modified above.

17. Part 5, Page 21-1. The development program listed in this section does not match the development program listed on page 10. Please fix this inconsistency.

The development program listed in section 21 has been revised to match the one found on page 10 of the submittal. All subsequent analyses have been changed to reflect this.

18. Table 21-A.2 – Revise the table to utilize the traffic counts from the 2009 Existing Roadway Network Capacity spreadsheet for existing conditions.

The original submittal was completed and submitted prior to the availability of the 2009 counts and used the most recent counts at the time. The year of the existing counts is accounted for in the future analysis.

19. Table 21-A.4 & Exhibit 21-A.2 (Map J-2) – Revise the table to utilize the traffic counts from 2009 Existing Roadway Network Capacity spreadsheet for existing conditions.

The original submittal was completed and submitted prior to the availability of the 2009 counts and used the most recent counts at the time. The year of the existing counts is accounted for in the future analysis.

20. Table 21-B.2 – Revise table to indicate that pass-by reduction is for retail use only.

Table 21-B.2 has been modified to indicate that the numbers reflected for pass-by traffic show a reduction from the retail component only.

21. Exhibit 21-B.1 (Map J-4) – The project traffic distribution for year 2015 indicates a large amount of traffic being distributed on US 192-441 east towards Harmony and Holopaw. Based on the square footage of commercial, office and industrial use that is currently developed within Harmony DRI this does not seem to be a reasonable assumption. Revise the distribution or explain the large amount of project traffic using US 192-441 east of Pine Grove Road for year 2015.

The model for 2015 and 2020 socioeconomic data for the approved development programs, including Harmony DRI. Based on Amendment 5 (2006) of the Harmony DRI, the project has been approved for 3,300 SF DU, 1,800 MF DU, and commercial, office and industrial uses through the second phase of Harmony DRI. TAZ 1099 in the model was verified to show that Harmony was included as part of that zone. The approved methodology listed the projects that would be included in this analysis.

22. Section G – revise section and traffic modeling for Phase (2015) and Phase II (2020) to indicate the location of roadway access for each phase of the development.

Section G of Question 21 describes the planned access to the development site “will be accommodated via Jones Road, Starline Drive, CR15 via Ralph Miller Road and Nova Road”. Map H shows the location of these connections. It is planned that these access connections will be available as part of the first phase of development and will be included to comply with the policies outlined in the proposed Northeast District Master Plan.

23. Section I – Revise section to include provision that developer will dedicate land and construct future transit facilities, including but not limited to bus benches, bus shelters and pull-out bay, dedicated bus lanes, throughout the development as needed and determined by future transit service.

The Center Lake DRI development will coordinate with the County to comply with the transit requirements included in the proposed Comprehensive Plan Amendment as part of the Northeast Planning District.

24. **The traffic modeling files provided for phase 1 (2015) and phase II (2020) indicate the Center Lake DRI having project access to Narcoossee through Ralph Miller Road, while the revised Map H indicates access to Narcoossee Road through Rummel Road extension. The modeling files need to be revised for consistency with the 1st RAI documents. In your response please clarify the alignment of the Rummel Road alignment within the project site.**

The model files and maps have been revised to show a connection to Narcoossee Road that aligns with the existing Rummel Road intersection. The transportation analyses have been reanalyzed as part of this change.

25. **Note: There must be approved fire hydrants located throughout this DRI before any vertical construction involving combustible materials begin.**

The applicant agrees with Osceola County that fire hydrants will be required to be in place prior to any construction involving combustible materials. It is recognized that this is a requirement prior to construction plan approval. Identifying hydrant locations is not part of the DRI process, but will be reviewed by Osceola County as part of the Engineering Improvement Plan review process.

26. **Please supply calculations to ensure that the minimum densities within the Osceola County Comprehensive Plan are being met.**

The applicant has provided an Illustrative Plan, attached hereto as Exhibit 1 to demonstrate an example of how the proposed development program can implement the Mixed Use District policies of the FULE. Additionally, the applicant has prepared a Residential Development Program exhibit, attached hereto as Exhibit 5. This Residential Development Program exhibit illustrates compliance for the overall development and each development area with the Mixed Use District policies governing density within the FLUE. Please note that the Illustrative Plan and the Residential Development Program exhibit have been provided as an illustration of one example on how the proposed Center Lake DRI can be found in compliance with the Osceola County Comprehensive Plan. The applicant anticipates the Smartcode pending adoption by Osceola County will define a zoning process and development review process that will provide further opportunities for Osceola County to assure compliance with the Comprehensive Plan.

27. **Osceola County is in process of implementing standard Habitat Conservation and Management Plan protocols into the LDC. In advance of this LDC adoption, the County has developed standards which have been implemented into approved development applications. The standards and protocols included within Exhibit A are to be incorporated into the final Habitat Conservation and Management plan which is required to be approved prior to PD approval To ensure consistency all HCMP's will be reviewed based upon this standard criteria, including agency review recipients, timelines for review and minimum requirements of detailed implementation strategies.**

The submitted Habitat Management Plan consists of many of the required key aspects; however more detail is required to be consistent with the attached HCMP Standards, to assure complete project implementation in perpetuity to meet the intended goal of the HCMP protocols. The species information is comprehensive and useful regarding the individual species, however more detail will be needed to illustrate how the development will ensure the sustainability and vitality of each species and habitat long-term, including but not limited to; habitat corridors and connections, roadway connection and avoidance, time line of implementation, expected outcomes and means for habitat replacement in the event of natural disaster or other type event.

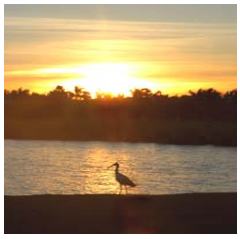
Please see the modified HMP, attached hereto as Exhibit 8.

28. Please change the wording in section 3.4 of the ADA Section VII (8) under the Habitat Conservation Plan to state the greater sand hill crane is migratory, instead of non-migratory.

The requested revision has been made within the HMP. Please see Exhibit 8, attached hereto. We apologize for this typographical error.

29. The Osceola County School District comments are attached as Exhibit B.

The applicant has addressed the Osceola County School District comments below.



School District of Osceola County
Updated Comments Received 23 February 2010

Urban School Form:

The narrative on page 11 of the 1st RAI states "… that this elementary school site will accommodate an 'urban form' design for public education facilities."

1. Does the applicant have a definition of "urban form", or an example of how this school type may be developed?

The applicant does have a definition of "urban form"; however, the applicant assumes neither the authority nor the desire to define such product for the School District of Osceola County. The applicant is aware that County Planning staff and School Board staff have been discussing this issue. The applicant anticipates that the Smartcode pending adoption by Osceola County will include a definition and development standards for "urban form" school construction. Regardless of the pending adoption of "urban form" school facilities, the school site proposed by the Center Lake DRI will meet current design criteria for an elementary school.

In order to create a walkable community oriented school, the elementary site being reserved in this development should fit gracefully into the fabric of the neighborhood it serves. The school should be sited in such a way that:

- It is located within a neighborhood and is safe for children to walk or bike to
- It is the neighborhood anchor and supports community use of the school facility after school hours
- It is well laid-out and fits the scale and design of the surrounding neighborhood

The application narrative states that the elementary school site on Map H "… is located along the main boulevard that connects Narcoossee Rd and Nova Rd…". This is not ideal for an elementary school site. Students walking to and from school will be accessing the site on the main boulevard or the collector road adjacent to the north of the site.

2. Is there a network of bike/foot paths planned to connect the islands of development to the school site in this proposal?

The applicant anticipates a pedestrian and bicycle network being required by the Smartcode pending adoption by Osceola County. The Smartcode will include design standards for roadways that will accommodate both pedestrian and bicycle mobility. The applicant must first justify avoidance, and then justify minimization for any jurisdictional wetlands impacts proposed by development activities. Therefore, additional pedestrian or bicycle paths other that those within the framework roadway network through the jurisdictional wetlands are limited. The development will certainly provide pedestrian and bicycle paths within the neighborhoods to connect to the framework roadway network.

The pedestrian and bicycle network has been identified on Revised Map H – Concept Plan, attached hereto as Exhibit 3.

3. If this site is developed as an elementary school, is on street parking being planned in the right of way for parent drop-off and pick-up due to the siting of the school on a main boulevard?

The applicant anticipates the Smartcode pending adoption by Osceola County to allow on street parking for certain roadways within the design standards for framework streets. This design element will be addressed through the required zoning process in compliance with the standards adopted in the Smartcode.

The School District requires a minimum of 15 contiguous acres for elementary school sites with off-site retention as part of the master drainage plan; 20 acres will be required when stormwater retention must be provided on-site. This size may be decreased by the co-location of parks or recreation amenities. It should be noted that elementary schools should be located within residential neighborhood to facilitate access by pedestrians and bicyclists.

4. Is the stormwater retention for the school being provided off-site or just in the master stormwater permit requiring the School District to provide on-site stormwater?

As shown on the Concept Plan, attached hereto as Exhibit 3 and Map I-2 of the 1st RAI, the applicant has designed a regional concept for the stormwater management system. This regional stormwater management concept is in compliance with the design characteristic guidelines for Mixed Use District governed by the FLUE of the Osceola County Comprehensive Plan. The stormwater management system is subject to compliance with SFWMD and Osceola County permit requirements.

Minimum acreage requirements are intended to establish usable acreage for school construction; therefore, wetlands, waterbodies, stormwater ponds, or environmental features will not count toward the minimum acreage requirement. Uniquely shaped sites or sites with topography, wetlands or waterbodies will require detailed design review to confirm usable land area and suitability for school siting. In addition, the following is a guideline for site conveyance that may be used for the current prototype sizes, but may be amended for new prototypes as needed:

- The location and configuration of the site must be reviewed and approved by District staff.
- The site shall be non-bifurcated and of a geometric shape suitable for development of a school site.
- All due diligence will be completed and then reviewed by District staff. Due diligence shall include (but not be limited to):
    - Recent Survey, including location of on-site and adjacent easements, rights-of-way or other encumbrances.
    - Level one environmental study
    - Wetlands study & Soils analysis
    - Appraisal
    - Ownership and encumbrance report
    - Confirmation of availability of utilities (water, sewer, and electric)
    - Written confirmation from the local jurisdiction that the site has Land Use Designation and Zoning acceptable for the type of school desired.
    - Written confirmation from the local utility provider that capacity is available to serve the site and its intended use, including confirmation that water and sewer services, including appropriately sized utility lines and other infrastructure, are currently available to the site.

- The site will be graded according to a master drainage plan that is approved by district staff.
- All stormwater retention should be provided off-site as part of the master stormwater plan for the development.
- The site shall contain no environmental, hazardous waste or other restrictions at the time of transfer.
- Off-site improvements including, but not limited to, roadway, traffic control, access management, water and sewer, electric and other services necessary for construction and operation of the school shall be provided by the developer as needed.
- Title to the properties shall be delivered free and clear of any and all limitations.
- Site shall have fee-simple access as provided below.

Access Requirements:

- All school sites should be connected by pedestrian/bicycle trails as well as sidewalks or other networked paths to any residential development within two miles. These pathways should not traverse or adjoin industrial areas and, to the extent possible, should not traverse commercial areas. Crosswalks and/or other appropriate pedestrian features should be present at road crossings. When a school is sited that requires student access to cross a major roadway, an overpass or underpass should be made available.
- All schools should have roadway access in accordance to the school type and as may be required by local jurisdictional ordinance.

    - Elementary schools – two access points from local public roadway at a minimum, access from two local roadways is preferred. Siting on an arterial or collector roadway is discouraged and may be prohibited by local ordinance.
    - Safety is a key issue when siting schools with respect to roadways. Signalization, speed limits, roadway classification and adjacent land uses (heavy truck traffic or other undesirable conflicts) will impact the safety of all students at the site and should be given consideration when siting schools. Acceleration lanes, deceleration lanes, turn lanes, signalization, or other pedestrian or vehicular access control or traffic management devices necessary to accommodate the type of school desired shall be included as part of the site location and design criteria.

5. The design criteria for this site location will require considerable planning, how will the applicant address these access requirements?

The applicant will address access requirements through the zoning and subsequent development approval process required by Osceola County and in accordance with the Smartcode pending adoption by Osceola County.

Regional Impacts:

A development of regional impact must mitigate all impacts at time of development order. The impacts of residential development as proposed will generate enough students to fill an elementary school which has been designated on the Map H of the ADA. The impacts of the middle and high school students generated from this development have not been addressed. At this time, enrollment forecasts show that additional middle school capacity my not be needed in this area and mitigation can be discussed at the time of PD or CDP approval phase. The 5, 10, 20 Year Priority Map in the Comprehensive Plan illustrates a high school site in the general area of this DRI in the 10-20 year program.

6. The School District would like to request that a high school site be located in this DRI and illustrated on Map H.

The School District staff has concluded that *"a development of regional impact must mitigate all impacts at the time of developer order."* The applicant's understanding of a DRI development order is not consistent with the School District staff's conclusion. Specifically, the Florida Statutes address the issue of any contributions of funds, land, or public facilities required from the developer. Specifically, 380.06 (15)(d), F.S. states:

Conditions of a development order that require a developer to contribute land for a public facility or construct, expand, or pay for land acquisition or construction or expansion of a public facility, or portion thereof, shall meet the following criteria:

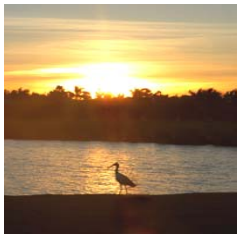
1. *The need to construct new facilities or add to the present system of public facilities must be reasonably attributable to the proposed development.*

2. *Any contribution of funds, land, or public facilities required from the developer shall be comparable to the amount of funds, land, or public facilities that the state or the local government would reasonably expect to expend or provide, based on projected costs of comparable projects, to mitigate the impacts reasonably attributable to the proposed development.*

3. *Any funds or lands contributed must be expressly designated and used to mitigate impacts reasonably attributable to the proposed development.*

4. *Construction or expansion of a public facility by a nongovernmental developer as a condition of a development order to mitigate the impacts reasonably attributable to the proposed development is not subject to competitive bidding or competitive negotiation for selection of a contractor or design professional for any part of the construction or design.*

The statute is very clear that any contribution of land must be reasonably attributable to the impacts of the proposed development. The developer held a pre-application conference with the reviewing agencies and filed an Application for Development Approval. The School Board of Osceola County participated in the pre-application conference and has reviewed and previously commented on the ADA. Projected high school student population generated by the development was defined as 405 students, and was reported on the School Capacity Report prepared by the School District of Osceola County and attached to the ADA as Exhibit 7. Furthermore, School District staff reported that projected high school capacity district wide for the years 2010-11, through 2012-13 were 1,760, 1,516 and 801 respectfully. This represents that the School District of Osceola County has projected capacity for nearly 200% of the projected high school population generated by the proposed development for the 2012-13 school year. Additionally, School District staff defined the proposed impact for high school population to be 0.1803 of a high school need. Never was a high school site requested or discussed at the pre-application conference or through the original ADA review.



The applicant believes that the School District's request to provide for a high school site at this time is extreme for the demand "reasonably attributable" to the proposed Center Lake DRI and the request is excessive to the needs of the School District as previously defined by staff. Additionally, a modification to the development program to include a high school now would require a new transportation study to account for the vehicular trips associated with a high school. This is especially true due to the fact that as defined by the School District staff, the development's "reasonably attributable" impact to a high school is only 18%. This would leave 82% of the vehicular trips "reasonably attributable" to development outside of the Center Lake DRI.

The applicant is well aware that the proposed Center Lake DRI will be held accountable by Osceola County for school concurrency issues. The applicant is also aware that Osceola County has adopted school impact fees that are based on 100% of the costs associated with student population related to new residential development. This fee includes land costs associated for new school sites. Should the School District wish to pursue the purchase of 18% of a high school site with the applicant, then any negotiations for such a purchase can be held separate from the processing and issuance of this development order. If any portion of a high school site is located within the development in the future, the development order would then be the subject of a Notification of Proposed Change. The applicant is not prepared to accept any development order condition that would require a high school site within the boundaries of the Center Lake DRI at this time, based on the "reasonably attributable" provisions of 380.06 (15)(d), F.S. and the School District assessment of the impacts of the development to high school facilities. Furthermore, by School District's staff's own capacity analysis, the School District of Osceola County has capacity to serve the high school student projection demands of the development.

The applicant is also aware that Osceola County has recently approved for transmittal to the Department of Community Affairs, the Conceptual Master Plan for the Northeast Mixed Use District (MXD). The Northeast MXD is located immediately adjacent to the northeast boundary of the Center Lake DRI. Technical Appendix 4 - Education of the Conceptual Master for the Northeast MXD identified a need for 3 new high schools within that planning area. All three high school sites are provided in the Conceptual Master Plan. Based on Technical Appendix 4 – Education of the Northeast MXD these three high school sites add capacity for 5,100 new high school student stations with the prototype of 1,700 student stations for each high school. The projected high school student population for the Northeast MXD is 3,536 students. This leaves a balance of 1,536 high school student stations available to the School District for population demand outside of the boundary of the Northeast MXD. This balance of 1,536 high school student stations together with the current available district wide capacity will provide adequate opportunity for School District staff to plan and provide for new high school population demand over a 10, 15 and 20 year planning period without the need for an additional high school site within the Center Lake DRI.

School Concurrency:

The foremost concern in timing of school construction is the ability to operate the school in a financially feasible manner once opened. This requires that the school have 50-80% of the capacity filled with students upon opening. Timing of new school construction and attendance boundaries will be set by the District and will establish capacity availability for proposed developments. Master School Capacity Agreements and Development Agreements are two of the mechanisms available to assure school concurrency for new residential development.

7. Would the applicant be willing to execute a developer's agreement with the School Board and the Osceola County BOCC to establish the timing of site conveyance, on-site and off-site improvements prior to construction of the elementary school, and possible mitigation of middle school capacity, if needed, to ensure school concurrency?

Any developer's agreement with the School Board or the Osceola County BOCC is premature. The applicant is well aware that Osceola County will enforce school concurrency on the Center Lake DRI. According to the School District's School Capacity Report, Exhibit 7 of the ADA, current available capacity district wide is sufficient to serve the demands projected for the Center Lake DRI. At the time of final concurrency review for any development proposed within the project, the county will identify any deficiency with school capacity and the applicant will then decide on a negotiated settlement through a developer's agreement or any other solution offered by the concurrency ordinance for the mitigation of any school impacts should they become necessary.

South Florida Water Management District

Question 13: Wetlands

1. Several roadways appear to extend off-site; however, they do not connect to existing off-site roadways. Consequently, potential impacts to off-site wetlands cannot be determined. Please provide an assessment of potential future cumulative wetland impacts that may be incurred as a result of the proposed Master Development Plan.

All potential connections have been shown by the applicant to illustrate compliance with Osceola County FLUE Policy 1.3.12: ***Mixed Use design characteristics*** that requires among other characteristics; "… a well connected street system…" and; "…a network of interconnected streets…". The applicant assumes no responsibility to enforce such policies on any properties outside the boundaries of this DRI. It is the responsibility of Osceola County to enforce the connectivity issue on development plans for adjacent parcels. The applicant has neither intention nor desire to secure, build or fund any framework roadway network that is the responsibility of adjacent property owners.

Any future wetland impacts associated with the offsite expansion of the roadway system which would extend beyond the property boundary of this DRI would be the responsibility of the entity building the roadway. Any unavoidable wetland impacts will be addressed by the appropriate applicant at the time of permitting.

Question 17: Water Supply

2. The first paragraph of the revised response to Question 17.B states that stormwater runoff will be used for irrigation. However, the second paragraph states that on-site irrigation wells will be used for Phase 1. The information provided in Table 17-2 supports the information provided in the second paragraph. Please clarify and revise, as necessary. In addition, please be advised of the following:

a) **The SFWMD is currently in rule development concerning reservation of water for protection of fish and wildlife in the Kissimmee River Basin. Consequently, surface water withdrawals may not be permittable.**

b) **The project site is located in the Central Florida Coordination Area (CFCA), an area where groundwater is considered to be a source of limited availability. Within the CFCA, any groundwater withdrawals that propose to have increasing water demands beyond their 2013 estimated need must identify an alternative water supply source to meet those demands in excess of the 2013 estimated use.**

In consideration of the above, the developer should explore alternative sources for meeting the project's Phase 1 non-potable water demands.

The applicant is not proposing to utilize any proposed wells as a primary source of irrigation for the project. As shown in the letter from Todd P. Swingle, P.E. (included as Exhibit 6), the City of St. Cloud will consider the temporary use of potable water to supply the proposed irrigation systems for the project until reclaimed water infrastructure and connectivity is installed in accordance with the City's 5-year Capital Improvement Program. The letter further states that all irrigation shall be supplied using stormwater, reclaimed water or other alternative water supply sources developed by the City. The applicant will comply with the City's requirements regarding the supply and use of irrigation water.

3. **Please provide a letter from the City of St. Cloud that provides confirmation that the City will have the ability to meet the entire non-potable demands of this project by completion of Phase 1. The letter should reflect the utility's other existing commitments.**

   Please see the attached letter from Todd P. Swingle, P.E. (included as Exhibit 6).

4. **Please provide the required letter from the City of St. Cloud that addresses all applicable subsections of Question 17.F. In addition, please be advised that water supply facilities must be authorized concurrent with the proposed land use change, pursuant to Chapter 163.3180, F.S. all issues related to infrastructure planning, water conservation, capital improvements, concurrency, and intergovernmental coordination should be addressed, pursuant to Rule 9J-5 and Chapter 163, F.S.**

   Please see the attached letter from Todd P. Swingle, P.E. (included as Exhibit 6).

Question 19: Stormwater Management

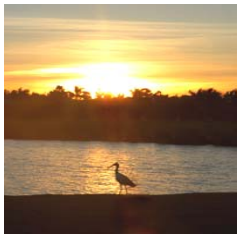
5. **With respect to revised Map A, there appears to be a land-locked parcel under different ownership. How will the project's proposed stormwater management system accommodate drainage for this parcel? How will access be provided?**

   Stormwater runoff from the land-locked parcel under different ownership currently flows from West to East onto the Center Lake DRI property. These offsite flows will be accommodated in the stormwater management system for the Center Lake DRI property. Offsite flows will be accommodated to maintain existing drainage patterns and not trap water on adjacent property owners. Please note that the adjacent property owners are responsible for the treatment of stormwater runoff from their respective properties and no treatment of these flows are provided in the stormwater management system for the Center Lake DRI property.

   Legal access to the subject off site parcels remains as the current roadways of Ralph Miller Road, Twelve Oaks Road and Hansom Road will remain in place.

6. **Based on review of revised Map I-1, it is not clear how the additional land added to the DRI will drain. Although a written description was provided, the details are not reflected on Map I-1. Please revise Map I-1 to delineate the directions of flow. In addition, please revise Map I-2 to show how these additional lands will drain from the post development site to the ultimate receiving body.**

   Map I-1 reflects the pre-development drainage map. Additional flow direction arrows have been added to the map. Map I-2 is the post development drainage map. Drainage patterns have been clarified on Revised Map I-2 – Post Development Drainage Plan to show how the site will ultimately drain to the receiving bodies. The majority of the project drains to the Lake Center Outfall. A small portion of the western side of the project drains towards Narcoossee Road drainage system. Please see Revised Map I-2 – Post Development Drainage Plan, attached hereto as Exhibit 7.



LYNX

LYNX staff has reviewed the Center Lake Ranch DRI 1st Request for Additional Information, dated January 21, 2010. Currently there is no transit service to this DRI. However, Link 10 does run east on 10th Street from US 192, turns south on Grape Ave. turns east on 13th street, turns south on Crawford Ave. and turns west on 17th Street back toward US 192. LYNX' most recently adopted Transit Development Plan does not include new transit service to this area prior to 2019. However, if in the future LYNX extends service to this DRI we request that transit service improvements are included in Phase 2 planning and design.

Additional transit and commuter considerations that are recommended for Center Lake DRI include the following:

Service Department:

1. **Please include projections for mode split for Phase 2 (Table 21-B.2).**

   No mode split reduction was assumed for Phase 2 of the development. As part of the future Monitoring and Modeling process for this project, the Applicant will comply with the transit requirements included in the proposed Comprehensive Plan Amendment as part of the Northeast Planning District.

2. **Should existing and planned development in the area by 2020 be sufficient enough to support a transit route, the Developer shall provide financial support for a trial basis prior to any Phase 2 approvals.**

   See below.

3. **Sites shall be reserved with adequate size and accessibility for future transit routes, stops and amenities (passenger shelters, transit parking bays and parking spaces for vanpool vehicles) in the development area. During the design, we encourage the developer to refer to our design standards manual that is available on our website at www.golynx.com under "publications".**

   See below.

Commuter Services:

4. **The developer shall coordinate with LYNX Commuter Services regarding the development of a commuter services plan for the development. Such a plan shall outline proposed financial commitments by the developer to support and encourage the use of transit by employees and residents within the development. The objective of such a plan is to increase the modal split within the development.**

   See below.

5. **Parking space should be allocated for vanpool rideshare vans. The allocated space should be free of parking restrictions prohibiting overnight parking. Vanpool rideshare arrangements present a great alternative to utilizing private use vehicles for retail and hospitality industry employees.**

   See below.

6. **The developer is required to inform both residents and tenants that the Development is served by LYNX's ridesharing program. Literature regarding the ridesharing program shall be displayed in public, commercial and employment areas.**

   See below.

7. **Preferential parking shall be provided for employees who participate in ridesharing programs.**

   See below.

LYNX believes that encouraging transit bus utilization and commuter choice options helps to reduce traffic congestion and mitigate development impacts. LYNX guidelines for service and amenities can be found at www.golynx.com, under "publications. Guidelines from these documents should only be used for planning purposes. LYNX should be contacted and given a chance to review specific planned facilities early enough in the process to allow LYNX comments to be incorporated into development plans. Also, for information on commuter choice alternatives contact Reginald Mells, Program Account Executive for Commuter Services at (407) 841-2279, extension 6070. Please feel free to contact me at (407) 841-2279, extension 6110 or at lminns@golynx.com should you have any questions. Thank you.

With respect to the comments provided by LYNX, the Applicant will coordinate with the County and LYNX to ensure that the project will meet the transit requirements outlined in the Osceola County Comprehensive Plan for the Phase of which entitlements are being sought. The Center Lake DRI is part of the Northeast Development District and provisions for transit facilities are outlined in the Northeast District Conceptual Master Plan.

Exhibit 1

Illustrative Plan

Center Lake DRI

Sections 27, 28, 29, 33 and 34, Township 25 South, Range 31 East
Osceola County, Florida

Illustrative Plan

Date Revised: 7 April 2010

Potential Connection
Jones Rd
Sky Wind Court
Starline Drive
Sunlight Court
Narcoossee Rd
Twelve Oaks Road
Hackney Road
Disston Drive
Hansom Road
Elementary School
Proposed Vacated R/W
Ralph Miller Road
Rummel Rd
Harkley Runyan Road
Potential Connection
Eagle Nest 660' r
Impacted Wetland (W-13)
65' SDL (Safe Development Line)
Lake Center
Potential Connection
Oak Shore Drive
Pine Grove Road
Coon Lake
Nova Rd
Potential Connection

Legend

- Wetlands
- Wetland Buffers & Transition Zones
- Community Center
- Neighborhood Center
- Residential
- Elementary School
- Park and Rec Areas
- Water Management
- Framework Roads & Right of Ways
- Lands Below Safe Development Line and Submerged Lands

Note: This plan is a preliminary Concept Plan only. As such, it is subject to modification pending environmental, engineering, and agency review.

