THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property Information

Property address or Location: 5553 Okeechobee Rd, Fort Pierce, FL 34947

Parcel ID #(s): 2419-321-0001-000-5

Project description: Two-story, 103,022 SF GFA Self Storage Facility

Application Type

☒ Site Plan ■ Conditional Use w/New Construction ☐ Conceptual Development Plan

☐ Minor Amendment ☐ Major Amendment

Site Information

Non-Residential: Proposed Sq. Ft.: 103,022 Site Acreage: 4.34

Residential: Proposed Units: _____ Proposed Sq. Ft.: _____ Site Acreage: _____

Johnson Development Associates, Inc.	Dynamic Engineering Consultants, PC
Property Owner(s)	**Applicant/Representative, Title, Company**
100 Dunbar Street, Suite 400	100 NE 5th Avenue, Suite B2
Street Address	Street Address
Spartanburg S.C. 29306	Delray Beach, FL FL 33483
City State Zip	City State Zip
201-259-0068	(561)921-8570
Phone Number	Phone Number
vtiberi@johnsondevelopment.net	achu@dynamicec.com, mmiles@dynamicec.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s) (Alexandra Chu w/ Dynamic Engineering Consultants, PC Authorized agent) 12/15/22

APPOINTMENTS ARE REQUIRED FOR APPLICATION SUBMITTALS
CALL 772.467.3737 OR E-MAIL PLANNING_DL@CITYOFFORTPIERCE.COM
For more information, please refer to the website:
https://www.cityoffortpierce.com/971/Application-Submittal-for-Technical-Revi

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DESIGN REVIEW

Property Information

Property address or Location 5553 Okeechobee Rd, Fort Pierce, FL 34947

Parcel ID #(s) 2419-321-0001-000-5

Project description Two-story, 103,022 SF GFA Self Storage Facility

Johnson Development Associates, Inc.	Dynamic Engineering Consultants, PC
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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Undeveloped	GC	C-3
South	Undeveloped (Residential)	GC	C-3
East	Undeveloped (Residential)	RM	R-4
West	Undeveloped	GC	C-3

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC	C-3	0%	4.34	X/D
****Proposed**	GC	C-3	58%	4.34	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 0
**Proposed Zoning/FLU	Total gallons per day 694
**Change in Demand	Total gallons per day 694

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 0
**Proposed Zoning/FLU	Total gallons per day 694
**Change in Demand	Total gallons per day 694

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning/FLU Enrollment Demand		
****Proposed Zoning/FLU Enrollment Demand**		
****Change in Demand**		

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)

Demand Analysis	Maximum
Current Zoning/FLU	
****Proposed Zoning/FLU**	
***Change in Demand**	

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	The proposed storm water management system designed by MBV Engineering consists of a dry retention pond that will discharge overflow into a wet detention system. A control structure will then regulate the discharge into an existing ditch along the perimeter of the property which terminates at an existing culvert connection to NSLRWCD's Canal #38. Potential increase in storm water volume discharge is not applicable since the master storm water development plan accounts for three parcels within the Fort Pierce commercial project. The subject site is defined as parcel #3 in which was reserved for future development and has a 80% max impervious already accounted for.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU		
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips
Impact to Capacity		

IV. Project Description

PHASING				
Is this project (phase) part of a larger project? ☐ Yes ☑ No				
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.				
Total Project: Residential Units:		Single Family:		Multifamily:
	Non-residential (square footage):			
	Mixed-use (describe use):			
(If this is a single phase project, name it Phase I – Total) Phase 1 - Total				

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____

2. What is the current use of the structure to be demolished or re-used? _____

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

MICHELLE R. MILLER, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4849192 OR BOOK 4592 PAGE 2371, Recorded 04/16/2021 11:52:21 AM Doc Tax: $0.70

Prepared by and return to:
Samuel J. Sobering
921 Arabian Ave.
Winter Springs, FL 32708

Quitclaim Deed

This Quitclaim Deed, executed this 13th day of April, 2021 by **S&S Enterprises "B", LLC, a Florida limited liability company** ("Grantor"), whose address is PO BOX 1179, Sharpes, FL 32959, to **OkeeJen, LLC, a Florida limited liability company** ("Grantee"), whose address PO BOX 1179, Sharpes, FL 32959.

That Grantor, for and in consideration of the sum of TEN DOLLARS ($10.00) and other valuable considerations, the receipt and sufficiency of which is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto Grantee, all of Grantor's right, title and interest in and to that certain real property situate, lying and being in St. Lucie County, Florida (hereinafter referred to as the "Property"), and being more particularly described in Exhibit "A" attached hereto and made a part hereof.

TOGETHER with all of the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the same in fee simple forever.

AND Grantor hereby covenants with Grantee that Grantor is lawfully seized of the Property in fee simple; that the Grantor has good right and lawful authority to sell and convey the Property.

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed and delivered in its name by its corporate officer thereunto duly authorized, and has intended this instrument to be and become effective as of the day and year first above written.

****NOTE TO RECORDER: The Grantor is conveying this unencumbered property to the Grantee, a subsidiary. Documentary stamp tax in the amount of $.70 is therefore being paid on the consideration of $10.00 and other valuable considerations.*

** SIGNATURES CONTAINED ON NEXT PAGES **

Signed, sealed and delivered
in the presence of:

Witness Signature: _____
1st Witness Name: _____

Witness Signature: _____
2nd Witness Name: _____

S&S Enterprises "B", LLC,
a Florida limited liability company

_____
By: Jill K. Simpkins
Its: Member

State of Florida
County of _____

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization this 13th day April, 2021, by Jill K. Simpkins, Member of S&S Enterprises "B", LLC, a Florida limited liability company, who are personally known to me or who produced _____ as identification and who did not take an oath.

_____
Notary Public
My Commission Expires:

SUSAN C TIMMINS
MY COMMISSION # GG086648
EXPIRES June 04, 2021

Signed, sealed and delivered
in the presence of:

Witness Signature: Alec Dezor
1st Alec Dezor Witness

Witness Signature:
2nd Witness Name: RAJESH SHAH

S&S Enterprises "B", LLC,
a Florida limited liability company

Name:
By: Janet Simpkins Jakubcin Trust,
as Member

By: Mark Jakubcin
Its: Authorized Trustee

State of Florida
County of SEMINOLE

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization this 13 day APRIL, 2021, by Mark Jakubcin, Authorized Trustee of the Janet Simpkins Jakubcin Trust, as Member of S&S Enterprises "B", LLC, a Florida limited liability company, who are personally known to me or ___ who produced FLDL as identification and who did not take an oath.

