

#### **SMALL BROTHERS TEXT AMENDMENT**

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COMMUNITY DEVELOPMENT



2

#### APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT - TEXT

Proje	ect Name: <u>Small</u>	Brothers Co	omme	ercial		
Proje	ect Description: <u>An</u>	nend Policy 1	.4.5 a	and add Policy 33.3.5 to a	allow for commerce	cial development in a limited location
<u>in the</u>	DR/GR based on su	urrounding u	ises a	nd historic approvals.		
State	Review Process: [	State Co	ordin	ated Review X E	expedited State Rev	view Small-Scale Text*
*Mus	t be directly related	l to the impl	emen	ntation of small-scale m	ap amendment as	required by Florida Statutes.
APPI	LICANT - PLEASE	E NOTE:		FAILDED DDIAD TA		A OF THIS ADDI ICATION
A PK	E-APPLICATION	MEETING	15 K	EQUIRED PRIOR TO	THE SUBMITIE	L OF THIS APPLICATION.
Subm Depai	it 3 copies of the cor tment of Community	nplete applic y Developme	ation ent.	and amendment support	documentation, in	cluding maps, to the Lee County
Once staff. Ageno	staff has determined These copies will be cies. Staff will notify	that the appl used for Loo the applicar	licatio cal Pla nt pric	on is sufficient for review anning Agency, Board of or to each hearing or mail	, 15 complete copi f County Commiss out to obtain the r	es will be required to be submitted to ioners hearings, and State Reviewing equiredcopies.
If you	have any questions	regarding thi	is app	lication, please contact th	ne Planning Section	n at (239)533-8585.
1.	Name of Applican Address	t: _Bud Ba 12810 Tan	alsom niami	n, Senior Vice Presider i Trail N., Suite 200	nt	
	City, State, Zip:	Naples, Fl	_ 341	10		
	Phone Number:	(239) 352-	5151		E-mail: bu	db@smallbrothers.com
2	Name of Contact:	Daniel Da	eLisi.	AICP		
2.	Address:	520 27 <sup>th</sup> Str	eet			
	City, State, Zip:	West Palm	Beach	n, FL 33407		
	Phone Number:	239-913-71	59		E-mail: $$ dan(a)	delisi-inc.com
3.	<b>Property Informa</b> the proposed texta west of the interse	tion: Provid mendment.	e an a <u>The c</u> 2 Roa	nalysis of any property w only property that will be d and Corkscrew Road F	ithin Unincorporat affected by the pro lease see attached	ed Lee County that may be impacted by posed text amendment is located just information
	west of the intersec		5 1004	d and consolow Road. I	Teuse see attached	
4a.	Does the propos	sed change	affect	t any of the following	areas?	
	If located in one of	of the follow	ing ar	eas, provide an analysis	of the change to th	e affected area.
	Acquisition Area [Map 1 Page 4]			Burnt Store Marina Vill [Map 1 Page 2]	age	Urban Infill and Redevelopment [Map 15]
	Agricultural Overlay [Map 30]	T		Environmental Enhance Preservation Communit	ement and ties [Map 17]	Urban Reserve Area [Map 1 Page 4]
	Airport Mitigation L [Map 3]	ands		Mixed Use Overlay [Map 1 Page 6]		Water Dependent Overlay [Map 1 Page 2]
	Airport Noise Zone [Map 1 Page 5]			Planning Communities [Map 1 Page 2]	Map	Private Recreational Facilities [Goal 16]

Lee County Comprehensive Plan Text Amendment Application Form (10/2018)

#### 4b. 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 [Lee Plan Goal 17].

	N/A	Bayshore [Goal 18]	Boca Grande [Goal 19]	Buckingham [Goal 20]
	Caloosahatchee Shores [Goal 21]	Olga [Goal 22]	Captiva [Goal 23]	Greater Pine Island [Goal 24]
	Lehigh Acres [Goal 25]	North Captiva [Goal 26]	NE Lee County [Goal 27]	Alva [Goal 28]
	North Olga [Goal 29]	North Fort Myers [Goal 30	] Page Park [Goal 31]	San Carlos Island [Goal 32]
X	Southeast Lee County [Goal 33]	Tice [Goal 34]		

#### **Public Facilities Impacts**

NOTE: The applicant must calculate public facilities impacts based on a maximum development scenario.

1. **Traffic Circulation Analysis**: Provide an analysis of the effect of the change on the Financially Feasible Transportation Plan/Map 3A (20-year horizon) and on the Capital Improvements Element (5-year horizon).

#### 2. Provide an existing and future conditions analysis for the following (see Policy 95.1.3):

- a. Sanitary Sewer
- b. Potable Water
- c. Surface Water/Drainage Basins
- d. Parks, Recreation, and Open Space
- e. Public Schools

#### **Environmental Impacts**

Provide an overall analysis of potential environmental impacts (positive and negative).

#### **Historic Resources Impacts**

Provide an overall analysis of potential historic impacts (positive and negative).

#### Internal Consistency with the Lee Plan

- 1. Discuss how the proposal affects established Lee County population projections, Lee Plan Table 1(b) and the total population capacity of the Lee Plan Future Land Use Map.
- 2. List all goals and objectives of the Lee Plan that are affected by the proposed amendment. This analysis should include an evaluation of all relevant policies under each goal and objective.
- 3. Describe how the proposal affects adjacent local governments and their comprehensive plans.
- 4. List State Policy Plan goals and policies, and Strategic Regional Policy Plan goals, strategies, actions and policies which are relevant to this plan amendment.

#### Justify the proposed amendment based upon sound planning principles

Support all conclusions made in this justification with adequate data and analysis.

#### SUBMITTAL REQUIREMENTS

#### Clearly label all submittal documents with the *exhibit name* indicated below.

#### **MINIMUM SUBMITTAL ITEMS**

Completed application (Exhibit – T1)
Filing Fee (Exhibit – T2)
Pre-Application Meeting (Exhibit – T3)
Proposed text changes (in strike through and underline format) (Exhibit – T4)
Analysis of impacts from proposed changes (Exhibit – T5)
Lee Plan Analysis (Exhibit – T6)
Environmental Impacts Analysis (Exhibit – T7)
Historic Resources Impacts Analysis (Exhibit – T8)
State Policy Plan Analysis (Exhibit – T9)
Strategic Regional Policy Plan Analysis (Exhibit – T10)

#### **AFFIDAVIT**

\_\_\_, certify that I am the owner or authorized Ι, representative of the property described herein, and that all answers to the questions in this application and any sketches, data, or other supplementary matter attached to and made a part of this application, are honest and true to the best of my knowledge and belief. I also authorize the staff of Lee County Community Development to enter upon the property during normal working hours for the purpose of investigating and evaluating the request made through this application.

Signature of Applicant NO

Printed Name of Applicant

#### STATE OF FLORIDA COUNTY OF LEE

The foregoing instrument was sworn to (or affirmed) and subscribed before me on \_\_\_\_\_\_\_(date) by JON SMALL (name of person providing oath or affirmation), who is personally known to me or who has produced 150 NIV (type of identification) as identification.

Signature of

(Name typed, printed or stamped)

JENNIFFER WALLACE State of Florida-Notary Public Commission # GG 197958 My Commission Expires May 31, 2022

#### LETTER OF AUTHORIZATION

Please be advised that I, Jon Small, Manager of Small Brothers, LLC, am the fee simple property owner of the property described by the STRAP number below and that Daniel DeLisi, AICP, DeLisi, Inc. is authorized to represent me for the below reference parcels in all matters pertaining to amending the Lee County Comprehensive Plan. This authority to represent my interest includes any and all documents required by the Comprehensive Plan Amendment requests submitted on my behalf by DeLisi, Inc.

STRAP Number or Legal Description:

STRAP Number: 22-46-26-00-00001.0010

Signature

Jon Small, Manager, Small Brothers, LLC

12-17-1

STATE OF Florida COUNTY OF COLLE

JENNIFFER WALLACE State of Florida-Notary Public Commission # GG 197958 My Commission Expires May 31, 2022

The foregoing instrument was sworn to (or affirmed) and subscribed before me on <u>b</u>, <u>c</u> (date) by (name of person providing oath or affirmation), who is personally known to me or who has produced <u>c</u> (type of identification) as identification.

STAMP/SEAL

Signature of Notary Public

#### SMALL BROTHERS PROPOSED TEXT AMENDMENT

**POLICY 1.4.5:** The Density Reduction/Groundwater Resource (DR/GR) land use category includes upland areas that provide substantial recharge to aquifers most suitable for future wellfield development. These areas also are the most favorable locations for physical withdrawal of water from those aquifers. Only minimal public facilities exist or are programmed.

- 2. Permitted land uses include agriculture, natural resource extraction and related facilities, conservation uses, public and private recreation facilities, and residential uses at a maximum density of one dwelling unit per ten acres (1 du/10 acres). See <u>Objectives 33.3</u> and <u>33.4Policies 33.3.2</u>, <u>33.3.3</u>, and <u>33.3.4</u> for potential density adjustments resulting from concentration or transfer of development rights.
  - a. For residential development, also see Objective 33.3 and following policies. Commercial and civic uses <u>canmay onlybe permitted on properties in Southeast</u> Lee County as provided in Objectives 33.3 and 33.5.incorporated into Mixed-Use Communities, Environmental Enhancement and Preservation Communities, and Rural Golf Course Communities that are depicted on Map 17 to the extent specifically provided in those policies.

**POLICY 33.3.5:**Commercial uses may only be permitted if <u>on properties with existing</u> <u>conventional commercial zoning approved prior to September 17, 1990, or if</u>incorporated into a Mixed-Use Community, Environmental Enhancement and Preservation Community, or Rural Golf Course Community depicted on Map 17. The maximum commercial floor area that may be approved within the Southeast Lee County community plan area may not exceed 300,000 square feet.

**OBJECTIVE 33.5: COMMERCIAL ZONING APPROVED PRIOR TO SEPTEMBER 17, 1990.** To allow development of commercial uses on properties designated DR/GR that have existing conventional commercial zoning approved prior to September 17, 1990.

**POLICY 33.5.1:** Property with existing conventional commercial zoning approved prior to September 17, 1990 may be approved for development of commercial uses if the project is found consistent with and demonstrates through a planned development rezoning all of the following:

- 1. The allowable total square footage for commercial uses in Southeast Lee County set forth in Policy 33.3.5 is not exceeded.
- 2. The development will be served by central water and sewer.

**1** | P a g e

- 3. The development will be designed to minimize impacts to wetlands by only allowing impacts for stormwater retention/detention, accessways and limited parking. Buildings and structures are prohibited in wetlands. Deviations may be considered through the planned development process to facilitate protection of wetlands.
- 4. The development does not exceed 10,000 square feet per upland acre of commercial uses and does not include any of the following uses: auto parts stores, lawn and garden supply stores, fuel pump stations, drycleaners (on-site), or any other use that is not compatible with protecting Southeast Lee County's environment.
- 5. If development is proposed within the 6-month, 1-year, 5-year, or 10-year travel zones of the Wellfield Protection Ordinance, a total of 1 ½ -inches of treatment, ½ -inch of which must be completed via dry pretreatment, must be provided at a minimum. Dry and wet treatment must be located outside of the 6-month and 1-year travel zones. The entire development will be considered to be within the most restrictive wellfield protection zone as provided in the Wellfield Protection Ordinance.
- 6. Ground water quality monitoring well(s) for the Surficial Aquifer System are provided and located between Lee County's nearest production well(s) and the development.
- 7. Flowway connection(s) are provided for all surface water discharge to adjacent Conservation Lands.



#### Analysis of Impacts/Planning Justification Exhibit T5

#### **Text Amendment Location and Property Description**

The proposed text amendment to the Lee Plan addresses a historic non-conforming zoning in the DR/GR by allowing the property to develop under the approved zoning with significantly enhanced preservation requirements. The text amendment applies only to properties which already have commercial zoning, along Corkscrew Road, west of Flint Pen Strand (limited to the property described below) and is written to be consistent with Policy 33.3.3, which applies to residential areas with approvals for density greater than the DR/GR allows.

The single property that is affected by this amendment is located at the southwest corner of Corkscrew and Alico Roads adjacent to Corkscrew Shores on the west. Attached is a map of commercial zoning within the Southeast Lee County Planning Community, west of Flint Pen Strand. The property effected is approximately 12.19 acres, 5.45 acres of which are wetlands. The site is located in the Density Reduction/Groundwater Resource and wetlands land use categories. Not only is Corkscrew Shores contiguous to the west (developed under Policy 33.3.3), but there are several large residential communities that have been zoned and in the process of active development to the east (See map of development communities).

#### **Property History**

Although the subject property is within the DR/GR land use category it is zoned Community Commercial by specific Board action and has carried that designation since 1982. ZAB-82-337 was approved by the Board of County Commissioners designating the subject property as CC (Community Commercial) and MH-1 (Mobile Home). The MH-1 property to the south is currently owned by the South Florida Water Management District. A site plan was incorporated into the zoning resolution by reference showing residential lots to the south of the commercial development along Corkscrew Road, even though it is a standard zoning district.

In 1989 Lee County amended the future land use category on the subject property from Rural to Density Reduction/Groundwater Resources. The land use category was changed as part of a settlement with the State Department of Community Affairs to reduce overall residential Density on the Future Land Use map through the year 2010, the horizon year of the Lee Plan at that time. The County did not undertake any analysis to determine the impact of the change on commercially zoned or previously platted property. After over two decades the County started moving forward with increased residential development in the DR/GR with the approval of Corkscrew Shores. Corkscrew Shores had an approved plat that permitted residential development and it is located adjacent to the property on the west. Corkscrew Shores obtained approval of an amendment to the comprehensive plan and zoning that recognized the pre-existing approvals and allowed the reconfiguration of the existing residential density.

In 2015 Lee County established the Environmental Enhancement and Preservation Overlay that extends along the north side of the subject property, along Corkscrew Road to the east. Since the establishment of the EEPO, 4 residential developments have been approved with over 4,500 new residential units to the north and east of the subject property. The growing number of residents east of I-75 has created a demand for neighborhood commercial services in proximity to the residences. The subject property is located at or near one of the few major intersections in the DRGR and it is one of the few commercially zoned parcels in a strategic location to serve the neighborhood retail needs of the surrounding uses.

#### **Proposed Text Amendment**

The proposed text amendment is to add Policy 33.3.5 to Goal 33, which lays out the vision for the Southeast Lee County Planning Community. The proposed policy allows development of properties that had already been zoned for commercial development prior to designation as DR/GR, consistent with existing approvals, but under more intense preservation requirements than prior approvals and commercial development elsewhere in Lee County. The text amendment will also require rezoning to a Commercial Planned Development where uses will be limited to those that do not create concern about groundwater impacts to the County's well field. The proposed text amendment is as follows:

#### **OBJECTIVE 33.5: COMMERCIAL ZONING APPROVED PRIOR TO SEPTEMBER 17.**

**1990.** To allow development of commercial uses on properties designated DR/GR that have existing conventional commercial zoning approved prior to September 17, 1990.

**POLICY 33.5.1:** Property with existing conventional commercial zoning approved prior to September 17, 1990 may be approved for development of commercial uses if the project is found consistent with and demonstrates through a planned development rezoning all of the following:

- 1. The allowable total square footage for commercial uses in Southeast Lee County set forth in Policy 33.3.5 is not exceeded.
- 2. The development will be served by central water and sewer.
- 3. The development will be designed to minimize impacts to wetlands by only allowing impacts for stormwater retention/detention, accessways and limited parking. Buildings and structures are prohibited in wetlands. Deviations may be considered through the planned development process to facilitate protection of wetlands.
- <u>4. The development does not exceed 10,000 square feet per upland acre of commercial uses and does not include any of the following uses: auto parts stores, lawn and garden supply stores, fuel pump stations, drycleaners (on-site), or any other use that is not compatible with protecting Southeast Lee County's environment.</u>

- 5. If development is proposed within the 6-month, 1-year, 5-year, or 10-year travel zones of the Wellfield Protection Ordinance, a total of 1 ½ -inches of treatment, ½ -inch of which must be completed via dry pretreatment, must be provided at a minimum. Dry and wet treatment must be located outside of the 6-month and 1-year travel zones. The entire development will be considered to be within the most restrictive wellfield protection zone as provided in the Wellfield Protection Ordinance.
- 6. Ground water quality monitoring well(s) for the Surficial Aquifer System are provided and located between Lee County's nearest production well(s) and the development.
- 7. Flowway connection(s) are provided for all surface water discharge to adjacent Conservation Lands.

The net effect of the limitation on wetland impacts creates a preservation requirement well in excess of code requirements for commercial development. Current code requirements for indigenous preservation for commercial development is typically 15%. The proposed text amendment will more than double that requirement. Including off site mitigation, the total preservation requirement will increase significantly.

The proposed amendment requires compliance with the Lee County Wellfield Protection Ordinance, additional stormwater treatment and restrictions on placement of dray and wet treatment areas. The proposed amendment also requires a connection to Central Water and Sewer. All of these measures are taken to ensure no impact to the County's water supply.

#### Surrounding Uses/Compatibility

The attached regional aerial shows the location of the subject property and the surrounding uses. As discussed above, the property directly to the west is the Corkscrew Shores community, which consists of 800 residential units. Adjacent to the property to the north is the Southwest Florida Rock IPD, an active mining operation. To the south of the subject property is land owned and managed by the South Florida Water Management District. To the east of the subject property is land owned and managed by Lee County. To the east of the Lee County lands are large tracts approved for residential uses. County buffers will require a Type E or F buffer between the commercial and residential uses to the west. The limitation on uses and the requirement for approval of a Human/Wildlife Coexistence Plan at the time of Local development order will ensure that commercial uses do not become attractors for bears and other wildlife.

