November 16, 2022

Beth Workman
Principal Planner
Department of Community Development – Zoning Division
1500 Monroe St.
Fort Myers, FL 33901

RE: 31 Oaks RPD
Lee County Planned Development Amendment Application

Dear Ms. Workman,

A 90-day extension request was approved for this application on August 19, 2022, to allow the applicant to compile the additional information needed to complete our resubmittal. As a result of the additional analysis that has been completed, several changes to the application have been made.

1. In order to provide additional development flexibility, the request now includes the potential for up to 342 townhouse units or a maximum of 265 single-family units.
2. In response to concerns from surrounding neighbors, the access to De Moya Drive has been removed and the additional access required by LDC section 10-291 now provides connection to the reverse frontage road located to the south of the Property. This eliminates the need the deviation related to connection separation.
3. In response to staff comments regarding floodplain storage to compensate for wetland impacts in the CHHA, the MCP, surface water management plan, and indigenous restoration and management plan have been updated to remove references to the provision of floodplain compensation within preserved uplands.

These and other updates to the application are explained in more detail in the enclosed comment response letter and revised application materials. We look forward to working with you.

Sincerely,
RVi Planning + Landscape Architecture

Jeremy Frantz, AICP
Project Director

November 16, 2022

Ms. Elizabeth Workman
Principal Planner
1500 Monroe Street, 2nd Floor
Fort Myers, FL 33901

RE: SR 31 Oaks RPD
DCI2021-00051 – Resubmittal 3

Dear Ms. Workman,

It is my pleasure to submit to you the attached revised documents related to the rezoning request for the 31 Oaks RPD. Please see the following responses to your comments received on July 13, 2022.

The following information has been provided to assist in your review of the petition:

1. Comment Letter Responses;
2. Revised List of Additional Agents;
3. Revised Boundary Survey;
4. Revised Sketch and Legal Description;
5. Revised Request Statement;
6. Revised Schedule of Uses;
7. Revised Deviation Justification Narrative;
8. Revised TIS;
9. Revised Master Concept Plan;
10. Aerial Exhibit with FLUCCS and MCP;
11. Revised Supplemental Surface Water Management Narrative;
12. Revised Indigenous Preserve Management Plan;
13. Protected Species Management Plan;
14. Revised Proposed Conditions;
15. Floodplain Improvements Exhibit; and
16. Floodplain No Impacts Memo.

The following is a list of Staff's comments with the Applicant's in **bold**.

ZONING REVIEW – BETH WORKMAN

1. Revise the MCP to provide an open space exhibit and cross sections on a second sheet in order to depict the detailed hatching representing the compensatory storage, indigenous rare and unique, indigenous upland preserve, indigenous wetland preserve, restored uplands (if applicable), and restored wetlands. The current acreages and hatching do not include all the types of habitats explained in the narrative and environmental report.

   RESPONSE: Please see the revised MCP depicting the revised hatching in the requested categories.

2. The applicant is providing cross section B-B on the MCP that is located at the southeast corner of the property abutting the commercial use that states no buffer required. Cross section B-B detail depicts a ten-foot buffer. Revise.

   RESPONSE: Please see the revised MCP showing the elimination of the aforementioned buffer.

3. The request narrative states that upland areas will be used for flood storage during storm events. The MCP depicts hatching but the environmental report does not provide details of the grading mentioned in the request narrative or the vegetation being proposed within these areas that survive periodic flooding. As previously mentioned, provide more detailed information in the form of an indigenous restoration and preservation management plan to describe each habitat being restored, created, or preserved. Provide a list of vegetation that will be proposed for restoration and suited for the topography. This information provides justification and clarification as to how the applicant is complying with the coastal high hazard policies.

   RESPONSE: Please see the revised MCP which no longer provides for flood storage within upland areas. The indigenous restoration and preservation management plan has also been updated to reflect this change.

4. Provide the proposed lot typical layouts and depict any drainage features or easements proposed on the residential lots.

   RESPONSE: Please see revised MCP showing typical lot layout. There are no easements currently anticipated to accommodate bypass flows for the development.

ENVIRONMENTAL REVIEW – CAMRYN SIVERSON

1. Master Concept Plan:
   a. On the MCP, the lake management easement is only demonstrating a 15-foot wide area. 10-328(a) of the Land Development code states that a lake management easement has a minimum required width of 20 feet. Please revise and demonstrate on the MCP. Please clarify if providing a 20-foot wide LME will impact buffering and landscaping. Policy 21.1.2 of the Lee Plan Caloosahatchee Shores Community Plan states that any deviation to buffering, landscaping, and architectural requirements may not be granted unless the request meets the criteria for variances.

      RESPONSE: Please see the revised MCP which includes a 20-foot-wide minimum LME. There are no impacts anticipated from the existence of the 20-foot-wide LME.

   b. LDC Section 10-329(d)(4) of the LDC requires lake bank slopes to be at a ratio not greater than 6:1 from the top of bank to a water depth of two feet below the dry season water table. LDC section 10-418(2)(c) states that the planted littoral shelf must be designed to include a minimum of a 20 foot wide littoral shelf extending waterward of the control elevation at a depth of no greater than two feet below the

control elevation. Please give a detailed explanation and a cross section of the sloping requirements and littoral shelf within the wet detention area/lake.

RESPONSE: Please see revised MCP showing typical littoral sections. There are no deviations to the LDC required littoral section.

c. The cross sections on the MCP show the buffering to adjacent properties. Please include and label all buffers on the map of MCP per LDC 34-373(4)(i). Please provide a separate page for all cross-sections.

RESPONSE: Please see the revised MCP with all proposed buffers/walls shown.

d. The map provided on the Indigenous species management plan upland acreages are different than the provided MCP preserve summary table. Please update and correct the MCP to include separate categories for: stormwater storage creation, indigenous uplands, wetlands, wetland creations, and rare and unique habitat. Please update and revise the MCP to breakdown the open space to include:
    i. percentage and acreage of required open space
    ii. acreage of required indigenous open space
    iii. percentage and acreage of provided indigenous
    iv. breakdown of habitat type as follows:
        1. percentage and acreage of wetland indigenous open space
        2. percentage and acreage of wetland creation open space
        3. percentage and acreage of rare and unique open space
        4. percentage and acreage of transitional/stormwater storage areas
        5. percentage and acreage of other open space
        6. percentage and acreage of buffer areas

RESPONSE: Please see the revised MCP with acreages corrected and broken down as requested.

2. <u>Indigenous Restoration and Management Plan:</u>
    a. Please separate the indigenous management plan from the protected species management plan to provide an indigenous restoration and management plan. Within the indigenous restoration and management plan, please include restoration methods, restoration planting specifications (height and on center information), and details removal of exotics, success criteria, monitoring, etc.

RESPONSE: As requested, the Indigenous Preserve Restoration and Management Plan has been separated from the Protected Species Management Plan for the Project. Copies of each plan are provided as a separate document.

b. To support policy 101.1.2., the indigenous restoration and management plan should separate the indigenous upland preserve areas, indigenous wetland preserve areas, creation of wetland preserve areas, rare and unique preserve areas, creation of transitional wetland/upland areas, etc. The acreages and terminology must be consistent with those depicted on the MCP (see comment 1d.) Each section must provide details of how the restoration will be completed,

the specific restoration plants, and specification and planting requirements for the restoration plants.

RESPONSE: Please see revised MCP and Indigenous Restoration and Management Plan showing consistent labeling.

Also, as requested, the attached Indigenous Preserve Restoration and Management Plan includes details regarding the proposed wetland creation and restoration activities, including plantings and planting specifications.

c. In the narrative and response letter to the county, the applicant has stated that upland areas are not being proposed to be wetlands, but as floodplain storage in large storm events. Use of upland areas as stormwater floodplains may result in upland vegetation failure. Please include details regarding how uplands will support periods of inundation and provide specifics on the supplemental plantings in these newly transitional areas.

RESPONSE: The narrative has been revised to reflect changes to the surface water management plan in this submittal. All floodplain storage will be provided through the surface water management system.

Please see the Indigenous Preserve Restoration and Management Plan for details regarding the proposed planting specifications within the wetland creation areas.

d. On page 4 of the response letter to the county, the applicant has stated transitional areas ("floodplain storage areas") will be graded to provide overflow storage in the case of severe storm events. Please provide cross sections of these graded areas labeling different planting zones. Within these zones please demonstrate predicted water inundation and plant species within each zone.

RESPONSE: Please see the Indigenous Preserve Restoration and Management Plan for details regarding the proposed planting specifications within the wetland creation areas.

e. The map provided in the Indigenous species management plan depicts different upland acreages than the provided MCP preserve summary table. Please update and correct the preserve summary and map to include separate categories for: stormwater storage creation, indigenous uplands, wetlands, wetland creations, and rare and unique habitat.

RESPONSE: Please see the revised MCP which includes an updated preserve summary table.

In addition, please see the updated Master Concept Plan overlaid on an Aerial with FLUCFCS and Wetlands.

NATURAL RESOURCES REVIEW – NIC DEFILIPPO

1. It appears that the project is proposing to impact approximately 5.1 acres of wetlands in the Coastal High Hazard Area (CHHA). Please confirm the amount of wetland impacts proposed in the CHHA.

   RESPONSE: Passarella to provide wetland impact acreage in CHHA.

2. Please provide the volume of flood storage capacity that will be lost because of these wetland impacts. Please detail how the proposed upland indigenous/flood storage areas will be graded to ensure that the compensatory flood storage will be provided. Without this level of detail, Staff cannot determine consistency with policy 101.3.2.

   RESPONSE: Due to project's proximity to the Caloosahatchee River, an analysis was completed to ensure that conveyance capacity is maintained, rather than the typical storage analysis, since, storage capacity would be taken largely by storm surge. Please see the "No Impacts Analysis" included within this submittal demonstrating conveyance equality.

3. Has the applicant considered alternative stormwater designs to provide the compensatory flood storage? Such as providing upsized dry retention areas in conjunction with the proposed indigenous flood storage areas to provide the compensatory flood storage capacity.

   RESPONSE: Yes, the alternative method quantifies and allows the same amount of flow through the development post-development to ensure no impacts around the property. Please see included "No Impacts Analysis."

4. The applicant is now proposing to use created uplands to provide the compensatory flood storage within the CHHA. Please revise the Request Statement as it references the creation of wetland areas instead.

   RESPONSE: The Master Concept Plan has been revised and created uplands are no longer proposed to provide compensatory flood storage within the CHHA.

LEGAL REVIEW – HUNTER SEARSON

1. Per LDC Sec. 34-202(a) the submittal requirements for applications requiring public hearing require a boundary survey in accordance with the requirements of Lee County LDC §34-202(a)(6). The boundary survey sketch does not show a call for the call stated in the legal description as being S02-02-36E, 26.28 feet. Please revise to comply with the LDC.

   RESPONSE: Please see the revised Boundary Survey which includes the call added to the revised boundary survey sketch.

2. Please be clear where the point of beginning and point of commencement is for the overall parcel. There appear to be two points of beginning and two points of commencement on the sketch.

   RESPONSE: Please see the revised Boundary Survey which includes labels for each legal description regarding the corresponding P.O.C. and P.O.B. Please note, there are three different P.O.C. and P.O.B. for the three different legal descriptions.

3. The legal description is misspelled as "SURVEOR'SLEGAL DESCRIPTION

RESPONSE: Please see the revised Boundary Survey with the typo corrected.

We appreciate Staff's time and consideration of the above information. Please contact me with any questions or concerns at (239) 319-0026 or jfrantz@rviplanning.com.

Sincerely,

RVi Planning + Landscape Architecture

Jeremy Frantz, AICP
Project Director

APPLICATION FOR PLANNED DEVELOPMENT PUBLIC HEARING UNINCORPORATED AREAS ONLY

Project Name: 31 Oaks RPD

Request: Rezone from: RPD & AG-2 To: RPD

Type: ☐ Major PD ☐ Minor PD ☐ DRI w/Rezoning ☐ PRFPD
☐ Major PD Amendment ☒ Minor PD Amendment

Bonus Density included? ☒ NO ☐ YES[1] for: _____ Bonus Units

[1] *If **YES**, submit additional fee required by LDC 2-147(A)(3)*

Summary of Project:
Amending Marina Del Lago RPD to add approximately 37 +/- acres of AG-2 zoned properties to result in a unified RPD renamed 31 Oaks RPD and allowing for the development of 265 single family dwelling units or 342 townhomes. The site will connect to Lee County Utilities. The maximum proposed building height is 35 feet.

PART 1
APPLICANT/AGENT INFORMATION

A. Name of Applicant: Neal Communities of Southwest Florida, Inc. c/o Tim Oak
Address: 28100 Bonita Grande Drive, Suite 106
City, State, Zip: Bonita Springs, FL 34135
Phone Number: (239) 405-7366
E-mail Address: toak@nealcommunities.com

B. Relationship of Applicant to owner (check one) and provide Affidavit of Authorization form:

☐ Applicant is the sole owner of the property. **[34-201(a)(1)a.1.]**

☒ Applicant has been authorized by the owner(s) to represent them for this action. **[34-202(a)(3)]**

☐ Application is County initiated. Attach BOCC authorization.

C. Authorized Agent: (If different than applicant) Name of the person who is to receive all County-initiated correspondence regarding this application. [34-202(a)(4)]

1. Company Name: Waldrop Engineering, LLC
Contact Person: Jeremy Frantz, AICP
Address: 28100 Bonita Grande Dr. Ste 305
City, State, Zip: Bonita Springs, FL 34135
Phone Number: (239) 319-0026 Email: jeremy.frantz@waldropengineering.com

2. Additional Agent(s): Provide the names of other agents that the County may contact concerning this application. **[34-202(a)(4)]**

PART 2
PROPERTY OWNERSHIP

A. Property owner(s): If multiple owners (corporation, partnership, trust, association), provide a list with owner interest. [34-202(a)(2)]

Name: See Attached.

Address:

City, State, Zip:

Phone Number: Email:

B. Disclosure of Interest [34-202(a)(2)]:

☒ Attach Disclosure of Interest Form.

C. Multiple parcels:

☒ Property owners list. **[34-202(a)(8)]**

☒ Property owners map. **[34-202(a)(8)]**

D. Certification of Title and Encumbrances [34-202(a)(7)]

1. Title certification document, no greater than 90 days old.

2. Date property was acquired by present owner(s): 5/9/2014; 3/12/2019; 4/19/2021

PART 3
PROPERTY INFORMATION

A. STRAP Number(s): [Attach extra sheets if additional space is needed.] **[34-203(a)(5)]**

See attached

B. Street Address of Property: N/A

C. Legal Description (must submit) [34-202(a)(5)]:

☒ Legal description (metes and bounds) (8½"x11") and sealed sketch of the legal description.

OR

☐ Legal description (NO metes and bounds) if the property is located within a subdivision platted per F.S. Chapter 177, and is recorded in the Official Records of Lee County under Instruments or Plat Books. (Click here to see an example of a legal description with no metes and bounds.)

AND

Boundary Survey [34-202(a)(6):

☒ A Boundary survey, tied to the state plane coordinate system.

OR

☐ Not required if the property is located within a subdivision platted per F.S. Chapter 177.

D. Surrounding property owners (within 500 feet of the perimeter of the subject parcel or portion thereof that is subject of the request)**:**

1. ☒ List of surrounding property owners. **[34-202(a)(9)]**

2. ☒ Map of surrounding property owners. **[34-202(a)(9)]**

3. ☒ One set of mailing labels. **[34-202(a)(9)]**

Note: When the case is found complete/ sufficient, a new list and mailing labels must be submitted.

E. Current Zoning of Property: Marina Del Lago RPD and AG-2 (See project narrative)

☒ Provide a list of all Zoning Resolutions and Zoning Approvals applicable to the subject property.

F. Use(s) of Property:

1. Current uses of property are: Vacant and Residential

2. Intended uses of property are: Residential

G. Future Land Use Classification (Lee Plan):

Suburban	65.55	Acres	74.2	% of Total
Wetlands	22.77	Acres	25.8	% of Total
		Acres		% of Total

H. Property Dimensions:

1.	Width (average if irregular parcel):	1,200 (avg)	Feet		
2.	Depth (average if irregular parcel):	1,800 (avg)	Feet		
3.	Total area:	88.6 ac	Acres or square feet		
4.	Frontage on road or street:	1,700 +/-	Feet on	SR 31	Street
	2nd Frontage on road or street:	300 +/-	Feet on	De Moya Dr	Street

I. Planning Communities/Community Plan Area Requirements: If located in one of the following planning communities/community plan areas, provide a meeting summary document of the required public informational session.

- ☐ Not Applicable
- ☐ Captiva Planning Community (Captiva Island). **[33-1612(a)&(b); Lee Plan Policy 13.1.7]**
- ☐ North (Upper) Captiva Community Plan area. **[33-1711]**
- ☐ Boca Grande Planning Community. **[Lee Plan Policy 22.1.5]**
- ☒ Caloosahatchee Shores Community Plan area. **[33-1482(a)&(b); Lee Plan Policy 21.6.3]**
- ☐ Page Park Community Plan area. **[33-1203(a) & (b); Lee Plan Policy 27.11.2]**
- ☐ Palm Beach Boulevard Community Plan area. **[Lee Plan Policy 23.5.2]**
- ☐ Buckingham Planning Community. **[Lee Plan Policy 17.7.2]**
- ☐ Pine Island Planning Community. **[33-1004(a) & (b); Lee Plan Policy 14.7.1]**
- ☐ Lehigh Acres Planning Community. **[33-1401(a)&(b); Lee Plan Policy 32.12.2]**
- ☐ North Fort Myers Planning Community. **[33-1532(a)&(b)]**
- ☐ North Olga Community Plan area. **[33-1663(a)&(b)]**

J. Waivers from Application Submission Requirements: Attach waivers, if any, approved by the Director of Zoning. **[34-201(c)]**

PART 4
TYPES OF LAND AREA ON PROPERTY

A.	**Gross Acres (total area within described parcel)**				**88.3**	**Acres**
1.	Submerged land subject to tidal influence			0	Acres	
2.	**a.** Preserved freshwater wetlands	13.48	Acres			
	b. Impacted wetlands	9.3	Acres			
	c. Preserved saltwater wetlands	0	Acres			
	d. Total wetlands (A.2.a. plus A.2.b. plus A.2.c.)			22.77	Acres	
3.	R-O-W providing access to non-residential uses			0	Acres	
4.	Non-residential use areas (1) (2)			0	Acres	

B. Total area not eligible as gross residential acreage (Items A.1. + A.3. + A.4.). **0** **Acres**

C. Gross residential acres. (A minus B) (3) **88.3** **Acres**

D. Gross residential acres (by Land Use Category)

1.	**a.**	Intensive Development – upland		Acres
	b.	Intensive Development – preserved freshwater wetlands		Acres
	c.	Intensive Development – impacted wetlands		Acres
2.	**a.**	Central Urban – upland		Acres
	b.	Central Urban – preserved freshwater wetlands		Acres
	c.	Central Urban – impacted wetlands		Acres
3.	**a.**	Urban Community or Suburban – upland		Acres
	b.	Urban Community or Suburban – preserved freshwater wetlands		Acres
	c.	Urban Community or Suburban – impacted wetlands		Acres

4.	**a.**	Suburban – upland	65.55	Acres
	b.	Suburban – preserved freshwater wetlands	13.48	Acres
	c.	Suburban – impacted wetlands	9.30	Acres
5.	**a.**	Outlying Suburban – upland		Acres
	b.	Outlying Suburban – preserved freshwater wetlands		Acres
	c.	Outlying Suburban – impacted wetlands		Acres
6.	**a.**	Sub-Outlying Suburban – upland		Acres
	b.	Sub-Outlying Suburban – preserved freshwater wetlands		Acres
	c.	Sub-Outlying Suburban – impacted wetlands		Acres
7.	**a.**	Rural, Outer Island, Rural Community Preserve – upland		Acres
	b.	Rural, Outer Island, Rural Community Preserve – wetlands		Acres
8.	**a.**	Open Lands – upland		Acres
	b.	Open Lands – wetlands		Acres
9.	**a.**	Resource – upland		Acres
	b.	Resource – wetlands		Acres
10.	**a.**	Wetlands		Acres
11.	**a.**	New Community – upland		Acres
	b.	New Community – wetlands		Acres
12.	**a.**	University Community – upland		Acres
	b.	University Community – wetlands		Acres
13.	**a.**	Coastal Rural – upland		Acres
	b.	Coastal Rural – wetlands		Acres
		TOTAL (should equal "C" above)	**88.3**	**Acres**

Notes:

(1) Lands for commercial, office, industrial uses, natural water bodies, and other non-residential uses must not be included except within the Mixed Use Overlay {see Note (2) below}.

(2) Within the Mixed Use Overlay, lands for commercial, office, industrial uses, natural water bodies, and other non-residential uses may be included in density calculations {see Lee Plan Objective 4.3}.

(3) Lands to be used for residential uses including land within the development proposed to be used for streets & street rights of way, utility rights-of-way, public & private parks, recreation & open space, schools, community centers, & facilities such as police, fire & emergency services, sewage & water, drainage, and existing man-made waterbodies.

PART 5
RESIDENTIAL DEVELOPMENT - PRELIMINARY DENSITY CALCULATIONS

i. Complete only if living units are proposed in a Future Land Use Category.

ii. If more than one classification, calculations for each classification must be submitted. Attach extra sheets as necessary.

iii. If wetlands are located on the property, density calculations are considered preliminary pending a wetlands jurisdictional determination.

A. Future Land Use Category: Suburban and Wetlands

		Lee Plan Table 1(a) Max. standard density		Units
1.	**Standard Units**			
a.	Total upland acres (from Part 4, D.)	65.55	x 6 equals	393.3
b.	Total preserved freshwater wetlands acres (from Part 4, D.)	13.48	x 6 equals	80.8
c.	Total impacted wetlands acres (from Part 4, D.)	9.3	x .05 equals	0.47
d.	**Total Allowed Standard Units** (1)			474.57
2.	**Bonus Units [2-143]**			
a.	Site-built Affordable Housing			0
b.	Transferrable Dwelling Units			0
c.	Sub-total			**0**
3.	**Total Permitted Units** (1)			474

Note:

(1) Subject to revision if wetlands jurisdictional determination indicates a different acreage of wetlands.

PART 6
COMMERCIAL, INDUSTRIAL, MINING, ASSISTED LIVING FACILITIES, HOTELS & MOTELS
PRELIMINARY INTENSITY CALCUATIONS

		Height	Total Floor Area (Square Feet)
A.	**Commercial**		
1.	Medical	N/A	N/A
2.	General Office	N/A	N/A
3.	Retail	N/A	N/A
4.	Other: _____	N/A	N/A
5.	**TOTAL FLOOR AREA**		N/A

		Height	Total Floor Area (Square Feet)
B.	**Industrial**		
1.	Under Roof	N/A	N/A
2.	Not Under Roof	N/A	N/A
3.	**TOTAL FLOOR AREA**		N/A

		Depth	Total Acres
C.	**Mining**		
1.	Area to be excavated	N/A	N/A

		Height	Total Beds/Units
D.	**Assisted Living Facilities**		
1.	Dependent Living Units	N/A	N/A
2.	Independent Living Units	N/A	N/A
3.	**TOTAL BEDS/UNITS**		N/A

		Height	Total Rental Units
E.	**Hotels/Motels (Room Size)**		
1.	< 425 sq. ft.	N/A	N/A
2.	426-725 sq. ft.	N/A	N/A
3.	725 < sq. ft.	N/A	N/A
4.	**TOTAL UNITS**		N/A

PART 7
ACTION REQUESTED

A. **Request Statement:** Provide a single narrative explaining the nature of the request and how the property qualifies for the rezoning to a planned development. This narrative should include how the proposed development complies with the Lee Plan, the Land Development Code, and the applicable findings/review criteria set forth in LDC section 34-145(d)(4). This narrative may be utilized by the Board of County Commissioners, Hearing Examiner and staff in establishing a factual basis for the granting or denial of the rezoning. **[34-373(a)(5)]**

B. **Traffic Impact Statement.** A traffic impact statement in a format and to the degree of detail required by the County and in conformance with the adopted Lee County Administrative Code. TIS is not required for an existing development. **[34-373(a)(7)]**

C. **Master Concept Plan:**

1. **Master Concept Plan, Non-PRFPD:** A graphic illustration (Master Concept Plan) of the proposed development, showing and identifying the information required by LCLDC Section 34-373(a)(6)a. Copies of the Master Concept Plan must be provided in two sizes, 24”x36” and 11”x17”, and must be clearly legible and drawn at a scale sufficient to adequately show and identify the required information. In addition to the Master Concept Plan, an open space design plan delineating the indigenous preserves and/or native tree preservation areas as required by LDC Section 10-415(b) must be submitted. **[34-373(a)(6)]**
2. **Schedule of Uses:** A schedule of uses keyed to the Master Concept Plan as well as a summary for the entire property including the information required by LCLDC Section 34-373(a)(8)]. **[34-373(a)(8)]**

3. **Schedule of Deviations and Written Justification:** A schedule of deviations and a written justification for each deviation requested as part of the Master Concept Plan accompanied by documentation including sample detail drawings illustrating how each deviation would enhance the achievement of the objectives of the planned development and will not cause a detriment to public interests. The location of each requested deviation must be located/shown on the Master Concept Plan. **[34-373(a)(9)]**

D. Bonus Density: [34-202(a)(11)]

☒ Not Applicable

☐ Bonus Density will be used. Provide the number of Bonus Density units being requested and a narrative of how the request meets the requirements of LDC Section 2-146.

PART 8
ENVIRONMENTAL REQUIREMENTS

A. Topography: Describe the range of surface elevations of the property. Attach a county topographic map (if available) or a USGS quadrangle map showing the subject property. **[34-373(a)(4)b.iv.]**

Please see attached Quad Sheet.

B. Sensitive Lands: Identify any environmentally sensitive lands, including, but not limited to, wetlands (as defined in the LEE Plan Section XII), flowways, creek beds, sand dunes, other unique land forms [see LEE Plan Policy 77.1.1 (2)] or listed species occupied habitat [see LCLDC Section 10-473(f)].

Please see attached Environmental Report prepared by Passarella & Associates.

C. Preservation/Conservation of Natural Features: Describe how the lands listed in PART 6.B. above will be protected by the completed project:

Please see attached Environmental Report prepared by Passarella & Associates.

D. Shoreline Stabilization: If the project is located adjacent to navigable natural waters, describe the method of shoreline stabilization, if any, being proposed:

The project is not located adjacent to navigable natural waters; therefore, shoreline stabilization is not proposed.

E. Soils Map: Attach maps drawn at the same scale as the Master Concept Plan marked or overprinted to show the soils classified in accordance with the USDA/SCS System. **[34-373(a)(4)b.i.]**

Please see attached Environmental Report prepared by Passarella & Associates.

F. FLUCCS Map: A Florida Land Use, Cover and Classification System (FLUCCS) map, at the same scale as the Master Concept Plan, prepared by an environmental consultant. The FLUCCS map must clearly delineate any Federal and State jurisdictional wetlands and other surface waters, including the total acreage of Federal and State wetlands. **[34-373(a)(4)c.]**

Please see attached Environmental Report prepared by Passarella & Associates.

G. Rare & Unique Upland Habitat Map: Maps drawn at the same scale as the Master Concept Plan marked or overprinted to show significant areas of rare and unique upland habitat as defined in the LEE Plan Section XII. **[34-373(a)(4)b.iii.]**

Please see attached Environmental Report prepared by Passarella & Associates..

H. Existing and Historic Flow-Ways Map: Map(s) drawn at the same scale as the master concept plan marked or overprinted to show existing and historic flow-ways. **[34-373(a)(4)b.v.]**

No historic flow-ways are located within the Project limits. Please see the attached aerial with Lee County Historic flow-ways.

PART 9
SANITARY SEWER & POTABLE WATER FACILITIES

A. Special Effluent: If the discharge of any special effluent is anticipated, please specify what it is and what strategies will be used to deal with its' special characteristics:
N/A

B. Private On-Site Facilities: If a private on-site wastewater treatment and disposal facility is proposed, please provide a detailed description of the system including:

1. Method and degree of treatment:
N/A

2. Quality of the effluent:
N/A

3. Expected life of the facility:
N/A

4. Who will operate and maintain the internal collection and treatment facilities:
N/A

5. Receiving bodies or other means of effluent disposal:
N/A

C. Spray Irrigation: If spray irrigation will be used, specify:

1. The location and approximate area of the spray fields:
N/A

2. Current water table conditions:
N/A

3. Proposed rate of application:
N/A

4. Back-up system capacity:
N/A

PART 10
ADDITIONAL REQUIREMENTS

A. Major Planned Developments:

1. **Surface Water Management Plan.** A written description of the surface water management plan as required by LCLDC Section 34-373(b)(1). **[34-373(b)(1)]**
2. **Phasing Program.** If the development is to be constructed in phases or if the Traffic Impact Statement utilized phasing, then a description of the phasing program must be submitted. **[34-373(b)(3)]**
3. **Protected Species Survey.** A protected species survey is required for large developments (as defined in LCLDC Section 10-1) as specified in LCLDC Section 10-473. **[34-373(b)(2)]**

B. Amendments to Built Planned Developments: The consent of the owners of the remainder of the original planned development is not required, but these owners must be given notice of the application and other proceedings as if they were owners of property abutting the subject property regardless of their actual proximity to the subject property. Attach proof of notice to other property. **[34-373(c)]**

C. Development of Regional Impact: Binding letter of interpretation from DCA or a complete and sufficient ADA. (See also Application for Public Hearing for DRI Form.) **[34-373(d)(9)]**

D. Private Recreational Facility Planned Developments (PRFPDs):

1. **Master Concept Plan, PRFPD.** Master Concept Plan showing and identifying information required

by LDC Section 34-941(g)(1). Copies of the Master Concept Plan must be provided in two sizes, 24"x36" and 11"x17", and must be clearly legible and drawn at a scale sufficient to adequately show and identify the required information. **[34-941(g)(1)]**

2. **Conceptual Surface Water Management Plan.** A Conceptual Surface Water Management Plan must be submitted. The plan must be viable and take into consideration any natural flowway corridors, cypress heads, natural lakes, and the restoration of impacted natural flowway corridors. **[34-941(d)(3)b.i.1)]**
3. **Well Drawdown Information.** If within an area identified as an anticipated drawdown area for existing or future well development, demonstration of compliance with LCLDC Section 34-941(d)(3)d.i & ii. must be provided. **[34-941(d)(3)d.]**
4. **Preliminary Indigenous Restoration Plan.** A Preliminary Indigenous Restoration Plan must be provided if on-site indigenous restoration is being used to meet the indigenous native plant community preservation requirement. **[34-941(e)(5)f.iii.]**
5. **Environmental Assessment.** An Environmental Assessment must be provided which includes, at a minimum, an analysis of the environment, historical and natural resources. **[34-941(g)(2)]**
6. **Demonstration of Compatibility.** Written statements concerning how the applicant will assure the compatibility of the proposed development with nearby land uses (by addressing such things as noise, odor, lighting and visual impacts), and the adequate provision of drainage, fire and safety, transportation, sewage disposal and solid waste disposal must be provided. **[34-941(g)(4)]**

E. Potable Water & Central Sewer. Will the project be connected to potable water and central sewer as part of any development of the property?

☒ **YES** (Provide a letter from the appropriate Utility to which the connection(s) are proposed confirming availability of service.) **[34-202(a)(10)]**

☐ **NO** (Provide a narrative explaining why the connection is not planned and how the water and sewer needs of the project will be met.) **[34-202(a)(10)]**

F. Existing Agricultural Use: If the property owner intends to continue an existing agricultural use on the property subsequent to the zoning approval, an Existing Agricultural Use Affidavit must be provided. Entitle as "Existing Agricultural Uses at Time of Zoning Application." **[34-202(a)(12)]**

G. Flood Hazard:

☐ Not applicable

☒ The property is within an Area of Special Flood Hazard as indicated in the Flood Insurance Rate Maps (FIRM)s.

☐ The minimum elevation required for the first habitable floor is _____ NAVD (MSL)

H. Excavations/Blasting:

☒ No blasting will be used in the excavation of lakes or other site elements.

☐ If blasting is proposed, provide Information Regarding Proposed Blasting (including soil borings, a map indicating the location of the proposed blasting, and other required information).

I. Hazardous Materials Emergency Plan for Port Facilities: [12-110(a)(16)]

☒ Not Applicable

☐ Provide a Hazardous materials emergency plan.

J. Mobile Home Park: [34-174(h)]

☒ Not Applicable

☐ Request includes rezoning of a Mobile Home Park. Provide facts related to the relocation of dislocated owners that meets the requirements of F.S. § 723.083 (1995).

K. Airport Zones & Lee County Port Authority (LCPA) Requirements:

☒ Not Applicable

☐ Property is located within _____ Airport Noise Zone: **[34-1104]**

☐ Property is located within Airport Runway Protection Zone. Indicate which Zone below. **[34-1105]**

☐ Property is located within Airport Residential and Educational Protection Zone: **[34-1106]**

☐ Property is located in an Airport Obstruction Notification Zone and subject to LCPA regulations. **[34-1107]**

☐ A Tall Structures Permit is required. **[34-1108]**

PART 5 SUBMITTAL REQUIREMENT CHECKLIST		
Clearly label your attachments as noted in bold below		
Copies Required		**SUBMITTAL ITEMS**
3	☒	Completed application for Public Hearing [34-202(a)(1)]
1	☐	Filing Fee - [34-201(d)]
1	☐	Bonus Density Filing Fee - (if applicable) [34-202(a)(11)]
3	☒	**Affidavit of Authorization** (notarized) Form [34-202(a)(3)]
3	☒	**Additional Agents** [34-202(a)(4)]
3	☒	**Multiple Owners List** (if applicable) [34-202(a)(2)]
3	☒	**Disclosure of Interest** Form (multiple owners) [34-202(a)(2)]
3	☒	**Legal description (must submit)** [34-202(a)(5)]
	☒	Legal description (metes and bounds) and sealed sketch of legal description
		OR
	☐	Legal description (NO metes and bounds) if the property is located within a subdivision platted per F.S. Chapter 177, and is recorded in the Official Records of Lee County under Instruments or Plat Books. (Click here to see an example of a legal description with no metes and bounds.)
3	☒	**Boundary Survey** – not required if platted lot (2 originals required) [34-202(a)(6)]
3	☒	**Property Owners list** (if applicable) [34-202(a)(8)]
3	☒	**Property Owners map** (if applicable) [34-202(a)(8)]
3	☒	Confirmation of **Ownership/Title Certification** [34-202(a)(7)]
3	☒	**STRAP Numbers** (if additional sheet is required) [34-202(a)(5)]
1	☒	**List of Surrounding Property Owners** [34-202(a)(9)]
1	☒	**Map of Surrounding Property Owners** [34-202(a)(9)]
1	☒	**Mailing labels** [34-202(a)(9)]
3	☒	List of **Zoning Resolutions** and Approvals
3	☒	Summary of **Public Informational Session** (if applicable)
3	☐	**Waivers** from Application Submission Requirements (if applicable) [34-201(c)]
3	☒	Preliminary **Density** Calculations (if applicable)
3	☒	**Request Statement** [34-373(a)(5)]
3	☒	Traffic Impact Statement (**TIS**) (not required for existing development) [34-373(a)(7)]
3	☒	Master Concept Plan (**MCP**), **Non-PRFPD** [34-373(a)(6)]
3	☒	**Schedule of Uses** [34-373(a)(8)]
3	☒	Schedule of **Deviations and** Written **Justification** [34-373(a)(9)]
3	☒	**Topography** (if available) [34-373(a)(4)b.iv.]
3	☒	**Soils Map** [34-373(a)(4)b.9.]
3	☒	**FLUCCS Map** [34-373(a)(4)c.]
3	☒	Rare & Unique **Upland Habitat Map** [34-373(a)(4)b.iii.]
3	☒	Existing and Historic **Flow-Ways Map** [34-373(a)(4)b.v.]
3	☒	**Surface Water Management Plan** (if applicable) [34-373(b)(1)]
3	☐	**Phasing Program** (if applicable) [34-373(b)(3)]
3	☒	**Protected Species Survey** (if applicable) [34-373(b)(2)]
3	☐	**Proof of Notice** (if applicable) [34-373(c)]

3	☐	**Binding Letter** from DCA (if applicable) [34-373(d)(9)]
3	☐	Master Concept Plan (**MCP**), **PRFPD** (if applicable) [34-941(g)(1)]
3	☐	**Conceptual Surface Water Management Plan** (if applicable) [34-941(d)(3)b.i.1)]
3	☐	**Well Drawdown** Information (if applicable) [34-941(d)(3)d.]
3	☐	Preliminary Indigenous **Restoration Plan** (if applicable) [34-941(e)(5)f.iii.]
3	☐	**Environmental Assessment** (if applicable) [34-941(g)(2)]
3	☐	Demonstration of **Compatibility** (if applicable) [34-941(g)(4)]
3	☒	**Potable Water & Sanitary Sewer**. Letter from the appropriate utility entity indicating the utility entity or explanation of how water and sewer needs will be met if connection will not be made. [34-202(a)(10)]
3	☐	Existing **Agricultural Use Affidavit** (if applicable) [34-202(a)(12)]
3	☐	Information Regarding **Proposed Blasting** (if applicable).
3	☐	Hazardous Materials **Emergency Plan** (if applicable)
3	☐	Mobile Home Park **Dislocated Owners** Information (if applicable) [34-202(b)(4)]
3	☐	**Tall Structures Permit** (if applicable) [34-1108]

ADDITIONAL AGENTS

Company Name:	Pavese Law Firm		
Contact Person:	Steve Hartsell		
Address:	1833 Hendry Street		
City, State, Zip:	Fort Myers, FL 33901		
Phone Number:	(239) 336-6244	Email:	Stevehartsell@paveselaw.com

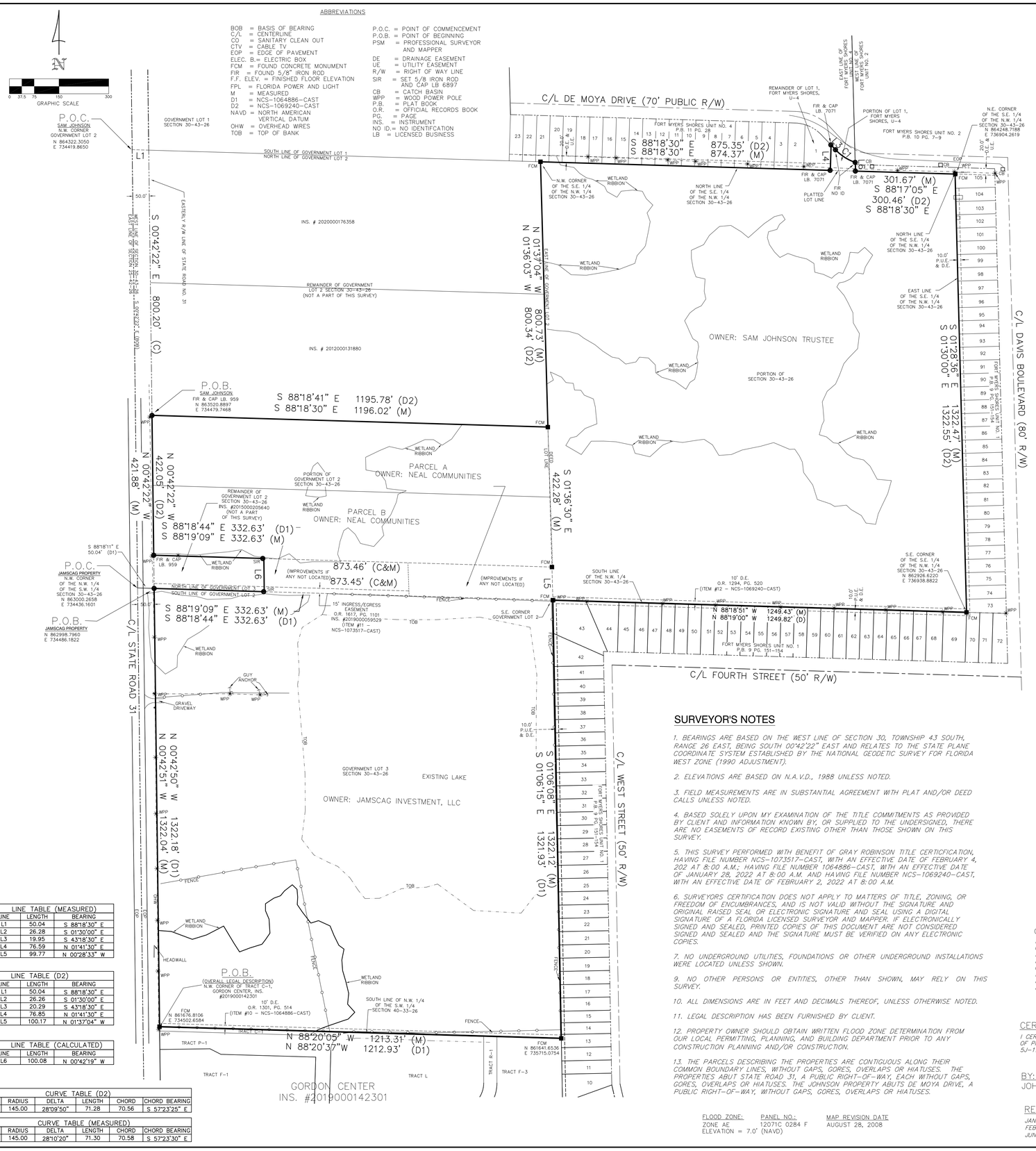
Company Name:	Passarella & Associates, Inc.		
Contact Person:	Bethany Brosious		
Address:	13620 Metropolis Avenue, Suite 200		
City, State, Zip:	Fort Myers, FL 33912		
Phone Number:	(239) 274-0067	Email:	bethanyb@passarella.net

Company Name:	Rhodes and Rhodes Land Surveying, Inc.		
Contact Person:	Edward Cieslak		
Address:	28100 Bonita Grande Dr., Suite 107		
City, State, Zip:	Bonita Springs, FL 34135		
Phone Number:	(239) 405-8166	Email:	edward@rhodesandrhodes.net

Company Name:	JR Evans Engineering, P.A.		
Contact Person:	Brandon Frey P.E.		
Address:	9351 Corkscrew Road, Suite 102		
City, State, Zip:	Estero, FL 33928		
Phone Number:	(239) 405-9148	Email:	brandon@jreeng.com

Company Name:			
Contact Person:			
Address:			
City, State, Zip:			
Phone Number:		Email:	

Company Name:			
Contact Person:			
Address:			
City, State, Zip:			
Phone Number:		Email:	



LINE TABLE (MEASURED)		
LINE	LENGTH	BEARING
L1	50.04	S 88°18'30" E
L2	26.28	S 01°30'00" E
L3	19.95	S 43°18'30" E
L4	76.59	N 01°41'30" E
L5	99.77	N 00°28'33" W

LINE TABLE (D2)		
LINE	LENGTH	BEARING
L1	50.04	S 88°18'30" E
L2	26.26	S 01°30'00" E
L3	20.29	S 43°18'30" E
L4	76.85	N 01°41'30" E
L5	100.17	N 01°37'04" W

LINE TABLE (CALCULATED)		
LINE	LENGTH	BEARING
L6	100.08	N 00°42'19" W

CURVE TABLE (D2)					
CURVE	RADIUS	DELTA	LENGTH	CHORD	CHORD BEARING
C1	145.00	28°09'50"	71.28	70.56	S 57°23'25" E

CURVE TABLE (MEASURED)					
CURVE	RADIUS	DELTA	LENGTH	CHORD	CHORD BEARING
C1	145.00	28°10'20"	71.30	70.58	S 57°23'30" E

SURVEYOR'S NOTES

1. BEARINGS ARE BASED ON THE WEST LINE OF SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, BEING SOUTH 00°42'22" EAST AND RELATES TO THE STATE PLANE COORDINATE SYSTEM ESTABLISHED BY THE NATIONAL GEODETIC SURVEY FOR FLORIDA WEST ZONE (1990 ADJUSTMENT).