Notary Public State of Florida
Jayesh Patel
My Commission GG 189313
Expires 02/22/2022

Notary Public J Patel
My Commission Expires: 02/22/2022

Exhibit "A"

HISTORIC LEGAL DESCRIPTION

PARCEL 1:

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF OKEECHOBEE ROAD WITH THE EAST RIGHT OF WAY LINE OF JENKINS ROAD, AS DEFINED BY OFFICIAL RECORDS BOOK 3686. PAGE 2798 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, THENCE NORTH 71°55'40" EAST, ALONG SAID SOUTHERLY RIGHT OF WAY LINE OF OKEECHOBEE ROAD, A DISTANCE OF 266.70 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 71°55'40" EAST, A DISTANCE OF 82.15 FEET; THENCE SOUTH 18°02'48" EAST, A DISTANCE OF 25.00 FEET; THENCE NORTH 71°55'31" EAST, A DISTANCE OF 202.25 FEET; THENCE SOUTH 89°46'42" EAST, ALONG THE SOUTH LINE OF N.S.L.R.D.D. CANAL NO. 38, A DISTANCE OF 56.17 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SOUTHWEST 1/4; THENCE SOUTH 01°32'47" WEST, ALONG SAID WEST LINE, A DISTANCE OF 87.44 FEET; THENCE FOR THE NEXT THREE (3) COURSES ALONG LINES OF OFFICIAL RECORDS BOOK 2898, PAGE 1570, (1) RUN SOUTH 71°55'31" WEST. A DISTANCE OF 221.77 FEET; (2) THENCE SOUTH 18°04'29" EAST, A DISTANCE OF 261.07 FEET; (3) THENCE WEST, A DISTANCE OF 91.10 FEET; THENCE NORTH 18°04'20" WEST, A DISTANCE OF 357.81 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPTING:

ALL OF PARCEL 114.1 CONVEYED TO THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION BY WARRANTY DEED RECORDED FEBRUARY 1, 2018 IN OFFICIAL RECORDS BOOK 4092, PAGE 2041, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

PARCEL3:

A PARCEL OF LAND LYING IN SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF OKEECHOBEE ROAD (A 120 FOOT WIDE RIGHT OF WAY) WITH THE EAST RIGHT OF WAY LINE OF JENKINS ROAD (AN 80 FOOT WIDE RIGHT OF WAY) AND THENCE SOUTH 01°50'38" WEST, ALONG SAID EAST RIGHT OF WAY LINE OF JENKINS ROAD, A DISTANCE OF10.64 FEET, THENCE CONTINUE SOUTH 01°50'38" WEST, ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 243.77 FEET TO THE POINT OF BEGINNING: THENCE CONTINUED SOUTH 01°50'38" WEST, ALONG SAID RIGHT OF WAY LINE,A DISTANCE OF 160.08 FEET; THENCE EAST A DISTANCE OF 627.80 FEET, THENCE NORTH 01°32'47" EAST, A DISTANCE OF 477.16 FEET; THENCE SOUTH 71°55'31" WEST, DISTANCE 221.77 FEET; THENCE SOUTH 18°04'29" EAST, A DISTANCE OF 261.06 FEET: THENCE WEST A DISTANCE OF 505.70 FEET TO THE POINT OF BEGINNING;LESS AND EXCEPT LANDS CONVEYED OR TAKEN IN OFFICIAL RECORDS BOOK 3085, PAGE 9 AND OFFICIAL RECORDS BOOK 3686, PAGE 2798,

LESS AND EXCEPTING THEREFROM: A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1193, PAGE 748, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF OKEECHOBEE ROAD WITH THE EAST RIGHT OF WAY LINE OF JENKINS ROAD, AS DEFINED BY OFFICIAL RECORDS

BOOK 3686, PAGE 2798 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, THENCE SOUTH 01°50'38" WEST, ALONG SAID EAST RIGHT OF WAY LINE, (SAID LINE BEING 81.75 FEET EAST, BY RIGHT ANGLE MEASUREMENT, OF THE WEST LINE OF THE AFORESAID SOUTHWEST 1/4), A DISTANCE OF 257.55 FEET TO A POINT ON A LINE OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS BOOK1193, PAGE 748, AND THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 01°50'38" WEST, ALONG SAID EAST RIGHT OF WAY LINE, AS DEFINED IN SAID OFFICIAL RECORDS BOOK 3686, PAGE 2798, A DISTANCE OF 135.07 FEET TO A POINT 25.00 FEET DISTANT NORTH, BY RIGHT ANGLE MEASUREMENT, FROM THE SOUTH LINE OF SAID LANDS DESCRIBED OFFICIAL RECORDS BOOK 1193, PAGE 748; THENCE EAST, PARALLEL WITH AND 25.00 FEET DISTANT FROM SAID SOUTH LINE, A DISTANCE OF 377.13 FEET; THENCE NORTH, A DISTANCE OF 135.00 FEET TO A POINT ON AN AFORESAID LINE OF OFFICIAL RECORDS BOOK 1193, PAGE 748; THENCE WEST, ALONG SAID LINE, A DISTANCE OF 372.83 FEET TO THE POINT OF BEGINNING.

PARCEL4:
PARCEL OF LAND SITUATE AND LYING IN THE CITY OF FT. PIERCE, IN ST. LUCIE COUNTY, FLORIDA, TO WIT: NORTHEAST 1/4 OF NORTHWEST 1/4 OF SOUTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, PUBLIC RECORDS OF ST. LUCIE COUNTY; LESS AND EXCEPT RIGHT-OF-WAY FOR DRAINAGE CANAL NO. 38 OVER THE NORTH 99 FEET OF THE ABOVE. (SOUTH OF DRAINAGE CANAL #38)

OVERALL SURVEYOR LEGAL DESCRIPTION
BEING THE SAME AS THE HISTORICAL DESCRIPTION AS LISTED ABOVE AS PARCELS 1, 3, AND 4 WITH EXCLUSIONS:

A PARCEL OF LAND LYING IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 AND OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE SOUTH RIGHT OF WAY LINE OF S.R. 70-OKEECHOBEE ROAD (A VARIABLE WIDTH RIGHT OF WAY) PER FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 94030-2522 WITH THE EAST RIGHT OF WAY LINE OF JENKINS ROAD (A VARIABLE WIDTH RIGHT OF WAY), AS DEFINED BY OFFICIAL RECORDS BOOK 3686, PAGE 2798 OF THE PUBLIC RECORDS OF SAID ST. LUCIE COUNTY, FLORIDA, THENCE N69°58'38"E, ALONG SAID SOUTH RIGHT OF WAY LINE OF S.R. 70-OKEECHOBEE ROAD, A DISTANCE OF 266.94 FEET TO THE NORTHWESTERLY CORNER OF FDOT PARCEL 114.1 (A 4 FOOT ROAD RIGHT-OF-WAY TAKING) AS RECORDED IN OFFICIAL RECORDS BOOK 4092, PAGE 2041, SAID PUBLIC RECORDS; THENCE SOUTH 20°01'22" EAST, A DISTANCE OF 4.00 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE N69°58'38"E ALONG THE SOUTHERLY LINE OF SAID PARCEL 114.1, A DISTANCE OF 82.15 FEET; THENCE LEAVING SAID SOUTHERLY LINE S20°01'22"E, A DISTANCE OF 21.00 FEET; THENCE N69°58'38"E, A DISTANCE OF 205.37 FEET TO THE SOUTH RIGHT OF WAY LINE OF NORTH ST. LUCIE DRAINAGE DISTRICT CANAL NUMBER 38 (A 99 FOOT WIDE CANAL RIGHT OF WAY); THENCE N88°20'40"E ALONG SAID SOUTH CANAL RIGHT OF WAY LINE, A DISTANCE OF 718.23 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19; THENCE S00°35'38"E ALONG SAID EAST LINE, A DISTANCE OF 563.32 FEET TO THE SOUTH LINE OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 19; THENCE S88°10'50"W ALONG THE SOUTH LINE OF THE NORTHEAST 1/4

OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 AND THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 19, A DISTANCE OF 1253.97 FEET TO THE SAID EAST RIGHT OF WAY LINE OF JENKINS ROAD; THENCE N00°00'31"E ALONG SAID EAST RIGHT OF WAY LINE, A DISTANCE OF 25.01 FEET; THENCE LEAVING SAID EAST RIGHT OF WAY LINE N88°10'50"E, A DISTANCE OF 377.17 FEET; THENCE N01°49'10"W, A DISTANCE OF 135.00 FEET; THENCE N19°57'33"W, A DISTANCE OF 352.91 FEET TO THE SOUTHWESTERLY CORNER OF SAID PARCEL 114.1 AND THE POINT OF BEGINNING.