#### **Proposed Request**

The proposed amendment to the Lee Plan conforms the DR/GR land use category to the current commercial zoning on the property. Residential uses are not permitted in the CC zoning district, and this is not a suitable location for a rural residential estates with proximity to an intersection of two arterials and an IPD with, a mining use a few hundred feet away. The commercial development will be limited to neighborhood levels of commercial

development, which by their nature serve the surrounding neighborhoods. The request also requires preservation in excess of requirements in urban areas and further requires payment of a fee for offsite acquisition of additional conservation property, consistent with similar incentives for non-conforming residential density in the DR/GR in Policy 33.3.

The subject property is located over 4 miles to the west from the Shoppes at Grandezza, the closest commercial retail development to the subject property. Although there is commercial property zoned at the entrance of Bella Terra, the Homeowners Association has recently acquired the property in an effort to have more control that will likely limit or decrease commercial development. All residential communities along Corkscrew Road, including the newly approved and developing Corkscrew Shores, The Place, Pepper land and Verdana must travel anywhere from 4-8 miles each way for every retail commercial need. Generally, neighborhood retail stores assume a 2-mile travel radius for a market service area. The attached map shows the level of residential development along Corkscrew Road, the 2-mile travel distance and the location of the subject property in relation to the residential uses that will travel excessive distances for every retail service need.

The subject property is appropriately sized to meet many of the smaller daily needs. Between Verdana, Pepperland, The Place, Wild Blue and Corkscrew Shores, there are approximately 5,000 units either built or planned for that are over 4 miles from the Shoppes at Grandezza. Including Bella Terra and the Preserve at Corkscrew, there are an additional approximately 2,500 units. A rule of thumb for commercial generation rates from residential population is approximately 20 square feet per capita. Many larger metropolitan areas have around 40-55 square feet per capita and contain a wider diversity of retail uses than the smaller service needs that are the intended use of the subject property. This estimate adjusts for the overall trend of declining retail space and doesn't include the need for office type uses (including those commonly found in shopping centers such as realtors, dental, and title companies). Therefore, an overall conservative estimate for the amount of commercial area needed to serve each residential unit is approximately 40 square feet (assuming a conservative 2 people per unit). With over 7,500 residential units built and planned for over 2-miles east of the Grandezza Shopping Center, there is a potential need for approximately 300,000 square feet of commercial floor area along east Corkscrew Road.

The subject property is centrally located, between the residential communities to the east and the newly developed communities to the west along Corkscrew Road, and at the intersection of two arterial roads in Lee County – Corkscrew Road and Alico Road. The property has the ability to capture a market area from the Preserve to Verdana, greatly decreasing trip times, but more importantly, decreasing the escalating burden on road segments closer to the I-75 Interchange. Commercial uses along Corkscrew road will help keep trips local, building a more sustainable and functional mix of uses within the East Corkscrew Community. The subject property is unique due to the location near the intersection of two major arterial roads and due to the fact that the property has commercial zoning. Not only is commercial the most appropriate use for the subject site, but the only reasonable use, given its location, size and surrounding uses.

#### **Existing and Future Conditions Analysis**

In accordance with Policy 95.1.3 attached is an analysis by Andrew Fitzgerald, PE, of the impacts to Sanitary Sewer, potable water and surface water. There is no impact to parks, recreation, open space or public schools. Commercial development does not generate demand for those services.

#### Environmental Impacts

Attached is an environmental assessment conducted by Dex Bender and Associates. The subject property consists of both upland and wetland areas with varying degree of exotic infestation. No endangered or threatened species were found on site. Development of the subject property will need to comply with all applicable land development code requirements pertaining to indigenous vegetation preservation and open space. The proposed text amendment requires a significantly greater level of on-site indigenous preservation through strict limitations on wetland impacts. Given the size and location of the subject property at the intersection of two arterial roads and adjacent to a residential community to the west the development will not have a significant adverse impact on environmental resources, but instead are designing the text amendment to have an overall positive impact.

#### LEE PLAN CONSISTENCY Exhibit T6

The proposed Text Amendment will allow for a neighborhood commercial development near the intersection of Corkscrew Road and Alico Road. An analysis of how the proposed amendment is consistent with the following Lee Plan policies is described below:

**POLICY 1.4.5:** The Density Reduction/Groundwater Resource (DR/GR) land use category includes upland areas that provide substantial recharge to aquifers most suitable for future wellfield development. These areas also are the most favorable locations for physical withdrawal of water from those aquifers. Only minimal public facilities exist or are programmed.

1. New land uses in these areas that require rezoning or a development order must demonstrate compatibility with maintaining surface and groundwater levels at their historic levels (except as provided in Policies 33.1.3 and 33.3.5) utilizing hydrologic modeling, the incorporation of increased storage capacity, and inclusion of green infrastructure. The modeling must also show that no adverse impacts will result to properties located upstream, downstream, as well as adjacent to the site. Offsite mitigation may be utilized, and may be required, to demonstrate this compatibility. Evidence as to historic levels may be submitted during the rezoning or development review processes.

2. Permitted land uses include agriculture, natural resource extraction and related facilities, conservation uses, public and private recreation facilities, <del>and</del> residential uses at a maximum density of one dwelling unit per ten acres (1 du/10 acres), <u>and</u> <u>commercial uses in accordance with Policy 33.3.5</u>. See Policies 33.3.2, 33.3.3, 33.3.4, 33.3.5 and 33.3.6 for potential density adjustments resulting from concentration or transfer of development rights.

The Lee Plan does not currently allow for commercial development in the DR/GR land use category except under very limited circumstances. The proposed text amendment will allow for commercial development only on properties that had commercial zoning prior to the establishment of the DR/GR land use category and with enhanced preservation/mitigation requirements. The evaluation of this amendment for the only undeveloped commercial property that meets this criterion includes a demonstration that any proposed development will be compatible with maintaining historic surface and groundwater.

**OBJECTIVE 1.5: WETLANDS.** Designate on the Future Land Use Map those lands that are identified as Wetlands in accordance with F.S. 373.019(27) through the use of the unified state delineation methodology described in FAC Chapter 27-340, as ratified and amended in F.S. 373.4211.

The subject property has areas that have been designated as wetlands in accordance with *F.S. 373.019(27)* through the use of the unified state delineation methodology. Any proposed development will make efforts to avoid and minimize impacts in accordance with State and Federal guidelines. To the extent that impacts can not be avoided, mitigation will be provided to preserve overall wetland function in the Basin. In addition, for every acre of development that occurs (upland or wetland) funding for additional offsite mitigation will be provided.

**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 proposed development will go through the environmental resource permit application process. To the extent that wetland areas are impacted by development, those areas will be mitigated for in accordance with State guidelines. Upland areas created through wetland impacts will revert to the underlying land use category as they will no longer be "wetlands". All wetland areas will be preserved in accordance with the environmental resource permit process and will contain uses consistent with Policy 1.5.1.

**OJECTIVE 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 is in a location where large-scale residential development is occurring or in place directly to the west and in close proximity to the north and east. The proposed plan amendment would allow for the development of an appropriate use for the subject property in an appropriate location.

**POLICY 2.1.1:** Most residential, commercial, industrial, and public development is expected to occur within the designated Future Urban Areas on the Future Land Use Map through the assignment of very low densities to the non-urban categories.

The subject property is located in a rural area on the future land use map that is evolving as it is developed under an overlay designation that allows for increased residential densities. The residential development to the west, consisting of small lot residential units around a large lake, has been required to extend urban infrastructure and is designated on Maps 6 and 7 for water and sewer service. The Place and other similar developments to the north and east all are paying a proportionate share fee to extend urban services to the area, including the cost of utilities, EMS services and road infrastructure. Unlike those areas, urban services are already available to the subject property.

**POLICY 6.1.4:** Commercial development will be approved only when compatible with adjacent existing and proposed land uses and with existing and programmed public services and facilities.

The proposed plan amendment will allow for commercial development adjacent to residential development on the west, preserve on the east and south and a mining site on the north. Buffer requirements on the west will ensure compatibility with adjacent residential development. There are no compatibility concerns with the location of commercial uses on the subject property. Urban services either exist or are planned for at this location.

**POLICY 6.1.5:** The land development regulations will require that commercial development be designed to protect the traffic-carrying capacity of roads and streets. Methods to achieve this include, but are not limited to...

The proposed plan amendment is in an area where capacity exists on the adjacent roadway network as demonstrated by the attached TIS.

**GOAL 33: SOUTHEAST LEE COUNTY.** To protect natural resources in accordance with the County's 1990 designation of Southeast Lee County as a groundwater resource area, augmented through a comprehensive planning process that culminated in the 2008 report, Prospects for Southeast Lee County. To achieve this goal, it is necessary to address the inherent conflict between retaining shallow aquifers for long-term water storage and extracting the aquifer's limestone for processing into construction aggregate. The best overall balance between these demands will be achieved through a pair of complementary strategies: consolidating future mining in the traditional Alico Road industrial corridor while initiating a long-term restoration program to the east and south to benefit water resources and protect natural habitat. Residential and commercial development will not be significantly increased except where development rights are being explicitly concentrated by this plan. Agriculture uses may continue, and environmental restoration may begin. This goal and subsequent objectives and policies apply to Southeast Lee County as depicted on Map 1, Page 2.

The proposed amendment fits within Goal 33. The amendment would allow for commercial uses to support the newly developed and permitted residential uses along the corridor. Goal 33 states that "*Commercial development will not be significantly increased except where development rights are being explicitly concentrated by this plan.*" The amendment is being proposed as a text amendment with applicability to only the subject property. The proposed amendment will therefore concentrate the commercial uses at a specific strategic location so as to not lead to a potentially significant increase in commercial area.

**OBJECTIVE 33.2: WATER, HABITAT, AND OTHER NATURAL RESOURCES.** Designate on a Future Land Use Map overlay the land in Southeast Lee County that is most critical toward restoring historic surface and groundwater levels and for improving the protection of other natural resources such as wetlands and wildlife habitat. The subject property is not designated in any Tier for Priority Restoration. In accordance with Lee Plan Map 1, Page 4, the subject property is not a priority.

**OBJECTIVE 33.3: RESIDENTIAL AND MIXED-USE DEVELOPMENT.** Designate on a Future Land Use Map overlay areas that should be protected from adverse impacts of mining (Existing Acreage Subdivisions), specific locations for concentrating existing development rights on large tracts (Mixed-Use Communities), specific properties which provide opportunities to protect, preserve, and restore strategic regional hydrological and wildlife connections (Environmental Enhancement and Preservation Communities), and vacant properties with existing residential approvals that are inconsistent with the Density Reduction/Groundwater Resource future land use category (Improved Residential Communities).

The subject property does not fit the description of residential or mixed-use development as currently written. However, the property is similar in nature to the "Improved Residential Community" designation in that is acknowledges development approvals in existence prior to the establishment of the DR/GR land use category. The proposed policy would be consistent with Objective 33.3 and would be unique to the subject property. The subject property is a small, strategically located property that can serve the commercial needs to the adjacent residential community that has been permitted under this objective.

GOAL 60: COORDINATED SURFACE WATER MANAGEMENT AND LAND USE PLANNING ON A WATERSHED BASIS. To protect or improve the quality of receiving waters and surrounding natural areas and the functions of natural groundwater aquifer recharge areas while also providing flood protection for existing and future development.

**POLICY 60.1.1:** Require design of surface water management systems to protect or enhance the groundwater.

The subject property will be required to obtain an environmental resource permit from the South Florida Water Management District (SFWMD). This permit will incorporate a water quality analysis to ensure that the project is not contributing to off site impairments of the ecosystem. The permit will also require a pre and post water discharge analysis to ensure that any development does not contribute to off site flooding. As described in the submitted Surface Water Level of Service Analysis, this property will be designed to meet all SFWMD and Lee County Levels of Service for its water management system.

**POLICY 60.1.2:** Incorporate, utilize, and where practicable restore natural surface water flow-ways and associated habitats.

The wetland at the southern end of the property is the northernmost edge of a flow-way identified on the historic flowways map. This wetland will be preserved in accordance with this policy.

**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 (BMPs) 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.

As described in the Surface Water Level of Service Analysis, green infrastructure that could be implemented into the property's surface water management system include restoration of an on-site wetland and use of grassed swales planted with native vegetation.

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

As described in the Surface Water Level of Service Analysis, green infrastructure that could be implemented into the property's surface water management system include restoration of an on-site wetland and use of grassed swales planted with native vegetation.

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

The wetland at the southern end of the property is the northernmost edge of a flow-way identified on the historic flowways map. This wetland will be preserved in accordance with this policy.

**GOAL 61: PROTECTION OF WATER RESOURCES.** To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

**OBJECTIVE 61.2: MIMICKING THE FUNCTIONS OF NATURAL SYSTEM.** Support a surface water management strategy that relies on natural features (flow ways, sloughs, strands, etc.) and natural systems to receive and otherwise manage storm and surface water.

**POLICY 61.2.1:** All development proposals outside the future urban areas must recognize areas where soils, vegetation, hydrogeology, topography, and other factors indicate that water flows or ponds; and require that these areas be utilized to the maximum extent possible, without significant structural alteration, for on-site

stormwater management; and require that these areas be integrated into area-wide coordinated stormwater management schemes.

Policy 61.2.1 requires existing on-site water management features on the property to be utilized to the maximum extent possible for on-site water management, and be integrated into the area-wide coordinated stormwater management schemes. As described in the Surface Water Level of Analysis, a natural wetland pond that is partially located on the property along the south property line will be utilized as the property's water management outfall to maintain hydrology within the wetland.

**POLICY 61.2.2:** Where no natural features of flow or ponding exist on a site outside the future urban areas, the county will require that water management structures be designed and constructed in such a manner as to mimic the functions of natural systems. Special engineering and design standards for such structures will be incorporated into revised development regulations.

As described under Policy 61.2.1, an existing wetland is partially located on the south property line and will be used as the project's outfall.

**POLICY 61.2.3:** Discourage the expansion or extension of existing traditional drainage structures, such as ditches, canals, dikes, etc. in non-agricultural areas, and only permit the continued existence and maintenance of such structures outside future urban areas.

Policy 61.2.3 – Not applicable. There are no existing ditches, canals, dikes, etc. on the property that are proposed to be preserved. The subject property is located outside the future urban area.

**POLICY 61.2.4:** Encourage surface water management plans that mimic the functions of natural systems.

As described in the Surface Water Level of Service Analysis, stormwater from the property is collected in vegetated dry detention ponds/swales where the stormwater is treated for water quality, and attenuated to the prescribed allowable discharge for that basin, prior to being released to an existing wetland along its south property line and reestablishing the natural flow pattern for the basin.

**POLICY 61.2.5:** The policies above (61.2.1 through 61.2.4) are not intended to prohibit any permittable surface water management solution that is consistent with good engineering practices and adopted environmental criteria.

Policy 61.2.5 clarifies that Policies 61.2.1 and 61.2.4 are not intended to prohibit any permittable surface water management solution that is consistent with good engineering practices.

POLICY 61.2.6: The county will maintain regulations that require reclamation standards for future excavation that mimic natural systems through the techniques that improve water quality, wildlife utilization, and enhance groundwater recharge.
Policy 61.2.6 Directs Lee County to maintain regulations that require reclamation standards for future excavations that mimic natural systems. Any proposed development will have to meet all of Lee County's design standards at the time of local development order.

**OBJECTIVE 61.3: GENERAL SURFACE WATER MANAGEMENT STANDARDS.** Lee County will continue to provide sufficient performance and/or design standards for development protective of the function of natural drainage systems.

Any proposed development will have to meet all of Lee County's design standards at the time of local development order.

**POLICY 123.12.2:** Encourage use of bear proof containers to secure waste and other attractants within and adjacent to known bear habitats.

The proposed text amendment has added a requirement for the submittal of a Human Wildlife Co-existence plan at the time of local development order specifically to address this issue and ensure that bear proof containers are used.

**POLICY 123.12.3:** Increase public understanding of black bears and need for bear conservation through public education and outreach.

The proposed text amendment has added a requirement for the submittal of a Human Wildlife Co-existence plan at the time of local development order which directly requires a plan for public education and outreach.

**GOAL 124: WETLANDS.** To maintain and enforce a regulatory program for development in wetlands that is cost-effective, complements federal and state permitting processes, and protects the fragile ecological characteristics of wetland systems.

The proposed development will go through the environmental resource permit application process. To the extent that wetland areas are impacted by development, those areas will be mitigated for in accordance with State and Federal guidelines.

**POLICY 124.1.2:** The county's wetlands protection regulations will be consistent with the following:

1. The county will not undertake an independent review at the Development Order stage of the impacts to wetlands resulting from development in wetlands that is specifically authorized by a DEP or SFWMD dredge and fill permit or exemption.

- 2. No development in wetlands regulated by the State of Florida will be permitted by Lee County without the appropriate state agency permit or authorization.
- 3. Lee County will incorporate the terms and conditions of state permits into county permits and will prosecute violations of state regulations and permit conditions through its code enforcement procedures.
- 4. Every reasonable effort will be required to avoid or minimize adverse impacts on wetlands through the clustering of development and other site planning techniques. On- or off-site mitigation will only be permitted in accordance with applicable state standards.
- 5. Mitigation banks and the issuance and use of mitigation bank credits will be permitted to the extent authorized by applicable state agencies.