2. ELEVATIONS ARE BASED ON N.A.V.D., 1988 UNLESS NOTED.

3. FIELD MEASUREMENTS ARE IN SUBSTANTIAL AGREEMENT WITH PLAT AND/OR DEED CALLS UNLESS NOTED.

4. BASED SOLELY UPON MY EXAMINATION OF THE TITLE COMMITMENTS AS PROVIDED BY CLIENT AND INFORMATION KNOWN BY, OR SUPPLIED TO THE UNDERSIGNED, THERE ARE NO EASEMENTS OF RECORD EXISTING OTHER THAN THOSE SHOWN ON THIS SURVEY.

5. THIS SURVEY PERFORMED WITH BENEFIT OF GRAY ROBINSON TITLE CERTICFICATION, HAVING FILE NUMBER NCS-1073517-CAST, WITH AN EFFECTIVE DATE OF FEBRUARY 4, 202 AT 8:00 A.M.; HAVING FILE NUMBER 1064886-CAST, WITH AN EFFECTIVE DATE OF JANUARY 28, 2022 AT 8:00 A.M. AND HAVING FILE NUMBER NCS-1069240-CAST, WITH AN EFFECTIVE DATE OF FEBRUARY 2, 2022 AT 8:00 A.M.

6. SURVEYORS CERTIFICATION DOES NOT APPLY TO MATTERS OF TITLE, ZONING, OR FREEDOM OF ENCUMBRANCES, AND IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR ELECTRONIC SIGNATURE AND SEAL USING A DIGITAL SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER. IF ELECTRONICALLY SIGNED AND SEALED, PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

7. NO UNDERGROUND UTILITIES, FOUNDATIONS OR OTHER UNDERGROUND INSTALLATIONS WERE LOCATED UNLESS SHOWN.

9. NO OTHER PERSONS OR ENTITIES, OTHER THAN SHOWN, MAY RELY ON THIS SURVEY.

10. ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF, UNLESS OTHERWISE NOTED.

11. LEGAL DESCRIPTION HAS BEEN FURNISHED BY CLIENT.

12. PROPERTY OWNER SHOULD OBTAIN WRITTEN FLOOD ZONE DETERMINATION FROM OUR LOCAL PERMITTING, PLANNING, AND BUILDING DEPARTMENT PRIOR TO ANY CONSTRUCTION PLANNING AND/OR CONSTRUCTION.

13. THE PARCELS DESCRIBING THE PROPERTIES ARE CONTIGUOUS ALONG THEIR COMMON BOUNDARY LINES, WITHOUT GAPS, GORES, OVERLAPS OR HIATUSES. THE PROPERTIES ABUT STATE ROAD 31, A PUBLIC RIGHT-OF-WAY, EACH WITHOUT GAPS, GORES, OVERLAPS OR HIATUSES. THE JOHNSON PROPERTY ABUTS DE MOYA DRIVE, A PUBLIC RIGHT-OF-WAY, WITHOUT GAPS, GORES, OVERLAPS OR HIATUSES.

FLOOD ZONE: ZONE AE
PANEL NO.: 12071C 0284 F
MAP REVISION DATE: AUGUST 28, 2008
ELEVATION = 7.0' (NAVD)

LEGAL DESCRIPTION PER GRAY ROBINSON TITLE CERTICFICATION (THE "NEAL COMMUNITIES PROPERTY")

PARCEL A: THE EAST 436 FEET OF THE SOUTH 100 FEET OF GOVERNMENT LOT 2, SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LESS ROAD RIGHT-OF-WAY, LEE COUNTY, FLORIDA.

PARCEL B: THE WEST 436 FEET OF THE EAST 872 FEET OF THE SOUTH 100 FEET OF GOVERNMENT LOT 2, SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, TOGETHER WITH A RIGHT-OF-WAY FOR INGRESS AND EGRESS OVER THE SOUTH 15 FEET WESTERLY TO STATE ROAD 31.

LEGAL DESCRIPTION PER GRAY ROBINSON TITLE CERTICFICATION (THE "JAMSCAG PROPERTY")

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LEE, STATE OF FLORIDA, AND IS DESCRIBED AS FOLLOWS:

A TRACT OR PARCEL OF LAND SITUATED IN THE STATE OF FLORIDA, COUNTY OF LEE, BEING THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LESS AND EXCEPT THE WESTERLY 50 FEET THEREIN FOR STATE ROAD 31 RIGHT-OF-WAY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE N.W. CORNER OF THE N.W. QUARTER (1/4) OF THE S.W. QUARTER (1/4) OF SAID SECTION 30, BEING THE WEST QUARTER (1/4) CORNER OF SAID SECTION 30; THENCE S88°18'11"E, ALONG THE NORTHERLY LINE OF THE SOUTHWEST QUARTER (1/4) OF SAID SECTION 30 FOR 50.04 FEET TO AN IRON ROD MARKING THE EASTERLY RIGHT OF WAY OF STATE ROAD 31 (100' WIDE) AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.

FROM SAID POINT OF BEGINNING CONTINUE S88°18'11"E ALONG SAID NORTHERLY QUARTER SECTION LINE FOR 1204.61 FEET TO A CONCRETE POST MARKING THE NORTHEAST CORNER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 30, SAID NORTHEAST CORNER ALSO BEING THE NORTHWESTERLY CORNER OF FORT MYERS SHORES, BLOCK 1, UNIT 1, A SUBDIVISION AS RECORDED IN THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA, IN PLAT BOOK 9, AT PAGES 153 AND 154; THENCE S01°36'3"E ALONG THE EASTERLY LINE OF SAID NORTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SECTION 30, SAID EASTERLY LINE ALSO BEING THE WESTERLY LINE OF SAID BLOCK 1, UNIT 1, FORT MYERS SHORES, FOR 1322.09 FEET TO A CONCRETE POST MARKING THE SOUTHEASTERLY CORNER OF SAID NORTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SAID SECTION 30; THENCE N88°19'03"W, ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SAID SECTION 30 FOR 1213.40 FEET TO A CONCRETE POST MARKING THE EASTERLY RIGHT OF WAY OF SAID STATE ROAD 31 (100' WIDE), THENCE N00°42'00"W, ALONG SAID EASTERLY RIGHT OF WAY OF STATE ROAD 31 FOR 1322.00' TO THE POINT OF BEGINNING.

BEARINGS SHOWN HERE IN ARE BASED ON THE EASTERLY RIGHT OF WAY OF STATE ROAD 31 AS N00°42'00"W.

LEGAL DESCRIPTION PER GRAY ROBINSON TITLE CERTICFICATION (THE " SAM JOHNSON PROPERTY")

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LEE, STATE OF FLORIDA, AND IS DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE STATE OF FLORIDA, COUNTY OF LEE, LYING IN SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF GOVERNMENT LOT 2; THENCE S.88°18'30"E., ALONG THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 50.04 FEET TO A POINT ON THE EASTERLY LINE OF STATE ROAD NO. 31; THENCE S.00°42'30"E., ALONG SAID EASTERLY LINE OF STATE ROAD NO. 31, A DISTANCE OF 800.00 FEET TO THE POINT OF BEGINNING; THENCE S.88°18'30"E., A DISTANCE OF 1,196.34 FEET TO A POINT ON THE EAST LINE OF SAID GOVERNMENT LOT 2, THENCE N.01°37'04"W., ALONG SAID EAST LINE, A DISTANCE OF 800.73 FEET, TO THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 30; THENCE S.88°18'30"E., ALONG SAID NORTH LINE OF THE SE 1/4 OF THE NW 1/4, A DISTANCE OF 875.08 FEET; THENCE N.01°41'30"E., A DISTANCE OF 76.85 FEET, TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF DE MOYA DRIVE (70'); THENCE S.43°18'30"E., ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 20.29 FEET, TO THE BEGINNING OF A CURVE TO THE LEFT, HAVING A RADIUS OF 145.00 FEET, A CHORD DISTANCE OF 70.56 FEET AND A CHORD BEARING OF S.57°23'30"E., THENCE SOUTHEASTERLY ALONG SAID ARC AND SAID RIGHT-OF-WAY LINE FOR 71.28 FEET; THENCE S 01°30'00"E., A DISTANCE OF 26.26 FEET, TO A POINT ON THE NORTH LINE OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 30; THENCE S.88°18'30", ALONG SAID NORTH LINE OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 30, A DISTANCE OF 301.13 FEET, TO THE NORTHEAST CORNER OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 30; THENCE S.01°30'00"E, ALONG THE EAST LINE OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 30, A DISTANCE OF 1,322.62 FEET, TO THE SOUTHEAST CORNER OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 30, THENCE N88°19'00"W, ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SAID SECTION 30, A DISTANCE OF 1,249.82 FEET TO THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 2, THENCE N 01°37'04"W, ALONG SAID EAST LINE OF SAID GOVERNMENT LOT 2, A DISTANCE OF 100.17 FEET; THENCE N 88°19'00"W., A DISTANCE OF 1,203.04 FEET, TO A POINT ON THE EASTERLY LINE OF STATE ROAD NO. 31; THENCE N.00°42'30"W., ALONG SAID EASTERLY LINE OF STATE ROAD NO. 31, A DISTANCE OF 421.89 FEET TO THE POINT OF BEGINNING.

SURVEYOR'S LEGAL DESCRIPTION
OVERALL LEGAL DESCRIPTION

BEING A PORTION OF GOVERNMENT LOTS 2 AND 3, OF SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, A PORTION OF SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST, LEE COUNTY, FLORIDA AND A PORTION OF LOT 1, FORT MYERS SHORES UNIT NO. 4, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 11, PAGE 28, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS.

BEGINNING AT THE NORTHWEST CORNER OF TRACT C-1, GORDON CENTER, ACCORDING TO THE PLAT THEREOF AS RECORDED IN INSTRUMENT NUMBER 2019000142301, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA; THENCE NORTH 00°42'50" WEST ALONG THE EAST RIGHT-OF-WAY OF STATE ROAD 31 (A 100.00 FOOT RIGHT-OF-WAY), A DISTANCE OF 1,322.18 FEET TO NORTHWEST CORNER OF GOVERNMENT LOT 3, THE SAME BIENG THE SOUTHWEST CORNER OF GOVERNMENT LOT 2, OF SECTION 30, TOWNSHIP 43 SOUTH, RANGE 26 EAST; THENCE SOUTH 88°18'44" EAST LEAVING SAID EAST RIGHT-OF-WAY LINE OF STATE ROAD 31, ALONG SAID BOUNDARY LINE OF GOVEMENT LOT 2 AND 3, A DISTANCE OF 332.63 FEET; THENCE NORTH 00°42'19" WEST LEAVING SAID BOUNDARY LINE OF GOVERNMENT LOT 2 AND 3, A DISTANCE OF 100.09 FEET; THENCE NORTH 88°18'44" WEST, A DISTANCE OF 332.63 FEET TO A POINT ON THE SAID EAST RIGHT-OF-WAY STATE ROAD 31; THENCE NORTH 00°42'22" WEST ALONG SAID EAST RIGHT-OF-WAY OF STATES ROAD 31, A DISTANCE OF 422.05 FEET; THENCE SOUTH 88°18'41" EAST LEAVING SAID EAST RIGHT-OF-WAY OF STATE ROAD 31, A DISTANCE OF 1,195.78 FEET; THENCE NORTH 01°36'03" WEST, A DISTANCE OF 800.34 FEET TO A POINT ON THE BOUNDARY LINE OF FORT MYERS SHORES UNIT NO.4, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 11, PAGE 28, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA; THENCE SOUTH 88°18'30" EAST ALONG SAID BOUNDARY LINE OF FORT MYERS SHORES UNIT NO. 4, A DISTANCE OF 875.35 FEET; THENCE NORTH 01°41'30" EAST LEAVING SAID BOUNDARY LINE OF FORT MYERS SHORES UNIT NO. 4, A DISTANCE OF 76.59 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF DE MOYA DRIVE (A 70.00 FOOT RIGHT-OF-WAY), FORT MYERS SHORES UNIT NO. 4. ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 11, PAGE 28, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA; THENCE SOUTHERLY ALONG SAID SOUTH RIGHT-OF-WAY OF DE MOYA DRIVE THE FOLLOWING 2 COURSES, COURSE (1) SOUTH 43°18'30" EAST, 19.95 FEET TO A POINT OF CURVATURE; COURSE (2) SOUTHEASTERLY, 71.28 FEET ALONG THE ARC OF A CIRCULAR CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 145.00 FEET, THROUGH A CENTRAL ANGLE OF 28°09'50" AND BEING SUBTENDED BY A CHORD THAT BEARS SOUTH 57°23'25" EAST, 70.56 FEET TO THE NORTHEAST CORNER OF LOT 1, OF SIAD FORT MYERS SHORES UNIT NO. 4; THENCE SOUTH 01°30'00" EAST ALONG SAID BOUNDARY LINE OF LOT 1 FORT MYERS SHORES UNIT NO. 4, A DISTANCE OF 26.28 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1, FORT MYERS SHORES UNIT NO. 4 AND THE SOUTHWEST CORNER OF LOT 105, FORT MYERS SHORES UNIT NO. 2, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 10, PAGES 7 THROUGH 9, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA; THENCE SOUTH 88°18'30" EAST ALONG SAID BOUNDARY LINE OF SAID LOT 105 FORT MYERS SHORES UNIT NO. 2, A DISTANCE OF 300.46 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF THE NORTHWEST ¼ OF SAID SECTION 30; THENCE SOUTH 01°30'00" EAST ALONG SAID BOUNDARY LINE OF LOT 105, FORT MYERS SHORES UNIT NO. 2 AND THE NORTHERLY PROLONGATION LINE OF THE BOUNDARY LINE OF FORT MYERS SHORES UNIT NO. 1, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 9, PAGES 151 THROUGH 154, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA, A DISTANCE OF 1,322.55 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST ¼ OF SAID SECTION 30; THENCE NORTH 88°19'00" WEST ALONG THE BOUNDARY LINE OF SAID FORT MYERS SHORES UNIT NO. 1, A DISTANCE OF 1,249.82 FEET TO THE NORTHWEST CORNER OF LOT 43, SAID FORT MYERS SHORES UNIT NO. 1; THENCE SOUTH 01°06'15" EAST ALONG THE BOUNDARY LINE OF SAID FORT MYERS SHORES UNIT NO. 1, A DISTANCE OF 1,321.93 FEET TO NORTHEAST CORNER OF TRACT F-3, GORDON CENTER, ACCORDING TO THE PLAT THEREOF AS RECORDED IN INSTRUMENT NUMBER 2019000142301, OF THE PUBLIC RECORDS OF LEE COUNTY, FLORIDA.; THENCE NORTH 88°20'37" WEST ALONG THE BOUNDARY LINE OF SAID GORDON CENTER, A DISTANCE OF 1,212.93 FEET TO THE POINT OF BEGINNING.

CONTAINING 3,844,190 SQUARE FEET OR 88.250 ACRES, MORE OR LESS

CERTIFICATION LIST

NEAL COMMUNITIES OF SOUTHWEST FLORIDA, LLC, A FLORIDA LIMITED LIABILITY COMPANY
GRAYROBINSON, P.A.;
FIRST AMERICAN TITLE INSURANCE COMPANY;
JAMSCAG INVESTMENT, LLC, A FLORIDA LIMITED LIABILITY COMPANY;
COLEMAN, YOVANOVICH & KOESTER, P.A.;
HENDERSON, FRANKLIN, STARNES & HOLT, P.A.;
JERRY JOHNSON ARTICLE FOURTH FAMILY TRUST;
JD MCINTOSH LOTS, LLC, A FLORIDA LIMITED LIABILITY COMPANY

CERTIFICATION:

I CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECTION AND THAT IT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.051-053, FLORIDA ADMINISTRATIVE CODE, PURSUANT CHAPTER 472.027, FLORIDA STATUTES.

John Scott Rhodes PSM # 5739 State of Florida
Digitally signed by John Scott Rhodes PSM # 5739 State of Florida Date: 2022.07.15 11:35:58 -04'00'

BY: JOHN SCOTT RHODES, PSM #5739

REVISIONS:

JAN. 27, 2022 ADDED THE COORDINATES TO THE BOUNDARY CORNERS
FEB. 23, 2022 UPDATE TITLE CERTIFICATION
JUNE 6, 2022 UPDATE ADDED SURVEYOR'S LEGAL DESCRIPTION

JOHN SCOTT RHODES CERTIFICATE No. 5739 STATE OF FLORIDA Professional Surveyor & Mapper

BOUNDARY SURVEY

CERTIFIED TO:
SEE CERTIFICATION LIST

design:	
drawn:	EFC
checked:	JSR
acad #:	2021-541
view:	PLOT
project#:	2021-541
sheet #:	1 of 1
file #:	2021-541 REZONE

bk:	pg:	date:
XXX	XX-XX	DEC. 09, 2021
		scale: 1" = 150'
		cogo #: 21-541

RHODES & RHODES LAND SURVEYING, INC. LICENSE #LB 6897

28100 BONITA GRANDE DRIVE SUITE 107
BONITA SPRINGS, FL 34135
(239) 405-8166 (239) 405-8163 FAX

Z:\3 OAKS\MGA\JAMSON\2021\541\UPDATE TITLE 2022\06\dwg, Layout1, 7/15/2022 11:16:02 AM, 1:1

RHODES & RHODES LAND SURVEYING, INC.
26100 BONITA GRANDE DRIVE #107 NAPLES, FLORIDA 34135
PHONE (239) 405-8166 FAX (239) 405-8163

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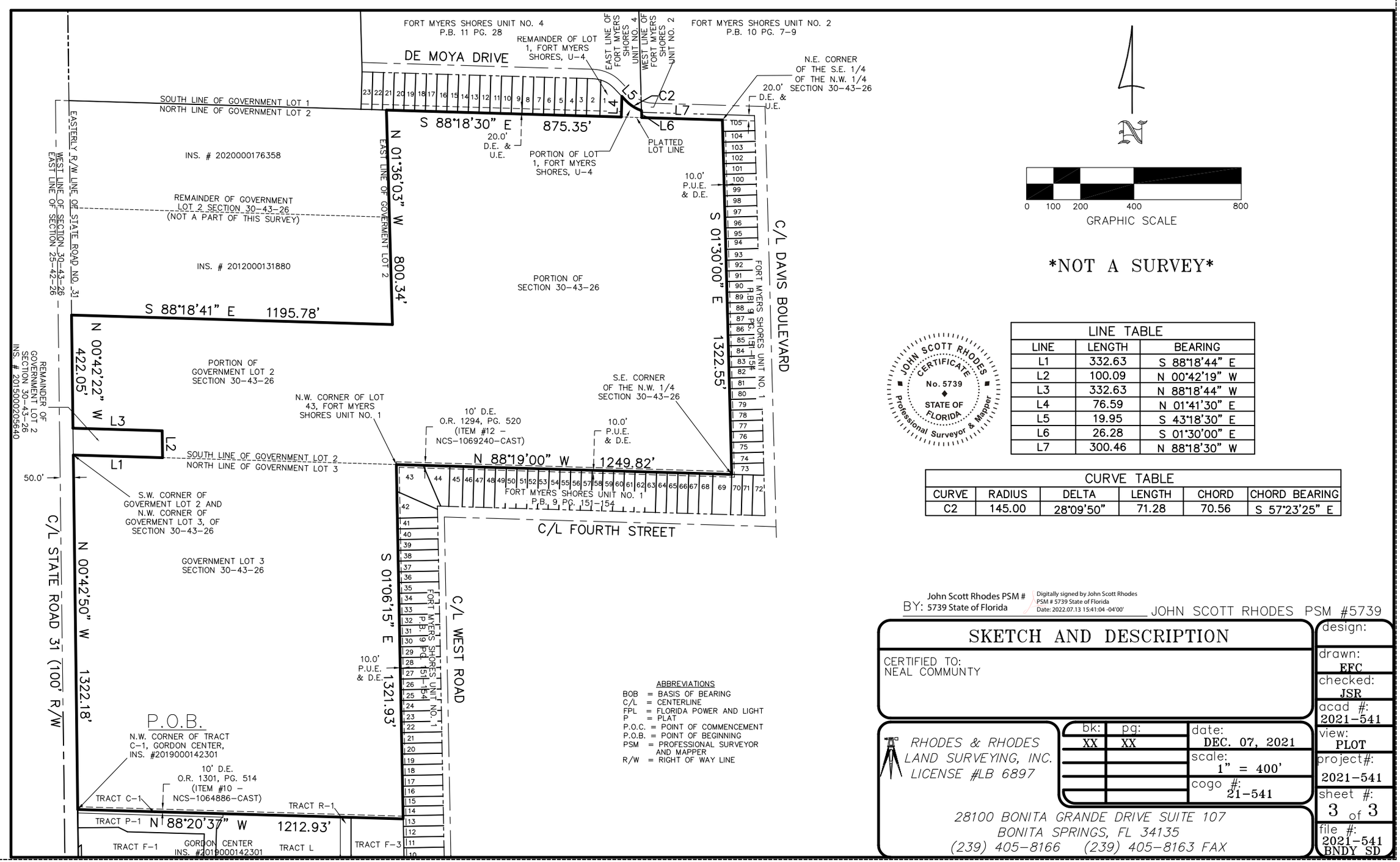
CONTAINING 3,844,190 SQUARE FEET OR 88.250 ACRES, MORE OR LESS.



NOT A SURVEY

JOHN SCOTT RHODES CERTIFICATE No. 5739 STATE OF FLORIDA Professional Surveyor & Mapper

LINE TABLE		
LINE	LENGTH	BEARING
L1	332.63	S 88°18'44" E
L2	100.09	N 00°42'19" W
L3	332.63	N 88°18'44" W
L4	76.59	N 01°41'30" E
L5	19.95	S 43°18'30" E
L6	26.28	S 01°30'00" E
L7	300.46	N 88°18'30" W

CURVE TABLE					
CURVE	RADIUS	DELTA	LENGTH	CHORD	CHORD BEARING
C2	145.00	28°09'50"	71.28	70.56	S 57°23'25" E

ABBREVIATIONS
BOB = BASIS OF BEARING
C/L = CENTERLINE
FPL = FLORIDA POWER AND LIGHT
P = PLAT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
PSM = PROFESSIONAL SURVEYOR AND MAPPER
R/W = RIGHT OF WAY LINE

John Scott Rhodes PSM # 5739 State of Florida
Digitally signed by John Scott Rhodes
PSM # 5739 State of Florida
Date: 2022.07.13 15:41:04 -04'00'

BY: JOHN SCOTT RHODES PSM #5739

SKETCH AND DESCRIPTION

CERTIFIED TO:
NEAL COMMUNTY

RHODES & RHODES
LAND SURVEYING, INC.
LICENSE #LB 6897

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BONITA SPRINGS, FL 34135
(239) 405-8166 (239) 405-8163 FAX

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		scale: 1" = 400'
		cogo #: 21-541

design:
drawn: EFC
checked: JSR
acad #: 2021-541
view: PLOT
project#: 2021-541
sheet #: 3 of 3
file #: 2021-541 BNDY SD

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31 OAKS RPD

Request Statement

Revised November 2022

I. REQUEST

The Marina Del Lago RPD is currently comprised of 49.62+/- acres and allows for the development of up to 140 dwelling units pursuant to Zoning Resolution Z-06-050. The Applicant is requesting approval to amend the RPD to rezone several adjacent properties into a unified development of approximately 88.3+/- acres. This will result in an RPD amendment and rezoning of the assemblage from Agricultural (AG-2) and Residential Planned Development (RPD) to RPD to allow for the development of a residential community with private, on-site recreational amenities, wetland preserves and supportive infrastructure. It is also proposed to rename the RPD to "31 Oaks RPD." This will allow for the construction of residential uses and ancillary uses the while also providing for reduced wetland impacts and improved floodplain compensation compared to previous plans/zoning approvals. The request does not require any changes to the future land use categories.

This amendment request will include a Master Concept Plan, zoning conditions, and schedule of deviations to accommodate the development of the site with single-family and two-family attached dwellings and associated community amenities. The amendment request for a maximum of 342 townhome units or 265 single-family dwelling units with a maximum building height of 35 feet and will connect to Lee County Utilities for sanitary sewer and potable water.

The current combination of AG-2 and RPD zoning will not allow residential development at intensities comparable to surrounding development and is inconsistent with the underlying Suburban Future Land Use Category (FLUC). Moreover, the need to avoid impacts to wetlands on the Property requires the combination of these properties into a unified development, which can only be achieved through rezoning to a Planned Development Zoning District. The proposed RPD amendment allows for the requisite flexibility to fully develop the Property in accordance with market demand for residential uses in the Caloosahatchee Shores Planning Community and in a coordinated manner with the surrounding community. The community will also allow for infill development in an area of the County well-served by available public infrastructure.

II. EXISTING CONDITIONS

The 31 Oaks RPD property ("Property") is comprised of 88.3 +/- acres under separate ownership and within different zoning districts and located on the east side of SR 31, approximately ¼ of a mile north of Palm Beach Blvd. in unincorporated Lee County, Florida.

The 88.3 +/- acre property is located within the Suburban and Wetlands Future Land Use categories. The subject property is partially vegetated and includes a lake in the southern portion of the property. The Property will be accessed from SR 31 to the west (a two-lane arterial road), with secondary

ingress/egress from a connection to Storage Bay Dr. and Merchandise Way (the reverse frontage road) to the south of the property which provides access to both SR 31 and SR 80.

The surrounding land use pattern generally consists of residential uses, vacant agriculturally zoned properties and commercial properties, as further described below:
Table 1: Inventory of Surrounding Lands

	FUTURE LAND USE	ZONING	EXISTING LAND USE
NORTH	Suburban	Agriculture (Ag-2); Multi-Family Residential Planned Development (RPD); Residential Single-Family (RS-1)	Vacant Properties (AG-2 and Caloosahatchee Preserve RPD); Single-Family Residential
SOUTH	Urban Community; Wetlands	Commercial Planned Development (CPD)	Race Trac gas station; future commercial development (SR 80/31 CPD)
EAST	Suburban	Residential Single-Family (RS-1)	Single-Family Residential
WEST	Wetlands; Urban Community; Suburban	Agriculture (Ag-2); Community Commercial (CC); Commercial Planned Development (CPD)	Developed and Undeveloped Agricultural Parcels; Bar/Nightclub; undeveloped commercial property

III. PROPERTY HISTORY

The northern 49.62 acres of the property is zoned Marina Del Lago RPD and allows for the development of up to 140 single-family dwelling units and boat trailer parking pursuant to Zoning Resolution Z-06-050. The central portion of the property made up of two parcels which have maintained the original AG-2 zoning.

The southern portion of the Property is also currently zoned AG-2. This portion of the property was the subject of a previously withdrawn zoning petition for multi-family development and retail commercial uses (DCI2005-00040).

IV. PUBLIC INFRASTRUCTURE

As outlined in the enclosed application, the Property is serviced by public infrastructure that can accommodate the proposed increase in residential units. Potable water and sanitary sewer services will be provided by Lee County Utilities. A Letter of Availability of service from Lee County Utilities is attached. The Property has direct access to SR 31, a state-maintained arterial roadway under planning for future improvements/expansion to accommodate development in the immediate area. There are adequate public facilities and services in the immediate vicinity of the project to serve the proposed development in terms of schools, fire, EMS and Sheriff's protection.

V. REZONING JUSTIFICATION

The proposed amendment request allows the Property to be developed in a similar manner to the surrounding properties. The SR 31 corridor is experiencing rapid growth and development and the current combination of AG-2 and RPD zoning will not allow for the coordinated development of the Property.

The proposed amendment strikes a balance between providing for the continuation of suburban development as anticipated by the Lee Plan, while protecting against potential impacts from coastal flooding within the Coastal High Hazard Area through the enhanced stormwater management design. See the Lee Plan Compliance Narrative below for more information regarding compliance with Coastal High Hazard Area policies.

The proposed MCP provides for significant preservation of wetlands, rare and unique uplands, heritage trees, and open space while also providing for decreased intensity over previously proposed or approved development on the Property.

The community will be accessed from SR 31 as the main point of ingress/egress for future residents. The entry is intended to be gated with the internal roadway network to be privately maintained. Internal roadways will provide sidewalks along both sides of the roadways to accommodate pedestrian interconnectivity within the project. The proposed roadways will meet the design standards set forth in Chapter 10 of the LDC. Sidewalk and bikeway facilities will comply with the minimum requirements and options set forth in Chapter 10 of the LDC.

A maximum 342 townhouse dwelling units or 265 single-family dwelling units are proposed, which are planned around open space and preserve areas to accommodate preservation of the higher quality wetlands on the Property. All unit types are limited to a maximum height of 35 feet in order to maintain compatibility with the single-family neighborhood (Fort Myers Shores Unit 1) to the east and south.

Proposed wetland impacts are based on the best available information. It is understood that if future jurisdictional determinations identify additional wetland impacts, the resulting available density will be changed as identified in Table 1(a). The proposed density is well below the maximum achievable density. Thus, if additional wetlands are determined, the proposed density will still comply with Table 1(a). See the calculation below which demonstrates potential density in a worst-case scenario in which all wetlands are calculated at 1 dwelling unit per 20 acres.

Future Land Use	**Acreage**	**Density**	**Unit Count**
Suburban	65.83 AC	6 DU/AC	394.98 units
Wetlands	22.77 AC	1 DU/20 AC	1.14 units
Total			**396 units**

Minimum lot sizes and development standards are consistent with similar RPDs approved throughout the County.

After meeting with the surrounding community, the Applicant has committed to a minimum 6-foot-high and maximum 8-foot-high opaque fence and 10-foot-wide vegetative buffer along the northern and eastern property lines. This enhanced buffer is well in excess of the requirements of the LDC, which requires no buffer between single-family projects. This buffer condition is consistent with the previously adopted Condition 6 in Z-06-050 and will provide enhanced screening between the project and the established single-family community to the east. As outlined in the Lee Plan Consistency section of this report, the enhanced buffers also align with the Caloosahatchee Shores policy relating to enhanced landscaping in new development.

A 30-foot-wide Type F buffer is proposed between the proposed cul-de-sac in the northern portion of the property, adjacent to the neighboring residential zoned properties in accordance with the Land Development Code to obstruct light and noise impacts to the neighborhood. An 15-foot wide Type B buffer will be provided where townhomes are located adjacent to neighboring residential zoned properties in accordance with the Land Development Code. Preserved and created wetlands along the western property boundary and surrounding the main entrance will provide enhanced views from SR 31.

As proposed the residential uses will be well-screened from surrounding land uses, and the community will be complimentary to the existing neighborhood.

Open space will meet or exceed 40% of the total site area, or 35.3 acres. On-site wetland preserves will comprise the bulk of the required 17.66 acres of indigenous preserve area. The project will exceed the minimum preservation requirements through the provision of 18+ acres of on-site wetland, upland, and indigenous creation areas, whereas the LDC requires approximately 17.66 acres of on-site preserve. Preserve setbacks will be provided in accordance with the LDC.

Development areas have been designed to minimize impacts to rare and unique uplands and wetlands. While wetland impacts are proposed, these impacts are limited to areas of lower-quality vegetation and where such impacts cannot be avoided due to the internal roadway network. As outlined in this narrative, enhanced stormwater management is provided to offset the proposed wetland impacts that fall in the Coastal High Hazard Area (CHHA).

Two deviations are requested to allow for flexibility relating to the design of the surface water management system. The deviations will allow for the efficient use of space in a constrained site to address stormwater design and to protect against impacts in the CHHA.

For these reasons, the proposed amendment is needed to address the unique site constraints of the assembled properties and to ensure compatibility with surrounding development.

VI. PROPOSED USES/DESIGN STANDARDS

The proposed Schedule of Uses allows for townhomes, single-family and two-family attached dwelling types, as well as several uses accessory to the residential development. An amenity center is also centrally located on the Property. Except where deviations are requested, the design standards will meet or exceed the requirements in the LDC and mirror those of typical RPD zoning districts throughout the County.

The project is located within the Caloosahatchee Shores Planning Community; therefore, several planning community-specific design requirements apply to this RPD.

VII. DECISION-MAKING COMPLIANCE

In accordance with LDC Section 34-145(d)(4), the data and analysis provided in the enclosed application demonstrate that the request meets or exceeds the following:

a) The request will meet or exceed all performance and locational standards set forth for the proposed residential planned development, except where a deviation has been approved.

Access will be provided from SR 31, an arterial roadway, and SR 80 via Storage Bay Dr. and Merchandise Way (the reverse frontage road) located to the south of the Property. Public infrastructure and services are available to serve the proposed development. Traffic impacts of the project are discussed in the attached Traffic Impact Statement (TIS) which demonstrates all impacted roadways will function at an acceptable Level of Service. Any off-site improvements required by the project will be addressed at the time of local development order review.

The request for the development of 342 townhouse units or 265 single-family dwelling units is located within the Suburban FLUC and is intended for the continuation of the surrounding existing and planned development pattern. The request is consistent with the goals, objectives and policies of the Lee Plan, as outlined in this application.

Two deviations are requested and further explained in the attached Deviation Justification Narrative. The deviations are limited to that required to accommodate a site plan which maximizes the use of space available for stormwater management and the preservation of wetlands.

b) Complies with the Lee Plan.

The request will allow for residential development in accordance with the Suburban and Wetland FLUCs and other relevant Goals, Objectives, and Policies. Densities account for the limited wetland impact areas and comply with Table 1(a) outlining Residential Densities and Table 1(b), which accommodates 1,810 acres of residential development in the Suburban

FLUC within the Fort Myers Shores Planning Community. Additional Lee Plan consistency analysis is provided below.

c) Meets this Code and other applicable County regulations or qualifies for deviations.

The request includes proposed development standards, deviations, and conditions in compliance with the LDC and the Caloosahatchee Shores Planning Community regulations. As outlined in the Deviation Justification Narrative, requested deviations will fully meet the intent of the LDC.

d) Is compatible with existing and planned uses in the surrounding area.

The request will ensure that the property is developed with uses similar to neighboring properties. The proposed RPD includes development standards which comply with the Caloosahatchee Shores Planning Community regulations. Perimeter setbacks and buffers will be provided to the adjacent to the properties. The zoning conditions and LDC requirements have adequately addressed any potential impacts on adjacent uses.

e) Will provide access sufficient to support the proposed development intensity.

A Traffic Impact Statement (TIS) is attached which demonstrates that the proposed access is sufficient to support the proposed development activity. The request proposes two access points, one on SR 31 and the other on SR 80 via a reverse frontage road. These access points meet the requirement in LDC section 10-291 that residential development of more than five acres must provide more than one means of ingress or egress for the development.

f) The expected impacts on transportation facilities will be addressed by existing County regulations and conditions of approval.

The attached TIS has demonstrated that all analyzed roadways are projected to operate at acceptable Level of Service even with the worst-case-scenario of 265 single-family dwelling units. The TIS also demonstrates the need for northbound and southbound left turn lanes on SR 31 to accommodate the proposed development.

Sidewalk and bikeway facilities will comply with the minimum requirements and options set forth in Chapter 10 of the LDC.

The project will require development order approvals prior to site development activities. The project's impacts will be evaluated at that time in accordance with the LDC.

g) Will not adversely affect environmentally critical or sensitive areas and natural resources.

The proposal makes efficient use of this infill site intended for development per the Suburban FLUC while ensuring environmentally critical areas and natural resources are protected.

The Project site includes 22.77 acres of wetlands which are degraded due to infestation of exotic vegetation. The MCP demonstrates the preservation of 13.48 acres of wetlands and the creation of 4.48 acres of wetlands.

The Project site contains 285 heritage trees, and the project will comply with the LDC standards for preservation and/or mitigation.

The Project site contains 6.09 +/- acres of rare or unique upland habitat. Preserve and open space areas have been designed to retain these areas to the maximum extent possible. An Indigenous Preserve Management Plan for these areas is attached.

The attached Protected Species Survey demonstrated the existence of Gopher Tortoise on the property. A Gopher Tortoise Management Plan is attached.

h) Will be served by urban services, defined in the Lee Plan, if located in a Future Urban area category.

Public infrastructure and services are available to service the proposed development. This property is located within the Suburban FLUC. This area is programmed to include predominantly residential uses. As such Lee County Utilities has adequate services for the proposed residential density.

The property is served by the Ft. Myers Shores Fire District with Station #81 and Lee County EMS Medic 11 station located on Palm Beach Blvd. The Lee County Sheriff provides service in Central District - Zone 6.

The data and analysis provided in the enclosed application also demonstrates that the request meets or exceeds the following Planned Development Rezoning review criteria.

i) The proposed use or mix of uses is appropriate at the proposed location;

The Suburban FLUC allows for predominantly residential uses. This request does not include any non-residential uses. Moreover, the development of residential dwellings on the 88.3+/- acre property is appropriate for this location which provides for compatibility with neighboring single-family residential developments.

j) The recommended conditions provide sufficient safeguards to the public interest and are reasonably related to the impacts on the public's interest expected from the proposed development.

The proposed conditions identify rare and unique uplands and heritage tree preservation as well as wetland preservation and stormwater management which are sufficient and reasonably related to the impacts on the public interest.

k) If the application includes deviations pursuant to section 34-373(a)(9), that each requested deviation:

1) Enhances the achievement of the objectives of the planned development; and

2) Preserves and promotes the general intent of this Code to protect the public health, safety and welfare.

The Applicant has proposed two deviations related to site design standards for the surface water management system. As described in the attached Deviations and Justification, the intent of these deviations is to allow for flexibility relating to the design of the surface water management system. The deviations will allow for the efficient use of space in a constrained site to address stormwater design and to protect against impacts in the CHHA.

VIII. LEE PLAN COMPLIANCE

The following is an analysis of the RPD's consistency with goals, objectives and policies of the Lee County Comprehensive Plan (Lee Plan).

POLICY 1.1.5: The Suburban future land use category will consist of predominantly residential areas that are either on the fringe of the Central Urban or Urban Community future land use categories or in areas where it is appropriate to protect existing or emerging residential neighborhoods. This category provides housing near the more urban areas but does not provide the full mix of land uses typical of urban areas. Industrial land uses are not permitted. This category has a standard density range from one dwelling unit per acre (1 du/acre) to six dwelling units per acre (6 du/acre). The maximum total density may only be increased to eight dwelling units per acre (8 du/acre) utilizing Greater Pine Island Transfer of Development Units except in areas that specifically prohibit bonus density. Other forms of bonus densities are not allowed.

The Property is located in the Suburban FLUC, as shown in the attached Existing Future Land Use Map. The request is limited to residential dwellings at 3.87 du/acre which is below the maximum permitted density in this FLUC and provides for a range of residential dwelling types that comply with the intended uses for this category. Infrastructure and public services are available to serve the property.

POLICY 1.5.1: Permitted land uses in Wetlands consist of very low density residential uses and recreational uses that will not adversely affect the ecological functions of wetlands. All development in Wetlands must be consistent with Goal 124 of this plan. The maximum density is one dwelling unit per twenty acres (1 du/20 acre) except as otherwise provided in Table 1(a) and Chapter XIII of this plan.

The attached proposed density calculations for the 31 Oaks RPD utilize a density calculation for impacted wetlands of 1 du/20 acres. Therefore, the proposed RPD is consistent with this policy.

OBJECTIVE 2.1: DEVELOPMENT LOCATION. Contiguous and compact growth patterns will be promoted through the rezoning process to contain urban sprawl, minimize energy costs, conserve land, water, and natural resources, minimize the cost of services, prevent development patterns where large tracts of land are by-passed in favor of development more distant from services and existing communities.

The proposed amendment and rezoning will allow for a clustered and logical development pattern in an area readily serviced by public infrastructure, in direct compliance with the above policy. As outlined in detail within the application, the project represents an infill development within an urbanized area of Lee County and is surrounded by other residential and non-residential development. Development within the project is clustered primarily within existing uplands, representing a compact development footprint.

OBJECTIVE 2.2: DEVELOPMENT TIMING. Direct new growth to those portions of the Future Urban Areas where adequate public facilities exist or are assured and where compact and contiguous development patterns can be created. Development orders and permits (as defined in F.S. 163.3164(7)) will be granted only when consistent with the provisions of Sections 163.3202(2)(g) and 163.3180, Florida Statutes and the county's Concurrency Management Ordinance.

The Property is contiguous to developed or developing properties on three sides of the project, representing infill development of this future suburban area. The attached letter of availability demonstrates the availability of potable water and sanitary sewer services to support the proposed density. Additionally, the attached Public Infrastructure Map demonstrates the Property is in the vicinity of adequate public facilities and public investment. Therefore, the proposed amendment and rezoning fully complies with the above policy's intent to direct new growth to appropriate Future Urban Areas of the county.

POLICY 2.2.1: Rezonings and Development of Regional Impact proposals will be evaluated as to the availability and proximity of the road network; central sewer and water lines; community facilities and services such as schools, EMS, fire and police protection, and other public facilities; compatibility with surrounding land uses; and any other relevant facts affecting the public health, safety, and welfare.

The road network in the region has been specifically constructed to support a mix of residential uses and commercial uses in the area. The requested density falls below the maximum density allowed by the Suburban FLUC.

Lee County utilities has both sewer and water infrastructure available to the property with capacities to serve the previously approved density and the surrounding area approved

zoning. The property is near existing networks, utility services and compatible, similar land uses.

There are adequate public facilities and services in the immediate vicinity of the project to serve the proposed development in terms of schools, fire, EMS and Sheriff's protection. EMS and fire stations are within one mile of the Property.

GOAL 4
STANDARD 4.1.1 & 4.1.2: WATER & SEWER

The attached Letter of Availability from Lee County Utilities demonstrates that potable water and sanitary sewer services are available for the Property.

GOAL 5: RESIDENTIAL LAND USES. To accommodate the projected population of Lee County in the year 2045 in appropriate locations, guided by the Future Land Use Map, and in attractive and safe neighborhoods with a variety of price ranges and housing types.

POLICY 5.1.1: Residential developments requiring rezoning and meeting Development of County Impact (DCI) thresholds must be developed as planned developments except if located within the Mixed Use Overlay.

The Application is to amend the Marina Del Lago RPD and rezone several properties to a unified Residential Planned Development in accordance with this policy.

POLICY 5.1.2: Prohibit residential development where physical constraints or hazards exist, or require the density and design to be adjusted accordingly. Such constraints or hazards include but are not limited to flood, storm, or hurricane hazards; unstable soil or geologic conditions; environmental limitations; aircraft noise; or other characteristics that may endanger the residential community.

While the Property is located in the Coastal High Hazard Area, the proposed density is far below the maximum allowable density under the Suburban FLUC. The proposed amendment protects against impacts from coastal flooding by providing storage that offsets potential impacts. We are not proposing to exceed allowable maximum density permitted by the underlying FLUCs. We are in fact, only proposing to develop about 64 percent of the maximum allowable density. Additionally, impacts to hurricane shelters will be addressed through the impact mitigation requirements in LDC Section 2-485.

POLICY 5.1.4: Prohibit residential development in all Industrial Development areas and Airport Noise Zone B as indicated on the Future Land Use Map, except for residences in the Industrial Development area for a caretaker or security guard.

The Property is not located in an Industrial Development area or in Airport Noise Zone B.