CONTAINING 11.99 ACRES MORE OR LESS.

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: 5553 OKEECHOBEE RD
Sec/Town/Range: 19/35S/40E
Parcel ID: 2419-321-0001-000-5
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 27356
Map ID: 24/19S
Zoning: General Co

Ownership

OkeeJen LLC

1870 Aloma AVE Ste 250
Winter Park, FL 32789



Legal Description

19 35 40 NE 1/4 OF NW 1/4 OF SW 1/4-LESS CANAL R/W- AND THAT PART OF NW 1/4 OF NW 1/4 OF SW 1/4 MPDAF: FROM INT OF SLY R/W LI OF OKEECHOBEE RD AND E R/W LI OF JENKINS RD RUN S 01 50 38 W ALG E R/W LI 243.77 FT TO POB,TH CONT S 01 50 38 W 160.08 FT,TH E 627.80 FT,TH N 01 32 47 E 477.16FT,TH S 71 55 31 W 221.77 FT,TH S 18 04 29 E 261.06 FT,TH W 505.70 FT TO POB-LESS RD R/W AS IN OR 3085-9- AND LESS ADDL RD R/W AS IN OR 3686-2798 AND LESS THAT PART MPDAF: FROM INT OF SLY RD R/W LI OF OKEECHOBEE RD AND E RD R/W LI OF JENKINS RD, TH S 01 50 38 E 257.55 FT TO POB; TH CONT S 01 50 38 W 135.07 FT, TH E 377.13 FT, TH N 135 FT, TH W 372.83 FT TO POB- (10.648 AC - 463,696 SF)

Current Values

Just/Market Value:	$1,330,800
Assessed Value:	$1,330,800
Exemptions:	$0
Taxable Value:	$1,330,800

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	10.64
Land Size (SF):	463,696

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Apr 13, 2021	4592 / 2371	0311	QC	S and S Enterprises B LLC	$100
Dec 21, 2012	3495 / 0179	0111	QC	S and S Enterprises "B" LLC	$100
Dec 21, 2012	3495 / 0176	0111	QC	S and S Enterprises "B" LLC	$100
Dec 19, 2012	3467 / 0534	0111	QC	S and S Enterprises Inc	$0
Dec 15, 1998	1193 / 0748	XX01	QC	B W Simpkins	$100
Dec 22, 1988	0616 / 1778	XX02	WD	S AND S ENTERPRISES INC	$404,400
Dec 1, 1986	0524 / 2722	XX01	CV		$0
Sep 1, 1973	0219 / 0060	XX00	CV		$50,000

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$1,330,800
Just/Market:	$1,330,800
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$1,330,800
Exemption(s):	$0
Taxable:	$1,330,800

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2016	0054	10.648	North St. Lucie Water Management District	$220.95

Start Year	AssessCode	Units	Description	Amount
2016	0041	33.3	Fort Pierce Stormwater Charge	$2,297.70

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2022	$1,330,800	$1,330,800	$0	$1,330,800
2021	$811,500	$811,500	$0	$811,500
2020	$811,500	$811,500	$0	$811,500
2019	$811,500	$811,500	$0	$811,500

Permits

Number	Issue Date	Description	Amount	Fee
BP17-2236	Aug 22, 2017	Demolition	$200	$0
BP17-2235	Dec 19, 2017	Demolition	$1,000	$0

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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CONSENT CERTIFICATE OF JOHNSON DEVELOPMENT ASSOCIATES, INC.
ACTION BY DIRECTORS AND SHAREHOLDERS

The undersigned, being all of the Directors and Shareholders of **JOHNSON DEVELOPMENT ASSOCIATES, INC.** (the "Corporation"), a corporation incorporated under the laws of the state of South Carolina, hereby consent to and adopt the following as the action of this Corporation:

WHEREAS, the Corporation has agreed to confirm and reappoint certain officers.

NOW THEREFORE, BE IT RESOLVED, that the Corporation hereby elects and appoints (or reappoints, as the case may be) the following officers of the Corporation to serve in such capacities until their resignation or until their successor is appointed, and each of whom, acting alone, shall have the authority to bind the Corporation:

George Dean Johnson, III – President and CEO
Jason C. Lynch – Vice President
Blake W. Spencer – CFO
Dan C. Breeden, Jr. – Secretary and Treasurer

FURTHER RESOLVED, that the following individuals continue to serve as Directors of the Corporation:

George Dean Johnson, Jr. (Chairman)
Dan C. Breeden, Jr.

The unanimous consent of the Directors and Shareholders may be evidenced by their signatures on one or more copies of this document, which shall be filed in the records of the Corporation. The adoption of these resolutions by the unanimous written consent of the Directors and Shareholders has the effect of the adoption of these resolutions by a vote at a duly-called meeting of the Directors and/or the Shareholders, as the case may be, and may be so described in any document.

[Signatures Follow]

George Dean Johnson, Jr.
Director

Date: January 1, 2020

Dan C. Breeden, Jr.
Director

Date: January 1, 2020

Date: January 1, 2020

George Dean Johnson, Jr., as Trustee
George Dean Johnson, Jr. 2009
Revocable Trust dated April 10, 2009
(Shareholder)

Date: January 1, 2020

George Dean Johnson, III as Trustee
of the George Dean Johnson, III Revocable
Trust U/A dated January 23, 2017
(Shareholder)

Date: January 1, 2020

Susanna Johnson Shannon as Trustee
of the Susanna J. Shannon Revocable
Trust U/A dated September 13, 2019
(Shareholder)

Date: January 1, 2020

George Dean Johnson, Jr., as Trustee
George Dean Johnson, Jr. 2009
Revocable Trust dated April 10, 2009
(Shareholder)

Date: January 1, 2020

George Dean Johnson, III as Trustee
of the George Dean Johnson, III Revocable
Trust U/A dated January 23, 2017
(Shareholder)

Date: January 1, 2020

Susanna Johnson Shannon as Trustee
of the Susanna J. Shannon Revocable
Trust U/A dated September 13, 2019
(Shareholder)

December 15, 2022

City of Fort Pierce
100 N. US Highway 1
Fort Pierce, FL 34950

Re:	**Project Name:**	**Proposed Self-Storage Facility**
	Project Location:	**Parcel ID #2419-321-0001-0005** **Ft. Pierce, Florida 34947**
	FWH Project No.:	**22056**

To whom it may concern:

This letter represents our design intent for this proposed development.

The project sits just east of the I-95 and Okeechobee Road interchange and is part of a major east-west corridor consisting of commercial development from I-95 to the converted mall, now Renaissance Business Park. The commercial corridor reflects older and newer structures of varying architectural styles developed over the past thirty plus years.

The parcel for the proposed project is set back from Okeechobee Road. A Drainage Canal District parallels the north property line.

The proposed Self-Storage Facility includes one 2-Story building totaling 102,950 square feet.

The proposed architectural style is Florida Vernacular as seen in the feature elements of the two primary facades. The primary feature is a corner tower which is capped by a hip roof with standing seam metal roofing. Under the roof are decorative support brackets, lapped siding and trim that are provided to both accentuate the tower and contribute to the architectural style. The main tower feature has the main building entry and office at the first floor and display windows at the second floor. The first floor storefront entrance system is covered by a canopy with diagonal supports.