The proposed development will go through the environmental resource permit application process. Reasonable efforts will be made to avoid and minimize impacts to wetlands. To the extent that impacts occur, mitigation will be required in accordance with State and Federal permits.

The attached groundwater analysis has additional information on compliance with Policy 1.4.5, Policy 2.4.3 and Goals 115 and 117.



## **ZTR TRANSPORTATION** CONSULTANTS, INC

2726 OAK RIDGE COURT, SUITE 503 FORT MYERS, FL 33901-9356 OFFICE 239.278.3090 FAX 239.278.1906

> TRAFFIC ENGINEERING TRANSPORTATION PLANNING SIGNAL SYSTEMS/DESIGN

#### **MEMORANDUM**

- TO: Mr. Daniel DeLisi, AICP DeLisi, Inc.
- FROM: Yury Bykau Transportation Consultant

Ted B. Treesh President

- DATE: July 19, 2019
- RE: 15230 Corkscrew Road Lee County Comprehensive Plan Text Amendment Lee County, Florida

TR Transportation Consultants, Inc. has completed a traffic circulation analysis for the proposed Text Amendment for a property located on the south side of Corkscrew Road just west of its intersection with Alico Road in Lee County, Florida. Attached **Figure 1** illustrates the approximate location of the subject site. Approximately 4.36 acres of the 12.19 acre subject site is designated as Wetlands. This analysis will determine the impacts of the change in land use from the proposed text amendment to the Lee County Comprehensive Plan to allow portions of the subject site to be developed with retail uses. The existing zoning of the property designated the subject site as Community Commercial (CC) and allows for the requested retail use. Zoning Resolution ZAB-82-337 is attached for reference.

The transportation related impacts of the proposed Text Amendment to the Lee Plan were evaluated pursuant to the criteria in the application document. This included an evaluation of the long range impact (20-year horizon) and short range impact (5-year horizon) the proposed amendment would have on the existing and future roadway infrastructure.

The proposed Text Amendment would allow for commercial development on the upland portions of the property. The remaining portion of the subject site will remain as preservation. Based on the Lee Plan, the existing future land use category allows for a maximum development of 1 dwelling unit per 10 acres of property. This would allow the subject site to be developed with just 1 dwelling unit which is negligible in terms of trip generation. Therefore, no comparison in terms of trip generation was completed between



the approved future land use category and the proposed land use change. As previously mentioned the existing zoning of the property is CC and allows for the requested retail use.

**Table 1** summarizes the use that is requested as part of the proposed land use change. For the proposed text amendment, 80,000 square feet of commercial floor area was used and that is the upper limit in the text amendment. As previously mentioned, under the existing future land use category only 1 dwelling unit is allowed to be developed on the subject site, which is negligible in terms of trip generation.

	Table 1
	Land Use
15230	Corkscrew Road
Land Use Category	Intensity
Proposed Land Use	80,000 sq. ft. of Retail

The trip generation for the proposed land use was determined by referencing the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation Manual*, 10<sup>th</sup> Edition. Land Use Code 820 (Shopping Center) was utilized for the trip generation purposes of the proposed retail uses. **Table 2** indicates the trip generation of the subject site based on the proposed land use category. The trip generation equations utilized are attached to this Memorandum for reference.

Table 2Trip Generation of Proposed Land Use15230 Corkscrew Road

	A.I	M. Peak l	Hour	P.M	Daily		
Land Use	In	Out	Total	In	Out	Total	(2-way)
Shopping Center (80,000 sq. ft.)	119	73	192	221	240	461	5,166

The trips shown for the proposed uses on the subject site in Table 2 will not all be new trips added to the adjacent roadway system. ITE estimates that a shopping center of comparable size may attract a significant amount of its traffic from vehicles already traveling the adjoining roadway system. This traffic, called "pass-by" traffic, reduces the development's overall impact on the surrounding roadway system but does not decrease the actual driveway volumes. The current version of the ITE *Trip Generation Handbook*, 3rd Edition, indicates that the weekday P.M. peak hour pass-by rate for Land Use Code 820 is thirty-four percent (34%). It is likely that the pass-by percentage of this site will be much greater than 34% simply due to the location of this site. However, Lee County only permits a maximum reduction in trips due to "pass-by" traffic for shopping centers of thirty percent (30%). Therefore, thirty percent (30%) pass-by reduction was utilized for the proposed shopping center uses.



It is important to note that the proposed retail development will capture trips from the approved and existing surrounding residential developments. In other words, this interaction will ultimately decrease the overall impact or the number of new trips the project will add to the external roadways. The proposed development will provide a commercial center closer to the residential projects, thus shortening the trip lengths that would otherwise be made to these uses farther to the west. However, in order to analyze the worst case scenario in terms of impact to the surrounding roadways, a trip reduction was not taken into consideration beyond the pass-by trip reduction rate as part of the analyses contained within this Memorandum. Attached is the "Regional Aerial" map that illustrates the surrounding approved and existing developments. **Table 3** indicates the total external trips that will be generated by the site should the land use category be changed.

15230 Corkscrew Road														
T P TT	Weekday	y A.M. Pe	ak Hour	Weekda	Daily									
	In	Out	Total	In	Out	Total	(2-way)							
Total Trips	119	73	192	221	240	461	5,166							
Less 30% Pass-By Trips	-36	-22	-58	-66	-72	-138	-1,550							
Net New Trips	83	51	134	155	168	323	3,616							

Table 3	
Net New Trip Generation of Proposed Land Us	se
15230 Corkserew Road	

#### Long Range Impacts (20-year horizon)

The Lee County Metropolitan Planning Organization's (MPO) 2040 Long Range Transportation Plan was reviewed to determine if any future roadway improvements were planned in the vicinity of the subject site. Based on the review, the only roadway improvement within the vicinity of the subject site shown on the 2040 Financially Feasible Plan is the widening of Corkscrew Road to a four lane facility from Grande Oak Way to Alico Road. This roadway was also recommended to be widened by the year 2026 to a four lane facility based on the map titled "Road Segments Projected to need added capacity by 2026" from the *Environmental Enhancement & Preservation Communities Overlay (EEPCO)* Study completed in 2018. There are no other programmed improvements within the vicinity of the subject site. The Lee County 2040 Highway Cost Feasible Plan map is attached to this Memorandum for reference. The "Road Segments Projected to need added capacity by 2026" map from the EEPCO study is also attached.

The Lee County Metropolitan Planning Organization's (MPO) long range transportation travel model was also reviewed in order to determine the impacts the amendment would have on the surrounding area. The base 2040 loaded network volumes were determined for the roadways within the study area. The projected PM peak hour trips from the surrounding approved residential developments were then determined. These residential developments include the WildBlue, The Place (Corkscrew Farms), Pepperland Ranch



and Verdana. The trips from WildBlue, The Place (Corkscrew Farms) and Pepperland Ranch developments that are projected to be added to the surrounding roadway links were obtained from Table E-2 of the EEPCO study. Due to the recently modified development intensity of the Verdana project, the peak hour trips for Verdana were obtained from the revised trip generation, as shown in the attached Exhibit 1, and trip distribution as part of the District One Regional Planning Model (D1RPM) completed for the EEPCO study.

However, the Lee County Infrastructure Planning Staff indicated that assuming the full build-out of all four residential developments by 2040 would be overly conservative. Therefore, approximately 75% of the total PM peak hour trips as a result of the surrounding residential developments was deemed reasonable to utilize in the 2040 Level of Service analysis. For detailed calculations regarding the traffic generated as a result of the surrounding residential developments, refer to the attached second page under the section titled "Table E-2 From EEPCO Study". The PM peak hour trips to be generated from the project as shown in Table 3 were then added to the projected 2040 volumes as shown in the model in addition to the projected trips from the WildBlue, The Place (Corkscrew Farms), Pepperland Ranch and Verdana developments. The Level of Service for the surrounding roadways was then evaluated. The Level of Service threshold volumes were derived based on the attached Lee County *Generalized Peak Hour Directional Service Volumes* table. Table E-2 and the D1RPM obtained from the EEPCO study are also attached for reference.

The results of the analysis indicate that the addition of the project trips to the projected 2040 volumes (including projected trips from approved surrounding residential developments) will not cause any roadway link to fall below the recommended minimum acceptable Level of Service thresholds as recommended in Policy 37.1.1 of the Lee County Comprehensive Plan. Therefore, no changes to the adopted long range transportation plan are required as result of the proposed land use change. Attached **Table 1A** and **Table 2A** reflect the Level of Service analysis based on the 2040 conditions.

#### Short Range Impacts (5-year horizon)

The 2017/2018-2021/2022 Lee County Transportation Capital Improvement Plan (CIP) and the 2019-2023 Florida Department of Transportation Adopted Work Program were reviewed to determine the short term impacts the proposed land use change would have on the surrounding roadways. Based on the review and discussion with the County Staff, widening of Corkscrew Road from Ben Hill Griffin Parkway to Alico Road is now programmed in the five-year Lee County CIP. There are no other programmed improvements to the roadway network identified in either work program within the vicinity of the subject site.

**Table 3A** and **Table 4A** attached to this report indicate the projected 5-year planning Level of Service on surrounding roadways based on the uses that would be permitted under the proposed land use designation. Table 4A also included the projected traffic to be added by the future surrounding residential developments of the WildBlue, The Place



(Corkscrew Farms), Pepperland Ranch and Verdana. The traffic regarding these developments was obtained from the same sources as described in the previous section of this Memorandum. However, approximately 50% of the total PM peak hour trips as a result of the surrounding residential developments was utilized in the 2024 Level of Service analysis whereas approximately 75% was utilized in the 2040 Level of Service. For detailed calculations regarding the traffic generated as a result of the surrounding residential developments, refer to the attached second page under the section titled "Table E-2 From EEPCO Study".

From Table 4A, all roadway links are shown to operate at an acceptable Level of Service in 2024 both with and without the trips from the proposed development. Therefore, based on this analysis no modifications will be necessary to the Lee County or FDOT short term capital improvement program.

#### **Conclusion**

The proposed Text Amendment to the Lee County Comprehensive Plan would allow for commercial development on the upland portions of the property. Based upon the roadway link Level of Service analysis conducted as a part of this Memorandum, all roadway links were shown to operate at an acceptable Level of Service both with and without the trips from the proposed development. Therefore, no roadway capacity improvements will be warranted as a result of the additional traffic to be generated by the proposed development.

No modifications are necessary to the Short Term Capital Improvement Plan or the Long Range Transportation Plan to support the proposed Text Amendment. In addition, the change to the land use will not significantly alter the socio-economic data forecasts that were utilized in the development of the Long Range Transportation Plan.

Attachments

### FIGURE 1



PROJECT LOCATION MAP 15230 CORKSCREW ROAD

Figure 1

# TABLES 1A & 2A2040 LOS ANALYSIS

#### TABLE 1A LEVEL OF SERVICE THRESHOLDS 2040 LONG RANGE TRANSPORTATION ANALYSIS - 15230 CORKSCREW ROAD

					GE	ENERALIZE	ED SERVIC	EVOLUM	ES
	ROADWAY	SEGMENT	2040 E	+ C NETWORK LANES	LOS A	LOS B	LOS C	LOS D	LOS E
ROADWAY	FROM	FROM TO		<b>Roadway Designation</b>	VOLUME	VOLUME	VOLUME	VOLUME	VOLUME
Corkscrew Rd	Grande Oak Way	Wildcat Run Dr	4LD	Arterial - Class I	0	250	1,840	1,960	1,960
	Wildcat Run Dr	WildBlue West Entr	4LD	Arterial - Class I	0	250	1,840	1,960	1,960
	WildBlue West Entr	Cypress Shadows Blvd	4LD	Arterial - Class I	0	250	1,840	1,960	1,960
	Cypress Shadows Blvd	Bella Terra Blvd	4LD	Arterial - Class I	0	250	1,840	1,960	1,960
	Bella Terra Blvd	Alico Rd	4LD	Arterial - Class I	0	250	1,840	1,960	1,960
	Alico Rd	Corkscrew Farms Entr	2LU	Uninterrupted Flow Highway	130	420	850	1,210	1,640
	Corkscrew Farms Entr	6 L's Farm Rd	2LU	Uninterrupted Flow Highway	130	420	850	1,210	1,640
	6 L's Farm Rd	Pepperland Entr	2LU	Uninterrupted Flow Highway	130	420	850	1,210	1,640
Alico Rd	Corkscrew Rd	S. Mallard Ln	2LU	Uninterrupted Flow Highway	130	420	850	1,210	1,640

- Denotes the LOS Standard for each roadway segment

Level of Service Thresholds for Lee County arterials/collectors taken from the Generalized Peak Hour Directional Service Volume tables for Urbanized Areas (dated April 2016)

#### TABLE 2A 2040 ROADWAY LINK LEVEL OF SERVICE CALCULATIONS 15230 CORKSCREW ROAD

TOTAL PM PEAK	HOUR PROJECT TRAFFIC	323	VPH	IN≃	155	OUT=	168													
	ROADWA	Y SEGMENT	2040 FSUTMS			AADT BACKGROUND	K-100	100TH HIGHEST HOUR PK DIR	D	PM PK HR PEAK	2040 BAC PEAK D TRAFFIC VO	KGROUND	PM PK HR PK DIR TRAFFIC FROM OTHER	PM PK HR PK DIR TRAFFIC FROM	2040 BACKGRO VERDANA PE TRAFFIC VOL	OUND + OTHER AK DIRECTION UMES & LOS	+ PROJECT TRAFFIC	PK DIR PM PROJ	2040 BACKG VERDANA DIRECTION TR/	ROUND + OTHER + + PROJECT PEAK IFFIC VOLUMES & LOS
ROADWAY	FROM	<u>то</u>	PSWDT	PCS #	MOCF	TRAFFIC	FACTOR <sup>1</sup>	2-WAY VOLUME	FACTOR	DIRECTION	VOLUME	LOS	PROJECTS <sup>2</sup>	VERDANA <sup>3</sup>	VOLUME	LOS	DIST.	TRAFFIC	VOLUME	LOS
Corkscrew Rd	Grande Oak Way	Wildcat Run Dr	23,859	70	0.91	21,712	0.093	2,019	0.56	EAST	1131	С	466	166	1,763	С	20%	34	1,797	С
	Wildcat Run Dr	WildBlue West Entr	20,872	70	0.91	18,994	0.093	1,766	0.56	EAST	989	С	490	170	1,649	С	25%	42	1,691	с
	WildBlue West Entr	Cypress Shadows Blvd	20,872	70	0.91	18,994	0.093	1,766	0.55	EAST	989	С	425	173	1,587	с	35%	59	1,640	С
	Cypress Shadows Bivd	Bella Terra Bivd	20,872	70	0.91	18,994	0.093	1,766	0.56	EAST	989	С	425	173	1,587	С	40%	67	1,654	С
	Bella Terra Blvd	Alico Rd	14,579	70	0.91	13,267	0.093	1,234	0.56	EAST	691	С	410	190	1,291	с	55%	92	1,383	С
	Alico Rd	Corkscrew Farms Entr	8,074	70	0,91	7,347	0.093	683	0.56	EAST	382	в	605	302	1,289	E	40%	67	1,356	E
	Corkscrew Farms Entr	6 L's Farm Rd	7,692	70	0.91	7.000	0.093	651	0.56	EAST	365	в	335	352	1,052	D	30%	50	1,102	D
	6 L's Farm Rd	Pepperland Entr	7,444	70	0.91	6,774	0.093	530	0.56	EAST	353	8	335	359	1,047	D	30%	50	1,097	D
Alico Rd	Corkscrew Rd	S. Mallard Ln	7,953	53	0.91	7,237	0,093	673	0.51	SOUTH	330	в	231	112	673	с	5%	8	681	c

1 K & D factors were obtained from the 2018 Lee County Traffic Count Report.

2 Approximately 75% of the PM peak hour peak direction traffic for Other projects (Wildblue, The Place, Peperland Ranch) was obtained from the Lee County's Environmental Enhancement & Preservation Communities Overlay (EEPCO) Study

2 Approximately 73% of the PM peak nois peak nois peak nois peak indication of their projects (relation in Prace, representation of the PM peak nois peak nois peak nois peak noise projects (relation of the project) (relation o

## TABLES 3A, 4A & 5A 5-YEAR LOS ANALYSIS

#### TABLE 3A PEAK DIRECTION PROJECT TRAFFIC VS. 10% LOS C LINK VOLUMES 15230 CORKSCREW ROAD

TOTAL AM PEAK HOUR PROJECT TRAFFIC =	134 VPH	IN=	83	OUT=	51
TOTAL PM PEAK HOUR PROJECT TRAFFIC =	323 VPH	IN=	155	OUT=	168

#### PERCENT

		ROADWAY	LOS A	LOS B	LOS C	LOS D	LOS E	PROJECT	PROJECT	PROJ/
ROADWAY	SEGMENT	<u>CLASS</u>	VOLUME	VOLUME	VOLUME	VOLUME	VOLUME	<b>TRAFFIC</b>	<b>TRAFFIC</b>	LOS C
Corkscrew Rd	W. of Wildcat Run Dr	4LD	0	250	1,840	1,960	1,960	20%	34	1.8%
	W. of WildBlue Entr	4LD	0	250	1,840	1,960	1,960	25%	42	2.3%
	W. of Cypress Shadows Blvd	4LD	0	250	1,840	1,960	1,960	35%	59	3.2%
	W. of Bella Terra Blvd	4LD	0	250	1,840	1,960	1,960	40%	67	3.7%
	W. of Alico Rd	4LD	0	250	1,840	1,960	1,960	55%	92	5.0%
	W. of Corkscrew Farms Entr	2LU	130	420	850	1,210	1,640	40%	67	7.9%
	W. of 6 L's Farm Rd	2LU	130	420	850	1,210	1,640	30%	50	5.9%
	W. of Pepperland Entr	2LU	130	420	850	1,210	1,640	30%	50	5.9%
Alico Rd	N. of Corkscrew Rd	2LU	0	140	800	860	860	5%	8	1.1%

\* The Level of Service thresholds were for all roadways were obtained from the Lee County Generalized Service Volume Table.