POLICY 5.1.5: Protect existing and future residential areas from any encroachment of uses that are potentially destructive to the character and integrity of the residential environment. Requests for conventional rezonings will be denied in the event that the buffers provided in Chapter 10 of the Land Development Code are not adequate to address potentially incompatible uses in a satisfactory manner. If such uses are proposed in the form of a planned development or special exception and generally applicable development regulations are deemed to be inadequate, conditions will be attached to minimize or eliminate the potential impacts or, where no adequate conditions can be devised, the application will be denied altogether. The Land Development Code will continue to require appropriate buffers for new developments.

The request is intended to allow for the development of townhomes or single-family residential dwellings on the 88.3+/- acre property. The request will ensure that the property is developed with uses similar neighboring properties, thereby protecting the character and integrity of the existing communities.

The Applicant has proposed development standards including buffers, lakes, and setbacks to adjacent development, consistent with the LDC. A 30-foot Type F buffers will visually screen the single-family neighborhood to the east from the cul-de-sac ROW. The preservation of existing native vegetation will result in additional setbacks and visual screening to surrounding development over and above code requirements, where provided. The Applicant has limited the request to townhomes, single-family detached and two-family dwelling types to address compatibility with the abutting ¼-acre lots; whereas the Lee Plan would support higher density dwelling types.

The project will not negatively impact surrounding land uses due to the similarity of uses and density. The zoning conditions and LDC requirements have adequately addressed any potential impacts on adjacent uses.

POLICY 5.1.7: Maintain development regulations that require that community facilities (such as park, recreational, and open space areas) in residential developments are functionally related to all dwelling units and easily accessible via pedestrian and bicycle pathways. These pathways must be interconnected with adjoining developments and public pathways whenever possible. Townhouses, condominiums, apartments, and other types of multi-family residential development must have directly accessible common open space.

The proposed RPD includes open space, internal sidewalks, a community amenity center, and other recreational facilities. Sidewalks are provided on both sides of all internal roadways and provide pedestrian and bicycle connections to SR 31. All open space and amenities will be directly accessible to all residents within the RPD

GOAL 21: CALOOSAHATCHEE SHORES COMMUNITY PLAN. Protect the existing character, natural resources and quality of life in the Caloosahatchee Shores Community Plan area, while promoting new development, redevelopment and maintaining a more rural identity for

the neighborhoods east of I-75 by establishing minimum aesthetic requirements, planning the location and intensity of future commercial and residential uses, and providing incentives for redevelopment, mixed use development and pedestrian safe environments.

POLICY 21.1.1: Maintain Land Development Code regulations that provide for enhanced landscaping, signage and architectural standards consistent with the goal of maintaining an old Florida rural identity. The preferred architectural style for all buildings in commercial developments is Florida vernacular.

The proposed RPD will comply with all planning community regulations for the Caloosahatchee Shores Planning Community. No deviations are requested from Chapter 33 of the LDC.

Per Section 10-416 of the LDC, proposed single-family development (which includes both single-family detached and two-family attached) does not require a buffer when abutting existing single-family lots. Therefore, the proposed 10-foot native buffer is an enhancement from the requirements of the LDC and is in direct compliance with the intent of Lee Plan Policy 21.1.1 to provide for enhanced landscaping and uphold the Old Florida character of the Caloosahatchee Shores community.

A 15-foot-wide Type B buffer will be provided where townhomes are located adjacent to existing single-family uses.

Preserved and created wetlands will provide enhanced views along SR 31 meeting the intent of this policy.

POLICY 21.1.2: Any deviation from landscaping, buffering, signage or architectural requirements may not be granted unless the request meets the approval criteria for variances set forth in Chapter 34 of the Land Development Code.

No deviations are requested from the Caloosahatchee Shores Planning Community regulations for landscaping, buffering, or signage in the proposed RPD. As noted above, the project proposed enhanced buffers adjacent to existing residential to the south and east, as well as enhanced buffers along SR 31, where applicable.

POLICY 21.3.1: Maintain Land Development Code regulations that provide for greater buffering between adjacent commercial and residential uses except for in mixed use developments.

Proposed buffers within the RPD comply with the buffering requirements in the LDC. The project is adjacent to non-residential uses to the south.

OBJECTIVE 60.1: SURFACE WATER. Develop a surface water management program that is multi-objective in scope, geographically based on basin boundaries, and incorporates the requirements of applicable adopted Basin Management Action Plans.

POLICY 60.1.1: Require design of surface water management systems to protect or enhance the groundwater. (Ord. No. 07-12, 18-28)

A surface water management system is proposed which will provide water quality treatment before discharging into onsite wetlands.

POLICY 60.1.2: Incorporate, utilize, and where practicable restore natural surface water flowways and associated habitats.

The proposed RPD includes wetland preservation areas which will maintain existing flowways and associated habitats to the maximum extent practicable. The proposed RPD also incorporates wetland creation areas which will augment existing natural surface water flowways.

OBJECTIVE 60.4: INCORPORATION OF NATURAL SYSTEMS INTO THE SURFACE WATER MANAGEMENT SYSTEM. Incorporate natural systems into surface water management systems to improve water quality, air quality, water recharge/infiltration, water storage, wildlife habitat, recreational opportunities, and visual relief.

POLICY 60.4.1: Encourage new developments to design surface water management systems with Best Management Practices including, but not limited to, filtration marshes, grassed swales planted with native or Florida Friendly Landscaping vegetation, retention/detention lakes with enlarged littoral zones, preserved or restored wetlands, and meandering flow-ways.

The proposed RPD includes a surface water management plan that complies with all LDC design standards.

POLICY 60.4.2: The County encourages new developments to design their surface water management system to incorporate existing wetland systems.

The RPD provides 13.48 acres of wetland preservation and 4.48 acres of wetland creation throughout the project. These areas are proposed to maintain connectivity with the larger wetland system on and off site.

POLICY 60.4.3: The County encourages the preservation of existing natural flow-ways and the restoration of historic natural flow-ways.

The existing wetlands are proposed to be preserved to the maximum extent possible. Wetland preservation areas will not be disconnected from the surrounding wetland system.

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality freshwater compatible with that use, consistent with financial and technical constraints.

The Applicant will obtain an Environmental Resource Permit from the South Florida Water Management District. The master drainage system and established conservation areas proposed in this amendment request, and which will be established through the ERP and subsequent development orders, are designed in compliance with this policy.

GOAL 101: COASTAL AREAS. Protect human life along with current and future development from the impacts of coastal flooding. Coastal flooding includes, but is not limited to, high tide events, storm surge, flash floods, stormwater runoff, and impacts of sea level rise.

POLICY 101.1.1: Require that development within the Coastal High Hazard Area be compatible with natural systems, such as, water retention and purification, wildlife habitat, primary productivity, and defense against coastal flooding.

Consistent with Lee Plan Policy 101.1.1 and Objective 123.3, the Project site plan, in conjunction with the activities proposed within the Indigenous Preserve and Protected Species Management Plan, was designed to be compatible with surrounding natural systems and will protect and continue to provide functions including water retention and purification, and defense against flooding through the preservation of 18.38 acres of wetlands, wetland creation areas and upland habitat on-site and through the construction of a permitted stormwater management system and will provide long-term protection of wildlife habitat. The site plan was designed to protect and maintain the function of the on-site wetland areas and adjacent upland habitat and provide a connection to proposed off-site preservation areas located to the north.

POLICY 101.1.2: Protect and conserve the following environmentally sensitive coastal areas: wetlands, estuaries, mangrove stands, undeveloped barrier islands, beach and dune systems, aquatic preserves, wildlife refuges, undeveloped tidal creeks and inlets, critical wildlife habitats, benthic communities, and marine grass beds.

As required by Lee Plan Policy 101.1.2, the site plan protects environmentally sensitive areas through the preservation and enhancement of 18.38 acres of on-site wetlands, wetland creation areas and upland habitat. The wetland areas, in combination with adjacent upland areas, will be protected in perpetuity through a conservation easement. The Project does not contain estuaries, mangrove stands,

undeveloped barrier islands, beach and dune systems, aquatic preserves, wildlife refuges, undeveloped tidal creeks and inlets, critical wildlife habitats, benthic communities, or marine grass beds.

OBJECTIVE 101.3: DEVELOPMENT IN COASTAL AREAS. Protect human life and property from natural and man-made disasters.

POLICY 101.3.2: Restrict development in the Coastal High Hazard Area to uplands except as needed for the provision of public facilities.

Please refer to the Supplementary Surface Water Management Narrative and no-impact analysis which fully address the project's consistency with this policy..

POLICY 101.3.4: Encourage new residential development, as required by the Land Development Code, to provide continuing information to residents concerning hurricane evacuation and shelters.

A homeowners or residents association will be established to provide continuing information concerning hurricane evacuation and shelters. Additionally, the developer will mitigate impacts to shelter space through the payment schedule outlined in Chapter 2 of the LDC.

OBJECTIVE 123.2: PLANT COMMUNITIES. Maintain and enhance the biodiversity of the natural plant communities within Lee County to create a more resilient and sustainable ecosystem.

POLICY 123.2.4: Encourage the protection of viable tracts of sensitive or high-quality natural plant communities within developments.

POLICY 123.2.6: Avoid destruction of upland vegetation communities including coastal and interior hammocks through consideration of alternative site design layouts.

POLICY 123.2.8: Promote the long-term maintenance of natural systems through such instruments as conservation easements, transfer of development rights, restrictive zoning, public acquisition, and appropriate other means.

POLICY 123.2.13: Promote optimal conditions rather than minimum conditions for the natural system as the basis for sound planning.

POLICY 123.2.15: Protect Rare and Unique upland habitats from development impacts to the maximum extent possible, through conservation and/or site design.

Lee Plan Article XIII.a. provides that:

"A development order … will be deemed consistent with the comprehensive plan if the land uses, densities or intensities, and other aspects of development … are compatible with and further the objectives, policies, land uses, and densities or intensities in the comprehensive plan, and if it meets all other established regulatory requirements of the County. Where goals, objectives, or policies of particular elements conflict, those conflicts will be resolved based on an analysis of the Lee Plan as a whole."

Internal consistency and compatibility within the Lee Plan requires the balancing of competing goals, objectives and policies. *Policy 101.3.2* (restricting development in the coastal high hazard area to uplands except as needed for the provisions of public facilities) and *Policy 123.2.15* (protecting rare and unique upland habitats from development impacts, to the maximum extent possible, through conservation and or site design) provide an example of the need to balance competing policies when both types of habitat are present. Protecting these distinctly different habitats "to the maximum extent possible" enhances the conservation of plant communities and stormwater management facilities, effectively equivalent to "the provision of public facilities."

While it is not possible to completely avoid all impacts to these two distinct plant communities due to the constraints of the site, the Master Concept Plan creatively balances the protection of each plant community with minimal impact to each community, thus protecting both communities to the maximum extent possible.

The objective of protecting human life and property within the CHHA is achieved through site planning which reduces permissible residential densities in order to provide for enhanced flood and stormwater management and storage capacity. The density capacity permissible for the site is 499 units, yet the amendment adds nearly 40 acres to the RPD while it proposes only a total of 342 units.

In compliance with Objective 123.3 of the Lee Plan, the protection and enhancement of the on-site preserve will maintain the function of the on-site wetland and upland preservation areas. It will also provide perpetual protection of wildlife habitat, which will be available for utilization by various common and protected wildlife species including, but not limited to, amphibians species, reptiles species, small mammal species, and avian species, including wading birds. The enhancement and long-term protection of the 18.38± acre on-site preserve area will help to maintain wildlife diversity in Lee County, in compliance with Objective 123.3 of the Lee Plan.

OBJECTIVE 123.3: WILDLIFE. Maintain and enhance the fish and wildlife diversity and distribution within Lee County for the benefit of a balanced ecological system. (Ord. No. 94-30, 18-28)

In compliance with Objective 123.3 of the Lee Plan, the protection and enhancement of the on-site preserve will maintain the function of the on-site wetland and upland preservation areas. It will also provide perpetual protection of wildlife habitat, which will be available for utilization by various common and protected wildlife species including, but not limited to, amphibians species, reptiles species, small mammal species, and avian species, including wading birds. The enhancement and long-term protection of the 18.38± acre on-site preserve area will help to maintain wildlife diversity in Lee County, in compliance with Objective 123.3 of the Lee Plan.

OBJECTIVE 123.6: SOUTHERN BALD EAGLES. Monitor Southern bald eagle nesting activity and offer incentives to conserve buffer areas around Southern bald eagle nests.

There are no bald eagle (Haliaeetus leucocephalus) nests located on or within the immediate vicinity of the proposed Project.

OBJECTIVE 123.8: GOPHER TORTOISES. Restore and maintain secure, viable populations of Gopher Tortoises in Lee County.

Please see the attached Indigenous Preserve and Protected Species Management Plan that was prepared for the Project. Gopher tortoise (*Gopherus polyphemus*) burrows that will be impacted by construction activities will be relocated in accordance with the Florida Fish and Wildlife Conservation Commission Gopher Tortoise Permitting Guidelines.

OBJECTIVE 123.10: WOOD STORK. Lee County will maintain regulatory measures to protect the wood stork's feeding and roosting areas and habitat.

No wood stork (Mycteria americana) rookeries or roosting areas were documented on the Project site. Compensation for impacts to wood stork foraging habitat will be provided through the enhancement and preservation of on-site wetland areas, or through the purchase of credits from a wetland mitigation bank. Additionally, the enhancement and preservation of wetland areas on site and the creation of additional wetlands within the onsite preserve will provide and protect potential foraging habitat for woods storks and other wading birds. The proposed stormwater system will comply with all design requirements in the LDC, including the littoral planting requirements, which provides potential forage areas.

OBJECTIVE 123.11: FLORIDA PANTHER. Develop strategies to protect the Florida panther.

No Florida Panthers (*Puma concolor coryi*) have been documented on the Project site. In addition, the Project is located outside of the USFWS Florida Panther Focus Area.

OBJECTIVE 123.12: FLORIDA BLACK BEAR. Maintain sustainable black bear populations in suitable habitats and promote connectivity between sub-populations.

No Florida black bears (*Ursus americanus floridanus*) have been documented on the Project site.

POLICY 125.1.2: New development and additions to existing development must not degrade surface and ground water quality.

POLICY 125.1.3: The design, construction, and maintenance of artificial drainage systems must provide for retention or detention areas and vegetated swale systems that minimize nutrient loading and pollution of freshwater and estuarine systems.

POLICY 125.1.4: Developments which have the potential of lowering existing water quality below state and federal water quality standards will provide standardized appropriate monitoring data.

The proposed RPD will include a stormwater lake adjacent to the residential tract to address water quality. The surface water system will also be required to obtain an ERP from the South Florida Water Management District at the time of DO. The proposed amendment will not impact existing infrastructure in the area, and roadways, schools, EMS, potable water and sanitary sewer service are available to serve the property.
The Applicant will be required to amend the existing SFWMD ERP for Marina del Lago (Permit No. 36-06750-P), which includes monitoring requirements. The RPD will comply with these and any additional/revised monitoring requirements that are incorporated into the modified ERP.

POLICY 126.1.4: Development designs must provide for maintaining or improving surface water flows, groundwater levels, and lake levels at or above existing conditions.

The development of the proposed stormwater management system will provide water quality and water quantity improvements, including the creation of 4.48 acres of created wetlands. The system will be designed so that sufficient flow of water to retain the existing hydroperiods will be maintained. Several drainage easements exist throughout the site, as noted on the MCP, and are used to convey off-site flows. These easements will remain in place and will be incorporated into the surface water management system of the RPD.

For these reasons, the Applicant respectfully requests approval of this PD amendment as proposed.

31 OAKS RPD

Schedule of Uses & Site Development Regulations

1. **SCHEDULE OF USES:**

Maximum of 265 single-family or two-family dwelling units or a maximum of 342 townhome dwelling units or any combination of single-family and multi-family units provided that in no case shall the maximum total daily trip generation exceed 248 two-way PM peak hour trips based on the use codes in the ITE Manual on trip generation rates in effect at the time of application for development order approval.

Residential Tract

Accessory uses, buildings and structures
Administrative offices
Clubs:
- Private

Dwelling units:
- Single-Family
- Two-family attached
- Townhouse

Essential Services
Essential Services Facilities – Group I Only
Excavation:
- Water Retention

Fences, Walls
Entrance Gates and Gatehouses
Models:
- Display Center/Sales Center
- Model Home
- Model Unit

Parking Lot, Accessory
Real Estate Sales Office
Recreation Facilities
- Personal
- Private – On-Site

Residential Accessory Uses
Signs in conformance with LDC Chapter 30
Temporary Uses
- Including Temporary Sales Office, Temporary Construction Office, Temporary Construction-Related Storage, Temporary Amenity Structures

2. SITE DEVELOPMENT REGULATIONS:

Development of the zoning district will comply with the following Property Development Regulations:

	Single Family Detached	Two-Family Attached	Townhouse	Recreation/ Clubhouse
Minimum Lot Size	4,000 sq ft	3,000 sq ft	1,800 sq ft	N/A
Minimum Lot Width	40 feet	30 feet	18 feet	N/A
Minimum Lot Depth	100 feet	100 feet	100 ft	N/A
Maximum Lot Coverage	60 percent	65 percent	65 percent	50 percent
Maximum Building Height	35 feet	35 feet	35 feet	35 feet
Minimum Building Separation	10 feet	10 feet	15 feet	10 feet
Setbacks				
Street (public roads)	25 feet	25 feet	20 feet	N/A
Street (interior private roads)	20 feet / 10 feet[1]	20 feet / 10 feet[1]	20 feet / 10 feet[1]	20 feet
Side	5 feet	5 feet / 0 feet[2]	5 feet / 0 feet[2]	10 feet
Rear (Principal)	10 feet	10 feet	5 feet	10 feet
Rear (Accessory)	5 feet / 0 feet[3]	5 feet / 0 feet[3]	5 feet / 0 feet[3]	5 feet
Perimeter	15 feet[4]	15 feet[4]	15 feet[4]	15 feet
Waterbody	20 feet	20 feet	20 feet	20 feet
Preserve[4]	20 feet[5]	20 feet[5]	20 feet[5]	20 feet[4]

Notes:

1) 20 feet for front loaded garages, 10 feet for side loaded garages and secondary street setbacks on corner lots.
2) No side setback is required from common lot line for two-family attached or townhouse.
3) 5 feet (0 feet where lot abuts lake maintenance easement).
4) 15 feet or 1/2 building height (whichever is greater).
5) 30 feet for indigenous plant communities subject to fire.

31 OAKS RPD

Proposed Conditions

1. Permitted Dwelling Types

    a. The RPD allows a maximum of 265 single-family or two-family dwelling units or a maximum of 342 townhome dwelling units or any combination of single-family and multi-family units provided that in no case shall the maximum total daily trip generation exceed 248 two-way PM peak hour trips based on the use codes in the ITE Manual on trip generation rates in effect at the time of application for development order approval.

2. State Permits

    a. Developer must submit copies of permits issued by South Florida Water Management District (SFWMD) and Department of Environmental Protection (DEP) authorizing wetland impacts, along with a written analysis of wetland impacts approved by state permits with the development order application to verify compliance with Lee Plan density limitations.

    b. Construction may not commence until issuance of required state permits. Development activity must comply with applicable state permits.

3. Environmental

    a. Open Space. Development order plans must depict a minimum of 35.3 acres of open space. This total must include 17.66 acres of indigenous open space. The location of indigenous areas must be consistent with the Master Concept Plan. Modifications to indigenous preservation areas require further development approvals.

    b. Wetlands. Development order plans must reflect preservation of 13.48 acres of indigenous wetlands identified in the Aerial with FLUCFCS and Wetlands and Master Concept Plan Map.

    c. Conservation Easements (Upland Areas). Developer must submit copies of recorded conservation easements over upland indigenous preservation areas depicted on the Master Concept Plan with the first local development order application. The conservation easements must be dedicated to Lee County.

    d. Conservation Easements (Wetland Areas). Developer must submit copies of recorded conservation easements over wetland indigenous preservation areas depicted on the Master Concept Plan with the first development order application. The conservation easements must be dedicated to the South Florida Water Management District and grant third party enforcement rights to Lee County.

    e. Species Management Plan.

        i. Preservation within indigenous preservation areas, and

ii. Relocation from development areas consistent with Florida Fish and Wildlife Conservation Commission (FWC) gopher tortoise permitting guidelines. Developer must submit copies of the FWC permit authorizing relocation with the Vegetation Removal Permit application.

4. Floodplain Storage Requirements:

At first Development Order provide:

a. Pre-Development Drainage Analysis that includes:

i. Drainage Map for all contributory areas and must include offsite inflow areas,

ii. Show flow-paths,

iii. Existing Structures,

iv. ICPR Modeling of 5yr24hr, 10yr24hr, 25yr-3day, 100yr-3day storm events, and

v. This establishes the pre-development stormwater conditions.

b. Post Development Drainage Plan:

i. Drainage Map for all contributory areas with proposed upland improvements, wetland and upland creation areas, proposed grading elevations and construction details of all structures and pipes,

ii. Structures, weirs, pipes and swales to maintain a viable hydroperiod in the conservation area,

iii. ICPR Modeling of 5yr24hr, 10yr24hr, 25yr-3day, 100yr-3day storm events, and

iv. This establishes the post-development stormwater conditions.

c. Profiles and Sections Plan:

i. Provide Sections and Profiles sufficient to demonstrate compliance with elevations and areas of the post development modeling.

d. Stormwater Report:

i. A stormwater report that demonstrates compliance with Policy 101.3.2 pre-development wetland storage capacity is being met through existing wetland, flood prone uplands and created uplands and wetlands preservation and retained storage capacity,

ii. The development shall provide SFWMD required water quantity in the lake system and not in the conservation easement areas, and

iii. Demonstration of proposed engineering systems that ensure the retention of a hydroperiod in the conservation easement suitable to provide stormwater needs of the plant community.

31 Oaks RPD

Schedule of Deviations & Justification Narrative

Deviation #1: A deviation from LDC section 10-329(d)(1)a.3, which requires water retention or detention excavations to be a minimum of 50 feet from any private property line under separate ownership, to allow a minimum of 25 feet from private property lines.

JUSTIFICATION: The Applicant is requesting approval of this deviation in order to provide flexibility in site design for stormwater management within the RPD.

The proposed stormwater lake is adjacent to private properties along Davis Blvd, Fourth St., and West Rd. Along these property boundaries, a project wall and buffer are proposed.

Approval of this deviation will not negatively impact the public health, safety, or welfare as a project wall will be located between the lake and adjoining property lines.

Deviation #2: A deviation from LDC Section 10-329(d)(4), which requires lake banks to be sloped at a 6:1 ratio from the top of bank to a water depth of two feet below the dry season water table; to allow for a minimum ratio of 4:1 slope.

JUSTIFICATION: The Applicant is requesting approval of this deviation in order to maximize stormwater management lake area on the property. The subject property is constrained by on-site wetlands and impacts to Coastal High Hazard Area wetlands require compensating stormwater retention in addition to the typical stormwater management requirements. The site plan is also constrained by the existing lake on the southern portion of the property and this deviation provides the space to grade the area between the anticipated finished floor elevations and the control elevation/location of the existing lake

As a result, the 4:1 lake bank slope is necessary to accommodate the appropriate lake depth and minimum lake width specified in the LDC within the spatial constraints of the subject property. The proposed 4:1 lake bank slope will allow the project to provide for stormwater management lakes on the property in the most efficient manner possible.

A 4:1 lake bank slope has been proven to function as intended by the LDC through appropriate construction standards and lake maintenance measures. As shown on the enclosed cross section, turf reinforcement mats and enhanced herbaceous plantings are proposed to mitigate lake bank erosion in accordance with the slope protection measures set forth in LDC Section 10-329(d)(4). This design standard has been successfully implemented throughout Lee County and is accepted by the South Florida Water Management District. Therefore, the requested deviations will not negatively impact public health, safety, or welfare, and will uphold the intent of the LDC.

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TR TRANSPORTATION CONSULTANTS, INC

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FORT MYERS, FL 33901-9356
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TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
SIGNAL SYSTEMS/DESIGN

TRAFFIC IMPACT STATEMENT

FOR

31 OAKS RPD

(PROJECT NO. F2108.32)

PREPARED BY:
TR Transportation Consultants, Inc.
Certificate of Authorization Number: 27003
2726 Oak Ridge Court, Suite 503
Fort Myers, Florida 33901-9356
(239) 278-3090

November 16, 2022

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TR TRANSPORTATION CONSULTANTS, INC

CONTENTS

I. INTRODUCTION

II. EXISTING CONDITIONS

III. PROPOSED DEVELOPMENT

IV. TRIP GENERATION

V. TRIP DISTRIBUTION

VI. FUTURE TRAFFIC CONDITIONS

VII. PROJECTED LEVEL OF SERVICE AND IMPROVEMENTS

VIII. PRELIMINARY TURN LANE ANALYSIS

IX. INTERSECTION ANALYIS

X. CONCLUSION

TR TRANSPORTATION CONSULTANTS, INC

I. INTRODUCTION

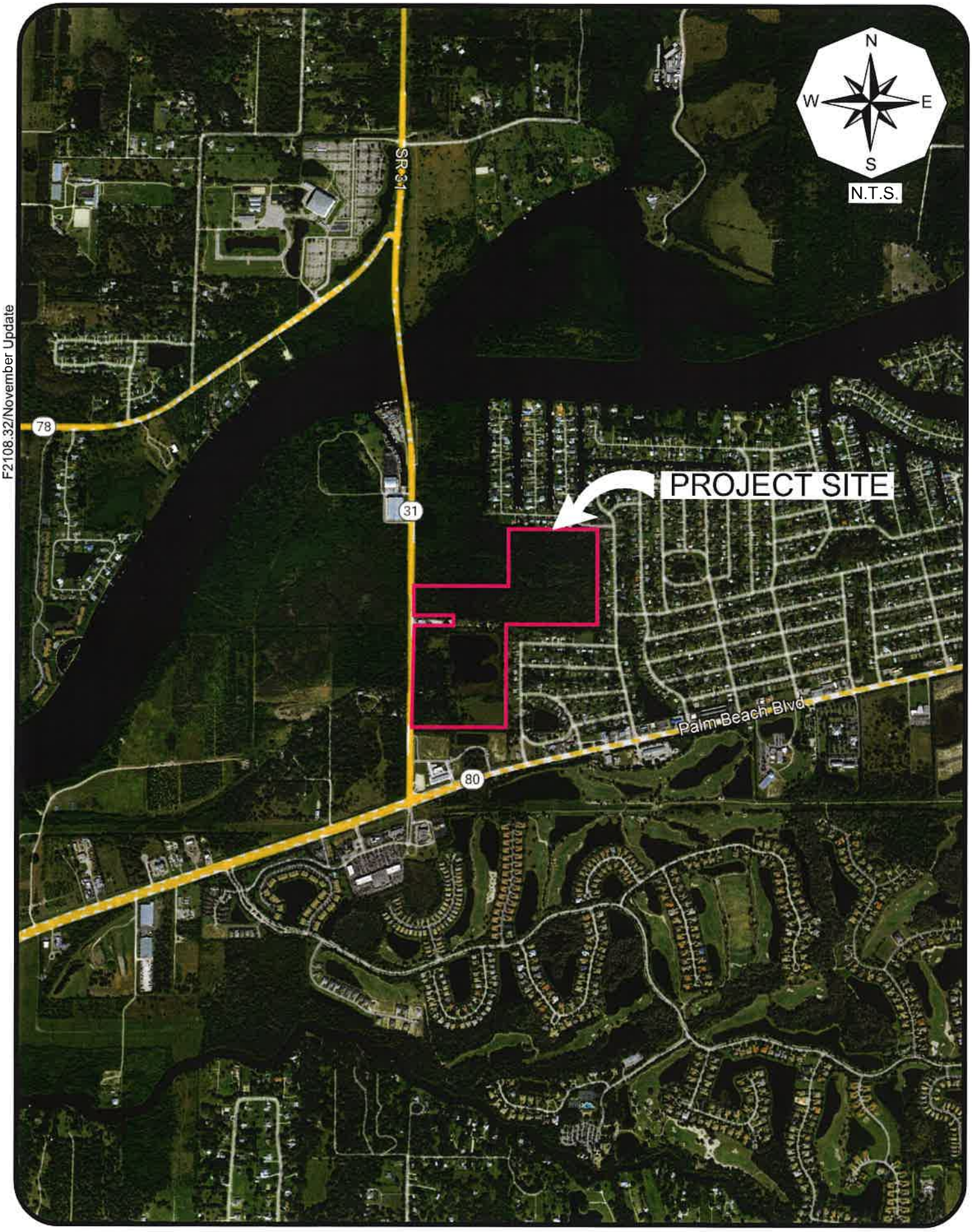
TR Transportation Consultants, Inc. has conducted a traffic impact statement to fulfill requirements set forth by the Lee County Department of Community Development for projects seeking a rezoning approval. The proposed development is located along the east side of SR 31 and approximately ¼ of a mile to the north of its intersection with SR 80 (Palm Beach Boulevard) in Lee County, Florida. The approximate location of the subject site is illustrated on **Figure 1**.

Approximately 49.6 acres of the site is governed by Zoning Resolution No. Z-06-050 (Marina Del Lago RPD), which permitted a development of up to 143 single-family units. The remaining approximately 39 acres of the site is zoned Agricultural (AG-2). The applicant is proposing to rezone the entire 88.6 acre site to Residential Planned Development (RPD) to permit a development of up to 265 single-family dwelling units. The developer is also proposing a development option consisting of up to 342 multi-family dwelling units. However, for the purposes of the analysis, this report was completed based on the single-family option as it represents the worst-case trip generation scenario. Access to the subject site is proposed to SR 31. A secondary access will be also provided to Merchandise Way, which connects to SR 80 and SR 31.

This report examines the impact of the development on the surrounding roadways. Trip generation and assignments to the various site access drives were completed and an analysis conducted to determine the impacts of the development on the surrounding streets.

II. EXISTING CONDITIONS

The subject site is currently vacant. The overall site is bordered by residential uses and vacant land to the north, residential uses to the east, SR 31 to the west, and by vacant land and residential uses to the south.



F2108.32/November Update

TR TRANSPORTATION CONSULTANTS, INC

PROJECT LOCATION MAP
31 OAKS RPD

Figure 1

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SR 31 is a north/south two-lane undivided arterial the borders the subject site to the west. SR 31 has a posted speed limit of 40 mph and is under the jurisdiction of the Florida Department of Transportation (FDOT). SR 31 has an Access Management Classification of Class 4, which requires a minimum connection spacing of 440 feet between driveway connections and 2,640 feet between signals. Note, FDOT has recently conducted a PD&E study on SR 31 that recommended widening of SR 31 from SR 80 to SR 78 to a six-lane facility.

SR 80 (Palm Beach Boulevard) is an east/west six-lane divided arterial to the west of SR 31 and a four-lane divided roadway east. SR 80 has a posted speed limit of 55 mph and is under the jurisdiction of the Florida Department of Transportation (FDOT).

III. PROPOSED DEVELOPMENT

The applicant is proposing to rezone the entire 88.6 acre site to Residential Planned Development (RPD) to permit a development of up to 265 single-family dwelling units. The developer is also proposing a development option consisting of up to 342 multi-family dwelling units. However, for the purposes of the analysis, this report was completed based on the single-family option as it represents the worst-case trip generation scenario. See attached trip generation comparison contained at the end of the Appendix of this report. **Table 1** summarizes the land use utilized for the purposes of this analysis.

Table 1
Land Use
31 Oaks RPD

Land Use	Permitted
Single Family Detached Housing (LUC 210)	265 Dwelling Units

Access to the subject site is proposed to SR 31. A secondary access will be also provided to Merchandise Way, which connects to SR 80 and SR 31.

TR TRANSPORTATION CONSULTANTS, INC

IV. TRIP GENERATION

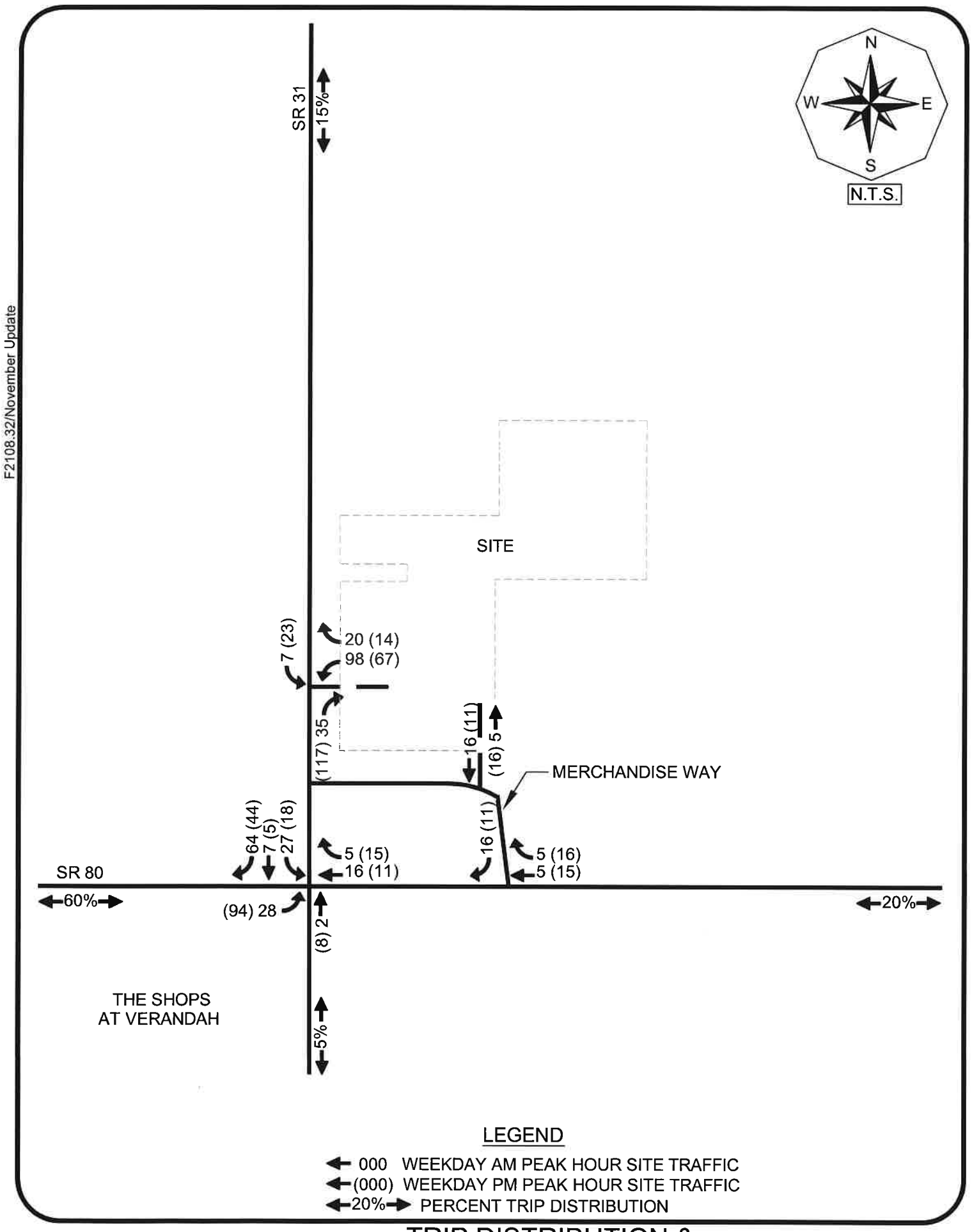
The trip generation for the proposed zoning was determined by referencing the Institute of Transportation Engineer's (ITE) report, titled ***Trip Generation Manual***, 11th Edition. Land Use Code 210 (Single-Family Detached Housing) was utilized for the trip generation purposes of the proposed development. The trip generation equations utilized from this land use are attached to the Appendix for reference. **Table 2** outlines the anticipated weekday A.M. and P.M. peak hour and daily trip generation of the development as currently proposed.

Table 2
Trip Generation
31 Oaks RPD

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Detached Housing (265 Dwelling Units)	47	134	181	156	92	248	2,473

V. TRIP DISTRIBUTION

The trips as a result of the proposed development shown in Table 2 were then assigned to the surrounding roadway system based on the anticipated routes the drivers will utilize to approach the site. Based on current and projected population in the area and other existing or planned competing/complementary uses in the area, a distribution of the site traffic was formulated. The anticipated trip distribution of the development traffic is shown on **Figure 2**. Also shown on Figure 2 is the site traffic assignment to the proposed site access drives and surrounding intersections.



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TRIP DISTRIBUTION & SITE TRAFFIC ASSIGNMENT 31 OAKS RPD

Figure 2

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In order to determine which roadway segments surrounding the site may be significantly impacted as outlined in the Lee County Traffic Impact Statement Guidelines, **Table 1A**, in the Appendix, was created. This table indicates which roadway links will accommodate greater than 10% of the Peak Hour Level of Service "C" volumes. The Level of Service threshold volumes were obtained from the FDOT's **Generalized Peak Hour Directional Volumes, Table 7**. Based on Table 1A, SR 31 between the site access and SR 80 is the only roadway segment that is anticipated to be significantly impacted by the proposed development.

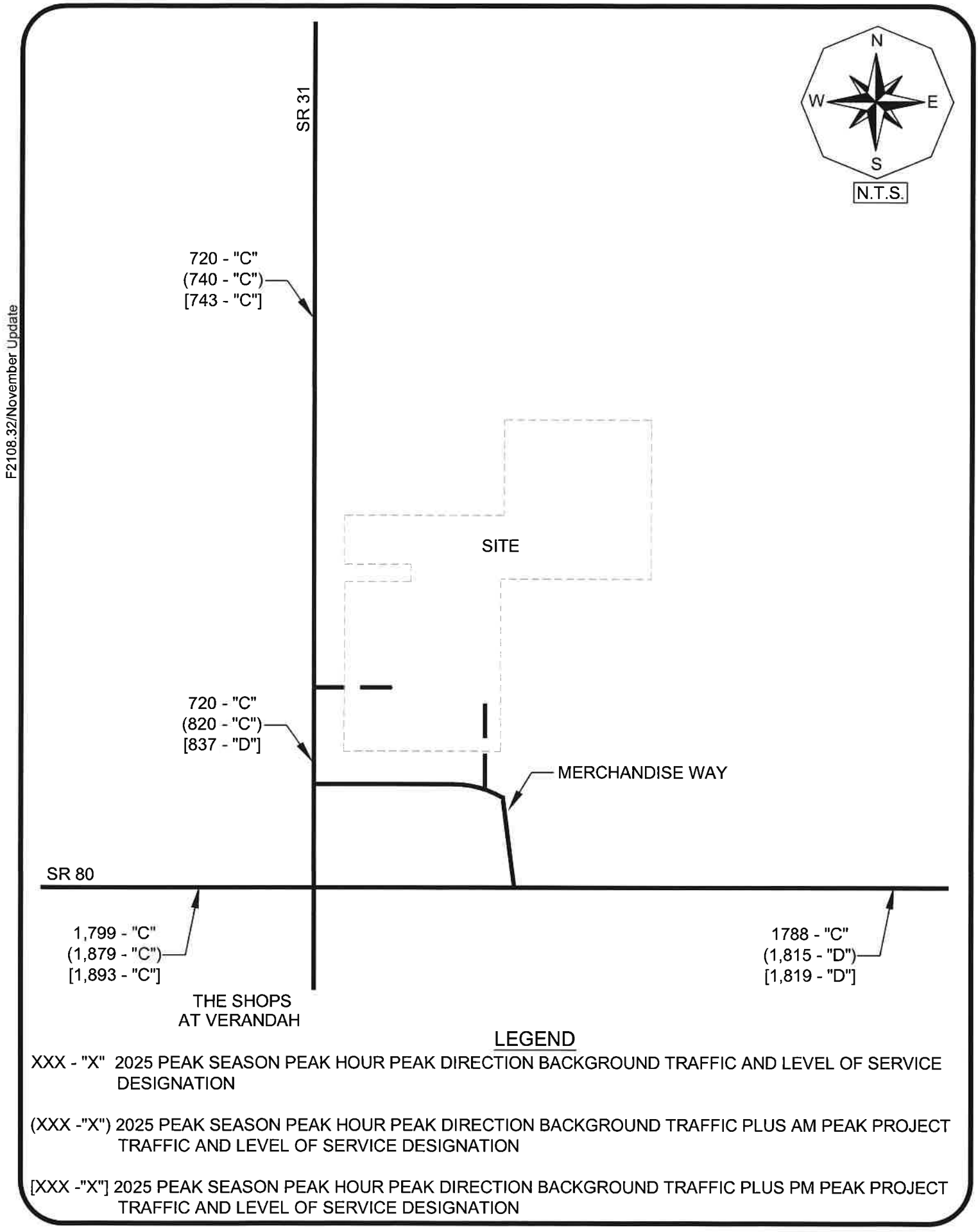
VI. FUTURE TRAFFIC CONDITIONS

A horizon year analysis of 2025 was selected as the analysis year to evaluate the future impacts this project will have on the surrounding roadway network. Based on this horizon year, a growth rate was applied to the existing traffic conditions for all roadway links in the study area. Annual growth rates were formulated based on the historical traffic data obtained from the FDOT's ***Florida Traffic Online*** webpage. Based on the project distribution illustrated on Figure 2, the link data was analyzed for the year 2025 without the development and year 2025 with the development.

Table 2A in the Appendix of the report indicates the methodology utilized to obtain the year 2025 build-out traffic volumes as well as the growth rate utilized for each roadway segment. The base year traffic volumes were obtained from the 2021 ***Lee County Public Facilities Level of Service and Concurrency Report***.

Figure 3 indicates the year 2025 peak hour – peak direction traffic volumes and Level of Service for the various roadway links within the study area. Noted on Figure 3 is the peak hour – peak direction volume and Level of Service of each link should no development occur on the subject site and the peak hour – peak direction volume and Level of Service for the weekday A.M. and P.M. peak hours with the development traffic added to the roadways. This figure is derived from Table 2A contained in the Appendix.

F2108.32/November Update



LEGEND

XXX - "X" 2025 PEAK SEASON PEAK HOUR PEAK DIRECTION BACKGROUND TRAFFIC AND LEVEL OF SERVICE DESIGNATION

(XXX -"X") 2025 PEAK SEASON PEAK HOUR PEAK DIRECTION BACKGROUND TRAFFIC PLUS AM PEAK PROJECT TRAFFIC AND LEVEL OF SERVICE DESIGNATION

[XXX -"X"] 2025 PEAK SEASON PEAK HOUR PEAK DIRECTION BACKGROUND TRAFFIC PLUS PM PEAK PROJECT TRAFFIC AND LEVEL OF SERVICE DESIGNATION

TR TRANSPORTATION CONSULTANTS, INC

2025 LEVEL OF SERVICE ANALYSIS
31 OAKS RPD

Figure 3

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VII. PROJECTED LEVEL OF SERVICE AND IMPROVEMENTS

Adverse impacts are defined as a degradation of the Level of Service beyond the adopted Level of Service Thresholds for those links as indicated in Table 1A. In comparing the links' functional classification and calculated 2025 traffic volumes to the Service Volume Tables, it was determined that all analyzed roadways are projected to operate at or above the minimum adopted Level of Service in 2025 both with and without to proposed development. Therefore, roadway capacity improvements will not be warranted as a result of the additional traffic to be generated by the proposed development.