The size and scale of the proposed two-story structure suggests large, blank wall areas. While there are some, the primary facades have been broken by other feature elements. These are defined by wall plane changes, roof projections, parapet extensions, veneer windows, awnings with standing seam covering, lapped siding, trim and gooseneck lighting. All of these are consistent with the intended style.

The larger wall areas are to be finished with painted cement plaster. These are to be designed with patterns created with control joints and color transitions which help to reduce the scale of the wall surface and add visual interest.

The primary colors for the building are consistent with the architectural style and include varying greys and white. Blue and yellow are accent colors for coping, standing seam metal roofing and awnings, overhead coiling doors and canopies.

Sincerely,

Guy F. Faber, President
FWH Architects, Inc.
FL License No. AR0015323

Dynamic Engineering Consultants, PC
100 NE 5th Avenue, Suite B2
Delray Beach, FL 33483
T. 561-921-8570

December 12, 2022

City of Fort Pierce
Planning Department
100 N US Hwy 1,
Fort Pierce, FL 34950

Attn: Planning Department

RE: JDA Self-Storage Facility
5575 Okeechobee Rd
Fort Pierce, FL 34947
Parcel ID No: 2419-321-0001-000-5
DECPC #22-00933

Justification Statement

Johnson Development Associates, Inc. (the "Applicant") is the contract purchaser and developer of the 4.34-acre property known as Parcel 3 of the Fort Pierce Commercial Plat being processed by the seller of the subject property. The general address of the subject property is 5575 Okeechobee Rd, Fort Pierce, FL 34947 (Parcel No. 2419-321-0001-000-5) which is owned by Okeejen, LLC. The property has a Future Land Use Designation of 'General Commercial (GC)' and a Zoning Designation of 'General Commercial (C-3)' to which a self-storage facility and outdoor vehicular storage require approval of a conditional use application. The Applicant proposes a site layout that follows requirements of the City of Fort Pierce. In accordance with the City of Fort Pierce Land Development Code, the Applicant is seeking Site Plan (Development Review and Design Review) approval. The Applicant is proposing a self-storage facility with a gross floor area of 103,022 SF with associated site features consisting of parking, landscaping, lighting, stormwater management, utilities, etc. (the "Project").

The proposed development will provide the City of Fort Pierce business owners and locally employed individuals an outlet to foster their economic growth. The demand of these facilities remains steady in both times of surplus, where business or individuals outgrow their current living or work spaces, and during times of adversity. The Applicant seeks to develop this Property to serve and integrate with the City of Fort Pierce community. The proposed use is compatible with the existing community character of the properties within the immediate neighborhood. The subject property's boundaries are surrounded by commercial and residential developments.

Per Section 125-187 of the City of Fort Pierce Land Development Code "Self-Storage Facility" and "Vehicle Storage" require a conditional use under the C-3 zoning district. As defined in the City's code, the purpose of the conditional use process is to control the number of development in a specific area for the same use and to guarantee no adverse effects on the public health, safety, comfort, good order, appearance, convenience and the general welfare.

The Applicant's representatives presented the project at a pre-application meeting with the City of Fort Pierce Planning and Zoning Department staff on August 9, 2022, where valuable feedback was received related to the City's requirements and suggestions for improving the Project. It was also determined at this meeting that this project will require three (3) requests of application for Development Review and Design Review approval consisting of:

1. ***Major Site Plan***
2. ***Conditional Use w/ New Development for the proposed Self-storage use***
3. ***Conditional Use w/ New Development for the proposed Vehicular Storage use***

The Applicant and consultant team have worked diligently on the above application submittal packages to propose an overall project with the following features:

A. Site Features:

- ***a.*** Two-story Self-Storage facility building totaling 103,022 SF of gross floor area
- ***b.*** A total of 11 vehicle parking spaces
- ***c.*** A total of 19 oversized vehicle storage spaces
- ***d.*** Access to the site is provided via a cross access driveway that connects to a private shared access road that ultimately leads to Okeechobee Road and Jenkins Road
- ***e.*** Gated access to the loading areas and vehicle storage areas
- ***f.*** 8 feet vinyl coated chain-link fence with visual screen to outdoor vehicular storage is proposed at the south and east sides of the vehicular storage area
- ***g.*** No potential hazards, problems or public nuisances are anticipated due to the proposed development. Additional proposed site features for site design security measures are as follows:

    1. Natural Surveillance: the proposed Project consists of well-lit public outdoor areas including parking areas and pedestrian walkways.
    2. Natural Access Control: the proposed Project design has clear visibility maintained from the building to the street, parking areas, pedestrian walkways and passing vehicles.
    3. Automated Gates: the proposed Project consists of two (2) vertical pivot auto-gates to allow access only to customers into the self-storage facility and oversized parking space lot.

B. Landscape Features:

The proposed landscaping design complies with all the standards and requirements of The City of Fort Pierce Land Development Code Section 123-37. The perimeter buffer is proposed to be installed by the seller as part of the Fort Pierce Commercial development under process with the City of Fort Pierce with TRC Project No.21-07000026.

C. Drainage & Paving Improvements:

a. The master developer of the Fort Pierce Commercial has proposed a dry detention system that discharges into a wet detention system in which ultimately outfalls into a drainage ditch that connects to NSLRWCD's Canal #38. The applicant will comply with the maximum 80% impervious area set forth by the overall permit criteria for the master development and connect to that system once constructed.

b. Pavement improvements include the following proposed paved surfaces for vehicular use and pedestrian use areas:

- ***a)*** Standard Duty Flexible Asphalt
- ***b)*** Heavy Duty Flexible Asphalt
- ***c)*** Standard Duty Concrete
- ***d)*** Heavy Duty Concrete

D. Utility Connections:

a. The Seller/Master Developer will provide utilities per the attached Utility Plan dated July 14th, 2022 for this parcel's use. The utilities available to the project are:

a) An 8" water main from the development immediately to the east and looping along the eastern, northern, and western property boundaries of Parcel 3. An 8" plugged gate valve will be provided for the subject project.

b) An 8" stubbed out gravity sewer main will be provided that is routed to the west through the preceding developments.

E. Adjacent Zoning Information:

	NORTH	**EAST**	**SOUTH**	**WEST**
Surrounding FLUM:	General Commercial **(GC)**	Medium Density Residential **(RM)**	General Commercial **(GC)**	General Commercial **(GC)**
Surrounding Zoning:	General Commercial **(C-3)**	Medium Density Residential **(R-4)**	General Commercial **(C-3)**	General Commercial **(C-3)**

F. Similar Uses in the Vicinity:

Presently there are two self-storage facilities in the vicinity of the subject site, a Public Storage ± 500 feet and a Storage King USA ± 2,500 feet. Based on publicly available information these self-storage facilities are approaching full occupancy.

There also is a planned a residential community being developed to the south and east of the subject site in addition to the commercial development on the western portion of the subject property. Therefore, the proposed development would supply the City of Fort Pierce business owners and residents the required demand for additional storage.

It is our professional opinion that the granting of these conditional uses will not cause determinantal effects to the site layout of the subject property. Furthermore, it will in harmony with the general purpose and intent of the Code, and will allow for this proposed development to beautify and progress the existing conditions. We respectfully request your review and approval of the conditional use and site plan applications for this proposed development.