\* The widening of Corkscrew Road to a four lane facility W. of Alico Rd is now on the Lee County 5-year Capital Imporvement Program.

#### TABLE 4A LEE COUNTY TRAFFIC COUNTS AND CALCULATIONS 15230 CORKSCREW ROAD

TOTAL PROJECT TRAFFIC AM =	134 VPH	Í	IN =	83	OUT=	51											
TOTAL PROJECT TRAFFIC PM =	323 VPF	I	N =	155	OUT=	168											
		2017	2024	PM PK HR	PM PK HR	2024						2024			2024	t	
		PK HR	PK HR PK SEASON	PK DIR TRAFFIC	PK DIR TRAFFIC	PK HR PK SE	EASON		PERCENT			BCKGR	ND		BCKGF	ND	
		PK SEASON	PEAK DIRECTION	FROM OTHER	FROM	PEAK DIRE	NOITC	V/C	PROJECT	AM PROJ	PM PROJ	+ AM PF	ЮJ	V/C	+ PM PI	ROJ	V/C
ROADWAY	SEGMENT	PEAK DIR. <sup>1</sup>	BCKGRND VOLUME <sup>2</sup>	PROJECTS 3	VERDANA 4	VOLUME 5	LOS	<u>Ratio</u>	TRAFFIC	TRAFFIC	TRAFFIC	VOLUME	LOS	Ratio	VOLUME	LOS	<u>Ratio</u>
Corkscrew Rd	W. of Wildcat Run Dr	903	1,037	311	111	1,459	С	0.74	20%	17	34	1,476	С	0.75	1,493	С	0.76
	W. of WildBlue Entr	696	799	327	113	1,239	С	0.63	25%	21	42	1,260	С	0.64	1,281	С	0.65
	W. of Cypress Shadows Blvd	696	799	284	116	1,199	С	0.61	35%	29	59	1,229	С	0.63	1,258	С	0.64
	W. of Bella Terra Blvd	696	799	284	116	1,199	C	0.61	40%	33	67	1,233	С	0.63	1,267	С	0.65
	W. of Alico Rd	235	270	274	127	671	С	0.34	55%	46	92	717	С	0.37	763	С	0.39
	W. of Corkscrew Farms Entr	246	283	403	201	887	D	0.54	40%	33	67	920	D	0.56	954	D	0.58
	W. of 6 L's Farm Rd	246	283	224	235	742	С	0.45	30%	25	50	766	C.	0.47	792	С	0.48
	W. of Pepperland Entr	182	209	224	239	672	Ċ	0.41	30%	25	50	697	С	0.42	722	С	0.44
Alico Rd	N. of Corkscrew Rd	131	150	154	75	379	C	0.44	5%	4	8	384	С	0.45	388	С	0.45

1 2017 peak hour peak season peak direction traffic volumes were obtained from the 2018 Lee County Public Facilities Level of Service and Concurrency Report.

2 The 2024 peak hour peak season peak direction background volume was obtained by adjusting the 2017 peak hour peak season peak direction volume by a growth rate factor shown in Table 5A.

3 To be conservative, approximately 50% (or 1/2) of the PM peak hour peak direction traffic for Other projects (Wildblue, The Place, Pepperland Ranch) was obtained from the Lee County's Environmental Enhancement & Preservation Communities Overlay (EEPCO) Study. See Appendix titled "Table E-2 From EEPCO Study" for detailed calculations (page 2)

4 To be conservative, approximately 50% (or 1/2) of the PM peak hour peak direction traffic for Verdana was obtained from the updated trip generation and trip distribution utilized in the proportionate share calculation for Verdana project. See Appendix titled "Table E-2 From EEPCO Study" for detailed calculations (page 2)

s The 2024 peak hour peak season peak direction total background volume was obtained by adding the 2024 peak hour peak season peak direction background volume to the PM peak hour peak direction traffic from Wildblue, The Place, Pepperiand Ranch and Verdana projects.

#### TABLE 5A ANNUAL GROWTH RATE CALCULATIONS BASED UPON HISTORICAL AADT DATA

			BASE	CURRENT		ANNUAL	ACTUAL
		CURRENT	AADT	AADT	YRS OF	GROWTH	GROWTH
ROADWAY	SEGMENT	ID#	VOLUME	VOLUME	<u>GROWTH</u>	RATE	RATE
Corkscrew Road	E. of Alico Road	70.0	21,900	22,900	5	2.00%	0.90%

\* Traffic volumes were obtained from the 2018 Lee County Traffic Count Report.

\*\* In instances where the historical data indicates a reduction in traffic or insufficient data was available to calculate

a growth rate due to construction, a minimum annual growth rate of 2.0% was assumed.

#### SAMPLE GROWTH RATE CALCULATION

Appual Growth Rate (AGR) =	CURRENT AADT	. ^(1/Yrs of Growth) ^(1/7)	-1
	BASE AADT		
AGR (Corkscrew Road) =	22,900		-1
	21,900	-	

AGR (Corkscrew Road) = 0.90%

## LEE COUNTY GENERALIZED PEAK HOUR DIRECTIONAL SERVICE VOLUMES TABLE
Lee County
Generalized Peak Hour Directional Service Volumes
Urbanized Areas

April 2016					c:\input5						
		Uninter	upted Flow	Highway							
			Level of Ser	vice							
Lane	Divided	A	В	С	D	Е					
1	Undivided	130	420	850	1,210	1,640					
2	Divided	1,060	1,810	2,560	3,240	3,590					
3	Divided	1,600	2,720	3,840	4,860	5,380					
Class I (40	mph or high	ner posted s	Arterials speed limit) Level of Ser	vice							
Lane	Divided	A	В	С	D	E					
1	Undivided	*	140	800	860	860					
2	Divided	*	250	1,840	1,960	1,960					
3	Divided	*	400	2,840	2,940	2,940					
4	Divided	*	540	3,830	3,940	3,940					
Lane 1 2 3	Divided Undivided Divided Divided	A * *	B * *	C 330 710 1,150	D 710 1,590 2,450	E 780 1,660 2,500					
4	Divided	*	*	1,580	3,310	3,340					
	******	Control	led Access Level of Se	Facilities	*****						
Lane	Divided	Α	B	C	D	<u> </u>					
1	Undivided	*	160	880	940	940					
	Divided	*	270	1,970	2,100	2,100					
3	Divided	*	1 430	3,050	3,180	3,180					
	<b></b>		Collectors	rvice							
Lane	Divided	A	B	C	D	E					
1	Undivided	*	*	310	660	740					
1	Divided	*	*	330	700	780					
2	Undivided	*	*	730	1,440	1,520					
2	Divided	*	*	770	1,510	1,600					
Note: the service volumes for I-75 (freeway), bicycle mode, pedestrian mode, and bus mode should be from FDOT's most current version of LOS Handbook.											

# TRAFFIC DATA FDOT FLORIDA TRAFFIC ONLINE

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT CATEGORY: 1200 LEE COUNTYWIDE

			MOCE. 0 91
WEEK	DATES	SF	PSCF
1	01/01/2018 = 01/06/2018	0 99	1 09
2	01/07/2018 = 01/13/2018	0.99	1 09
2	01/07/2010 - 01/15/2010	0.98	1.00
5	01/14/2010 - 01/20/2010	0.98	1.00
4	01/21/2018 - 01/27/2018	0.96	1.05
* 5	01/28/2018 - 02/03/2018	0.94	1.03
* 6	02/04/2018 - 02/10/2018	0.92	1.01
* 7	02/11/2018 - 02/17/2018	0.90	0.99
* 8	02/18/2018 - 02/24/2018	0.90	0.99
* 9	02/25/2018 - 03/03/2018	0.89	0.98
*10	03/04/2018 - 03/10/2018	0.88	0.97
*11	03/11/2018 - 03/17/2018	0.88	0.97
*12	03/18/2018 - 03/24/2018	0.89	0.98
*13	03/25/2018 - 03/31/2018	0.90	0.99
*14	04/01/2018 - 04/07/2018	0.91	1.00
*15	04/08/2018 - 04/14/2018	0.92	1.01
*16	04/15/2018 - 04/21/2018	0 93	1 02
*17	04/22/2018 - 04/28/2018	0.95	1 04
18	04/29/2018 = 05/05/2018	0.95	1 07
10	05/06/2018 = 05/12/2018	0.97	1 00
20	OE/12/2010 = OS/12/2010	1 01	1 11
20	05/15/2018 = 05/15/2018	1 02	1 10
21	05/20/2018 = 05/26/2018	1.02	1.12
22	05/27/2018 - 06/02/2018	1.03	1,13
23	06/03/2018 = 06/09/2018	1.03	1.13
24	06/10/2018 - 06/16/2018	1.04	1.14
25	06/17/2018 - 06/23/2018	1.04	1.14
26	06/24/2018 - 06/30/2018	1.05	1.15
27	07/01/2018 - 07/07/2018	1.05	1.15
28	07/08/2018 - 07/14/2018	1.06	1.16
29	07/15/2018 - 07/21/2018	1.06	1.16
30	07/22/2018 - 07/28/2018	1.06	1.16
31	07/29/2018 - 08/04/2018	1.06	1.16
32	08/05/2018 - 08/11/2018	1.06	1.16
33	08/12/2018 - 08/18/2018	1.07	1.18
34	08/19/2018 - 08/25/2018	1.08	1.19
35	08/26/2018 - 09/01/2018	1.09	1.20
36	09/02/2018 - 09/08/2018	1.11	1,22
37	09/09/2018 - 09/15/2018	1.12	1.23
38	09/16/2018 - 09/22/2018	1.10	1.21
39	09/23/2018 - 09/29/2018	1.08	1.19
40	09/30/2018 - 10/06/2018	1.07	1.18
41	10/07/2018 - 10/13/2018	1.05	1.15
42	10/14/2018 - 10/20/2018	1 03	1 13
43	10/21/2018 - 10/27/2018	1 02	1 12
44	10/28/2018 - 11/03/2018	1 01	1 11
15	11/04/2018 - 11/10/2018	1 00	1 10
16	11/11/2019 = 11/17/2010	0.99	1 09
40	11/10/2010 = 11/2010	0.99	1 00
4 /	11/2E/2010 = 12/24/2018	0.99	1 00
40	12/02/2010 - 12/01/2010	0.33	1.09
49	12/02/2010 - 12/08/2018	0.99	1.09
50	12/09/2018 - 12/15/2018	0.99	1.03
51	12/16/2018 - 12/22/2018	0.99	1.09
52	12/23/2018 - 12/29/2018	0.98	1.08
53	12/30/2018 - 12/31/2018	0.98	1.08

\* PEAK SEASON

26-FEB-2019 18:31:28

830UPD

1\_1200\_PKSEASON.TXT

# TRAFFIC DATA FROM 2018 LEE COUNTY TRAFFIC COUNT REPORT

Station #	K-100	<b>D</b> -Factors	P.S Factors
1	0.091	0.62	1.087
2	0.091	0.54	1.083
3	0.101	0.52	1.200
5.	0.090	0.61	1.083
6	0.086	0.56	1.047
7	0.117	0.53	1.337
8	0.087	0.55	1.170
9	0.086	0.51	1.057
10	0.096	0.51	1.080
11	0.096	0.53	1.050
12	0.092	0.59	1.147
13	0.090	0.59	1.097
14	0.085	0.59	1.060
15	0.098*	0.55	1.157
16	0.103	0.63	1.160
17	0.106*	0.62	1.063
18	0.094	0.59	1.083
19	0.102	0.55	1.240
20	0.099	0.59	1.063
21*	0.083	0.61	1.037
22	0.085	0.63	1.037
23*	0.103	0.57	1.183
25	0.098	0.57	1.110
27	0.127	0.54	1.363
28	0.092	0.55	1.067
29	0.110	0.51	1.220
30	0.093	0.51	1.090
31	0.091	0.54	1.127
34	0.101	0.61	1.057
35	0.102	0.56	1.100
36*	0.100	0.57	1.187
37	0.088	0.60	1.130
38	0.101*	0.61	1.153
39	0.103	0.53	1.173
40	0.089	0.52	1.077
42	0.098	0.56	1.173
43	0.091	0.60	1.100
44*	0.085	0.51	1.083
45	0.108	0.57	1.067

#### Station # K-100 **D-Factors** P.S Factors 46 0.092 0.52 1.177 47 0.56 1.140 0.101 48 0.102 0.58 1.143 49 0.085 0.54 1.073 50 0.091 0.61 1.057 0.71 51\* 1.107 0.082 52 0.095 0.54 1.167 53 0.093 0.51 1.160 0.51 54 0.095 1.163 55 0.088 0.53 1.090 0.52 57 0.100 1.130 59 0.108 0.53 1.387 60\* 0.57 0.132 1.543 61 0.60 1.210 0.092 62 0.112 0.60 1.090 0.55 1.203 63 0.123 0.105 0.52 1.147 64 66 0.099 0.54 1.113 68 0.097 0.61 1.057 69 0.091 0.55 1.047 70 0.093 0.56 1.153 71\* 0.105 0.53 1.150 72 0.095 0.60 1.067 73\* 0.097 0.56 1.143 74\* 0.58 1.103 0.105 76 0.097 0.55 1.130 81\* 0.100 0.56 1.133 82\* 0.100 0.54 1.073 84 0.094 0.51 1.107 89 0.60 0.098 1.030 0.59 1.190 93 0.102 96 0.103 0.54 1.217 97\* 0.52 1.030 0.086 98\* 0.088 0.58 1.117 103\* 0.52 0.092 1.177 104 0.102 0.53 1.080 108 0.091 0.53 1.117 121\* 0.63 1.063 0.095

122

0.096

0.67

1.070

### Year 2018 K-100 Factors, D-Factors and Peak Season Factors

\* Previous Year Data

UPDATED 3/5/19				T	Da	ily Traff	ic Volu	me (AAI	DT)			
STREET	LOCATION	tion #	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
COLONIAL BLVD	W OF I - 75	242	61100	61600		4						
COLONIAL BLVD	W OF TREELINE AVE	91							45100	45500	ner landaan aan a	eninelistik forti, fastikutta
COLONIAL BLVD	W OF IMMOKALEE RD	246	35300				35400	39500	41500		43000	
CORBETT RD	N OF PINE ISLAND RD	508	500									
CORKSCREW RD	E OF US 41	247	1,3800	13700	18600		14300		16600		17000	
CORKSCREW RD	E OF VIA COCONUT POINTE	260		16900								
CORKSCREW RD	W OF I - 75	<u>15</u>	27300	23600	27200	29500	28800	30600	31600	33400	34200	36500
CORKSCREW RD	E OF I - 75		10900	10400			13000					
CORKSCREW RD	E OF I-75	70	an on the star				21900	21900	22000	22200	22000	22900
CORKSCREW RD	E OF BEN HILL GRIFFIN PKWAY	249							15600		18900	
CORKSCREW RD	W OF ALICO RD	248					3800					
CORKSCREW RD	E OF ALICO RD	250	2900	2900				3100		4400		6700
CORTEZ BLVD	W OF US 41	614	1700									
CRYSTAL DR	E OF US 41	254	9700	10100			8600	11200		12300		12100
CRYSTAL DR	E OF METRO PKWY	255	4500	5200				6100		6400		7900
COUNTRY LAKES DR	S OF TICE ST	505	2900	3000								
CYPRESS LAKE DR	W OF SOUTH POINTE BLVD	256	17000	19700								
CYPRESS LAKE DR	E OF SOUTH POINTE BLVD	257	21500	25500								
CYPRESS LAKE DR	E OF SOUTH POINTE BLVD	81	A STREET						20300	22300	22300	
CYPRESS LAKE DR	E OF OVERLOOK DR	<u>73</u>					29400	24700	25800	24200	27100	27200
CYPRESS LAKE DR	W OF SUMMERLIN RD	259	36300	30400	28700	27900	27800				27700	
CYPRESS LAKE DR	E OF REFLECTION PKWY	<u>82</u>							42300	38900	39900	40700
CYPRESS LAKE DR	W OF US 41	258	34500	37100	33700	31700	34000	35900	35200	(10000-000		

# TRAFFIC DATA FROM 2018 LEE COUNTY CONCURRENCY REPORT

evaluate future state highway system needs in the LRTP.<sup>18</sup> Modifications and capacity improvements to the state highway system are under the jurisdiction of FDOT.