(Approximate)
0 1400'
N

WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

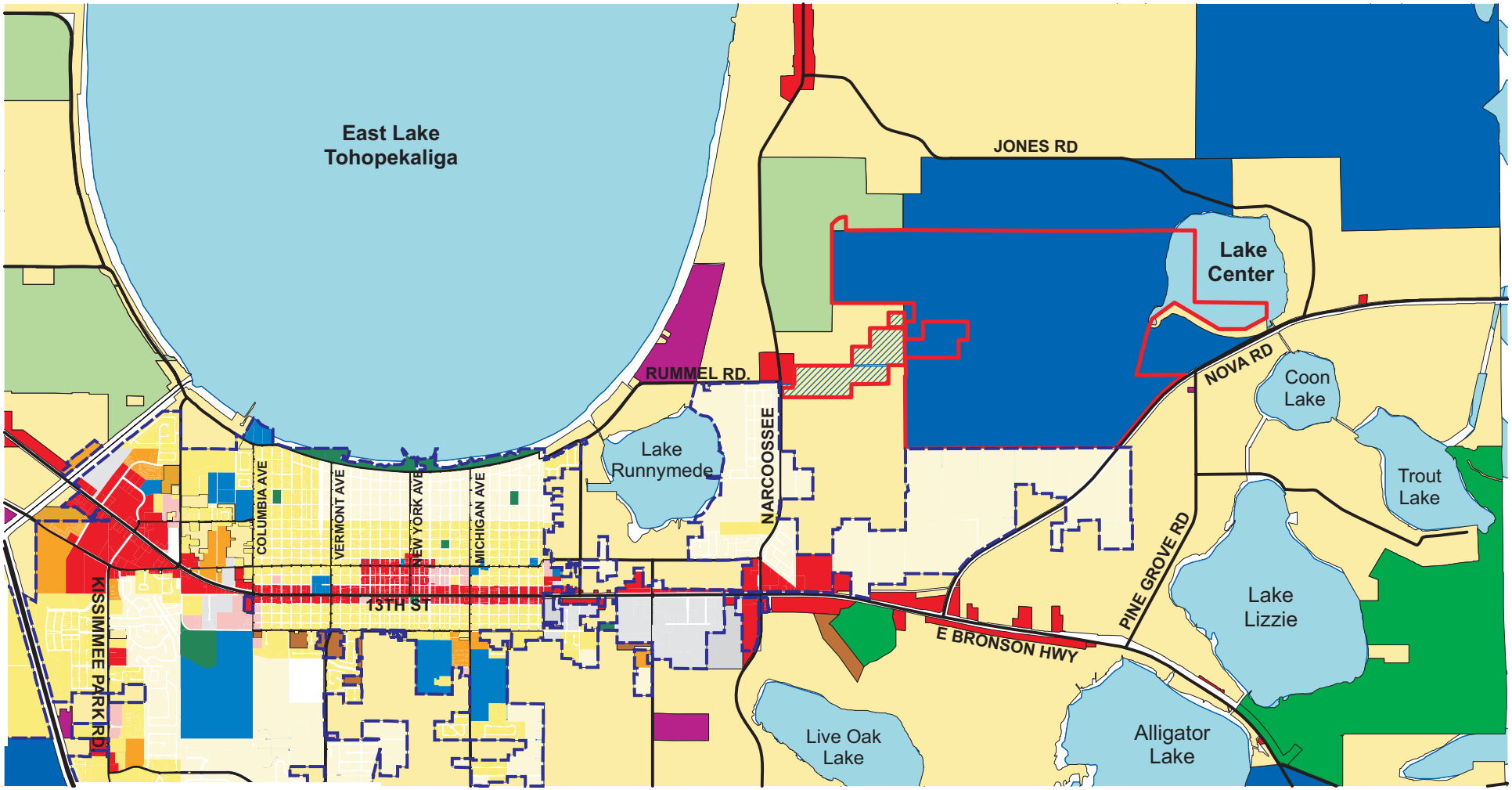
Exhibit 2

Revised Map D
Existing Land Use Plan

Center Lake DRI

Sections 27-29, 33, 34, Township 25 South, Range 31 East
Osceola County, Florida

Map D
Existing Land Use Map



DRI Boundary

St Cloud Boundary

Incorporated City of St Cloud Legend

- AGRICULTURE/RURAL
- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- COMMERCIAL
- PUBLIC/INSTITUTIONAL
- PRIVATE/INSTITUTIONAL
- PARK/OPEN SPACE
- INDUSTRIAL

Osceola County Legend

- MIXED USE (PENDING)
- MIXED USE
- CONSERVATION
- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- RURAL ENCLAVE
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL

(Approximate)
0 1 mile
N

Rj WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

Notes
1: All county information hereon has been aquired from Osceola County , in Shape File Format. File name:FUTURELANDUSE2008
2: All St Cloud FLUM data has been acquired from http://www.stcloud.org in PDF format

Exhibit 3

Revised Map H
Concept Plan

Center Lake DRI

Sections 27, 28, 29, 33 and 34, Township 25 South, Range 31 East
Osceola County, Florida

Revised Map H
Concept Plan

Date Revised: 30 March 2010

Jones Rd
(Unpaved) Dirt Portion of Jones Road
Potential Connection
Sky Wind Court
Potential Connection to Jones Rd
Potential Connection to Jones Rd
Pedestrian / Bicycle Path
Starline Drive
Sunlight Court
Pedestrian / Bicycle Path
Impacted Wetland (W-9)
65' SDL (Safe Development Line)
Lake Center
Narcoossee Rd
Impacted Wetland (W-4)
Impacted Wetland (W-11)
Pedestrian / Bicycle Path
Twelve Oaks Road
Impacted Wetland (W-8E)
Impacted Wetland (W-20)
Impacted Wetland (W-11)
Hackney Road
Disston Drive
Hansom Road
Impacted Wetland (W-11)
Impacted Wetland (W-14)
Proposed Vacated R/W
Pedestrian / Bicycle Path
Elementary School
Impacted Wetland (W-18)
Potential Connection
Ralph Miller Road
Impacted Wetland (W-12)
Oak Shore Drive
Rummel Rd
Eagle Nest 660' r
Coon Lake
Harkley Runyan Road
Impacted Wetland (W-18)
Impacted Wetland (W-18)
Pine Grove Road
Potential Connection
Impacted Wetland (W-13)
Pedestrian / Bicycle Path
Impacted Wetland (W-15)
Nova Rd

Legend

- Wetlands
- Wetland Buffers & Transition Zones
- Community Center
- Neighborhood Center
- Residential
- Elementary School
- Park and Rec Areas
- Water Management
- Framework Roads & Right of Ways
- Lands Below Safe Development Line and Submerged Lands
- Impacted Wetlands
- Pedestrian / Bicycle Path

Note: This plan is a preliminary Concept Plan only. As such, it is subject to modification pending environmental, engineering, and agency review.

(Approximate)
0 1400'
N

RJ WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

Exhibit 4

Draft Rummell Road Extension Agreement

RUMMELL ROAD EXTENSION AGREEMENT

Project: **Narcoossee Road Phase 2**

THIS AGREEMENT made by and between **CENTER LAKE PROPERTIES, LLLP**, 102 West Pineloch Avenue Suite 10, Orlando, Florida 32806, hereinafter singly referred to as "CLP", and **OSCEOLA COUNTY**, a political subdivision of the State of Florida, 1 Courthouse Square, Kissimmee, Florida 34741, hereinafter referred to as "COUNTY".

W I T N E S S E T H:

WHEREAS, CLP is the owner of certain real property which is needed by the COUNTY for drainage purposes, hereinafter referred to as the "drainage system" and right of way purposes for the COUNTY'S Narcoossee Road Phase 2 Project (Rummell Road Extension East), and;

WHEREAS, CLP and COUNTY wish to enter into a Joint Application to the SFWMD and USACOE for the construction of those certain roadway and drainage improvement shown on the construction plans prepared by Osceola Engineering, Inc. enclosed as **Exhibit "L"**, and;

WHEREAS, CLP and COUNTY have reviewed and approved the construction plans prepared by Osceola Engineering, Inc. enclosed as **Exhibit "L"** and **Exhibit "M"** and Environmental Resource Permit Application and associated documents on file at the County's Public Works Department dated March X, 2010.

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained CLP hereby agrees to grant and COUNTY hereby agrees to accept fee simple and easement interests in the following described property, upon the following terms and conditions:

I. DESCRIPTION.

A. All parcels set forth to below are hereafter collectively referred to as the "**Property**". Each legal description attached hereto is made a binding part hereof by reference:

Parcel 120: Legal description is attached hereto as **Composite Exhibit "A"**

Parcel 810: Legal description is attached hereto as **Composite Exhibit "B"**

Parcel 811: Legal description is attached hereto as **Composite Exhibit "C"**

Parcel 812: Legal description is attached hereto as **Composite Exhibit "D"**

Parcel 813: Legal description is attached hereto as **Composite Exhibit "E"**

Parcel 814: Legal description is attached hereto as **Composite Exhibit "F"**

Parcel 815: Legal description is attached hereto as **Composite Exhibit "G"**

II. PURCHASE PRICE, EXPENSES, OBLIGATIONS AND CONVEYANCE DOCUMENTS.

A. Closing shall occur on or before **July 31, 2010**, unless otherwise agreed to by the parties. At Closing, CLP will convey at no cost to the COUNTY a fee simple interest, in Parcel 120 by Warranty Deed. At Closing, CLP will execute at no cost to the COUNTY a Permanent Ingress/Egress, Drainage and Utility Easement for Parcel 810 in the form attached hereto as **Exhibit "H"** and a Permanent Drainage and Maintenance Easement for Parcels 811 and 812 in the form attached hereto as **Exhibit "I"**, and made a binding part hereof by this reference.

B. At Closing, in consideration for the conveyance of the previously mentioned Parcels by CLP, the COUNTY at no cost to CLP shall commit to construct the roadway and drainage improvements shown on the construction plans attached hereto as **Exhibit "L"**, and made a binding part hereof by this reference.

C. The parties acknowledge that the construction of the roadway and drainage improvements on those construction plans attached hereto as Exhibit "L" require a 5' wide Permanent Slope and Maintenance Easement on property owned by Henry C. Yates. At Closing, CLP will cause the conveyance to the COUNTY, the Permanent Slope and Maintenance Easements for Parcels 813 and 814 in the form attached hereto as **Exhibit "J"**, and made a binding part hereof by this reference.

D. The parties acknowledge that the construction of the roadway and drainage improvements on those construction plans attached hereto as Exhibit "L" require a 15' wide Drainage and Maintenance Easement on property owned by Henry C. Yates for the construction of a drainage culvert between Rummell Road and the dry detention pond. At Closing, CLP will cause the conveyance to the COUNTY, the 15 foot Wide Permanent Drainage and Maintenance Easement for Parcel 815 in the form attached hereto as **Exhibit "K"**, and made a binding part hereof by this reference.

E. Once CLP and COUNTY have received the necessary SFWMD and USACOE permits, the COUNTY shall construct at its sole cost and expense those roadway and drainage improvements shown on the construction plans prepared by Osceola Engineering, Inc. attached hereto as **Exhibit "L"**. Both parties shall use their best efforts in pursuing permit approvals. In addition, the COUNTY shall be responsible to obtain at its sole cost and expense any permits related to removal and/or relocation of threatened and endangered species. This provision shall survive closing.

F. The COUNTY shall design and construct the roadway improvements to Narcoossee Road and Rummell Road (west of Narccoossee Road) as shown on those construction plans prepared by Osceola Engineering, Inc. attached hereto as **Exhibit "M"**.

III. SPECIAL CONDITIONS AND LIMITATIONS.

A. It is mutually understood that this Agreement is subject to final County acceptance. Final County acceptance shall be evidenced by the signature of the Chairman/Vice-Chairman of the Osceola Board of County Commissioners.

B. It is understood and agreed by the parties that the COUNTY specifically appoints the County Attorney for Osceola County to execute, on its behalf, all documents necessary to complete this transaction, including but not limited to, any further documentation as referenced hereinafter in Section XVI.

C. CLP understands that it is entitled to seek the advise of an attorney and/or other relevant experts, at CLP'S expense, if the COUNTY filed a lawsuit under its powers of eminent domain and having such knowledge CLP has chosen to rely on its expert engineer, at CLP'S expense, as set forth herein and hereby waive its right to an attorney.

IV. REPRESENTATION AND WARRANTIES OF CLP.

CLP represents and warrants (which warranties shall survive the closing hereunder) to the COUNTY that:

A. From and after the Effective Date, CLP shall not perform or permit any act or event that might diminish, encumber or adversely and materially affect the condition of or title to the Property or COUNTY'S rights under this Agreement.

B. CLP has not received notice from any governmental or quasi-governmental body or agency or from any person or entity with respect to any actual or threatened taking of the Property or any portion thereof for any public or quasi-public purpose by the exercise of the right of condemnation or eminent domain, nor does CLP have any actual knowledge of any such actual or threatened lawsuit by which any party claims an interest in the Property.

C. CLP is in full compliance with requirements of all governmental authorities with respect to the Property and this Agreement. CLP has not received any notices from any city, county, state or other governmental authority or other person or entity regarding violations existing on the Property.

D. COUNTY has or shall have unobstructed and direct frontage to the Property on the date of closing to a dedicated public right-of-way.

E. CLP warrants that there are no tenants, or any other occupant of the Property, having any right or claim to possession or use of the Property. Possession of the Property shall be delivered to COUNTY by CLP free of rights or claims of any tenants, occupants or parties in possession which are unknown to COUNTY or which are not disclosed by documents of record.

F. CLP warrants that to its actual knowledge there has not been and there is not now: (i) any presence of any Hazardous Substances (as hereinafter defined) on, over, under or around the Property; (ii) any present or past generation, recycling, use, reuse, sale, storage, handling, transport and/or disposal of any Hazardous Substances on, over, under or around the Property; (iii) any failure to comply with any applicable local, state or federal environmental laws; (iv) any spills, releases, discharges or disposal of Hazardous Substances that have occurred or are presently occurring on or onto the Property or any adjacent properties; or (v) any spills or disposal of Hazardous Substances that have occurred or are presently occurring off the Property as a result of any construction or operation and use of the Property. For purposes of this agreement, the term "Hazardous Substances" means and includes, without limitation, any toxic or hazardous substances or materials, petroleum or other pollutants and substances, whether or not naturally occurring, including, without limitation, asbestos, radon, and methane gas, generated, treated, stored or disposed of, or otherwise deposited in or located on or under the Property, and also includes, without limitation, the surface and subsurface waters of the Property, and any activity undertaken or hereafter undertaken on the Property which would cause: (i) the Property to become a hazardous waste treatment, storage or disposal facility within the meaning of, or otherwise bring the Property within the ambit of, the Resource Conservation and Recovery Act of 1976 ("RCRA"), 42 U.S.C. 6901, or any similar state law or local ordinance; (ii) a release or threatened release of hazardous waste from the Property within the ambit of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. 9601, or any similar state law or local ordinance or any other

environmental law; (iii) the discharge of pollutants or effluent into any water source or system, or the discharge into the air of any emissions which would require a permit under the Federal Water Pollution Control Act, 33 U.S.C. 1251, or the Clean Air Act, 42 U.S.C. 7401, or any similar state law or local ordinance; or (iv) any substances or conditions in, on or under the Property which may support a claim or cause of action under RCRA, CERCLA or any other federal, state or local environmental statute, regulation, ordinance or other environmental regulatory requirement, including the presence of any underground storage tanks or underground deposits located on the Property.

G. CLP has received no notice, and has no actual knowledge, of any existing or pending special assessments affecting the Property which may be assessed by any governmental authority, water or sewer authority, drainage district or any other special taxing district or other entity.

H. There is no litigation, investigation or proceeding pending or threatened, or any other condition which relates to or affects the Property or which would impair or otherwise adversely affect this Contract, CLP'S performance hereunder and/or the COUNTY'S intended use of the Property.

I. CLP has not entered into any other contracts, agreements or understandings, verbal or written, for the sale or transfer of any portion of the Property.

J. CLP has not made any commitments to any governmental unit or agency, utility company, authority, school board, church or other religious body, or to any other organization, group or individual, relating to the Property **other than that certain Application for Development Approval for the Center Lake Development of Regional Impact**, which would impose any obligations upon COUNTY to make any contributions of money or land or to install or maintain any improvements, except as may be set forth in the Commitment.

K. All roads abutting the fee simple Property are dedicated public roads and the deed to be delivered to COUNTY at Closing hereunder is the only instrument necessary to convey to COUNTY: (i) full access to and right to

freely use such roads; and (ii) all rights appurtenant to the Property in such roads.

L. The Property has not been registered or certified as "historic" by any local, state or federal governmental entity or historic commission.

M. There are no representations, statements or warranties made by CLP, included in this Contract or in any exhibit attached hereto, which contain any untrue statements or omissions of a material fact which are necessary to make a statement of fact set forth herein not misleading.

N. Neither the execution and delivery of this Contract, compliance with the terms and conditions of this Contract, nor consummation of the sale, by CLP, constitute or will constitute a violation or breach of any agreement or other instrument to which CLP is a party, to which CLP is subject or by which CLP is bound. The statements and representations of CLP set forth in this Contract shall be true and reaffirmed in writing at the Closing and shall survive the Closing.

O. CLP warrants that there are no facts known to the CLP which materially affect the value of the Property, which are not readily observable by the COUNTY or which have not been disclosed to the COUNTY.

P. If, after the Effective Date, any event occurs or condition exists of which CLP has knowledge or about which CLP receives information which renders any of the representations contained herein untrue or misleading, CLP shall promptly notify COUNTY in writing and COUNTY shall thereafter have the option to terminate this Agreement prior to closing. In such an event, this Agreement shall be deemed null and void and COUNTY and CLP shall be relieved from all liabilities and responsibilities hereunder except as specifically provided otherwise herein.

Each representation and warranty herein is made to the actual knowledge of CLP'S current executives and managers who have responsibility for the Property.

V. INVESTIGATIONS AND INSPECTIONS OF PROPERTY.

A. COUNTY and its architects, engineers and/or other agents shall have a period of Forty-five (45) days following the execution of this Agreement by the COUNTY (hereinafter referred to as the "**Inspection Period**") within which to undertake such physical inspections and other investigations of and concerning the Property as may be necessary in order to evaluate the physical characteristics of the Property, including those matters disclosed by any survey, as well as such other matters as shall be deemed by COUNTY to be necessary in order for COUNTY to evaluate the property and determine the feasibility of the COUNTY'S purchase of same. For such purpose, CLP hereby grants to COUNTY and its agents or assigns full right of entry upon the Property and any part thereof during the Inspection Period for the purpose of undertaking such inspections and investigations provided, however, that, to the extent permitted by law, the COUNTY shall be responsible for any loss, damage, claim or action relating to COUNTY'S access to the Property during the Inspection Period.

B. CLP shall provide to COUNTY, at no cost to COUNTY, copies of all reports and analyses that CLP may have obtained, or been provided, at any time and that are in CLP'S current possession regarding the Property prior to the closing of this transaction. COUNTY acknowledges that it will return same to CLP in the event that the transaction contemplated by this Agreement does not close or the Agreement is terminated, and this obligation shall survive any such termination of this Agreement. CLP does not warrant the accuracy or completeness of any such reports and analyses and, in the event that COUNTY wishes to rely upon the same, then COUNTY shall seek reliance letters from the preparers thereof.

VI. SURVEY.

COUNTY may have the Property surveyed at its expense during the Inspection Period. If the survey obtained by COUNTY discloses any encroachments or other adverse matters, which are unacceptable to COUNTY in its sole discretion, COUNTY shall be entitled to terminate this Contract by delivering written notice thereof to CLP prior to the expiration of the Inspection Period, whereupon this Contract shall terminate as provided for herein. In the event the COUNTY elects to terminate this Agreement as provided for herein or in the event that the surveys

disclose any matters that should properly be reflected in the instruments attached in the exhibits hereto, the COUNTY agrees that it shall deliver to CLP, within a reasonable time following its receipt thereof, copies of any such surveys of the Property. This obligation shall survive the closing or any earlier termination of this Agreement.

VII. UNACCEPTABILITY OF INSPECTIONS.

In the event that the results of the inspections, investigations, reviews and/or feasibility studies are, in the COUNTY'S sole opinion and within the COUNTY'S sole discretion, unacceptable to COUNTY for any reason whatsoever, and COUNTY gives CLP written notice of that fact on or before the expiration of the Inspection Period provided for herein, then at COUNTY'S option and upon COUNTY'S request, COUNTY may terminate the Agreement. If the Agreement is terminated by COUNTY, it shall be rendered, null and void, and be of no further force and effect and all parties hereof shall thereupon be relieved and absolved of any other further liabilities or obligations whatsoever to each other hereunder, except with respect to the liabilities or obligations hereunder which are expressly stated to survive the termination of this Contract. In the event COUNTY does not terminate this contract during the Inspection Period, COUNTY shall be deemed to have agreed to accept the Property subject to any matters disclosed by the investigations and/or inspections of the Property obtained by COUNTY.

VIII. ASSESSMENTS AND PRORATIONS.

A. Real property taxes for the year of Closing shall be prorated through the day before the Closing Date and all real property taxes for prior years shall be paid by CLP. Real property taxes shall be prorated based on the current year's tax with due allowance made for maximum allowable discounts.

B. Special assessment liens or record, if any, to the extent then currently due and payable shall be prorated as of the day before the Closing Date.

IX. OCCUPANCY.

A. CLP shall deliver occupancy of the Property to COUNTY at the time of closing.

B. CLP shall have, prior to the expiration of the Inspection Period, furnished the COUNTY with copies of all written leases and a CLP'S affidavit specifying the nature and duration of each tenant's occupancy, rental rates, advanced rent and security deposits paid by tenant for any and all tenants which occupy the Property. The COUNTY may thereafter contact any such tenants to confirm the information provided by CLP. At closing, CLP shall deliver and assign all original leases to COUNTY for any and all tenants which occupy the Property and any security deposits or advanced rent shall be deducted from the CLP'S proceeds, if any at closing.

X. TYPEWRITTEN OR HANDWRITTEN PROVISIONS.

Typewritten or handwritten provisions inserted herein or attached hereto as Addenda, and initialed by all parties, shall control all printed provisions in conflict therewith.

XI. DISCLOSURE.

CLP shall comply with all requirements of Florida Statutes, section 286.23, provided that CLP is a person or entity holding the subject real property in a representative capacity as set forth therein, unless otherwise exempted hereby. CLP hereby waives its right to receive notice by registered mail as set forth in Florida Statutes, section 286.23, and accepts this provision as the COUNTY'S notice requirement, acknowledging that its disclosure must be made under oath, subject to the penalties described by perjury.

XII. WAIVER OF CONFIDENTIALITY.

The parties to this Agreement hereby waive and forego the procedures of Florida Statutes, section 125.355 and, by doing so, also waive the confidentiality of the documents set forth in said statute. This Agreement does not constitute an "option contract" within the meaning of said statute.

XIII. ENTIRE AGREEMENT.

This Agreement, including referenced exhibits and attachments hereto, constitutes the entire Agreement between the parties and shall supersede, replace and nullify any and all prior Agreements or understandings, written or oral, relating to the

matters set forth herein, and any such prior Agreements or understandings shall have no force or effect whatsoever on this Agreement.

XIV. DEFAULT AND REMEDIES.

A. Notwithstanding any provision contained in this Agreement to the contrary, neither party shall be entitled to declare the other party in default unless they have first given the other party ten (10) days written notice of such default and the other party has failed to cure such default within said ten (10) day period.

B. If for any reason, other than failure of CLP to make CLP'S title marketable after diligent effort, CLP fails, neglects or refuses to perform this Contract, the COUNTY may seek specific performance.

XV. NOTICES.

Whenever in this Agreement it shall be required or permitted that notice be given or served by either party hereto on the other, such notice shall be in writing and shall be deemed served when either delivered in person to the following designated agents for that purpose, sent by facsimile, nationally recognized overnight carrier, or deposited in the United States Mail overnight delivery, or by certified or registered mail, postage prepaid, return receipt requested, addressed to the other party as follows:

If to CLP: Center Lake Properties, LLLP
Attn: R. L. Gonzalez
102 West Pineloch Avenue Suite 10
Orlando, Florida 32806

or such other addresses as CLP may hereinafter designate by written notice to COUNTY. Any notice to be served on COUNTY shall be addressed as follows:

If to COUNTY: Osceola County
Attention: County Manager
1 Courthouse Square, Suite 4600
Kissimmee, Florida 34741

copy to: Osceola County Attorney's Office
1 Courthouse Square, Suite 4200
Kissimmee, Florida 34741

XVI. FURTHER DOCUMENTATION.

The parties agree that, at any time, following a request therefor by the other party, each shall execute and deliver to the other party any such further documents and instruments, in form and substance reasonably necessary, to confirm and/or effectuate the obligations of either party hereunder and the consummation of the transactions contemplated hereby.

XVII. MISCELLANEOUS.

A. If all or any portion of the provisions of this Agreement shall be declared invalid by laws applicable thereto and if the intent of this Agreement is not thereby precluded, then such invalid portion shall be ineffective and unenforceable without invalidating the remaining provisions hereof.

B. This Agreement shall bind and inure to the benefit and burden of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors and assigns.

C. The parties hereto stipulate and agree that the venue of any litigation arising hereunder shall be in the Florida Circuit Court for Osceola County.

D. The parties hereby waive their right to trial by jury in any action, proceeding or claim, arising out of this Agreement.

E. The parties agree that this Agreement shall not be recorded, and any recording hereof shall be null and void and without affect whatsoever.

XVIII. RADON GAS.

Pursuant to the provisions of Section 404.056(5), Florida Statutes, CLP hereby notifies COUNTY as follows with respect to the Property: "Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient

quantities, may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines have been found in buildings in Florida. Additional information regarding radon and radon testing may be obtained from your county public health unit."

XIX. OFFER AND ACCEPTANCE.

In the event this Agreement is not executed by COUNTY and delivered to CLP or the fact of execution by COUNTY communicated in writing to CLP on or before the 30th day following the date of execution of this Agreement by CLP, then this Agreement shall be null and void and of no further force and effect.

XX. JOINT AUTHORSHIP.

This Agreement shall be construed as resulting from joint negotiation and authorship. No part of this Agreement shall be construed as the product of any one of the parties hereto.

(*Signatures on following page*)

IN WITNESS WHEREOF, the parties have caused these presents to be executed in their respective names on the _____ day of _____, 2010.

CLP:
Center Lake Properties, LLLP

_____
James P. Caruso

STATE OF FLORIDA
COUNTY OF OSCEOLA

The foregoing instrument was executed before me this ____ day of_____, 2010, by James P. Caruso, as Registered Agent of Center Lake Properties, LLLP, a Florida Limited Partnership, who is personally known to me OR has produced _____ as identification.