VIII. PRELIMINARY TURN LANE ANALYSIS

Preliminary turn lane analysis was conducted at the proposed site access connection on SR 31. The need for a right turn lane was evaluated based on the criteria outlined in Table 27 of the FDOT's ***Access Management Guidebook*** (November, 2019). Based on the criteria in the FDOT guidebook, a right turn volume of 80 vehicles per hour would warrant a separate right turn lane. As noted in Figure 2, the projected right turn volume at the site access drive on SR 31 is 117 vehicles, which is more than the threshold of 80 vehicles per hour to warrant a separate right turn lane. Therefore, a separate northbound right turn lane is anticipated to be warranted at the proposed site access drive on SR 31. This turn lane should provide a taper/decel distance of 155 feet pursuant to ***Exhibit 212-1*** of the FDOT Design Manual for a 40 mph posted speed limit. No storage distance is required as a right turn movement operates under the free-flow conditions.

The need for a southbound left turn lane at the site access connection on SR 31 was evaluated utilizing the data from the ***ITE Committee 4A-22 Report***, which is modeled after the M.D. Harmelink data. Based on the projected left turn demand at the site access drive and projected opposing and advancing traffic volumes, a separate left turn lane will be warranted at the proposed site access drive on SR 31. This turn lane should provide a taper/decel distance of 155 feet pursuant to ***Exhibit 212-1*** of the FDOT Design Manual

for a 40 mph posted speed limit. The storage distance that should be provided in addition to the taper/decel distance is shown below. The storage distance was computed based on the formula as contained in FDOT Design Manual.

$$\text{Storage} = Q = \frac{(2.0)*(23 \text{ veh})*(25)}{30}$$
$$\approx 50 \text{ ft of storage}$$

Therefore, a southbound left turn lane at the proposed site access connection on SR 31 is anticipated to be warranted and should be approximately 205 feet in total length. The table utilized from the ITE Committee's 4A-22 Report to conduct left turn lane analysis is attached to the Appendix of this report for reference.

IX. INTERSECTION ANALYSIS

Intersection analysis was performed at the proposed site access drive on SR 31, signalized intersection of SR 80 with SR 31 as well as at the SR 80 intersection with Merchandise Way utilizing ***SYNCHRO***© software. The intersection analysis was based on the projected 2025 weekday AM and PM peak hour traffic conditions both with and without the project traffic. Traffic counts were conducted by TR Transportation at the SR 80 and SR 31 intersection on February 1, 2022. A copy of the raw turning movement count data is included in the Appendix of this report for reference.

The existing peak season traffic volumes were then increased by a growth rate factor to determine the projected 2025 background turning movement volumes. **Table 2A** of the Appendix illustrates the methodology utilized to formulate the appropriate annual growth rates. The turning volumes projected to be added to the intersection as illustrated on Figure 2 were then added to the 2025 background volumes to estimate the future 2025 traffic volumes with the project. These volumes are based on the data from the spreadsheet contained in the Appendix of this report titled *Development of Future Year Background Turning Volumes*. Note, the intersection analysis at the SR 80 and

Merchandise Way intersection also included project traffic volumes from the Great American Self Storage facility (DOS2021-00141).

Based upon the results of the capacity analysis, all analyzed intersections were shown to operate at acceptable Level of Service in 2025 AM and PM peak hour conditions both with and without the proposed development traffic added to the intersections. ***SYNCHRO***© summary sheets are attached to the Appendix of this report for reference.

X. CONCLUSION

The proposed development is located on the east side of SR 31 and approximately ¼ of a mile to the north of its intersection with SR 80 in Lee County, Florida. The Level of Service analysis conducted as part of this report indicated that all analyzed roadways are projected to operate at or above the minimum adopted Level of Service in 2025 both with and without the proposed development. Therefore, roadway capacity improvements will not be warranted as a result of the additional traffic to be generated by the proposed development. The zoning amendment as proposed is consistent with the goals and objectives of the Lee County Comprehensive Plan in that there is sufficient roadway capacity projected to accommodate the anticipated development.

Based upon the results of the preliminary turn lane analysis conducted as a part of this report, separate turn lanes are anticipated to be warranted at the proposed site access connection on SR 31.

Based upon the results of the capacity analysis, all analyzed intersections were shown to operate at acceptable Level of Service in 2025 AM and PM peak hour conditions both with and without the proposed development traffic added to the intersections.

APPENDIX

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TABLE 1A & 2A

DCI2021-00051 Lee County ePlan

Additional info dated 11-16-2022

TABLE 1A
PEAK DIRECTION PROJECT TRAFFIC VS. 10% LOS C LINK VOLUMES
31 OAKS RPD

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 181 VPH IN= 47 OUT= 134

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 248 VPH IN= 156 OUT= 92

ROADWAY	SEGMENT	ROADWAY CLASS	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PERCENT PROJECT TRAFFIC	PROJECT TRAFFIC	PROJ/ LOS C
SR 31	N. of Site	2LN	0	0	830	880	880	15%	23	2.8%
	S. of Site	2LN	0	0	830	880	880	75%	117	**14.1%**
SR 80	E. of Davis Blvd	4LD	0	0	2,005	2,100	2,100	20%	31	1.6%
	W. of SR 31	6LD	0	0	3,087	3,171	3,171	60%	94	3.0%

* Level of Service thresholds were obtained from the FDOT's Generalized Peak Hour Directional Service Volumes for Florida's Urbanized Areas, Table 7.

Note: Remaining 5% of project traffic was assigned to/from The Shops at Verandah.

DCI2021-00051 Lee County ePlan

Additional info dated 11-16-2022

TABLE 2A
LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS
31 OAKS RPD

TOTAL PROJECT TRAFFIC AM = 181 VPH IN = 47 OUT= 134

TOTAL PROJECT TRAFFIC PM = 248 VPH IN= 156 OUT= 92

ROADWAY	SEGMENT	STA #	BASE YR ADT	LATEST ADT	YRS OF GROWTH	ANNUAL RATE	2020 PK HR PK SEASON PEAK DIR.[1]	2025 PK HR PK SEASON PEAK DIRECTION VOLUME	LOS	PERCENT PROJECT TRAFFIC	AM PROJ TRAFFIC	PM PROJ TRAFFIC	2025 BCKGRND + AM PROJ VOLUME	LOS	2025 BCKGRND + PM PROJ VOLUME	LOS
SR 31	N. of Site	120030	10,500	13,800	15	2.00%	652	720	C	15%	20	23	740	C	743	C
	S. of Site	120030	10,500	13,800	15	2.00%	652	720	C	75%	101	117	820	C	837	D
SR 80	E. of Davis Blvd	120085	31,500	36,500	15	2.00%	1,619	1,788	C	20%	27	31	1,815	C	1,819	C
	W. of SR 31	126005	26,004	33,500	12	2.13%	1,619	1,799	C	60%	80	94	1,879	C	1,893	C

1 Current peak hour peak season peak direction traffic volumes for all roadways were obtained from the 2021 Lee County Public Facilities Level of Service and Concurrency Report.

2 Historic traffic volumes were obtained from Florida Traffic Online.

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

FDOT GENERALIZED PEAK HOUR DIRECTIONAL SERVICE VOLUMES

TABLE 7

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TABLE 7 Generalized **Peak Hour Directional** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

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

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

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

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

Urbanized

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TRAFFIC DATA FROM THE LEE COUNTY PUBLIC FACILITIES LEVEL OF SERVICE AND CONCURRENCY REPORT

9/23/2021

LEE COUNTY Road Link Volumes (County- and State-Maintained Roadways)

LINK NO.	NAME	ROADWAY LINK FROM	TO	ROAD TYPE	PERFORMANCE STANDARD LOS	PERFORMANCE STANDARD CAPACITY	2020 100TH HIGHEST HOUR LOS	2020 100TH HIGHEST HOUR VOLUME	FORECAST FUTURE LOS	FORECAST FUTURE VOLUME	NOTES
13400	IMMOKALEE RD (SR 82)	BELL BLVD	COUNTY LINE	4LD	D	3,240	B	569	B	698	
13500	IMPERIAL PKWY	COUNTY LINE	BONITA BEACH RD	4LD	E	1,920	B	1,009	B	1,061	
13550	IMPERIAL PKWY	E TERRY ST	COCONUT RD	4LD	E	1,920	B	973	B	1,023	
13600	IONA RD	DAVIS RD	McGREGOR BLVD	2LN	E	860	C	381	C	460	*
13700	ISLAND PARK RD	PARK RD	US 41	2LN	E	860	C	75	C	247	
13800	JOEL BLVD	BELL BLVD	18TH ST	4LN	E	2,120	B	625	B	835	Joel Blvd CPD
13900	JOEL BLVD	18TH ST	SR 80	2LN	E	1,010	D	490	D	515	
14000	JOHN MORRIS RD	BUNCHE BEACH	SUMMERLIN RD	2LN	E	860	C	62	C	72	old count projection
14100	JOHN MORRIS RD	SUMMERLIN RD	IONA RD	2LN	E	860	C	256	C	269	*
14200	KELLY RD	McGREGOR BLVD	SAN CARLOS BLVD	2LN	E	860	C	282	C	296	
14300	KELLY RD	SAN CARLOS BLVD	PINE RIDGE RD	2LN	E	860	C	106	C	120	old count projection(2010)
14500	LAUREL DR	BUS 41	BREEZE DR	2LN	E	860	C	436	C	458	
14600	LEE BLVD	SR 82	ALVIN AVE	6LD	E	2,840	B	2,335	B	2,454	
14700	LEE BLVD	ALVIN AVE	GUNNERY RD	6LD	E	2,840	B	2,037	B	2,216	
14800	LEE BLVD	GUNNERY RD	HOMESTEAD RD	6LD	E	2,840	B	2,257	B	2,372	
14900	LEE BLVD	HOMESTEAD RD	WILLIAMS AVE	4LD	E	1,980	B	1,006	B	1,057	
14930	LEE BLVD	WILLIAMS AVE	LEELAND HEIGHTS	2LN	E	1,020	C	1,006	F	1,057	
15000	LEE RD	SAN CARLOS BLVD	ALICO RD	2LN	E	860	C	544	D	614	old count projection(2015)
15100	LEELAND HEIGHTS	HOMESTEAD RD	JOEL BLVD	4LN	E	1,800	B	832	B	867	*
15200	LEONARD BLVD	GUNNERY RD	WESTGATE BLVD	2LN	E	860	E	843	F	917	
15300	LITTLETON RD	CORBETT RD	US 41	2LN	E	860	C	470	C	494	
15400	LITTLETON RD	US 41	BUS 41	2LN	E	860	C	496	C	522	
15500	LUCKETT RD	ORTIZ AVE	I-75	2LN	E	880	B	338	B	413	4 Ln design & ROW
15600	LUCKETT RD	I-75	COUNTRY LAKES DR	2LN	E	860	C	304	C	319	
15700	MAPLE DR*	SUMMERLIN RD	2ND AVE	2LN	E	860	C	77	C	89	old count projection
15800	McGREGOR BLVD	SANIBEL T PLAZA	HARBOR DR	4LD	E	1,960	B	1,176	B	1,236	
15900	McGREGOR BLVD	HARBOR DR	SUMMERLIN RD	4LD	E	1,960	B	1,105	B	1,162	
16000	McGREGOR BLVD	SUMMERLIN RD	KELLY RD	4LD	E	1,960	A	943	A	1,001	
16100	McGREGOR BLVD	KELLY RD	GLADIOLUS DR	4LD	E	1,960	A	943	A	991	
16200	McGREGOR BLVD (SR 867)	OLD McGREGOR BLVD/GI	IONA LOOP RD	4LD	D	2,100	C	1,451	C	1,625	
16300	McGREGOR BLVD (SR 867)	IONA LOOP RD	PINE RIDGE RD	4LD	D	2,100	C	1,599	C	1,625	
16400	McGREGOR BLVD (SR 867)	PINE RIDGE RD	CYPRESS LAKE DR	4LD	D	2,100	C	1,599	C	1,798	
16500	McGREGOR BLVD (SR 867)	CYPRESS LAKE DR	COLLEGE PKWY	4LD	D	2,100	C	1,599	C	1,798	
16600	McGREGOR BLVD (SR 867)	COLLEGE PKWY	WINKLER RD	2LN	D	924	C	727	C	802	Constrained
16700	McGREGOR BLVD (SR 867)	WINKLER RD	TANGLEWOOD BLVD	2LN	D	970	F	1,057	F	1,168	Constrained
16800	McGREGOR BLVD (SR 867)	TANGLEWOOD BLVD	COLONIAL BLVD	2LN	D	970	F	1,057	F	1,168	Constrained
16900	METRO PKWY (SR 739)	SIX MILE PKWY	DANIELS PKWY	6LD	D	3,171	C	977	C	1,376	
17000	METRO PKWY (SR 739)	DANIELS PKWY	CRYSTAL DR	4LD	D	2,100	C	1,140	C	1,452	
17100	METRO PKWY (SR 739)	CRYSTAL DR	DANLEY DR	4LD	D	2,100	C	1,303	C	1,623	
17200	METRO PKWY (SR 739)	DANLEY DR	COLONIAL BLVD	4LD	D	2,100	C	1,349	C	1,880	
	MICHAEL RIPPE PKWY	US41	SIX MILES PKWY	6LD	D	3,171	C	1,070	C	1,537	
17600	MILWAUKEE BLVD	ALABAMA BLVD	BELL BLVD	2LN	E	860	C	171	C	180	*
17700	MILWAUKEE BLVD	BELL BLVD	COLUMBUS BLVD	2LN	E	860	C	171	C	184	*
17800	MOODY RD	HANCOCK B. PKWY	PONDELLA RD	2LN	E	860	C	182	C	206	old count projection(2009)
17900	NALLE GRADE RD	SLATER RD	NALLE RD	2LN	E	860	C	64	C	67	
18000	NALLE RD	SR 78	NALLE GRADE RD	2LN	E	860	C	114	C	133	*
18100	NEAL RD	ORANGE RIVER BLVD	BUCKINGHAM RD	2LN	E	860	C	120	C	126	*
18200	NO RIVER RD	SR 31	FRANKLIN LOCK RD	2LN	E	1,140	A	164	B	283	
18300	NO RIVER RD	FRANKLIN LOCK RD	BROADWAY RD	2LN	E	1,140	A	164	B	309	
18400	NO RIVER RD	BROADWAY RD	COUNTY LINE	2LN	E	1,140	A	113	A	146	
18900	OLGA RD*	SR 80 W	SR 80 E	2LN	E	860	C	82	C	95	old count projection
19100	ORANGE GROVE BLVD	CLUB ENTR.	HANCOCK B. PKWY	2LN	E	860	C	393	C	488	old count(2009)
19200	ORANGE GROVE BLVD	HANCOCK B. PKWY	PONDELLA RD	4LN	E	1,790	C	614	C	645	
19300	ORANGE RIVER BLVD	SR 80	STALEY RD	2LN	E	1,000	D	510	D	536	
19400	ORANGE RIVER BLVD	STALEY RD	BUCKINGHAM RD	2LN	E	1,000	D	510	D	544	
19500	ORIOLE RD	SAN CARLOS BLVD	ALICO RD	2LN	E	860	C	147	C	154	
19600	ORTIZ AVE	COLONIAL BLVD	SR 82	2LN	E	900	C	805	C	846	
19700	ORTIZ AVE	SR 82	LUCKETT RD	2LN	E	900	C	838	C	880	4 Ln design & ROW
19800	ORTIZ AVE	LUCKETT RD	SR 80	2LN	E	900	B	350	B	368	4 Ln design & ROW
19900	PALM BEACH BLVD (SR 80)	PROSPECT AVE	ORTIZ AVE	4LD	D	2,100	C	1,096	C	1,210	
20000	PALM BEACH BLVD (SR 80)	ORTIZ AVE	I-75	6LD	D	3,171	C	1,096	C	1,205	
20100	PALM BEACH BLVD (SR 80)	I-75	SR 31	6LD	D	3,171	C	1,619	C	2,006	
20200	PALM BEACH BLVD (SR 80)	SR 31	BUCKINGHAM RD	4LD	D	2,100	C	1,619	C	1,905	
20300	PALM BEACH BLVD (SR 80)	BUCKINGHAM RD	WERNER DR	4LD	D	3,280	B	1,764	C	2,208	
20330	PALM BEACH BLVD (SR 80)	WERNER DR	JOEL BLVD	4LD	C	2,210	C	1,402	C	1,797	
20400	PALM BEACH BLVD (SR 80)	JOEL BLVD	HENDRY CO. LINE	4LD	C	2,210	B	1,224	C	1,541	
20500	PALOMINO LN	DANIELS PKWY	PENZANCE BLVD	2LN	E	860	C	466	C	489	
20600	PARK MEADOWS DR	SUMMERLIN RD	US 41	2LN	E	860	C	196	C	206	
20800	PENZANCE BLVD	RANCHETTE RD	SIX MILE PKWY	2LN	E	860	C	147	C	159	

9/23/2021

LEE COUNTY Road Link Volumes (County- and State-Maintained Roadways)

LINK NO.	NAME	ROADWAY LINK FROM	TO	ROAD TYPE	PERFORMANCE STANDARD LOS	PERFORMANCE STANDARD CAPACITY	2020 100TH HIGHEST HOUR LOS	2020 100TH HIGHEST HOUR VOLUME	FORECAST FUTURE LOS	FORECAST FUTURE VOLUME	NOTES
20900	PINE ISLAND RD	STRINGFELLOW RD	BURNT STORE RD	2LN	E	950	E	594	E	644	Constrained
21400	PINE ISLAND RD (SR 78)	CITY LIMITS E OF BARRETT RD	US 41	4LD	D	2,100	C	1,621	D	2,037	
21500	PINE ISLAND RD (SR 78)	US 41	BUS 41	4LD	D	2,100	C	1,580	C	1,855	
21600	PINE RIDGE RD	SAN CARLOS BLVD	SUMMERLIN RD	2LN	E	860	C	489	C	535	*
21700	PINE RIDGE RD	SUMMERLIN RD	GLADIOLUS DR	2LN	E	860	C	293	D	352	Heritage Isle*
21800	PINE RIDGE RD	GLADIOLUS DR	McGREGOR BLVD	2LN	E	860	C	293	C	308	
21900	PLANTATION RD	SIX MILE PKWY	DANIELS PKWY	2LN	E	860	C	285	C	414	Intermed Park
22000	PLANTATION RD	DANIELS PKWY	IDLEWILD ST	2LN	E	860	D	740	D	778	FDOT Metro Pkwy 6-laning
22050	PLANTATION RD	IDLEWILD ST	COLONIAL BLVD	4LN	E	1,790	C	510	C	536	
22100	PONDELLA RD	SR 78	ORANGE GROVE BLVD	4LD	E	1,890	B	736	B	774	*
22200	PONDELLA RD	ORANGE GROVE BLVD	US 41	4LD	E	1,890	B	1,101	B	1,176	
22300	PONDELLA RD	US 41	BUS 41	4LD	E	1,890	B	1,094	B	1,150	
22400	PRITCHETT PKWY	SR 78	RICH RD	2LN	E	860	C	73	C	541	old count, Stoneybrook North(2009)
22500	RANCHETTE RD	PENZANCE BLVD	IDLEWILD ST	2LN	E	860	C	93	C	98	
22600	RICH RD	SLATER RD	PRITCHETT PKWY	2LN	E	860	C	55	C	62	old count projection(2009)
22700	RICHMOND AVE	LEELAND HEIGHTS	E 12TH ST	2LN	E	860	C	77	C	89	
22800	RICHMOND AVE	E 12TH ST	GREENBRIAR BLVD	2LN	E	860	C	77	C	81	
23000	SAN CARLOS BLVD (SR 865)	MANTANZAS PASS B.	MAIN ST	2LD	D	970	F	1,022	F	1,151	Constrained
23100	SAN CARLOS BLVD (SR 865)	MAIN ST	SUMMERLIN RD	4LD	D	2,100	C	1,022	C	1,151	PD&E Study
23180	SAN CARLOS BLVD (SR 865)	SUMMERLIN RD	KELLY RD	2LD	D	970	C	689	C	767	
23200	SAN CARLOS BLVD (SR 865)	KELLY RD	GLADIOLUS DR	4LD	D	2,100	C	689	C	767	
23230	SAN CARLOS BLVD	US 41	THREE OAKS PKWY	2LN	E	860	C	448	C	471	*
23260	SANIBEL BLVD	US 41	LEE RD	2LN	E	860	D	591	D	621	
23300	SANIBEL CAUSEWAY	SANIBEL SHORELINE	TOLL PLAZA	2LN	E	1,140	E	937	E	985	
23400	SHELL POINT BLVD	McGREGOR BLVD	PALM ACRES	2LN	E	860	C	294	C	309	*
23500	SIX MILE PKWY (SR 739)	US 41	METRO PKWY	4LD	D	2,100	C	1,512	C	1,764	
23600	SIX MILE CYPRESS	METRO PKWY	DANIELS PKWY	4LD	E	2,000	B	1,481	B	1,556	
23700	SIX MILE CYPRESS	DANIELS PKWY	WINKLER EXT.	4LD	E	1,900	B	1,069	B	1,272	
23800	SIX MILE CYPRESS	WINKLER EXT.	CHALLENGER BLVD	4LD	E	1,900	B	1,038	B	1,091	
23900	SIX MILE CYPRESS	CHALLENGER BLVD	COLONIAL BLVD	6LD	E	2,860	A	1,038	A	1,091	
24000	SLATER RD	SR 78	NALLE GRADE RD	2LN	E	1,010	C	399	C	419	*
24100	SOUTH POINTE BLVD	CYPRESS LAKE DR	COLLEGE PKWY	2LD	E	910	D	640	D	673	*
24200	SR 31 (ARCADIA RD)	SR 80	SR 78	2LN	D	970	C	652	C	831	PD&E/SEIR Study
24300	SR 31 (ARCADIA RD)	SR 78	COUNTY LINE	2LN	C	820	B	460	B	669	PD&E/SEIR Study
24400	STALEY RD	TICE	ORANGE RIVER BLVD	2LN	E	860	C	211	C	237	*
24500	STRINGFELLOW RD	1ST AVE	BERKSHIRE RD	2LN	E	1,060	B	315	D	672	Constrained
24600	STRINGFELLOW RD	BERKSHIRE RD	PINE ISLAND RD	2LN	E	1,060	B	315	C	448	Constrained
24700	STRINGFELLOW RD	PINE ISLAND RD	PINELAND RD	2LN	E	1,060	D	712	E	813	Constrained
24800	STRINGFELLOW RD	PINELAND RD	MAIN ST	2LN	E	1,060	D	712	E	809	
24900	SUMMERLIN RD	McGREGOR BLVD	KELLY COVE RD	4LD	E	1,980	A	1,243	A	1,306	
25000	SUMMERLIN RD	KELLY COVE RD	SAN CARLOS BLVD	4LD	E	1,980	A	1,243	A	1,306	
25100	SUMMERLIN RD	SAN CARLOS BLVD	PINE RIDGE RD	6LD	E	3,000	A	1,896	A	2,126	
25200	SUMMERLIN RD	PINE RIDGE RD	BASS RD	6LD	E	3,000	A	1,896	A	1,993	
25300	SUMMERLIN RD	BASS RD	GLADIOLUS DR	6LD	E	3,000	A	1,896	A	1,993	
25400	SUMMERLIN RD	GLADIOLUS DR	CYPRESS LAKE DR	4LD	E	1,900	C	1,517	C	1,618	
25500	SUMMERLIN RD	CYPRESS LAKE DR	COLLEGE PKWY	6LD	E	2,880	B	1,489	B	1,565	
25600	SUMMERLIN RD	COLLEGE PKWY	PARK MEADOW DR	6LD	E	2,880	B	1,526	B	1,604	
25700	SUMMERLIN RD	PARK MEADOW DR	BOY SCOUT	6LD	E	2,880	B	1,526	B	1,604	
25800	SUMMERLIN RD	BOY SCOUT	MATHEWS DR	4LD	E	1,820	D	1,189	D	1,250	
25900	SUMMERLIN RD	MATHEWS DR	COLONIAL BLVD	4LD	E	1,820	D	1,189	D	1,250	
26000	SUNRISE BLVD	BELL BLVD	COLUMBUS BLVD	2LN	E	860	C	42	C	53	Old Count
26100	SUNSHINE BLVD	SR 82	23RD ST SW	2LN	E	1,010	C	443	C	466	*
26150	SUNSHINE BLVD	23RD ST SW	LEE BLVD	2LN	E	1,010	C	443	C	466	*
26200	SUNSHINE BLVD	LEE BLVD	W 12TH ST	2LN	E	1,010	E	730	E	767	*
26300	SUNSHINE BLVD	W 12TH ST	W 75TH ST	2LN	E	860	D	600	D	630	
26400	SW 23RD ST	GUNNERY RD	SUNSHINE BLVD	2LN	E	860	E	855	F	1,012	Copperhead
26500	THREE OAKS PKWY	COCONUT RD	ESTERO PKWY	4LD	E	1,940	B	1,502	B	1,685	
26600	THREE OAKS PKWY	ESTERO PKWY	SAN CARLOS BLVD	4LD	E	1,940	B	855	B	964	
26700	THREE OAKS PKWY	SAN CARLOS BLVD	ALICO RD	4LD	E	1,940	B	855	B	1,198	
26800	TICE ST	SR 80	ORTIZ AVE	2LN	E	860	C	199	C	209	
26900	TICE ST	ORTIZ AVE	STALEY RD	2LN	E	860	C	188	D	701	Elementry U.
27000	TREELINE AVE	TERMIMAL ACCESS RD	DANIELS PKWY	4LD	E	1,980	A	1,050	A	1,288	Harley Davidson
27030	TREELINE AVE	DANIELS PKWY	AMBERWOOD RD	4LD	E	1,980	A	799	A	840	
27070	TREELINE AVE	AMBERWOOD RD	COLONIAL BLVD	4LD	E	1,980	A	793	A	833	
29800	US 41 (S TAMIAMI TR)	OLD 41	CORKSCREW RD	6LD	D	3,171	C	2,020	C	2,273	
29900	US 41 (S TAMIAMI TR)	CORKSCREW RD	SANIBEL BLVD	6LD	D	3,171	C	1,901	C	2,354	
30000	US 41 (S TAMIAMI TR)	SANIBEL BLVD	ALICO RD	6LD	D	3,171	C	2,069	C	2,812	
30100	US 41 (S TAMIAMI TR)	ALICO RD	ISLAND PARK RD	6LD	D	3,171	C	2,069	C	2,467	

TRAFFIC DATA FROM FDOT

FLORIDA TRAFFIC ONLINE

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0030 - SR 31, NORTH OF SR 80/PALM BEACH BOULEVARD LC391

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	13800 C	N 6600	S 7200	9.00	53.70	17.80
2019	13500 C	N 6600	S 6900	9.00	54.00	20.80
2018	11500 C	N 5600	S 5900	9.00	55.20	18.60
2017	11200 C	N 5500	S 5700	9.00	54.40	19.00
2016	11100 F	N 5500	S 5600	9.00	57.70	12.50
2015	10100 C	N 5000	S 5100	9.00	57.50	12.50
2014	8700 F	N 4300	S 4400	9.00	56.80	14.90
2013	8500 C	N 4200	S 4300	9.00	56.50	14.90
2012	8700 C	N 4400	S 4300	9.00	54.20	13.80
2011	8500 F	N 4200	S 4300	9.00	56.20	13.70
2010	8500 C	N 4200	S 4300	9.91	56.34	13.70
2009	7800 C	N 3800	S 4000	9.98	55.90	13.40
2008	8500 C	N 4200	S 4300	10.16	57.01	12.80
2007	8700 C	N 4300	S 4400	10.16	54.76	10.80
2006	12500 C	N 6100	S 6400	10.23	54.38	33.20
2005	10500 C	N 5200	S 5300	10.30	54.10	23.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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Additional info dated 11-16-2022

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 0085 - SR 80/PALM BEACH BLVD, EAST OF SR 31 LC360

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	36500 C	E 18000	W 18500	9.00	53.70	8.30
2019	36500 C	E 18000	W 18500	9.00	54.00	9.00
2018	33500 C	E 16500	W 17000	9.00	55.20	9.30
2017	33500 C	E 16500	W 17000	9.00	54.40	8.50
2016	35000 C	E 17500	W 17500	9.00	57.70	8.20
2015	32000 C	E 16000	W 16000	9.00	57.50	9.00
2014	29500 S	E 15000	W 14500	9.00	56.80	9.20
2013	28500 F	E 14500	W 14000	9.00	56.50	9.20
2012	28500 C	E 14500	W 14000	9.00	54.20	9.20
2011	29500 F	E 14500	W 15000	9.00	56.20	9.40
2010	29500 C	E 14500	W 15000	9.91	56.34	9.40
2009	29500 C	E 14500	W 15000	9.98	55.90	9.50
2008	30000 C	E 15000	W 15000	10.16	57.01	8.10
2007	34000 C	E 17000	W 17000	10.16	54.76	8.50
2006	36000 C	E 18000	W 18000	10.23	54.38	11.00
2005	31500 C	E 15500	W 16000	10.30	54.10	12.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 12 - LEE

SITE: 6005 - SR 80/PALM BEACH BLVD, 0.25 MI W OF SR 31. PTMS 104, LCPR 05

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	33500 S	0	0	9.00	53.70	11.50
2019	35000 F	0	0	9.00	54.00	12.30
2018	35091 C	0	0	9.00	64.90	12.60
2017	34000 F	0	0	9.00	64.90	11.10
2016	32970 C	E 16326	W 16644	9.00	64.90	10.40
2015	30167 C	E 14945	W 15222	9.00	63.20	11.00
2014	27785 C	E 13885	W 13900	9.00	62.60	5.90
2013	26228 C	E 12981	W 13247	9.00	61.80	9.50
2012	25563 C	E 12791	W 12772	9.00	61.60	10.80
2011	26888 C	E 13397	W 13491	9.00	61.60	12.40
2010	26743 C	E 13334	W 13409	9.89	61.01	8.90
2009	25939 C	E 12914	W 13025	9.90	62.73	9.60
2008	26004 C	E 12909	W 13095	10.24	63.18	9.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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Additional info dated 11-16-2022

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1203 SR80, 31 & 78 E OF I-75

MOCF: 0.92

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.92	1.00
* 2	01/05/2020 - 01/11/2020	0.91	0.99
* 3	01/12/2020 - 01/18/2020	0.90	0.98
* 4	01/19/2020 - 01/25/2020	0.89	0.97
* 5	01/26/2020 - 02/01/2020	0.88	0.96
* 6	02/02/2020 - 02/08/2020	0.87	0.95
* 7	02/09/2020 - 02/15/2020	0.86	0.93
* 8	02/16/2020 - 02/22/2020	0.88	0.96
* 9	02/23/2020 - 02/29/2020	0.91	0.99
*10	03/01/2020 - 03/07/2020	0.93	1.01
*11	03/08/2020 - 03/14/2020	0.96	1.04
*12	03/15/2020 - 03/21/2020	0.99	1.08
*13	03/22/2020 - 03/28/2020	1.07	1.16
14	03/29/2020 - 04/04/2020	1.15	1.25
15	04/05/2020 - 04/11/2020	1.23	1.34
16	04/12/2020 - 04/18/2020	1.32	1.43
17	04/19/2020 - 04/25/2020	1.26	1.37
18	04/26/2020 - 05/02/2020	1.21	1.32
19	05/03/2020 - 05/09/2020	1.15	1.25
20	05/10/2020 - 05/16/2020	1.10	1.20
21	05/17/2020 - 05/23/2020	1.09	1.18
22	05/24/2020 - 05/30/2020	1.09	1.18
23	05/31/2020 - 06/06/2020	1.08	1.17
24	06/07/2020 - 06/13/2020	1.08	1.17
25	06/14/2020 - 06/20/2020	1.07	1.16
26	06/21/2020 - 06/27/2020	1.07	1.16
27	06/28/2020 - 07/04/2020	1.08	1.17
28	07/05/2020 - 07/11/2020	1.08	1.17
29	07/12/2020 - 07/18/2020	1.09	1.18
30	07/19/2020 - 07/25/2020	1.07	1.16
31	07/26/2020 - 08/01/2020	1.06	1.15
32	08/02/2020 - 08/08/2020	1.05	1.14
33	08/09/2020 - 08/15/2020	1.04	1.13
34	08/16/2020 - 08/22/2020	1.03	1.12
35	08/23/2020 - 08/29/2020	1.02	1.11
36	08/30/2020 - 09/05/2020	1.02	1.11
37	09/06/2020 - 09/12/2020	1.01	1.10
38	09/13/2020 - 09/19/2020	1.01	1.10
39	09/20/2020 - 09/26/2020	0.99	1.08
40	09/27/2020 - 10/03/2020	0.98	1.07
41	10/04/2020 - 10/10/2020	0.96	1.04
42	10/11/2020 - 10/17/2020	0.95	1.03
43	10/18/2020 - 10/24/2020	0.95	1.03
44	10/25/2020 - 10/31/2020	0.95	1.03
45	11/01/2020 - 11/07/2020	0.95	1.03
46	11/08/2020 - 11/14/2020	0.95	1.03
47	11/15/2020 - 11/21/2020	0.95	1.03
48	11/22/2020 - 11/28/2020	0.94	1.02
49	11/29/2020 - 12/05/2020	0.93	1.01
50	12/06/2020 - 12/12/2020	0.92	1.00
51	12/13/2020 - 12/19/2020	0.92	1.00
52	12/20/2020 - 12/26/2020	0.91	0.99
53	12/27/2020 - 12/31/2020	0.90	0.98

* PEAK SEASON

27-FEB-2021 10:29:53 830UPD 1_1203_PKSEASON.TXT

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FDOT ACCESS MANAGEMENT GUIDEBOOK

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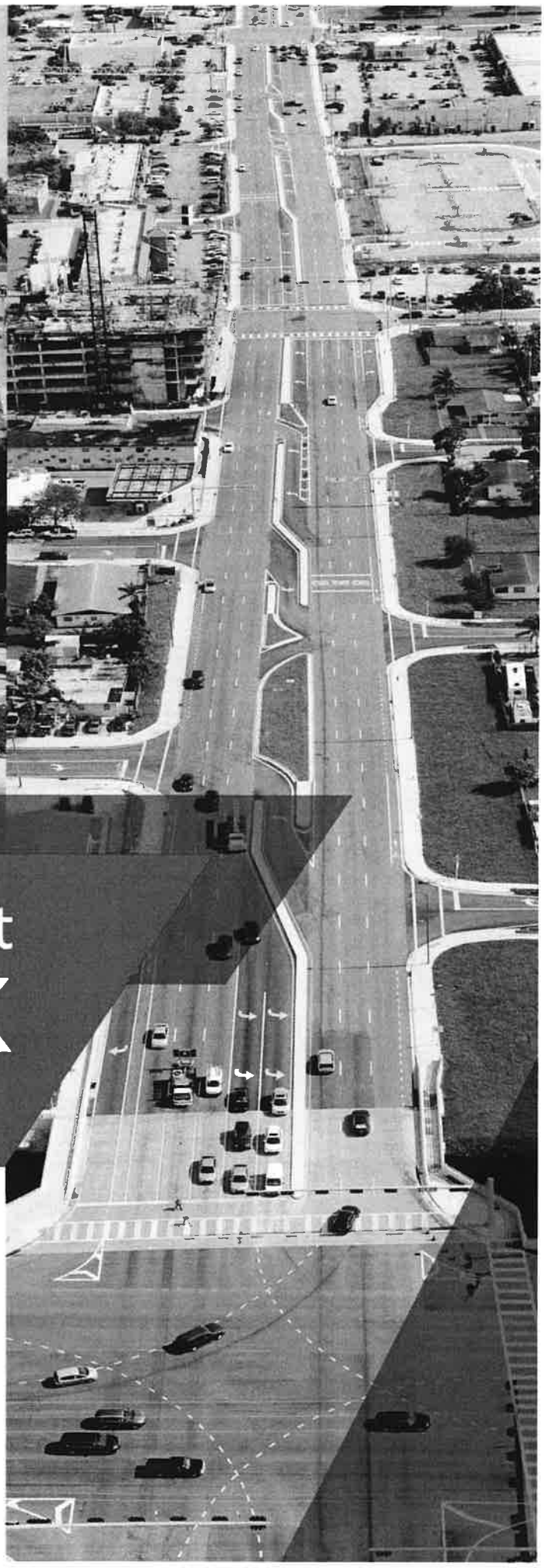

Access Management GUIDEBOOK

NOVEMBER 2019

FDOT

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
SYSTEMS IMPLEMENTATION OFFICE
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www.fdot.gov/planning

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

When Not to Consider Exclusive Right-Turn Lanes

- Dense or built-out corridors with limited space
- Right-turn lane that would negatively impact pedestrians or bicyclists
- Vehicular movements from driveways or median openings that cross the right-turn lane resulting in multiple threat crashes
- *Context classifications C2T, C4, C5, or C6*

When Exclusive Right-Turn Lanes are Beneficial

There are instances when adding an exclusive right-turn lane for unsignalized driveways are beneficial to traffic operations and safety. ***Table 27*** provides some guidance for this situation based on the speed limit of the roadway and how many right turns occur per hour. Locations where the Auto and Truck Modal Emphasis is "High" may be appropriate for consideration of Exclusive Right Turn Lanes.

Table 27 – Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway[10]

Roadway Posted Speed Limit	Number of Right Turns Per Hour
45 mph or less	80 – 125[1]
Over 45 mph	35 – 55[2]
Note: A posted speed limit of 45 mph may be used with these thresholds if the operating speeds are known to be over 45 mph during the time of peak right turn demand.	
Note on traffic projections: Projecting turning volumes is, at best, a knowledgeable estimate. Keep this in mind especially if the projections of right turns are close to meeting the guidelines. In that case, consider requiring the turn lane.	
[1] The lower threshold of 80 right-turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (50 feet or greater).	
[2] The lower threshold of 35 right-turn vehicles per hour would be most appropriately used on higher volume two-lane roadways where lateral movement is restricted. The 55 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with large entry radius (50 feet or greater).	

Source: NCHRP Report 420 (Impacts of Access Management Techniques)

These recommendations are primarily based on the research done in NCHRP Report 420, Impacts of Access Management Techniques, Chapter 4 – Unsignalized Access Spacing (Technique 1B), and Use of Speed Differential as a Measure to Evaluate the Need for Right-Turn Deceleration Lane at Unsignalized Intersections.

In the *NCHRP Report 420*, the observed high-speed roads, 30 to 40 right-turn vehicles per hour caused evasive maneuvers on 5 - 10 percent of the following through vehicles. For lower speed roadways, 80 to 110 right-turn vehicles caused 15 - 20 percent of the following through vehicles to make evasive maneuvers. The choice of acceptable percentages of through vehicles impacted is a decision based on reasonable expectations of the different roadways.

In this study, by modeling speed differentials, a better understanding of the impacts of through volume and driveway radius was discovered.

[10] May not be appropriate for signalized locations where signal phasing plays an important role in determining the need for right turn lanes.

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

ITE COMMITTEE 4A-22 REPORT

Table 7

GUIDELINES FOR LEFT-TURN LANE AT UNSIGNALIZED INTERSECTION

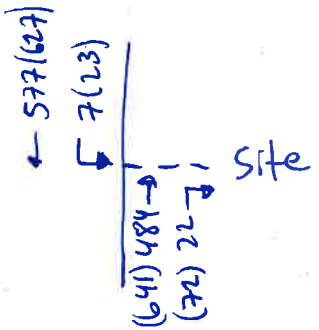
Two-lane Roadway

Operating Speed = 35 mph
Speed Limit = 40 mph
Design Speed = 45 mph

Opposing Volume (vph) | Advancing Volume - vph

Left-turn - percent

Opposing Volume (vph)	0.50	0.75	1.00	1.25	1.50	1.75	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10	15	20	30	40	50
50	2110	1725	1496	1339	1224	1135	1063	953	872	810	759	718	683	653	627	604	583	549	520	496	417	372	325	304	298
100	1858	1519	1317	1180	1078	999	936	839	768	713	669	632	601	575	552	532	514	483	458	437	367	328	286	268	262
150	1660	1357	1177	1054	963	893	836	750	686	637	597	565	537	513	493	475	459	431	409	390	328	293	255	239	234
200	1516	1239	1075	962	880	816	764	685	627	582	546	516	491	469	450	434	419	394	374	356	299	267	233	218	214
250	1362	1114	966	865	790	733	686	615	563	523	490	463	441	421	405	390	377	354	336	320	269	240	210	196	192
300	1263	1033	895	802	733	679	636	571	522	485	455	430	409	391	375	361	349	328	311	297	249	223	194	182	178
350	1152	942	816	731	668	620	580	520	476	442	415	392	373	356	342	330	318	299	284	271	228	203	177	166	162
400	1061	867	752	674	616	571	535	479	439	407	382	361	343	328	315	304	293	276	262	249	210	187	163	153	150
450	974	796	690	618	565	524	491	440	403	374	351	331	315	301	289	279	269	253	240	229	192	172	150	140	137
500	889	727	630	564	516	478	448	402	368	341	320	303	288	275	264	254	246	231	219	209	176	157	137	128	125
550	825	674	585	524	479	444	415	373	341	317	297	281	267	255	245	236	228	214	203	194	163	145	127	119	116
600	780	638	553	495	453	420	393	353	323	299	281	266	253	241	232	223	216	203	192	183	154	138	120	112	110
650	720	589	511	457	418	387	363	325	298	276	259	245	233	223	214	206	199	187	178	169	142	127	111	104	102
700	680	556	482	432	395	366	343	307	281	261	245	231	220	210	202	195	188	177	168	160	134	120	105	98	96
750	623	509	442	396	362	335	314	282	258	239	224	212	202	193	185	178	172	162	154	147	123	110	96	90	88
800	567	464	402	360	329	305	286	256	235	218	204	193	184	176	169	162	157	148	140	133	112	100	87	82	80
850	531	434	377	337	308	286	268	240	220	204	191	181	172	164	158	152	147	138	131	125	105	94	82	77	75
900	497	406	352	315	288	267	250	224	205	191	179	169	161	154	148	142	137	129	122	117	98	88	76	72	70
950	463	379	328	294	269	249	233	209	191	178	167	158	150	143	138	132	128	120	114	109	91	82	71	67	65
1000	430	352	305	273	250	231	217	194	178	165	155	146	139	133	128	123	119	112	106	101	85	76	66	62	61
1050	398	326	282	253	231	214	201	180	165	153	143	136	129	123	118	114	110	104	98	94	79	70	61	57	56
1100	346	283	245	220	201	186	174	156	143	133	125	118	112	107	103	99	96	90	85	81	68	61	53	50	49
1150	314	257	223	200	182	169	158	142	130	121	113	107	102	97	93	90	87	82	77	74	62	55	48	45	44
1200	258	211	183	164	150	139	130	117	107	99	93	88	83	80	77	74	71	67	64	61	51	45	40	37	36
1250	224	183	159	142	130	121	113	101	93	86	81	76	73	69	67	64	62	58	55	53	44	40	35	32	32
1300	189	154	134	120	109	101	95	85	78	72	68	64	61	58	56	54	52	49	47	44	37	33	29	27	27



Advancing Vol = 650 veh
Opposing Vol = 713 veh
% Left Turn = 3.5%

< 650 veh
Warranted!