					100TH	HIGHE	ST HOUI	R DIRE	CTIONAL V	OLUMES
	ROADWAY	LINK		STA	NDARD	2	017		2022	
NAME	FROM	то	TYPE	LOS	МАХ	LOS	EXIST ING	LOS	FUTURE	NOTES
ALABAMA	SR 82	MILWAUKEE BLVD	2LN	E	990	с	387	С	406	
RD	MILWAUKEE BLVD	HOMESTEAD RD	2LN	E	990	с	424	D	445	
ALEX-	SP 82		21 N	E	990	D	545		572	
BELL	51( 02	MILWAOREL DEVD	ZLIN		330		040		012	
BLVD	MILWAUKEE BLVD	LEELAND HEIGHTS	2LN	E	990	D	545	D	638	Shadow Lakes
	US 41	DUSTY RD	4LD	E	1,980	В	1,035	В	1,106	
	DUSTY RD	LEE RD	6LD	E	2,960	в	1,035	в	1,396	Alico Business Park
	LEE RD	THREE OAKS PKWY	6LD	Е	2,960	в	1,035	В	1,283	Three Oaks Regional Center
	THREE OAKS PKWY	I-75	6LD	E	2,960	В	2,285	В	2,401	v/c = 0.77/0.81
ALICO RD	I-75	BEN HILL GRIFFIN BLVD	6LD	Е	2,960	В	1,154	в	1,301	
	BEN HILL GRIFFIN BLVD	AIRPORT HAUL RD	2LN/ 4LD	Е	1,100/ 1,840	с	366	с	770	4 Ln constr 2018
	AIRPORT HAUL RD	GREEN MEADOW DR	2LN	E	1,100	С	366	С	384	
	GREEN MEADOW	CORKSCREW RD	2LN	E	1,100	В	131	В	224	
	ESTERO PKWY	FGCU ENTRANCE	4LD	E	2,000	В	1,169	В	1,228	
BEN HILL	FGCU ENTRANCE	COLLEGE CLUB DR	4LD	E	2,000	в	1,169	В	1,275	
PKWY	COLLEGE CLUB DR	ALICO RD	6LD	E	3,000	в	1,101	в	1,193	
	ALICO RD	TERMINAL ACCESS RD	4LD	E	1,980	A	1,033	A	1,086	
	SR 82	GUNNERY RD	2LN	E	990	D	442	D	465	
BUCKING-	GUNNERY RD	ORANGE RIVER BLVD	2LN	E	990	D	490	D	515	
HAM RD	ORANGE RIVER BLVD	SR 80	2LN	E	990	D	509	E.	1,178	v/c = 0.51/1.19 Buckingham 345 & Portico
	McGREGOR BLVD	WINKLER RD	6LD	E	2,980	D	2,292	D	2,409	v/c = 0.77/0.81
COLLEGE	WINKLER RD	WHISKEY CREEK DR	6LD	E	2,980	D	1,998	D	2,099	
FRWI	WHISKEY CREEK DR	SUMMERLIN RD	6LD	E	2,980	D	1,998	D	2,099	
	SUMMERLIN RD	US 41	6LD	E	2,980	D	1,772	D	1,862	
	BELLA TERRA BLVD	ALICO RD	2LN	E	1,140	В	235	E	628	Corkscrew Shores
CORK- SCREW RD	ALICO RD	6 L's FARMS RD	2LN	E	1,140	в	246	с	552	The Place
-	6 L's FARMS RD	COUNTY LINE	2LN	E	1,140	В	182	C	509	

Table 18: Existing and Future Roadway LOS on County-Maintained Arterials in Unincorporated Areas

18 Op. Cit. MPO 2040 Long Range Transportation Plan

					100TH	HIGHE	ST HOU		CTIONAL V	OLUMES
	ROADWAY LIN	к		STA	NDARD	2	017		2022	
NAME	FROM	то	TYPE	LOS	MAX	LOS	EXIST ING	LOS	FUTURE	NOTES
BEN HILL GRIFFIN PKWY	CORKSCREW RD	ESTERO PKWY	4LD	E	2,000	в	1,169	В	1,571	
	HICKORY BLVD	VANDERBILT DR	4LD	E	1,900	С	696	С	731	Constrained In City Plan
	VANDERBILT DR	US 41	4LD	E	1,900	с	1,553	С	1,611	v/c = 0.81/0.85 Constrained In City Plan
	US 41	OLD 41	4LD	E	1,860	С	1,167	С	1,318	Constrained, old count projection
BONITA BEACH RD	OLD 41	IMPERIAL ST	6LD	E	2,800	С	1,888	С	1,984	Constrained In City Plan
	IMPERIAL ST	W OF I-75	6LD	E	2,800	С	1,855	с	1,950	Constrained In City Plan
	E OF I-75	BONITA GRAND DR	4LD	E	2,020	В	576	В	605	Constrained In City Plan
	BONITA GRANDE DR	BELLO BLVD	4LD	E	2,020	В	576	В	605	Constrained In City Plan
BONITA GRANDE DR	BONITA BEACH RD	E TERRY ST	2LN	E	860	D	692	E	782	v/c = 0.80/0.91 old count projection
BOYSCOUT RD	SUMMERLIN RD	US 41	6LN	Е	2,520	E	1,819	Е	1,912	
BURNT STORE RD	SR 78	VAN BUREN PKWY	2LN/ 4LD	E	'1,140/ 2,950	D	809	A	851	4L under constr
BORREND	VAN BUREN PKWY	COUNTY LINE	2LN	E	1,140	С	453	С	551	
CAPE CORAL BRIDGE	DEL PRADO BLVD	McGREGOR BLVD	4LB	E	4,000	С	2,673	D	2,810	
	McGREGOR BLVD	SUMMERLIN RD	6LD	E	2,840	D	2,628	F	2,968	v/c = 1.00/1.06 old count projection,
BRIDGE	SUMMERLIN RD	US 41	6LD	E	2,840	F	2,869	F	3,016	programmed alt. analysis
	DYNASTY DR	SR 82	6LD	D	3,040	В	2,216	С	2,329	
CORBETT RD	SR 78 (PINE ISLAND RD)	LITTLETON RD	2LN	E	860	с	22	с	226	old count, added VA clinic
	US 41	THREE OAKS PKWY	4LD	E	1,900	с	840	С	1,105	Galleria at Corkscrew
	THREE OAKS PKWY	W OF I-75	4LD	E	1,900	С	1,810	F	2,067	v/c = 0.95/1.09 Estero Crossing
CORKSCREW RD	E OF 1-75	BEN HILL GRIFFIN PKWY	4LD	E	1,900	с	1,115	С	1,172	
	BEN HILL GRIFFIN PKWY	WILDCAT RUN DR	2LD	E	1,200	C	903	F	1,296	v/c = 0.75/1.08
	WILDCAT RUN DR	BELLA TERRA BLVD	2LD	E	1,200	В	696	с	1,089	v/c = 0.58/0.91
	CAPE CORAL PKWY	SE 46TH ST	6LD	E	2,660	С	1,404	С	1,586	old count projection
	SE 46TH ST	CORONADO PKWY	6LD	E	2,660	С	1,404	С	1,586	old count projection
DEL PRADO BLVD	CORONADO PKWY	CORNWALLIS PKWY	6LD	E	2,660	D	1,987	D	2,089	
	CORNWALLIS PKWY	CORAL POINT DR	6LD	E	2,660	D	2,003	D	2,105	v/c = 0.75/0.80
	CORAL POINT DR	PKWY	6LD	E	2,800	D	2,003	D	2,105	
	HANCOCK B. PKWY	SR 78	6LD	E	2,800	С	1,527	С	1,604	
	BIG CARLOS PASS BRIDGE	PESCADORA AVE	2LN	E	726	A	512	A	538	Constrained
	PESCADORA AVE	VOORHIS ST	2LN	E	726	В	590	С	620	Constrained
ESTERO BLVD	VOORHIS ST	TROPICAL SHORES WAY	2LN	E	726	в	590	С	620	Constrained
	TROPICAL SHORES	CENTER ST	2LN	Е	671	F	716	F	809	Constrained, old count
	US 41	THREE OAKS PKWY	4LD	E	2,000	В	801	в	1,094	East & West Cypress View
ESTERO PKWY	THREE OAKS PKWY	BEN HILL GRIFFIN PKWY	4LD	E	2,000	в	964	в	1.013	

### Table 20: County-Maintained Roadways in Incorporated Areas. Existing and Future LOS

# **2040 E+C NETWORK VOLUMES**



# LEE COUNTY MPO 2040 COST FEASIBLE HIGHWAY PLAN



# ROAD SEGMENTS PROJECTED TO NEED ADDED CAPACITY BY 2026 WITH EEPCO STUDY



# EHIBIT 1 VERDANA REVISED TRIP GENERATION SUMMARY

#### EXHIBIT 1

#### VERDANA REVISED TRIP GENERATION SUMMARY (1) RETAIL ADJUSTMENT

					AM PEA	K HOUR			PM PEA	KHOUR			D	AILY	
	LUC	SIZE	UNITS	ln	Out	Total	%	In	Out	Total	%	In	Out	Total	%
Retail															
Shopping Center (General Urban/Suburban)	820	30.000	1000 Sq. FL GLA	18	11	29		53	58	111		641	640	1.281	
Trips				18	11	29		53	58	111		641	640	1.281	
Internal Capture <sup>(2)</sup>				14	9	23	79%	42	46	88	79%	513	512	1.025	80%
Pass-by				0	0	0	0%:	0	0	0	0%	0	0	0	0%
Net New External				4	2	6		11	12	23		128	128	256	
Residential															
Single-Family Detached Housing (General Urban/Suburban)	210	1460	Dwelling Units	258	774	1,032		739	434	1,173		6.187	6.186	12,373	
Trips				258	774	1,032		739	434	1,173		6.187	6.186	12.373	
Internal Capture <sup>(2)</sup>				9	14	23	2%	46	42	88	8%	513	512	1.025	8%
Net New External				233	736	969		663	359	1,022		5.299	5.297	10.596	
Amenities		1012112121		~	-								100		131
Health/Fitness Club (General Urban/Suburban)	492	10.000	1000 Sq. Ft. GFA	7	7	14		20	15	35		165	164	329	
Recreational Community Center (General Urban/Suburban)	495	15.000	1000 Sq. Ft. GFA	20	11	31		17	18	35		254	253	507	
Trips				27	18	45		37	33	70	0.00	419	417	836	
Internal Capture				24	16	40	89%	33	30	63	90%	377	375	752	90%
Net New External				5	2	2		4	3	/		42	42	84	
				le.	0	Total	01	In	Out	Total	C/.	In.	0	Tatal	01
TOTAL				303	203	1 106	10	820	525	1.354	70	7 747	7 2.13	1000	70
				63	63	126	1102	151	151	302	2204	1 779	1.243	2 554	2504
EXTERNAL				240	740	980	11 10	678	374	1.052	22 R	5 469	5 467	10.036	25 10
PASS_BY - AUTOMOBILE TRIPS				0	0	0	0%	- A	0	0	0%	0	0	0	1142
NET NEW EXTERNAL AUTOMOBILE TRIPS				240	740	980		6678	374	1.052		5.469	5.467	10.936	
								(2)				And Color		Service St.	
								~ -							

#### Footnotes:

(1) Trip generation estimate based on ITE Trip Generation (9th Edition) to be consistent with the original study.

(2) Internal capture rates based on professional judgement.

# TABLE E-2 FROM EEPCO STUDY (WILDBLUE, THE PLACE AND PEPPERLAND RANCH DEVELOPMENTS)

	1						1461	Line .								Cast		Table	C-2:2026	Peak Hos	H Project	Traffic Vol	umes - All	Feur Der	elopments	5												-			A11.4.	Descart			
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			AADT	Houth	Peak	Houry	Peak	AADT	Houlin	Peak	Hourh	Peak	AADT	Hours	Peak	Houry	Peak	Hourly	Peas	Hourty	Peal	AADT	Hourly	Peal	Houty	Peak	Hourh	Peak Ho	unii Pea	AADT	Hourty	Peak	Hourly	Peak	Houthy	Peak	Hourly Pe	Hour	ny Pe	eat He	suin Pea	e hourt	n Pest	t Hout	h Pear
Kosdway	From	10	Volume	Volum	Da	Volume	Da	Volume	Velum	n Du	Volume	Dir	Valume	Volume	Dir	Volume	Dr	Volume	Der.	Volume	Det	Volume	Volume	Dr.	Volume	0. 11	mulat	Dr Va	ume Da	Volume	Valume	Da	Volume	Dr	Volume	Dr	Volume D	Volut	14 Di	Vol	iume Dr.	Volum	ne Dir	Volum	se Dir
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	Wild an Entrance	Green Managers Br	9.24	34		15		9.0%	40	N	37		20.8%	146	N	49	1	141		\$3		16.9%	63		21	5	64	5		17.15	129	N	44	5	130	-	76 1	161	+	11	(5) S	177		141	
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	Contaction Rd	Estero Pkwy	4.8%	26	N	2	1 5	4.25	23	1 5	13	N	4.5%	32	N	11	5	30	5	18	11	3.7%	14	h	1	5	14	3	8 1	3.9%	29	N	10	5	30	5	18	10	1 1	N	35 5	97	5	57	N
	Estero Prwy	IGCU Intrance	1.7%	10	N	3	1 5	1.4%	1	5	4		1.3%	8	N	3	5	7	5	4		0.9%	)		1	1	3	5	2 1	1.0%		ĸ	3	5	8	5	5	29	11	N	10 5	26	5	15	N
Ber Hal Golfin	FGCU Entrance	College Club Dr	2.0%	8	5	7	K	1.9%	9	N	8	s	0.9%	6	N	2	5	6	s	4	6	0.8%	3	N	1	5	3	5	2 1	0.9%	7	N	2	5	7	5	4	23	11	N	13 5	24	s	19	N
PEVER	College Club Dr	Alice Rd	7.5%	39	5	15	h	7.6%	43	N	25	5	3.3%	23	5	8	N	22	N	13	5	2.5%	11	5	4	N	12	N	6 5	3.2%	24	5	5	ĸ	24	N	15	57	17	5	35 N	100	N N	59	5
	Alito Rd	SWFIA Access Rd	9.75	51	N	20	5	10.4%	57	5	33	h	5.7%	40	N	13	5	39	5	23	n	4 43.	17	N	6	5	17	5	ic I	4.15	37	ĸ	11	5	33	1	20	140		N	SC S	346	2	86	N
	Three Daks Phwy	1-75	13.25	70	w	26	1	12.9%	71	t	42	w	13.5%	95	w	32	E	91	E	54	w	11.1%	42	w	14	E	42	1	25 V	11.5%	87	w	30	E	57	1	53 1	: 294	4 1	w ·	102 (	291	1	174	w
	1.75	Ber Hill Griffer Pawy (FB)	28.9%	0	w	57	t	28.75	158	F	0	W	35.1%	0	w	67	F	238	L	0		27.8%	c	w	35	r	105	r	0 1	26 55	0	w	69	E	203	1	0 1	0		2 :	243 1	703	E	0	w
	ten Hill Griffin Pawy (WB)	1-75	24.2%	127	w	0	E	22.9%	0	E	74	w	35.1%	197	w	c	t	0	E	112	w	27.8%	83	w	0	E	0	τ	50 W	26.5%	160	w	c	t	0	1	97 \	56	7 1	w	0 1	0	I	333	w
	Ben Hill: Griffin Piewy	Grande Dak Wy	38.2%	204	w	73	t	36.3%	201	t	117	w	41.0%	238	w	95	1	278	1	163	w	32.4%	122	w	41	1	123	L	73 W	31.3%	236	w	81	t	257	1	143 1	834	0 1	w :	291 1	839	. 8	491	w
	Grande Oak Wy	Wildcas Aun Dr	40.7%	217	w	78	1	38.7%	214	ŧ	125	w	43.0%	302	w	101	L	291	E	171	Ŵ	33.9%	127	W	42	L	129	1	76 1	32.7%	246	w	85	1	748	1	150 V	89	2 1	W	305 E	862	1	522	E W
	Wildcat Run Dr	WidBlue West Entr	42.2%	225	w	81	ŧ	40.2%	222	1	129	w	44.1%	310	w	103	E	259	L	176	w	34.7%	130	w	43	L	133	1	78 1	33.4%	257	w	87	L	253	1	153 1	91	7 1	W :	314 E	906	1	536	w
	WidBice West Entr	Cypress Shadows Bird	29.2%	140	w	71	t	25.7%	125	L	99	w	45.2%	318	w	106	I	306	t	180	w	35 5%	133	w	44	τ.	135	(	20 1	34 15	257	w	25	E	258	1	156 1	V 841	8 1	W	310 [	825	t	515	w
Conscrew Rd	Cypress Shadows Blvd	Befa Terra Byd/WidBlue	29.2%	140	w	71	1	25.7%	110	E	99	w	45.2%	318	w	106	t	30€	£	180	w	35.5%	132	w	44	1	135	1	50 V	34.17	257	w	89	L	258	1	156 1	841	8 5	W	310 E	825	E	515	W
	Bella Terra End/WildBlue	Alico Iud	13.1%	71	1	23	w	11.6%	64	w	38	1	49.7%	349	w	136	t	336	E	198	w	38.7%	145	w	45	E	147	t	87 V	37.4%	282	w	97	1	283	1	173 1	v 79	5 1	w :	332 (	804	E	520	> w
	Atico Rd	Conkicrew Farms Entrance	8.75	47	E	17	w	6.35	45	w	27	E	78.0%	548	w	183	E	528	E	310	W	\$1.2%	230	w	77	1	233	(	137 V	59,45	447	w	154	E	450	1	272 1	V 1.74	42 1	w	461 E	1,23	\$ E	764	w
	Corkscrew Farms Entrance	6 L's Farm Rd	5.2%	28	E	10	w	4.95	27	w	16	E	22.0%	155	1	51	W	149	w	60	1	71.2%	267	w	89	E	271	1	159 V	69.3%	522	w	160	L	525	1	317 1	V 85	0 1	w	452 E	900	E	657	w
	6 L's Farm Rd	Pepperland Entrance	4.9%	26	E	9	. W	4,75	27	w	15	E	21.1%	145	E	45	w	143	w	84	L	72.6%	272	w	91	E	277	1	163 V	70 05	532	w	154	E	535	I	523 1	V 86:	2 1	W	449 E	911	1	650	w w
	Peppertand Entrance	Verdana Entrance	3.5%	19	ι	7	w	3.4%	15	w	11	C	15.4%	108	E	35	W	104	w	61	1	27.4%	103	E	34	w	104	w	61 [	E0.0%	602	w	205	r	606	E	366 1	V 67	9 1	w	438 E	739	1	592	: • w
	Verdana Entrance	TP: Rd	1 0%	6	E	2	w	1.0%	5	w	3	t	4.3%	30	E	10	W	29	w	17	F	9.1%	34	E	11	w	35	w	20 1	19.5%	147	ſ	51	w	148	w	65	21	7 7	F	74 W	217	W	129	+ E
	1Pi Rd	SR 82	0.711	4	E	2	w	6.7%	4	w	2	L	3.1%	22	£	7	w	21	w	17	t	5.8%	22	1	7	W	22	w	13 (	12.7%	96	E	33	w	95	W	38	14.	4 1	1	49 W	143	/ W	85	E
Estero Par	Three Oaks Pewy	Ben Hill Griffen Pikwy	2.6%	14	w	4	1	2.3%	13	E	7	w	2.6%	18	w	6	Ł	18	f	10	1	2.2%	8	w	3	E	8	1	5 V	2.4%	15	w	٤	t	31	1	33 N	58	1   Y	w	19 [	57	L	33	W
1.75	Bonita Beach Rc	Contacrew Rd	12.4%	66	5	24	N	12.3%	66	N	39	5	16.0%	112	5	37	N	105	N	64	5	12.2%	46	5	15	N	46	R	27 5	11.25	84	5	29	n	85	N	51	301	8 !	5 ?	105 N	305	. N	151	. 5
1.1.2	Conkscrew Rd	Alico Rd	2.7%	34	N	5	5	2.4%	13	5	6	N	2.5%	18	N	6	5	17	5	10	ĸ	2.0%	8	h	3	5	8	1	4 1	1.9%	14	N	5	5	14	1	9 1	54	1 1	R	15 5	52	5	29	11
	Daniels Pkwy	40th St SW	0.2%	1	3	0	w	0.2%	1	w	1	E	0.0%	0	w	0	E	0	E	0	w	0.0%	0	w	0	E	0	1	0 V	0.0%	0	w	0	L	D	1	0 1	v o	v	w	0 E	1	E	1	w
	40th St SW	Alabama Rd	0.2%	1	E	D	w	0.2%	1	w	1	E	0.0%	0	w	0	E	0	E	0	w	0.0%	0	w	0	E	0	1	0 V	0.3%	2	w	1	C	2	1	1 1	V 3	Y	W.	1 E	3	£	3	w
	Alabama Rd	Pariedale Bixd	0.1%	1	E	0	w	0.2%	1	w	1	C	0.1%	1	w	C	E	1	E	0	W	0.2%	1	w	D	Ł	1	L	0 V	0.4%	3	w	1	1	3	I	2 1	V 4	V	w	2 [	5	E	4	w
	Parkdale Bivo	Jagoar Bive	0.011	D	*	0	L	0.0%	0	£	0	w	0.1%	1	w	C	L	1	L	C	w	0.2%	1	w	0	E	1	1	0 1	0.6%	3	w	2	1	5	1	3 1	V 6	V	v.	2 1	6	L	4	w
SR 82	Jaguar Blet	Komesteac Rc	0.0%	0	w	0	L	C 0%	0	F	0	w	0.7%	1	w	C	1	1	1	1	2	0.3%	1	w	0		1	•	1 V	0.7%	5	w	2	1	5	1	3 1	V 8	V	w	3 6	8	1	5	w
	homestead Ro	liel bivd	0.0%	0	w	0	t	0.0%	0	L	0	w	0.3%	2	w	1	I	2	E	1	W	0.6%	2	w	1	ŧ	2	1	1 V	1.4%	11	w	4	E	11	1	6 1	15	5 Y	w	5 E	15	1	9	w
	Bell Bivd	Columbus Blvc	0.2%	1	w	0	F	0.0%	0	t	0	w	0.6%	2	w	1	E	4	i	2	W.	1.2%	5	w	2	L	5	1	3 V	3.0%	23	w	8	C	23	1	24 1	33	J V	w	13 1	32	1	19	w
	Columbus Blve	Collier Co. Line	0.3%	2	w	0	ŧ	0.2%	0	E	0	w	1.0%	7	w	1	L	7	1	4	w	1.8%	7	w	2	1	7	1	4 V	4.8%	35	w	12	1	35	r	72 1	v 52	1 1	w	17 E	52	t	30	w
	Caliler Co Line	Conscrew Rd	0.3%	2	w	0	E	0.2%	2	f	0		1.0%	7	w	2	F	7	T	4	w	1.8%	7	w	2	E	7	1	4 V	4.8%	36	w	17	1	36	11	22	52	1 V	N	37 E	57	1	30	w