Sincerely,
Dynamic Engineering Consultants, P.C.

_____

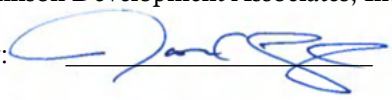
Michael D. Miles, P.E.
Regional Manager/Senior Principal

cc: Client – Johnson Development Associates, Inc.

Authorization of Owner

Johnson Development Associates, Inc. is the contract purchaser of the property identified as the 4.34-acre area located in parcel 3 of the Fort Pierce Commercial Plat, which is a proposed subdivided lot of Tax Parcel Number 2419-321-0001-000-5 in the City of Fort Pierce, St. Lucie County, Florida hereby authorize **Dynamic Engineering Consultants, PC** and/or their respective agents, consultants and assigns, to act as our agent to submit and correspond on our behalf for the above referenced project in the City of Fort Pierce, St. Lucie County, and any other applicable agencies as it pertains to the involvement of the project location. We understand that we are the owner of record responsible for the development applications submitted by the agents referenced above.

Johnson Development Associates, Inc.

By: 

Name: Jason C. Lynch

Address: 100 Dunbar Street, Suite 400
Spartanburg, S.C. 29306

Phone: 201.259.0068

E-Mail: vtiberi@johnsondevelopment.net

MBV
ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
www.mbveng.com CA #3728

STORMWATER MANAGEMENT CALCULATIONS

for

Ft. Pierce Commercial

City of Ft. Pierce, FL

February 2022

Prepared by: MBV Engineering, Inc.
1835 20th Street
Vero Beach, Florida 32960
772-569-0035
Certificate of Authorization #: 3728

Engineer's Project No: 21-0056
Designed By: AS

AARON G. STANTON LICENSE No. 72460 STATE OF FLORIDA PROFESSIONAL ENGINEER

2/11/2022

Mr. Aaron G. Stanton, P.E. #72460

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2/11/2022

Mr. Aaron G. Stanton, P.E. #72460

I. PURPOSE

The purpose of this report is to provide the City of Ft. Pierce (CoFP), South Florida Water Management District (SFWMD) North St. Lucie River Water Control District (NSLRWCD), and the Florida Department of Transportation (FDOT) with calculations and documentation which demonstrates the proposed surface water management system complies with state and local criteria.

II. PROPOSED SYSTEM

The proposed surface water management system will consist of a dry retention pond that will discharge overflow into a wet detention system. A control structure will regulate the discharge into an existing ditch along the perimeter of the property which terminates at an existing culvert connection to the NSLRWCD's Canal #38. The three (3) developable lots will drain to inlets within their parking lots that will be directed into the dry retention pond. Parcel 1 will be developed along with the master site and is +/-2,500 sf of retail and +/-2,500 sf Chipotle restaurant. Parcel 2 will be an Aldi grocery store, developed by others, with separate construction plans submitted. Parcel 3 will be reserved for future development.

III. SITE DATA

Development Area	522,635 s.f.	11.998 acres
Basin Area	522,635 s.f.	11.998 acres

Site Location: S Jenkins RD. & Okeechobee RD.
Fort Pierce, FL 34947

PARCEL -1 (Retail / Fast-Food Restaurant)

Soil Boring #

AB-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.3 ft. (NAVD)	
Measured Water Elev.	11.1 ft. (NAVD)	62.4 = measured ground water depth (in)

AB-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.4 ft. (NAVD)	
Measured Water Elev.	10.3 ft. (NAVD)	61.2 = measured ground water depth (in)

AB-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.2 ft. (NAVD)	
Measured Water Elev.	13.2 ft. (NAVD)	36 = measured ground water depth (in)

AB-4 (no water table indicated)

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	17.0 ft. (NAVD)	
Measured Water Elev.	N/A	N/A = measured ground water depth (in)

B-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.3 ft. (NAVD)	
Measured Water Elev.	10.6 ft. (NAVD)	68.4 = measured ground water depth (in)

B-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.5 ft. (NAVD)	
Measured Water Elev.	9.7 ft. (NAVD)	69.6 = measured ground water depth (in)

B-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.5 ft. (NAVD)	
Measured Water Elev.	10.8 ft. (NAVD)	68.4 = measured ground water depth (in)

B-4

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.3 ft. (NAVD)	
Measured Water Elev.	10.2 ft. (NAVD)	73.2 = measured ground water depth (in)

B-5

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.0 ft. (NAVD)	
Measured Water Elev.	10.1 ft. (NAVD)	70.8 = measured ground water depth (in)

PARCEL -1 (Gray Area Roadway)

AB-1 (no water table indicated)

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.3 ft. (NAVD)	
Measured Water Elev.	N/A	N/A = measured ground water depth (in)

AB-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.6 ft. (NAVD)	
Measured Water Elev.	13.3 ft. (NAVD)	27.6 = measured ground water depth (in)

AB-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	14.1 ft. (NAVD)	
Measured Water Elev.	11.2 ft. (NAVD)	34.8 = measured ground water depth (in)

AB-4

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	17.3 ft. (NAVD)	
Measured Water Elev.	11.9 ft. (NAVD)	64.8 = measured ground water depth (in)

AB-5 (no water table indicated)

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.1 ft. (NAVD)	
Measured Water Elev.	N/A	N/A = measured ground water depth (in)

AB-6

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.4 ft. (NAVD)	
Measured Water Elev.	10.2 ft. (NAVD)	62.4 = measured ground water depth (in)

PARCEL -2 (Aldi's)

AB-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	17.8 ft. (NAVD)	
Measured Water Elev.	8.8 ft. (NAVD)	108 = measured ground water depth (in)

AB-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.8 ft. (NAVD)	
Measured Water Elev.	10.1 ft. (NAVD)	68.4 = measured ground water depth (in)

AB-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.2 ft. (NAVD)	
Measured Water Elev.	10.5 ft. (NAVD)	68.4 = measured ground water depth (in)

AB-4

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.7 ft. (NAVD)	
Measured Water Elev.	10.3 ft. (NAVD)	64.8 = measured ground water depth (in)

AB-5

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	17.1 ft. (NAVD)	
Measured Water Elev.	11.3 ft. (NAVD)	69.6 = measured ground water depth (in)

AB-6 (no water table indicated)

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.0 ft. (NAVD)	
Measured Water Elev.	N/A	N/A = measured ground water depth (in)

PARCEL -3 (Future Development)

AB-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.7 ft. (NAVD)	
Measured Water Elev.	8.7 ft. (NAVD)	84 = measured ground water depth (in)

AB-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	14.6 ft. (NAVD)	
Measured Water Elev.	8.6 ft. (NAVD)	72 = measured ground water depth (in)

B-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.8 ft. (NAVD)	
Measured Water Elev.	7.8 ft. (NAVD)	96 = measured ground water depth (in)

B-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.9 ft. (NAVD)	
Measured Water Elev.	9.9 ft. (NAVD)	72 = measured ground water depth (in)

B-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.2 ft. (NAVD)	
Measured Water Elev.	10.2 ft. (NAVD)	72 = measured ground water depth (in)

B-4

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.6 ft. (NAVD)	
Measured Water Elev.	8.4 ft. (NAVD)	86.4 = measured ground water depth (in)

B-5

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.4 ft. (NAVD)	
Measured Water Elev.	7.9 ft. (NAVD)	90 = measured ground water depth (in)

Permeability Test Results

Test Location	Sample Depth (Feet)	Sample Description	Coefficient of Permeability, k (ft/day)	
			kh	kv
AB-1	1.5-2	Gray Light brown fine sand (SP)	24	23.7
AB-2	1.5-2	Gray fine sand (SP)	8.3	14.1

PARCEL -4 (Lake)

B-1

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	15.8 ft. (NAVD)	
Measured Water Elev.	9.6 ft. (NAVD)	74.4 = measured ground water depth (in)

B-2

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	18.7 ft. (NAVD)	
Measured Water Elev.	12.6 ft. (NAVD)	73.2 = measured ground water depth (in)

B-3

Site Soils:	Nettles and Oldmars Sand (25) HSG (B/D)	
Existing Grade at Soil Boring	16.2 ft. (NAVD)	
Measured Water Elev.	10.0 ft. (NAVD)	74.4 = measured ground water depth (in)

NOTE: Some borings did not have a water level located. These were left out of the calculations for WSWT below.