(stamp)

_____
NOTARY PUBLIC, State of Florida

COUNTY:
BOARD OF COUNTY COMMISSIONERS
OSCEOLA COUNTY, FLORIDA

_____
Chairman/Vice-Chairman

ATTEST:

_____
Clerk/Deputy Clerk of the Board

COMPOSITE EXHIBIT "A"

(LEGAL DESCRIPTION OF PARCEL 120)

This is the proposed right-of-way for the easterly extension of Rummell Road to the east of Narcoossee Road. (Sketch and Description to be inserted here)

COMPOSITE EXHIBIT "B"

(LEGAL DESCRIPTION OF PARCEL 810)

This is the 50 foot wide ingress/egress, drainage and utility easement that surrounds the Yates 1.26 acre parcel. (Sketch and description to be inserted here)

COMPOSITE EXHIBIT "C"

(LEGAL DESCRIPTION OF PARCEL 811)

This is the proposed wet detention pond located east of the proposed mixed use property, immediately south of Ralph Miller Road (Sketch and description to be inserted here)

COMPOSITE EXHIBIT "D"

(LEGAL DESCRIPTION OF PARCEL 812)

This is the proposed dry-detention pond located adjacent to Narcoossee Road and Harkley Runyan Road that will outfall into Narcoossee Road (Sketch and description inserted here)

COMPOSITE EXHIBIT "E"

(LEGAL DESCRIPTION OF PARCEL 813)

This is a 5 foot wide slope easement that is required on the north side of the easterly extension of Rummell Road to grade from the back of sidewalk to natural ground.
(Sketch and description inserted here)

COMPOSITE EXHIBIT "F"

(LEGAL DESCRIPTION OF PARCEL 814)

This is a 5 foot wide slope easement that is required on the south side of the easterly extension of Rummell Road to grade from the back of sidewalk to natural ground.
(Sketch and description inserted here)

COMPOSITE EXHIBIT "G"

(LEGAL DESCRIPTION OF PARCEL 815)

This is a 15 foot wide drainage easement for a drainage culvert that would run from the easterly extension of Rummell Road to the proposed dry detention pond (Parcel 812) across the 1.26 Yates Parcel. (Sketch and description inserted here)

EXHIBIT "H"

INGRESS/EGRESS, DRAINAGE AND UTILITY EASEMENT

Project: **Narcoossee Road Phase 2_**

Parcel: **810**

Sherry Hopkins to provide this easement.

EXHIBIT "I"

PERMANENT DRAINAGE AND MAINTENANCE EASEMENT

Project: **Narcoossee Road Phase 2**
Parcels: **811 and 812**

THIS EASEMENT, made by and between Center Lake Properties, LLLP, 102 West Pineloch Avenue Suite 10, Orlando, Florida 32806, hereinafter singly referred to as "Grantor" and Osceola County, 1 Courthouse Square, Kissimmee, Florida, 34741, hereinafter referred to as "County", as evidenced by the signatures affixed below.

WITNESSETH:

WHEREAS, the Grantor is the owner of that certain property more particularly described in **Exhibit "A"**, attached hereto, made a part hereof by this reference and hereinafter referred to as the "**Property**"; and

WHEREAS, the Grantor has determined that it is in its best interest to grant a permanent Easement, to the County, rather than sell, in fee simple, that portion of its Property to the County which is needed for drainage and maintenance purposes; and

WHEREAS, the Grantor has agreed to grant the County an easement over, across and beneath the Property for the purpose of maintaining a joint use drainage system, hereinafter referred to as the "drainage system", which will accommodate certain drainage needs of the property owned by Grantor, Rummell Road, and a certain ingress/egress, drainage and Utility Easement, as set forth in the Grantor's South Florida Water Management District Permit.

NOW, THEREFORE, in consideration of the sum of Ten Dollars and no/100 ($10.00) the mutual covenants contained herein, and other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged:

1. Grantor does hereby dedicate to the County a permanent easement for the purpose of drainage, repair and maintenance of the drainage system and the right of ingress and egress over, across and beneath the real property described in **Exhibit "A"** attached hereto.
2. County does hereby grant authorization to the Grantor to act as its agent in the South Florida Water Management District (SFWMD) permitting

process related to the drainage system, and will execute any and all documents necessary for the Grantor to utilize the SFWMD permit to accomplish the objectives set forth in this Easement. The County hereby appoints the County Manager, or a designee thereof, to execute any such documents on its behalf.

3. Grantor does hereby covenant to the County that it is in lawful possession of the Property, that it has good and lawful right to convey same, or any part thereof, and that the Property is free of all encumbrances and that to the best of Grantor's knowledge there are no hazardous substances contaminating the Property or that area immediately surrounding the Property which is owned and/or controlled by the Grantor.

4. County shall construct the drainage system. Grantor shall maintain the drainage system upon completion of construction by the County. Grantor shall further maintain the surrounding grass area and other surrounding plant life and vegetation so as to ensure a professional appearance at all times. If Grantor fails to maintain the drainage system or the surrounding grass areas and vegetation, the County will provide the Grantor with thirty (30) days, from the date that notice is received by the Grantor, to correct the problem. In the event the problem is not corrected, the County may cause such maintenance to be performed as it deems appropriate. If the County is forced to maintain the drainage structure or the surrounding grass area and/or vegetation, the Grantor shall reimburse the County for all sums paid to maintain same within thirty (30) days of delivery of an invoice for such costs. All amounts not paid within said thirty (30) day period shall accrue interest at the rate set forth in Florida's Prompt Payment Act and shall be recorded in the public records of Osceola County as a lien against the property. In the event of an emergency with respect to the drainage system, the County shall only be required to give the Grantor forty-eight (48) hours notice.

5. In the event Grantor, or any of their contractors, guests, tenants, invitees, agents or employees, cause any damage to the drainage system, Grantor shall be responsible for repairing the damage at its sole cost and expense. The repair of damages shall be done as soon as reasonably possible and in no event more than thirty (30) days after notice of the damage. If the damage is not corrected within said thirty (30) day period, the County may make such repairs that are reasonably necessary to restore the drainage

system to its proper condition. In the event the County is forced to repair any such damage, the Grantor shall reimburse the County for all sums paid to repair the damage within thirty (30) days of delivery of an invoice for such costs. All amounts not paid within said thirty (30) day period shall accrue interest at the rate set forth in Florida's Prompt Payment Act and shall be recorded in the public records of Osceola County as a lien against the property. In the event of an emergency with respect to the drainage system, the County shall only be required to give the Grantor forty-eight (48) hours notice.

6. Grantor acknowledges that the drainage associated with this project is of great importance to the health, safety, and welfare of the public and, hereby releases the County from any and all claims, liabilities, or demands arising out of or related to the exercise by the County of its rights under this easement unless such claims, liabilities or demands result from the County's breach of any provision under this easement or are due to County's negligence. The Grantor further agrees to indemnify and hold the County, its officers, agents and employees harmless from any and all claims, damages, demands, or the like, which arise out of the Grantor's activities within the easement area, except for the matters arising from the sole negligence of the County, its officers, agents, and/or employees. Nothing contained herein is intended or shall be construed as a waiver, by the County, of its right to sovereign immunity.

7. The Grantor will not, in any way, impede the County's access to and use of the Property; however, Grantor is authorized to make modifications to the drainage system, constructed by the County, in order for the system to accept drainage from the Grantor's parent parcel, provided that Grantor obtains all of the necessary permits and that at all times, the system continues to accommodate at least the same amount of drainage that the original system, constructed by the County, accommodated prior to the modifications made by the Grantor.

8. The County shall have the right to inspect the easement area, at all times, to ensure that the Grantor is acting in compliance with the requirements hereof, as well as, have the right to assign its access rights and associated duties to a third party, without further approval of the Grantor, in order to effectively exercise all rights and obligations contained herein.

9. Grantor shall have the right, without approval from the County, to

sell/convey the detention pond located in the Easement Area to a third party.

10. The terms, covenants and conditions set forth in this easement, shall run with the land described herein and shall benefit and bind the parties hereto, and any heir, successor owner or assignee, of all or any portion of the subject real property.

TO HAVE AND TO HOLD the same unto the County, and its successors and assigns, forever.

THIS INSTRUMENT IS INTENDED TO MAKE A DEDICATION TO THE PUBLIC.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the _____day of _____, 200__.

GRANTOR:
CENTER LAKE PROPERTIES, LLLP

_____
James P. Caruso

STATE OF FLORIDA
COUNTY OF OSCEOLA

The foregoing instrument was executed before me this ____ day of_____, 2010, by James P. Caruso, as Registered Agent of Center Lake Properties, LLLP, a Florida Limited Partnership, who is personally known to me OR has produced _____ as identification.

(stamp)

_____
NOTARY PUBLIC, State of Florida

THIS EASEMENT is hereby accepted for public use by the Osceola County Board of County Commissioners at its regular meeting dated the _____ day of , 2010.

BOARD OF COUNTY COMMISSIONERS

OF OSCEOLA COUNTY, FLORIDA

By: _____

Chairman/Vice-Chairman

ATTEST:

_____

Clerk/Deputy Clerk of the Board

Exhibit A
(Legal Description for Easement Parcel 811 and 812)

EXHIBIT "J"

PERMANENT SLOPE AND MAINTENANCE EASEMENT

Project: **Narcoossee Road Phase 2**

Parcels: **813 and 814**

Sherry Hopkins to provide this easement.

EXHIBIT "K"

15 FOOT WIDE PERMANENT DRAINAGE AND MAINTENANCE EASEMENT

Project: **Narcoossee Road Phase 2**

Parcel: **815**

Sherry Hopkins to provide this easement.

EXHIBIT "L"
(Construction Plans)

Construction plans for the easterly extension of Rummell Road and the associated drainage improvements by Osceola Engineering, Inc.

EXHIBIT "M"
(Construction Plans)

Construction plans for the widening of Rummell Road west of Narcoossee Road and turn lanes within Narcoossee Road to support right-in/right-out driveway to 50' wide ingress/egress, drainage and utility easement and easterly extension of Rummell Road by Osceola Engineering, Inc.

Exhibit 5

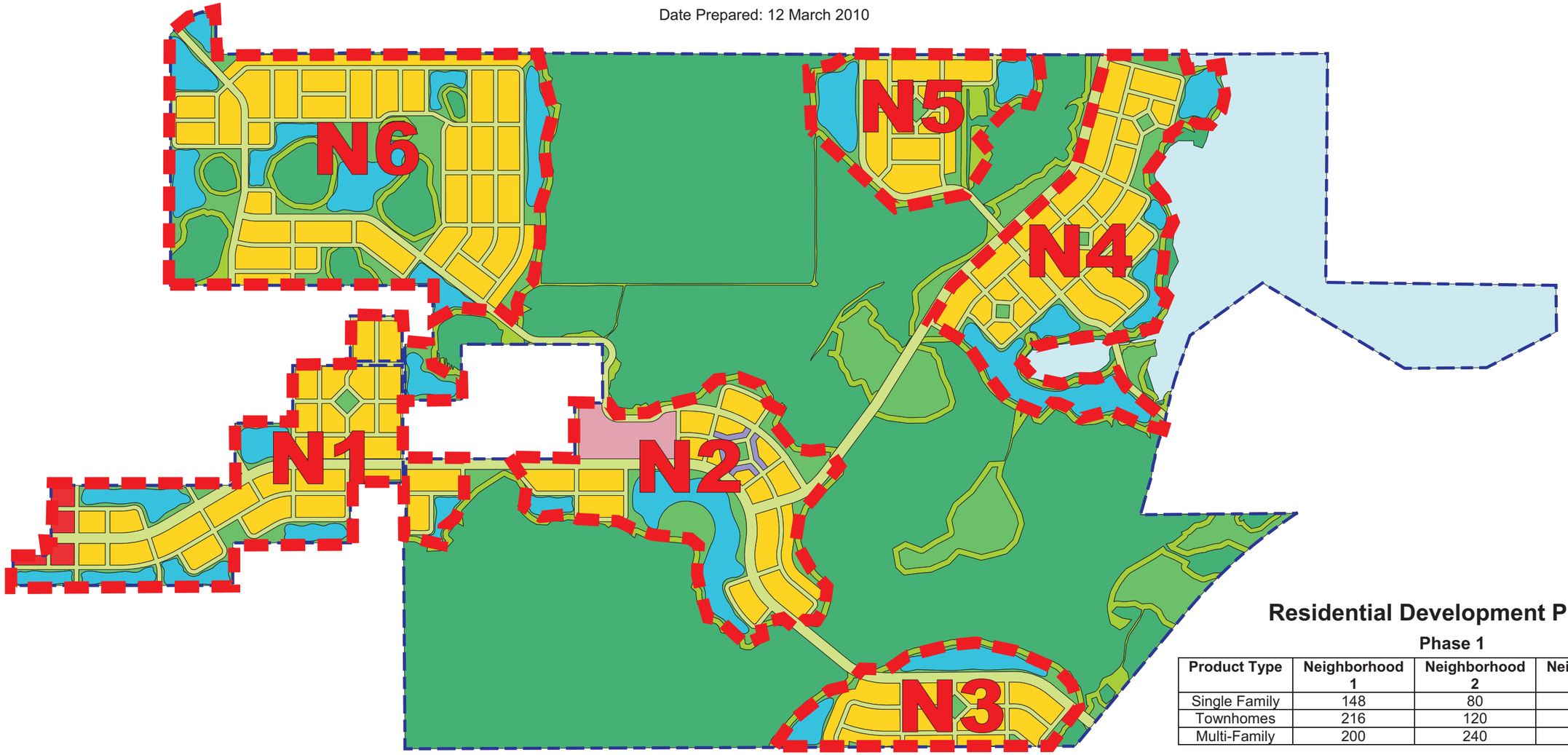
Residential Density Program Exhibit

Center Lake DRI

Sections 27, 28, 29, 33 and 34, Township 25 South, Range 31 East
Osceola County, Florida

Residential Density Program Exhibit

Date Prepared: 12 March 2010



Net Residential Density

Neighborhood	Net Residential Area	Single Family Detached	Single Family Attached Townhomes	Multi-Family	Total Residential Units	Net Residential Density
1	65.2 acres	148	216	200	564	8.65 du/ac
2	35.7 acres	80	120	240	440	12.32 du/ac
3	31.6 acres	72	106	0	182	5.76 du/ac
4	61.7 acres	232	311	332	875	14.18 du/ac
5	28.0 acres	110	120	200	420	15.0 du/ac
6	101.9 acres	386	300	200	886	8.69 du/ac
Total	324.1 acres	1028	1173	1172	3373	10.41 du/ac

Note:

This Exhibit has been prepared to evaluate a specific distribution of residential product type so that the proposed density program can be evaluated for compliance with the Osceola County Comprehensive Plan FLUE Policies governing the Mixed Use Districts. The actual development program and product type distribution may vary pending review and approval from Osceola County.

Residential Development Program

Phase 1

Product Type	Neighborhood 1	Neighborhood 2	Neighborhood 3	Total
Single Family	148	80	72	300
Townhomes	216	120	106	442
Multi-Family	200	240	0	440

Phase 2

Product Type	Neighborhood 4	Neighborhood 5	Neighborhood 6	Total
Single Family	232	110	386	728
Townhomes	311	120	300	731
Multi-Family	332	200	200	732

(Approximate)
0 600' 1200'
N

Rj WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

Exhibit 6

City of St. Cloud
Service Availability Letter

Celebrating Small Town Life

PUBLIC SERVICES

Todd Swingle, P.E.
Public Services
Administrator

Veronica Miller
Business Administration
Manager

Chris Fasnacht
Deputy Director -
Operations

Mark S. Luthie, P.E.
City Engineer - Civil

Kevin Felblinger, P.E. CFM
Assistant City Engineer -
Civil

Kelly Merritt, P.E.
Utilities Engineer

Corey Clough
Engineering Assistant

Neil Newman
Engineering Assistant

Marty Hobbs
Impact Fee Coordinator

Thomas Bulone
CMMS/GIS Analyst

February 17, 2010

Anthony Call
Vanasse Hangen Brustlin, Inc.
Landmark Center Two
225 E. Robinson Street, Suite 300
Orlando, FL 32801

RE: Center Lake DRI, Sections 27, 28, 29, 32, 33, 34 and 35 of Township 25S, Range 31E, 3,373 mixed residential units, mixed use community center, elementary school, community parks. Commencement 2011 completion 2020, Request for Water & Sewer Availability dated 1/13/10

Dear Mr. Call:

The City of St. Cloud has reviewed your letter request regarding potable water, wastewater, and reclaimed water for the Center Lake DRI. The above referenced property falls within the City of St. Cloud Chapter 180 Utility Service Area and the City intends to service potable water, sewer, and reclaim utilities in this area. The questions that you have requested answers to are stated below in bold with the answer immediately following.

1. **The projected excess capacities of the water supply, and wastewater facilities to which connection will be made at present and for each phase through completion of the project.**

The City of St. Cloud has existing capacity available to serve the project per the attached demand tables. The commitments change on a daily basis but the City is committed to serving the project and working with the Developer for any necessary improvements. The City has been issued a WUP through the SFWMD permitting groundwater uses through 2013 as well as specifying future alternative water supply projects to meet post 2013 demand. The City has also addressed future water supply in conjunction with the County who has planning jurisdiction over this project in the County's 10 year Water Supply Plan adopted 8/17/2009. Specific demands will be determined at the time a concurrency application is submitted in conjunction with development plans. A site may be required to provide for storage and retreatment of reclaim water. The project will also be required to optimize their stormwater system to enable stormwater reuse to be managed and controlled by the City.

Per the Center Lake request for additional information it states the project intends to incorporate on-site irrigation wells for the first phase of construction. The City is opposed to the addition of any Floridan aquifer wells for irrigation associated with this property. All improvements shall be designed to include non-potable/reclaimed water distribution systems for irrigation. These systems shall utilize any available stormwater provided by the City as part of our stormwater harvesting efforts discussed

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herein, and reclaimed water. The City will consider temporary use of potable water to supply these systems within the constraints of our water use permit until reclaimed water infrastructure and connectivity is installed in accordance with our 5 year CIP and required developer reclaimed water extensions. Following completion of reclaimed connectivity, all irrigation shall be supplied using stormwater, reclaimed water, or other alternative water supply sources developed by the City.

2. Any other commitments that have been made for this excess capacity:

Potable Water Capacity				
	2010	**2011**	**2012**	**2013**
Permitted Capacity Average Day (Largest Well Out of Service)	9,700,000	9,700,000	9,700,000	9,700,000
Permitted Capacity Max Day (Plant Capacity)	16,490,000	16,490,000	16,490,000	16,490,000
Current Average Day - Includes Prior Yr Encumbrances for Out Years	4,960,828	5,397,415	5,921,320	6,421,907
Current Max Day - Includes Prior Yr Encumbrances for Out Years*	7,527,000	12,111,167	12,897,024	13,647,904
Encumbrance By Year	436,587	523,905	500,587	0
Calculated Reserve Capacity - Average Day	4,302,585	3,778,680	3,278,093	3,278,093
Calculated Reserve Capacity - Max Day*	8,308,119	3,592,976	2,842,096	2,842,096

Sanitary Sewer Capacity				
	2010	**2011**	**2012**	**2013**
SSWWTF Permitted Capacity	6,000,000	6,000,000	6,000,000	6,000,000
SSWWTF Current 3 Mo Avg Flow - Includes Prior Yr Encumbrances for Out Years*	2,570,000	2,974,283	3,459,423	3,921,244
SSWWTF Current 12 Mo Avg Flow - Includes Prior Yr Encumbrances for Out Years*	2,620,000	3,024,283	3,509,423	3,971,244
Encumbrance By Year	404,283	485,140	461,821	0
Calculated Reserve Capacity - 3 mo Basis	3,025,717	2,540,577	2,078,756	2,078,756
Calculated Reserve Capacity - 12 mo Basis	2,975,717	2,490,577	2,028,756	2,028,756

3. A statement of the agency or firm's ability to provide services at all times during and after development.

See response to Item #1 for details regarding plans to serve. The owner/developer has not yet applied for a certificate of capacity; however, upon application and compliance

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with all applicable codes, a certificate may be issued at the discretion of the City Council of the City of St. Cloud, Florida. Once obtained, the City will provide services at all times during and after development and will be responsible for the operation and maintenance of the internal systems.

The City of St Cloud looks forward to working with you on this project. If you have any questions, please do not hesitate to call.

Sincerely,

Todd P. Swingle, PE
Public Services Administrator

cc: Fred Milch, AICP, East Central Florida Regional Planning Council
Tuesdai Brunsonbyrd-Bowden, East Central Florida Regional Planning Council

Exhibit 7

Revised Map I-2
Post Development Drainage Plan

Center Lake DRI

Sections 27-29, 33, 34, Township 25 South, Range 31 East
Osceola County, Florida

Map I - 2
Post Development Drainage

Basin and Ponds

Basins	Basin Area	Pond Area	Pond/Basin
1	68.63	11.30ac	0.16
2	157.63	22.71ac	0.14
3	283.34	33.52ac	0.12
4	21.16	-0-	-0-
5	152.21	29.98ac	0.20
6	64.74	12.85ac	0.20
7	14.67	-0-	-0-
8	13.82	3.58ac	0.26
9	127.46	20.81ac	0.16

Pond Breakdown

Basins	Ponds	Pond Area
1	1-A	7.56ac
1	1-B	3.74ac
2	2-A	18.42ac
2	2-B	2.20ac
2	2-C	2.09ac
3	3-A	1.71ac
3	3-B	4.45ac
3	3-C	4.57ac
3	3-D	3.99ac
3	3-E	8.47ac

Basins	Ponds	Pond Area
3	3-F	1.94ac
3	3-G	6.25ac
3	3-H	3.85ac
4	-0-	-0-
5	5-A	12.42ac
5	5-B	4.70ac
5	5-C	7.12ac
5	5-D	4.48ac
5	5-E	1.26ac
6	6-A	8.40ac

Basins	Ponds	Pond Area
6	6-B	4.45ac
7	-0-	-0-
8	8-A	3.58ac
9	9-A	2.81ac
9	9-B	4.38ac
9	9-C	5.50ac
9	9-D	3.38ac
9	9-E	2.61ac
9	9-F	2.13ac

Note: All Drainage information has been provided by VHB

Pond 3-A
Pond 3-B
Pond 3-C
Pond 3-D
Pond 3-E
Pond 3-F
Pond 3-G
Pond 3-H
Basin 3
Basin 6
Pond 6-A
Pond 6-B
Pond 5-D
Pond 5-E
Pond 5-B
Pond 5-C
Pond 5-A
Basin 5
Basin 4
65' SDL (Safe Development Line)
Lake Center
Center Lake Out Fall
Twelve Oaks Road
Basin 8
Pond 8-A
Disston Drive
Narcoossee Rd Out Fall
Hackney Road
Narcoossee Rd
Pond 9-B
Proposed Vacated R/W
Pond 9-C
Basin 9
Pond 9-A
Pond 9-F
Pond 9-E
Pond 9-D
Rummel Rd
Basin 2
Pond 2-C
Pond 2-B
Pond 2-A
Eagle Nest 660' F
Pond 1-A
Pond 1-B
Basin 1
Basin 7
Nova Rd
Potential Connection
Oak Shore Drive
Pine Grove Road
Coon Lake

Legend

Basin Divides
Flow Direction

Vanasse Hangen Brustlin, Inc.
Transportation Land Development Environmental Services
133 West Central Boulevard, Suite 300
Orlando, Florida 32801-2476
407 839 4090
FAX 407 839 4068

(Approximate)
0 1400'
N

WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

Exhibit 8

Revised Habitat Management Plan

CENTER LAKE
DEVELOPMENT OF REGIONAL IMPACT

HABITAT MANAGEMENT PLAN

Prepared by:
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January 2010

CENTER LAKE
DEVELOPMENT OF REGIONAL IMPACT

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EXECUTIVE SUMMARY

The Center Lake Development of Regional Impact (DRI) is a proposed mixed-use residential project situated on a 2,012.50-acre property generally located east of Narcoossee Road (SR 15), west of Nova Road (CR 532) and south of Jones Road. The property lies within Sections 27, 28, 29, 32, 33, 34 and 35 of Township 25 South, Range 31 East, in Osceola County, Florida (**Figure 1**). The property is surrounded by varying densities of residential uses, agricultural uses and commercial uses along the Narcoossee corridor.

Lake Center is located along the northeastern boundary of the Center Lake DRI project area. The extensive on-site wetlands are associated with Lake Center, which is part of the Alligator Chain of Lakes. This regional system is part of a "Priority Ecological Greenway" identified by the Florida Greenways and Trails Council that connects to the northeast with the headwaters of the Econlockhatchee River. Preservation and management habitat within this significant area is important for wildlife conservation and for water quality. The Center Lake DRI lies east of East Lake Tohopekaliga. Given the project's close proximity to this lake, this HMP was developed with consideration of the *Summary of Findings and Development Order Recommendations From the Lake Tohopekaliga Environmental Working Group* (Glatting 2006).

In preparation for the DRI review process, Modica & Associates, Inc. conducted numerous surveys throughout the Center Lake DRI property to document the presence of listed plant and wildlife species. Several species-specific surveys were conducted for protected wildlife species. Additionally, the jurisdictional wetland boundaries were established and reviewed by the South Florida Water Management District (SFWMD) and the U.S. Army Corps of Engineers (USACOE). The Center Lake DRI Concept Plan has been designed to avoid impacts to significant and unique natural resources, to protect and manage certain listed species, and to incorporate these unique characteristics into the master plan as amenities for the enjoyment and benefit of the community.

The Center Lake DRI is planned as a mixed-use community. The site plan has been designed with residential villages to be built on "islands" of development primarily in existing impacted areas of the property and surrounded by continuous, expansive conservation areas. Development of the Center Lake DRI Habitat Management Plan (HMP) is necessary to provide protection measures, monitoring guidelines and management techniques to preserve the ecological integrity and viability of the remaining on-site preservation areas and listed species of wildlife that inhabit, or have potential to inhabit these areas. The overall goal of the Center Lake HMP is to create a management

tool to outline goals and objectives that will provide and maintain perpetual upland and wetland habitat for optimal use by wildlife.

The Center Lake DRI project site contains approximately 1,046.69± acres of wetlands, consisting of 1,041.78± acres of wetlands and 4.91± acres of surface waters. The 1,041.78± acres of wetlands are inclusive of approximately 121.40± acres of Lake Center that fall below the 64.0' N.G.V.D. sovereign submerged land line. The site development plan proposes conservation of approximately 1,036.29± acres of wetlands and surface waters, 113.96± acres of upland buffers, and 138.90± acres of lands associated with Parks, Recreation and Open Space (**Figure 2**). The undisturbed wetlands, upland buffers and many of the habitats associated with the Open Space will be managed for listed wildlife species as outlined in this HMP. This HMP has been developed to serve as the guidance for preservation, maintenance and management of the lands slated for conservation within the Center Lake DRI and for the wildlife located within these lands. All un-impacted wetlands, surface waters, and upland buffers will be placed under conservation easement and managed for use by listed wildlife species, as outlined in this Habitat Management Plan (HMP).

The Center Lake DRI HMP is a binding management tool and subsequently will be incorporated into the Declaration of Covenants & Deed Restrictions of the Community Development District (CDD), the Master Property Owner's Association (MPOA) or the Homeowner's Association (HOA), whichever is developed for the property.

The Center Lake DRI HMP provides management goals and objectives for the conservation lands and provides species-specific conservation guidelines for the American bald eagle, Florida sandhill crane, little blue heron, Sherman's fox squirrel, gopher tortoise and its commensal species, American alligator and additional non-listed wildlife species. Specific conservation actions included within the HMP include mechanical and chemical management, monitoring & maintenance of conservation areas, educational outreach, conservation signage, and speed deterrent devices located along wetland road crossings.

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1.0 INTRODUCTION

The 2,012.50-acre Center Lake Development of Regional Impact (DRI) is generally located east of Narcoossee Road (SR 15), west of Nova Road (CR 532) and south of Jones Road (**Figure 1**). The Center Lake DRI project site is a phased, master planned, mixed use community containing varying densities of residential development as well as commercial and institutional uses (**Figure 2**). The proposed community will promote long-term sustainable development by providing a master plan that considers interconnectivity, walkability and environmental preservation. The gross acreage of the project site reflects lands that lie below the 65.0 mean sea level (msl) elevation, which is designated as the Safe Development Line in accordance with Policy 1.2.7 within the Conservation Element of Osceola County's Comprehensive Plan. No development is proposed for lands that lie below this Safe Development Line; however, these lands may be used for passive recreation purposes associated with the Center Lake development.