IIE Trip Generation IIE Thip Generation											ITE Trip Gener	ation		5		ITE Top Gener	alion			
Project Daily Volume	Project ALL	Peal Hour Volume	Project Daliy Volume	Project PM	Peak Hour Volume	Project Daily Valume	Project AM	Peak How Volume	Project PA	Pear Heur Volume	Project Daily: Volume	Project Ald	' Pear Hour Valume	Project PL	Peak How Volume	Project Daily Volume	Project At	М Реак Нош урбатке	Project Ph	Pezz Hour Volume
	Ente:	198		Enter	557		Enter	234	Enter	677		Enter	125	Enter	381		Erster	260	Emer	75E
10.222	Exit	526	10.222	Exit	322	11,317	Exit	703	Exit	398	6,297	244	375	Ent	224	12.923	Exit	- 753	End	458
	Total	724		Tetal	\$74		Teta	937	Total	1.075		Total	500	Tutal	605		Total	1.013	Total	1.216

Pgi

## PM Peak Hour Traffic From Surrounding Residential Developments

		WilBlue	Corkscrew				
		Peak	Farms Peak	Pepperland	Total PM Peak	2040	2024
		Direction	Direction	Peak Direction	Hour Peak	Background	Background
Roadway	Segment	Volume	Volume	Volume	<b>Direction Traffic</b>	Traffic (75%) <sup>1</sup>	Traffic (50%) <sup>2</sup>
Corkscrew Rd.	W. of Wildcat Run Dr.	214	278	129	621	466	311
Corkscrew Rd.	W. of WildBlue Entr.	222	299	132	653	490	327
Corkscrew Rd.	W. of Cypress Shadows Blvd	126	306	135	567	425	284
Corkscrew Rd.	W. of Bella Terra Blvd	126	306	135	567	425	284
Corkscrew Rd.	W. of Alico Rd	64	336	147	547	410	274
Corkscrew Rd.	W. of Corkscrew Farms Entr	45	528	233	806	605	403
Corkscrew Rd.	W. Six L's Farm Rd	27	149	271	447	335	224
Corkscrew Rd.	W. of Pepperland Entr	27	143	277	447	335	224
Alico Rd	N. of Corkscrew Rd	30	192	86	308	231	154

### PM Peak Hour Peak Direction Traffic From WildBlue, Corkscrew Farms and Pepperland

\* The PM peak hour traffic was obtained from Table E-2 of the EEPCO study.

1 Was utilized in the 2040 LOS Analysis

2 Was utilized in the 2024 LOS Analysis

### PM Peak Hour Peak Direction Traffic From Verdana

		Traffic		Verdana Peak	2040	2024
		Distribution	Verdana Peak	Direction	Background	Background
Roadway	Segment	Percentage	Hour Volume	Volume	Traffic (75%) <sup>1</sup>	Traffic (50%) 2
Corkscrew Rd.	W. of Wildcat Run Dr.	32.7%	678	222	166	111
Corkscrew Rd.	W. of WildBlue Entr.	33.4%	678	226	170	113
Corkscrew Rd.	W. of Cypress Shadows Blvd	34.1%	678	231	173	116
Corkscrew Rd.	W. of Bella Terra Blvd	34.1%	678	231	173	116
Corkscrew Rd.	W. of Alico Rd	37.4%	678	254	190	127
Corkscrew Rd.	W. of Corkscrew Farms Entr	59.4%	678	403	302	201
Corkscrew Rd.	W. Six L's Farm Rd	69.3%	678	470	352	235
Corkscrew Rd.	W. of Pepperland Entr	70.6%	678	479	359	239
Alico Rd	N. of Corkscrew Rd	22.0%	678	149	112	75

\* The Traffic Distribution Percentage was obtained from D1RPM 2026 Refined Model in the Appendix of the TIS report.

\* The Verdana Peak Hour Volume was obtained from Exhibit 1, titled "Verdana Revised Trip Generation Summary" in the Appendix of the TIS report.

1 Was utilized in the 2040 LOS Analysis

2 Was utilized in the 2024 LOS Analysis

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# D1RPM 2026 REFINED MODEL PROJECT TRAFFIC PERCENT DISTRIBUTION FROM EEPCO STUDY

# DIRPM 2026-Refined Model

Project Traffic Percent Distribution



# REGIONAL AERIAL MAP EXISTING AND APPROVED SURROUNDING DEVELOPMENTS



# **ZONING RESOLUTION ZAB-82-337**

#### **RESOLUTION NUMBER ZAB-82-337**

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF .

OF LEE COUNTY, FLORIDA

·· · · · ·

WHEREAS, Highlands Trust, has properly filed an application for a) a change in zoning from AG to CC and MH-1 Districts; b) special exception in the MH-1 District for on site signs (Sec. 607.E); and c) variance to permit sewagetreatment plant within the front 50% of lot (Sec. 500.1.B. 1.c) on a piece of property located at NW quadrant of Alico Road and Corkscrew Road intersection, described more particularly as;

Sec. 22, 27, Twp. 46S, Rge. 26E, Lee County Florida. Description - MH-1

Commencing at the Northwest corner of Section 27, Township 46 South, Range 26 East, said point being the point of beginning, and proceeding easterly 1,500 feet along the Northern boundary of said section; thence run southerly 90° 0' a distance of 600 feet; thence run westerly 90° 0' a distance of 600 feet; thence run Southerly 90° 0' a distance of 900 feet; thence run westerly 90° 0' a distance of 900 feet; thence run boundary of said section; thence run northerly along the western boundary of said section a distance of 1,500 feet to the point of beginning.

AND that part of the southwest 1/4 of the southwest 1/4 of section 22, Township 46 South, Range 26 East, lying south of Corkscrew Road. LESS: the northerly 400 feet thereof. Subject to easements, restrictions & reservations of record.

Description - CC The northerly 400 feet of the following described parcel: That part of the southwest 1/4 of the southwest 1/4 of Section 22, Township 46 South, Range 26 East, lying south of Corkscrew Road. Subject to easements, restrictions, & reservations of record. <u>Size of Property</u>: CC District 12.1 acres and MH-1 District 59.9 acres for a total of 72 acres.

WHEREAS, Kenneth A. Jones, Trustee, the owner of the subject parcel has given proper authorization to Kenneth A.

Page 1 or 3

Jones to act as his agent, and has given him/her the authority to pursue this zoning action; and,

WHEREAS, a public hearing was legally and properly held before the Lee County Zoning Board, with full consideration <sup>•</sup> of all the evidence available to the Zoning Board; and,

WHEREAS, the Lee County Zoning Board fully reviewed the matter and recommended denial of the change in zoning from AG to CC and MH-1 Districts; denial of the Special Exception for on site signs; denial of the variance to permit sewage treatment plant within front 50% of lot based on the fact proposed zoning is not consistent with local plans, policies and regulations; not consistent with surrounding development and land use patterns; and because of concerns regarding fire protection, water, drainage, package treatment plants.

WHEREAS, an appeal was timely filed by an aggrieved person/the Division of Community Development; and,

WHEREAS, a public hearing was legally and properly advertised and held before the Lee County Board of County Commissioners; and,

WHEREAS, the Board of County Commissioners considered the recommendations of the Staff, the Local Planning Authority, the Zoning Board, the documents on file with the County, and the testimony of all interested persons,

The Board of County Commissioners after full and complete consideration of the matter does hereby make the following findings of fact:

The project is to be for single family manufactured housing with a density of 2.9 units per acre; services do not have to be brought in; roads are there; property is adjacent to, but not in Corkscrew Swamp; permitting procedures involved have nothing to do with land use; land use is proper, standards are met.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS AS THE ZONING APPEALS BOARD, that the Zoning Appeals Board does hereby grant a) a change in zoning from AG to CC and MH-1 Districts; b) Special Exception in the MH-1 District for on site signs; and c) variance to permit sewage treatment plant within the front 50% of lot pursuant to site plan SP-82-337 incorporated herein by reference and attached hereto.

The foregoing Resolution was adopted by the Lee County Board of County Commissioners upon motion by Commissioner • Averill, and seconded by Commissioner Scaffe, and upon being put to a vote, was as follows:

Ernest Averill	Aye
Roland Q. Roberts	Nay
Harry Rodda	Ауе
Mike Roeder	Nay
Wade H. Scaffe	Aye

DULY PASSED AND ADOPTED this 20th day of September, A.D., 1982.

ATTEST: SAL GERACI, CLERK

BY Cler

BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA

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Approved as to form by:

RESOLUTION NUMBER ZAB-82-337

HEARING NUMBER 81-11-1(DCI)



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# **TRIP GENERATION EQUATIONS**

# Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Weekday

eneral Urban/Suburban
47
53
0% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

### **Data Plot and Equation**





1

# Shopping Center (820)

Vehicle Trip Ends vs:	1000 Sq. Ft. GLA
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:	84
1000 Sq. Ft. GLA:	351
Directional Distribution:	62% entering, 38% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

### **Data Plot and Equation**



# Shopping Center (820)

Vehicle Trip Ends vs:	1000 Sq. Ft. GLA
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:	261
1000 Sq. Ft. GLA:	327
Directional Distribution:	48% entering, 52% exiting

#### Vehicle Trip Generation per 1000 Sq. Ft. GLA Average Rate Range of Rates

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

### **Data Plot and Equation**





Exhibit T7

# **15230 Corkscrew Road Parcel**

## **Protected Species Assessment**

Section 22, Township 46 South, Range 26 East Lee County, Florida

## **August 2017**

Prepared for:

Small Brothers, LLC 12810 Tamiami Trail N., Suite 200 Naples, FL 34110

Prepared by:

DexBender 4470 Camino Real Way Suite 101 Fort Myers, FL 33966 (239) 334-3680

## Introduction

The 12.14 $\pm$  acre project is located within a portion of Section 22, Township 46 South, Range 26 East, Lee County, Florida. The parcel is bordered to the north by Corkscrew Road, to the west by single family homes within the Corkscrew Shores community, and to the south and east by county owned land.

## Site Conditions

The parcel consists of wetland and upland communities with varying densities of exotics. A herbaceous marsh is located along the southeast portion of the site.

## Vegetation

The predominant upland and wetland vegetation associations were mapped in the field on Lee County 2016 digital color 1" = 100' scale aerial photography. Six vegetation associations were identified using the Florida Land Use, Cover and Forms Classification System (FLUCCS). Figure 1 depicts the approximate location and configuration of these vegetation associations. The acreage is summarized by FLUCCS code on Table 1. A brief description of each FLUCCS code is provided below.

FLUCCS CODE	DESCRIPTION	ACREAGE
411E	Pine Flatwoods invaded by Exotics (5-9%)	3.83
411E2	Pine Flatwoods invaded by Exotics (10-25%)	1.30
414E2	Pine - Mesic Oak invaded by Exotics (10-25%)	1.53
428HE3	Hydric Cabbage Palm invaded by Exotics (51-75%)	1.05
619	Exotic Wetland Hardwoods	2.80
641E4	Freshwater Marshes invaded by Exotics (76-90%)	1.60
	TOTAL	12.14

Table 1. Acreage summary by FLUCCS

### FLUCCS 411E, Pine Flatwoods invaded by Exotics (5-9%)

This upland community consists of a canopy of slash pine (*Pinus elliottii*) with widely scattered melaleuca (*Melaleuca quinquenervia*) and laurel oak (*Quercus laurifolia*). The understory is comprised of cabbage palm (*Sabal palmetto*), wax myrtle (*Myrica cerifera*), saltbush (*Baccharis halimifolia*), and scattered dahoon holly (*Ilex cassine*). Brazilian pepper (*Schinus terebinthifolius*) is present to varying extents within this community. Ground cover is dominated by saw palmetto (*Serenoa repens*). Additional ground cover species include grape vine (*Vitis* sp.),

SECTION: 22 TOWNSHIP: 46 S RANGE: 26 E



FLUCCS	Description	Acreage
411E	Pine Flatwoods Invaded by Exotics (5-9%)	3.86 ac.
411E2	Pine Flatwoods Invaded by Exotics (26-50%)	1.30 ac.
414E2	Pine - Mesic Oak Invaded by Exotics (26-50%)	1.53 ac.
428HE3	Hydric Cabbage Palm Invaded by Exotics (51-75%)	1.05 ac.
619	Exotic Wetland Hardwoods	2.80 ac.
641E4	Freshwater Marshes Invaded by Exotics (76-90%)	1.60 ac.
	Total	12.14 ac

15230 Corkscrew Road Parcel



Notes:
Property boundary is approximate and was obtained from the Lee County Property Appraiser's Website.
Mapping based on photointerpretation of 2016 aerial photography and ground truthing in August 2017.
Delineation of jurisdictional wetlands is preliminary and subject to field review/approval by applicable regulatory agencies.

