ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

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December 16, 2019

Ms. Vanessa Arnal
Brevard County Natural Resources Management Department
2725 Judge Fran Jamieson Way, Building A
Viera, Florida 32940

Re: Wetland Toolbox Submittal
Wickham Corners Commercial Site
N. Wickham Road, Brevard County, Florida
Atlantic Environmental File No. 18172

Dear Ms. Arnal:

Atlantic Environmental of Florida, LLC (Atlantic Environmental) has completed a Brevard County Wetland Assessment Method on the above-referenced project which is seeking to impact the on-site 0.96-acre wetland. Below you will find information regarding the wetland proposed for impact, assessment matrix calculations, and a discussion on the project's benefits to the public.

Public Interest

This project includes the development of a 4,000 square foot commercial building and associated parking lot to house a fast-food restaurant on the property immediately to the west of the existing Taco Bell located at 7850 N. Wickham Road. This commercial project will have a positive impact on the local economy as listed below.

- The development will provide for approximately 20 to 30 jobs during construction.
- When complete, the commercial business will create approximately 40 new jobs.
- The commercial development will provide an alternative dining option for Brevard County residents.
- The development will increase the amount of collected county sales tax and property tax.

Proposed Wetland Impacts

The project area is currently undeveloped. There is one wetland located on the property (Figure 1) that encompasses approximately 0.96-acres. This wetland extends off-site to the north and south via ditch. The wetland is considered moderate quality due to its impacted hydrology caused by the adjacent roadways and ditches. Vegetation within this wetland includes red maple, cabbage palm, wax myrtle, Virginia chain fern, giant leather fern, swamp fern, southern fox grape, primrose willow, and Brazilian pepper.

In order to develop the site (see attached plan), this wetland will need to be impacted. All required permits will be obtained from the St. Johns River Water Management District (SJRWMD) and the US Army Corps of Engineers (USACE). Compensatory mitigation allowing for the impact of the on-site wetland will be acquired from a mitigation bank within the same hydrologic basin that is deemed acceptable by both SJRWMD and USACE.

Brevard County Wetland Assessment Method Results

The subject site is adjacent to Wickham Road, a roadway that is listed as a Brevard County Mitigation Qualified Roadway (MQR). Additionally, the on-site wetland is within a Brevard County Landscape Level Wetland (Figure 1). The Brevard County Wetland Assessment Method calculated the assessment score of this wetland at a **0.605**. Thus, the wetland is not considered a high functioning wetland as defined by Brevard County.

In summary, the wetland proposed for impacts falls within a Landscape Level Polygon, is located along an MQR, and is not calculated to be high functioning. The public benefit resulting from this project is sound justification for allowing the impact of the on-site wetland which will be authorized through permitting and the provision of adequate compensatory mitigation. Proposed mitigation includes the purchase of mitigation credits to be approved by SJRWMD and USACE.

Should you require additional information or have any questions, please do not hesitate to contact our office.