The Center Lake DRI property contains a variety of land uses and vegetative communities including a major wetland slough, scattered herbaceous marshes, open pastureland, and limited, small areas of pine mesic oak and hardwood-conifer forests. Modica & Associates, Inc. conducted numerous site inspections over a period of several years to verify the pre-development land uses and to document the wildlife use of the property within the different community types. Documentation of wildlife observations were recorded during each site inspection, and several species-specific wildlife surveys were conducted throughout the Center Lake DRI property.

Several species of protected wildlife were documented within the Center Lake DRI project site during recent surveys and by historical documentation. One of the development goals of the Center Lake DRI is to preserve and manage unimpacted natural areas for optimal use by listed wildlife species. The target species for wildlife management include the Sherman's fox squirrel, gopher tortoise, American bald eagle, Florida sandhill crane, American alligator and little blue heron. Although not documented on the project site, additional target species for wildlife management include the southeastern American kestrel and wading birds. With proper management, suitable habitat within the project site may attract these species.

This Habitat Management Plan (HMP) has been developed to serve as guidance for the preservation, maintenance and management of conservation lands and open spaces within the Center Lake DRI project site and for the wildlife located within these lands. This HMP includes specific recommendations for habitat management for long-term sustainability of listed species located within the Center Lake DRI project site.

Conservation areas to remain on-site in the post-development condition include unimpacted wetlands and surface waters and undisturbed upland buffers surrounding the unimpacted wetlands. Conservation areas are depicted on the enclosed Habitat Management Plan Map (**Figure 3**). Conservation areas will be preserved and managed for wildlife use as outlined in this HMP. In addition to the conservation areas, 138.90± acres lands associated with Parks, Recreation and Open Space will remain following development.

1.1 Community Types

In its pre-development condition, the Center Lake DRI project site contains of a variety of upland and wetland land uses and community types (**Figure 4**). On-site land uses and vegetative communities have been classified in accordance with the Florida Department of Transportation's *Florida Land Use, Cover and Forms Classification System, Level III* (FLUCFCS). A detailed description of each FLUCFCS community *contained within the limits of the conservation areas* addressed herein is provided below.

1.1.1 Uplands

Using data from aerial photography, published resources and by ground-truthing, the following land uses and vegetative communities have been documented within the limits of the conservation areas. Detailed descriptions of each vegetative community and land use are outlined below.

211 - Improved Pasture

In the pre-development site condition, this cover type is dominant on the Center Lake DRI property. It consists of agricultural land managed for the purpose of sustaining cattle. Dominant vegetative species include bahia grass (*Paspalum notatum*), Bermuda grass (*Cynodon dactylon*), dog fennel (*Eupatorium capillifolium)*, flattop goldenrod (*Euthamia minor*), prickly pear (*Opuntia humifusa*), pawpaw (*Asimina* spp.), rattlebox (*Sesbania* spp.) and tropical soda apple (*Solanum capsicoides*).

In the post-development condition, the improved pasture land use generally falls within the upland buffers to the protected wetlands, and within undisturbed open spaces. Following development and the removal of cattle, it is expected that shrubs will regenerate and become more dominant within these areas. These areas are expected to transition to the Upland Shrub and Brushland (FLUCFCS 320) vegetative community designation unless managed to create other types of habitat, or maintained as pasture to provide forage for sandhill cranes.

414 – Pine Mesic Oak

In the post-development site condition, this vegetative community type typically occurs as an upland fringe habitat located between forested wetlands and pasture. This upland community type is characterized by laurel oak (*Quercus laurifolia*), live oak (*Quercus virginicus*), and slash pine (Pinus elliotii). Many areas appear to have been historically disturbed as evidenced by a dominance of invasive vegetation such as blackberry (*Rubus* sp.), muscadine vine (*Vitis* sp.), hairy indigo (*Indigofera hirsuta*), rattlebox and dog fennel in the groundcover.

In the post-development condition, a significant portion of this on-site vegetative community will remain undisturbed within the upland buffers of the preserved wetlands. This habitat community will provide cover and forage for a variety of wildlife species.

421 - Xeric Oak

In the pre-development site condition, a small area of disturbed xeric oak habitat was identified in the northeastern portion of the property. The majority of this disturbed community is included within the development plan; however, portions will remain undisturbed, within the upland buffers of the preserved wetlands. This habitat community will provide cover and forage for a variety of wildlife species. Canopy species include sand live oak (*Quercus virginiana var. geminata*), myrtle oak (*Q. myrtifolia*), laurel oak, slash pine and longleaf pine (*P. palustris*). The understory is generally comprised of dense assemblages of the aforementioned scrub oak species with a ground cover often found to support saw palmetto (*Serenoa repens*).

427 – Live Oak

In the pre-development site condition, an isolated live oak community is located in the eastern portion of the property. This upland community supports mature live oaks with a ground cover typically comprised of bahia grass, tropical soda apple, dog fennel, blackberry, and flattop goldenrod. In the post-development condition, portions of this habitat will be preserved to provide wetland buffering and continued native upland habitat support.

434 - Hardwood – Conifer Mixed

This land cover classification is located in the eastern portion of the project site. The canopy of this upland community is comprised predominately of live oak and laurel oak with scattered slash pine and longleaf pine. Less common hardwoods include black cherry (*Prunus serotina*) and persimmon (*Diospyros virginiana*). Understory and ground cover plants include but are not limited to: saw palmetto, beautyberry, bracken fern, and shiny blueberry. Vines include catbrier (*Smilax auriculata*), Virginia creeper (*Parthenocissus quinquefolia*) and muscadine grape

(*Vitis rotundifolia*). Portions of this habitat will likewise be preserved to provide wetland buffering and continued native upland habitat support.

1.1.2 Wetlands and Surface Waters

In the pre-development condition, the 2,012.50± acre Center Lake DRI project site contains 1,046.69± acres of jurisdictional wetlands and surface waters. The conceptual site plan proposes impact to 5.30± acres of wetlands and 4.60± acres of surface waters. The total net acreage of wetlands and surface waters to remain on-site in the post development condition is 1,036.29± acres, or approximately 99% of the pre-development wetland acreage; this acreage is inclusive of 121.40± acres of Lake Center. All unimpacted jurisdictional wetlands and surface water areas will be preserved and managed in accordance with this HMP. Additionally, an undisturbed upland buffer of varying width and consisting of approximately 113.96± acres will be preserved surrounding the unimpacted jurisdictional areas to protect wildlife habitat and water quality and to provide continued upland habitat support.

The following sections provide a description of each wetland vegetative community type that will remain on-site in the post-development condition.

520 – Lake

Approximately 121.40± acres of the western and southern portions of Lake Center are included within the Center Lake DRI boundary and will remain undisturbed in the post-development condition. Areas included within this community classification are characterized by open water with varying densities of emergent aquatic plants such as spatterdock *(Nuphar luteum)* and fragrant water lily (*Nymphaea odorata*) within the shallow areas.

630 – Wetland Forested Mixed

The majority of the on-site wetland acreage is forested and contains a mixed canopy of hardwood and coniferous trees. Canopy species predominantly include pond pine (*Pinus serotina*), slash pine (*Pinus elliottii*), bald cypress, red maple (*Acer rubrum*), loblolly bay (*Gordonia lasianthus*), and sweet bay magnolia (*Magnolia virginiana*). Dahoon holly (*Ilex cassine*), buttonbush (*Cephalanthus occidentalis*) and wax myrtle (*Myrica cerifera*) were the most commonly observed understory plants. The ground strata of this community was found to support Virginia chain fern (*Woodwardia virginica*), netted chain fern (*Woodwardia areolata*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), marsh fern (*Thelypteris palustris*), muscadine grape (*Vitis rotundifolia*), Virginia creeper (*Parthenocissus quinquefolia*), blackberry (*Rubus betulifolia*), red root (*Lachnanthes caroliniana)*, and lizard's tail (*Saururus cernuus*).

641 – Freshwater Marsh

Several freshwater marsh wetlands are scattered throughout the Center Lake Ranch project site. Additionally, some portions of the main wetland slough that extends through the central portion of the property consist of freshwater marsh. These herbaceous wetlands contain a mix of the following species: soft rush (*Juncus effusus*), spike rush (*Eleocharis baldwinii*), lemon bacopa (*Bacopa caroliniana*), spadeleaf (*Centella asiatica*), blue maidencane (*Amphicarpum muehlenbergianum*), buttonbush (*Cephalanthus occidentalis*), highbush blueberry (*Vaccinium* corymbosum), bushy bluestem (*Andropogon glomeratus*), pennywort (*Hydrocotyle umbellata*), beaksedge (*Rhynchospora* spp.) and rattlebox (*Sesbania* spp.), pickerelweed (*Pontederia cordata*) and duck potato (*Sagittaria* spp.). The perimeters of these wetlands contain longleaf pine (*Pinus palustris*), wax myrtle (*Myrica cerifera*) and blackberry (*Rubus* spp.).

1.2 Listed Species Occurrence

Early in the ecological assessment process, a qualitative review of the Center Lake DRI project site was conducted to determine if the Center Lake property provides suitable habitat for species of wildlife that are listed as protected by the U.S. Fish and Wildlife Service (USFWS) or the Florida Fish and Wildlife Conservation Commission (FWC), and for species of plants that are listed as protected by state, federal or local regulations. Modica & Associates, Inc. conducted various qualitative surveys throughout the Center Lake DRI property beginning in year 2005 and continuing through 2009.

Available database records were used to identify historically documented wildlife use and plant occurrence in the vicinity. To assist in documenting potential protected species throughout the property, the Florida Natural Areas Inventory (FNAI) Tracking List for Osceola County was obtained and reviewed.

1.2.1 Listed Wildlife

Listed wildlife databases accessed included the USFWS *Online Eagle Nest Locator* and the FWC *Waterbird Colony Locator* website.

Using this conceptual information, listed species of wildlife with potential for presence were identified and site inspections were conducted to determine the need and extent of formal surveys for each particular species. Species-specific quantitative surveys were conducted for the gopher tortoise in May and June 2006 and April 2009 and for sandhill cranes in 2007 and 2008. All site inspections were conducted using pedestrian and ATV transects. In addition to species-specific surveys, general wildlife surveys were conducted on numerous occasions throughout the years 2005 through 2009. The Wildlife Survey Map is provided as **Figure 5**. The following is a list of those species identified during the evaluation

as well as any direct observations of evidence of a particular species' presence (i.e. tracks, burrows, scat etc.). The species indicated in bold type are listed as protected by the USFWS and/or the FWC.

BIRDS

American crow (*Corvus brachyrhynchos*)
Bald eagle (*Haliaeetus leucocephalus*)
Barred owl (*Strix varia*)
Black vulture (*Coragyps atratus*)
Blue jay (*Cyanocitta cristata*)
Brown thrasher (*Toxostoma rufum*)
Carolina wren (*Thryothorus ludovicianus*)
Cattle egret (*Bubulcus ibis*)
Common nighthawk (*Chordeiles minor*)
Eastern meadowlark (*Sturnella magna*)
Florida sandhill crane (*Grus canadensis pratensis*)
Great blue heron (*Ardea herodias*)
Great crested flycatcher (*Myiarchus crinitus*)
Great egret (*Ardea alba*)
Killdeer (*Charadrius vociferous*)
Little blue heron (*Egretta caerulea*)
Loggerhead shrike (*Lanais ludovicianus*)
Mourning dove (*Zenaida macroura*)
Northern bobwhite (*Colinus virginianus*)
Northern cardinal (*Cardinalis cardinalis*)
Northern mockingbird (*Mimus polyglottos*)
Red-bellied Woodpecker (*Melanerpes carolinus*)
Red-headed woodpecker (*Melanerpes erythrocephalus*)
Red-shouldered hawk (Buteo lineatus)
Red-tailed hawk (*Buteo jamaicensis*)
Swallow-tailed kite (*Elanoides forficatus*)
Turkey vulture (*Cathartes aura*)
Wild turkey (*Meleagris gallopavo*)

MAMMALS

Gray squirrel (*Sciurus carolinensis*)
Nine-banded armadillo (*Dasypus novemcinctus*)
Raccoon (*Procyon lotor*)
White-tailed deer (*Odocoileus virginianus*)
Wild boar (*Sus scrofa*)
Sherman's Fox Squirrel *(Sciurus niger shermani)*

REPTILES & AMPHIBIANS

American Alligator *(Alligator mississippiensis*)
Black racer (*Coluber constrictor*)

Brown anole (*Anolis sagrei sagrei*)
Common garter snake (*Thamnophis sirtalis*)
Cricket frog (*Acris gryllis*)
Florida cooter (*Pseudemys floridana*)
Gopher tortoise (*Gopherus polyphemus*)
Green anole (*Anolis caroliniana*)
Green tree frog (*Hyla cinerea*)
Pig frog (*Rana grylio*)
Pygmy rattlesnake (*Sistrurus miliarius*)
Squirrel tree frog (*Hyla squirella*)

Six (6) species listed in the FWC's *Official Lists – Florida's Endangered Species, Threatened Species, and Species of Special Concern* (July 2009) were documented during our surveys. The occurrence of listed species is summarized in the below table.

Table 1. List of protected wildlife documented within the Center Lake DRI.

Scientific name	Common name	State status	Federal status	Typical Habitat
REPTILES & AMPHIBIANS				
Alligator mississippiensis	American Alligator			Lake, Swamp
Gopherus polyphemus	Gopher Tortoise	T	N	Sandhill, Scrub, Flatwoods, Pasture
MAMMALS				
Sciurus niger shermani	Sherman's Fox Squirrel	SSC	NL	Sandhill, Pine Flatwoods, Pasture
BIRDS				
Egretta caerulea and Eudocimus albus	Little Blue Heron and White Ibis	SSC	NL	Lake, Marsh, Swamp
Grus canadensis pratensis	Florida Sandhill Crane	T	NL	Marsh, Pasture
Haliaeetus leucocephalus	American Bald Eagle	T	NL	Lakes

NL=Not Listed; SSC=Species of Special Concern; T=Threatened; E=Endangered

1.2.2 Listed Plants

There are different agencies within the state of Florida that maintain a list of protected plant species; each of these agencies has different criteria for listing. Modica & Associates, Inc. accessed the Florida Administrative Code (F.A.C.)

Chapter 5B-40.0055 *Regulated Plant Index* as well as lists maintained by the USFWS, the Florida Department of Agriculture & Consumer Services (FDAC) Division of Forestry (DOF), and the FNAI tracking list to identify listed plant species with potential for occurrence on the Center Lake DRI project site. State regulations apply to harvesting protected plants and do not provide guidance or regulation on protection of plants related to development. The following protected plant species were documented within the Center Lake DRI project boundaries during general site inspections and wildlife surveys conducted by staff biologists with Modica & Associates, Inc.

PLANTS
Cinnamon fern (*Osmunda cinnamomea*)
Royal fern (*Osmunda regalis*)

Cinnamon fern and royal fern are both listed as "commercially exploited" (5B-40.005(c) F.A.C. These ferns are found in wetland habitats and were documented throughout many of the wetlands in the Center Lake DRI project site. The occurrences of listed plant species documented on the Center Lake DRI project site are listed in Table 2.

Table 2. List of protected plants documented within the Center Lake DRI.

Scientific name	Common name	State status	Federal status	Typical Habitat
PLANTS				
Osmunda cinnamomea	Cinnamon fern	CE	NL	Lake, Marsh, Swamp
Osmunda regalis	Royal fern	CE	NL	Lake, Marsh, Swamp

CE=Commercially Exploited, NL=Not Listed.

2.0 CONSERVATION GOALS & OBJECTIVES

The following goals outline the long-term intent to manage the Center Lake DRI conservation lands and the wildlife that occur therein. These goals and objectives will be reviewed annually as the HMP is implemented to ensure that the intent is still practical and necessary. Any modifications to the goals and objectives must be coordinated with the FWC and other jurisdictional agencies, as appropriate. Modified goals and objectives may only be implemented with approval from FWC.

Goal 1: Protect the natural communities within the Center Lake DRI conservation lands.

Objectives: A. Develop and record a legal instrument such as a Conservation Easement to protect the conservation areas, after receipt of all State and Federal Permits.

Objectives: B. Implement the Habitat Management Plan.

Goal 2: Effectively manage the conservation lands to ensure sustainability of the native plants and animals naturally supported by the native habitats.

Objectives: A. Implement a monitoring program to document the quality of each of the community type within the conservation lands.

B. Monitor the presence of wildlife and the structural characteristics of vegetation and their habitats to ensure that the management objectives are adequate for the long-term survival of the target species.

C. Implement chemical and mechanical means to control or eradicate exotic vegetation listed in the Florida Exotic Pest Plant Council's *2007 List of Invasive Plant Species*, including but not limited to: cogon grass, tropical soda apple, Brazilian pepper, air potato.

D. Develop quantifiable vegetation management objectives for desired future conditions.

Goal 3: Protect and maintain hydrologic regimes.

Objectives: A. Conduct routine maintenance of drainage structures that provide connections between wetland crossings to ensure proper function.

Goal 4: Provide quality recreational opportunities within the conservation areas while maintaining the integrity of the natural communities and protection of wildlife.

Objectives: A. Maintain a system of hiking trails and/or boardwalks throughout the conservation lands.

B. Establish an interpretive and educational kiosk at the main entry points of any planned hiking trails through the conservation lands and signage at any dedicated wildlife crossing.

C. Provide additional interpretive signage and educational materials highlighting the natural community types and listed species of wildlife within the conservation lands.

D. Conduct routine safety inspections and maintenance inspections to ensure trails, boardwalks and signage are in good condition and correct deficiencies as needed.

3.0 LIFE HISTORY OF LISTED WILDLIFE SPECIES

As previously mentioned, baseline wildlife surveys conducted throughout the Center Lake DRI project site documented the presence of six (6) species of protected wildlife. The protected status and life history information on the American alligator, Sherman's fox squirrel, American bald eagle, Florida sandhill crane, little blue heron, gopher tortoise and gopher tortoise commensals are detailed below. Information on the protected status and life history information on the southeastern American kestrel and wading birds are also included as these species have potential for occurrence on the Center Lake DRI property. Conservation recommendations or requirements specific to each of these species are also provided, as applicable. Based on the prevailing USFWS and FWC regulations, no specific management activities are required for the American bald eagle, American alligator and little blue heron. However, the HMP has been developed to provide provisions for conservation, enhancement, and maintenance of habitats used by each of these species. Should future changed site conditions or regulations warrant the need for additional species-specific management activities, the Center Lake DRI HMP can be amended as applicable.

3.1 American Alligator

The American Alligator (*Alligator mississippiensis*) is listed by the FWC as a "species of special concern" and by the USFWS as "threatened", primarily due to the similarity in appearance to the federally-listed American crocodile *(Crocodylus acutus)*, which is listed as "endangered" by the USFWS. American alligators occur throughout the southeastern United States with the western limits reaching into eastern Texas, and the northern limits reaching along the eastern coastline of North Carolina (FWC, 2009a). Female alligators rarely exceed a length of 9-feet, while male alligators may be as large as 14-feet. Alligators are considered opportunistic feeders, eating easily accessible food items ranging from small amphibians and fish to snakes and birds (FWC, 2009a).

3.1.1 Documented Presence

American alligators were observed in wetland and open water habitat areas on the project site during quantitative and qualitative field assessments. This species has been observed within the open water habitat associated with Lake Center. This species is known to occur throughout the Alligator Chain of Lakes and the

associated floodplain wetlands, and therefore a population of this species likely inhabits the Center Lake DRI conservation areas.

3.1.2 Threat Assessment

Protection of the American alligator is afforded by the FWC, primarily due to the similarity in appearance to the federally listed American crocodile. Threats to the species include destruction of habitat, poaching for their hides, and pollution of their native habitats.

3.2 Sherman's Fox Squirrel

The Sherman's fox squirrel (*Sciurus niger shermani*) is listed by the FWC as a "species of special concern" and is regulated by Chapter 68A-27.005 F.A.C. There are three subspecies of the fox squirrel in Florida. Fox squirrels range throughout the eastern United States; the Sherman's fox squirrel is the only sub-species of fox squirrel that occurs in central Florida. The Sherman's fox squirrel can be found throughout peninsular Florida with the exception of the southwestern counties of the panhandle. The home range of the Sherman's fox squirrel is about 75 acres. The fox squirrel's primary habitat is the longleaf pine, turkey oak, live oak, sandhill, and flatwood communities (FNAI, 2001). Fox squirrels depend on pine seeds as a major food source during the summer, and rely on acorns for the remainder of the year. Seasonal variation and low diversity of food and abundance of food resources contributes to the large home range of the fox squirrel (Kantola and Humphrey, 1990).

Nesting is typically conducted in oak and pine trees and is constructed of leaves and Spanish moss. There are typically two breeding seasons for the fox squirrel, winter and summer. The average litter size ranges between 2-4 individuals, with the winter litter typically being smaller than the summer litter (FNAI, 2001).

3.2.1 Documented Presence

There is currently no specific survey protocol for the Sherman's fox squirrel. However, several sightings of this species were documented, generally within the eastern portion of the property. The documented squirrel sightings occurred along one of the forested edges of the linear ditches in the northeastern pasture, along the forested edge of the wetlands associated with Lake Center, and within the forested uplands adjacent to wetland W-13 in the southeastern portion of the property (**Figure 5**). Each of these sightings occurred in habitat that contains mixed hardwoods, pines and oaks.

3.2.2 Threat Assessment

The greatest threat to the Sherman's fox squirrel is loss of habitat and degradation of habitat. This loss of habitat can be the result of development, logging and

other clear-cutting agricultural activities. The habitat degradation can be attributed to lack of land management and invasion of nuisance and exotic vegetation, each of which alters the vegetation structure of the habitat. Loss of habitat due to development can isolate populations and prevent dispersal and distribution.

Competition with the eastern gray squirrel may also serve as a threat or provide negative impact to Sherman's fox squirrels in developed communities. Sexton (1990) reports that fox squirrels prefer more open forests, while gray squirrels tend to inhabit extensive forests with heavy undergrowth. Habitat fragmentation, regardless of origin (i.e. development or agricultural use), can promote coexistence and subsequently competitive interaction between species. Nupp and Swihart (2001) determined that habitat fragmentation is the primary component influencing the presence or absence of any particular species, with interspecific interactions present as a secondary influence. They further conclude that interspecific interactions are largely a function of "the landscape in which they co-occur."

3.3 American Bald Eagle

The American bald eagle *(Haliaetus leucocephalus)* was officially delisted by the USFWS on July 9, 2007 (Federal Register Volume 72, No. 130). However, the bald eagle is still protected through the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). These laws and/or regulations prohibit, cumulatively, harassing, disturbing, harming, molesting, pursuing this species or destroying its nests. Additionally, the USFWS has prepared *National Bald Eagle Management Guidelines* (May 2007) to provide guidance to developers with properties containing bald eagle nests. These revised regulations provide protection to an active bald eagle nest at a given radius, based on whether the active nest is located within a forested system or in an open area such as pasture. Nests within a forested system will require a 330-foot protection zone and nests within open areas will require a 660-foot protection zone.

American bald eagles historically ranged throughout the contiguous United States and Alaska. A severe decline in the bald eagle population occurred in the lower 48 states between the 1870's and the 1970's. Currently, the largest breeding populations are found in Alaska and Canada. Other significant bald eagle populations occur in Florida, the Pacific Northwest, the Greater Yellowstone area, the Great Lakes states and the Chesapeake Bay region (USFWS, 2007). Migration may be more common among younger eagles. By April, Florida's eagles begin to move north, following the coastline through Georgia, the Carolinas, and Virginia.

Bald eagles usually nest in tall, healthy pine trees near coastlines, rivers, large lakes and streams. Most of the nests in Florida are within one mile of the coast or a permanent body of water. Bald eagles are opportunistic feeders. While preferring fish, they will eat

many kinds of live prey, as well as carrion, and even frequent garbage dumps. Nests are found in mangrove swamps, the shoreline of lakes and rivers, pine flatwoods, hardwood swamps, and open prairies and pastureland with scattered tall trees (USFWS, 2007). Eagles are strongly attached to their nesting area and will often rebuild in the same tree or another tree nearby if the original nest is lost to a storm. Eagles mate for life, but a new mate will be sought should one of the pair die. Two or three eggs are laid during the nesting season, which is usually from October 1 to May 15; incubation is about 32 days.

3.3.1 Documented Presence

One active eagle nest was documented within the Center Lake DRI project boundaries. This nest was observed by Modica & Associates, Inc. during our preliminary site surveys beginning in 2005; this nest has also been documented as active by the FWC since 2005 and is identified as Eagle Nest **OS-106** on the FWC's *Online Eagle Nest Locator* database. The nest is located in the south-central portion of the property, along the northern edge of wetland W-13 (**Figure 5**). The FWC database was last updated during the 2009 nesting season, and also shows the nest as active during each nesting season beginning in 2005.

3.3.2 Threat Assessment

Bald eagles are sensitive to human activities, particularly during the breeding season. Disturbance from human activities can prevent successful breeding and can also prevent proper feeding. Bald eagles prefer particular roost sites based on their proximity to food source and shelter. Destruction or obstruction of roosting areas has a negative affect on bald eagles (USFWS, 2007).

3.4 Florida Sandhill Crane

The Florida Sandhill Crane (*Grus canadensis pratensis*) is listed as a "threatened" species by the FWC. This species occurs in peninsular Florida from the Everglades north to southern Georgia (Charlton and Ware counties) in and around the Okefenokee Swamp (Bennett 1989, Nesbitt and Williams 1990). Florida is home to two subspecies of Sandhill cranes, with the Florida sandhill crane (G. c. *pratensis*) being a non-migratory, year-round resident. The similar, non-migratory greater sandhill crane (G. c. *tabida*), winters in Florida, typically arriving in November and December, and migrates to the Great Lakes region during March and April for nesting (FWC 2009b). Sandhill cranes are monogamous; they breed during the late winter and early spring and construct nests on mats of vegetation in shallow wetlands and water bodies (FWC 2009b). Nesting season generally occurs between January and April, with the average laying date between late February and early Mary (Stys, 1997).

3.4.1 Documented Presence

The Florida sandhill crane was observed foraging within the pastures of the Center Lake DRI property during several investigations. Three potential nest sites were also documented during the 2007 sandhill crane nest survey conducted by Modica & Associates, Inc. (**Figure 5**). The Center Lake DRI property contains extensive freshwater marsh habitat, which provides potential nesting habitat for this species. The Florida sandhill crane typically constructs its nest within shallow wetland areas dominated by herbaceous vegetation, especially pickerelweed and maidencane. There are numerous herbaceous marshes on site that are suitable for nesting. Nesting season typically occurs between January and August of any given year. No nests were documented during the 2008 or the 2009 nesting seasons. However, Sandhill crane pairs have been observed on-site foraging.

3.4.2 Threat Assessment

Sandhill cranes are vulnerable to man-made hazards such as powerlines, fences and vehicular collisions. Additional threats include loss and degradation of suitable nesting habitat, nest predation, flooding, and abandonment due to disturbances.