Figure 1. Protected Species Assessment Map

PERMIT USE ONLY, NOT FOR CONSTRUCTION

November 11, 2019 11:43:24 a.m. Drawing: SMALLB1PLAN.DWG

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SCALE FEET

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gallberry (*Ilex glabra*), Virginia creeper (*Parthenocissus quinquefolia*), and beauty berry (*Callicarpa americana*).

#### FLUCCS Code 414E2 Pine - Mesic Oak invaded by exotics (26-50%)

This upland community, located in the northwestern portion of the property, consists of a canopy of slash pine and laurel oak, with a understory comprised of cabbage palm, Brazilian pepper, wax myrtle (*Myrica cerifera*), and myrsine (*Rapanea punctata*). Ground cover species include saw palmetto, greenbrier (*Smilax* sp.), and scattered grape vine.

<u>FLUCCS Code 428HE3 - Hydric Cabbage Palm invaded by Exotics (51-75%)</u> The southwestern portion of the property was likely cleared in the past and is comprised of a canopy of cabbage palm, laurel oak, and Brazilian pepper. The midstory is open and ground cover is comprised primarily of leaf duff.

#### FLUCCS Code 619 - Exotic Wetland Hardwoods

This FLUCCS code describes the areas along the edge of the freshwater marsh and extends into the northeast portion of the parcel. The canopy and subcanopy of this community is dominate by Brazilian pepper with scattered slash pine, melaleuca (*Melaleuca quinquenervia*), red maple (*Acer rubrum*), and cabbage palm. Other vegetative species present include saltbush, myrsine, and wax myrtle.

#### FLUCCS Code 641E4 - Freshwater Marshes invaded by Exotics (76-90%)

A 1.60± acre wetland is located on the southeast portion of the property. The canopy and subcanoy in this area consists of scattered willow (*Salix caroliniana*). Ground cover is dominated by a thick growth of primrose willow (*Ludwigia peruviana*), along with para grass (*Urochloa mutica*), fireflag (*Thalia geniculata*), arrowhead (*Sagittaria* sp.), and climbing cassia (*Senna pendula*). Other ground cover species present include foxtail grass (*Setaria* sp.), old world climbing fern (*Lygodium microphyllum*), water lily (*Nymphaea odorata*), and coinwort (*Centella asiatica*).

## Survey Method

Each habitat type was surveyed for the occurrence of listed species likely to occur in the specific habitat types. The survey was conducted using meandering pedestrian belt transects. This survey methodology is based on the Lee County administratively approved Meandering Transect Methodology. Observations of the freshwater marsh were taken from areas surrounding the marsh. The approximate locations of all direct sighting or signs (such as tracks, nests, and droppings) of a listed species were denoted on the aerial photography. The 1" = 100' scale aerial Protected Species Assessment Map (Figure 1) depicts the approximate location of the survey transects and the results of the survey. The listed species survey was conducted during the mid-morning hours of August 23, 2017. During the survey, the weather was warm and sunny. Species listed as endangered, threatened, or species of special concern by the Florida FWC or the FWS that could potentially occur on the subject parcel according to the Lee County Protected Species Ordinance are listed in Table 2. This list from the Lee County Protected Species Ordinance is general in nature, does not necessarily reflect existing conditions, and is provided for general informational purposes only.

Prior to conducting the protected species survey, a review of the FWC listed species occurrence database (Updated June 2017) was conducted to determine the known occurrence of listed species in the project area. The database does not indicate the presence of any known State or Federally listed species either on or immediately adjacent to the project area.

FLUCCS CODE	Percent Survey Coverage	Species Name	Present	Absent
411E	80	Gopher Frog ( <i>Rana areolata</i> )		
411E2		Eastern Indigo Snake (Drymarchon corais couperi)		$  \mathbf{v}  $
		Gopher Tortoise (Gopherus polyphemus)		N
		Red-cockaded Woodpecker (Picoides borealis)		N
		Southeastern American Kestrel ( <i>Falco sparverius</i> paulus)		N
		Big Cypress Fox Squirrel (Sciurus niger avicennia)		
		Florida Black Bear (Ursus americanus floridanus)		$$
		Florida Panther (Felis concolor coryi)		√
		Beautiful Pawpaw (Deeringothamnus pulchellus)		$$
		Fakahatchee Burmannia (Burmannia flava)		√
		Florida Coontie (Zamia floridana)		N N
		Satinleaf (Chrysophyllum olivaeforme)		√
414E2	80	Gopher Frog (Rana areolata)		
		Eastern Indigo Snake (Drymarchon corais couperi)		$$
		Florida Black Bear (Ursus americanus floridanus)		1
		Florida Panther (Felis concolor coryi)		√
428HE3	80	Eastern Indigo Snake (Drymarchon corais couperi)		
		Audubon's Crested Caracara (Polyborus plancus audubonii)		$\checkmark$
		Florida Black Bear (Ursus americanus floridanus)	1	
		Florida Panther (Felis concolor coryi)		$$
		Simpson's Stopper ( <i>Myrcianthes frangrans</i> var. <i>simpsonii</i> )		
619	80	None		

Table 2. Listed Species That Could Potentially Occur On-site

641E4	80	American Alligator (Alligator mississippiensis)	
		Florida Sandhill Crane (Grus canadensis pratensis)	$$
		Limpkin (Aramus guarauna)	$$
		Little Blue Heron (Egretta caerulea)	
		Reddish Egret ( <i>Egretta rufescens</i> )	
		Snail Kite (Rostrhamus sociabilis)	$$
		Snowy Egret ( <i>Egretta thula</i> )	$$
		Tricolored Heron (Egretta tricolor)	$$
		Wood Stork (Mycteria americana)	$$
		Everglades Mink (Mustela vison evergladensis)	$$

## Results

No species listed by the FWC and/or FWS as threatened, endangered, or species of special concern were observed during the protected species survey. Widely scattered pine tree snags with potential bonneted bat cavities were observed. There is potential for periodic opportunistic foraging by both listed and non-listed species of wading birds within the freshwater marsh on the property, but is unlikely due to the thick growth of undesirable vegetative species. In addition to the site inspection, a search of the FWC species database (updated in July 2017) revealed no known protected species within or immediately adjacent to the project limits.

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SECTION: 22 TOWNSHIP: 46 S RANGE: 26 E





Water Resources Report 15230 Corkscrew Commercial Project Lee County, Florida

Cleveland Construction 8620 Tyler Boulevard Mentor, OH 44060

**JULY 2018** 

# Water Science Associates

13620 Metropolis Avenue, Suite 110 Fort Myers, Florida 33912 O 239.204.5300 - F 866.398.2426 www.waterscienceassociates.com Water Resources Report 15230 Corkscrew Commercial Project Lee County, Florida

Cleveland Construction 8620 Tyler Boulevard Mentor, OH 44060

# Water Science Associates

**JULY 2018** 

W. Kirk Martin, P.G. 0079 Principal Scientist

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## SECTION A INTRODUCTION

#### **Project Overview**

The Corkscrew Commercial development (Project) is located at 15230 Corkscrew Road, southwest of the intersection of Alico Road and Corkscrew Road, within Section 22, Township 46 South, Range 26 East in Lee County, Florida. The project is an approximately 12-acre proposed commercial development which will include community retail centers totaling approximately 80,000 square feet at build-out. The site is zoned as "Community Commercial" and located in the Lee County's Density Reduction Groundwater Recharge (DRGR) zone. Refer to Figure 1 for a regional location map of the project and Figure 2 for a conceptual site plan.



Figure 1. Location of the project site

The project site is bordered to the north by the Youngquist Brothers Rock quarry, and a nursery. The project is bordered to the west by the Corkscrew Shores residential community. The project is bordered to the east and south by undeveloped land owned by Lee County and SFWMD respectively. The Lee County Utilities Corkscrew Wellfield is near the property and a portion of the project falls within wellfield protection zones of that wellfield, established by Lee County Ordinance #07-35. A review of the SFWMD GIS database indicates that the project did not have an active water use or environmental resource permit prior to the current owner purchasing the property. The previous owner of the site, Estero Bay Baptist Church,

applied for water use permit for land use irrigation in 2009. However, the application was incomplete and was later withdrawn.



Figure 2. Conceptual Site Plan

Considering the project lies within the DRGR zone, the project will be required to satisfy the following policies and goals set forth by the County.

Policy 1.4.5 of the Lee Plan requires new land uses in the DRGR: "to demonstrate compatibility with maintaining surface and groundwater levels at their historic levels (except as provided in Policies 33.1.3 and 33.3.4) utilizing hydrologic modeling, the incorporation of increased storage capacity, and inclusion of green infrastructure. The modeling must also show that no adverse impacts will result to properties located upstream, downstream, as well as adjacent to the site. Offsite mitigation may be utilized, and may be required, to demonstrate this compatibility. Evidence as to historic levels may be submitted during the rezoning or development review processes."

Policy 2.4.3 requires in part, that applicants for land use changes within the DRGR: "1. analyze the proposed allowable land uses to determine the availability of irrigation and domestic water sources; and, 2. identify potential irrigation and domestic water sources, consistent with the Regional Water Supply Plan ...; and, 3. present data and analysis that the proposed land uses will not cause any significant harm to present and future public water resources; ....."

In addition to the above Policies, Goals 115 (Water Quality and Wastewater) and 117 (Water Resources) of the Lee Plan address requirements, policies, and objectives for new developments to achieve during Comprehensive Plan Amendments. Specific to water resource management and potential water use associated with the project, Goal 115 requires facilities "*To ensure that water quality is maintained or improved for the protection of the environment and people of Lee County.*" Objective 115.1 requires facilities under Comprehensive Plan Amendment to "*Maintain high water quality, meeting or exceeding state Page 3* 

and federal water quality standards." Goal 117 requires developments "To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)." Objective 117.1 requires facilities to "Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems."

The above goals, policies and objectives are relevant to this project as they require a developer to consider water resources, water use, water supply, and water quality issues that the development must address for approval. The applicant has carefully considered these requirements in their project design resulting in a project that meets the criteria of the Lee Plan for water supply, water management, water levels, and water quality. The sections below provide the analysis and assessment to address Lee Plan Goals, Policies, and Objectives.

## SECTION B GROUNDWATER RESOURCES

#### Introduction

The hydrostratigraphy underlying the Corkscrew Commercial project is typical for southern Lee County with a series of aquifers and confining beds occupying the Surficial, Intermediate, and Floridan Aquifer Systems. Figure 3 provides a schematic showing the groundwater sources in Lee County. In general, freshwater sources are the Water Table and the Lower Tamiami Aquifers of the Surficial Aquifer System. The underlying Sandstone and Mid-Hawthorn Aquifers of the Intermediate Aquifer System are fresh to moderately brackish. Highly brackish and saline water sources include the Lower Hawthorn Aquifer and underlying zones of the Upper Floridan Aquifer.

There are four primary aquifers of significance beneath the project site and are described below in order of increasing depth. These are the Water Table, the Sandstone, the Mid-Hawthorn, and the Lower Hawthorn Aquifers. The Lower Tamiami aquifer is unconfined at this location and therefore considered a part of the Water Table aquifer. The primary sources of information used to characterize the groundwater resources include information from Lee County, South Florida Water Management District, the U. S. Geological Society, and onsite borings.



Figure 3. Aquifer System Underlying Lee County (Lee County Integrated Water Masterplan)

#### Water Table Aquifer

The Water Table Aquifer is an unconfined aquifer that covers all of Lee County. The aquifer is defined as occurring at or near land surface downward to the top of the first regional confining bed. Beneath the project site, the aquifer is anticipated to occur within an upper section of unconsolidated sand and shells and an underlying lower section of highly permeable limestone.

The upper unconsolidated portion of the Water Table Aquifer consists of a layer of fine sand with an average thickness of about 20 feet. The sand is described as fine silica sand with variable amounts of silt ranging from brown to gray in color. The sand unit is identified as being part of the Pleistocene age Fort Thompson Formation. The top of the underlying limestone occurs at an average depth of about 20 feet bls. The depth to the base of the limestone ranges from between 60 to over 100 feet bls near the project site and the unit has an average thickness of about 60 feet. The limestone has been described as ranging from white to brown to gray in color, very hard to soft, sandy and fossiliferous, with occasional beds of coralline limestone and frequent zones of high permeability where loss of drilling fluids commonly occurs. The limestone present within the lower portion of the Water Table Aquifer includes the Pinecrest and Ochopee Members of the Pliocene age Tamiami Formation. The Water Table Aquifer is underlain by low permeability marls and clays with an estimated thickness of about 70 feet at this site. The confining unit below the Water Table Aquifer consists of the Buckingham Marl Member of the Tamiami Formation underlain by the Cape Coral Clay Member of the Peace River Formation.

The limestone portion of the Water Table Aquifer typically has a moderate to high permeability making the aquifer suitable for medium to large capacity water production wells. The aquifer is used for municipal supply, domestic self-supply and irrigation of agricultural and landscaping foliage. Use of the aquifer is typically limited by the potential for impacts to natural wetland areas from drawdown in the aquifer water level. The aquifer is recharged directly by rainfall with discharges occurring by way of natural or man-made surface drainage features, evaporation and transpiration, and by withdrawal from wells. Groundwater flow and levels in the aquifer fluctuate seasonally in response to climatic conditions but are also impacted by local and regional drainage features. Water quality in the aquifer is generally very good and is sufficient for both potable water and irrigation water needs; however, high concentrations of naturally occurring iron and organic material are sometimes reported.

The Water Table Aquifer is used in the area of the project site for public water supply by Lee County Utilities, for agricultural irrigation, for livestock, and by private residences for domestic self-supply. The project site is located near a portion of the Lee County Corkscrew wellfield which includes several public water supply wells that tap into the limestone portion of the Surficial Aquifer System and the Sandstone Aquifer.

#### **Sandstone Aquifer**

The Sandstone Aquifer is the uppermost aquifer in the Intermediate Aquifer System and consists of unconsolidated sands and poorly consolidated sandstones within the Lehigh Acres Sandstone Member of the Peace River Formation. Based on the total depths of public water supply wells near the project site, the top of the Sandstone Aquifer occurs at about 150 feet bls and extends to a depth of about 200 feet bls. The Sandstone Aquifer is considered a

freshwater source although there are large areas, especially in the southwestern portions of Lee County and areas near and parallel to the Caloosahatchee River where there are elevated salinity levels which may limit the usefulness of the aquifer for public supply. Salinities however, are generally low enough for general irrigation supply. Productivity of the aquifer is moderate to low but it does provide large quantities of water for public water supply by Lee County Utilities, for domestic self-supply in eastern Lee County and for agricultural irrigation in eastern Lee and western Hendry Counties. The aquifer is recharged where overlying confining beds are thin or absent in Hendry and Glades County or where there is large use of the aquifer that induces increased recharge directly from the Water Table Aquifer through the overlying confining beds. Discharge from the aquifer generally occurs as pumpage from wells. Large fluctuations in seasonal water levels are common due to the heavy use of the aquifer with wet season levels near their historic highs but dry season water levels often at depths of 50 feet or more. For this reason, the aquifer is considered a source of limited availability although opportunities for seasonal use and storage may be considered.

#### **Mid Hawthorn Aquifer**

The Mid Hawthorn Aquifer is the lowermost aquifer in the Intermediate Aquifer System in Lee County. Where present, the aquifer consists of moderately permeable limestones of the Arcadia Formation and is separated from the overlying Sandstone Aquifer and underlying Lower Hawthorn Aquifer by thick clay confining beds of the Peace River Formation. Based upon reports by the USGS and Florida Geological Survey, there is little viable yield from the limestones of the upper part of the Arcadia Formation in this part of Lee County. However, Lee County Utilities uses a portion of the Mid Hawthorn Aquifer for seasonal storage of treated water along Alico Road north of the project site.

Where present, the Mid Hawthorn Aquifer is a generally a lower yield, discontinuous water bearing unit that has utility as a limited supply resource or for seasonal storage in an ASR system. The aquifer is recharged north of Lee County where the aquifer is much closer to land surface and upper confining layers are thin or absent. Much of the Mid-Hawthorn Aquifer is fresh in northwestern and central Lee County but salinities increase southward with chloride concentrations in excess of 1000 mg/l in southwest areas of the County. The unit is mostly absent in the easternmost portion of Lee County.

#### **Lower Hawthorn Aquifer**

The Lower Hawthorn Aquifer is the uppermost water bearing unit in the Upper Floridan Aquifer System. The aquifer has good yield potential but contains brackish water that is only useful for irrigation if blended with other freshwater resources and is only useful for public water supply using reverse osmosis or other desalination technologies. Dissolved chlorides in the Lower Hawthorn at the project site are estimated to be between 1000 and 1500 milligrams per liter. The top of this aquifer is anticipated to be encountered at depths between 500 and 600 feet below grade at the site. The aquifer is separated from the overlying Mid Hawthorn Aquifer by the Lower Hawthorn Confining Zone which consists of marine silts and clays of low permeability. The aquifer is recharged in the central Florida highlands area between Tampa and Orlando. In general, the South Florida Water Management District supports increased use of the Lower Hawthorn/Upper Floridan aquifer especially for public water supply use.