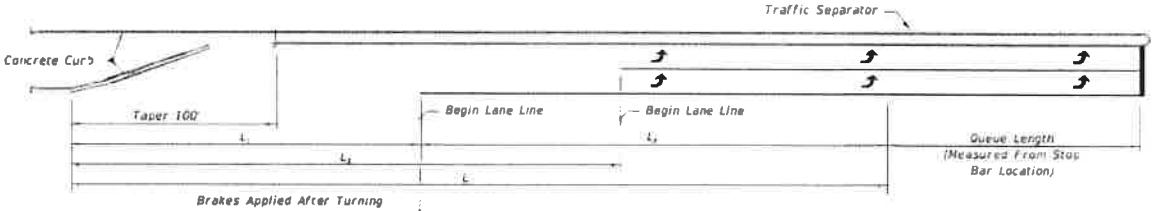
DCI2021-00051 Lee County ePlan
Additional info dated 11-16-2022

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

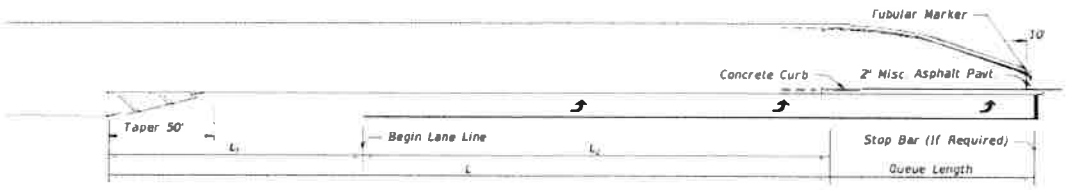
EXHIBIT 212-1

FDOT DESIGN MANUAL

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



DOUBLE LEFT TURN



SINGLE LEFT TURN

MEDIAN TURN LANES

Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1 (ft.)	URBAN CONDITIONS			RURAL CONDITIONS		
			Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)
35	25	70	75	145	110	——	——	——
40	30	80	75	155	120	——	——	——
45	35	85	100	185	135	——	——	——
50	40/44	105	135	240	160	185	290	160
55	48	125	——	——	——	225	350	195
60	52	145	——	——	——	260	405	230
65	55	170	——	——	——	290	460	270

NOT TO SCALE

EXHIBIT 212-1
01/01/2023

DCI2021-00051 Lee County ePlan
Additional info dated 11-16-2022

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TRAFFIC COUNTS

SR 80 @ SR 31

SR 80 @ SR 31 2-1-22 AM

File Name: SR 80 @ SR 31 2-1-22 AM
Location:

Site Code:
Study Date: 02/01/2022

Cars and Peds

	SR 31 Southbound						SR 80 Westbound						Shoppes At Veranda Northbound						SR 80 Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		51	3	39	0	93		31	279	6	0	316		5	5	9	0	19		7	132	48	0	187	615
07:15		67	3	67	0	137		33	296	5	0	334		3	4	8	0	15		15	89	34	0	138	624
07:30		61	6	47	0	114		25	296	13	0	334		11	5	9	0	25		6	161	40	1	208	681
07:45		66	7	59	0	132		50	266	13	0	329		12	4	19	0	35		9	162	43	0	214	710
Total	0	245	19	212	0	476	0	139	1137	37	0	1313	0	31	18	45	0	94	0	37	544	165	1	747	2630
08:00		58	6	50	0	114		48	268	16	0	332		10	4	17	0	31		9	148	40	0	197	674
08:15		70	7	52	0	129		51	238	5	0	294		17	5	9	0	31		13	153	58	0	224	678
08:30		43	8	58	0	109		43	227	21	0	291		10	4	17	0	31		7	134	58	3	202	633
08:45		49	12	47	0	108		50	230	26	0	306		6	11	8	0	25		8	138	58	0	204	643
Total	0	220	33	207	0	460	0	192	963	68	0	1223	0	43	24	51	0	118	0	37	573	214	3	827	2628
Grand Total	0	465	52	419	0	936	0	331	2100	105	0	2536	0	74	42	96	0	212	0	74	1117	379	4	1574	5258
Appr %		49.7	5.6	44.8	0			13.1	82.8	4.1	0			34.9	19.8	45.3	0			4.7	71	24.1	0.3		
Total %		8.8	1	8	0			6.3	39.9	2	0			1.4	0.8	1.8	0			1.4	21.2	7.2	0.1		
AM Pk Hr		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol		255	26	208	0	489		174	1068	47	0	1289		50	18	54	0	122		37	624	181	1	843	2743
AM PHF		0.911	0.929	0.881	NaN	0.926		0.853	0.902	0.734	NaN	0.965		0.735	0.900	0.711	NaN	0.871		0.712	0.963	0.780	0.250	0.941	0.966

CountingCars.com

DCI2021-00051 Lee County ePlan
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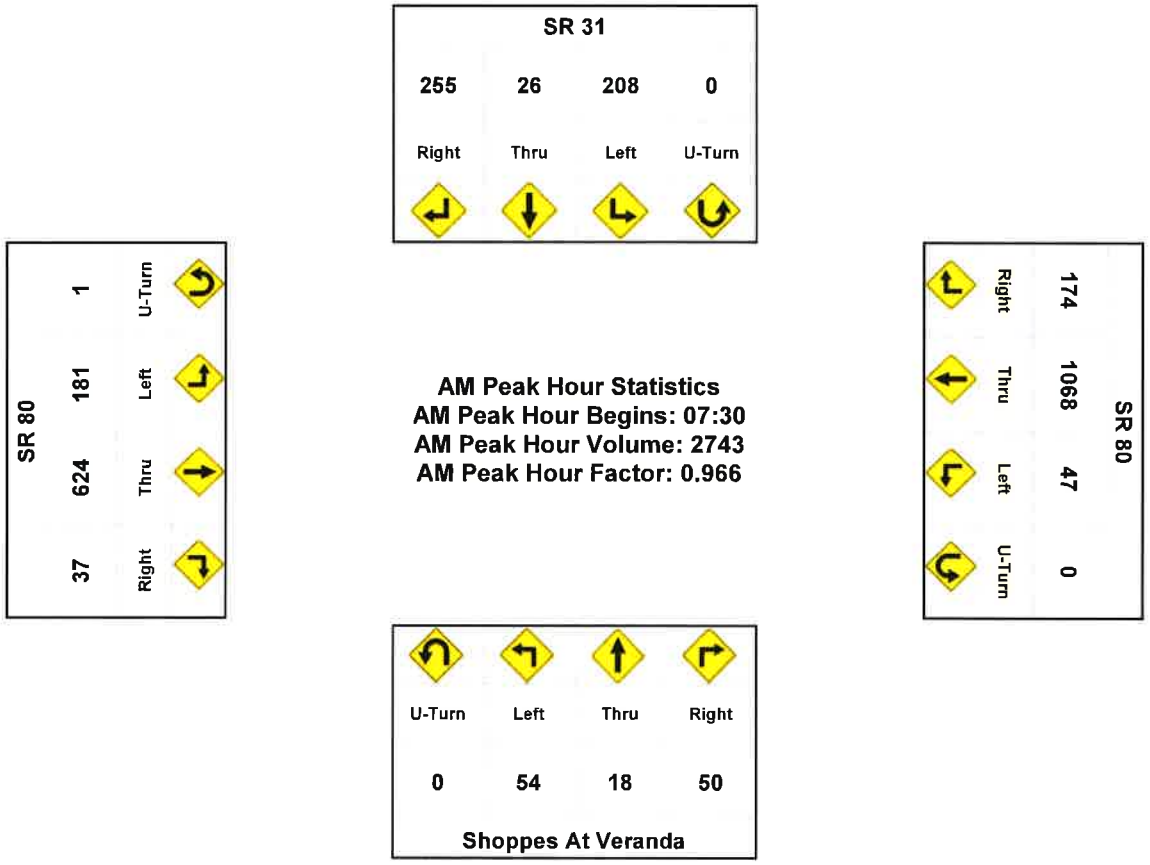
SR 80 @ SR 31 2-1-22 AM

File Name: SR 80 @ SR 31 2-1-22 AM
Location:

All Vehicles

Site Code:
Study Date: 02/01/2022



CountingCars.com

DCI2021-00051 Lee County ePlan
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SR 80 @ SR 31 2-1-22 PM

File Name: SR 80 @ SR 31 2-1-22 PM
Location:

Site Code:
Study Date: 02/01/2022

Cars and Peds

	SR 31 Southbound						SR 80 Westbound						Shoppes At Veranda Northbound						SR 80 Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		39	15	70	0	124		58	188	18	0	264		31	21	32	0	84		14	231	51	5	301	773
16:15		54	18	81	0	153		39	191	18	0	248		32	11	25	0	68		17	238	71	1	327	796
16:30		41	9	73	0	123		43	181	21	0	245		19	20	29	0	68		16	253	82	1	352	788
16:45		39	8	68	0	115		52	172	26	0	250		41	14	18	0	73		16	262	84	0	362	800
Total	0	173	50	292	0	515	0	192	732	83	0	1007	0	123	66	104	0	293	0	63	984	288	7	1342	3157
17:00		48	16	60	0	124		51	166	35	0	252		32	23	31	0	86		16	276	80	2	374	836
17:15		44	8	81	0	133		48	165	28	0	241		35	26	33	0	94		13	295	67	1	376	844
17:30		29	11	72	0	112		51	163	23	0	237		28	32	31	1	92		15	265	89	1	370	811
17:45		42	14	70	0	126		51	158	28	1	238		31	17	28	0	76		19	279	74	0	372	812
Total	0	163	49	283	0	495	0	201	652	114	1	968	0	126	98	123	1	348	0	63	1115	310	4	1492	3303
Grand Total	0	336	99	575	0	1010	0	393	1384	197	1	1975	0	249	164	227	1	641	0	126	2099	598	11	2834	6460
Appr %		33.3	9.8	56.9	0			19.9	70.1	10	0.1			38.8	25.6	35.4	0.2			4.4	74.1	21.1	0.4		
Total %		5.2	1.5	8.9	0			6.1	21.4	3	0			3.9	2.5	3.5	0			2	32.5	9.3	0.2		
PM Pk Hr		17:00	17:00	17:00	17:00	17:00		17:00	17:00	17:00	17:00	17:00		17:00	17:00	17:00	17:00	17:00		17:00	17:00	17:00	17:00	17:00	17:00
PM Pk Vol		163	49	283	0	495		201	652	114	1	968		126	98	123	1	348		63	1115	310	4	1492	3303
PM PHF		0.849	0.766	0.873	NaN	0.930		0.985	0.982	0.814	0.250	0.960		0.900	0.766	0.932	0.250	0.926		0.829	0.945	0.871	0.500	0.992	0.978

CountingCars.com

DCI2021-00051 Lee County ePlan
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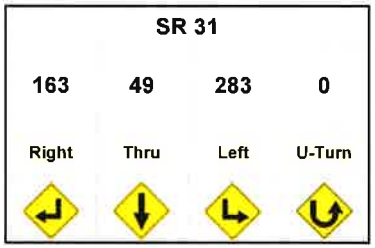
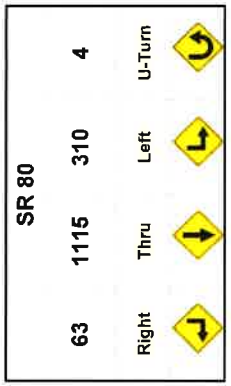
SR 80 @ SR 31 2-1-22 PM

File Name: SR 80 @ SR 31 2-1-22 PM
Location:

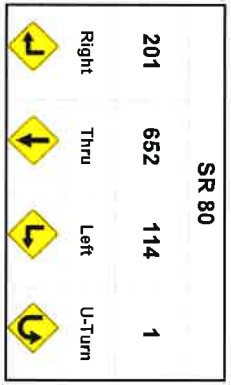
All Vehicles

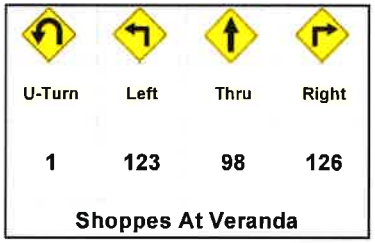
Site Code:
Study Date: 02/01/2022





PM Peak Hour Statistics
PM Peak Hour Begins: 17:00
PM Peak Hour Volume: 3303
PM Peak Hour Factor: 0.978





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DCI2021-00051 Lee County ePlan
Additional info dated 11-16-2022

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

DEVELOPMENT OF FUTURE YEAR BACKGROUND TURNING VOLUMES

DCI2021-00051 Lee County ePlan

Additional info dated 11-16-2022

Development of Future Year Background Turning Volumes

Intersection	**SR 31 @ SR 80**
Count Date	February 2, 2022
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	54	18	50	208	26	255	182	624	37	47	1,068	174
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	54	18	50	208	26	255	182	624	37	47	1,068	174
Growth Rate	1.00%	1.00%	1.00%	2.00%	2.00%	2.00%	2.13%	2.13%	2.13%	2.00%	2.00%	2.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**56**	**19**	**52**	**221**	**28**	**271**	**194**	**665**	**39**	**50**	**1,133**	**185**
Project Turning Volumes		2		27	7	64	28				16	5
2025 Background + Project	**56**	**21**	**52**	**248**	**35**	**335**	**222**	**665**	**39**	**50**	**1,149**	**190**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	123	98	126	283	49	163	314	1,115	63	115	652	201
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	123	98	126	283	49	163	314	1,115	63	115	652	201
Growth Rate	1.00%	1.00%	1.00%	2.00%	2.00%	2.00%	2.13%	2.13%	2.13%	2.00%	2.00%	2.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**127**	**101**	**130**	**300**	**52**	**173**	**334**	**1,188**	**67**	**122**	**692**	**213**
Project Turning Volumes		8		18	5	44	94				11	15
2025 Background + Project	**127**	**109**	**130**	**318**	**57**	**217**	**428**	**1,188**	**67**	**122**	**703**	**228**

DCI2021-00051 Lee County ePlan

Additional info dated 11-16-2022

Development of Future Year Background Turning Volumes

Intersection	**SR 31 @ Site Access**
Count Date	February 2, 2022
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	373	0	0	489	0	0	0	0	0	0	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	0	373	0	0	489	0	0	0	0	0	0	0
Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**0**	**396**	**0**	**0**	**519**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Turning Volumes			35	7						98		20
2025 Background + Project	**0**	**396**	**35**	**7**	**519**	**0**	**0**	**0**	**0**	**98**	**0**	**20**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	609	0	0	495	0	0	0	0	0	0	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	0	609	0	0	495	0	0	0	0	0	0	0
Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**0**	**646**	**0**	**0**	**525**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Turning Volumes			117	23						67		14
2025 Background + Project	**0**	**646**	**117**	**23**	**525**	**0**	**0**	**0**	**0**	**67**	**0**	**14**

Development of Future Year Background Turning Volumes

Intersection	**SR 80 @ Merchandise Way**
Count Date	February 2, 2022
Build-Out Year	2025

AM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	882	0	0	1,289	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	0	0	0	0	0	0	0	882	0	0	1,289	0
Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**909**	**0**	**0**	**1,328**	**0**
Great American Self Storage Volumes [1]				2		1	1					2
Project Turning Volumes						16					5	5
2025 Background + Project	**0**	**0**	**0**	**2**	**0**	**17**	**1**	**909**	**0**	**0**	**1,333**	**7**

PM Peak Hour

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	0	0	0	0	1,524	0	0	968	0
Peak Season Correction Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current Peak Season Volumes	0	0	0	0	0	0	0	1,524	0	0	968	0
Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Years to Build-out	3	3	3	3	3	3	3	3	3	3	3	3
2025 Background Turning Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,570**	**0**	**0**	**997**	**0**
Great American Self Storage Volumes [1]				3		3	2					3
Project Turning Volumes						11					15	16
2025 Background + Project	**0**	**0**	**0**	**3**	**0**	**14**	**2**	**1,570**	**0**	**0**	**1,012**	**19**

1 Obtained from Figure 2 of the TIS for Great American Self Storage (DOS2021-00141).

DCI2021-00051 Lee County ePlan
Additional info dated 11-16-2022

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

SYNCHRO SUMMARY SHEETS

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

SR 80 @ SR 31

Lanes, Volumes, Timings
3: SR 80 & SR 31

2025 AM Pk Hr Background
02/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	665	39	50	1133	185	56	19	52	221	28	271
Future Volume (vph)	194	665	39	50	1133	185	56	19	52	221	28	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	435		435	550		460	0		375	600		450
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950	0.976		0.950	0.962	
Satd. Flow (prot)	1770	5085	1583	1770	3539	1583	1681	1727	1583	1681	1702	1583
Flt Permitted	0.950			0.950			0.950	0.976		0.950	0.962	
Satd. Flow (perm)	1770	5085	1583	1770	3539	1583	1681	1727	1583	1681	1702	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67			201			94			229
Link Speed (mph)		55			45			30			40	
Link Distance (ft)		1405			1173			1033			1067	
Travel Time (s)		17.4			17.8			23.5			18.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	211	723	42	54	1232	201	61	21	57	240	30	295
Shared Lane Traffic (%)							34%			44%		
Lane Group Flow (vph)	211	723	42	54	1232	201	40	42	57	134	136	295
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	16.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	170.0	170.0	25.0	155.0	155.0	15.0	15.0	15.0	35.0	35.0	35.0
Total Split (%)	16.3%	69.4%	69.4%	10.2%	63.3%	63.3%	6.1%	6.1%	6.1%	14.3%	14.3%	14.3%
Maximum Green (s)	34.0	164.0	164.0	19.0	149.0	149.0	9.0	9.0	9.0	29.0	29.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	32.0	170.0	170.0	12.8	150.8	150.8	9.2	9.2	9.2	29.0	29.0	29.0
Actuated g/C Ratio	0.13	0.69	0.69	0.05	0.62	0.62	0.04	0.04	0.04	0.12	0.12	0.12
v/c Ratio	0.92	0.20	0.04	0.59	0.57	0.19	0.65	0.66	0.38	0.68	0.68	0.76
Control Delay	143.9	13.7	0.5	136.9	29.2	2.3	155.5	155.7	7.3	121.3	121.1	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	143.9	13.7	0.5	136.9	29.2	2.3	155.5	155.7	7.3	121.3	121.1	37.4

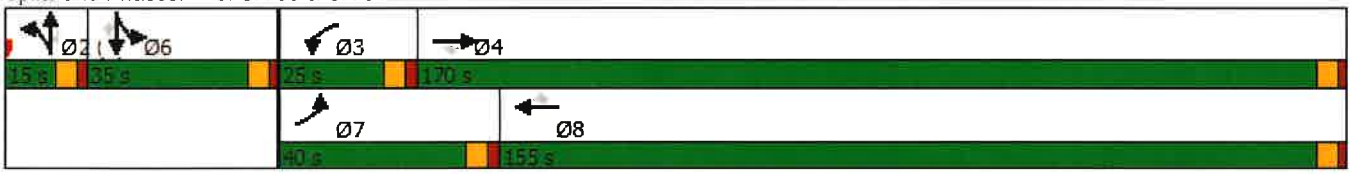
DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	B	A	F	C	A	F	F	A	F	F	D
Approach Delay		41.3			29.5			94.8			77.5	
Approach LOS		D			C			F			E	
Queue Length 50th (ft)	341	147	0	88	621	0	68	72	0	223	227	107
Queue Length 95th (ft)	#503	179	4	146	682	39	#145	#152	2	321	326	241
Internal Link Dist (ft)		1325			1093			953			987	
Turn Bay Length (ft)	435		435	550		460			375	600		450
Base Capacity (vph)	245	3527	1118	137	2179	1051	62	64	149	198	201	389
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.20	0.04	0.39	0.57	0.19	0.65	0.66	0.38	0.68	0.68	0.76

Intersection Summary

Area Type: Other
Cycle Length: 245
Actuated Cycle Length: 245
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 44.6 Intersection LOS: D
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 80 & SR 31



Lanes, Volumes, Timings
3: SR 80 & SR 31

2025 PM Pk Hr Background
02/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	334	1188	67	122	692	213	127	101	130	300	52	173
Future Volume (vph)	334	1188	67	122	692	213	127	101	130	300	52	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	435		435	550		460	0		375	600		450
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950	0.993		0.950	0.966	
Satd. Flow (prot)	1770	5085	1583	1770	3539	1583	1681	1757	1583	1681	1709	1583
Flt Permitted	0.950			0.950			0.950	0.993		0.950	0.966	
Satd. Flow (perm)	1770	5085	1583	1770	3539	1583	1681	1757	1583	1681	1709	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			232			148			188
Link Speed (mph)		55			45			30			40	
Link Distance (ft)		1405			1173			1033			1067	
Travel Time (s)		17.4			17.8			23.5			18.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	363	1291	73	133	752	232	138	110	141	326	57	188
Shared Lane Traffic (%)							12%			42%		
Lane Group Flow (vph)	363	1291	73	133	752	232	121	127	141	189	194	188
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	16.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	35.0	80.0	80.0	25.0	70.0	70.0	15.0	15.0	15.0	35.0	35.0	35.0
Total Split (%)	22.6%	51.6%	51.6%	16.1%	45.2%	45.2%	9.7%	9.7%	9.7%	22.6%	22.6%	22.6%
Maximum Green (s)	29.0	74.0	74.0	19.0	64.0	64.0	9.0	9.0	9.0	29.0	29.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	29.0	54.7	54.7	16.0	41.7	41.7	31.3	31.3	31.3	29.0	29.0	29.0
Actuated g/C Ratio	0.19	0.35	0.35	0.10	0.27	0.27	0.20	0.20	0.20	0.19	0.19	0.19
v/c Ratio	1.10	0.72	0.12	0.73	0.79	0.39	0.36	0.36	0.32	0.60	0.61	0.42
Control Delay	134.4	45.9	2.0	89.6	58.6	6.3	59.1	59.0	9.3	66.8	66.9	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.4	45.9	2.0	89.6	58.6	6.3	59.1	59.0	9.3	66.8	66.9	9.7

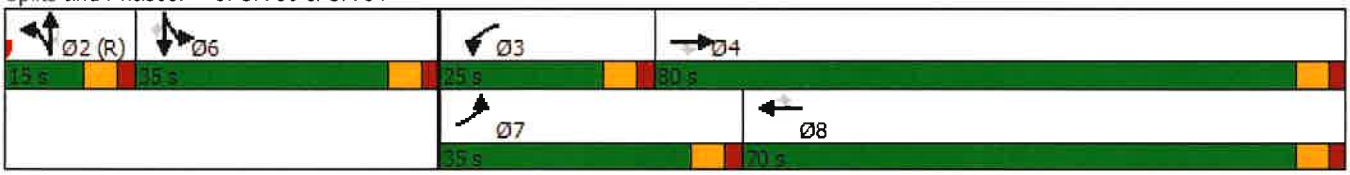
DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	D	A	F	E	A	E	E	A	E	E	A
Approach Delay		62.6			51.4			41.0			48.0	
Approach LOS		E			D			D			D	
Queue Length 50th (ft)	~414	418	0	132	374	0	112	117	0	187	191	0
Queue Length 95th (ft)	#624	442	13	206	416	62	194	202	59	280	286	70
Internal Link Dist (ft)		1325			1093			953			987	
Turn Bay Length (ft)	435		435	550		460			375	600		450
Base Capacity (vph)	331	2427	811	216	1461	789	339	354	437	314	319	449
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.53	0.09	0.62	0.51	0.29	0.36	0.36	0.32	0.60	0.61	0.42

Intersection Summary

Area Type: Other
Cycle Length: 155
Actuated Cycle Length: 155
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 54.9 Intersection LOS: D
Intersection Capacity Utilization 69.0% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 80 & SR 31



Lanes, Volumes, Timings
3: SR 80 & SR 31

2025 AM Pk Hr With Project
11/15/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	665	39	50	1149	190	56	21	52	248	35	335
Future Volume (vph)	222	665	39	50	1149	190	56	21	52	248	35	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	435		435	550		460	0		375	600		450
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950	0.977		0.950	0.964	
Satd. Flow (prot)	1770	5085	1583	1770	3539	1583	1681	1729	1583	1681	1706	1583
Flt Permitted	0.950			0.950			0.950	0.977		0.950	0.964	
Satd. Flow (perm)	1770	5085	1583	1770	3539	1583	1681	1729	1583	1681	1706	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67			207			94			226
Link Speed (mph)		55			45			30			40	
Link Distance (ft)		1405			1173			1033			1067	
Travel Time (s)		17.4			17.8			23.5			18.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	241	723	42	54	1249	207	61	23	57	270	38	364
Shared Lane Traffic (%)							32%			43%		
Lane Group Flow (vph)	241	723	42	54	1249	207	41	43	57	154	154	364
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	16.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	170.0	170.0	25.0	155.0	155.0	15.0	15.0	15.0	35.0	35.0	35.0
Total Split (%)	16.3%	69.4%	69.4%	10.2%	63.3%	63.3%	6.1%	6.1%	6.1%	14.3%	14.3%	14.3%
Maximum Green (s)	34.0	164.0	164.0	19.0	149.0	149.0	9.0	9.0	9.0	29.0	29.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	34.0	170.2	170.2	12.8	149.0	149.0	9.0	9.0	9.0	29.0	29.0	29.0
Actuated g/C Ratio	0.14	0.69	0.69	0.05	0.61	0.61	0.04	0.04	0.04	0.12	0.12	0.12
v/c Ratio	0.98	0.20	0.04	0.59	0.58	0.20	0.67	0.68	0.39	0.78	0.77	0.94
Control Delay	154.0	13.7	0.5	136.9	30.4	2.3	160.0	160.2	7.4	129.6	128.2	71.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.0	13.7	0.5	136.9	30.4	2.3	160.0	160.2	7.4	129.6	128.2	71.4

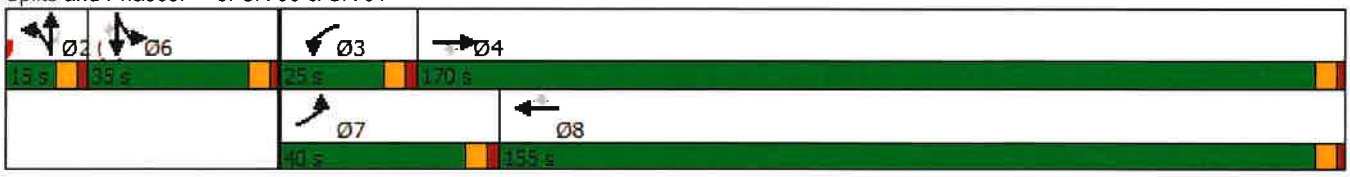
DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	B	A	F	C	A	F	F	A	F	F	E
Approach Delay		46.7			30.4			98.4			97.8	
Approach LOS		D			C			F			F	
Queue Length 50th (ft)	397	147	0	88	635	0	70	73	0	260	260	249
Queue Length 95th (ft)	#610	179	4	146	696	40	#148	#155	2	#386	#381	#475
Internal Link Dist (ft)		1325			1093			953			987	
Turn Bay Length (ft)	435		435	550		460			375	600		450
Base Capacity (vph)	245	3531	1120	137	2152	1043	61	63	148	198	201	386
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.20	0.04	0.39	0.58	0.20	0.67	0.68	0.39	0.78	0.77	0.94

Intersection Summary

Area Type: Other
Cycle Length: 245
Actuated Cycle Length: 245
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 51.8 Intersection LOS: D
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 80 & SR 31



Lanes, Volumes, Timings
3: SR 80 & SR 31

2025 PM Pk Hr With Project
11/15/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	428	1188	67	122	703	228	127	109	130	318	57	217
Future Volume (vph)	428	1188	67	122	703	228	127	109	130	318	57	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	435		435	550		460	0		375	600		450
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950	0.995		0.950	0.966	
Satd. Flow (prot)	1770	5085	1583	1770	3539	1583	1681	1761	1583	1681	1709	1583
Flt Permitted	0.950			0.950			0.950	0.995		0.950	0.966	
Satd. Flow (perm)	1770	5085	1583	1770	3539	1583	1681	1761	1583	1681	1709	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			248			148			236
Link Speed (mph)		55			45			30			40	
Link Distance (ft)		1405			1173			1033			1067	
Travel Time (s)		17.4			17.8			23.5			18.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	465	1291	73	133	764	248	138	118	141	346	62	236
Shared Lane Traffic (%)							10%			41%		
Lane Group Flow (vph)	465	1291	73	133	764	248	124	132	141	204	204	236
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	16.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	35.0	80.0	80.0	25.0	70.0	70.0	15.0	15.0	15.0	35.0	35.0	35.0
Total Split (%)	22.6%	51.6%	51.6%	16.1%	45.2%	45.2%	9.7%	9.7%	9.7%	22.6%	22.6%	22.6%
Maximum Green (s)	29.0	74.0	74.0	19.0	64.0	64.0	9.0	9.0	9.0	29.0	29.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	29.0	55.3	55.3	16.0	42.3	42.3	30.7	30.7	30.7	29.0	29.0	29.0
Actuated g/C Ratio	0.19	0.36	0.36	0.10	0.27	0.27	0.20	0.20	0.20	0.19	0.19	0.19
v/c Ratio	1.40	0.71	0.12	0.73	0.79	0.41	0.37	0.38	0.33	0.65	0.64	0.48
Control Delay	243.6	45.3	1.9	89.6	58.3	6.2	60.0	59.9	9.4	69.1	68.4	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	243.6	45.3	1.9	89.6	58.3	6.2	60.0	59.9	9.4	69.1	68.4	9.6

Lanes, Volumes, Timings
3: SR 80 & SR 31

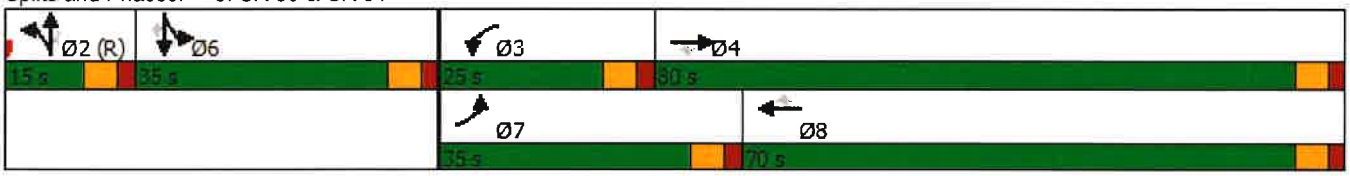
2025 PM Pk Hr With Project
11/15/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	D	A	F	E	A	E	E	A	E	E	A
Approach Delay		94.0			50.7			42.0			47.0	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)	~628	415	0	132	380	0	115	123	0	204	203	0
Queue Length 95th (ft)	#853	439	13	206	422	63	200	210	59	301	300	78
Internal Link Dist (ft)		1325			1093			953			987	
Turn Bay Length (ft)	435		435	550		460			375	600		450
Base Capacity (vph)	331	2427	811	216	1461	799	333	348	432	314	319	488
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.53	0.09	0.62	0.52	0.31	0.37	0.38	0.33	0.65	0.64	0.48

Intersection Summary

Area Type: Other
Cycle Length: 155
Actuated Cycle Length: 155
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.40
Intersection Signal Delay: 69.0 Intersection LOS: E
Intersection Capacity Utilization 75.1% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 80 & SR 31



DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

SR 31 @ SITE ACCESS

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	98	20	396	35	7	519
Future Vol, veh/h	98	20	396	35	7	519
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	155	205	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	107	22	430	38	8	564

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1010	430	0	0	468	0
Stage 1	430	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	266	625	-	-	1094	-
Stage 1	656	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	264	625	-	-	1094	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	264	625	1094	-
HCM Lane V/C Ratio	-	-	0.403	0.035	0.007	-
HCM Control Delay (s)	-	-	27.6	11	8.3	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.9	0.1	0	-

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	14	646	117	23	525
Future Vol, veh/h	67	14	646	117	23	525
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	155	205	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	15	702	127	25	571

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1323	702	0	0	829	0
Stage 1	702	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	172	438	-	-	803	-
Stage 1	491	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	167	438	-	-	803	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	491	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.3	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	167	438	803	-
HCM Lane V/C Ratio	-	-	0.436	0.035	0.031	-
HCM Control Delay (s)	-	-	42.3	13.5	9.6	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	2	0.1	0.1	-

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

SR 80 @ MERCHANDISE WAY

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	909	1333	7	2	17
Future Vol, veh/h	1	909	1333	7	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	225	-	-	195	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	988	1449	8	2	18

Major/Minor	Major1			Major2		Minor2	
Conflicting Flow All	1457	0	-	0	1945	725	
Stage 1	-	-	-	-	1449	-	
Stage 2	-	-	-	-	496	-	
Critical Hdwy	4.14	-	-	-	6.84	6.94	
Critical Hdwy Stg 1	-	-	-	-	5.84	-	
Critical Hdwy Stg 2	-	-	-	-	5.84	-	
Follow-up Hdwy	2.22	-	-	-	3.52	3.32	
Pot Cap-1 Maneuver	460	-	-	-	57	368	
Stage 1	-	-	-	-	182	-	
Stage 2	-	-	-	-	577	-	
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	460	-	-	-	57	368	
Mov Cap-2 Maneuver	-	-	-	-	57	-	
Stage 1	-	-	-	-	182	-	
Stage 2	-	-	-	-	577	-	

Approach	EB	WB	SB
HCM Control Delay, s	0	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	460	-	-	-	234
HCM Lane V/C Ratio	0.002	-	-	-	0.088
HCM Control Delay (s)	12.8	-	-	-	21.9
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1570	1012	19	3	14
Future Vol, veh/h	2	1570	1012	19	3	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	225	-	-	195	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1707	1100	21	3	15

Major/Minor	Major1			Major2		
Conflicting Flow All	1121	0	-	0	1958	550
Stage 1	-	-	-	-	1100	-
Stage 2	-	-	-	-	858	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	619	-	-	-	56	479
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	376	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	619	-	-	-	56	479
Mov Cap-2 Maneuver	-	-	-	-	56	-
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	376	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.3
HCM LOS			C

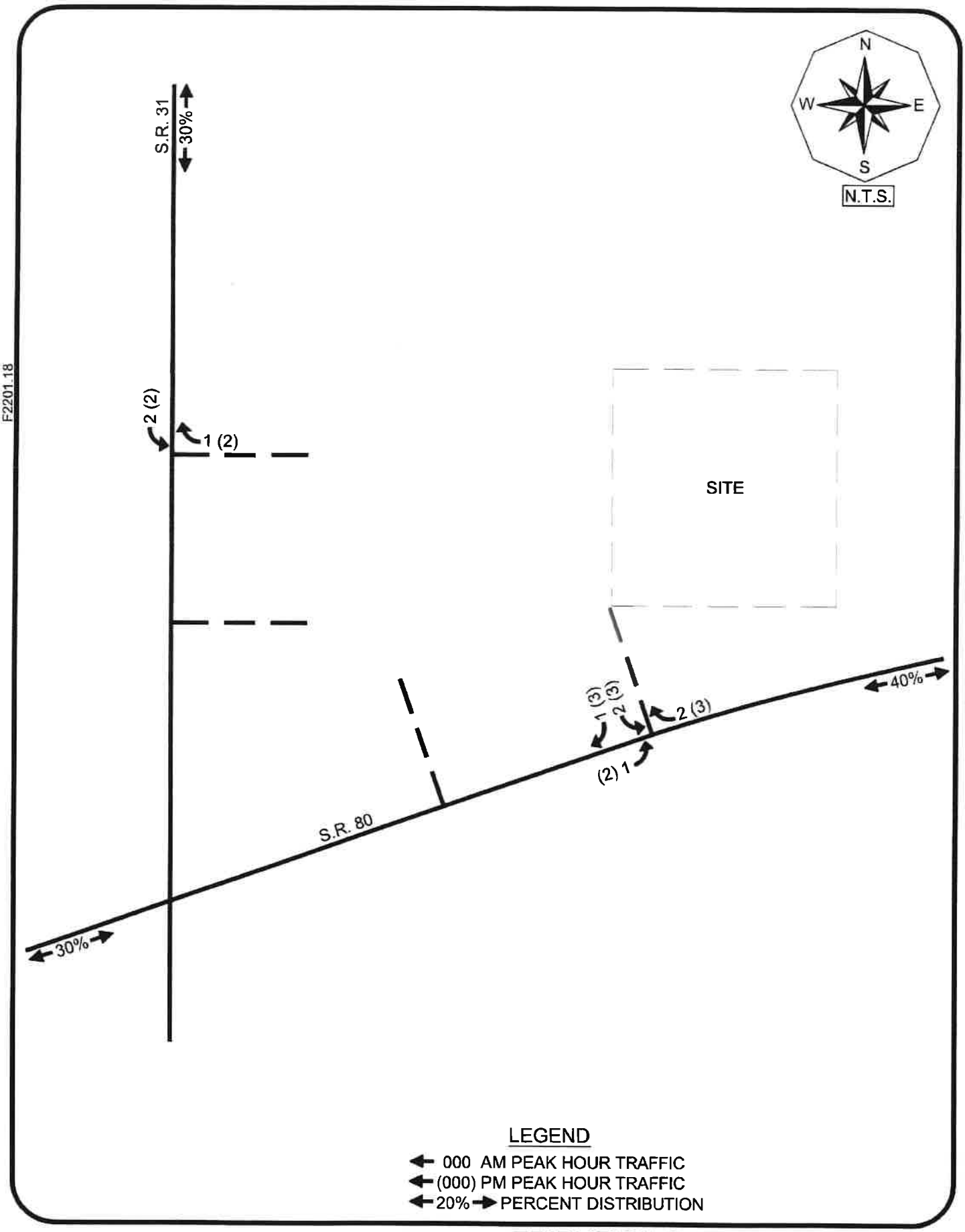
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	619	-	-	-	205
HCM Lane V/C Ratio	0.004	-	-	-	0.09
HCM Control Delay (s)	10.8	-	-	-	24.3
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

FIGURE 2

GREAT AMERICAN SELF STORAGE

DOS2021-00141



TRANSPORTATION CONSULTANTS, INC

TRIP DISTRIBUTION &
SITE TRAFFIC ASSIGNMENT
GREAT AMERICAN SELF STORAGE

Figure 2

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TRIP GENERATION EQUATIONS

Single-Family Detached Housing
(210)

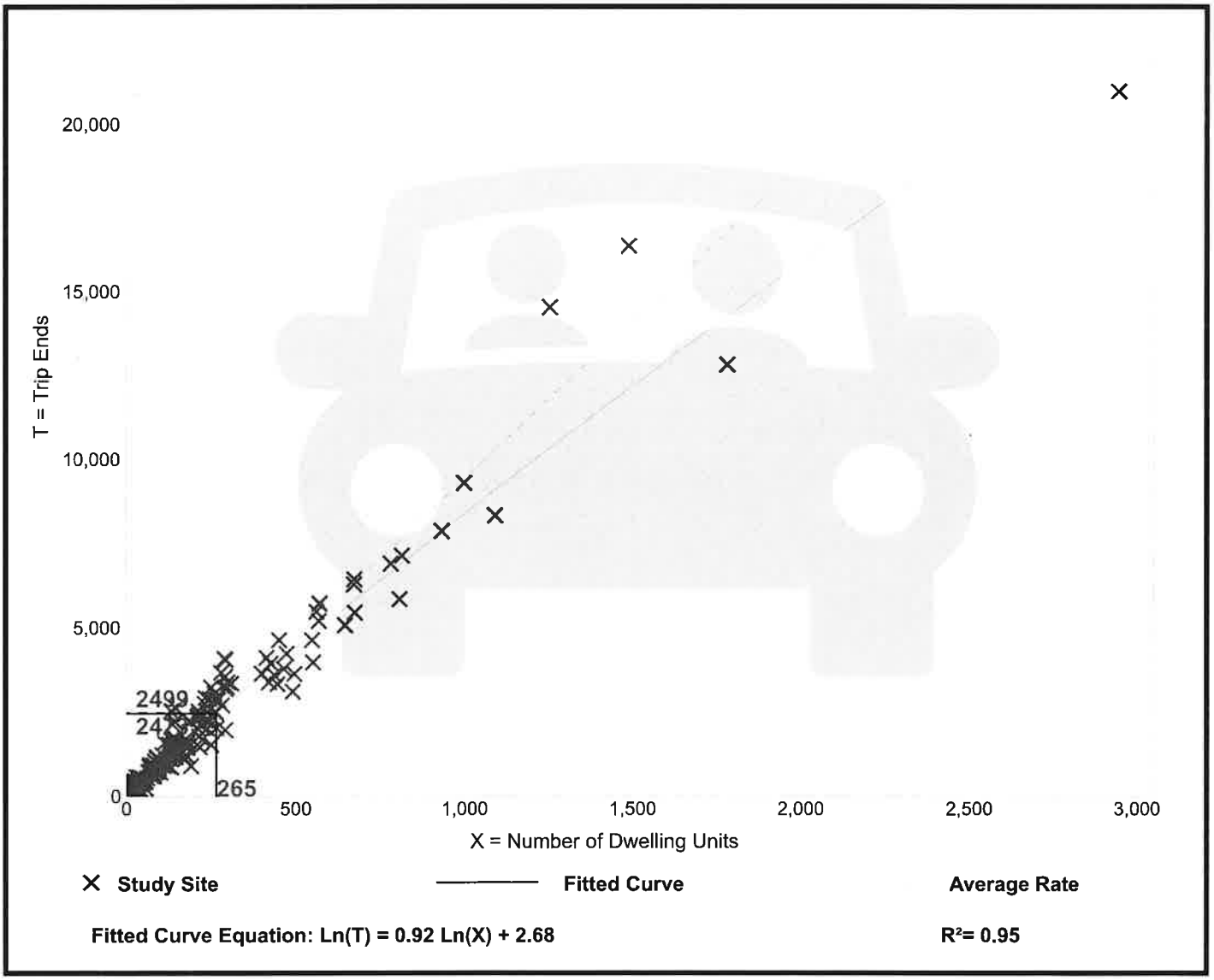
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



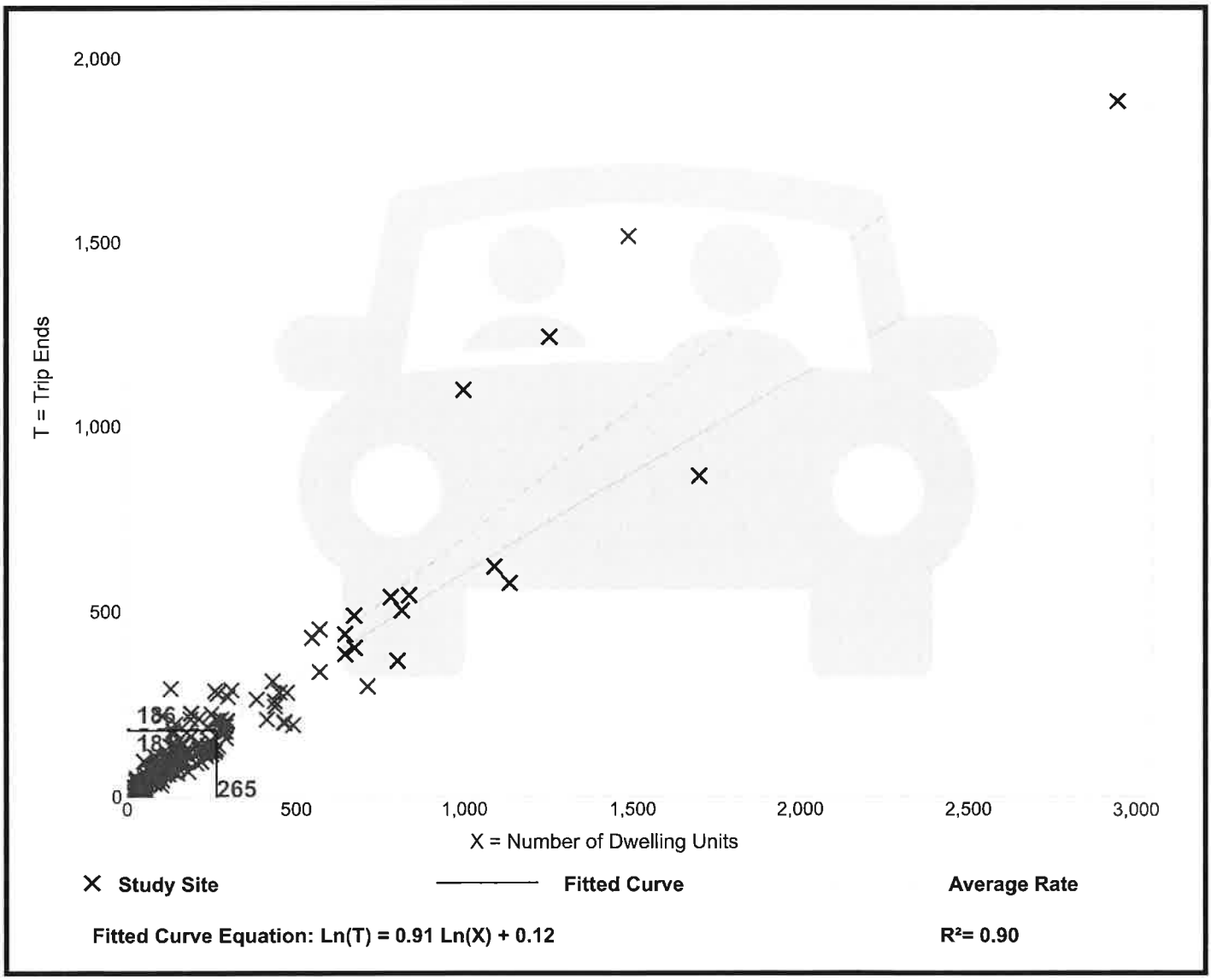
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Single-Family Detached Housing
(210)