Average Existing Grade	16.0 ft. (NAVD)
Average Meas. Water Table	10.3 ft. (NAVD)
Wet Season Water Table	11.8 ft. (NAVD)

IV. PRE-DEVELOPMENT CONDITIONS

Drainage Area	522,635 s.f.	11.998 acres	100.0%
Building Area	s.f.	.000 acres	0.0%
Roadway Area	s.f.	.000 acres	0.0%
Walks/Pads Area	s.f.	.000 acres	0.0%
Total Impervious	s.f.	.000 acres	0.0%
Total Semi.-Impervious	s.f.	.000 acres	0.0%
Total Pervious	522,635 s.f.	11.998 acres	100.0%

Weighted Curve Number

% Impervious	0.0		CN1 = 98
% Semi-Impervious	0.0	Soil Group (B/D)	CN2 = 91
% Pervious	100.0%	Soil Group (B/D)	CN3 = 74

CN = [(% Impervious)(CN1) + (% Semi-Impervious)(CN2) + (% Pervious)(CN3)]
CN = 74

Time of Concentration

t_1: Sheet Flow

t_1 = [0.007 (N x L)^0.8] / [P^0.5 x S^0.4] Kinematic Wave Eq.

Where :

N = Mannings Roughness Coeff. =	0.400
L = Length of Flow (ft) =	300
Change in elevation (ft)=	4.2
P = Rainfall Intensity (in/hr)=	5.5
S = slope (ft/ft) =	0.0140
t_1=	45.5 min.

t_2: Shallow Channel Flow

t_2= Length / Velocity =

Length of flow (ft)	120
Channel velocity (fps)	0.807
t_2=	2.5 min.

t_3 = Pipe Flow

Length of flow (ft)
Channel velocity (fps)

Time of Concentration (Tc) T_c = 48.0 min. If <10 min, use 10 min

V. POST-DEVELOPMENT CONDITIONS

Site Basin

Drainage Area	381,591 s.f.	8.760 acres	73.0%
Building*	24,190 s.f.	.555 acres	4.6%
Driveways**	226,304 s.f.	5.195 acres	59.3%
Walks/Pads	26,545 s.f.	.609 acres	5.1%
Total Impervious	277,039 s.f.	6.360 acres	72.6%
Wet Pond Surface (@ control)	s.f.	.00 acres	0.0%
Total Semi.-Impervious	s.f.	.000 acres	0.0%
Total Pervious	104,552 s.f.	2.400 acres	27.4%

* Building area based upon buildings on Parcels 1 & 2 (Parcel 2 will be an Aldi coming in on separate plan)

** Driveways are actual area from Parcels 1 and 2 and 80% max. buildout for Parcel 3

Weighted Curve Number (Pond Water Surface removed from equation)

% Impervious	72.6%		CN1 = 98
% Semi-Pervious	0.0%	Soil Group (B/D)	CN2 = 90
% Pervious	27.4%	Soil Group (B/D)	CN3 = 74

CN = [(% Impervious)(CN1) + (% Semi-Impervious)(CN2) + (% Pervious)(CN3)]

CN = 91.4

Time of Concentration

Overland Flow (t2) = [0.007 (N x L)^0.8] / [P^0.5 x S^0.4] = Kinematic Wave Eq.

Where :

N = Mannings Roughness Coeff. =	0.011
L = Length of Flow (ft) =	130
Change in elevation =	0.3
P = Rainfall Intensity =	5.5
S = slope (ft/ft) =	0.0023
t_1=	2.7 min.

t_2: Shallow channel flow

t_2= Length / Velocity =

Length of flow (ft)	120
Channel velocity (fps)	0.807
t_2=	2.5 min.

Time of Concentration (Tc) T_c = 5.2 min. If <10 min, use 10 min

Dry Pond Basin

Drainage Area	28,558 s.f.	.656 acres	5.5%
Building	s.f.	.000 acres	0.0%
Driveways	s.f.	.000 acres	0.0%
Walks/Pads	s.f.	.000 acres	0.0%
Total Impervious	s.f.	.000 acres	0.0%
Wet Pond Surface (@ control)	s.f.	.00 acres	0.0%
Total Semi.-Impervious	s.f.	.000 acres	0.0%
Total Pervious	28,558 s.f.	.656 acres	100.0%

Weighted Curve Number (Pond Water Surface removed from equation)

% Impervious	0.0%		CN1 = 98
% Semi-Pervious	0.0%	Soil Group (B/D)	CN2 = 90
% Pervious	100.0%	Soil Group (B/D)	CN3 = 74

CN = [(% Impervious)(CN1) + (% Semi-Impervious)(CN2) + (% Pervious)(CN3)]

CN = 74.0

Time of Concentration

Overland Flow (t2) = [0.007 (N x L)^0.8] / [P^0.5 x S^0.4] = Kinematic Wave Eq.

Where :

N = Mannings Roughness Coeff. =	0.011
L = Length of Flow (ft) =	15
Change in elevation =	0.3
P = Rainfall Intensity =	5.5
S = slope (ft/ft) =	0.0200

t_1 = .2 min.

Time of Concentration (Tc) T_c = .2 min. If <10 min, use 10 min

Wet Pond Basin

Drainage Area	112,486 s.f.	2.582 acres	21.5%
Building	s.f.	.000 acres	0.0%
Driveways	s.f.	.000 acres	0.0%
Walks/Pads	s.f.	.000 acres	0.0%
Total Impervious	s.f.	.000 acres	0.0%
Wet Pond Surface (@ control)	49,127 s.f.	1.128 acres	43.7%
Total Semi.-Impervious	s.f.	.000 acres	0.0%
Total Pervious	63,359 s.f.	1.455 acres	56.3%

Weighted Curve Number (Pond Water Surface removed from equation)

% Water Surface	43.7%		CN1 = 100
% Impervious	0.0%		CN2 = 98
% Semi-Pervious	0.0%	Soil Group (B/D)	CN3 = 90
% Pervious	56.3%	Soil Group (B/D)	CN4 = 74

CN = [(% Impervious)(CN1) + (% Semi-Impervious)(CN2) + (% Pervious)(CN3)]

CN = 85.4

Time of Concentration

Overland Flow (t2) = [0.007 (N x L)^0.8] / [P^0.5 x S^0.4] = Kinematic Wave Eq.

Where :

N = Mannings Roughness Coeff. =	0.011
L = Length of Flow (ft) =	130
Change in elevation =	0.3
P = Rainfall Intensity =	5.5
S = slope (ft/ft) =	0.0023
t_1 =	2.7 min.