3.5 Little Blue Heron

The Little Blue Heron (*Egretta caerulea*) receives protection from the FWC as "species of special concern". This small wading bird inhabits a variety of freshwater and estuarine habitats in the southeastern United States. The little blue heron is a medium-sized heron identified by its dark, dusky blue color and its dark bill (Cornell, 2009). The little blue heron typically feeds on small fish, amphibians and aquatic invertebrates while the white ibis typically feeds on insects (Cornell 2009).

3.5.1 Documented Presence

The little blue heron was observed within several of the wetland communities during our site inspections, typically within the forested and herbaceous wetlands and along the Lake Center shoreline. However, no nesting colonies (rookeries) have been documented within the Center Lake DRI wetlands. Further, the FWC's *Waterbird Colony Locator* website did not reveal any wading bird colonies within the project vicinity.

3.5.2 Threat Assessment

Primary threats include alteration of natural hydroperiods in wetlands used for foraging and exposure to pesticides and heavy metal contaminations. Illegal

killings may also occur since this species regularly forages at commercial fish farms and hatcheries (FNAI, 2001).

3.6 Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*) is listed by the FWC as a "threatened" species and is regulated by Chapter 68A-27.004 F.A.C. The FWC has adopted a *Gopher Tortoise Management Plan* (September 2007), which is supplemented by the *Gopher Tortoise Permitting Guidelines* (April 2009). Together, these documents provide rules for protecting the tortoise and guidelines for permitting development on properties that contain gopher tortoises.

The gopher tortoise ranges throughout the entire state of Florida with the exception of the Everglades and the Keys. The tortoise also occurs within the lower Southeastern Coastal Plain including coastal South Carolina southward through the southern reaches of Georgia, Alabama, Mississippi and southeastern Louisiana (Auffenberg and Franz, 1982). Gopher tortoises commonly inhabit upland habitats with well-drained sandy soils associated with xeric pine-oak hammock, scrub, pine flatwoods, pastures and citrus groves. The diet of a gopher tortoise typically consists of broad-leaf grasses, wiregrass, wild fruits and other low-lying plants, particularly those in the legume family (Macdonald, 1986). The tortoise digs a burrow underground for refuge. A tortoise burrow is 15-feet in length and 6-feet in depth, on average (Hansen, 1963). Each tortoise may dig several burrows within its home range. Tortoises normally mate in April and May. Several weeks after mating, the female tortoise will lay an average of six eggs within the apron of the burrow. The incubation period is approximately 80-90 days, but varies geographically (Cox, et. al., 1987).

3.6.1 Documented Presence

A total of 87 viable gopher tortoise burrows have been identified on the Center Lake DRI property (**Figure 5**). The original DRI project site was surveyed for this species in May and June of 2006. The subsequently acquired ±134 acre western portion of the DRI site was surveyed in April 2009.

Please note that gopher tortoise survey transects did not cover 100% of the on-site suitable gopher tortoise habitat. However, a project-wide burrow count was extrapolated based on the partial site survey in order to calculate the estimated gopher tortoise population. To achieve this, optimal and suboptimal gopher tortoise habitat acreages were calculated in ArcGIS based on notes from field observations, aerial photographic interpretation, and mapped soils data. Optimal habitat generally included areas mapped as FLUCFCS codes 110, 211, 224, 311, and 421; suboptimal habitat includes areas mapped as FLUCFCS codes 211, 414, 427, 434, and 814 (**Figure 4**). Additionally, the acreage of each gopher tortoise habitat type (optimal vs. suboptimal) included within the gopher tortoise survey was calculated in ArcGIS by offsetting a 25 foot buffer on the GPS tracks

recorded during the actual survey event (total survey transect width of 50 feet). The survey results were then summed by gopher tortoise habitat type and an estimated burrow count for each habitat type was extrapolated based on survey percentage. The estimated burrow count for each habitat type was summed to obtain an estimated burrow count for the overall project site. The following table presents these data and the estimated site wide burrow count.

Table 3. Tabulation of calculated project-wide gopher tortoise burrow count, estimated based on survey data collected by Modica & Associates, Inc. in 2006 and 2009.

	Optimal Habitat	**Suboptimal Habitat**
Habitat Acreage	221 ac	693 ac
Acreage Surveyed	164 ac	205 ac
Percent of Habitat Surveyed	74%	30%
# of Burrows Observed	80	7
Extrapolated Total # of Burrows	108	23
Estimated Site-Wide Burrow Count	**131 burrows**	

Our calculations estimated that there are 131 burrows within the Center Lake DRI site. This equates to a population density of 0.14 tortoises per acre of suitable habitat. In accordance with the new *Gopher Tortoise Permitting Guidelines* issued by the FWC in April 2009, the anticipated number of tortoises within a project site should be estimated by multiplying the total number of viable burrows by a conversion factor of 0.50. For the Center Lake DRI project site, this results in an estimated gopher tortoise population of approximately 65-66 tortoises.

No other listed species of flora or fauna were observed on the acquisition parcel. Additionally, no listed species of flora or fauna beyond those previously reported for the main parcel were documented during the various site inspections conducted in year 2009.

3.6.2 Commensal Species

The gopher tortoise is considered a keystone species for the habitat it occupies, as the tortoise's burrow is used by many other species of wildlife including, but not limited to, the Eastern indigo snake (*Drymarchon corais couperi*), gopher frog (*Rana capito*) and Florida mouse (*Podomys floridanus*). The eastern indigo snake is listed by the FWC as a "threatened" species and the gopher frog and the Florida mouse are listed by the FWC as "species of special concern". These species are protected by state regulations relating to protected species, specifically Chapter 68A-27.004 F.A.C. Although not observed or documented during preliminary surveys, there is a reasonable likelihood that each of these species is present within the Center Lake DRI project site.

3.6.3 Threat Assessment

The greatest threat to the gopher tortoise and its commensal species is loss of habitat. Land development is typically pursued within the higher topographic elevations, which is also the preferred habitat for the gopher tortoise. Habitat fragmentation and isolation of populations is also a cause for population decline. The Upper Respiratory Tract Disease (URTS) also poses a threat to the longevity of the life span, and is highly contagious. The threats to gopher tortoises are also considered threats to the commensal species as they are dependent on the tortoise burrows for survival.

3.7 Potential for Other Listed Species of Wildlife

The Center Lake DRI project site provides suitable habitat for several other listed species of wildlife. The Florida Natural Areas Inventory (FNAI) Species Occurrence database listed by County was reviewed to determine which wildlife species have potential for occurrence in Osceola County. Although not documented on the Center Lake DRI project site during any of the site inspections conducted by Modica & Associates, Inc., the following species have potential for occurrence on-site.

3.7.1 Southeastern American Kestrel

The Southeastern American kestrel *(Falco sparverius paulus)* is the smallest falcon in the United States and is listed by the FWC as a "threatened" species. The kestrel is regulated through the U.S. Migratory Bird Treaty Act and by Chapter 68A-27.004 F.A.C. which prohibits the taking of birds, nests or eggs. The Southeastern American kestrel is a non-migratory resident subspecies of the American kestrel (*F. s. sparverius*). The American kestrel ranges throughout North America and is considered a northern migrant that occurs in Florida during the winter months, but does not nest in Florida. It is difficult to distinguish the two species on the basis of coloration and marking. The breeding range of the southeastern American kestrel (*F. s. paulus*) extends from southern portions of Louisiana, Mississippi, Alabama, Georgia, and South Carolina, and all of Florida except the most southern counties (Stys 1993).

The southeastern American kestrel prefers open habitats including pastures, open longleaf pine-turkey oak and Sandhill communities, grasslands, and open sites within suburban and residential areas. Kestrels require open land for their hunting activities. Common prey includes insects, small rodents, reptiles, and even small birds (Stys 1993). Kestrels are secondary cavity nesters and typically use abandoned nest cavities of woodpeckers. The majority of kestrel nests are in the cavities of dead trees with an unobstructed view of the surrounding habitat (FNAI 2001). However, kestrels have also been documented to nest in man-made nest boxes. Nesting activities, including courtship, typically begin at the end of

January. Three to five eggs are laid in mid-March to May with incubation lasting 29-31 days (Stys 1993).

The presence of extensive open pastures and relatively open woodlands within the Center Lake DRI project site provides habitat for this species. As no observations of kestrels have been documented during the numerous onsite inspections within the ranch, no formal surveys for this species have been conducted.

The post-development condition of the Center Lake DRI project site may contain suitable habitat for the southeastern American kestrel. The proposed open spaces and parks will provide potential foraging opportunities for kestrels and forested areas may provide nesting habitat.

3.7.2 Wading Birds

Due to the extensive herbaceous marshes, forested wetlands and frontage on Center Lake, the potential for presence of both listed and non-listed wading birds is high within the Center Lake DRI project. Species that are likely to occur on-site include, but are not limited to: wood stork (*Mycteria americana*), white ibis (*Eudocimus albus*), great egret (*Ardea alba*) and great blue heron (*Ardea herodias*). Additionally, the stormwater ponds planned for development throughout the project site will provide forage opportunity for these species.

4.0 CONSERVATION ACTIONS

The species of wildlife covered in this HMP are listed as endangered, threatened or species of special concern by the FWC and the USFWS and are protected by state and federal regulations. The preservation of large tracts of wetlands, as proposed in the Center Lake DRI project, will be beneficial to each of the species covered in this HMP, as well as other native, non-listed species of wildlife. The following table provides a summary of the native community types that will be preserved as part of the Center Lake DRI project.

Table 4. Center Lake DRI Conservation Areas

Conservation Land	Acreage
Jurisdictional Wetlands and Surface Waters	1,036.29
Upland Buffers (surrounding unimpacted wetlands)	113.96
Total Conservation Land	**1,150.25**

The 1,150.25± acres of conservation land shown in the above table will be placed under conservation easement in perpetuity, held by a state regulatory agency (i.e. SFWMD, FWC). No development will be allowed within the conservation areas, although limited boardwalks and passive recreation may be permissible as well as vegetative management

activities and maintenance to any of the existing surface waters/ditches that are associated with the drainage system.

The conservation actions described below are intended to ensure long-term sustainability of the on-site populations of those species. The proposed management practices are consistent with the requirements and long-term goals for the protection and maintenance of habitat communities found within the on-site conservation areas, to the best of our knowledge.

4.1 Species-Specific Management & Conservation Actions

The following information is provided for particular wildlife species documented within the project site for which certain management actions may benefit the continued presence and use of the conservation lands within the Center Lake DRI. Recommended conservation actions are provided to ensure long-term sustainability of the habitats known to support these species.

4.1.1 American Alligator

State regulations restrict the taking of active American alligator nests without a permit. No alligator nests have been documented within the development footprint and therefore regulatory action is not anticipated for this species. However, it is recommended that any alligator nests observed during conservation land monitoring events be documented using GPS technology and described within the appropriate annual monitoring reports. The status of any new nest identified should be updated in each monitoring report for the duration of the monitoring period.

It is likely that American alligators will inhabit stormwater ponds as well as natural wetland systems throughout the project in the post-development condition. Signage will be posted to warn residents and visitors of the potential presence of alligators, and to prohibit feeding of alligators. In the event that a resident alligator may become a nuisance, any concerned resident or property owner will be directed to contact the **FWC Nuisance Alligator Hotline (866-392-4286)**. Additionally, the FWC's *A Guide to Living with Alligators* brochure will become part of the educational materials to be provided to residents and property owners (**Exhibit 1**).

4.1.2 Sherman's Fox Squirrel

Kantola and Humphreys (1990) report that the best habitats for the Sherman's fox squirrel are likely the edges of longleaf pine savannas and live oak forests. These habitats provide for seasonal food sources. The planned preservation of native forested communities within several of the Upland Management Areas (UMAs) and upland buffers will provide on-site habitat for use by this species following

development. Additionally, pine trees will be planted within several of the upland buffers to the wetlands. Much of the forested habitat along the eastern property will be preserved within the planned open space and within the upland buffers to wetlands.

Considering the real threat of interspecies competition, it is possible through land management to maintain suitable habitat within the Center Lake DRI for each the fox squirrel and the gray squirrel. By maintaining both open, upland forests and a more contiguous forest with more substantial undergrowth, suitable forage and nesting habitat can be provided for each species on the project site. A substantial amount of conservation lands and open space will be maintained in the post-development condition. A fair portion of the upland communities in the open space will contain the more open habitat preferred by the fox squirrel. Additionally, it is a management goal to maintain some of the upland buffers in a more pasture-like setting with a low density of pines to encourage forage by Sandhill cranes. These areas should also attract use and forage by the fox squirrel. By managing the preferred suitable habitat for the fox squirrel within the project site, continued use and existence of this species within the project site should continue.

4.1.3 American Bald Eagle

Protection of Eagle Nest OS-106 has been provided in accordance with *National Bald Eagle Management Guidelines* (USFWS, 2007) and with the *Bald Eagle Management Plan* (FWC, 2008). The nest lies within a relatively open area and therefore the 660-foot protection zone has been planned for this nest. No development is proposed within the 330-foot protection zone of this nest. In accordance with the *National Bald Eagle Management Guidelines* (USFWS, 2007), external construction and landscaping within 660 feet of the nest should be conducted outside of the breeding season (September through May). Any such activities proposed between 330 feet and 660 feet may require coordination with the FWC, and monitoring may be required.

4.1.3.1 Pine Planting

The appropriate species of pine trees will be planted in select upland buffers and UMAs to provide additional future nesting habitat for this species. The location and density of tree plantings will be determined during the Environmental Resource Permit (ERP) process.

4.1.3.2 Maintenance of Stormwater Pond

Maintenance of the stormwater pond planned between the 330-foot and the 660-foot buffer zone of Eagle Nest OS-106 shall be conducted in accordance with the restrictions for **Category F – Non-Motorized**

Recreation and Human Entry of the *National Bald Eagle Management Guidelines* (USFWS, 2007). The Guidelines state the following, with regard to the permissible extent of Category F activities within vicinity of a bald eagle nest:

> "No buffer is necessary around nest sites outside the breeding season. If the activity will be visible or highly audible from the nest, maintain a 330-foot buffer during the breeding season, particularly where eagles are unaccustomed to such activity."

As the habitat surrounding Eagle Nest OS-106 is relatively open, stormwater pond maintenance activities will be visible to the nest. Accordingly, any maintenance activities for the stormwater pond planned to occur during the breeding season (September through May) are strictly prohibited from occurring within the 330-foot buffer.

4.1.3.3 Nest Monitoring

During annual monitoring events required by the SFWMD permit, Eagle Nest OS-106 will be observed to document the status of nesting activity. It is recommended that surveys to document new bald eagle nests be conducted during conservation land monitoring events. Any new nests should be documented using GPS technology and described within the appropriate annual monitoring reports. The status of any new nest identified should be updated in each monitoring report for the duration of the monitoring period.

Any bald eagle nests identified on-site in the future should be protected in accordance with the *National Bald Eagle Management Guidelines* (USFWS, 2007) and with the *Bald Eagle Management Plan* (FWC, 2008).

4.1.4 Florida Sandhill Cranes

The Center Lake DRI conceptual plan provides for preservation of the majority of the freshwater marsh systems within the property. Additional protection of nesting habitat is afforded through the planned preservation of expanded upland buffers to these wetlands. The Habitat Management Plan Map (**Figure 3**) depicts that extensive open space and stormwater ponds are proposed along the boundaries of the upland buffers to many of the wetlands. These proposed post-development land uses will provide added buffer and protection to potential on-site nesting habitat for sandhill cranes. In addition to the 113.96± acres of upland buffers, the project design includes 138.90± acres of upland open space within the Parks & Recreational land use designations. This upland habitat will provide significant forage areas for this species in the post-development condition,

ensuring the long-term protection and sustainability of this species within the Center Lake DRI project.

4.1.4.1 Management for Forage Habitat

It is recommended that seasonal mowing be conducted within Upland Management Areas UMA-1, UMA-2A and UMA-2B to maintain significant forage habitat for sandhill cranes. These UMAs currently exist as improved pasture communities and will be targeted for maintenance as improved pasture in the post-development condition. Wildlife crossing signage will be erected at the roadway crossing that bisects UMA-2A and UMA-2B. Reduced speed limits and speed bumps may also be employed in this area; please refer to Section 4.4 of this HMP for details on these conservation elements.

4.1.4.2 Nest Monitoring

It is recommended that an annual sandhill crane nest survey be conducted in conjunction with the annual conservation land monitoring events. Any sandhill crane nests observed on the Center Lake DRI project site during these monitoring events shall be documented using GPS technology and will be described within the annual monitoring report. The status of any nest identified should be updated in each monitoring report for the duration of the monitoring requirements.

As recommended by Stys (1997), provisions for buffers around any documented sandhill crane nests that may be subject to disturbance during the breeding season will be provided. If any active nests are documented, construction related disturbances should not be conducted within a 250-foot "Flushing Zone" surrounding the nest until the nest has fledged. This will reduce the potential for mortality due to nest abandonment.

4.1.5 Little Blue Heron

Given the significant acreage of wetland habitat that will remain in the post-development condition, the proposed project is not expected to adversely affect any listed wading birds that have been documented on-site and no conservation actions are required. However, it is recommended that any wading bird rookeries observed on the Center Lake DRI project site during future conservation land monitoring events be documented using GPS technology and described within the annual monitoring report. The status of any new rookeries should be updated in each monitoring report for the duration of the monitoring requirements.

4.1.6 Gopher Tortoise

The FWC *Gopher Tortoise Permitting Guidelines* (April 2009) require land development projects that will affect gopher tortoise populations to pursue on-site or off-site relocation, and require mitigation fees to be paid to the FWC based on the relocation option chosen and the number of tortoises to be relocated. The Guidelines require that a 15% survey be conducted no more than 90 days prior to submittal of the relocation permit application, and that a 100% survey be conducted immediately prior to initiating the relocation efforts.

In accordance with FWC regulations, gopher tortoises located within the footprint of the Center Lake DRI development site must be relocated to an on-site or off-site recipient area, following receipt of the appropriate permits and completion of the required surveys. The FWC *Gopher Tortoise Permitting Guidelines* (Revised April 2009) require gopher tortoise recipient sites to comprise a minimum of 40 acres of contiguous suitable uplands. No habitat areas of sufficient acreage meeting the habitat suitability requirements of the FWC will remain on-site in the post-development condition. Therefore, the gopher tortoises located within the footprint of development will be relocated from the development site to an offsite certified recipient area following receipt of the appropriate permits and under the direction of an FWC certified Authorized Agent, in accordance with FWC guidelines.

As indicated above, it is estimated that a total of 131 tortoises will need to be relocated from the Center Lake DRI project site in order to facilitate development. It is important to note that gopher tortoises located within the preserved upland buffers and other open space areas that are outside of the footprint of development will not require relocation. The presence of this species within the upland preservation area is vital to the structure of the unique ecosystem, as their burrows are used by numerous commensal species. Therefore, relocation is not recommended unless the burrows will be impacted by development.

4.1.7 Southeastern American Kestrel

Kestrel nest boxes may be established to provide perching and nesting locations for the falcons. The most appropriate place for nest boxes would be upland management areas UMA-1, UMA-2A and UMA-2B as these areas will be maintained as open, improved pasture communities for sandhill crane foraging.

Nest boxes will be constructed as described in the FWC's Technical Report No. 13 (**Exhibit 2**). The nest boxes will be placed at a height of 7 meters, and will be located on poles, snags or live trees in close proximity to a roost tree, if present. The nest box opening will face a southerly to easterly direction, and the entrance will be unobstructed with a clear flight path. Additionally, each box will be placed more than 50 meters from any forest edge. Nest boxes will be cleaned and

repaired at least once a year, just prior to the kestrel-nesting season (December). Boxes shall be visually checked in April and May to determine if they are being used by other species (i.e. starlings) and shall be cleaned if such use is observed. Additional observations may be conducted during other regular monitoring events to be conducted for wetlands and other land management activities.

4.1.8 Wading Birds

No specific conservation actions are recommended for the potential wading birds that may occur on-site. Maintenance of the stormwater ponds and preservation and maintenance of the wetland habitats as provided in accordance with regulatory requirements will be sufficient to ensure protection and sustainability of suitable habitat for wading birds in the post-development condition.

4.2 Monitoring & Maintenance Plan

Successful implementation of the recommended conservation actions outlined above is directly contingent on implementing both a monitoring and a maintenance plan. The monitoring plan will document the wildlife use and habitat quality of the conservation lands. The maintenance plan will be used to control the habitat quality by implementing chemical and mechanical resources as applicable.

4.2.1 Vegetative Monitoring Plan

Monitoring of the Center Lake DRI conservation lands may consist of both qualitative and quantitative components. Monitoring activities will be conducted as specified by the SFWMD permit. During each monitoring event, the following general information will be collected: date of sampling event, person conducting the sampling event, analytical techniques and/or monitoring methodologies used and results of the monitoring event including photographs, qualitative summary of vegetative cover, wildlife observed, percent cover of nuisance and exotic species, hydrologic notes and recommended maintenance activities.

Qualitative vegetation monitoring will be conducted to assess the overall quality and health of each of the community types within the conservation lands. The condition of each strata of vegetation, wildlife use observations and the general health of the habitat will be evaluated and documented. This evaluation will be conducted by establishing representative monitoring transects within each of the community types of the conservation lands. The location and length of each transect will be established during the first monitoring event and will be approved by the appropriate regulatory agency. The following qualitative observations will be made within each community type: dominant vegetation within each strata, presence and spread of nuisance and exotic vegetation and wildlife observations. These observations will be recorded on field data sheets prepared for each transect

within each community type. The vegetative monitoring plan will be implemented for the duration specified within the SFWMD permit.

4.2.2 Wildlife Monitoring Plan

A wildlife monitoring program will be implemented as specified by the SFWMD permit to document the presence of wildlife use within the conservation lands. General wildlife observations will be documented within each of the common areas and community parks adjacent to development parcels. All other wildlife observations will be documented and listed in the annual monitoring reports. The wildlife monitoring plan will be implemented for the duration specified within the SFWMD permit.

4.2.3 Maintenance Plan

A maintenance program will be implemented for the conservation lands within the Center Lake DRI project area. Maintenance will be conducted as required by the SFWMD permit to ensure the integrity and viability of the conservation lands. Maintenance shall be conducted to ensure that invasive exotic vegetation (as defined by the Florida Exotic Pest Plant Council) will not exceed 10% within any one community type. The maintenance plan will be implemented for the duration specified within the SFWMD permit.

4.2.4 Reporting

The results of each monitoring event will be summarized in an Annual Monitoring Report to be submitted by December 31st of each respective year, or as required by the SFWMD permit. The monitoring reports will be submitted directly to ECFRPC, FWC, and any other agency that may request a copy. Annual reports will be provided for the duration specified within the SFWMD permit.

4.3 Educational Materials

The Center Lake DRI project area and adjacent public lands provide habitat for several listed wildlife species. The Center Lake DRI site plan involves preservation of significant acreage of both wetland and upland communities that provide habitat for these listed species. The long-term success of the HMP is dependent on education of the residents and public. From the construction workers to the future residents, a series of educational efforts must be undertaken to provide information on the basic natural history of the protected wildlife in the area and the associated regulatory protections and permits.

Wildlife preserves and conservation areas are generally accepted by the residents and public as an amenity and public asset for the community, especially if they can use and enjoy them. Educational materials will be developed in a manner to encourage people at

all levels to be aware of the potential wildlife presence and to protect the resources in written pamphlets and flyers, and on signs. The materials will include contact information for the FWC and any other responsible party potentially designated by the CDD/POA in case of wildlife interactions or if someone is breaking the law regarding protection of wildlife. Specific educational materials will be developed and provided to residents and property owners to warn against feeding of Florida sandhill cranes. Signage will be placed at appropriate locations to alert residents and property owners of the potential presence of this species. Speed deterrent devices such as speed humps and lowered speed limits on the secondary residential roads will be implemented to prevent automobile collisions with this species.

All educational materials will be developed with the assistance of the FWC and any other regulatory agency or conservation organization that may be appropriate for each aspect of the materials.

4.4 Conservation Signage

The primary purpose of conservation signs and displays is to inform the general public about the status of the conservation lands and to outline acceptable and unacceptable actions and activities in and around the preserves and associated protected wildlife. The secondary purpose of the signs is to educate the homeowners about the purpose of the preservation areas and protected wildlife and to encourage their positive support for conservation. The developer and its consultant with the assistance of the FWC will design educational signage describing the listed status of each of the wildlife species detailed within this HMP.

Appropriate signs will be erected throughout the project site, specifically at the following locations: the boundaries of the Scrub Preserve, along the wetland preservation areas. The signs will identify the areas as preservation and will identify the potential presence of wildlife.

4.5 Wildlife Crossings & Habitat Connectivity

Several roads are proposed to cross through wetland areas to facilitate access to upland development parcels (**Figure 3**). Each of these road crossings will exhibit speed deterrent devices such as posted reduced speed limits and/or speed bumps. Additionally, signage will be posted in these locations to alert drivers to the potential presence of wildlife crossing. Such efforts are anticipated to reduce vehicular mortality of wildlife. Under-road wildlife crossings will be provided through use of appropriately sized culverts. These culverts will also provide for hydrologic connectivity of the wetland through which the road crosses. During engineering design and the Environmental Resource Permitting (ERP) process, each of these crossings will be evaluated with specific consideration for wildlife use. Where appropriate, additional “dry-crossing” culverts may be recommended in addition to the culverts planned for hydrologic connectivity. These dry-culvert crossings will be designed for installation above the

seasonal high water elevations to allow for use by small mammals and reptiles, etc. that may not use the wet culverts.

The Center Lake DRI conceptual plan has been designed to accommodate post-development habitat connectivity within the site as well as between the site and offsite habitat areas. The Habitat Management Plan Map (**Figure 3**) depicts many wildlife corridors and habitat connectivity areas that will facilitate on-site and regional wildlife migration. Wetlands 9, 10, 13, 14, 17 and 18 are connected to offsite wetland habitat areas via uninterrupted natural wildlife corridors. Placement of the on-site wetlands under conservation easement will ensure maintenance of these corridors in perpetuity.

Additionally, the applicant commits to incorporating appropriately sized box culverts or other such measures within the roadway crossings that bisect the expansive wetland slough located through the center of the property, in order to ensure connectivity of the habitat and wildlife movement through the site. Specifically, such measures will be incorporated into design of the roadways which bisect Wetlands 13 & 18, Wetlands 18 & 11, and Wetlands 8-west & 8-east. Each roadway crossing will be evaluated separately during site design to determine what type of structure is most appropriate for the size and expanse of the roadway crossing. For example, smaller, secondary roadways that bisect less expansive wetlands may use smaller culverts to maintain hydrology, with at-grade wildlife crossings and speed deterrent devices (i.e. speed bumps, reduced speed limits and wildlife crossing signage) to facilitate connectivity. Conversely, primary roadways that entail a larger, more significant linear crossing may use large box culverts or bridging as appropriate to facilitate connectivity.

Recent discussions between Modica & Associates, Inc. staff and Dr. Daniel Smith (professor, University of Central Florida and private consultant to many FDOT transportation projects) indicate that 8-foot pre-cast box culverts have been successfully used on State Road 46 for wildlife crossing structures. The specific design elements of each wetland crossing for the Center Lake project will consider hydrologic connectivity as well as biological concerns such as noise and lighting. Wildlife crossing signage and reduced speed limits may also be employed at appropriate wetland and wildlife corridor crossings.

The applicant acknowledges that the on-site wetland systems provide significant wildlife habitat and connectivity with off-site wildlife corridors that have been identified by conservation groups and regulatory agencies. The site plan allows for conservation of 99% of the on-site wetlands, with additional preservation of significant upland habitat contiguous with the expansive wetland preservation acreage. A mosaic of upland and wetland preservation will continue to provide significant habitat for both wetland and upland-dependent species in the post-development condition. Planning for appropriate wildlife crossings as discussed above should provide reasonable assurance that the project will preserve the significant wildlife corridors within the Center Lake DRI project site in the post-development condition.