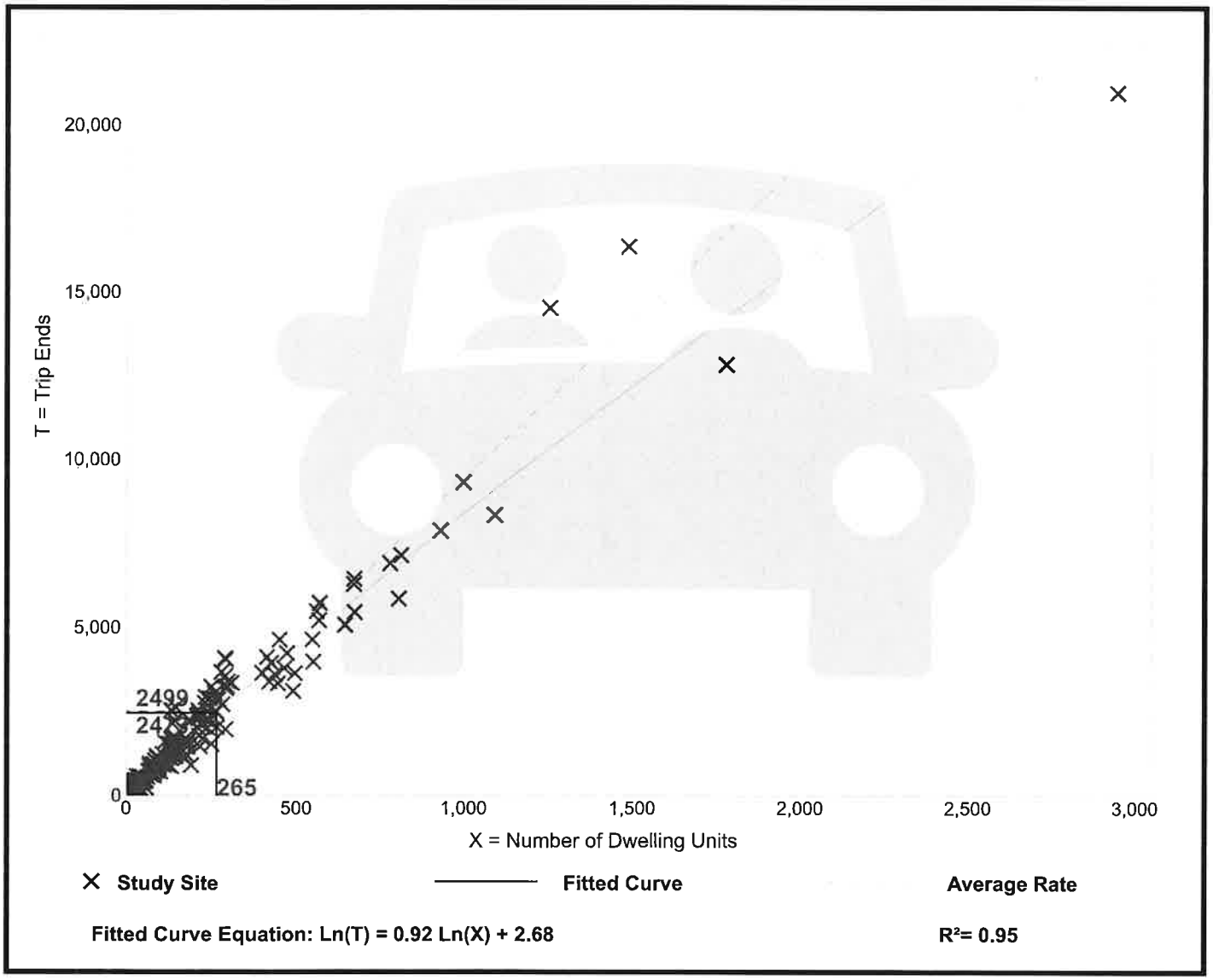
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

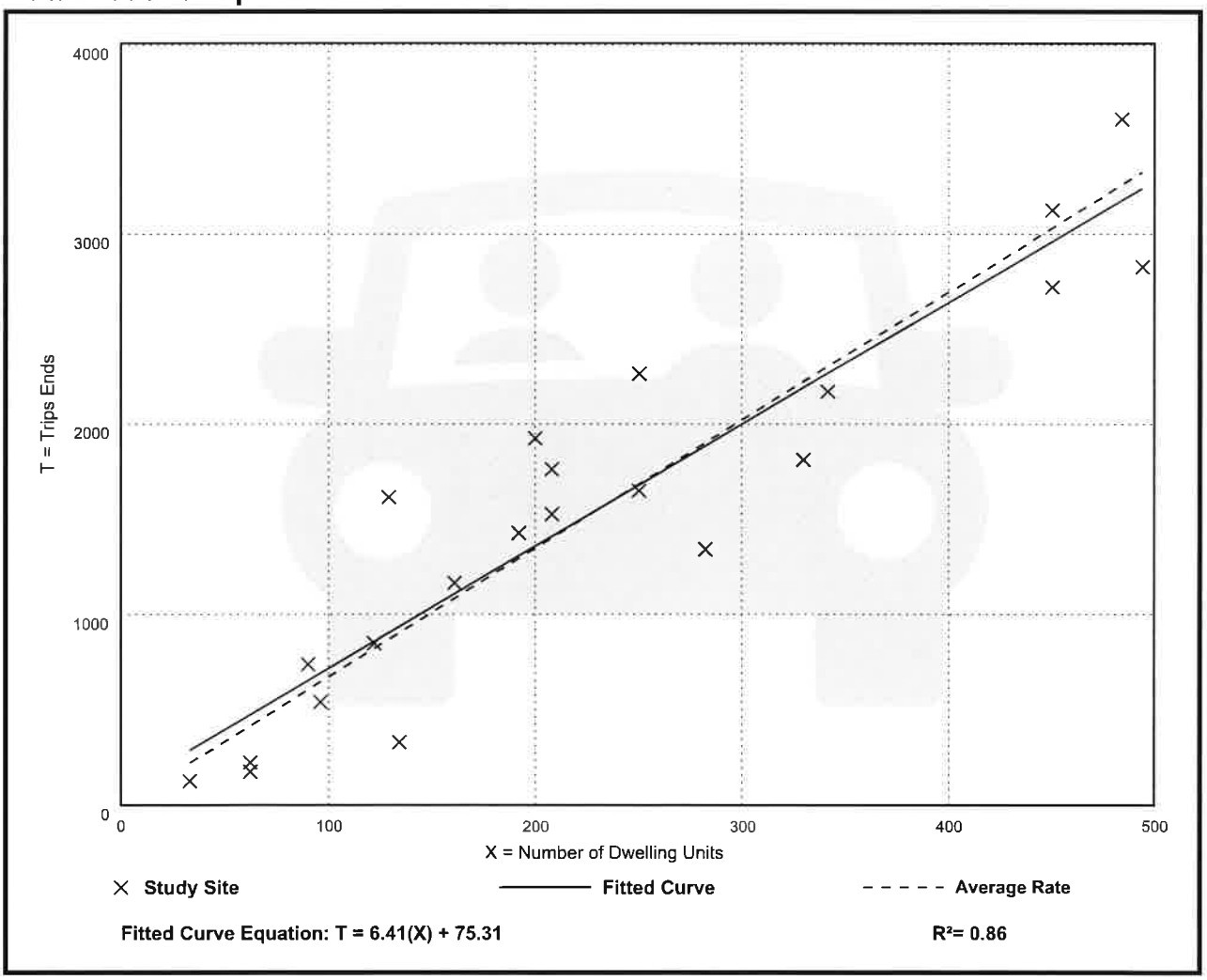
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

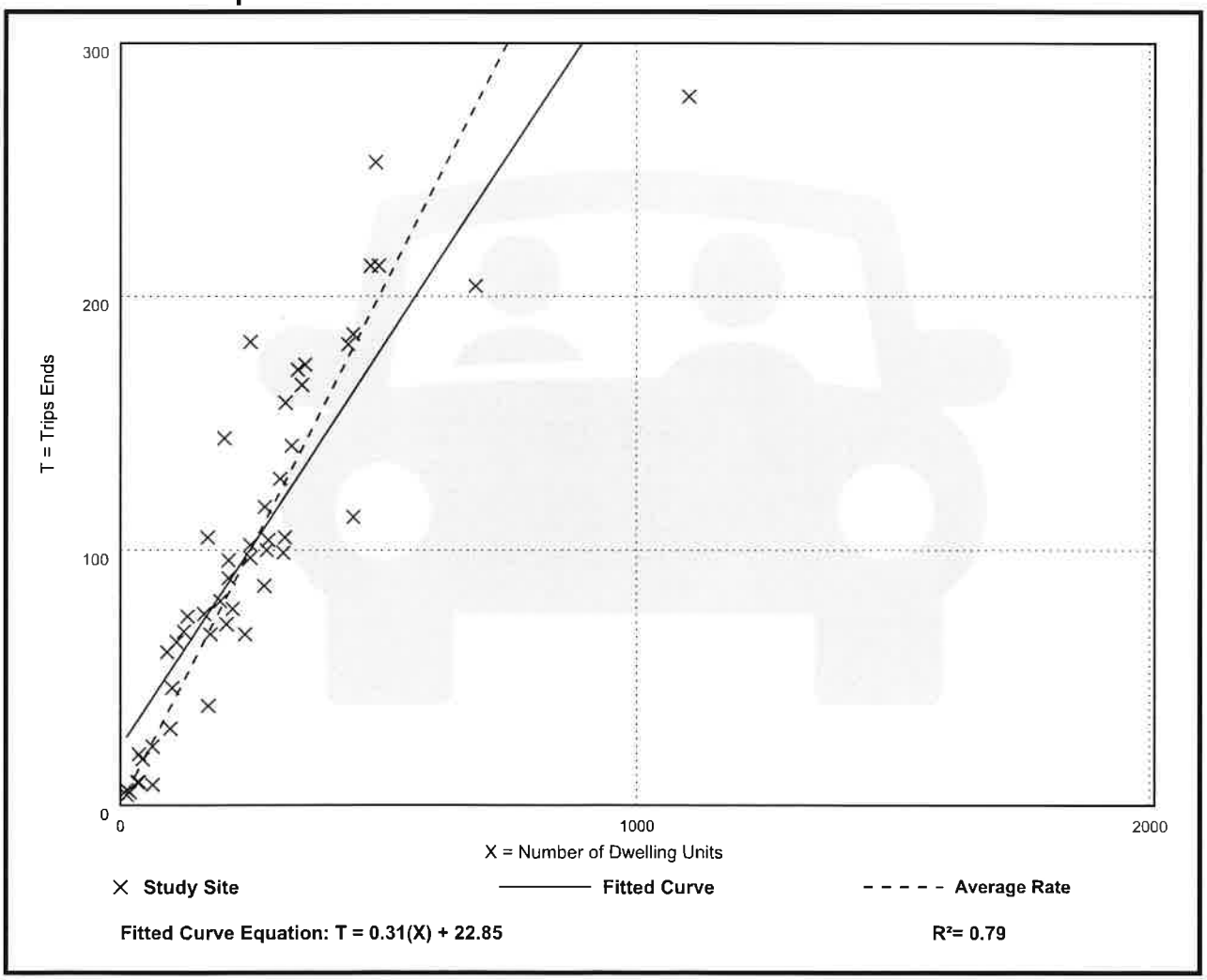
Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



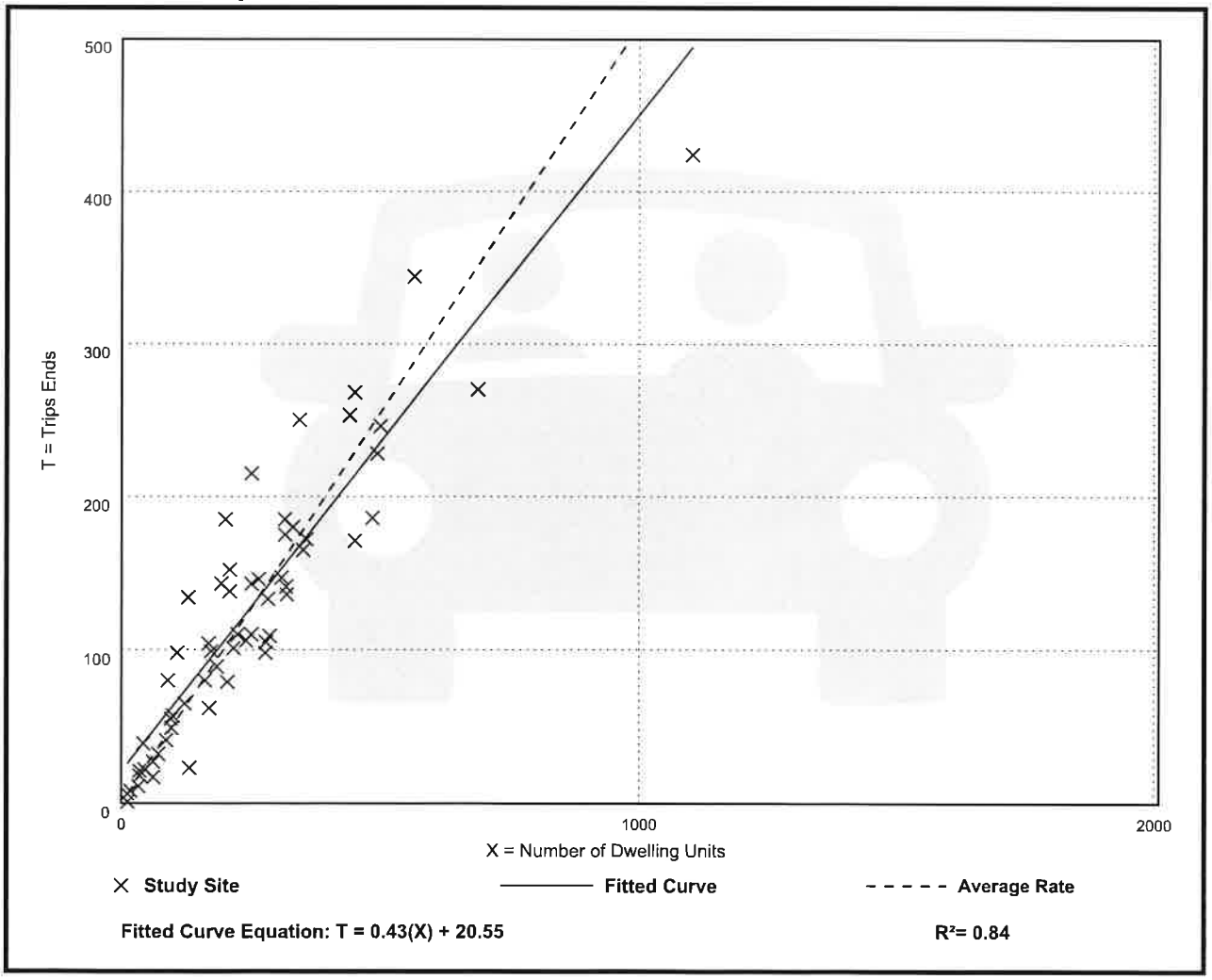
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

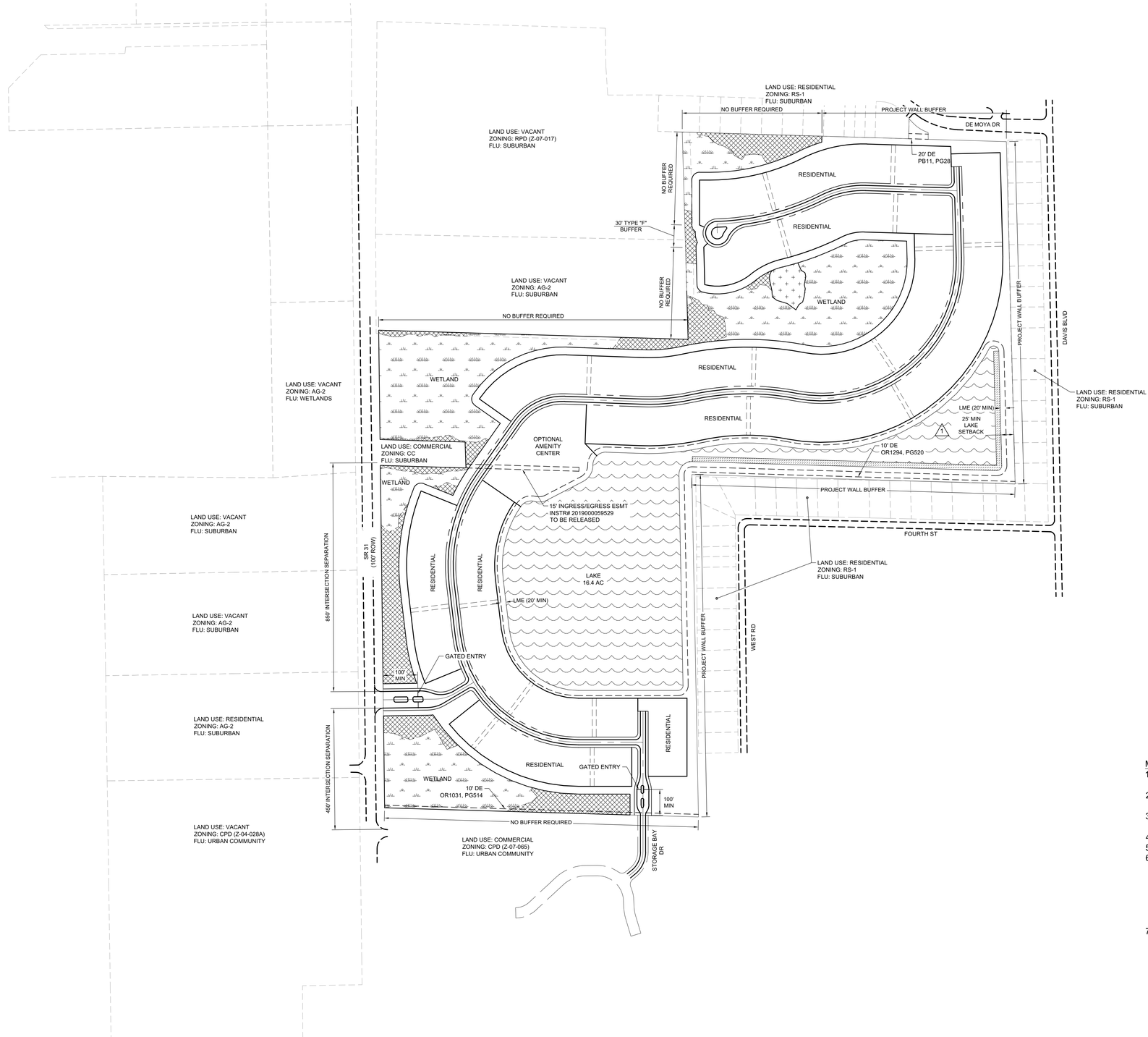
TRIP GENERATION COMPARISON

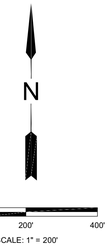
Trip Generation – Based on 265 Single-Family Units

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Single-Family Detached Housing LUC 210 (265 Dwelling Units)	47	134	181	156	92	248	2,473

Trip Generation – Based on 342 Multi-Family Units

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Multi-Family Housing Low-Rise LUC 220 (342 Dwelling Units)	31	98	129	106	62	168	2,268





LEGEND

- LAKE
- EXISTING INDIGENOUS WETLANDS
- WETLAND CREATED
- EXISTING RARE AND UNIQUE AREA
- LITTORAL AREA
- DEVIATIONS

LAND USE SUMMARY (AC)		
PRESERVE	18.38	20.8%
- EXISTING IND WETLAND	13.48	15.3%
- WETLAND CREATION	4.48	5.1%
- RARE AND UNIQUE	0.42	0.5%
DEVELOPMENT	38.64	43.8%
AMENITY	2.53	2.9%
GENERAL OPEN SPACE	12.22	13.8%
LAKE	16.50	18.7%
TOTAL AREA	88.27	100.0%

OPEN SPACE SUMMARY (AC)		
PRESERVE	18.38	46.6%
LAKE (25% MAX REQ)	8.83	22.4%
OTHER OPEN SPACE	11.15	28.3%
BUFFERS	1.06	2.7%
TOTAL OPEN SPACE	39.43	100.0%
REQUIRED OPEN SPACE	40% - 35.3 AC	
REQUIRED PRESERVE	50% OF OPEN SPACE - 17.66 AC	

MCP NOTES:

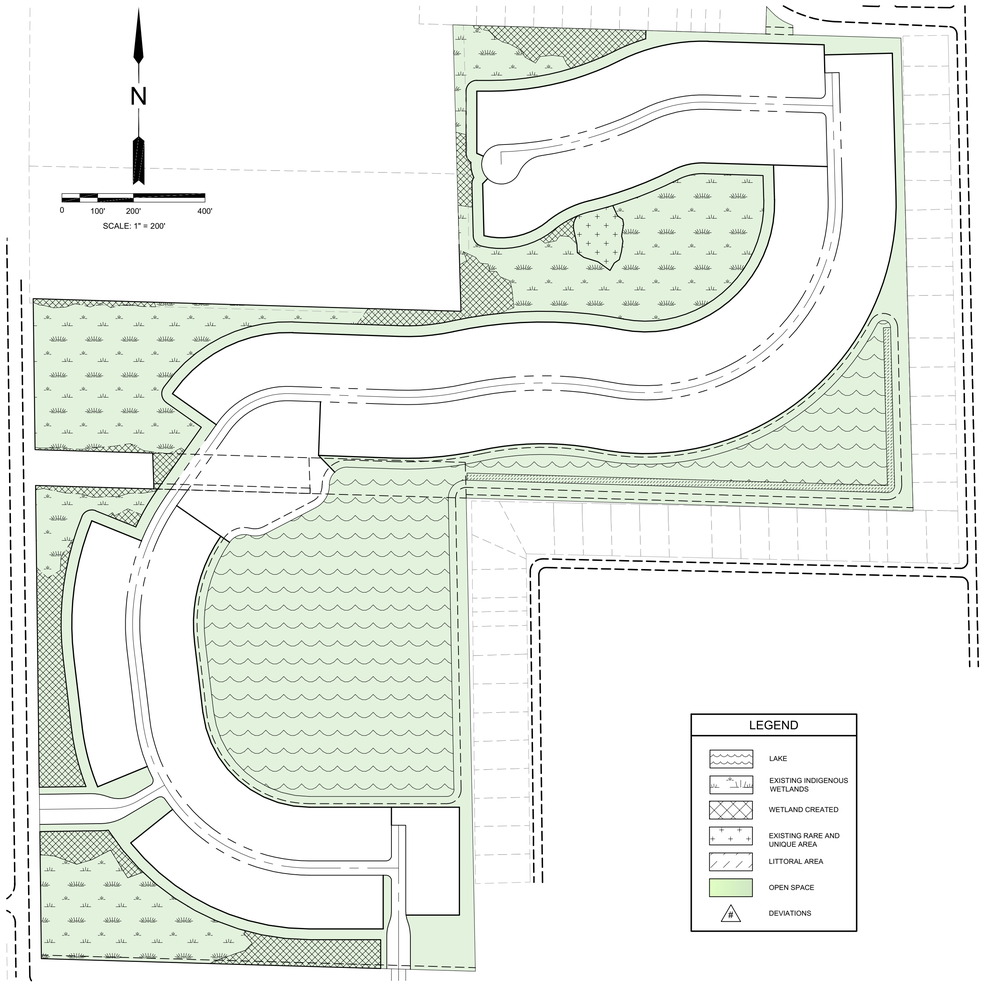
1. THIS PLAN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO MODIFICATION DUE TO AGENCY PERMITTING REQUIREMENTS.
2. ALL ACREAGE AREA APPROXIMATE AND SUBJECT TO MODIFICATION AT THE TIME OF DEVELOPMENT ORDER.
3. THE LOCATION OF THE ONSITE LAKE AND RESIDENTIAL TRACTS IS PRELIMINARY AND MAY BE ADJUSTED AT SITE PLAN APPROVAL.
4. LME = LAKE MANAGEMENT EASEMENT
5. DE = DRAINAGE EASEMENT
6. A 6-FOOT-HIGH OPAQUE FENCE MUST BE CONSTRUCTED AND A VEGETATIVE BUFFER, A MINIMUM OF 10 FEET IN WIDTH, MUST BE PLANTED ALONG THE EASTERN, SOUTHERN, AND NORTHERN PROPERTY LINES (AS ILLUSTRATED) PRIOR TO THE APPROVAL OF ANY BUILDING PERMITS FOR ANY DWELLING UNITS. THIS 10-FOOT-WIDE VEGETATIVE BUFFER IS IN ADDITION TO ANY EXISTING EASEMENTS ALONG PROPERTY LINE. DRAINAGE EASEMENT WILL NOT BE COUNTED AS PART OF THE PROJECT WALL BUFFER.
7. THE VEGETATION IN THE BUFFER MUST CONTAIN, AT A MINIMUM, FIVE NATIVE TREES PER 100 LINEAR FEET. ALL TREES MUST BE A MINIMUM OF 10 FEET TALL AT TIME OF PLANTING. EXISTING INDIGENOUS NATIVE VEGETATION MAY BE COUNTED TOWARD THE VEGETATION REQUIREMENTS OF THIS NOTE.

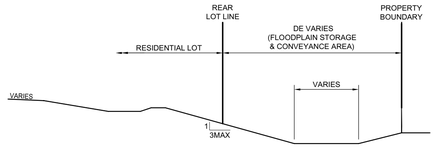
J.R. EVANS ENGINEERING

31 OAKS

MASTER CONCEPT PLAN

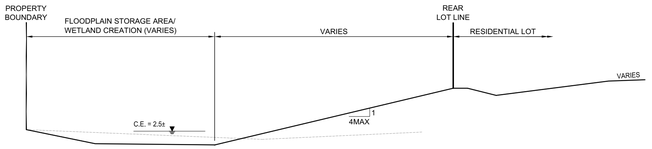
00935-00 E0201 31 OAKS MCP.DWG
November 16, 2022





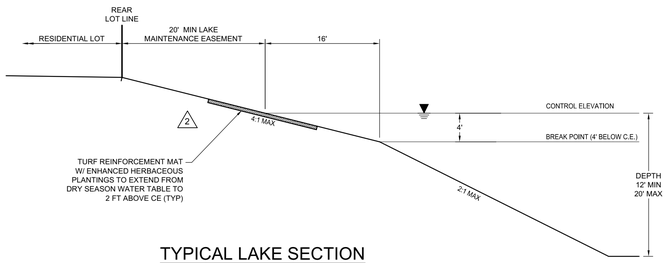
TYPICAL LOT TO FLOODPLAIN & CONVEYANCE AREA

NTS



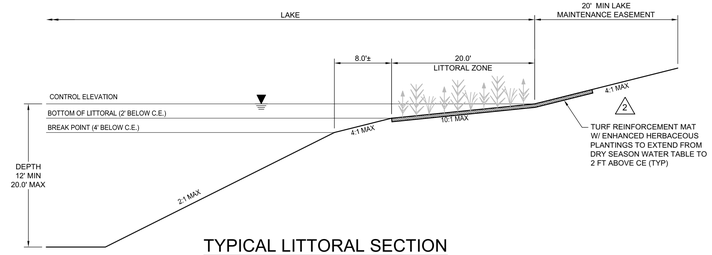
TYPICAL FLOODPLAIN STORAGE AREA/ CREATED WETLAND SECTION

NTS



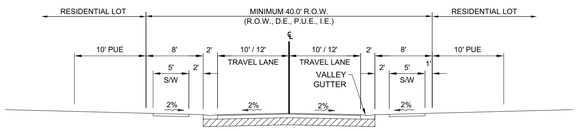
TYPICAL LAKE SECTION

NTS



TYPICAL LITTORAL SECTION

NTS



TYPICAL ROAD CROSS SECTION

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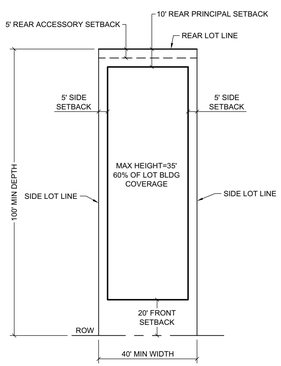
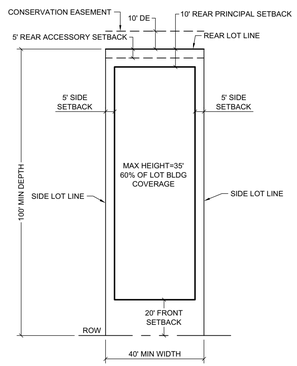
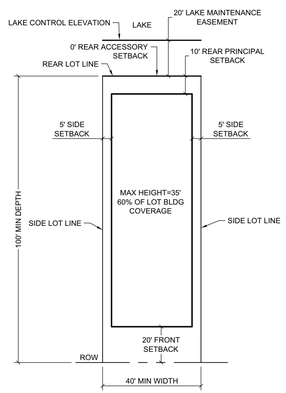


REAR ABUTTING OPEN SPACE



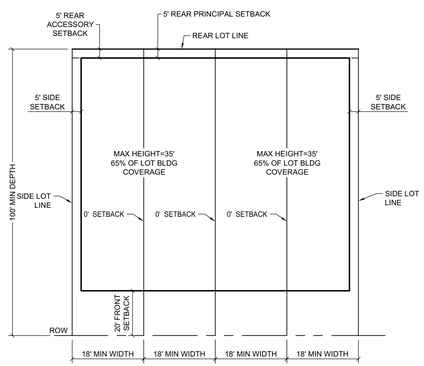
REAR ADJACENT TO PRESERVE



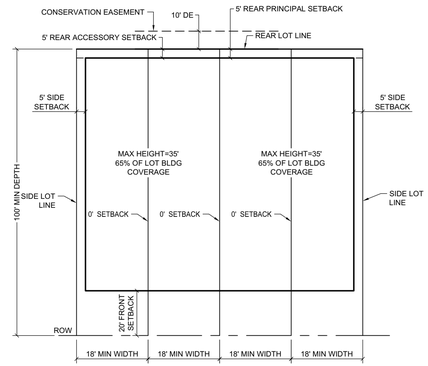
REAR ABUTTING LAKE MAINTENANCE EASEMENT

SINGLE FAMILY DETACHED TYPICAL LOT DETAIL

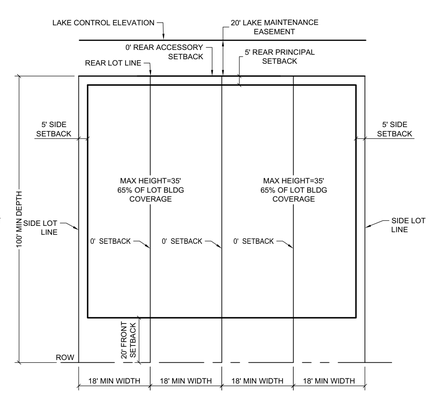
NTS



REAR ABUTTING OPEN SPACE



REAR ADJACENT TO CONSERVATION



REAR ABUTTING LAKE MAINTENANCE EASEMENT

TOWNHOUSE TYPICAL LOT DETAIL

NTS

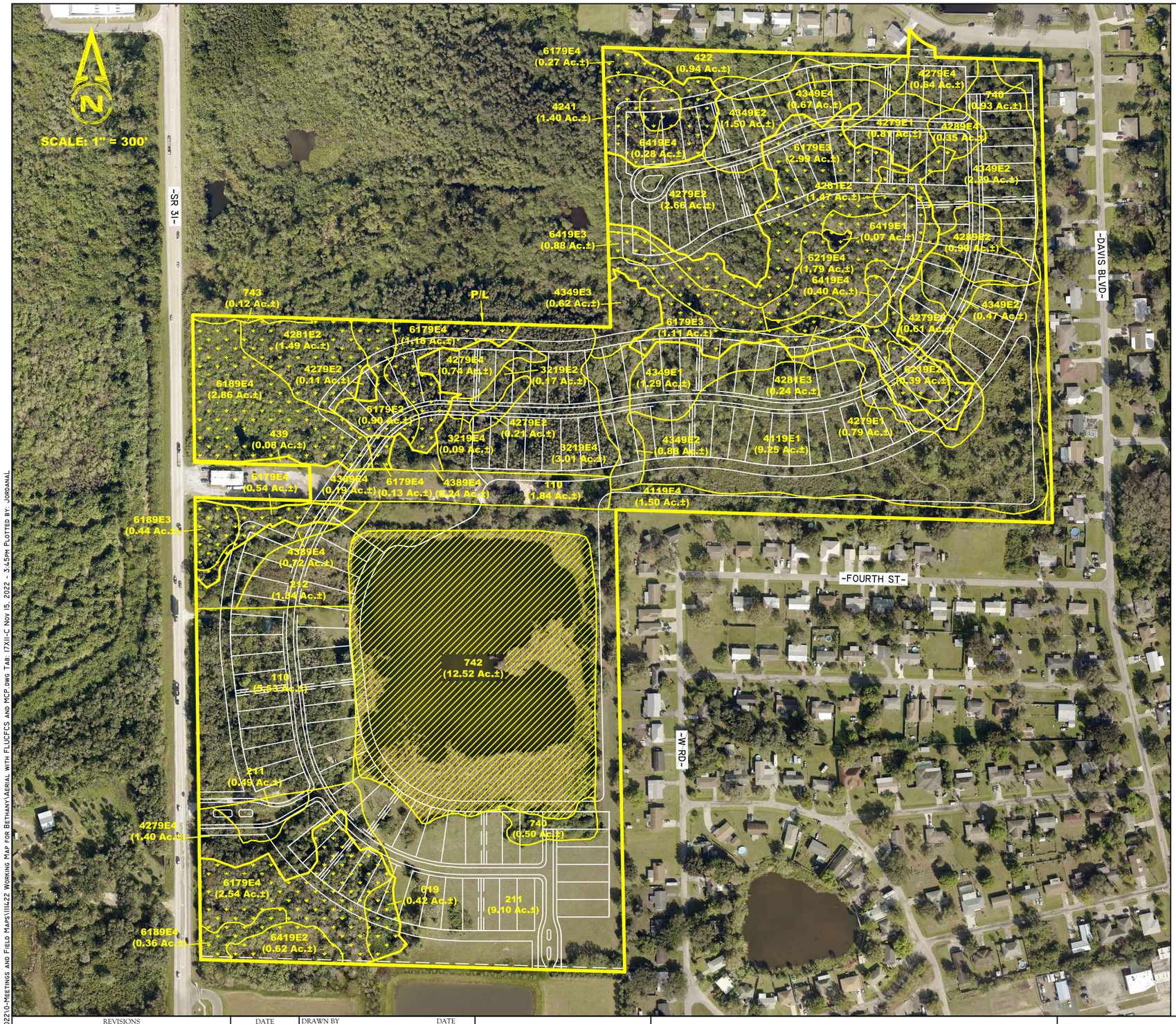
J.R. EVANS ENGINEERING

31 OAKS

OPEN SPACE AND TYPICAL CROSS SECTIONS EXHIBIT

00935-00 E0201 31 OAKS MCP.DWG

November 16, 2022



LEGEND:

STATE 404 WETLANDS (22.77 Ac.±)

STATE 404 OTHER SURFACE WATERS (12.52 Ac.±)

SURVEYED WETLAND LINE

FLUCFCS CODES	DESCRIPTIONS	ACREAGE	% OF TOTAL
110	RESIDENTIAL, LOW DENSITY	7.37 Ac.±	8.3%
211	IMPROVED PASTURE	9.59 Ac.±	10.9%
212	UNIMPROVED PASTURE	1.34 Ac.±	1.5%
3219 E2	PALMETTO PRAIRIES, DISTURBED (25-49% EXOTICS)	0.17 Ac.±	0.2%
3219 E4	PALMETTO PRAIRIES, DISTURBED (76-100% EXOTICS)	3.10 Ac.±	3.5%
4119 E1	PINE FLATWOODS, DISTURBED (0-24% EXOTICS)	9.25 Ac.±	10.5%
4119 E4	PINE FLATWOODS, DISTURBED (76-100% EXOTICS)	1.50 Ac.±	1.7%
422	BRAZILIAN PEPPER	0.94 Ac.±	1.1%
4241	MELALEUCA, HYDRIC	1.40 Ac.±	1.6%
4279 E1	LIVE OAK, DISTURBED (0-24% EXOTICS)	1.60 Ac.±	1.8%
4279 E2	LIVE OAK, DISTURBED (25-49% EXOTICS)	3.59 Ac.±	4.1%
4279 E4	LIVE OAK, DISTURBED (76-100% EXOTICS)	2.78 Ac.±	3.1%
4281 E2	CABBAGE PALM, DISTURBED, HYDRIC (25-49% EXOTICS)	2.96 Ac.±	3.4%
4281 E3	CABBAGE PALM, DISTURBED, HYDRIC (50-75% EXOTICS)	0.24 Ac.±	0.3%
4289 E2	CABBAGE PALM, DISTURBED (25-49% EXOTICS)	0.90 Ac.±	1.0%
4289 E4	CABBAGE PALM, DISTURBED (76-100% EXOTICS)	0.35 Ac.±	0.4%
4349 E1	HARDWOOD/CONIFER MIXED, DISTURBED (0-24% EXOTICS)	1.29 Ac.±	1.5%
4349 E2	HARDWOOD/CONIFER MIXED, DISTURBED (25-49% EXOTICS)	5.14 Ac.±	5.8%
4349 E3	HARDWOOD/CONIFER MIXED, DISTURBED (50-75% EXOTICS)	0.62 Ac.±	0.7%
4349 E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)	0.67 Ac.±	0.8%
4389 E4	MIXED HARDWOODS, DISTURBED (76-100% EXOTICS)	1.15 Ac.±	1.3%
439	EXOTIC HARDWOODS	0.08 Ac.±	0.1%
6179 E2	MIXED WETLAND HARDWOODS, DISTURBED (25-49% EXOTICS)	0.90 Ac.±	1.0%
6179 E3	MIXED WETLAND HARDWOODS, DISTURBED (50-75% EXOTICS)	4.10 Ac.±	4.6%
6179 E4	MIXED WETLAND HARDWOODS, DISTURBED (76-100% EXOTICS)	4.66 Ac.±	5.3%
6189 E3	WILLOW, DISTURBED (50-75% EXOTICS)	0.44 Ac.±	0.5%
6189 E4	WILLOW, DISTURBED (76-100% EXOTICS)	3.22 Ac.±	3.6%
619	EXOTIC WETLAND HARDWOODS	0.42 Ac.±	0.5%
6219 E2	CYPRESS, DISTURBED (25-49% EXOTICS)	0.39 Ac.±	0.4%
6219 E4	CYPRESS, DISTURBED (76-100% EXOTICS)	1.79 Ac.±	2.0%
6419 E1	FRESHWATER MARSH, DISTURBED (0-24% EXOTICS)	0.07 Ac.±	0.1%
6419 E2	FRESHWATER MARSH, DISTURBED (25-49% EXOTICS)	0.62 Ac.±	0.7%
6419 E3	FRESHWATER MARSH, DISTURBED (50-75% EXOTICS)	0.88 Ac.±	1.0%
6419 E4	FRESHWATER MARSH, DISTURBED (76-100% EXOTICS)	0.68 Ac.±	0.8%
740	DISTURBED LAND	1.43 Ac.±	1.6%
742	BORROW AREA	12.52 Ac.±	14.2%
743	SPOIL AREAS	0.12 Ac.±	0.1%
	TOTAL	**88.27 Ac.±**	**100.0%**

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH FLIGHT DATES OF JANUARY - MARCH 2022.

PROPERTY BOUNDARY PER RVI PLANNING PER DRAWING NO. 2022-01-28 I223I01E0206.DWG DATED FEBRUARY 1, 2022.

SURVEYED WETLAND LINES PER RHODES & RHODES, INC. DRAWING NO. 2021-541-WETLAND LINES.DWG DATED NOVEMBER 3, 2021.

FLUCFCS LINES ESTIMATED FROM 1"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

UPLAND/WETLAND LIMITS HAVE NOT BEEN REVIEWED BY ANY REGULATORY AGENCY AND ARE SUBJECT TO CHANGE.

REVISIONS	DATE

		DATE
DRAWN BY	T.S.	11/14/22
DESIGNED BY	B.B.	11/14/22
REVIEWED BY	B.B.	11/14/22

13620 Metropolis Avenue
Suite 200
Ft. Myers, FL 33912
Phone (239) 274-0067
Fax (239) 274-0069

Passarella & Associates, Inc. Consulting Ecologists

31 OAKS

AERIAL WITH FLUCFCS AND SITE PLAN

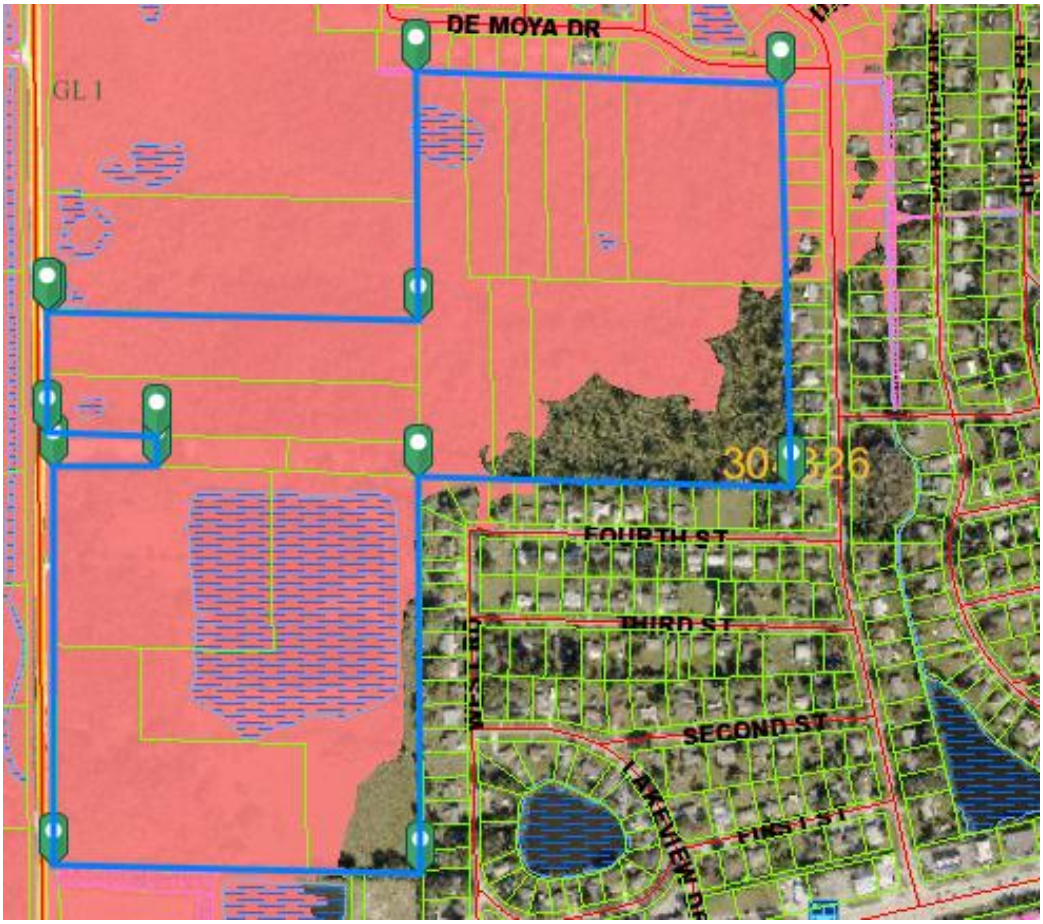
DRAWING No. 21NCC3643

SHEET No. -

J:\2021\2NCC3643\2022\0-MEETINGS AND FIELD MAPS\11\22 WORKING MAP FOR BETHANY\AERIAL WITH FLUCFCS AND MCP.DWG TAB: 17X11-C NOV 15, 2022 - 3:45PM PLOTTED BY: JORDANAL

31 Oaks
Policy 101.3.2 Consistency Narrative
Revised November 16, 2022

This narrative is to provide a Lee Plan consistency analysis of a rezoning application for the proposed development. The subject property in the rezoning application is located along State Road 31 south of the Caloosahatchee River. It is located in the Coastal High Hazard Area (CHHA) as shown in Map 5 of the LeePlan and therefore subject to CHHA Goals, Objectives, and Policies (GOPs) of the LeePlan.