Time of Concentration (Tc) T_c = 2.7 min. If <10 min, use 10 min

BASINS - TOTAL

Drainage Area	522,635 s.f.	11.998 acres	100.0%
Building	24,190 s.f.	.555 acres	4.6%
Driveways	226,304 s.f.	5.195 acres	59.3%
Walks/Pads	26,545 s.f.	.609 acres	5.1%
Total Impervious	277,039 s.f.	6.360 acres	53.0%
Wet Pond Surface (@ control)	49,127 s.f.	1.13 acres	9.4%
Total Semi.-Impervious	s.f.	.000 acres	0.0%
Total Pervious	196,469 s.f.	4.510 acres	37.6%

Weighted Curve Number (Pond Water Surface removed from equation)

% Impervious	58.5%		CN1 = 98
% Semi-Pervious	0.0%	Soil Group (B/D)	CN2 = 90
% Pervious	41.5%	Soil Group (B/D)	CN3 = 74

CN = [(% Impervious)(CN1) + (% Semi-Impervious)(CN2) + (% Pervious)(CN3)]

CN = 88.0

VI. REQUIRED TREATMENT VOLUME

A. Treatment Volume Tabulations Based on Contributing Area

Total Contributing Area (ac) =		11.998 ac
Total Impervious Area (ac) =		6.360 ac
Required Treatment over site (in) =	1.00 in	1.000 ac-ft
Required Treatment over impervious area (in) =	2.50 in	1.325 ac-ft
Required Treatment Volume from above (ac-ft) =		1.325 ac-ft
On-line Retention : Additional 0.5" over drainage area (ac-ft) =		
For outfalls to Outstanding Florida Waters (OFWs)		
OFW - Additional 50% treatment of Req'd Treatment Volume (ac-ft) =		
OFW - On-line retention : Addit. 50% of On-Line Treatment from above (ac-ft) =		

Total Required Treatment Volume by City of Ft. Pierce and SFWMD (ac-ft) =	1.325 ac-ft	= 57,716 cf

B. SFWMD Pollutant Loading Reduction Tabulations (See Appendix B for Calculations)

Combined Retention Depth (inches over the drainage basin) Required to Achieve		0.880 in
Percent Reduction per BMP Trains software =	0.88" x 10.87 ac (area-lake) /12 =	0.797 ac-ft

Required Treatment Volume for Pollutant Loading (ac-ft) =	0.797 ac-ft	= 34,724 cf
Total Required Treatment Volume for Basin (ac-ft) = Max. of A. and B. above =	**1.325 ac-ft**	**= 57,716 cf**

VII. PROPOSED TREATMENT & DRAWDOWN VOLUME

Wet Detention

Stage (ft)	Area (ac)	Incremental volume (ac-ft)	Incremental volume (c.f.)	Cumulative volume (ac-ft)	Cumulative volume (c.f.)
-bot. of pond = 3.00	0.362			0.00	0
	15,758.s.f.	3.60	157,017		
4.00	0.668			3.60	157,017
	29,104.s.f.	5.66	246,428		
Control = 10.30 (NWL)	1.128			0.00	0
	49,127.s.f.	0.229	9,968		
10.50	1.160			0.23	9,968
	50,548.s.f.	0.43	18,658		
1/2 treatment vol. = 10.86	1.219			0.66*	28,625
**should =0.66 ac-ft*	53,106.s.f.	0.68	29,653		
rqd. treat. vol. = 11.37	1.450			*1.34*	58,278
	63,179.s.f.	0.04	1,896		
11.40	1.452			1.38	60,174
	63,231.s.f.	0.89	38,876		
12.00	1.523			2.27	99,050
	66,356.s.f.	5.13	223,319		
top of bank = 15.0	1.894			7.40	322,369
	82,523.s.f.	2.06	89,605		
16.00	2.220			9.46	411,974
	96,687.s.f.				

Orifice Sizing Drawdown Calculations

Rqd. Treatment Vol. to Draw Down :	0.657	ac-ft (Provided in Pond)
Rqd. Min. Time to Drawdown 1/2 T.V. :	24	hours
Rqd. Max. Time to Drawdown Entire T.V. :	30	hours
Elevation of Orifice :	10.30	NAVD
Assumed Orifice Diameter:	3.00	inches
Centroid of Orifice:	10.43	NAVD
Elevation of 1/2 Treatment Volume :	10.86	NAVD
Elevation of treatment volume :	11.370	NAVD
Max. Orifice Diameter *** :	2.76	inches
***Orifice Equation : Q=C*A*(2*g*H)^.5		
Orifice Diameter Utilized :	**3.0**	**inches** (min. of 3 inches for no clogging**)**

Permanent Pool Volume Calculations

Contributing Area (CA)	11.998	acres
length of wet season (WS)	153	days
wet season rainfall depth (R)	30	inches
minimum residence time (RT)*	21	days
runoff coefficient (C)	0.66	
Required PPV****	2.72	ac-ft
**** PPV = (CA*C*R*RT/(WS*12))		
PPV Provided :	**9.26**	**ac-ft**

Mean Depth = PPV/Ap = 8.21 ft

Note: PPV provided requires no littoral zone.
Note : 14 1.5 = 21 days utilized to eliminate need of littoral zone.

Dry Retention

Stage (ft)	Area (ac)	Incremental volume (ac-ft)	Incremental volume (c.f.)	Cumulative volume (ac-ft)	Cumulative volume (c.f.)
bot. of pond = 13.0	0.130 5,663.s.f.	0.22	9,532	0.00	0
14.00	0.308 13,402.s.f.	0.66	28,809	0.22	9,532
weir = 15.50	0.574 25,010.s.f.	0.31	13,472	0.88	38,341
top of bank = 16.00	0.663 28,879.s.f.			1.19	51,813

SIDE BANK FILTRATION CALCULATIONS

Pond & Filter Trench Characteristics

Basin Bottom (NWL) =	10.30
Water Quality Treatment Elev =	11.37
Increment 2 Elev =	11.01
Increment 3 Elev =	10.66
Select Fill Layer Thickness =	6 in.
Invert Select Fill =	10.12
B&G CTS Layer =	24 in.
Invert Filter=	9.39
Gravel Layer Above Pipe =	2 in.
Pipe Size =	12 in.
Pipe CL =	9.38
Pipe Invert =	8.88
Depth (D) =	1.98 ft.

Calculate Incremental Head Conditions

H_1 =	1.99 ft.
H_2 =	1.63 ft.
H_3 =	1.28 ft.
i_1 =	1.01
i_2 =	0.82
i_3 =	0.64

$$i = \frac{\Delta H}{\Delta D}$$

Calculate Permeability

K =	.83 ft/hr	*Type A soil replacement, from table 30-1
K_G =	1.04 ft/hr	
Use K_{FS} =	.52 ft/hr	

Calculate Incremental Volumes

V_1 =	63,231	cf
V_2 =	42,154	cf
V_3 =	21,077	cf

Filter Trench Design

Min. Filter Trench Area =	1,116	sf	(from BMP Trains)
Min. Filter Trench Volume =	2,232	cf	(from BMP Trains)
Pipe Length =	250	ft	
Filter Trench Width =	6.80	ft	
Depth (D) =	1.98	ft	(from above)
Actual Filter Trench Area =	1,700	sf	
Trench Volume =	4,270	cf	
Actual Filter Media Volume =	2,843	cf	
Filter Trench Service Life =	3.0	years	(from BMP Trains)