## SECTION C WATER DEMANDS

Projected water demands for the project will consist of inside potable water and outside irrigation uses. It is anticipated that Lee County Utilities will provide potable water and sanitary sewer service for the project. Irrigation demands will be met with onsite sources including harvesting stormwater from the onsite water management lake system. The lake withdrawals will provide an efficient and low impact method for tapping the Water Table Aquifer underlying the project site and effectively harvest available stormwater supplies. Lake volume storage will minimize potential impacts to surface and groundwater levels.

#### **Potable Water and Wastewater**

Lee County Utilities is expected provide potable water and wastewater services to the project. This will eliminate the need for a commercial self-supply well system and individual onsite sewage treatment and disposal systems (septic tanks) which are common for many rural areas of Lee County. Provision of central public utilities to the project will provide a number of desirable environmental and hydrological advantages. Supplying potable water to the project from the nearby Lee County Utilities Corkscrew Water Treatment Plant will remove a potentially competing water use from the freshwater aquifers and allow for improved control of area water resources. Similarly, provision of a central sewer system will eliminate septic tank discharges in the area providing a higher level of protection to the existing Lee County Utilities wellfields. The Lee County Utilities will be contacted for availability and provision of potable water supply and wastewater service.

#### **Irrigation Water**

The project has a total of 12 acres. Based on preliminary site plan, the project will consist of approximately 8 acres of developed land and approximately 4 acres of natural preserves. Of the 8 acres proposed for development, approximately 4 acres will be allotted to buildings and parking lots and approximately 1.5 acres will be designated for storm water lakes. The remaining open area that may need irrigation is estimated to be less than 2.5 acres.

Projected irrigation water demands were calculated using the modified Blaney-Criddle method, which is consistent with SFWMD permitting criteria. Assuming 2.5 acres of irrigation demand, resultant allocations from the modified Blaney-Criddle calculation are:

- 3.52 million gallons on an annual average basis (or 9,650 gallons per day)
- 0.43 million gallons on a maximum monthly basis (or 13,900 gallons per day)

The project will include stormwater management lakes that will intersect the upper portion of the Water Table Aquifer. The proposed irrigation system will maximize stormwater harvesting from the water management system. Actual demands for lake withdrawals will be determined during the water use permitting process with the South Florida Water Management District (SFWMD). Use of stormwater as a primary irrigation resource reduces use of potable water supplies, provides additional stormwater treatment, reduces offsite discharges of stormwater, reduces nutrient levels of the stormwater outfalls, and reduces reliance on groundwater systems being used to supply potable water to Lee County Utilities and home sites on individual wells.

## SECTION D IMPACT ASSESSMENT

#### **Groundwater Modeling**

Preliminary modeling of irrigation withdrawals was conducted to assess potential drawdown impacts in the Water Table Aquifer. The model simulated withdrawals from the onsite lakes via two well nodes placed at the center of the lakes, for a period of 90 days with no rainfall recharge, which is a common SFWMD modeling criteria for water use permitting. A transmissivity value of 200,000 gpd/ft and a specific yield of 0.15 were used in the model to represent the Water Table Aquifer. The transmissivity value used in the model is based on an Aquifer Performance Test (APT) conducted in the LCU Corkscrew wellfield. The specific yield value of 0.15 is generally accepted by the SFWMD as representative of the Water Table Aquifer. Starting heads were presumed to be zero (0) with no initial gradient represented. The simulation used Newman solution (1972) for unconfined aquifers.

Modeling results indicate that a withdrawal of 0.43 MGM during a maximum use period will cause a drawdown of about 0.05 feet near the simulated well nodes and about 0.03 feet at property boundaries. Note that this is a conservative estimate since the lakes withdrawals were simulated as point withdrawals (wells); in reality the lakes are surface water bodies that act as hydraulic buffers and only negligible drawdown is anticipated with the proposed pumping rates.

#### Water Levels

Water Science Associates reviewed a hydrograph of a nearby monitoring well, Well 49 GW6, which is located about 1.5 miles south of the project site and maintained by Lee County Division of Natural Resources (LCDNR). Long term water level data (1990 to present) for this well and precipitation from a nearby weather station (Station ID: CRKSWPS\_R) are presented on Figure 4. It is noted that groundwater elevations in Well 49-GW6 range from a dry season low of about 11 feet NAVD to a wet season high of about 18 feet NAVD. Wet season high water levels average about 18 feet NAVD and dry season low water levels average between 12 and 13 feet NAVD. Wet season groundwater elevations in this well show a consistent rising trend from 2004 to 2018.



Figure 4. Hydrograph of LCDNR Well 49-GW6.

## SECTION E WELLHEAD PROTECTION

The Corkscrew Commercial project site falls within the Wellfield Protection Area (WPA) of the Lee County Utilities Corkscrew Wellfield. The presence of Lee County Utility public supply wells places portions of the project site within Zones 1 through 3 of the established protection zones of the Lee County Wellfield Protection Ordinance (Ordinance No. 07-35). Refer to Figure 5 for the locations of the wellfield protection zones relative to the project site. The developed portion of the project falls within WPA Zones 2 and 3 with the majority of the proposed development area in WPA Zone 3.

Wellfield protection zones are commonly created with the use of groundwater flow modeling to assess the time it may take for a potential contaminant to arrive at a public supply wellfield. The "protection zones" correspond to the modeled location were a potential contaminant could travel to a well location within the given "travel time." The closer a facility is to the wellfield (shorter travel distance) the more restrictions are typically applied to potential land uses. The protection zones defined by various lengths of travel time are as follows:



Figure 5. Lee County Wellhead Protection Zones in Relation to Project Site

Zone 1: Between the well and the 6-month travel time line

Zone 2: Between the 6-month and 1-year travel time lines

Zone 3: Between the 1-year and 5-year travel time lines

Zone 4: Between the 5-year and 10-year travel time lines.

Prohibitions within the Wellfield Protection Area include the following:

#### ZONES 1 to 4

The use, handling, production or storage of regulated substances associated with land uses or activities in quantities greater than those set forth in section 14-208, which is 110 gallons if substances are liquids and 1,110 pounds if substances are solids

#### ZONES 1 to 3

Liquid waste and wastewater effluent disposal, except for public access reuse of reclaimed water and land application under the conditions set forth and as-defined in F.A.C. chapter 62-610, part III. Where public access reuse is permitted, the chloride content must be no greater than 500 milligrams per liter.

#### ZONES 1 and 2

Solid waste disposal.

#### ZONE 1

Earth mining within a 500-foot radius of an existing wellhead.

The Corkscrew Commercial project will fully comply with the strictest protective measures for each of the wellfield protection zones. The retail facilities within the project will not include shops that are known to use regulated substances such as a gas station or dry cleaners. If regulated substances are present, it will meet applicable standards set forth in Section 14-214. The project will not discharge wastewater, liquid waste or solid waste. Irrigation water will maintain a chloride concentration below allowable limits. The stormwater management system will be designed to exceed the water quality requirements of the SFWMD. No earth mining is proposed within 500 feet of any Lee County Utilities wellheads.

## SECTION F CONCLUSIONS

Analysis and review of the proposed site development, surface water and groundwater resources, water supply and demand needs, and potential impact assessments to water levels and natural resources suggest that the proposed development will have negligible impacts to natural resources and/or existing nearby users. Ground and surface water levels will be maintained or enhanced and water quality leaving the site will meet all applicable standards with a properly designed stormwater management system. It is relevant to note that the proposed commercial development is one of the better options for the project site with regards to minimizing impacts to water resources in the DRGR considering the other options of land use such as farming / agricultural or residential uses will have a higher water demand. Impact assessments provided in this study indicate that the drawdown in shallow groundwater at the project boundary due to the proposed project footprint will be negligible (less than 0.03 feet).

## HISTORIC RESOURCES IMPACTS ANALYSIS Exhibit T8

The subject property contains no known historic resources as evidenced in the attached letter from the Division of Historic Resources. The attached archeological sensitivity map shows that a portion of the property is in Sensitivity Zone 2.

This record search is for informational purposes only and does <u>NOT</u> constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does <u>NOT</u> provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333 for project review information.

July 10, 2018

Daniel DeLisi, AICP (239) 913-7159 dan@delisi-inc.com



DELISI Land User Planning & Water Planny #

In response to your inquiry of July 10, 2018, the Florida Master Site File lists no archeological sites and no other cultural resources located at the designated area of Lee County, Florida

T46S R26E Section 22 as submitted with search request.

When interpreting the results of this search, please consider the following information:

- This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.
- Federal, state and local laws require formal environmental review for most projects. This search DOES NOT constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333.

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,

Eman M. Vovsi, Ph.D. Data Base Analyst Florida Master Site File Eman.Vovsi@DOS.MyFlorida.com





#### SMALL BROTHERS COMMERCIAL

#### **Surface Water Level of Service Analysis:**

#### I. Existing Facilities

The development consists of approximately 8 acres located in the southwest quadrant of the Alico Road and Corkscrew Road intersection. According to Lee County LIDAR data, the general drainage pattern for the property is from the north to south with existing topography ranging from approximately 19.0' NAVD in the northern portions of the property to 18.0' NAVD in the southern portions of the property with the exception of an existing wetland located along the south property in the easterly portion of the property. Within the wetlands, existing elevations range between approximately 15.5' NAVD and 17.0' NAVD.

#### **II. Proposed Facilities**

Stormwater run-off from the proposed commercial development will be directed to vegetated dry detention areas that provide water quality treatment and attenuation in accordance with SFMWD requirements prior to discharging into an existing wetland located along the south property line. The pond will also be designed to limit discharge rates from the development to a 25-Year, 3-day storm peak discharge rate of 25 cubic-feet-per-square-mile (CSM), which is the required Level of Service standard for Lee County and SFWMD. The control elevation for the water management facilities will be established to be consistent with the seasonal water table elevations of existing wetland contained on the property.

Discharge from the development will occur from the master stormwater pond through a control structure to the existing wetland where it will discharge to Flint Pen Strand which drains to the Imperial River.





## **CONSISTENCY WITH STATE AND REGIONAL POLICY PLANS Exhibits T9 & T10**

There are no State or Regional Policy Plan goals or policies that are relevant to the proposed amendment.

#### **Community Meeting Summary**

(In accordance with Policy 17.3.4)

A meeting was held on Monday, February 17, 2020 at 6:00pm in Room 162 of the Cohen Center at Florida Gulf Coast University. (See attached public notice, which ran in the Fort Myers News-Press on February 5<sup>th</sup>, 2020.

Attendees: Daniel DeLisi, DeLisi, Inc., planner for the applicant
Neale Montgomery, Pavese Law Firm, attorney for the applicant
Bud Balsom, Vice President, Small Bothers, LLC
Bruce Lampitt, Small Brothers, LLC

Daniel DeLisi started the presentation at 6:05 pm after reviewing the presentation, the applicant waited until 6:20 before adjourning the meeting. No one from the general public attended. No questions were asked, and no concerns were raised.



John E. Manning District One

Cecil L Pendergrass District Two

Ray Sandelli District Three

Brian Hamman District Four

Frank Mann District Five

Roger Desjarlais County Manager

Richard Wm. Wesch County Attorney

Donna Marie Collins Hearing Examiner February 28, 2020

Daniel DeLisi, AICP DeLisi, Inc. 15598 Bent Creek Rd. Wellington, FL 33414

Re: Letter of Service Availability

Mr. DeLisi,

I am in receipt of your letter requesting a Letter of Service Availability for the development of a parcel located along Corkscrew Road, bearing STRAP 22-46-26-00-00001.0010.

Lee County Emergency Medical Services is the primary EMS transport agency responsible for coverage at the address you have provided. Because we currently serve this area and have a sufficient response data sample, we evaluated response times in this vicinity to simulate the anticipated demand and response.

The primary ambulance for this location is Medic 21, located 5.8 miles west; there is a second EMS station within eight miles of the proposed location. These locations are projected to be able to meet existing service standards, as required in County Ordinance 08-16, and no additional impacts are anticipated at this time.

It is our opinion that the service availability for the proposed development of this property is adequate at this time. Should the plans change, especially the density, a new analysis of this impact would be required.

Sincerely,

Benjamin Abes Chief Division of Emergency Medical Services



## **Estero Fire Rescue**

21500 Three Oaks Parkway Estero, Florida 33928 (239) 390.8000 (239) 390.8020 (Fax) www.esterofire.org

February 11, 2020

Daniel Delisi, AICP Delisi, Inc. 520 27<sup>th</sup> Street West Palm Beach Florida 33407

Re: Strap # 22-46-26-00-00001-0010

Mr. Delisi,

This correspondence shall serve as a Letter of Service Availability for the above listed property. Estero Fire Rescue serves this property for fire suppression and non-transport advanced life support emergency medical services.

This property is located less than five road miles from Estero Fire Rescue Station 44 which is located at 21300 Fire House Lane. Once hydrants are installed, the property will enjoy an ISO rating of Class 2.

Should you require any additional information please feel free to contact me at 239-390-8000.

Respectfully,

Phillip Green Fire Marshal

"DEDICATED AND DRIVEN FOR THOSE WE SERVE"

## Carmine Marceno Sheriff



State of Florida County of Lee

"Proud to Serve"

February 12, 2020

Daniel DeLisi DeLisi, Inc. 15598 Bent Creek Rd. Wellington, FL 33414

Mr. DeLisi,

The proposed comprehensive plan amendment to rezone eight acres for commercial development at STRAP 22-46-26-00-00001.0010 along Corkscrew Road does not affect the ability of the Lee County Sheriff's Office to provide core services at this time. We have no objections to up to 80,000 square feet of commercial development on the site, nor do we object to the property connecting to central water and sewer.

Law enforcement services will be provided from our substations in Lehigh Acres and Bonita Springs. At the time of application for new development orders or building permits, the applicant shall provide a Crime Prevention Through Environmental Design (CPTED) report done by the applicant and given to the Lee County Sheriff's Office for review and comments. Please contact Community Relations Supervisor Beth Schell at (239) 258-3287 with any questions regarding the CPTED study.

Respectfully,

Stim Melson

Stan Nelson Director, Planning and Research





**BOARD OF COUNTY COMMISSIONERS** 

John E. Manning District One February 11, 2020

Cecil L Pendergrass District Two

Ray Sandelli District Three

Brian Hamman District Four

Frank Mann District Five

Roger Desjarlais County Manager

Richard Wm. Wesch County Attorney

Donna Marie Collins Hearing Examiner

Via e-mail dan@delisi-inc.com

Daniel DeLisi, AICP DeLisi Inc.

SUBJECT: Letter of Availability Lee County Solid Waste Small Brothers, LLC – STRAP 22-46-26-00-00001.0010 15230 Corkscrew Road

Dear Mr. DeLisi:

The Lee County Solid Waste Division is capable of providing solid waste collection service for a future Community Commercial District planned for 15230 Corkscrew Road though the franchised hauling contractors. Disposal of the solid waste from this development will be accomplished at the Lee County Resource Recovery Facility and the Lee-Hendry Regional Landfill. Plans have been made, allowing for growth, to maintain long-term disposal capacity at these facilities.

Please review Lee County Land Development Code, Chapter 10, Section 261, with requirements for on-site space for placement and servicing of solid waste containers. Please note that the property owner will be responsible for all future applicable solid waste assessments and fees.

If you have any questions, please call me at (239) 533-8000.

Sincerely,

Brigitte Kantor

Brigitte Kantor Public Utilities Manager Solid Waste Division



#### **BOARD OF COUNTY COMMISSIONERS**

John E. Manning **District One** 

Cecil L Pendergrass District Two

Raymond Sandelli **District Three** 

Brian Hamman District Four

Frank Mann **District Five** 

Roger Desiarlais **County Manager** 

**Richard Wm Wesch** County Attorney

Donna Marie Collins **County Chief** Hearing Examiner

October 30, 2019

Drew Fitzgerald Delisi Fitzgerald, Inc. 1605 Hendry Street Fort Myers, FL 33901

#### **Potable Water and Wastewater Availability** RE: **Small Brothers Commercial, 15230 Corkscrew Road** STRAP # 22-46-2-00-00001.0010

Dear Mr. Fitzgerald:

Potable water and sanitary sewer lines are in operation adjacent to the property mentioned above. However in order to provide service to the subject parcels, developer funded system enhancements such as line extensions may be required.

Your firm has indicated that this project will consist of 4 commercial units with an estimated flow demand of approximately 10,800 gallons per day. Lee County Utilities presently has sufficient capacity to provide potable water and sanitary sewer service as estimated above.

Availability of potable water and sanitary sewer service is contingent upon final acceptance of the infrastructure to be constructed by the developer. Upon completion and final acceptance of this project, potable water service will be provided through our Pinewood Water Treatment Plant.

Sanitary sewer service will be provided by our Three Oaks Water Reclamation Facility. The Lee County Utilities' Design Manual requires the project engineer to perform hydraulic computations to determine what impact this project will have on our existing system.

There are no reuse mains in the vicinity of this parcel.

Prior to beginning design work on this project, please meet with LCU Staff to determine the best point of connection and discuss requirements for construction.

This letter should not be construed as a commitment to serve, but only as to the availability of service. Lee County Utilities will commit to serve only upon receipt of all appropriate connection fees, a signed request for service and/or an executed service agreement, and the approval of all State and local regulatory agencies.

Via E-Mail

Small Brothers - Letter.Docx October 30, 2019 Page 2

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Further, this letter of availability of potable water and sanitary sewer service is to be utilized for Comprehensive Plan Amendment only. Individual letters of availability will be required for the purpose of obtaining building permits.

Sincerely,

LEE COUNTY UTILITIES

Mary M Corms

Mary McCormic Technician Senior 239-533-8532 UTILITIES ENGINEERING