CHHA area of subject property

The relevant LeePlan language for this narrative is:

> **GOAL 101: COASTAL AREAS.** Protect human life along with current and future development from the impacts of coastal flooding. Coastal flooding incudes but is not limited to, high tide events, storm surge, flash floods, stormwater runoff, and impacts of sea level rise.

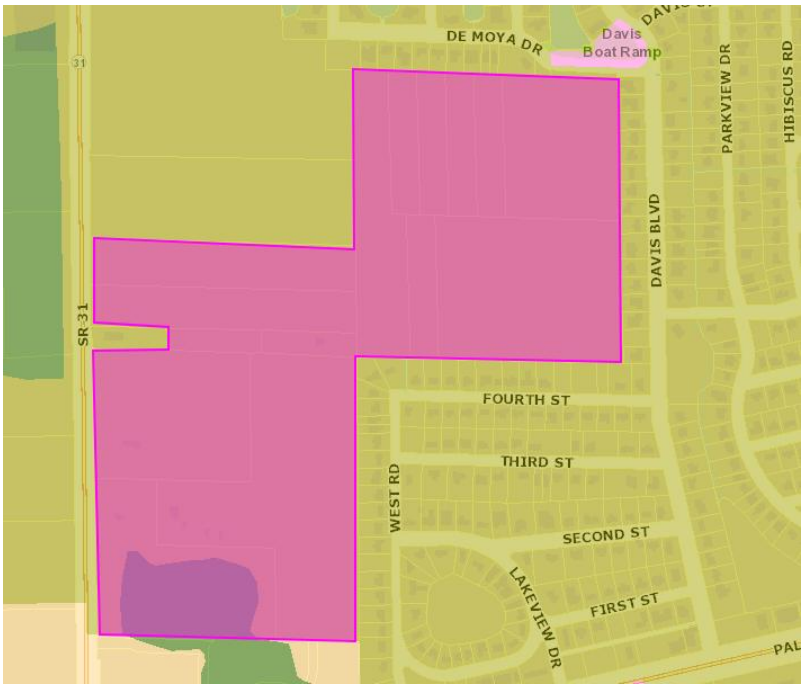
OBJECTIVE 101.3: DEVELOPMENT IN COASTAL AREAS. Protect human life and property from natural and man-made disasters.

POLICY 101.3.2: Restrict development in the Coastal High Hazard Area to uplands except as needed for the provisions of public facilities.

Analysis of Lee Plan as it relates to proposed development of the subject property focuses on wetlands to flood and storm water capacity. This narrow scope will be reinforced by analysis of the staff report for Lee County Ordinance 18-28 as written, reviewed, and enacted under Comprehensive Plan Amendment CPA2017-00006. The summary of changes within ordinance 18-28 in the staff report was to:

- GOPS within the CCM element will be combined, relocated, and/or restructured to create cohesion within the CCM element and consistency within the overall Plan.
- Clarify importance of protecting within the CHHA
- Update GOPS to align the CCM element with state statues, specifically F.S. 163-3178.
- Address discrepancies regarding interpretation of bonus density, increased density through Comprehensive Plan Amendments, and increase potential units through rezoning within the CHHA.

Currently the majority of the property is within the Suburban Land Use Category and has a maximum density of 6 units/acre. The proposed zoning action as discussed in the request statement is consistent with the FLU and requires no amendments to the LeePlan for density. Therefore, this analysis will focus on the Summary of Change of "*Clarify importance of protecting within the CHHA*" only.



Future Land Use of Subject Property

Senate Bill 1094 effective July 1, 2015, titled "Peril of Flood" specifies new requirements for coastal management requires local governments to revise their comprehensive plans to address coastal flooding and sea level rise. Florida Statute 163.3178(2)(f) states:

1. *Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts*
2. *Encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.*
3. *Identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.*
4. *Be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable flood plain management regulations set forth in 44C.F.R. part 60.*
5. *Require that any construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.*
6. *Encourage local governments to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.*

This Statute has language in subparagraph 1, 2, & 3 that addresses best practices development principals and engineering solutions as acceptable to the reduction of flood risks in coastal areas in lieu of actual prohibition of development or redevelopment in the CHHA. The statute delegates the responsibility of preparing GOPs within the Counties Comprehensive Plan.

Based on this Statute Lee County staff (staff) reviewed the provisions of the CCM element and identified and addressed five major themes needed to improve consistency with the BOCC's initiatives, 163.3178 F.S., and the Lee Plan. Relative to the scope of this narrative theme Four of the staff discussion and analysis is relevant and states:

- **Wetlands:** Enhance wetland protection within the CHHA

Staff discussion in CPA2007-00016 on Wetlands as defined by Lee Plan is: "*Areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil.*"

Lists the benefits as:

- Species Habitat; permanent and migratory
- Species foraging
- Species nesting
- Protection from wave action (mangrove forest)
- Protection from erosion
- Aquifer recharge
- Storage area for storm and flood waters
- Natural water filtration and purification.

Staff discussion in CPA2007-00016 continues with listing the potential dangers in the CHHA that wetlands can provide mitigation. These dangers are:

- High tide event
- Storm surge
- Flash floods
- Stormwater runoff
- Impacts of sea level rise.

Staff assumptions are protection of wetlands provides mitigation and reductions with "minimal human impact." This occurs with the wetlands absorbing water and providing a storage capacity in the wetlands reducing surface water runoff. The wetlands also provide significant filtration and nutrient uptake acting as a bioremediation site. Staff also states: "*Preserving existing wetland habitats in the CHHA does not ensure complete protection against the potential dangers of coastal flooding"* but does provide mitigation and tempering of coastal flooding. Staff continues with: "*it is imperative to protect existing wetlands especially those located within the CHHA."* But concludes with "***It is crucial that impacts to wetlands are kept at a minimum to ensure their longevity and ability to continue to act as a natural mitigation against dangers of coastal flooding in the CHHA****."*

Lee County staff proposed adding Policy 101.3.2 to the LeePlan with case CPA2017-00006 to amend the Conservation and Coastal Management (CCM) element.. The amendment proposed to "*reduce redundancies between Goals, Objectives, and Policies (GOPs) within the CCM element, as well as other redundant GOPs found in different elements, through reorganizing and streamlining; align with state statues; address inconsistencies regarding density and wetlands within Coastal High Hazard Areas (CHHA); and expand where 'Rare and Unique" habitats will be protected."*

CPA2017-0006 was heard before the Local Planning Agency on July 23,2018 and adopted by the Board of County Commissioners December 5, 2018. Part 2 of the Staff report with analysis presented the case for new language in the LeePlan because of the "lack of foundational criteria" and "subjective and arbitrary language" and Section 163.7138(2)(f)1-6 Florida Statute "Peril of Flood Act." The staff report discusses the

potential dangers associated with coastal flooding and how wetlands function to store surface water recharging ground water and improve water quality. Staff states:

> "*Wetlands also act as bioremediation sites because they have the ability to remove pollutants from surface water (vegetative filtration.) Wetlands within and downstream of urban areas are particularly valuable in this require counteracting the greatly increase rate and volume of surface-water runoff from pavements and buildings. Preserving existing wetland habitats in the CHHA does not ensure complete protection against the potential dangers of coastal flooding"*

In summary, Policy101.3.2 primary goal is to protect the potential dangers in the CHHA by providing storage and routing capabilities to mitigate flooding potential. The policy and underlying staff report does not prohibit impacts to wetlands but "Restricts" and minimizes unavoidable impact to wetlands reducing the capability of the intended function. This narrative introduces an alternative to total avoidance of wetland impact because of the unique geometry of the property the following proposed condition providing an enhanced natural and created system to maintain or reduce flooding potential.

> **CONDITION:** During the development order process provide a wetland mitigation program. The intent of the mitigation plan is to provide created wetland areas and enhanced stormwater management design which compensates for impacts to pre-development wetland storage. The preserved and created wetlands will not be included within a stormwater management system for water quality or quantity storage per SFWMD regulation. The stormwater management system will provide sufficient flow of water to retain the existing hydroperiods. Preserved and created wetlands shall be placed into a conservation easement. The wetland mitigation program shall include a monitoring and maintenance element for water quality testing and vegetation survival.

The wetland mitigation program shall address the following:

- Determination of surface water storage capacity of existing wetland areas
- Determination of vegetation community of existing wetland areas
- Creation of new wetland areas to mitigate the extent of impacted wetlands.
- New wetland areas shall be vegetated to replicate the impacted vegetation community upon maturity.
- Provide initial water quality monitoring pre-development and continue water quality monitoring post-development for a period of 5 years. Location of monitoring shall be at development control structure, points within the preserved management area and at any outfall to adjacent property.
- Provide post development vegetation inventory including a maintenance and replacement plan.
- Provide milestones to ensure operational success.
- Place preserve and created wetlands in platted conservation areas.

- Provide implementing language within Homeowners Association Documents for monitoring and maintenance of the wetland areas.

The implementation of the proposed wetland mitigation program for the development of 31 Oaks will meet the intent of Policy 101.3.2 by ensuring existing wetland storage capacity is maintained through an engineered solution which can be managed and maintained. Designated and achievable milestones will be included to provide a successful enhanced wetland system on the property. This program is consistent with Policy 101.3.2.

Consistency Narrative Revision #1

This revision is to provide additional information and clarification and respond to the April 6, 2022 Request for Additional information concerning to Policy 101.3.2 compliance and the proposed stormwater management system. 31 Oaks is not the first public hearing application to address consistency with Goal 101. Paradise Isles was subject to the policy and successfully addressed the policy in zoning action DCI2017-00019. Paradise Isle submittal narrative argued the following excerpts:

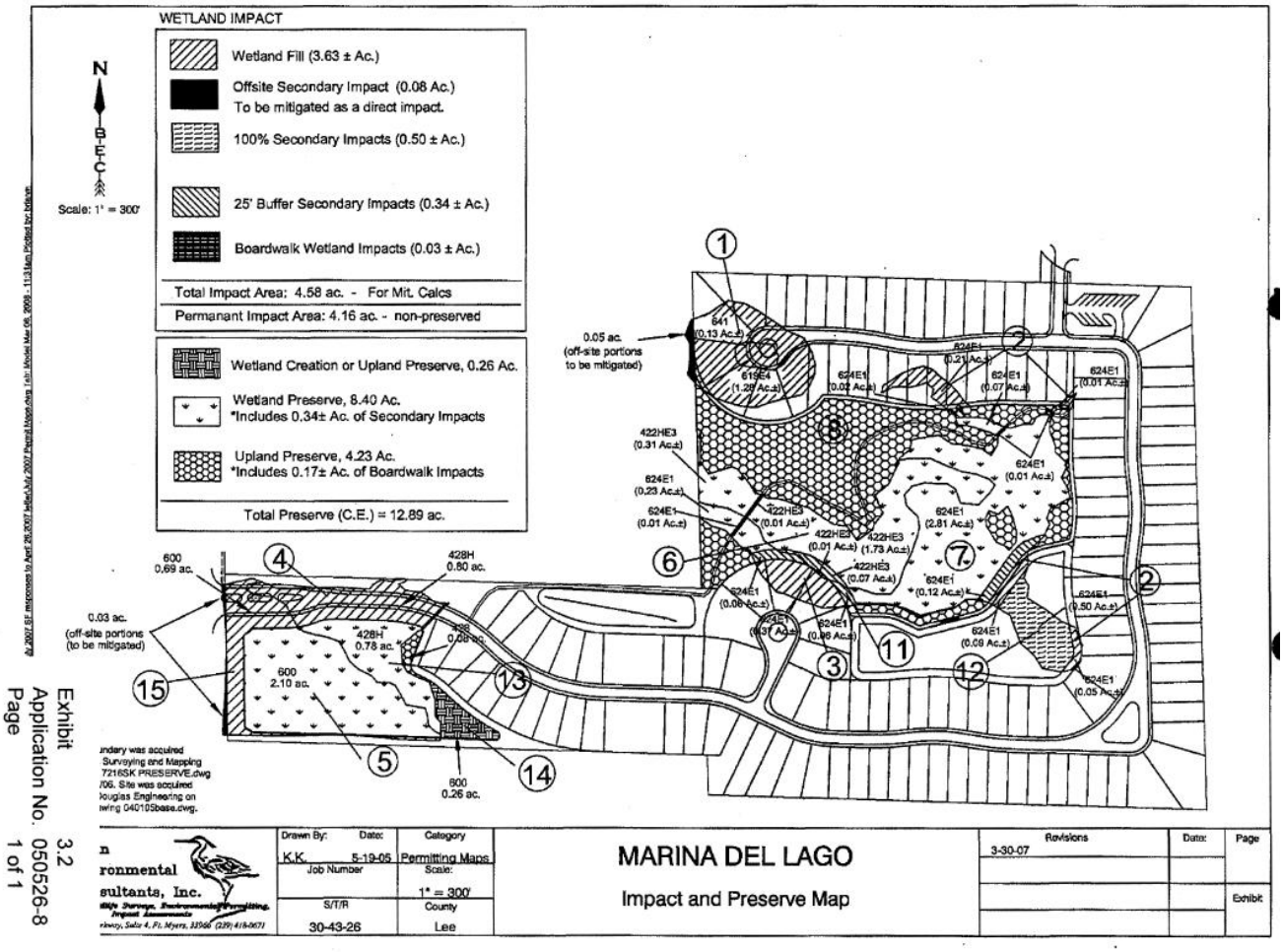
- Policy 101.3.2 is not a prohibition on development in wetlands when read in context of Goal 101, Objective 101.3, and other policies.
- Goal 101 is to protect human life and development from the dangers of coastal flood events and to preserve the ecological functions of viable wetlands in the CHHA
- Previously issued ERP's reflect a determination that some wetland impacts for development purposes are not contrary to the goals of protecting life and property.
- The preserved wetlands will continue to provide protection for the adjacent uplands and redevelopment will provide improvement of the natural systems as a defense against coastal flooding.

The development approach of 31 Oaks is similar to the Paradise Isle argument as approved in their zoning action. The primary objective is avoidance of wetlands and where reasonable impacts can occur to ensure responsible development. Impacts will be offset through enhanced stormwater management facilities and wetland creation areas. The simple intent is that wetlands provide storage that can be calculated, and the calculated quantity will be retained in the post development plans and does not include the required SFWMD ERP water quantity for the proposed development areas. The final flood plain areas will be conditioned at time of development and must be placed in a conservation easement.

Like Paradise Isles, 31 Oaks had a SFWMD ERP obtained on a portion of the proposed development known as Marina Del Lago (SFWMD Application 050526-8, Permit 36-06750-P). This permit was for the northern 49.54 acres of the site. 31 Oaks is proposed as a total of 88.3 acres. The southern 38.76 acres consist mainly of an

existing lake and uplands. The wetlands in the southern portion of the project remain largely intact with minimal impacts.

The Marina Del Lago plan was permitted to Impact 4.58 acres of the 12.03 wetlands on site (38%). There was also permit requirements of a 4.23 Upland Preserve and 0.26 acres of wetland creation.



Paradise Isles was conditioned to provide upland and wetland conservation easements over indigenous preservation areas at time of first development order application. Easements are to be dedicated to South Florida Water Management District and grant third part enforcement rights to Lee County. A similar condition could be included in the 31 Oaks zoning ordinance.

31 Oaks Master Concept Plan has been changed to include wetland preservation and creation and is supplemented by a Floodplain Improvements Memo and Floodplain No-Impact Memo. This will allow the opportunity at first Development order application and South Florida Water Management Environmental Resource application to determine precise vegetation communities to mimic flood prone upland or wetland natural functions. The intent of this proposal is to demonstrate that the combination of

preserved and created wetlands and enhancements to the stormwater management system will ensure no impacts to the pre-development floodplain.

Stormwater management would be addressed similar to the Paradise Isle zoning ordinance. Condition 9 provides criteria at time of first development order to address the function of the stormwater system and ensure hydroperiods are maintained to the preserved areas. **Proposed conditions intent is as follows:**

- At first Development Order provide:
  - Pre-Development Drainage Analysis that includes
    - Drainage Map for all contributory areas and must include offsite inflow areas
    - Show flow-paths
    - Existing Structures
    - ICPR Modeling of 5yr24hr, 10yr24hr, 25-3day, 100yr-3day storm events
    - This establishes the pre-development stormwater conditions.
  - Post Development Drainage Plan
    - Drainage Map for all contributory areas with proposed upland improvements, wetland and upland creation areas, proposed grading elevations and construction details of all structures and pipes
    - Structures, weirs, pipes and swales to maintain a viable hydroperiod in the conservation area.
    - ICPR Modeling of 5yr24hr, 10yr24hr, 25-3day, 100yr-3day storm events
    - This establishes the post-development stormwater conditions
  - Profiles and Sections Plan
    - Provide Sections and Profiles sufficient to demonstrate compliance with elevations and areas of the post development modeling.
  - Stormwater Report
    - A stormwater report that demonstrates compliance with Policy 101.3.2 pre-development wetland storage capacity is being met through existing wetland, flood prone uplands and created uplands and wetlands preservation and retained storage capacity.
    - The development shall provide SFWMD required water quantity in the lake system and not in the conservation easement areas.
    - Demonstration of proposed engineering systems that ensure the retention of a hydroperiod in the conservation easement suitable to provide stormwater needs of the plant community.

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

31 OAKS
LEE COUNTY INDIGENOUS PRESERVE RESTORATION AND MANAGEMENT PLAN

Revised November 2022

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DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TABLE OF CONTENTS

Page

1.0 Introduction 1

2.0 Indigenous Vegetation Preserve 1

2.1 Indigenous Wetlands 1
2.2 Indigenous Uplands 2

3.0 Existing Non-Indigenous Vegetation Preserve 3

3.1 Non-Indigenous Wetland Habitats 3
3.2 Non-Indigenous Upland Habitats 3

4.0 Methods to Remove and Control Exotic and Nuisance Plants 5

4.1 Method and Frequency of Pruning and Trimming 6
4.2 Debris Removal 6

5.0 Wetland Creation 6

6.0 Supplemental Planting 6

7.0 Maintenance 9

8.0 Monitoring Reports 9

LIST OF TABLES

Page

Table 1. Prohibited Invasive Exotics 5

Table 2. Supplemental Wetland Plantings 7

Table 3. Supplemental Upland Plantings 8

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

LIST OF APPENDICES

Page

Appendix A. Indigenous Preserve Plan A-1

1.0 INTRODUCTION

The following outlines the Lee County Indigenous Preserve Management and Restoration Plan for 31 Oaks (Project) located in Section 30; Township 43 South; Range 26 East; Lee County.

The Project is bordered to the north by undeveloped, forested lands and single-family residential development; to the east by single-family residential development; to the south by cleared land and a gas station; and to the west by State Road 31.

The proposed Lee County indigenous preserve will contain the following elements:

- Preservation, enhancement, and restoration of 13.48± acres of indigenous and non-indigenous wetlands,
- Preservation, and enhancement of 0.42± acre of indigenous uplands; and
- Creation of 4.48± acres of indigenous wetland areas.

The indigenous preserve area will be protected in perpetuity via a conservation easement granted to Lee County.

2.0 INDIGENOUS VEGETATION PRESERVE

The Lee County Indigenous Preserve totals 18.38± acres and is comprised of 13.48± acres of wetlands and 4.90± acres of uplands. The location of the indigenous preserve is depicted in Appendix A.

The following are the existing indigenous on-site wetland and upland habitats proposed as indigenous vegetation preserve.

2.1 Indigenous Wetlands

Cabbage Palm, Hydric (25-49% Exotics) (FLUCFCS Code 4281 E2)
The canopy of this wetland habitat consists primarily of cabbage palm (*Sabal palmetto*) with few scattered laurel oak (*Quercus laurifolia*). The sub-canopy includes primarily cabbage palm with scattered myrsine (*Myrsine cubana*), Brazilian pepper (*Schinus terebinthifolia*), and wild coffee (*Psychotria nervosa*). The ground cover includes scattered swamp fern (*Telmatoblechnum serrulatum*), herb-of-grace (*Bacopa monnieri*), frogfruit (*Phyla nodiflora*), and giant leather fern (*Acrostichum danaeifolium*).

Cabbage Palm, Hydric (50-75% Exotics) (FLUCFCS Code 4281 E3)
The vegetative composition of this disturbed wetland habitat is similar to that of FLUCFCS Code 4281 E2; however, there is more Brazilian pepper and melaleuca (*Melaleuca quinquenervia*) in the canopy and sub-canopy strata.

Mixed Wetland Hardwoods, Disturbed (25-49% Exotics) (FLUCFCS Code 6179 E2)
The canopy of this wetland habitat includes laurel oak and cabbage palm with few scattered live oak (*Quercus virginiana*), melaleuca, and bishopwood (*Bischofia javanica*). The sub-canopy consists of scattered laurel oak, cabbage palm, bishopwood, and Brazilian pepper. The ground cover consists of swamp fern, muscadine grapevine (*Vitis rotundifolia*), giant leather fern, and American evergreen (*Syngonium podophyllum*).

Mixed Wetland Hardwoods, Disturbed (50-75% Exotics) (FLUCFCS Code 6179 E3)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6179 E2; however, there is additional Brazilian pepper and melaleuca in the sub-canopy stratum.

Willow, Disturbed (50-75% Exotics) (FLUCFCS Code 6189 E3)
The canopy of this wetland habitat includes Carolina willow (*Salix caroliniana*), Brazilian pepper, and few cabbage palm. The sub-canopy includes Brazilian pepper and Carolina willow. The ground cover is primarily open with scattered swamp fern, fireflag (*Thalia geniculata*), and giant leather fern.

Freshwater Marsh, Disturbed (0-24% Exotics) (FLUCFCS Code 6419 E1)
The canopy of this wetland habitat is open. The sub-canopy includes scattered Brazilian pepper and Peruvian primrose willow (*Ludwigia peruviana*). The ground cover includes string-lily (*Crinum americanum*), swamp fern, and pickerelweed (*Pontederia cordata*).

Freshwater Marsh, Disturbed (25-49% Exotics) (FLUCFCS Code 6419 E2)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6419 E1; however, there is additional Brazilian pepper in the sub-canopy stratum.

Freshwater Marsh, Disturbed (50-75% Exotics) (FLUCFCS Code 6419 E3)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6189 E2; however, there is additional Brazilian pepper in the sub-canopy stratum.

2.2 Indigenous Uplands

Live Oak, Disturbed (25-49% Exotics) (FLUCFCS Code 4279 E2)
The canopy of this upland habitat consists of live oak. The sub-canopy includes scattered live oak, myrsine, gallberry (*Ilex glabra*), winged sumac (*Rhus copallinum*), Brazilian pepper, wild coffee, and coastal plain staggerbush (*Lyonia fruticosa*). The ground cover includes saw palmetto (*Serenoa repens*), muscadine grapevine, and shiny blueberry (*Vaccinium myrsinites*).

Hardwood/Conifer Mixed, Disturbed (50-75% Exotics) (FLUCFCS Code 4349 E3)
The canopy of this upland habitat includes live oak, slash pine (*Pinus elliottii*), laurel oak, and melaleuca. The sub-canopy includes Brazilian pepper, live oak, laurel oak, myrsine, wax myrtle, gallberry, winged sumac, wild coffee, and coastal plain staggerbush. The ground cover includes scattered saw palmetto, muscadine grapevine, and shiny blueberry.

3.0 EXISTING NON-INDIGENOUS VEGETATION PRESERVE

The non-indigenous upland and wetland are predominantly comprised of improved and unimproved pastures, mixed exotics, residential areas, melaleuca, Brazilian pepper, hardwood/conifer mixed, willow, and palmetto prairie habitat types that contain greater than 75 percent exotic vegetation. Listed below are the FLUCFCS descriptions of the non-indigenous areas on the Project site.

3.1 Non-Indigenous Wetland Habitats

Melaleuca, Hydric (FLUCFCS Code 4241)
This disturbed wetland habitat consists primarily of melaleuca in the canopy and sub-canopy. The ground cover is open.

Mixed Wetland Hardwoods, Disturbed (76-100% Exotics) (FLUCFCS Code 6179 E4)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6179 E3; however, there is additional melaleuca in the canopy and sub-canopy strata.

Willow, Disturbed (76-100% Exotics) (FLUCFCS Code 6189 E4)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6189 E3; however, there is additional Brazilian pepper in the canopy and sub-canopy strata.

Exotics Wetland Hardwoods (FLUCFCS Code 619)
The canopy of this wetland habitat is open. The sub-canopy includes Brazilian pepper, bishopwood, Java plum, Peruvian primrose willow, and scattered cabbage palm.

Cypress, Disturbed (76-100% Exotics) (FLUCFCS Code 6219 E4)
The canopy of this wetland habitat includes primarily bald cypress (*Taxodium distichum*) with scattered red maple (*Acer rubrum*), cabbage palm, and laurel oak. The sub-canopy includes bald cypress, Brazilian pepper, cabbage palm, red maple, and myrsine. The ground cover includes scattered swamp fern, herb-of-grace, creeping primrose willow (*Ludwigia repens*), and string-lily.

Freshwater Marsh, Disturbed (76-100% Exotics) (FLUCFCS Code 6419 E4)
The vegetative composition of this wetland habitat is similar to that of FLUCFCS Code 6189 E3; however, there is additional Brazilian pepper in the sub-canopy stratum.

3.2 Non-Indigenous Upland Habitats

Residential, Low Density (FLUCFCS Code 110)
This land use type consists of residential properties and dirt roadways. The canopy contains live oak and the sub-canopy is open. The ground cover is dominated by St. Augustine grass (*Stenotaphrum secundatum*).

Improved Pasture (FLUCFCS Code 211)
This land use type consists of agricultural fields used for cattle grazing. The canopy is primarily open with widely scattered live oak and slash pine. The sub-canopy is primarily open with few scattered cabbage palm and Brazilian pepper. The ground cover includes bahiagrass (*Paspalum notatum*), spermacoce (*Spermacoce verticillata*), and dog fennel (*Eupatorium capillifolium*).

Unimproved Pasture (FLUCFCS Code 212)
The canopy is open and the sub-canopy includes widely scattered Brazilian pepper and few cabbage palm. The ground cover is primarily Guinea grass (*Urochloa maxima*), air potato (*Dioscorea bulbifera*), dog fennel, and St. Augustine grass.

Palmetto Prairies, Disturbed (76-100% Exotics) (FLUCFCS Code 3219 E4)
The canopy of this upland community is open. The sub-canopy is primarily open with scattered coastal plain staggerbush, gallberry, wax myrtle (*Morella cerifera*), melaleuca, myrsine, and tarflower (*Bejaria racemosa*). The ground cover is predominantly saw palmetto, with scattered sand blackberry (*Rubus cuneifolius*) and muscadine grapevine.

Brazilian Pepper (FLUCFCS Code 422)
This disturbed upland habitat consists primarily of Brazilian pepper in the canopy and sub-canopy. The ground cover is characteristically sparse.

Melaleuca, Hydric (FLUCFCS Code 4241)
This disturbed wetland habitat consists primarily of melaleuca in the canopy and sub-canopy. The ground cover is open.

Live Oak, Disturbed (76-100% Exotics) (FLUCFCS Code 4279 E4)
The vegetative composition of this upland habitat is similar to that of FLUCFCS Code 4279 E2; however, there is significantly more melaleuca in the canopy and sub-canopy strata.

Hardwood/Conifer Mixed, Disturbed (76-100% Exotics) (FLUCFCS Code 4349 E4)
The vegetative composition of this upland habitat is similar to that of FLUCFCS Code 4349 E3; however, there is additional Brazilian pepper, Java plum (*Syzygium cumini*), and melaleuca in the canopy and sub-canopy strata.

Mixed Hardwoods, Disturbed (76-100% Exotics) (FLUCFCS Code 4389 E4)
The canopy of this upland habitat includes a mixture of scattered live oak, laurel oak, Indian laurel fig (*Ficus microcarpa*), cabbage palm, and slash pine. The sub-canopy includes Brazilian pepper, live oak, laurel oak, cabbage palm, myrsine, and wild coffee. The ground cover includes American evergreen and swamp fern.

Exotic Hardwoods (FLUCFCS Code 439)
The canopy of this upland habitat includes scattered Brazilian pepper, Java plum, and common bamboo (*Bambusa vulgaris*). The sub-canopy contains Brazilian pepper. The ground cover contains scattered air potato and American evergreen.

Spoil Areas (FLUCFCS Code 743)
This land use type consists of a berm comprised of spoil material, including rock and concrete. The canopy of this land use type is open, and the sub-canopy consists of Brazilian pepper and cabbage palm. The ground cover primarily includes Burma reed (*Neyraudia reynaudiana*).

4.0 METHODS TO REMOVE AND CONTROL EXOTIC AND NUISANCE PLANTS

Exotic and nuisance vegetation within the 18.38± acres of indigenous preserve will be conducted by hand methods. Hand treatment will be either by the felling of exotic trees, hand-removal and herbicide treatment of the tree stumps, or by hand-pulling and removal. The treatment of exotic and nuisance vegetation will include one or more of the following methods: (1) cut exotics within 12 inches of ground elevation, hand-remove cut vegetation, and treat the remaining stump with approved herbicide; (2) foliar application of approved herbicide or hand-pulling of exotic seedlings; and (3) foliar application of approved herbicide to nuisance grasses.

The indigenous preserve will be maintained free of invasive exotics listed in Table 1 in perpetuity.

Table 1. Prohibited Invasive Exotics

Common Name	Scientific Name
Air potato	*Dioscorea bulbifera*
Australian pines	*Casuarina* spp.
Bishopwood	*Bischofia javanica*
Brazilian pepper	*Schinus terebinthifolia*
Carrotwood	*Cupaniopsis anacardioides*
Chinese tallow tree	*Sapium sebiferum*
Downy rose-myrtle	*Rhodomyrtus tomentosa*
Earleaf acacia	*Acacia auriculiformis*
Indian laurel fig	*Ficus microcarpa*
Japanese climbing fern	*Lygodium japonicum*
Java plum	*Syzygium cumini*
Melaleuca	*Melaleuca quinquenervia*
Murray red gum	*Eucalyptus camaldulensis*
Old World climbing fern	*Lygodium microphyllum*
Portia tree	*Thespesia populnea*
Rose apple	*Syzygium jambos*
Rosewood	*Dalbergia sissoo*
Tropical soda apple	*Solanum viarum*
Wedelia	*Wedelia trilobata*

Table 1. (Continued)

Common Name	Scientific Name
Weeping fig	*Ficus benjamina*
Woman's tongue	*Albizia lebbeck*

4.1 Method and Frequency of Pruning and Trimming

Exotic removal within the existing indigenous habitats is scheduled to begin concurrently with the start of construction activities. After completing the initial exotic removal, semi-annual inspections of the preserves will occur for the first two years. During these inspections, the conservation areas will be traversed by a qualified ecologist. Locations of nuisance and/or exotic species will be identified for immediate treatment with an appropriate herbicide. Any additional potential problems will also be noted, and corrective actions will be taken. Once exotic/nuisance species levels have been reduced to acceptable limits, inspections of the conservation areas will be conducted a minimum of once every two years.

Exotic maintenance will be hand-removal only. Maintenance will be conducted in perpetuity to ensure that the conservation areas are free of exotic vegetation, including the prohibited invasive exotic species listed in Section 10-420(h) of the LDC (Table 1).

4.2 Debris Removal

Exotic vegetative debris that is cut will be removed from the indigenous preserve areas. Exotic debris may be stacked in the adjacent development area and burned. No stacking of exotic debris will occur within the preserves. The preserve areas will be inspected annually for trash/garbage. Any trash/garbage located within the preserve areas will be removed and disposed of by hand.

5.0 WETLAND CREATION

Approximately 4.48± acres of wetlands will be created from existing upland habitat on-site. Wetland creation activities will include hand removal/treatment of existing exotic vegetation, regrading to match adjacent wetland elevation, and replanting of wetland vegetation in accordance with Table 2 below, and ongoing maintenance and management. Prior to planting, an as-built survey will be conducted to ensure correct elevation has been achieved. The target habitat types for these are forested wetland areas with a mixture of pine, laurel oaks and other hardwood species, consistent with the existing wetland habitat types on-site. Wetland creation areas are depicted on Appendix A and on the MCP.

6.0 SUPPLEMENTAL PLANTING

Supplemental planting will occur within portions of the Lee County Indigenous Preserve where exotic vegetation currently exceeds 50 percent coverage in wetland creation areas. Trees and shrubs

must be a minimum three-gallon and one-gallon size containers, respectively, and no single species may comprise more than 25 percent of the vegetation planted. The supplemental plantings will consist of tree, shrub, and ground cover species in accordance with Tables 2 and 3.

Table 2. Supplemental Wetland Plantings

Common Name	Scientific Name	Minimum Height	Minimum Container Size	Planting Density (On Center)
Tree Plantings				
Laurel oak	*Quercus laurifolia*	5 ft.	3 gal.	15 ft.
Dahoon holly	*Ilex cassine*	5 ft.	3 gal.	15 ft.
Red maple	*Acer rubrum*	5 ft.	3 gal.	15 ft.
Swamp bay	*Persea palustris*	5 ft.	3 gal.	15 ft.
Pop ash	*Fraxinus caroliniana*	5 ft.	3 gal.	15 ft.
Pond apple	*Annona glabra*	5 ft.	3 gal.	15 ft.
Bald cypress	*Taxodium distichum*	5 ft.	3 gal.	15 ft.
Swamp dogwood	*Cornus foemina*	5 ft.	3 gal.	15 ft.
American elm	*Ulmus americana*	5 ft.	3 gal.	15 ft.
Shrubs				
Buttonbush	*Cephalanthus occidentalis*	3 ft.	1 gal.	10 ft.
Cocoplum	*Chrysobalanus icaco*	3 ft.	1 gal.	10 ft.
Myrsine	*Myrsine cubana*	3 ft.	1 gal.	10 ft.
Wax myrtle	*Morella cerifera*	3 ft.	1 gal.	10 ft.
Walter's viburnum	*Viburnum obovatum*	3 ft.	1 gal.	10 ft.
Ground Cover				
Little blue maidencane	*Amphicarpum muhlenbergianum*	12 in.	2 in.	3 ft.
Gulfdune paspalum	*Paspalum monostachyum*	12 in.	2 in.	3 ft.
Cordgrass	*Spartina bakeri*	12 in.	2 in.	3 ft.
Muhlygrass	*Muhlenbergia capillaris*	12 in.	2 in.	3 ft.
Arrowhead	*Sagittaria lancifolia*	12 in.	2 in.	3 ft.
Golden canna	*Canna flaccida*	12 in.	2 in.	3 ft.
Maidencane	*Panicum hemitomon*	12 in.	2 in.	3 ft.
Pickerelweed	*Pontederia cordata*	12 in.	2 in.	3 ft.
Sawgrass	*Cladium jamaicense*	12 in.	2 in.	3 ft.
Soft-stem bulrush	*Scirpus validus*	12 in.	2 in.	3 ft.
Spikerush	*Eleocharis interstincta*	12 in.	2 in.	3 ft.

Table 3. Supplemental Upland Plantings

Common Name	Scientific Name	Minimum Height	Minimum Container Size	Planting Density (On Center)
Trees				
Slash pine	*Pinus elliottii*	5 ft.	3 gal.	15 ft.
Cabbage palm	*Sabal palmetto*	5 ft.	3 gal.	15 ft.
Live oak	*Quercus virginiana*	5 ft.	3 gal.	15 ft.
Laurel oak	*Quercus laurifolia*	5 ft.	3 gal.	15 ft.
Shrubs				
Wax myrtle	*Morella cerifera*	3 ft.	1 gal.	10 ft.
Myrsine	*Rapanea punctata*	3 ft.	1 gal.	10 ft.
Cocoplum	*Chrysobalanus icaco*	3 ft.	1 gal.	10 ft.
Saw palmetto	*Serenoa repens*	3 ft.	1 gal.	10 ft.
Gallberry	*Ilex glabra*	3 ft.	1 gal.	10 ft.
Ground Cover				
Gulfdune paspalum	*Paspalum monostachyum*	12 in.	2 in.	3 ft.
Little blue maidencane	*Amphicarpum muhlenbergianum*	12 in.	2 in.	3 ft.
Wiregrass	*Aristida stricta*	12 in.	2 in.	3 ft.
Gulf muhly	*Muhlenbergia capillaris*	12 in.	2 in.	5 ft.
Sand cordgrass	*Spartina bakeri*	12 in.	2 in.	5 ft.
Fakahatchee grass	*Tripsacum dactyloides*	12 in.	2 in.	5 ft.
Saw palmetto	*Serenoa repens*	12 in.	1 gal.	5 ft.
Lopsided Indian grass	*Sorghastrum secundum*	12 in.	2 in.	5 ft.
Florida coontie	*Zamia integrifolia*	12 in.	2 in.	5 ft.

Supplemental plantings will consist of tree, shrub, and ground cover species. Tree and shrub plantings will consist of a minimum of four (per stratum) of the species listed in Tables 2 and 3 and ground cover plantings will consist of a minimum of four of the species listed in Table 2 and 3. The species selected for planting will depend on market availability at the time the plantings are to occur. Additional tree and ground cover species may be included in the planting table with approval from Lee County DCD staff.

All preserve enhancement, restoration, and creation activities will be completed in a single phase upon commencement of construction activities. The wetland and upland planting activities are anticipated to occur during the wet season (i.e., June through October). If plantings cannot be installed within this timeframe, irrigation will be utilized until the onset of the wet season (i.e., June) or until the vegetation has successfully established. Irrigation will be utilized on a temporary, as-needed basis, and will not be a required long-term activity.

7.0 MAINTENANCE

After completing the initial exotic removal, semi-annual inspections of the conservation areas will occur for the first two years. During these inspections, the conservation areas will be traversed by a qualified ecologist. Locations of nuisance and/or exotic species will be identified for immediate treatment with an appropriate herbicide. Any additional potential problems will also be noted, and corrective actions will be taken. Once exotic/nuisance species levels have been reduced to acceptable limits, inspections of the conservation areas will be conducted annually. After the initial exotic removal, all subsequent exotic maintenance will be hand-removal only. Maintenance will be conducted in perpetuity to ensure that the conservation areas are free of exotic vegetation, including the prohibited invasive exotic species listed in Section 10-420(h) of the LDC (Table 1).

8.0 MONITORING REPORTS

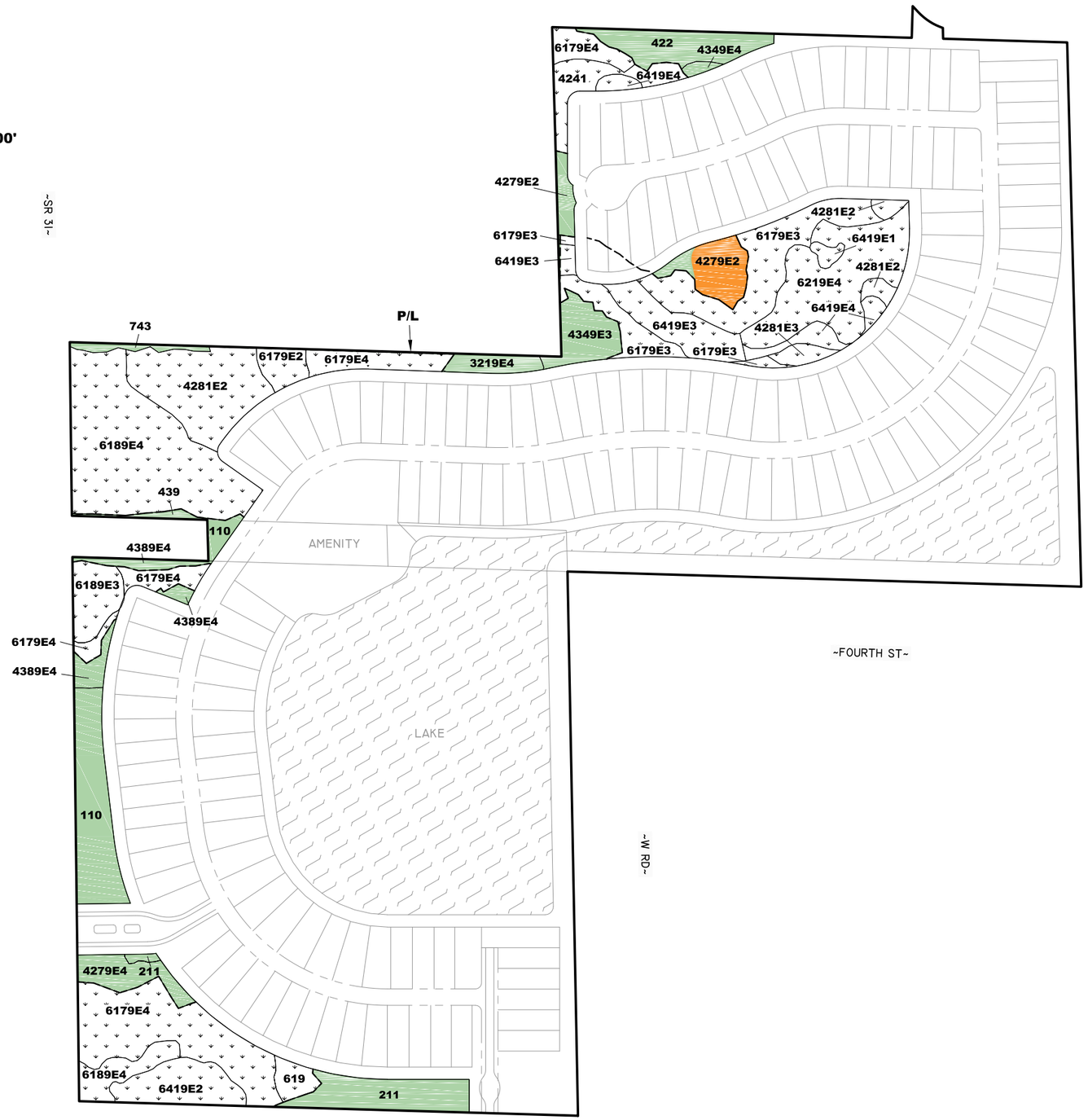
Monitoring will be conducted annually for the conservation areas. Annual reports documenting the achievement of the enhancement, restoration, and creation activities will be submitted to Lee County's DCD. Annual monitoring reports will be provided for five years after the Certificate of Compliance has been issued by the DCD. The monitoring reports will include documented exotic and nuisance species, mortality of vegetation, estimated causes of mortality, growth of the vegetation, hydrologic conditions of the wetland preserve areas including monitoring well hydrographs, wildlife observed, photographs, and factors that demonstrate the functional health of the conservation areas. A brief description of the anticipated maintenance work to be conducted over the next year will also be included. In addition, monitoring reports will provide recommendations and/or corrective measures to address deficiencies observed, including impacts to wetland hydrology. Periodic inspections will be conducted by DCD staff to ensure the accuracy of the monitoring reports.