The wetlands within these on-site corridors are protected by upland buffers and stormwater ponds, and all proposed crossings will include appropriate signage and wildlife crossings. These conservation measures will ensure protection and sustainability of wildlife and their habitat within the project site.

5.0 OWNERSHIP & MANAGEMENT RESPONSIBILITY

The Center Lake DRI Application for Development Approval (ADA) is currently under review by the Central Florida Regional Planning Council. Ownership and management of the DRI will eventually become the responsibility of the Center Lake DRI Community Development District (CDD) or Master Property Owner's Association (MPOA). Until such time as the CDD or MPOA has been formed and becomes operational, the responsibility of monitoring and maintenance activities will remain with the Applicant. Once the CDD or MPOA becomes operational, management and maintenance responsibilities will be transferred from the Applicant to the CDD/MPOA.

It is the responsibility of the Applicant to incorporate by reference and attach as an appendix, this Center Lake DRI HMP into the Declaration of Covenants, Conditions & Restrictions or other community covenant as applicable. Furthermore, there must be specific language within these documents to require adequate fee assessments to provide the economic structure to perpetually support and implement the management activities outlined in this HMP.

The CDD/MPOA, as having financial responsibility for the monitoring and maintenance of the on-site conservation areas, will be responsible for selecting and retaining an environmental consultant(s) to conduct the Recommended Conservation Actions as detailed in Section 4.0 above. The environmental consultant shall be responsible for recommending any maintenance activities, informing each regulatory agency of needed activities, and coordinating the needed activities. The management and maintenance of the conservation areas will be carried out in accordance with this HMP and with the conditions of the conservation easement(s) that may be recorded over all or portions of the conservation areas in the future.

6.0 REFERENCES

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FIGURES

DRI Boundary

Center Lake DRI

Habitat Management Plan
Figure 1 - Location Map/USGS Topographic Map - Narcoossee Quadrangle
Sections 27, 28, 29, 33 and 34, T25S, R31E
Osceola County, Florida

2,000 1,000 0 2,000 Feet

Modica & Associates, Inc.
Environmental Planning, Design & Permitting

302 Mohawk Road
Minneola, Florida 34715
Phone: 352-394-2000
Fax: 352-394-1159
Email: environmental@modica.cc

Center Lake DRI

Sections 27, 28, 29, 33 and 34, Township 25 South, Range 31 East
Osceola County, Florida

Map H
Concept Plan

Figure 2

Date Prepared: 11 January, 2010

Jones Rd

Potential Connection

Potential Connection to Jones Rd

Potential Connection to Jones Rd

Sky Wind Court

Starline Drive

Sunlight Court

Narcoossee Rd

Impacted Wetland (W-4)

Twelve Oaks Road

Impacted Wetland (W-20)

Hackney Road

Disston Drive

Hansom Road

Potential Connection

Propose Vacated R/W

Ralph Miller Road

Rummel Rd

Potential Connection

Harkley Runyan Road

Impacted Wetland (W-9E)

Impacted Wetland (W-11)

Impacted Wetland (W-9)

Impacted Wetland (W-11)

Impacted Wetland (W-14)

59' SDL (Safe Development Line)

Lake Center

Elementary School

Impacted Wetland (W-12)

Eagle Nest 660' #

Impacted Wetland (W-18)

Impacted Wetland (W-16)

Impacted Wetland (W-13)

Impacted Wetland (W-19)

Impacted Wetland (W-15)

Potential Connection

Oak Shore Drive

Pine Grove Road

Coon Lake

Nova Rd

Potential Connection

Legend

- Wetlands
- Wetland Buffers & Transition Zones
- Community Center
- Neighborhood Center
- Residential
- Elementary School
- Park and Rec Areas
- Water Management
- Framework Roads & Right of Ways
- Lands Below Safe Development Line and Submerged Lands
- Impacted Wetlands

Note: This plan is a preliminary Concept Plan only. As such, it is subject to modification pending environmental, engineering, and agency review.

(Approximate)

0 1400'

N

Rj WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

DRI Boundary
Development Parcels
Eagle Nest
660 Foot Eagle Protection Zone

Wildlife Corridors

Uninterrupted Corridor
Facilitated by Wildlife Crossing Structure

Conservation and Open Space Areas

Land Below SDL
Wetland Buffer
Wetland
Parks and Rec
Water Management Areas
Natural Lakes

JONES RD
NOVA RD
CR15/SR500/ORANGE CO
JONES RD
Lake Center
Coon Lake
W-1
W-2
W-3
W-4
W-5
W-6
W-7
W-8E
W- 8W
W-9
W-10
W-11
W-13
W-14
W-17
W-18
W-19
UMA-1
UMA-2A
UMA-2B

Center Lake DRI

Habitat Management Plan
Figure 3 - Habitat Management Plan Map
Sections 27, 28, 29, 33 and 34, T25S, R31E
Osceola County, Florida

1,250 625 0 1,250 Feet

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Environmental Planning, Design & Permitting

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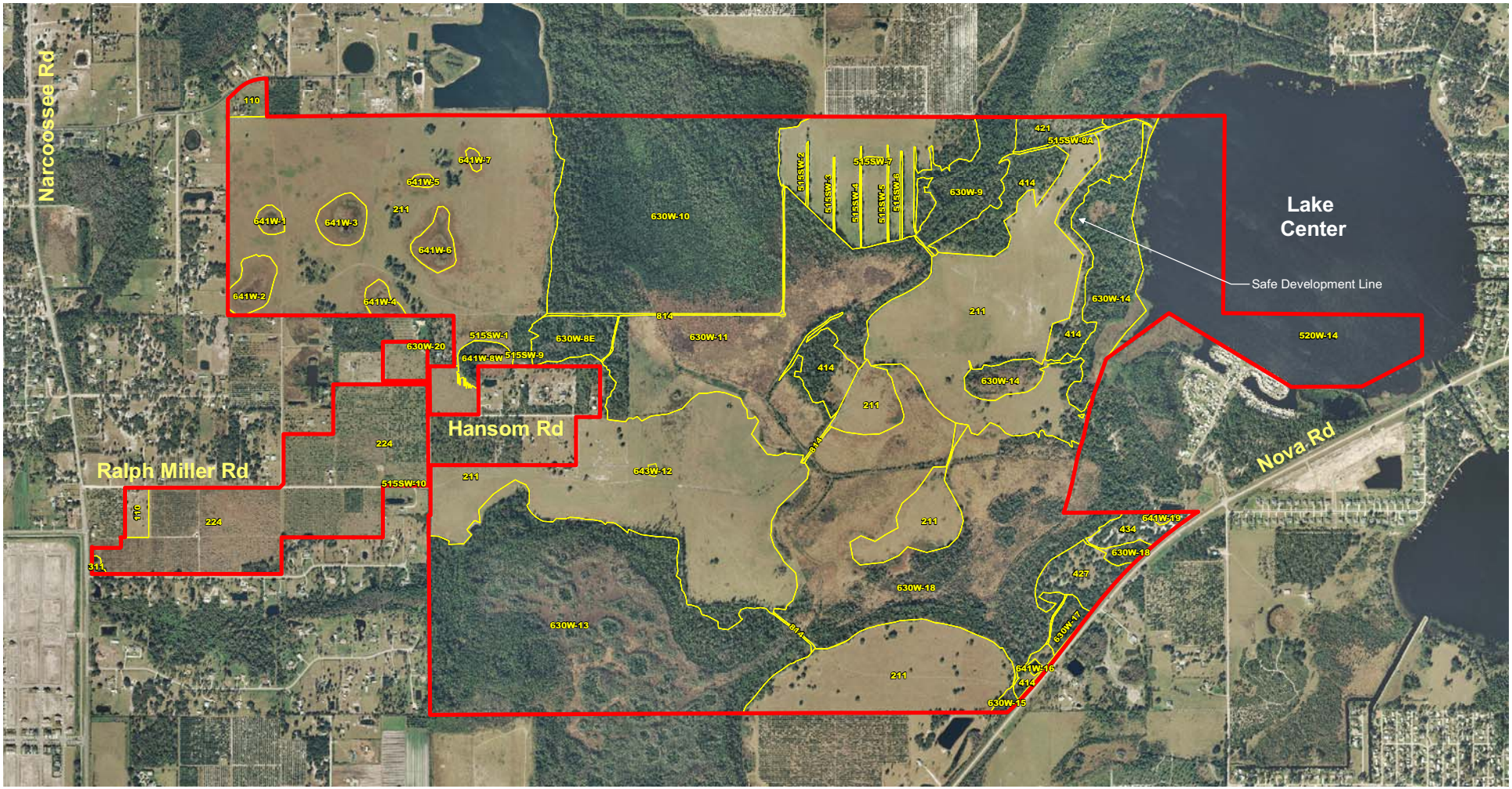
Email: environmental@modica.cc

Center Lake DRI

Sections 27-29, 33, 34, Township 25 South, Range 31 East
Osceola County, Florida

Map F
Vegetative Associations

Figure 4



DRI Boundary

Land Use Legend

110 - Residential, Low Density
211 - Improved Pastures
224 - Abbandoned Citrus
311 - Herbaceous
414 - Pine Mesic Oak
421 - Xeric Oak
427- Live Oak
434 - Hardwood Coniferous Mixed
515 - Ditch
520 - Lake
630 - Wetland Forested Mixed
641 Freshwater Marsh
643 - Wet Prairie
814 - Field Roads

Modica & Associates, Inc.
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Note: All FLUCCS information hereon has been provided by Modica & Associates, in Shapefile Format.

0 2,000 Feet

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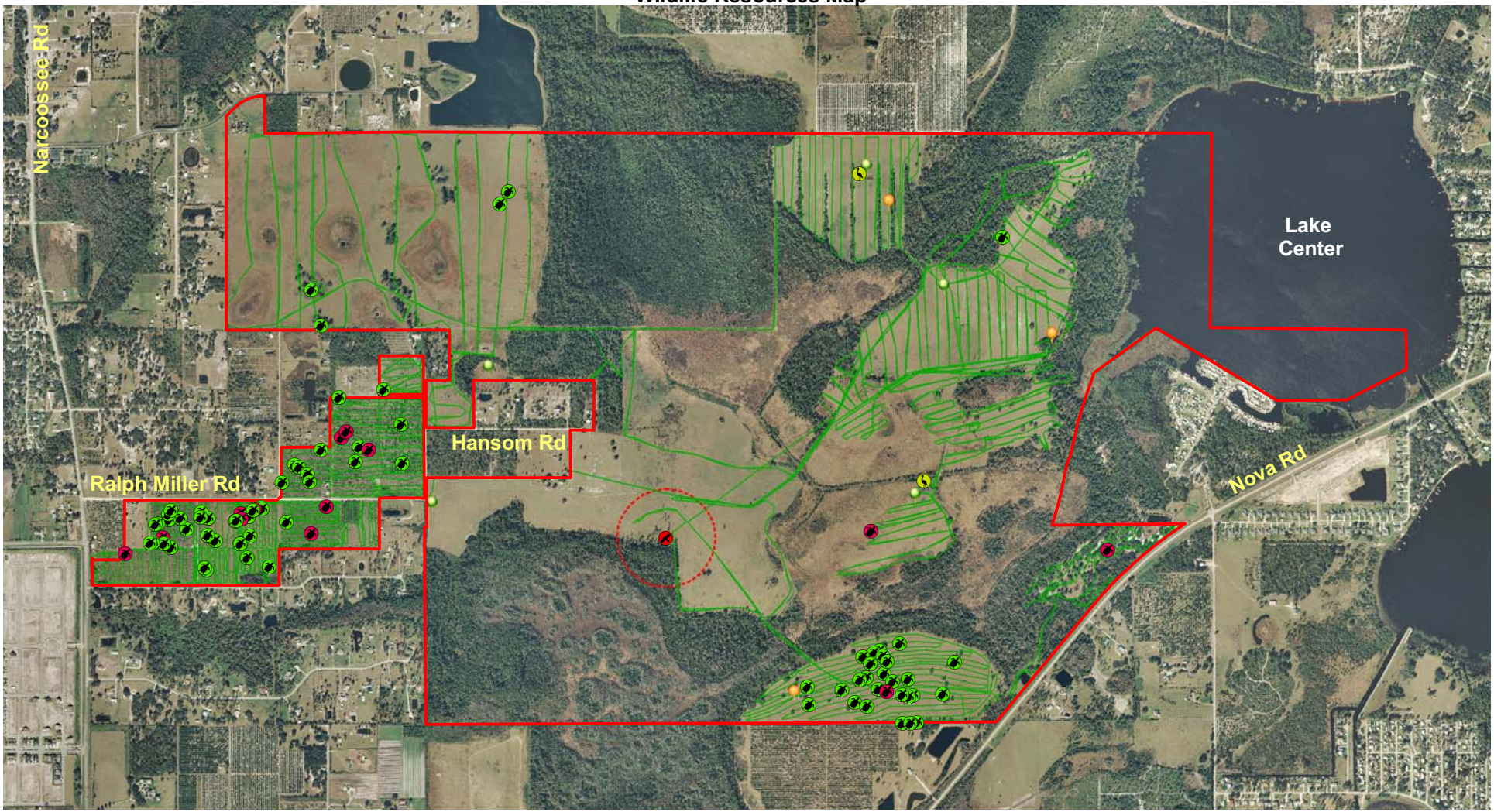
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

Center Lake DRI

Sections 27-29, 33, 34, Township 25 South, Range 31 East
Osceola County, Florida

Map G
Wildlife Resources Map

Figure 5



DRI Boundary

Wildlife Legend

- Eagle Nest
- 660ft Eagle Protection Zone
- Wildlife Survey Transects
- SandHill Crane (Potential Nests, 2007 Survey)

Gopher Tortoise Burrows

status

- Active
- Inactive

Wildlife Observations

Wildlife

- Fox Squirrel
- Sandhill Crane

Modica & Associates, Inc.
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Email: environmental@modica.cc

Note: All Wildlife information hereon has been provided by Modica & Associates, in Shape File Format.

0 2,000 Feet

Rj WHIDDEN and ASSOCIATES, INC.
LAND PLANNERS AND DEVELOPMENT CONSULTANTS

EXHIBITS

Living with alligators

In Florida, increasing numbers of people living and recreating near water have led to a steady rise in the number of alligator-related complaints. Although the majority of these complaints relate to alligators occurring in locations where they simply aren't wanted, a small number tragically involve bites to people. The FWC removes more than 7,000 nuisance alligators per year. Through removal of these alligators and increased public awareness, the rate of alligator bites has remained constant despite the increased potential for alligator-human interaction.

Alligators are an important part of Florida's heritage and play a valuable role in the ecology of our state's wetlands. A better understanding of these facts and a broader knowledge of alligator behavior will help ensure that people and alligators can continue to coexist.

Visit MyFWC.com/gators for more information about alligators and the latest statistics.

Tim Donovan

Call 1-866-FWC-GATOR (392-4286) to report nuisance alligators.

Janice Plain

Call 1-866-FWC-GATOR (392-4286) to report nuisance alligators.

Regional offices
Northwest Region, Panama City
850-265-3676

North Central Region, Lake City
386-758-0525

Northeast Region, Ocala
352-732-1225

Southwest Region, Lakeland
863-648-3200

South Region, West Palm Beach
561-625-5122

100K 08/08

printed on recycled paper

A guide to living with

Alligators

Jamie Feddersen

Florida Fish and Wildlife Conservation Commission
MyFWC.com

Lizabeth West

Do not swim outside of posted swimming areas or in waters that may be inhabited by alligators.

About alligators

Alligators have inhabited Florida's marshes, swamps, rivers and lakes for many centuries. Meanwhile, Florida has experienced tremendous human population growth, with hundreds of people moving into the state daily. Many new residents seek waterfront homes, resulting in increased interactions between people and alligators, which are found in all 67 counties.

Although many Floridians have learned to coexist with alligators, the potential for conflict always exists. Because of their predatory nature and large size (up to 14 feet in length and weighing as much as 1,000 pounds), alligators sometimes target pets and livestock as prey. Unfortunately, people are occasionally bitten, and in rare instances, killed by large alligators. Since 1948, more than 300 unprovoked bites to people have been documented in Florida, with at least 22 resulting in deaths.

Over the past 10 years, the Florida Fish and Wildlife Conservation Commission (FWC) has received an average of more than 16,000 alligator-related complaints per year. Most of these complaints deal with alligators occurring in places such as backyard ponds, canals, ditches and streams, but other conflicts occur in garages, pools and in golf course ponds. In many cases, if left alone, alligators will eventually retreat to more-preferred, isolated areas away from people.

Safety tips

■ If you encounter an alligator over four feet in length that poses a threat to humans or property, call 1-866-FWC-GATOR (392-4286). The FWC will evaluate your complaint and, if necessary, send a contracted nuisance alligator trapper to remove it.

■ Be aware of the possibility of alligator attacks when in or near fresh or brackish waterbodies. Attacks may occur when people do not pay close enough attention to their surroundings when working or recreating near water.

■ Closely supervise children when they are playing in or around water. Never allow small children to play unsupervised near water.

■ Do not swim outside of posted swimming areas or in waters that might be inhabited by large alligators.

■ Alligators are most active between dusk and dawn. Therefore, swim only during daylight hours.

■ Leave alligators alone. State law prohibits killing, harassing or possessing alligators.

■ Never feed or entice alligators – it's dangerous and illegal. When fed, alligators overcome their natural wariness and learn to associate people with food.

■ Inform others that feeding alligators is illegal and creates problems for others who want to use the water for recreational purposes.

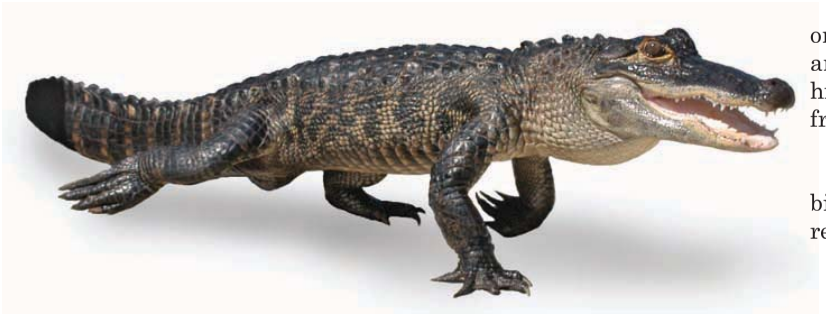
■ Dispose of fish scraps in garbage cans at boat ramps and fish camps. Do not throw them in the water. Although you are not intentionally feeding alligators when you do this, the end result can be the same.

Tim Donovan

A young alligator wanders onto a porch in a residential neighborhood.

■ Don't allow pets to swim, exercise or drink in or near waters that may contain alligators or in designated swimming areas. Dogs are more susceptible to being targeted than people, because dogs resemble the natural prey of alligators.

■ Never remove an alligator from its natural habitat or accept one as a pet. It is illegal and dangerous to do so. Handling even small alligators can result in injury.



■ Observe and photograph alligators only from a distance. Remember, they're an important part of Florida's natural history as well as an integral component of freshwater ecosystems.

■ Seek immediate medical attention if bitten by an alligator. Alligator bites can result in serious infection.

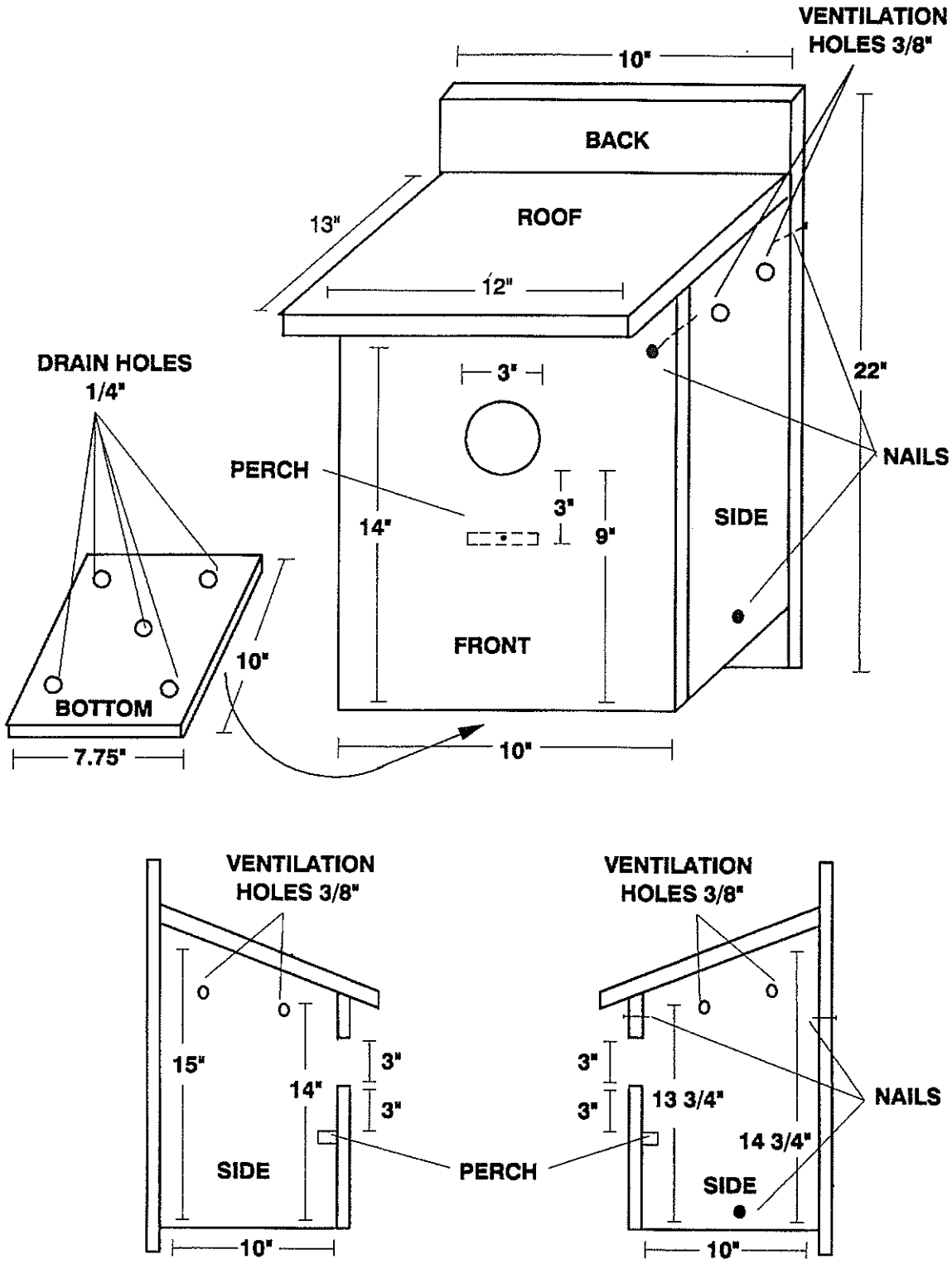


Figure 13. Kestrel nest box design. Half of the entrance cut-out is used for an inside perch, attached with a screw. Two nails at the top of one side panel act as hinges to swing the side open for cleaning. A single nail is used at the bottom to secure the side shut. Use 1 inch thick wood for construction.

Exhibit 9

Revised Question 12D

Question 12 - Vegetation and Wildlife

D. Indicate what impact development of the site will pose to affected state or federally listed wildlife and plant resources.

The project has been designed to avoid impact to protected wildlife species to the greatest extent possible. However, impacts to habitats utilized by the gopher tortoise, fox squirrel, and sandhill crane habitat are unavoidable. Efforts have been taken to minimize these impacts to the greatest extent possible and to mitigate impacts such that the proposed project will not adversely affect these species. Approximately 138.90 acres of the onsite uplands will remain as Park and Recreational areas in the post-development condition. Of that acreage, 50% will be preserved for passive recreational use in order to retain habitat for protected gopher tortoises, sandhill cranes and fox squirrels. Additional habitat will be provided through the preservation of expanded upland buffer areas which adjoin the undisturbed wetland areas. Additional efforts to avoid and/or mitigate impacts to onsite listed wildlife species are summarized below, as well as within Section 4.0 of the Habitat Management Plan prepared for this development.

Gopher Tortoise

A significant acreage of occupied gopher tortoise habitat will remain undisturbed in the post-development condition. However, some occupied gopher tortoise habitat is slated for development. FFWCC regulations allow for relocation of gopher tortoises from lands slated for development, following receipt of the appropriate permits and in accordance with permit conditions. Prior to commencement of development, the Developer shall obtain all necessary permits from the Florida Fish & Wildlife Conservation Commission (FFWCC) to address impacts to on-site gopher tortoise habitat. The permit applications shall be for relocation of tortoises to a long-term protected offsite recipient area and shall be consistent with the FFWCC's Gopher Tortoise Permitting Guidelines. The relocation effort may be permitted in phases as development and construction will proceed in phases. As a result of the proposed habitat conservation and gopher tortoise relocation efforts, this project is not expected to result in adverse impacts to this species.

Florida Sandhill Crane

The Center Lake DRI conceptual plan provides for 1,046.69 acres of wetland preservation, much of which consists of freshwater marsh and wet prairie habitats that will provide suitable nesting habitat for this species in the post-development condition. Wetland impacts will be minimized to the greatest extent possible and will be concentrated, where possible, in historically disturbed or altered wetland areas that provide suboptimal nesting habitat for this species. Additional protection of nesting habitat is afforded through the planned preservation of expanded upland buffers to these wetlands.

Florida sandhill cranes forage in grass-dominated urban and undeveloped land uses such as prairie land, pasture, sod farms, golf course roughs, lawns, utility easements, and surface water management areas. The Center Lake DRI conceptual plan provides for 138.9 acres of Park and Recreational, 135.9 acres of Water Management, and 113.96 acres of upland buffer areas that will provide continued foraging habitat for this species in the post-development condition. Additionally, it is expected that sandhill cranes will additionally forage within lawns and utility right-of-way areas, as they commonly observed to do within developed areas that are near suitable nesting habitat. The Habitat Management Plan sets forth specific provisions for managing onsite uplands to provide continued foraging habitat for this species.

Sherman's Fox Squirrel

The planned preservation of native forested communities within the Parks and Recreational and preservation areas will provide continued on-site habitat for use by this species following development. Additionally, pine trees will be planted within landscaped areas throughout the project site to further bolster post-development habitat. Much of the forested habitat along the eastern property will be preserved within the planned open space and within the upland buffers to wetlands.