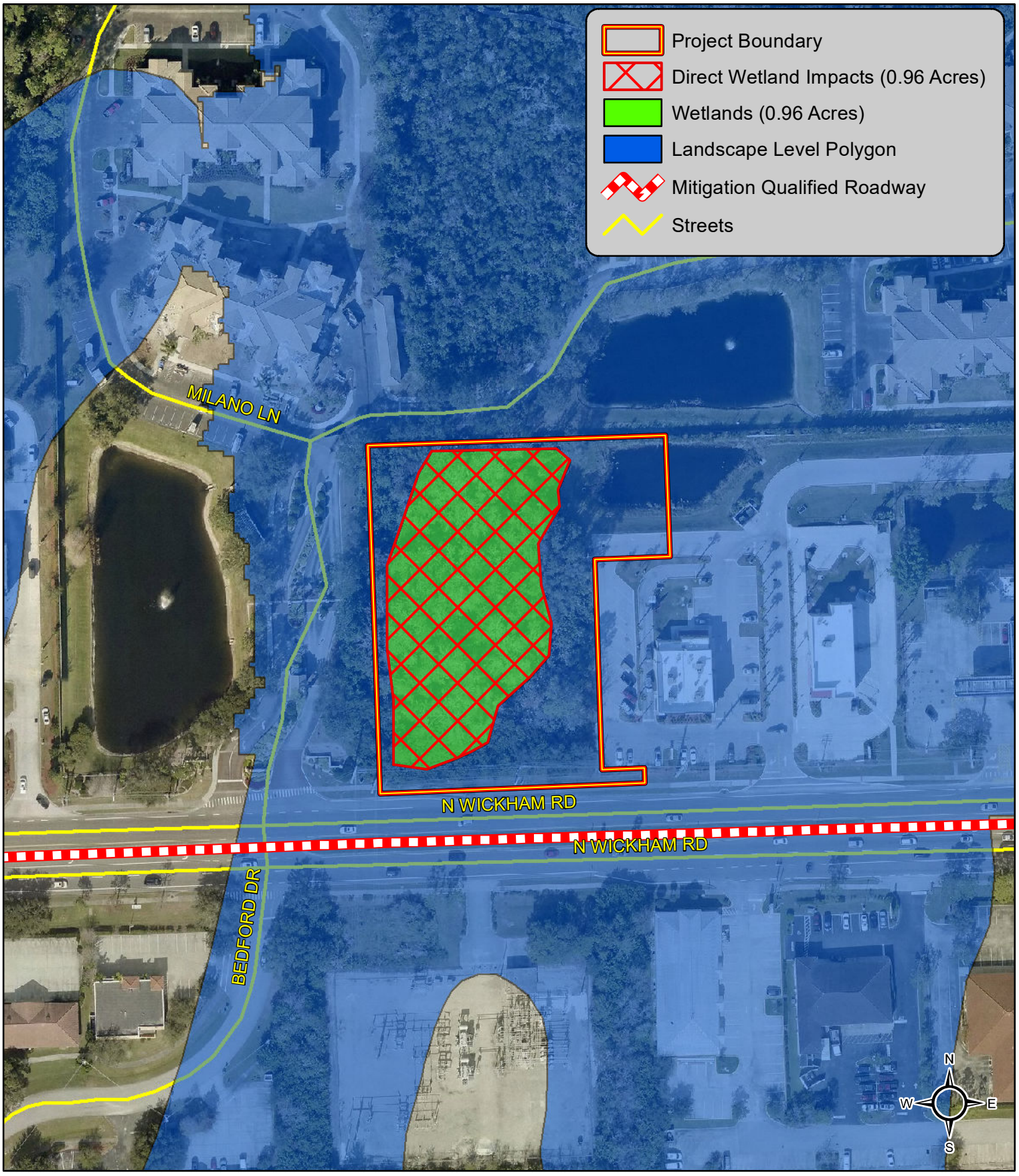
Sincerely,

David G. Purkerson, MS, PWS
Senior Ecologist

Jon H. Shepherd, MS, PWS
President/Ecologist

Wickham Corners Commercial Site

Brevard County Wetland Assessment Matrix



Project: Wickham Corners

Figure 1: Aerial Map

0 100 200 400 Feet

2019 Aerial, Brevard County, Florida

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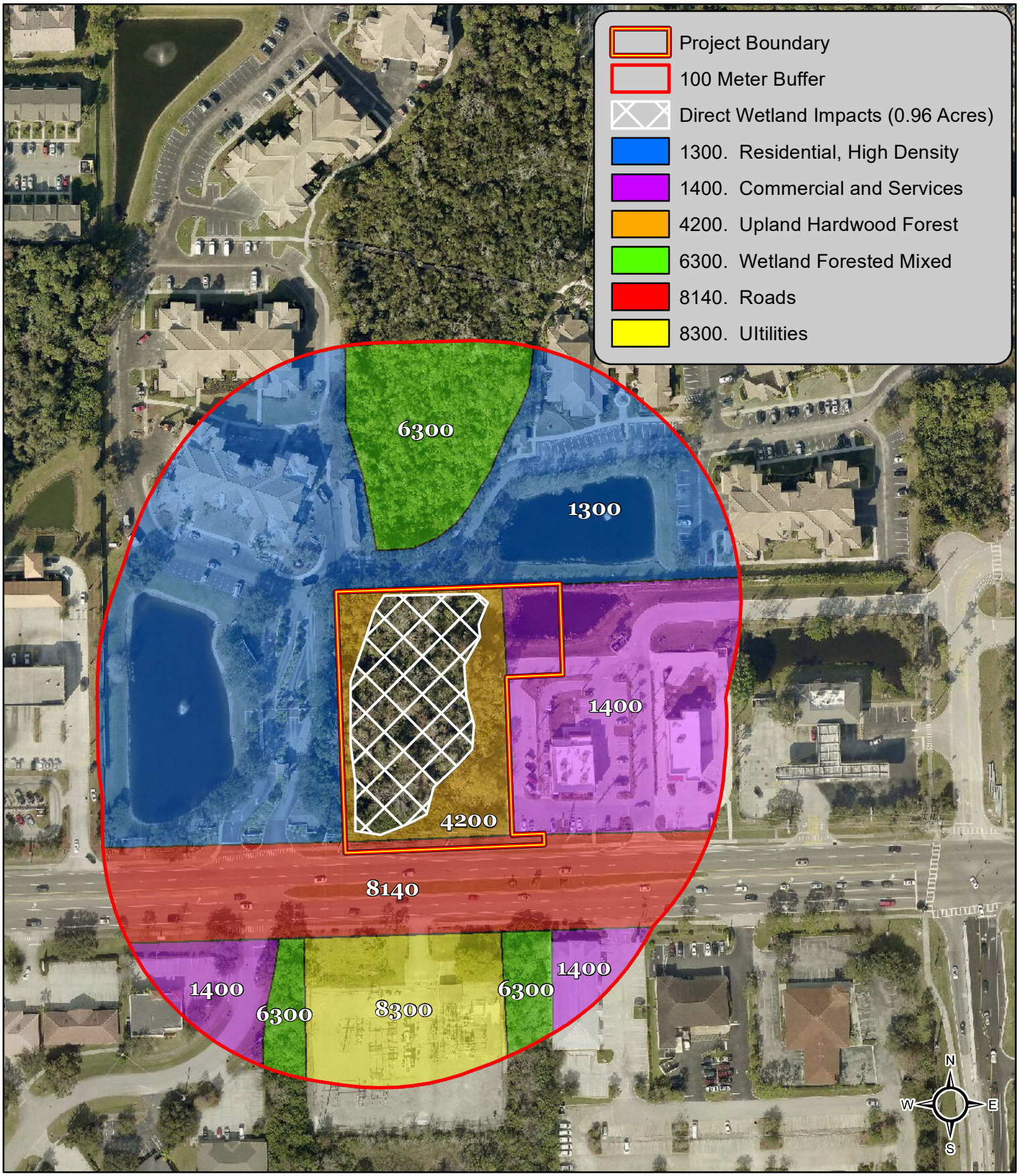
AE Proj #: 18172