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

APPENDIX A

INDIGENOUS PRESERVE PLAN

SCALE: 1" = 300'



LEGEND:

- WETLAND INDIGENOUS PRESERVE
- WETLAND CREATION
- UPLAND INDIGENOUS PRESERVE
- SURVEYED WETLAND LINE

FLUCFCS CODES	DESCRIPTIONS
110	RESIDENTIAL, LOW DENSITY
211	IMPROVED PASTURE
3219 E4	PALMETTO PRAIRIES, DISTURBED (76-100% EXOTICS)
422	BRAZILIAN PEPPER
4241	MELALEUCA, HYDRIC
4279 E2	LIVE OAK, DISTURBED (25-49% EXOTICS)
4279 E4	LIVE OAK, DISTURBED (76-100% EXOTICS)
4281 E2	CABBAGE PALM, HYDRIC (25-49% EXOTICS)
4281 E3	CABBAGE PALM, HYDRIC (50-75% EXOTICS)
4349 E3	HARDWOOD/CONIFER MIXED, DISTURBED (50-75% EXOTICS)
4349 E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)
4389 E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)
439	EXOTIC HARDWOODS
6179 E2	MIXED WETLAND HARDWOODS, DISTURBED (25-49% EXOTICS)
6179 E3	MIXED WETLAND HARDWOODS, DISTURBED (50-75% EXOTICS)
6179 E4	MIXED WETLAND HARDWOODS, DISTURBED (76-100% EXOTICS)
6189 E3	WILLOW, DISTURBED (50-75% EXOTICS)
6189 E4	WILLOW, DISTURBED (76-100% EXOTICS)
619	EXOTIC WETLAND HARDWOODS
6219 E4	CYPRESS, DISTURBED (76-100% EXOTICS)
6419 E1	FRESHWATER MARSH, DISTURBED (0-24% EXOTICS)
6419 E2	FRESHWATER MARSH, DISTURBED (25-49% EXOTICS)
6419 E3	FRESHWATER MARSH, DISTURBED (50-75% EXOTICS)
6419 E4	FRESHWATER MARSH, DISTURBED (76-100% EXOTICS)
743	SPOIL AREAS

NOTES:

PROPERTY BOUNDARY AND SITE PLAN PER J.R. EVANS, INC. DRAWING No. 00935-00 31 OAKS MCP-D.DWG DATED NOVEMBER 2, 2022.

SURVEYED WETLAND LINES PER RHODES & RHODES, INC. DRAWING No. 2021-541-WETLAND LINES.DWG DATED NOVEMBER 3, 2021.

FLUCFCS LINES ESTIMATED FROM 1"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

UPLAND/WETLAND LIMITS HAVE NOT BEEN REVIEWED BY ANY REGULATORY AGENCY AND ARE SUBJECT TO CHANGE.

REVISIONS	DATE
Revised upland indigenous	6/03/22
Revised plan	11/09/22
Revised plan	11/15/22

		DATE
DRAWN BY	H.H./T.S.	2/25/22
DESIGNED BY	B.B.	2/25/22
REVIEWED BY	B.B.	2/25/22

13620 Metropolis Avenue
Suite 200
Ft. Myers, FL 33912
Phone (239) 274-0067
Fax (239) 274-0069

PASSARELLA & ASSOCIATES INC
Consulting Ecologists

31 OAKS

INDIGENOUS PRESERVE PLAN

DRAWING No. 21NCC3643

SHEET No. APPENDIX A

J:\2021\21NCC3643\2022\LEE CO ZONING RESPONSES\APPENDIX A INDIGENOUS PRESERVE PLAN 11522.DWG TAB: 17X11-C Nov 15, 2022 - 3:42PM PLOTTED BY: JORDANAL

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31 OAKS
LEE COUNTY
PROTECTED SPECIES MANAGEMENT PLAN

Revised November 2022

Prepared For:

Neal Communities
28100 Bonita Grande Drive, Suite 106
Bonita Springs, Florida 34135
(239) 221-0446

Prepared By:

Passarella & Associates, Inc.
13620 Metropolis Avenue, Suite 200
Fort Myers, Florida 33912
(239) 274-0067

Project No. 21NCC3643

DCI2021-00051 Lee County ePlan Additional info dated 11-16-2022

TABLE OF CONTENTS

Page

1.0 Gopher Tortoise Management Plan 1

1.1 Biology 1
1.2 Range 1
1.3 Habitat 1
1.4 Life History and Ecology 1
1.5 Gopher Tortoise Relocation 2

2.0 References 2

1.0 GOPHER TORTOISE MANAGEMENT PLAN

A protected species survey was conducted on the Project on October 22, 27 and November 3, 2021. The survey was conducted to meet Lee County LDC Chapter 10, Article III, Division 8 (Protection of Habitat) Standards. A total of five potentially occupied gopher tortoise (*Gopherus polyphemus*) burrows and one gopher tortoise were identified on-site during the survey.

1.1 Biology

The gopher tortoise is a large, terrestrial turtle averaging 23 to 28 centimeters (9 to 11 inches) in shell length. Maximum length is around 38 centimeters (15 inches). The gopher tortoise is characterized by stumpy, elephantine hind feet and flattened, with shovel-like forelimbs adapted for digging. The tan, brown, or gray carapace (top portion of shell) is domed and oblong. The plastron (bottom portion of shell) is somewhat concave in males. Growth annuli may be conspicuous, particularly in juveniles. Hatchlings are approximately 4.4 centimeters (1.7 inches) in length and are yellowish orange in color (Cox *et al*. 1987).

1.2 Range

The gopher tortoise occurs in the Southeastern Coastal Plain from extreme Eastern Louisiana to Southern South Carolina. In Florida, tortoises occur in all 67 counties (Cox *et al*. 1987).

1.3 Habitat

Three environmental conditions are especially important for gopher tortoises: well-drained, loose soil in which to burrow; adequate low-growing herbs for food; and open sunlit sites for nesting. The gopher tortoise is primarily associated with longleaf pine-scrub oak woodlands (*sandhills*), but it is also found in sand pine scrub, coastal strands, live oak hammocks, dry prairies, pine flatwoods, and mixed hardwood-pine communities. Disturbed habitats, such as roadsides, fencerows, clearings, and old fields often support relatively high tortoise densities (Ashton and Ashton 2002).

1.4 Life History and Ecology

Gopher tortoises excavate burrows averaging 4.5 meters (14.8 feet) in length and 2.0 meters (6.6 feet) in depth and wide enough to allow them to turn around at any point. These burrows provide protection from temperature extremes, desiccation, and predators, as well as serve as refuges for a variety of other animals. The placement and depth of burrows vary with the soil type, geographic location, and ground water levels. An individual tortoise may use more than one burrow and may excavate new burrows at any time during its life (Ashton and Ashton 2002).

Gopher tortoise densities and movements are affected by the amount of herbaceous ground cover present. Generally, feeding activity is confined to within 50 meters (164 feet) of the

burrow. Principal foods include grasses, legumes, and grass-like plants of the sedge and aster families. Legumes appear to be particularly important in the diet of juveniles. Fruits such as blackberries (*Rubus* sp.), pawpaws (*Asimina triloba*), gopher apples (*Geobalanus oblongifolius*), and saw palmetto (*Serenoa repens*) berries are also consumed (Ashton and Ashton 2002).

The gopher tortoise exhibits deferred sexual maturity, low reproductive potential, and a long-life span. Females mature sexually at 10 to 20 years of age, depending on latitude. The breeding season is usually from April to June, but males may attempt to mate throughout the activity season. Eggs are usually deposited in the burrow mounds from mid-May to mid-June. Only one clutch of eggs is produced annually. Clutch size usually ranges from 3 to 12 eggs, with an average of 6 eggs; however, a clutch of 25 eggs has been reported. The incubation period varies from about 80 to 110 days. Predation on eggs and hatchlings is heavy. Predators include raccoons, foxes, skunks, armadillos, snakes, and various raptors. Although some hatchlings immediately construct burrows, others may use burrows of adults or merely shelter opportunistically under sand or litter. Estimated life expectancy is 40 to 60 years (Cox *et al.* 1987).

1.5 Gopher Tortoise Relocation

Five gopher tortoise burrows are located on the Project site during the Lee County Protected Species Survey conducted in October and November 2021. An Florida Fish and Wildlife Conservation Commission (FWCC) Gopher Tortoise Relocation Permit will be obtained, and relocation activities will be conducted in accordance with FWCC Gopher Tortoise Permitting Guidelines (2020).

2.0 REFERENCES

Ashton, R and P. Ashton. 2002. Personal Communication.

Cox, J.D. Inkley, and R. Kantz. 1987. Ecology and Habitat Protection Needs of Gopher Tortoise (*Gopherus polyphemus*). Populations found on State Lands Slated for Large Scale Development in Florida. 69 pp.

Florida Department of Transportation. 1999. Florida Land Use, Cover and Forms Classification System. Procedure No. 550-010-001-a. Third Edition.

FWCC Gopher Tortoise Permitting Guidelines July 2020

J.R. EVANS ENGINEERING

October 14, 2022

Jack Weber
Neal Communities
jweber@nealcommunities.com

RE: **31 Oaks Technical Memo**
Preliminary Floodplain No Impacts Analysis and Conceptual Stormwater Design for Offsite Areas

Mr. Weber,

The proposed 31 Oaks development is adjacent to an existing residential neighborhood and commercial development. In existing (pre-project) conditions, stormwater runoff from the adjacent properties enters the 31 Oaks property prior to ultimately reaching the Caloosahatchee River. The SFWMD, Lee County and other regulatory agencies require developers to ensure no adverse impacts are caused to adjacent properties due to new development. The project area and adjacent properties are within a FEMA Special Flood Hazard Area (100-year floodplain) with two (2) flooding sources: storm surge from the Caloosahatchee River and riverine flooding from the Orange River.

A *Preliminary Floodplain No Impacts Analysis* was conducted, and *Conceptual Stormwater Improvements for Offsite Areas* were designed to determine the area within the 31 Oaks property required to adequately store and convey offsite stormwater to prevent the project from causing adverse impacts to the surrounding properties. The findings and methodology of the *Preliminary Floodplain No Impacts Analysis and Conceptual Stormwater Design for Offsite Areas* are outlined in the following sections of this technical memorandum.

Please find attached the *Floodplain "No Impacts" Improvements* exhibit, which illustrates the conceptual stormwater design that can handle the anticipated stormwater from offsite areas and the resulting Master Concept Plan for the development.

PRELIMINARY FLOODPLAIN NO IMPACTS ANALYSIS AND DESIGN SUMMARY

The following summary tables outline the 31 Oaks development summary based on an updated Master Concept Plan that accounts for the improvements necessary to prevent adverse impacts to adjacent properties.

LAND USE SUMMARY TABLE:

LAND USE SUMMARY (AC)		
PRESERVE	18.38	20.8%
- EXISTING IND WETLAND	13.48	15.3%
- WETLAND CREATION	4.48	5.1%
- RARE AND UNIQUE	0.42	0.5%
DEVELOPMENT	38.64	43.8%
AMENITY	2.53	2.9%
GENERAL OPEN SPACE	12.22	13.8%
LAKE	16.50	18.7%
TOTAL AREA	88.27	100.0%

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WETLAND IMPACTS TABLE:

SITE IMPACTS (AC)	
EXISTING WETLANDS	13.48
WETLAND IMPACT	9.30
WETLAND CREATION	4.48

PROPOSED DRAINAGE EASEMENTS FOR SURFACE WATER MANAGEMENT OF OFFSITE AREAS:

Drainage easements are required along the interior of the property boundary where adjacent to offsite residential properties. See the *Preliminary Floodplain "No Impacts" Improvements* exhibit attached.

INFRASTRUCTURE AND IMPROVEMENTS FOR THE CONCEPTUAL STORMWATER MANAGEMENT SYSTEM FOR OFFSITE AREAS:

- Entrance Road Culverts: (3) 124 LF 30" RCP culverts with end treatments.
- Emergency Access Easement: (2) 154 LF 30" RCP culverts with end treatments.
- Offsite Conveyance Drop Structure at NE Property Corner: Type E structure and 230 LF of 36" RCP with end treatment.
- Overflow Control Structures: Drop structures; number and type of structure and pipe size, length and material to be determined at time of onsite SWMS design and ERP permitting, if necessary (to be determined during project permitting and agency reviews).
- Stormwater Storage and Conveyance Areas: Detention/stormwater storage areas and conveyance ditches are required along the portions of the property boundary abutting the residential neighborhood. The storage areas are located outside of the 31 Oaks surface water management system but within the property boundary. Typical cross-sections shown on Sheet 2 of the *Preliminary Floodplain "No Impacts" Improvements* exhibit provide the approximate width and depth of the stormwater storage and conveyance areas.

TECHNICAL NARRATIVE OF THE PRELIMINARY FLOODPLAIN NO IMPACTS ANALYSIS AND CONCEPTUAL STORMWATER MANAGEMENT DESIGN FOR OFFSITE AREAS

H&H FLOODPLAIN MODEL

A hydrology and hydraulics (H&H) model was developed in ICPR4 for the project area and offsite areas that convey stormwater to the 31 Oaks property. An existing conditions scenario was developed to determine the baseline peak flood stages and discharges in existing (pre-project) conditions. A proposed conditions model scenario was then developed through several design iterations to define the required improvements that would result in no (or insignificant) offsite impacts.

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H&H Model Inputs and Parameters:

- *RAINFALL*
  100-Year, 3-Day Precipitation Depth: 13.9" [NOAA Rainfall Atlas]
  25-Year, 3-Day Precipitation Depth: 10.6" [NOAA Rainfall Atlas]
- *UPSTREAM (SOUTH) BOUNDARY CONDITION:*
  Location: Orange River (sheet flow over SR80)
  Type: Time-Stage Series
  100-Year Data Sources: Orange River MHWL and 1%-annual chance flood stage (Lee County 2018 FIS).
  25-Year Data Sources: Orange River MHWL and 4%-annual chance flood stage (Lee County 2018 FIS).
- *DOWNSTREAM (NORTH) BOUNDARY CONDITION:*
  Location: Caloosahatchee River
  Type: Time-Stage Series
  100-Year Data Sources: Static at 3' NAVD (USGS river stage recording history).
  25-Year Data Sources: Static at 3' NAVD (USGS river stage recording history).
- *HYDROLOGY AND RUNOFF METHOD:*
  Runoff Method: SCS CN [CN from the TR-55 per land use and hydrologic soil group]
  Hydrograph Method: NRCS Unit Hydrograph Peaking Factor: 256
  Time of Concentration Method: SCS Velocity Method
  Available Basin Storage Source/Method: 2018 USGS LiDAR (ft-NAVD) processed into stage-area tables.

H&H Model Results:

With the implementation of the improvements and site plan changes outlined above and shown in the *Preliminary Floodplain "No Impacts" Improvements* exhibit, the 31 Oaks development would have insignificant impacts to the adjacent properties' flood risk. A comparison table of the Pre-Project Conditions ICPR4 H&H model scenario's peak flood stages, inflow rates and outflow rates to those of the Post-Project Conditions model scenario's is provided on the following page.

Please review and reach out to our office with any questions.

Sincerely,

Zachary T. Taylor, P.E.
Senior Project Manager
JR Evans Engineering, P.A.

DCI2021-00051 Lee County ePlan

Additional info dated 11-16-2022

31 OAKS PRELIMINARY FLOODPLAIN NO IMPACTS ANALYSIS AND CONCEPTUAL STORMWATER MANAGEMENT DESIGN FOR OFFSITE AREAS

ICPR4 MODEL RESULTS AND COMPARISON TABLE

SIMULATION	NODE NAME	PRE- MAXIMUM STAGE [FT]	POST- MAXIMUM STAGE [FT]	INCREASE IN STAGE [FT]	PRE- MAXIMUM INFLOW [CFS]	POST- MAXIMUM INFLOW [CFS]	INCREASE IN INFLOW [CFS]	PRE- MAXIMUM OUTFLOW [CFS]	POST- MAXIMUM OUTFLOW [CFS]	INCREASE IN OUTFLOW [CFS]
100YR3D	1-1	6.2	5.5	-0.7	13.6	28.4	14.8	13.5	21.8	8.3
100YR3D	1-2	6.2	5.4	-0.8	13.6	18.4	4.9	13.5	18.4	4.9
100YR3D	2-1	4.6	4.7	0.1	19.0	44.8	25.8	18.9	44.4	25.5
100YR3D	2-2	4.6	4.9	0.3	19.0	43.0	23.9	18.9	40.6	21.6
100YR3D	2-3	5.6	5.2	-0.5	20.3	32.9	12.6	20.3	31.7	11.4
100YR3D	3-2	4.3	4.3	0.0	56.0	60.7	4.8	56.0	60.7	4.7
100YR3D	FMS-1	4.3	4.3	0.0	112.6	112.6	0.0	111.2	104.8	-6.4
100YR3D	FMS-2	6.2	6.2	0.0	17.8	17.5	-0.4	17.8	17.5	-0.4
100YR3D	FMS-2B	5.6	5.6	-0.1	20.3	16.7	-3.6	20.3	16.7	-3.6
100YR3D	FMS-2C	6.2	6.2	0.0	13.6	11.9	-1.7	13.5	11.8	-1.7
100YR3D	FMS-3	7.1	7.2	0.0	23.6	23.6	0.0	6.4	6.7	0.2
100YR3D	FMS-4	4.3	4.3	0.0	49.3	48.9	-0.4	49.2	48.9	-0.4
100YR3D	FMS-4B	4.6	4.6	0.0	19.0	18.2	-0.8	18.9	18.1	-0.8
100YR3D	WL-OS1	4.3	4.3	0.0	139.7	209.4	69.8	139.5	169.1	29.6
100YR3D	SR80/SR31 CPD	7.2	7.2	0.0	57.1	57.1	0.0	3.8	3.8	0.0
25YR3D	1-1	6.2	4.1	-2.1	9.2	19.5	10.4	9.1	17.6	8.5
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25YR3D	2-1	4.6	4.6	0.0	14.3	34.3	20.0	14.2	34.1	19.9
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25YR3D	2-3	5.5	5.0	-0.6	14.1	27.0	12.9	14.1	25.6	11.5
25YR3D	3-2	4.1	4.1	0.1	12.9	41.8	28.9	12.8	42.9	30.1
25YR3D	FMS-1	4.2	4.2	0.0	82.0	82.0	0.0	80.9	80.7	-0.2
25YR3D	FMS-2	6.1	6.1	0.0	13.1	13.0	-0.1	13.1	13.0	-0.1
25YR3D	FMS-2B	5.5	5.5	0.0	14.1	12.6	-1.5	14.1	12.6	-1.5
25YR3D	FMS-2C	6.2	6.1	0.0	9.2	8.0	-1.2	9.1	8.0	-1.2
25YR3D	FMS-3	6.7	6.8	0.1	18.4	18.3	-0.1	3.8	2.8	-1.0
25YR3D	FMS-4	4.2	4.2	0.0	36.5	36.5	0.0	36.4	36.5	0.0
25YR3D	FMS-4B	4.6	4.6	0.0	14.3	12.5	-1.8	14.2	12.4	-1.8
25YR3D	WL-OS1	4.1	4.0	0.0	73.1	173.1	100.0	14.8	18.2	3.3
25YR3D	SR80/SR31 CPD	6.7	6.7	0.0	41.9	41.9	0.0	1.0	1.0	0.0

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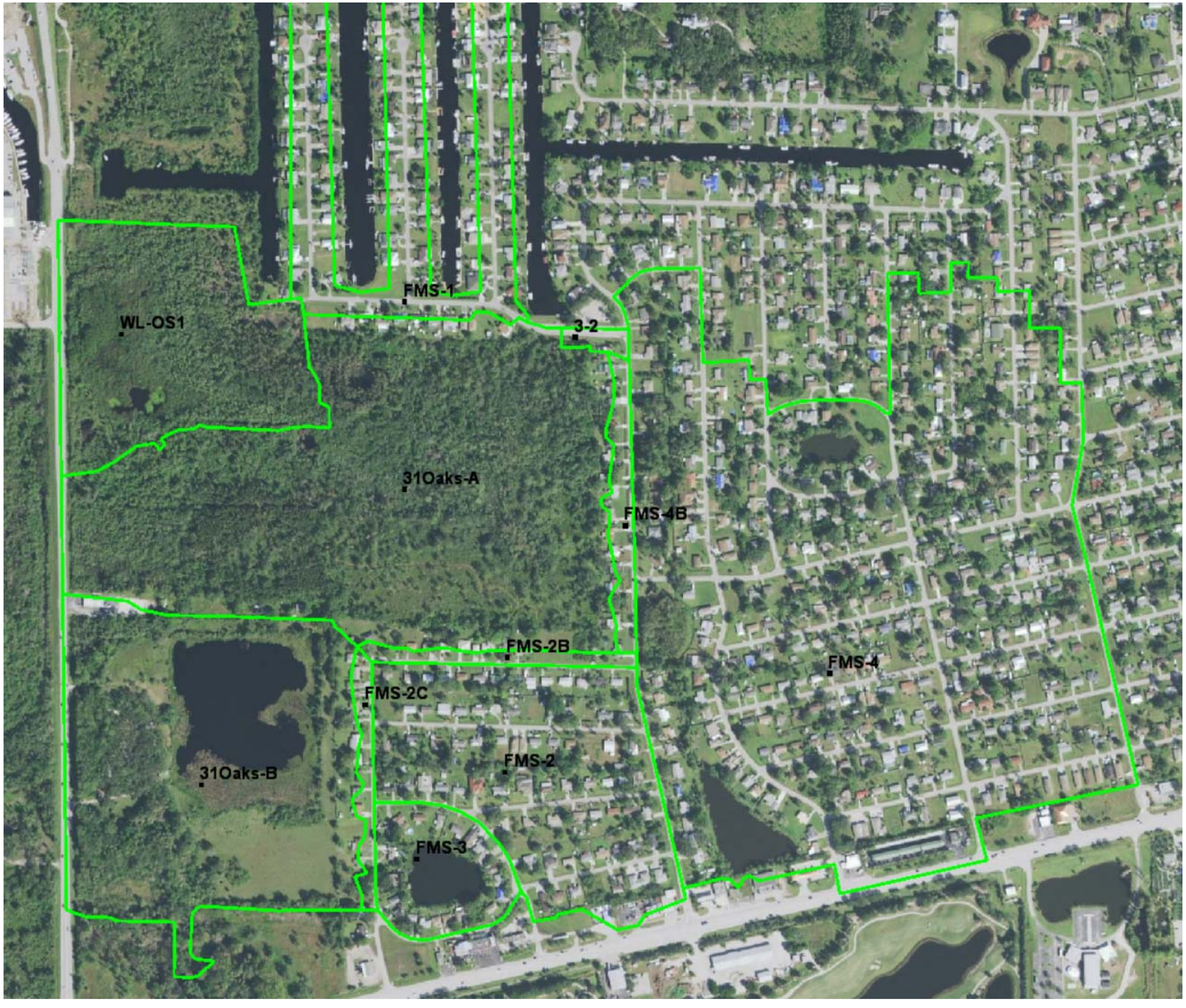
EXISTING (PRE-PROJECT) BASINS



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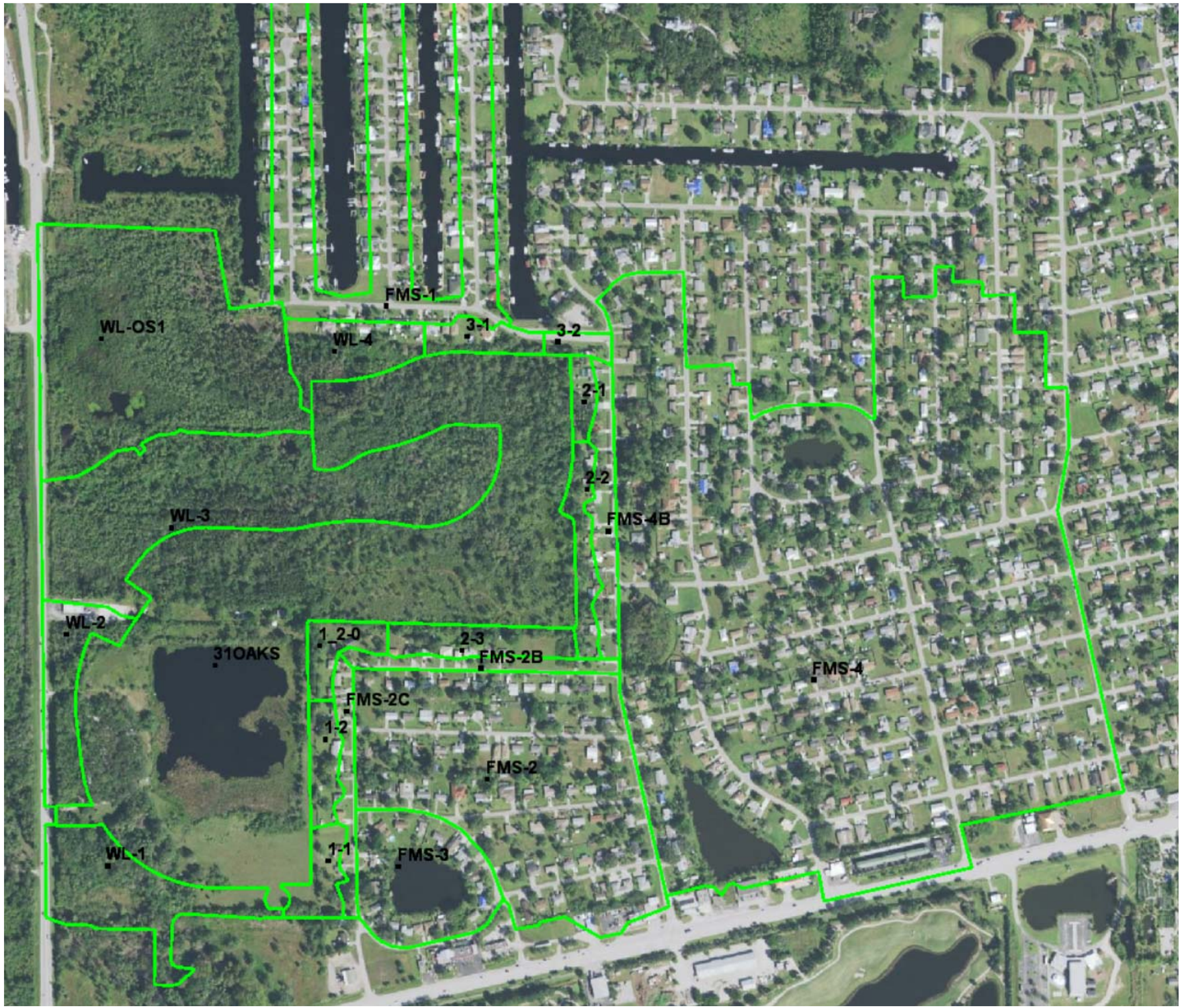
Additional info dated 11-16-2022

PROPOSED (POST-PROJECT) BASINS



LEGEND

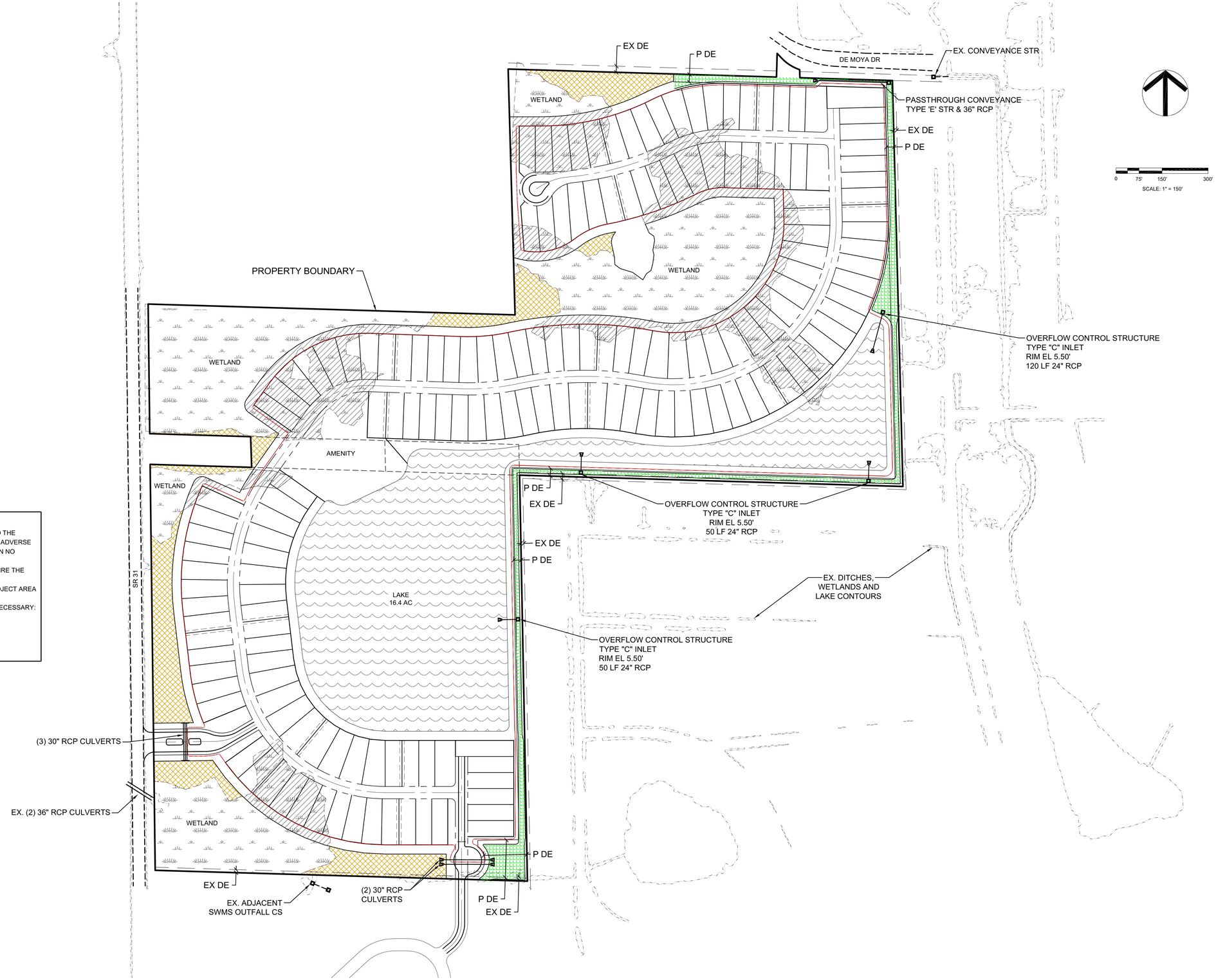
- PROPOSED LAKE
- WETLAND
- WETLAND IMPACT
- WETLAND CREATED
- FLOODPLAIN STORAGE & CONVEYANCE AREA
- PERIMETER BERM

LAND USE SUMMARY (AC)		
PRESERVE	18.38	20.8%
- EXISTING IND WETLAND	13.48	15.3%
- WETLAND CREATION	4.48	5.1%
- RARE AND UNIQUE	0.42	0.5%
DEVELOPMENT	38.64	43.8%
AMENITY	2.53	2.9%
GENERAL OPEN SPACE	12.22	13.8%
LAKE	16.50	18.7%
TOTAL AREA	88.27	100.0%

SITE IMPACTS (AC)	
EXISTING WETLANDS	13.48
WETLAND IMPACT	9.30
WETLAND CREATION	4.48

OVERFLOW CONTROL STRUCTURE NOTES

1. OVERFLOW CONTROL STRUCTURES (THAT ALLOW OFFSITE RUNOFF TO PASS INTO THE PROJECT'S LAKE) ARE NOT REQUIRED TO PREVENT THE PROJECT FROM CAUSING ADVERSE IMPACTS TO OFFSITE AREAS, PER THE RESULTS OF THE PRELIMINARY FLOODPLAIN NO IMPACT ANALYSIS.
2. IT'S LIKELY THAT THE SFWMD AND/OR OTHER REGULATORY AGENCIES WILL REQUIRE THE OFFSITE 100-YEAR FLOODPLAIN (FEMA SFHA) BE CONNECTED TO THE PROJECT'S FLOODPLAIN, AS THE OFFSITE AREA'S RUNOFF IS STORED/CONVEYED TO THE PROJECT AREA IN THE EXISTING (PRE-DEVELOPMENT) CONDITION.
3. TO BE DETERMINED AT TIME OF ONSITE SWMS DESIGN AND ERP PERMITTING, IF NECESSARY:
   - TOTAL NUMBER OF OVERFLOW CONTROL STRUCTURES.
   - STRUCTURE SIZE AND TYPE.
   - GRATE AND WEIR TYPES, DIMENSIONS AND ELEVATIONS.
   - PIPE SHAPE, SIZE, LENGTH AND MATERIAL.
4. ALL DESIGN INFORMATION PRESENTED HEREON SUBJECT TO CHANGE.

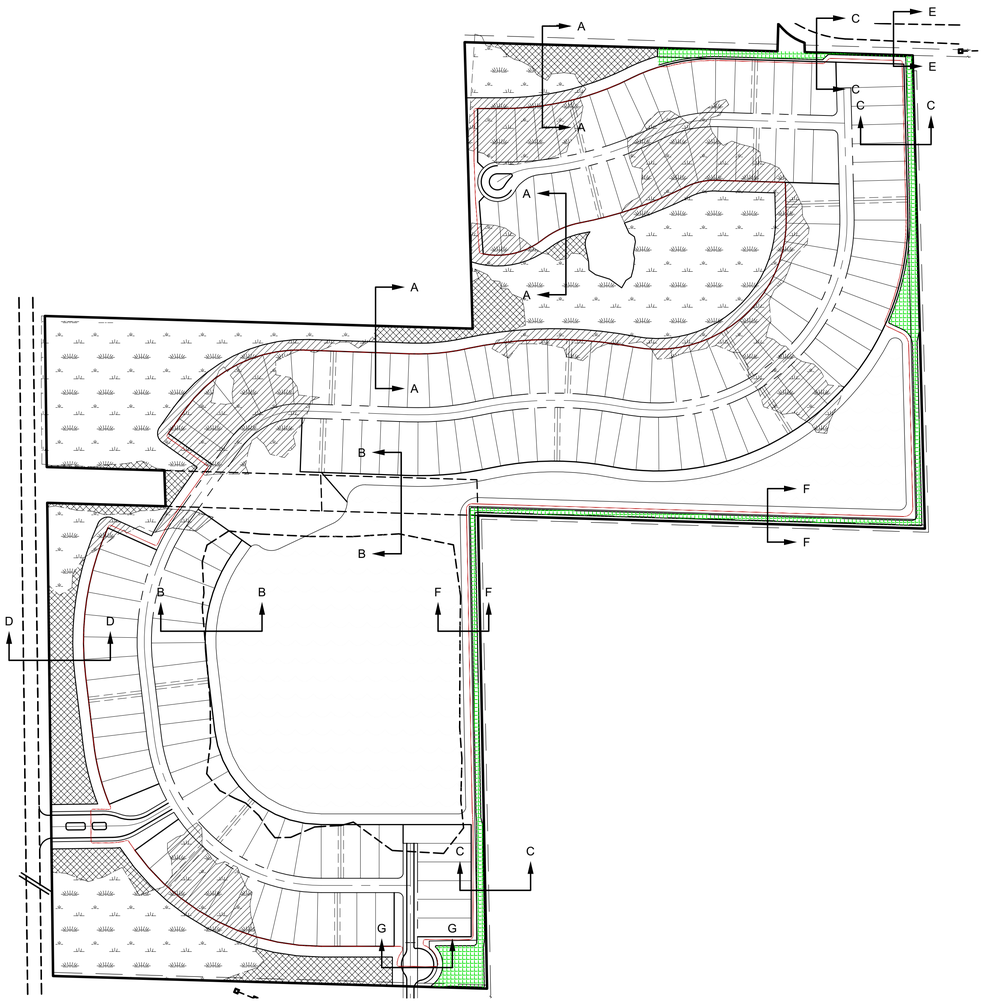


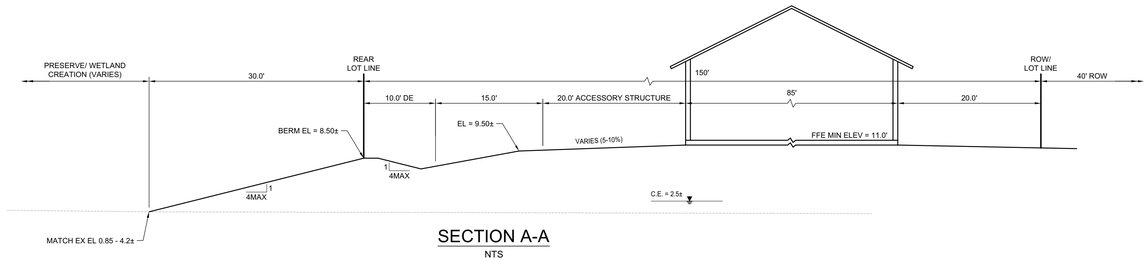
31 OAKS

FLOODPLAIN "NO IMPACTS" IMPROVEMENTS (PRELIMINARY DESIGN) (1 OF 2)

J.R. EVANS ENGINEERING

00935-00 31 OAKS MCP-C FLOODPLAIN EXHIBIT.DWG
October 14, 2022





SECTION A-A
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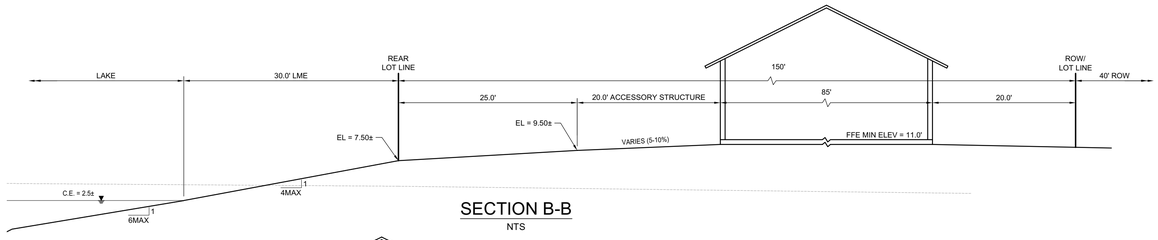

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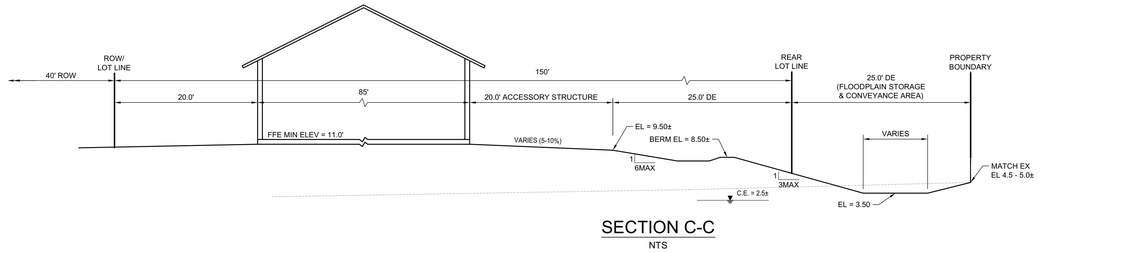

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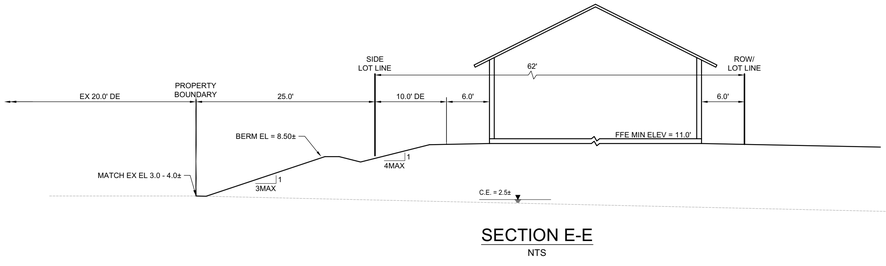

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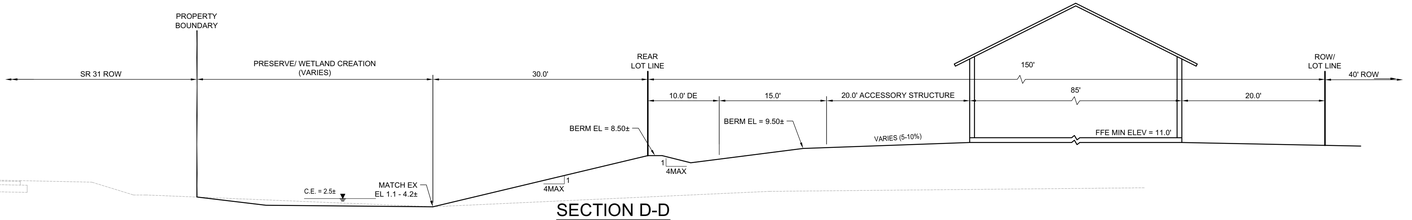

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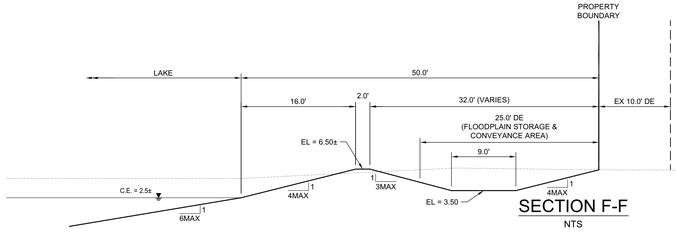
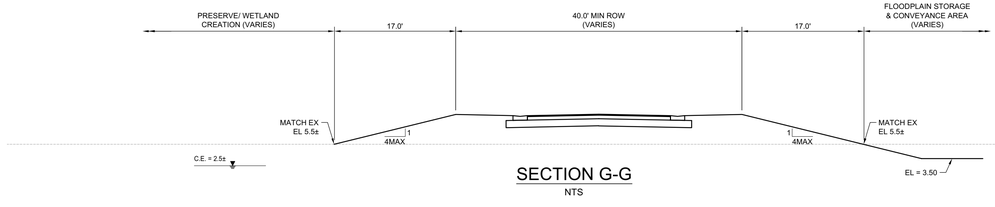


SECTION F-F
NTS



SECTION G-G
NTS

J.R. EVANS ENGINEERING

31 OAKS

FLOODPLAIN "NO IMPACTS" IMPROVEMENTS (PRELIMINARY DESIGN) (2 OF 2)