Exhibit 10

Traffic Appendices Table of Contents

Appendices Table of Contents

C. HCS Intersection Analyses, Existing Conditions

D. Socioeconomic Data Conversion Factors

E. Cordon Line Distribution Summary

F. Growth Rate Comparisons

G. Intersection Significance Methodology

H. 2015 Intersection Volumes

I. HCS Intersection Analyses, Year 2015

J. HCS Intersection Analyses, Year 2015 with Improvements

K. Osceola County Existing Roadway Network Capacity

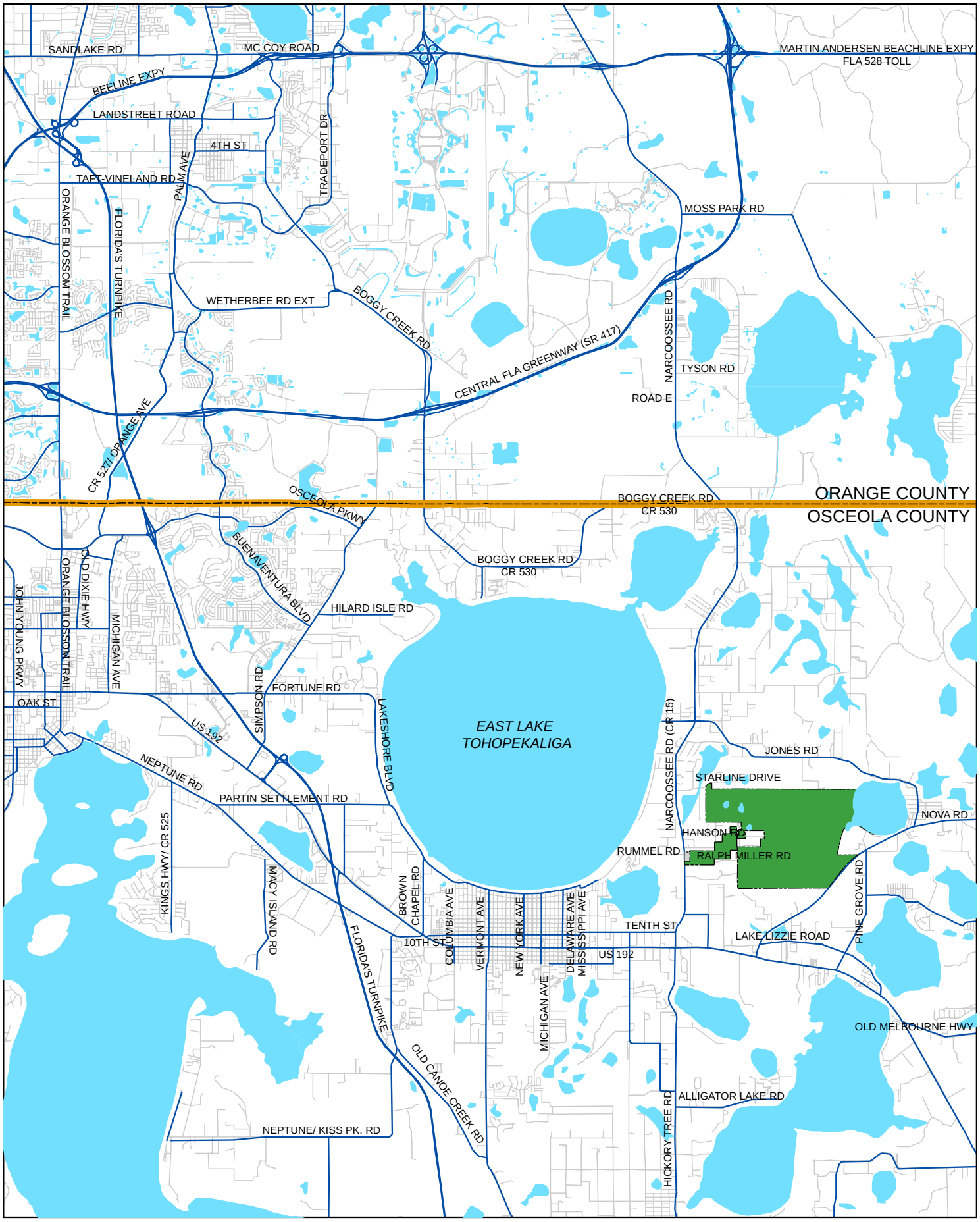
L. Osceola County Intersection Signal Timing and Phasing Data

M. Programmed Improvements

N. Summary of Intersection Significance

Exhibit 11 A

Revised Map J-1



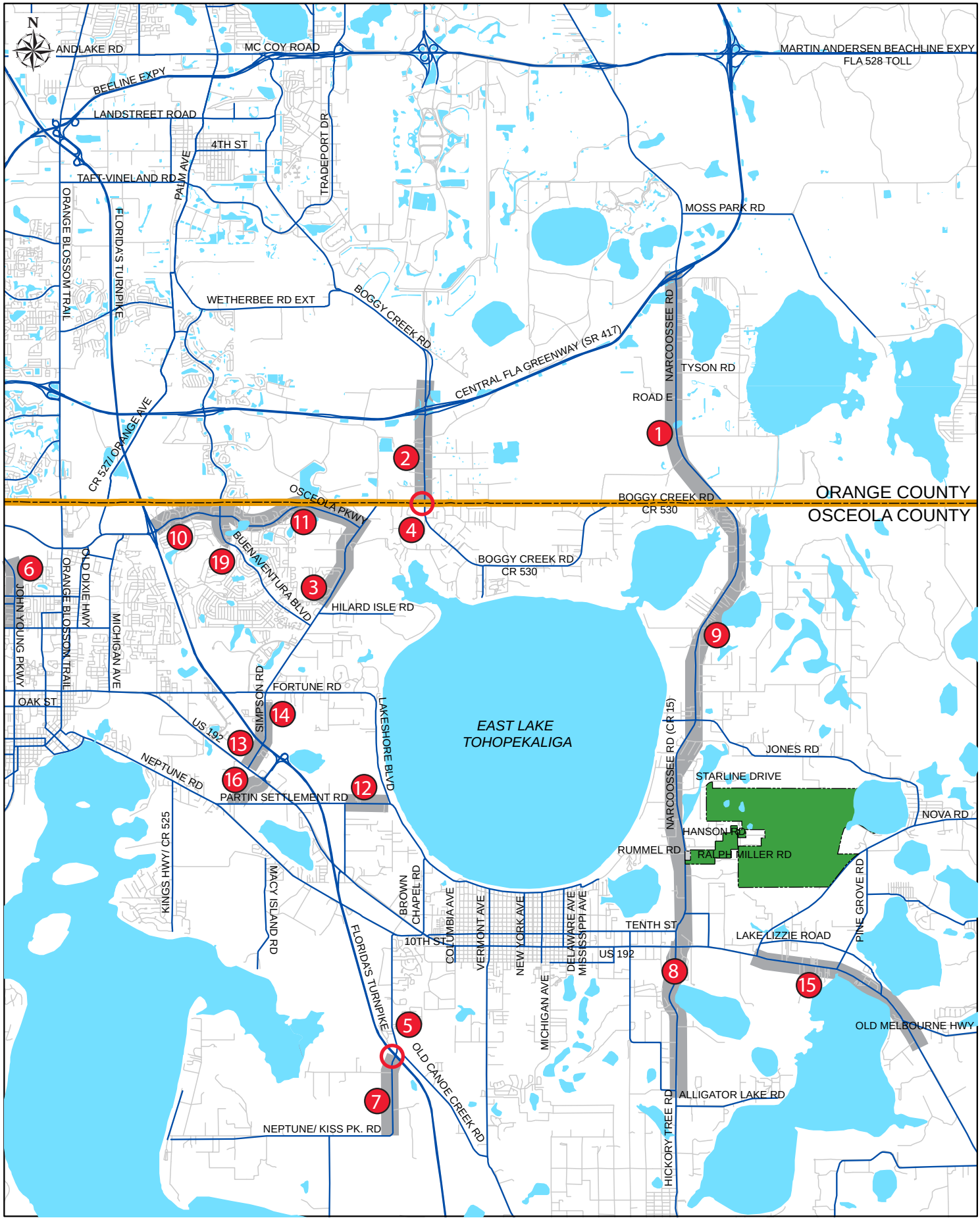
Site Boundary

Map J-1, Exhibit 11-A

Site Location Map and Primary Impact Area

Exhibit 11 B

Revised Map J-2

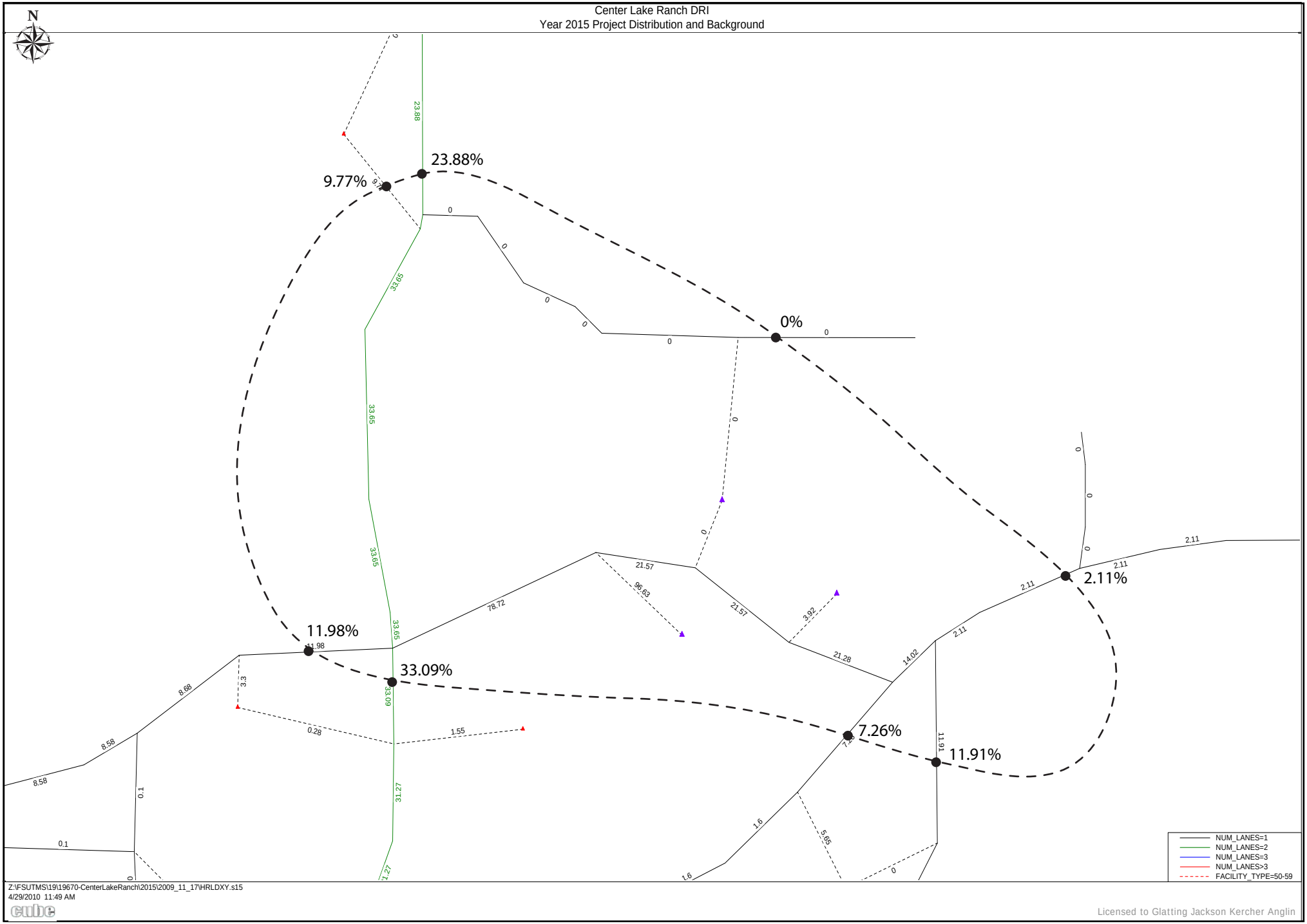


Site Boundary

Map J-2, Exhibit 11-B
Site Location Map and Primary Impact Area

Exhibit 12 A

2015 Project Distribution and Background



Center Lake Cordon Line

Exhibit 12-A

Cordon Line Distribution Graphic - 2015

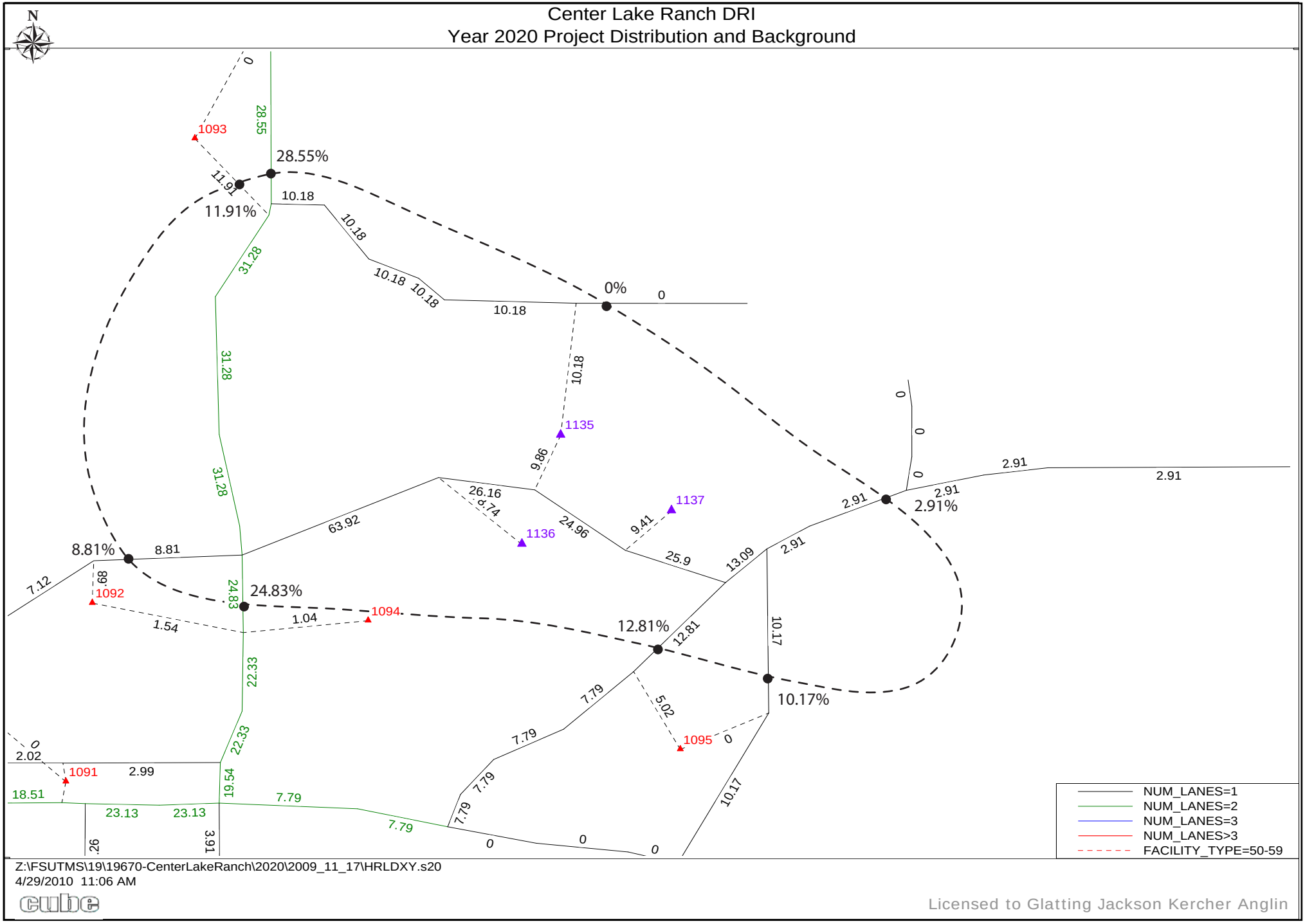
CENTER LAKE RANCH

AECOM

Exhibit 12 B

2020 Project Distribution and Background

Center Lake Ranch DRI
Year 2020 Project Distribution and Background



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cube

Center Lake Cordon Line

Exhibit 12-B
Cordon Line Distribution Graphic - 2020

AECOM

CENTER LAKE RANCH

Exhibit 13 A

Revised Table 21-E.2

Exhibit 13A - Revised Table 21-E.2

SUMMARY OF INTERSECTION LEVEL OF SERVICE, PHASE 1 (YEAR 2015)

Center Lake Ranch DRI

Intersection	Intersection Control	LOS Standard	EXISTING CONDITIONS					PHASE 1				
			APPROACH					APPROACH				
			OVERALL	EB	WB	NB	SB	OVERALL	EB	WB	NB	SB
CR 15/ SR 417 NB Ramps	Signal	LOS	B	D		B	B	C	E		B	B
		Delay (sec/veh)	16.9	37.1		15.7	10.2	24.1	58.6		18.7	13.5
		Queue Length (ft)		450		375	475		750		600	650
CR 15/ SR 417 SB Ramps	Signal	LOS	C		E	A	B	D		D	B	D
		Delay (sec/veh)	23.9		60.6	8.9	15.8	37.7		49.1	18.0	47.1
		Queue Length (ft)			725	50	75			975	575	1125
CR 15/ Jones Rd.	TWSC	LOS	E	E	D	A	A	F	F	F	B	B
		Delay (sec/veh)	37.6	37.6	30.3	9.5	8.5	883.4	1908.0	1424.0	14.2	12.5
		Queue Length (ft)							175	425		
CR 15/ Boggy Creek Rd.	Signal	LOS	A	D		A	A	B	D		C	A
		Delay (sec/veh)	7.9	39.4		4.7	5.8	17.9	42.3		21.9	7.7
		Queue Length (ft)		100		125	75		325		550	400
CR 15/ Ralph Miller Rd.	TWSC	LOS	D		D		A					
		Delay (sec/veh)	28.1		28.1		8.8					
		Queue Length (ft)										
CR 15/ Rummel Rd.	Signal	LOS	A	D		A	A					
		Delay (sec/veh)	7.6	36.6		4.3	4.6					
		Queue Length (ft)		175		25	50					
CR 15/ Rummel Rd./ Ralph Miller Rd.	Signal	LOS						C	E	C	B	C
		Delay (sec/veh)						26.9	72.5	27.9	14.3	26.5
		Queue Length (ft)							475.0	275	500.0	550.0
US 192/ Pine Grove Rd.	TWSC	LOS	E	A	A	E	C	C	B	A	D	D
		Delay (sec/veh)	36.7	9.0	8.7	36.7	16.5	20.7	10.5	9.4	31.6	26.9
		Queue Length (ft)							25		25	125
US 192/ Nova Rd.	TWSC	LOS	B	A			B	B	B			C
		Delay (sec/veh)	11.7	9.6			11.7	13.7	12.3			16.0
		Queue Length (ft)							75			50
US 192/ CR 15	Signal	LOS	C	C	C	C	D	F	F	F	C	E
		Delay (sec/veh)	31.6	28.7	29.8	31.8	40.1	98.9	141.0	81.5	29.2	64.8
		Queue Length (ft)		550	100	125	350		1700	875	175	575
US 192/ Old Hickory Tree Rd.	Signal	LOS	B	B	B	D	C	B	B	B	D	C
		Delay (sec/veh)	13	10.6	11.3	35.4	33.1	16.1	14.4	14.0	36.9	33.3
		Queue Length (ft)		75	325	175	75		700	550	225	75
US 192/ Delaware Ave.	Signal	LOS	A	A	A	D	D	B	B	A	D	D
		Delay (sec/veh)	7.4	6.2	6.0	54.4	53.2	12.2	13.4	8.0	53.0	51.9
		Queue Length (ft)		250	225	100	50		1100	375	100	50
US 192/ Michigan Ave. East	Signal	LOS	C	C	B	D	D	E	E	B	F	F
		Delay (sec/veh)	25.5	29.0	14.6	52.4	45	66.7	66.7	13.3	195.9	217.4
		Queue Length (ft)		725	375	375	200		2100	475	1100	700
US 192/ New York Ave.	Signal	LOS	B	A	A	D	D	B	B	A	D	D
		Delay (sec/veh)	10.7	9.1	8.1	49.8	50.2	14.4	15.1	9.6	51.0	51.3
		Queue Length (ft)		375	325	100	150		1150	525	125	200
US 192/ Vermont Ave.	Signal	LOS	C	C	C	E	D	D	E	C	E	E
		Delay (sec/veh)	34	22.9	34.3	77.4	52	53.0	70.2	26.9	65.3	72.3
		Queue Length (ft)		800	525	425	300		1800	700	450	425
US 192/ Columbia Ave./ Budinger Ave.	Signal	LOS	C	B	B	D	D	D	C	E	D	D
		Delay (sec/veh)	21.5	19.2	20.0	40.4	52.8	46.0	27.3	68.1	41.9	54.4
		Queue Length (ft)		600	25	125	150		1275	2150	175	175
US 192/ Neptune Rd.	Signal	LOS	C	C	B	D	D	D	E	B	E	E
		Delay (sec/veh)	23.1	28.1	13.7	41.1	48.5	49.9	75.5	12.8	55.7	69.3
		Queue Length (ft)		100	300	100	125		2600	450	550	275
US 192/ Kissimmee Park Rd.	Signal	LOS	D	C	C	E	E	E	E	C	E	E
		Delay (sec/veh)	37.2	32.8	26.1	58.4	60.9	56.4	65.3	33.7	64.7	72.9
		Queue Length (ft)		325.0	300.0	350.0	275		1975	725	425	350
US 192/ Commerce Center Dr.	Signal	LOS	C	C	C	D	D	D	E	C	E	E
		Delay (sec/veh)	31.4	30.4	22.3	50.3	50.4	50.9	65.7	22.4	65.0	65.5
		Queue Length (ft)		300	200	325	325		2200	800	375	400
US 192/ Partin Settlement Rd.	Signal	LOS	D	D	E	C	D	D	D	E	D	E
		Delay (sec/veh)	39.9	49.5	63.6	22.4	44.9	54.1	46.6	64.1	38.7	64.3
		Queue Length (ft)		250	525	200	525		350	700	1375	1900
US 192/ Boggy Creek Rd.	Signal	LOS	C	C	C	D	B	B	B	C	D	B
		Delay (sec/veh)	21.4	21.6	22.0	36.9	18.5	15.8	10.7	27.0	51.5	19.3
		Queue Length (ft)		650	25	0	375		775	625	25	475
US 192/ Michigan Ave. North	Signal	LOS	E	D	E	E	E	F	F	F	E	F
		Delay (sec/veh)	60.1	54.4	58.4	58.5	75.1	139.8	145.4	118.9	74.0	210.6
		Queue Length (ft)		425	575	425	625		2125	1475	675	1850
US 192/ Orange Blossom Trail	Signal	LOS	E	E	E	E	F	F	F	F	E	F
		Delay (sec/veh)	69.6	70.3	56.9	59.4	88.5	208.5	302.0	88.9	66.3	262.6
		Queue Length (ft)		1,300	900	250	925		3250	1525	950	2400

Source: Design + Planning AECOM

Exhibit 13 B

Revised Table 21-F.1

Exhibit 13B - Revised Table 21-F.1

SUMMARY OF INTERSECTION SIGNIFICANCE

Center Lake Ranch DRI

Intersection	Adverse Approach	Lane Group Capacity		Proj. Trips	Significance (Proj. Trips/LOS Cap.)	Project Significant?
		LOS E	LOS D*			
Narcoossee Road/Jones Road	EBLTR	41	28	0	0.0%	No
	WBLTR	144	99	95	**96.0%**	**Yes**
Narcoossee Road/ Ralph Miller/ Rummel Road	EBLT	290	199	83	**41.6%**	**Yes**
	SBL	190	131	179	**137.0%**	**Yes**
US 192/ Narcoossee Road	EBL	510	351	154	**43.9%**	**Yes**
	SBL	402	276	14	**5.1%**	**Yes**
	SBR	370	254	146	**57.4%**	**Yes**
US 192/ Michigan Ave. East	EBL	77	53	0	0.0%	No
	EBT	2,561	1,761	52	2.95%	No
	WBL	189	130	14	**10.8%**	**Yes**
	NBLT	264	182	0	0.0%	No
	NBR	428	294	0	0.0%	No
	SBLTR	168	116	0	0.0%	No

* LOS D capacity calculated (LOS E capcity * 0.6875) for intersections in Osceola County

Source: Design + Planning AECOM

Exhibit 13 C

Revised Table 21-F.2

Exhibit 13C - Revised Table 21-F.2

SUMMARY OF INTERSECTION IMPROVEMENTS, PHASE 1

Center Lake Ranch DRI

Intersection	Intersection Control	LOS Standard	Phase 1					PHASE 1 (Improved)					Improvement*
				APPROACH					APPROACH				
			OVERALL	EB	WB	NB	SB	OVERALL	EB	WB	NB	SB	
CR 15/ Jones Rd.	TWSC	LOS	F	F	F	B	B	C	B	B	C	E	Add EBR and WBR; Signalization not warranted
		Delay (sec/veh)	883.4	1908.0	1424.0	14.2	12.5	28.1	14.2	12.5	32.6	68.6	
		Queue Length (ft)		175	425				50	200	250	450	
CR 15/ Rummel Rd./ Ralph Miller Rd.	Signal	LOS	C	E	C	B	C	B	D	D	A	B	Changed to EBL and EBRT; Signal and Phasing
		Delay (sec/veh)	26.9	72.5	27.9	14.3	26.5	16.8	38.6	42.8	8.5	10.3	
		Queue Length (ft)		475	275	500	550		275	375	400	250	
US 192/ CR 15	Signal	LOS	F	F	F	C	E	E	E	D	E	D	Add EBL and a receiving lane; split phase for N/S
		Delay (sec/veh)	98.9	141.0	81.5	29.2	64.8	57.0	61.9	52.0	69.2	50.9	
		Queue Length (ft)		1,700	875	175	575		800	725	250	625	
US 192/ Michigan Ave. East	Signal	LOS	E	E	B	F	F	C	C	B	E	E	Add SBL; restripe NB to NBL and NBTR; rephase
		Delay (sec/veh)	66.7	66.7	13.3	195.9	217.4	30.0	30.4	15.4	68.1	60.8	
		Queue Length (ft)		2,100	475	1,100	700		1,750	500	575	300	

* Any geometric improvements assume optimization of timing and phasing
** 95% queue length
Source: Design + Planning AECOM

Exhibit 14

Signalized Intersection Release 5.21

HCS+: Signalized Intersections Release 5.21

Analyst: DHirsch
Agency: Glatting Jackson
Date: 12/2/09
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: SR 417 NB Ramps

Inter.: 01N Narcoossee-417NB 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	0	2	0	1	2	0
LGConfig	L		R					TR		L	T	
Volume	417		293					796	286	204	1328	
Lane Width	12.0		12.0					12.0		12.0	12.0	
RTOR Vol			72						33			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru					Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left					SB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	26.0					8.0	51.0	
Yellow	4.0					4.0	4.0	
All Red	1.0					0.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	465	1787	0.97	0.26	71.6	E		
							58.6	E
R	420	1615	0.57	0.26	34.0	C		
Westbound								
Northbound								
TR	1765	3460	0.65	0.51	18.7	B	18.7	B
Southbound								
L	298	1805	0.74	0.65	22.4	C		
T	2257	3582	0.64	0.63	12.1	B	13.5	B

Intersection Delay = 24.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: SR 417 SB Ramps

Inter.: 01S Narcoossee-417SB 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	0	1	1	2	0	0	2	1
LGConfig				L		R	L	T			T	R
Volume				601		324	109	1060			1326	175
Lane Width				12.0		12.0	12.0	12.0			12.0	12.0
RTOR Vol						111						35

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	A	A	
Thru					Thru	A	A	
Right					Right			
Peds					Peds			
WB Left		A			SB Left			
Thru					Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		37.0				8.0	40.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				0.0	2.0	

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	661	1787	0.97	0.37	57.7	E		
							48.8	D
R	592	1599	0.38	0.37	23.5	C		
Northbound								
L	214	1752	0.54	0.54	23.5	C		
T	1863	3582	0.61	0.52	17.4	B	18.0	B
Southbound								
T	1433	3582	0.98	0.40	49.8	D	47.0	D
R	633	1583	0.24	0.40	20.1	C		

Intersection Delay = 37.6 (sec/veh) Intersection LOS = D

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: kmah
Agency/Co.: Glatting Jackson
Date Performed: 12/2/2009
Analysis Time Period: PM peak
Intersection: 02 Narcoossee-Jones 15PM
Jurisdiction: Osceola County
Units: U. S. Customary
Analysis Year: 2015
Project ID: 19670 - Center Lake Ranch DRI
East/West Street: Jones Road
North/South Street: Narcoossee Road
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	29	1041	76	114	1448	51
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	30	1095	80	120	1524	53
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	46	5	87	22	3	15
Peak Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	48	5	91	23	3	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No /			No /	
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT		LTR			LTR	
v (vph)	30	120		144			41	
C(m) (vph)	423	602		37			11	
v/c	0.07	0.20		3.89			3.73	
95% queue length	0.23	0.74		16.62			6.22	
Control Delay	14.2	12.5		1524			1908	
LOS	B	B		F			F	
Approach Delay				1524			1908	
Approach LOS				F			F	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: kmah
Agency/Co.: Glatting Jackson
Date Performed: 12/2/2009
Analysis Time Period: PM peak
Intersection: 02 Narcoossee-Jones 15PM
Jurisdiction: Osceola County
Units: U. S. Customary
Analysis Year: 2015
Project ID: 19670 - Center Lake Ranch DRI--adds EBL and WBL; signal not
East/West Street:
North/South Street: Narcoossee Road
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	29	1044	77	115	1450	51
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	30	1098	81	121	1526	53
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	TWLTL			/ 2		
RT Channelized?						
Lanes	0	2	0	0	2	0
Configuration		LT	TR		LT	TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	46	5	89	22	3	15
Peak Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	48	5	93	23	3	15
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	0	1	1	0	1	1
Configuration		LT	R		LT	R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	LT	LT		R	LT		R
v (vph)	30	121	53		93	26		15
C(m) (vph)	422	600	109		456	62		337
v/c	0.07	0.20	0.49		0.20	0.42		0.04
95% queue length	0.23	0.75	2.17		0.76	1.60		0.14
Control Delay	14.2	12.5	65.9		14.9	99.8		16.2
LOS	B	B	F		B	F		C
Approach Delay			33.4			69.2		
Approach LOS			D			F		

HCS+: Signalized Intersections Release 5.21

Analyst: DHirsch
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: Boggy Creek Rd.