Project: Wickham Corners

Figure 2: Wetland Assessment Map

0 100 200 400 Feet

2019 Aerial, Brevard County, Florida

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Wickham Corners Commercial Site

Brevard County Wetland Assessment Matrix

Landscape Location Score

Enter FLUCFCS_legend	*Enter Sum of Acres*	*LSI_Value*	*Landcover Percent*	*Landscape Location Score (=LSI_Value* Landcover Percent)*
1100-Low Density Urban		2.22	0.000	0.000
1100-Residential, Low Density		3.57	0.000	0.000
1200-Residential, Medium Density		2.81	0.000	0.000
1300-High Density Urban		0.91	0.000	0.000
1300-Residential, High Density	5.9	2.72	0.418	1.136
1400-Commercial and Services	2.83	0.91	0.200	0.182
1500-Industrial		1.87	0.000	0.000
1660-Holding Ponds		9.08	0.000	0.000
1700-Institutional		2.14	0.000	0.000
1820-Golf courses		3.42	0.000	0.000
1850-Parks and Zoos		3.42	0.000	0.000
1900-Open Land		3.42	0.000	0.000
2110-Improved Pasture		6.96	0.000	0.000
2120-Unimproved/Woodland Pasture		8.03	0.000	0.000
2130-Woodland Pastures		8.87	0.000	0.000
2210-Citrus		7.02	0.000	0.000
2240-Abandoned Groves & Orchards		8.87	0.000	0.000
2500-Specialty Farms		3.33	0.000	0.000
3290-Other Shrubs and Brush		10	0.000	0.000
4110-Pine Flatwoods		10	0.000	0.000
4120-Longleaf Pine - Xeric Oak		10	0.000	0.000
4200-Upland Hardwood Forest	0.66	10	0.047	0.467
4280-Cabbage Palm		10	0.000	0.000
4320-Sand Live Oak		10	0.000	0.000
4340-Hardwood - Coniferous Mixed		10	0.000	0.000
4360-Upland Scrub, Pine and Hardwoods		10	0.000	0.000
4370-Australian Pine		8.87	0.000	0.000
4410-Coniferous Plantations		9.36	0.000	0.000
5100-Streams and Waterways		10	0.000	0.000
5200-Natural Lakes & Ponds		10	0.000	0.000
5300-Reservoirs		10	0.000	0.000
5420-Estuarine		10	0.000	0.000
5700-Major Bodies of Water		10	0.000	0.000
6110-Bay Swamps		10	0.000	0.000
6120-Mangrove Swamp		10	0.000	0.000
6150-Streams and Lake Swamps (Bottomland)		10	0.000	0.000
6170-Mixed Wetland Hardwoods		10	0.000	0.000
6210-Cypress		10	0.000	0.000
6240-Cypress - Pine - Cabbage Palm		10	0.000	0.000
6250-Hydric Pine Flatwoods		10	0.000	0.000
6270-Slash Pine Swamp Forest		10	0.000	0.000
6280-Wet Coniferous Plantations		10	0.000	0.000
6300-Wetland Forested Mixed	1.51	10	0.107	1.069
6310-Wetland Shrub		10	0.000	0.000
6410-Freshwater Marshes		10	0.000	0.000
6420-Saltwater Marsh		10	0.000	0.000
6430-Wet Prairie		10	0.000	0.000
6440-Freshwater Marshes		10	0.000	0.000
6500-Non-Vegetated		10	0.000	0.000
6510-Tidal Flats		10	0.000	0.000
6520-Shorelines		10	0.000	0.000

7400-Disturbed Land		9.08	0.000	0.000
7430-Spoil Area		9.08	0.000	0.000
8120-Rails		2.43	0.000	0.000
8140-Roads	2.11	1.91	0.149	0.285
8300-Utilities	1.12	2.43	0.079	0.193
TOTAL	14.13	0.91	1.000	3.332

Water Quality Treatment

Enter Percentage of surrounding landcover that contributes to the Water Quality Treatment	**Category**	**Coefficient**	***Water Quality Treatment Score***
25	Natural	5	1.25
	Only rainfall - no contributing basin	4.6	0
	Wet detention with swales	4.2	0
	Wet detention with dry detention	4.2	0
	Combination grass swales with dry detention	3.3	0
75	Grass swales only / vegetative buffer strip	1.7	1.275
	Dry Detention only	1.7	0
	No treatment	0	0
100	Correct		2.525

Enter Hydrologic Indicator Score
3.3

Water Environment	***Score***		***Thresholds***
Water Quality Treatment	2.525		a perfect water environment would have a maximum score of 10
Hydrologic Indicator	3.3		
Sum	5.825	***Water Environment Score***	

Vegetative Score	***Percentages (from other tabs)***	***Score***		***Thresholds***
Wetland Vegetation	80	10		a perfect wetland would have a maximum score of 10
Exotic Vegetation	10	8		
Total Percentage	90	9.0	***Vegetative Community Score***	The Vegetative Community Score is calculated as the average of the wetland vegetation score and the exotic vegetation score unless; 1) the wetland vegetation is < 30% or 2) if the percent of exotic vegetation is > the percent of wetland vegetation. If either of these two conditions exist the Community Vegetative Score will = 0.

9.0 Average

Wetland Criteria	*Score*		*Thresholds*
Landscape	3.33		a perfect landscape would have a maximum score of 10
Water Environment	5.825		a perfect water environment would have a maximum score of 10
Vegetative Community	9		a perfect vegetative community would have a maximum score of 10
Assessment Score	**0.605**		a perfect wetland would have a score of 1.0

0 20 40

GRAPHIC SCALE
SCALE: 1" = 20'-0"

N

(VIA TUSCANY APTS)

A SOUTH LINE OF LANDS DESCRIBED IN O.R. 4039, PAGE 1687 (VIA TUSCANY APTS)

2-18" RCP

MITERED E/S

N88°15'15"E, 222.91'

TOP DITCH

SEW

PRIVATE 6" FORCE MAIN

SEW

SEW

BERM

6' CHAIN LINK FENCE

C.B. PRIVACY WALL

TOP OF BANK

TOP EDGE OF FILL

DRAINAGE RETENTION AREA
FOR TACO BELL / PIZZA HUT

MITERED E/S
INV= 26.13

15" HDPE

15" HDPE

DIRT COVER MOUNDED OVER PIPE

CONTROL INLET
GRATE= 31.74
.18" WIER= 30.81
SKIMMER= 32.16
INV= 27.50

S01°44'45"E, 119.00'

TOP OF BANK

PARCEL #26-36-11-00-504
(O.R. 7240, PAGE 1064)

6' CHAIN LINK FENCE

6' DITCH

WATER ELEV= 26.2
(MEASURED 3/1/18)

12.0'

12.0'

6" CURB

WARNING REFLECTORS

DROP INLET

S88°15'15"W 4.94'

6" CURB

100' DRAINAGE EASEMENT
(O.R. 4039, PAGE 1693)

10' F.P.L. EASEMENT
(O.R. 7457, PAGE 1587)

TAX PARCEL #514
LANDS DESCRIBED IN O.R. 4039, PAGE 1687
(VIA TUSCANY APTS)

N01°44'45"W, 340.00'

A WEST LINE OF LANDS DESCRIBED IN O.R. 4039, PAGE 1687 (VIA TUSCANY APTS)

6' DITCH

15

8

PROPOSED BUILDING
RESTAURANT
(4,000 SF)

50.00'

80.00'

80.00'

50.00'

S01°44'45"E, 206.00'

CONDUIT

ASPHALT DRIVE

TOP EDGE OF FILL

6" CURB

8

ASPHALT DRIVE

10 PARKING SPACES

6" CURB

6" CURB

PARCEL #26-36-11-00-529
(O.R. 7661, PAGE 2803)

"PIZZA HUT / TACO BELL"

METAL LP

20'

12'
H.C.