Inter.: 03 Narcoossee - Boggy Creek 15
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Narcoossee Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	0	1	0	0	0	1	2	0	0	2	1
LGConfig	L		R				L	T			T	R
Volume	117		332				276	626			963	170
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
RTOR Vol			133									15

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru					Thru	A		
Right	A				Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	22.5				75.0			
Yellow	5.0				5.0			
All Red	1.5				1.0			

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	362	1770	0.35	0.20	38.1	D		
							42.3	D
R	327	1599	0.65	0.20	44.8	D		
Westbound								
Northbound								
L	310	454	0.96	0.68	55.9	E		
T	2442	3582	0.28	0.68	6.9	A	21.9	C
Southbound								
T	2442	3582	0.42	0.68	8.0	A	7.7	A
R	1090	1599	0.15	0.68	6.3	A		

Intersection Delay = 17.9 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: Ralph Miller/ Rummel Road

Inter.: 04 Narcoossee-Ralph Miller Rum
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	2	0	1	2	0	1	2	1
LGConfig		LT	R	DefL	TR		L	TR		L	T	R
Volume	170	83	58	207	78	173	37	769	217	185	1074	214
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			26			16			0			20

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A	A			SB Left	A		
Thru	A	A			Thru	A		
Right	A	A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	21.2	6.0				48.8		
Yellow	4.0	4.0				4.0		
All Red	1.0	0.0				1.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	290	1231	0.97	0.24	78.3	E	72.5	E
R	373	1583	0.10	0.24	27.0	C		
Westbound								
DefL	428	1805	0.54	0.39	29.5	C		
TR	612	1710	0.43	0.36	22.4	C	25.7	C
Northbound								
L	159	293	0.26	0.54	11.8	B		
TR	1853	3418	0.59	0.54	14.4	B	14.3	B
Southbound								
L	190	351	1.08	0.54	110.1	F		
T	1923	3547	0.62	0.54	14.8	B	26.5	C
R	876	1615	0.25	0.54	11.0	B		

Intersection Delay = 26.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: Ralph Miller/ Rummel Road

Inter.: 04 Narcoossee-Ralph Miller Rum
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	1	2	0	1	2	1
LGConfig	L	TR		L	TR		L	TR		L	T	R
Volume	170	84	58	212	80	177	37	769	221	189	1074	214
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vol			26			16			0			20

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A	A			NB	Left		A		
	Thru		A				Thru		A		
	Right		A				Right		A		
	Peds						Peds				
WB	Left	A	A			SB	Left	A	A		
	Thru		A				Thru	A	A		
	Right		A				Right	A	A		
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		5.2	19.5					5.0	42.3		
Yellow		4.0	4.0					4.0	4.0		
All Red		1.0	0.0					1.0	0.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	244	1805	0.77	0.32	44.5	D		
TR	392	1810	0.33	0.22	30.2	C	38.7	D
Westbound								
L	361	1805	0.65	0.32	32.2	C		
TR	371	1710	0.72	0.22	39.5	D	36.1	D
Northbound								
L	181	385	0.23	0.47	14.8	B		
TR	1606	3417	0.68	0.47	19.9	B	19.7	B
Southbound								
L	230	1805	0.91	0.57	65.2	E		
T	2061	3547	0.58	0.58	12.3	B	18.8	B
R	938	1615	0.23	0.58	9.2	A		

Intersection Delay = 23.3 (sec/veh) Intersection LOS = C

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: kmah
Agency/Co.: Glatting Jackson
Date Performed: 12/2/2009
Analysis Time Period: PM peak
Intersection: 05 US192-PineGrove 15PM
Jurisdiction: Osceola County
Units: U. S. Customary
Analysis Year: 2015
Project ID: 19670 - Center Lake Ranch DRI
East/West Street: US 192
North/South Street: Pine Grove Road
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	175	763	3	3	645	105
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	184	803	3	3	678	110
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Raised curb		/ 2			
RT Channelized?			No			No
Lanes	1	2	1	1	2	1
Configuration	L	T	R	L	T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	19	9	7	98	14	119
Peak Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	20	9	7	103	14	125
Percent Heavy Vehicles	0	0	0	8	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/			/
Lanes	0	1	0	0	1	1
Configuration		LTR		LT		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L	L		LTR		LT		R
v (vph)	184	3		36		117		125
C(m) (vph)	840	828		171		205		663
v/c	0.22	0.00		0.21		0.57		0.19
95% queue length	0.83	0.01		0.77		3.11		0.69
Control Delay	10.5	9.4		31.6		43.6		11.7
LOS	B	A		D		E		B
Approach Delay				31.6			27.1	
Approach LOS				D			D	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: kmah
Agency/Co.: Glatting Jackson
Date Performed: 12/2/2009
Analysis Time Period: PM peak
Intersection: 06 US192-Nova 15PM
Jurisdiction: Osceola County
Units: U. S. Customary
Analysis Year: 2015
Project ID: 19670 - Center Lake Ranch DRI
East/West Street: US 192
North/South Street: Nova Road
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	385	1144			679	21
Peak-Hour Factor, PHF	0.95	0.95			0.95	0.95
Hourly Flow Rate, HFR	405	1204			714	22
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Raised curb		/ 2			
RT Channelized?					Yes	
Lanes	1	2			2	1
Configuration	L	T			T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				20		220
Peak Hour Factor, PHF				0.95		0.95
Hourly Flow Rate, HFR				21		231
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes				1		1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L					L		R
v (vph)	405					21		231
C(m) (vph)	895					98		645
v/c	0.45					0.21		0.36
95% queue length	2.39					0.76		1.62
Control Delay	12.3					51.5		13.7
LOS	B					F		B
Approach Delay							16.8	
Approach LOS							C	

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 07 US192-CR15 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	1	1	1	1	1	1	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	645	853	146	113	812	234	110	127	58	372	206	487
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			49			77			40			162

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left	A				SB Left	A	A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	29.7	23.8			7.7	24.3		
Yellow	3.0	5.0			3.0	3.5		
All Red	1.5	1.0			0.0	1.5		

Cycle Length: 104.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	510	1787	1.35	0.29	205.2	F		
T	820	3582	1.11	0.23	104.7	F	141.0	F
R	370	1615	0.28	0.23	33.4	C		
Westbound								
L	510	1787	0.24	0.29	28.7	C		
T	796	3478	1.09	0.23	97.7	F	81.5	F
R	349	1524	0.48	0.23	35.8	D		
Northbound								
L	341	1805	0.34	0.36	24.3	C		
T	444	1900	0.30	0.23	33.3	C	29.2	C
R	377	1615	0.05	0.23	31.0	C		
Southbound								
L	402	1752	0.99	0.36	76.8	E		
T	444	1900	0.49	0.23	35.4	D	64.8	E
R	370	1583	0.94	0.23	69.8	E		

Intersection Delay = 98.9 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 07 US192-CR15 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: CR 15 (Narcoossee Road)

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	2	1	1	2	1	1	1	1	1	1	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	645	853	146	113	812	234	110	127	58	372	206	487
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			49			77			40			162

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A				SB Left		A	
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	21.0	26.7				8.8	26.0	
Yellow	3.0	5.0				3.5	3.5	
All Red	1.5	1.0				1.5	1.5	

Cycle Length: 103.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	708	3471	0.97	0.20	66.9	E		
T	929	3582	0.98	0.26	61.6	E	61.9	E
R	419	1615	0.25	0.26	30.5	C		
Westbound								
L	364	1787	0.33	0.20	35.5	D		
T	902	3478	0.96	0.26	58.0	E	52.0	D
R	395	1524	0.42	0.26	32.5	C		
Northbound								
L	154	1805	0.76	0.09	65.6	E		
T	162	1900	0.83	0.09	75.9	E	69.2	E
R	138	1615	0.14	0.09	44.0	D		
Southbound								
L	442	1752	0.90	0.25	57.6	E		
T	480	1900	0.46	0.25	33.2	C	50.9	D
R	400	1583	0.87	0.25	54.5	D		

Intersection Delay = 57.0 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 08 US192-OldHickoryTree 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Old Hickory Tree Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	0	1	1	1	0	1	0
LGConfig	L	T	R	L	TR		L	T	R	LTR		
Volume	55	1424	133	62	1236	5	144	19	88	12	20	40
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	
RTOR Vol			18			0			28			19

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left			A		NB Left	A			
Thru		A	A		Thru	A			
Right		A	A		Right	A			
Peds					Peds				
WB Left	A				SB Left	A			
Thru	A	A			Thru	A			
Right	A	A			Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	9.5	41.0	9.5			20.0			
Yellow	4.0	5.0	4.0			3.5			
All Red	0.0	0.0	1.5			2.0			

Cycle Length: 100.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	171	1805	0.35	0.09	43.6	D		
T	1969	3547	0.77	0.56	13.5	B	14.4	B
R	896	1615	0.14	0.56	10.8	B		
Westbound								
L	165	1736	0.40	0.09	44.2	D		
TR	1913	3511	0.69	0.55	12.5	B	14.0	B
Northbound								
L	271	1355	0.56	0.20	38.8	D		
T	380	1900	0.05	0.20	32.4	C	36.9	D
R	323	1615	0.20	0.20	33.6	C		
Southbound								
LTR	341	1703	0.16	0.20	33.3	C	33.3	C

Intersection Delay = 16.1 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 9 US192-Delaware 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Delaware Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	1	0	0	1	0
LGConfig	L	TR		L	TR			LTR			LTR	
Volume	6	2538	21	6	1521	15	28	15	11	22	3	8
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
RTOR Vol			1			0			3			5

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	A				NB Left	A			
Thru	A	A			Thru	A			
Right	A	A			Right	A			
Peds					Peds				
WB Left			A		SB Left	A			
Thru		A	A		Thru	A			
Right		A	A		Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	18.0	65.0	18.0			21.0			
Yellow	4.0	4.0	4.0			3.5			
All Red	0.0	0.0	1.0			1.5			

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	232	1805	0.03	0.13	53.4	D		
TR	3181	5119	0.85	0.62	13.3	B	13.4	B
Westbound								
L	232	1805	0.03	0.13	53.4	D		
TR	3119	5019	0.52	0.62	7.9	A	8.0	A
Northbound								
LTR	226	1506	0.23	0.15	53.0	D	53.0	D
Southbound								
LTR	222	1481	0.13	0.15	51.9	D	51.9	D

Intersection Delay = 12.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 10 US192-Michigan 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Michigan Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	1	1	0	1	0
LGConfig	L	TR		L	TR			LT	R		LTR	
Volume	4	2324	233	57	1472	9	292	38	108	65	110	40
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0		12.0	
RTOR Vol			5			0			36			14

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru			A			Thru	A			
	Right			A			Right	A			
	Peds						Peds				
WB	Left	A	A			SB	Left	A			
	Thru		A	A			Thru	A			
	Right		A	A			Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		6.0	6.0	70.9				37.1			
Yellow		4.0	4.0	4.0				4.0			
All Red		0.0	0.0	2.0				2.0			

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	77	1805	0.05	0.04	64.6	E		
TR	2561	5056	1.07	0.51	66.7	E	66.7	E
Westbound								
L	189	1656	0.32	0.11	58.0	E		
TR	2930	5070	0.54	0.58	11.6	B	13.3	B
Northbound								
LT	264	996	1.34	0.26	229.7	F	195.9	F
R	428	1615	0.18	0.26	39.9	D		
Southbound								
LTR	168	635	1.29	0.26	217.4	F	217.4	F

Intersection Delay = 66.7 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 10 US192-Michigan 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Michigan Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	1	1	0	1	1	0
LGConfig	L	TR		L	TR		L	TR		L	TR	
Volume	4	2324	233	57	1472	9	292	38	108	65	110	40
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
RTOR Vol			5			0			36			14

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
WB Left	A				SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	9.1	77.8				18.0	14.1	
Yellow	4.0	4.0				4.0	4.0	
All Red	0.0	2.0				2.0	0.0	

Cycle Length: 139.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	118	1805	0.03	0.07	61.0	E		
TR	2830	5056	0.97	0.56	30.3	C	30.4	C
Westbound								
L	108	1656	0.56	0.07	69.7	E		
TR	2838	5070	0.56	0.56	13.3	B	15.4	B
Northbound								
L	400	1770	0.79	0.30	59.8	E		
TR	462	1685	0.26	0.27	39.7	D	54.3	D
Southbound								
L	158	1217	0.44	0.13	57.8	E		
TR	235	1816	0.62	0.13	62.3	E	60.8	E

Intersection Delay = 28.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 11 US192-NewYork 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: New York Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	1	0	0	1	1
LGConfig	L	TR		L	TR			LTR			LT	R
Volume	41	2496	10	5	1763	43	41	15	8	84	12	71
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	12.0
RTOR Vol			1			2			2			39

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru	A	A				Thru	A			
	Right	A	A				Right	A			
	Peds						Peds				
WB	Left			A		SB	Left	A			
	Thru		A	A			Thru	A			
	Right		A	A			Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		15.0	67.0	15.0				25.0			
Yellow		4.0	4.0	4.0				3.5			
All Red		0.0	0.0	1.0				1.5			

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	193	1805	0.23	0.11	57.8	E		
TR	3116	5072	0.86	0.61	14.4	B	15.1	B
Westbound								
L	193	1805	0.03	0.11	56.0	E		
TR	3108	5059	0.62	0.61	9.4	A	9.6	A
Northbound								
LTR	205	1150	0.32	0.18	51.0	D	51.0	D
Southbound								
LT	242	1356	0.42	0.18	52.3	D	51.3	D
R	288	1615	0.12	0.18	48.4	D		

Intersection Delay = 14.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 12 US192-Vermont 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Vermont Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		L	TR		L	TR			LTR	
Volume	19	1955	290	224	1582	26	214	80	171	30	155	14
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0			12.0	
RTOR Vol			7			1			45			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A	A		
	Thru	A	A				Thru	A	A		
	Right	A	A				Right	A	A		
	Peds						Peds				
WB	Left			A		SB	Left		A	A	
	Thru		A	A			Thru		A	A	
	Right		A	A			Right		A	A	
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		12.9	45.0	22.0				15.9	10.5	6.7	
Yellow		4.0	4.0	4.0				4.0	3.5	4.0	
All Red		0.0	0.0	2.0				0.0	0.0	1.5	

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	155	1687	0.13	0.09	58.8	E		
TR	2223	5027	1.06	0.44	70.3	E	70.2	E
Westbound								
L	281	1787	0.84	0.16	77.1	E		
TR	2568	5064	0.66	0.51	19.9	B	26.9	C
Northbound								
L	254	1770	0.89	0.21	78.7	E		
TR	372	1715	0.58	0.22	51.5	D	65.3	E
Southbound								
LTR	266	1867	0.79	0.15	72.3	E	72.3	E

Intersection Delay = 53.0 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 13 US192-Columbia 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Columbia Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	2	1	1	1	0	0	1	0
LGConfig	L	TR		L	T	R	L	TR			LTR	
Volume	53	2164	47	25	1858	43	103	34	57	49	23	35
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0			12.0	
RTOR Vol			5			9			10			18

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left		A			NB Left	A	A		
Thru	A				Thru	A	A		
Right	A				Right	A	A		
Peds					Peds				
WB Left		A			SB Left	A			
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	72.0	14.0				23.0	12.0		
Yellow	4.0	3.5				3.5	4.0		
All Red	2.0	1.0				0.0	1.0		

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	175	1752	0.32	0.10	59.6	E		
TR	2629	5111	0.88	0.51	26.5	C	27.2	C
Westbound								
L	181	1805	0.14	0.10	57.9	E		
T	1824	3547	1.07	0.51	68.8	E	67.7	E
R	831	1615	0.04	0.51	16.9	B		
Northbound								
L	430	1787	0.25	0.29	43.1	D		
TR	472	1716	0.18	0.28	38.9	D	41.2	D
Southbound								
LTR	208	1264	0.45	0.16	54.4	D	54.4	D

Intersection Delay = 45.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 14 US192-Neptune 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Neptune Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	1	1	1	1	1	1	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	65	2165	24	207	1485	68	43	68	482	134	72	76
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			6			10			199			25

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A	A		
	Thru			A			Thru		A		
	Right			A			Right		A		
	Peds						Peds				
WB	Left	A	A			SB	Left	A	A		
	Thru		A	A			Thru		A		
	Right		A	A			Right		A		
	Peds						Peds				
NB	Right	A	A			EB	Right				
SB	Right					WB	Right				
Green		9.0	9.0	81.0				9.0	9.0		
Yellow		4.5	4.5	4.5				3.5	3.5		
All Red		0.0	0.0	1.0				0.0	1.5		

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	116	1805	0.59	0.06	71.8	E		
T	2072	3582	1.11	0.58	76.1	E	75.5	E
R	934	1615	0.02	0.58	12.6	B		
Westbound								
L	287	1787	0.77	0.16	68.0	E		
T	2418	3582	0.65	0.68	5.3	A	12.8	B
R	1090	1615	0.06	0.68	7.7	A		
Northbound								
L	194	1805	0.24	0.16	50.9	D		
T	122	1900	0.59	0.06	71.1	E	55.7	E
R	421	1615	0.71	0.26	52.7	D		
Southbound								
L	198	1805	0.72	0.16	67.3	E		
T	122	1900	0.63	0.06	74.0	E	69.3	E
R	104	1615	0.52	0.06	68.0	E		

Intersection Delay = 49.9 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 15 US192-KissPark 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Kissimmee Park Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	1	1	2	1	1	2	0
LGConfig	L	T	R	L	T	R	L	LT	R	L	LTR	
Volume	75	1703	378	196	1040	119	286	156	89	197	189	34
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vol			39			49			35			4

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A	A			Thru	A		
Right	A	A			Right	A		
Peds					Peds			
WB Left			A		SB Left	A		
Thru		A	A		Thru	A		
Right		A	A		Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	21.0	40.0	19.5		15.0	19.0		
Yellow	4.5	4.5	4.5		4.0	4.0		
All Red	0.0	0.0	1.0		1.5	1.5		

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	266	1770	0.30	0.15	53.6	D		
T	1676	3582	1.07	0.47	73.6	E	65.3	E
R	748	1599	0.48	0.47	26.0	C		
Westbound								
L	249	1787	0.83	0.14	78.7	E		
T	1605	3512	0.68	0.46	26.0	C	33.7	C
R	731	1599	0.10	0.46	21.7	C		
Northbound								
L	243	1787	0.81	0.14	76.6	E		
LT	477	3513	0.56	0.14	58.2	E	64.7	E
R	219	1615	0.26	0.14	54.8	D		
Southbound								
L	191	1787	0.71	0.11	71.7	E		
LTR	375	3499	0.81	0.11	73.5	E	72.9	E

Intersection Delay = 56.4 (sec/veh) Intersection LOS = E

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 16 US192-CommerceCtr 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Commerce Center Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	2	1	1	2	1	1	1	0	1	1	0
LGConfig	L	T	R	L	T	R	L	TR		L	TR	
Volume	158	1916	80	105	1255	145	173	107	80	170	95	108
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vol			23			52			9			23

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left		A			NB Left	A	A		
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
WB Left		A			SB Left	A	A		
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	73.7	16.3				20.0	9.0		
Yellow	5.0	4.5				4.0	4.0		
All Red	1.0	1.0				0.0	1.5		

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	210	1805	0.79	0.12	78.4	E		
T	1886	3582	1.07	0.53	66.1	E	65.7	E
R	833	1583	0.07	0.53	16.4	B		
Westbound								
L	210	1805	0.53	0.12	60.7	E		
T	1849	3512	0.71	0.53	19.6	B	22.4	C
R	842	1599	0.12	0.53	16.8	B		
Northbound								
L	299	1805	0.61	0.25	57.0	E		
TR	254	1779	0.74	0.14	68.5	E	62.8	E
Southbound								
L	300	1805	0.60	0.25	56.5	E		
TR	250	1748	0.76	0.14	70.1	E	63.5	E

Intersection Delay = 50.6 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: Partin Settlement Rd.

Inter.: 17 US192-Partin Settlemen 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: US 192

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	1	1	2	1	2	2	1
LGConfig	L	TR		L	T	R	L	T	R	L	T	R
Volume	73	139	89	99	126	324	113	1506	43	387	1746	20
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			30			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	32.7					19.3	70.0	
Yellow	4.0					4.0	5.0	
All Red	2.0					2.0	1.0	

Cycle Length: 140.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	281	1202	0.27	0.23	44.5	D		
TR	424	1815	0.49	0.23	47.3	D	46.6	D
Westbound								
L	217	931	0.48	0.23	48.0	D		
T	444	1900	0.30	0.23	44.6	D	64.1	E
R	377	1615	0.90	0.23	76.6	E		
Northbound								
L	249	1805	0.48	0.14	57.1	E		
T	1774	3547	0.89	0.50	37.9	D	38.7	D
R	808	1615	0.06	0.50	18.0	B		
Southbound								
L	483	3505	0.84	0.14	71.6	E		
T	1791	3582	1.03	0.50	63.2	E	64.3	E
R	808	1615	0.03	0.50	17.7	B		

Intersection Delay = 54.1 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 18 US192-BoggyCreekRd 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Boggy Creek Rd.

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	3	0	1	3	1	1	1	0	1	1	1
LGConfig	L	TR		L	T	R	L	TR		L	LT	R
Volume	1095	2212	0	0	1356	16	2	0	1	23	1	550
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vol			0			1			0			114

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4		5	6	7	8
EB	Left	A				NB	Left	A		
	Thru	A	A				Thru	A		
	Right	A	A				Right	A		
	Peds						Peds			
WB	Left			A		SB	Left	A		
	Thru		A	A			Thru	A		
	Right		A	A			Right	A		
	Peds						Peds			
NB	Right					EB	Right			
SB	Right	A				WB	Right			
Green		48.3	32.4	5.5			3.8			
Yellow		3.5	5.0	3.0			4.5			
All Red		0.0	0.0	2.0			2.0			

Cycle Length: 110.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	1480	3370	0.78	0.44	29.0	C		
TR	3922	5124	0.59	0.77	1.6	A	10.7	B
Westbound								
L	90	1805	0.00	0.05	49.6	D		
T	1979	5074	0.72	0.39	27.1	C	27.0	C
R	573	1468	0.03	0.39	20.7	C		
Northbound								
L	66	1900	0.03	0.03	51.5	D		
TR	56	1615	0.02	0.03	51.4	D	51.5	D
Southbound								
L	65	1810	0.22	0.03	53.3	D		
LT	62	1794	0.18	0.03	53.0	D	19.3	B
R	860	1615	0.53	0.53	17.4	B		

Intersection Delay = 15.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 19 US192-NMichigan 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Michigan North/Oak

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	3	1	2	3	1	1	2	1	2	1	1
LGConfig	L	T	R	L	T	R	L	T	R	L	T	R
Volume	451	1979	60	682	1660	480	110	545	538	747	509	310
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			22			109			280			113

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left	A				SB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0	53.3				29.2	30.5	
Yellow	4.5	4.5				4.0	4.0	
All Red	1.0	2.0				1.0	2.0	

Cycle Length: 160.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	526	3505	0.90	0.15	85.7	F		
T	1690	5074	1.23	0.33	161.2	F	145.4	F
R	538	1615	0.07	0.33	36.5	D		
Westbound								
L	526	3505	1.37	0.15	244.2	F		
T	1690	5074	1.03	0.33	82.2	F	118.9	F
R	533	1599	0.73	0.33	52.3	D		
Northbound								
L	326	1787	0.36	0.18	57.8	E		
T	690	3618	0.83	0.19	70.8	E	74.0	E
R	308	1615	0.88	0.19	87.6	F		
Southbound								
L	633	3471	1.24	0.18	187.2	F		
T	359	1881	1.49	0.19	300.9	F	210.6	F
R	308	1615	0.67	0.19	65.7	E		

Intersection Delay = 139.8 (sec/veh) Intersection LOS = F

HCS+: Signalized Intersections Release 5.21

Analyst: kmah
Agency: Glatting Jackson
Date: 12/2/2009
Period: PM peak
Project ID: 19670 - Center Lake Ranch DRI
E/W St: US 192

Inter.: 20 US192-OBT 15PM
Area Type: All other areas
Jurisd: Osceola County
Year : 2015
N/S St: Orange Blossom Trail

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	1	2	1	1	2	1
LGConfig	L	TR		L	TR		L	T	R	L	T	R
Volume	286	2318	147	164	1386	261	184	762	197	551	1242	366
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vol			6			12			65			83

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	13.8	63.3				48.9	32.0	
Yellow	4.0	4.0				4.0	4.0	
All Red	1.0	2.0				2.0	1.0	

Cycle Length: 180.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	134	1752	2.25	0.08	667.2	F		
TR	1788	5083	1.45	0.35	259.5	F	302.0	F
Westbound								
L	137	1787	1.26	0.08	246.9	F		
TR	1744	4958	0.99	0.35	73.0	E	88.9	F
Northbound								
L	321	1805	0.60	0.18	71.4	E		
T	973	3582	0.82	0.27	67.4	E	66.3	E
R	434	1599	0.32	0.27	52.7	D		
Southbound								
L	318	1787	1.82	0.18	456.9	F		
T	983	3618	1.33	0.27	220.9	F	262.1	F
R	430	1583	0.69	0.27	63.6	E		

Intersection Delay = 208.4 (sec/veh) Intersection LOS = F