12'
H.C.

9'

LEGEND:

4 DENOTES NUMBER OF PARKING SPACES

WARNING REFLECTORS

1.41'

30.00'

LANDSCAPE, DRAINAGE & PUBLIC UTILITY EASEMENT
(O.R. 3281, PAGE 3388)

15' LANDSCAPE, DRAINAGE & PUBLIC UTILITY EASEMENT
(O.R. 3281, PAGE 3388)
15' F.P.L. EASEMENT
(O.R. 2854, PAGE 2618)

TELEPHONE DUCT BANK NOT MARKED / LOCATED

PARCEL #26-36-11-00-508
(O.R. 5637, PAGE 3326)
SUNOCO SERVICE STATION
& CONVENIENCE STORE

INTERLACHEN ROAD
"TURTLEMOUND ROAD" BY O.R. 5637, PAGE 3326 (AS-BUILTS) AND PLATTED ROAD BY (ASSESSMENT MAPS)
(R/W BY O.R. 2827, PAGE 1204)
100' RIGHT OF WAY (ASPHALT PAVED)

F.P.L. EASEMENT
(O.R. 2854, PG. 2618)

30.00'

30.00'

40.00'

15.00'

CONC HEADWALL

S88°15'15"W 222.91'

8" GAS MAIN (BY AS-BUILT - NOT MARKED)

10

N88°15'15"E, 4.94'

TELEPHONE M/H

S01°44'45"E 15.00'

50.00'

WTR VALVE

1.83'

36.75'

CONC PP

ELEC M/H

CONC PP

DOWN GUY

CONC PP

5' CONC SIDEWALK

UTILITY BOX

GAS

GAS

GAS

GAS

GAS

GAS

GAS

15.0'

15.0'

DOWN GUY

CONC PP'S

CONC PP

5' CONC SIDEWALK

WTR

WTR

WTR

WTR

WTR

WTR

WTR

WTR

TRAFFIC SIGNAL BOX

STORM M/H

TURN LANE

WHITE LANE STRIPE

16" WATER MAIN

WTR MAIN MAY "JOG" AROUND MANHOLE - ASBUILTS DO NOT DEFINE

36" RCP

2' CURB & GUTTER (STANDARD)

UG ELECTRIC NOT MARKED / LOCATED

2' CURB & GUTTER (STANDARD)

POINT OF BEGINNING
SET 5/8" IR (PACKARD)

DASHED LANE STRIPE

WEST BOUND LANES

14" REUSE (BY AS-BUILTS) LOCATION UNKNOWN

PARCEL #26-36-11-00-508
(O.R. 5637, PAGE 3326)
SUNOCO SERVICE STATION
& CONVENIENCE STORE

S88°15'15"W, 288.76'

S88°15'15"W, 538.76'

S88°15'15"W, 250.00'

N01°44'45"W, 50.00'

90°00'00"

S88°15

2" FDOT CURB

2" FDOT CURB

2" FDOT CURB

GRASSED MEDIAN

GRASSED MEDIAN

GRASSED MEDIAN

S88°15'15"W, 1408.79'
S.W. CORNER OF SEC. 11-26-36
FND NAIL & DISK (ILLEGIBLE)

WICKHAM ROAD
100' RIGHT OF WAY (DIVIDED / ASPHALT PAVED)
(NORTH 50' OF R/W BY O.R. 380, PAGE 436)

N88°15'15"E, 2640.69'
(SOUTH LINE OF S.E. 1/4 OF SEC. 11-26-36)

REVISIONS:

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Fax: (321) 752-7461
www.lambengineering.com
PO Box 360813
Melbourne, Florida 32936

EVANS WICKHAM - PHASE 3
MELBOURNE FLORIDA

SEAL:

SCOTT T. LAMB
FL P.E. #55392

DRAWING DATE:
5/08/18

SECTION: 18
TOWNSHIP: 27S
RANGE: 37E
SCALE: 1"=20'

SITE DIMENSION PLAN

SHEET NUMBER:
2 OF 8

PROJECT: #18-0201