Calculate Peak Discharge Rate

Q_1=	0.25	cfs
Q_2=	0.20	cfs
Q_3=	0.16	cfs

$$Q = K\frac{\Delta H}{\Delta D}A$$

Calculate Incremental Drawdown Times

t_1=	71.3 hrs
t_2=	57.9 hrs
t_3=	37.1 hrs

*D is constant for Vertical Filter design.

$$t = \frac{V}{K\frac{\Delta H}{\Delta D}A}$$

Pipe Design

Peak Discharge (Q_p)=	0.25 cfs
Pipe Slope=	0.0017
Min. Pipe Diameter (Single)=	6 in.
Limit Drawdown Time =	Yes
Pipe Size Used =	12 in.
Is Length Split =	No
Length (each side) =	250 ft.
Total Number of Pipes =	1
Pipe Invert (LP)=	8.88
Pipe Invert (HP)=	9.31
Actual Drawtown (t_1) =	42.9 hrs
Actual Drawtown (t_2) =	3.9 hrs
Actual Drawtown (t_3) =	2.4 hrs

$$d = \left(\frac{1630 Q_p n}{\sqrt{S}}\right)^{3/8}$$

VIII. SUMMARY

Following are summaries of pre-developed and post-developed discharges for the storms that have been analyzed.

Stage & Discharge Results

1. Storm Events are run with the SCS Type III and SFWMD 72 Hr rainfall events.

	Mean Annual (MA)		10YR - 24HR		10YR - 72HR	
	STAGE	PEAK DISCH.	STAGE	PEAK DISCH.	STAGE	PEAK DISCH.
Pre-Site	15.13	6.92	15.20	11.75	15.27	16.56
Post-Site	15.89		16.01		16.04	
Post-Dry Pond	15.83		15.91		15.93	
Post-Wet Pond	12.59	0.15	13.33	0.54	15.04	3.51

	25YR - 24HR		25YR - 72HR		100YR - 24HR	
	STAGE	PEAK DISCH.	STAGE	PEAK DISCH.	STAGE	PEAK DISCH.
Pre-Site	15.24	14.44	15.29	19.17	15.32	22.07
Post-Site	16.07		16.10		16.23	
Post-Dry Pond	15.94		15.96		16.02	
Post-Wet Pond	13.58	0.96	15.26	6.63	14.29	2.64

	100YR - 72HR	
	STAGE	PEAK DISCH.
Pre-Site	15.36	25.71
Post-Site	16.23	
Post-Dry Pond	16.02	
Post-Wet Pond	15.83	9.81

Drawdown of Treatment Volume Within 72 Hours

See Section VII. Side Bank Filtration calculations for the drawdown of the pond within 72 hours.

Allowable Discharge in NSLRWCD System

See table labled "Discharge for NSLRWCD" under Appendix A

As demonstrated by the above calculations and the flood routing computations analysis contained in the appendices of this report, the proposed stormwater management system meets the requirements of the CoFP, SFWMD, NSLRWCD and the FDOT. The system provides adequate treatment volume, recovery of the treatment volume and attenuation for the design storms from the above jurisdictional agencies.

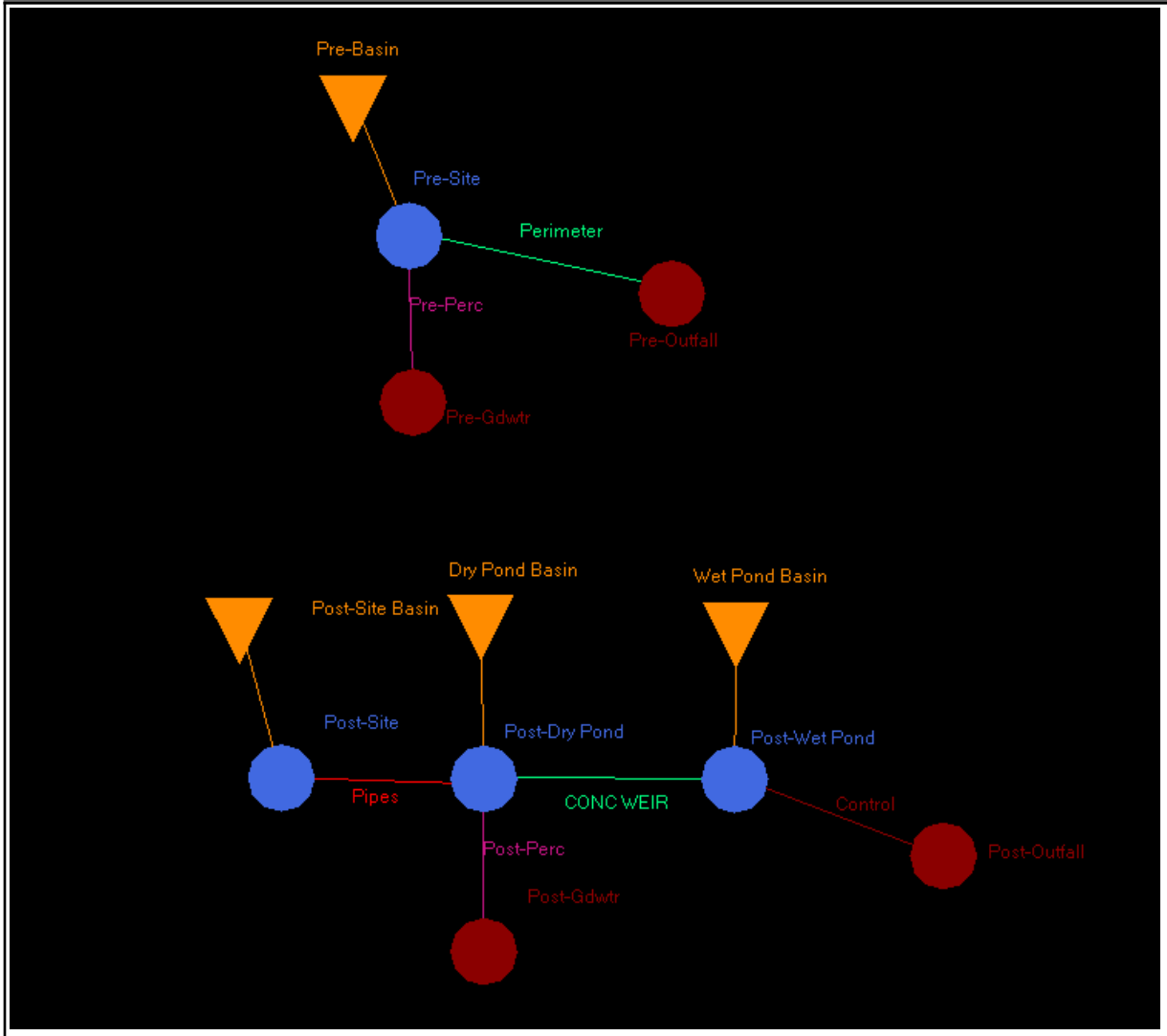
Appendix A
ICPR Modeling and Results

Node Max Conditions [Scenario2]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Post-Dry Pond	100YR-24HR	16.00	16.02	0.0027	154.77	53.65	28884
Post-Gdwtr	100YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	100YR-24HR	16.21	11.87	0.0000	2.64	0.00	0
Post-Site	100YR-24HR	18.00	16.23	0.1532	53.03	154.77	38843
Post-Wet Pond	100YR-24HR	16.00	14.29	0.0010	68.12	2.64	78681
Pre-Gdwtr	100YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	100YR-24HR	16.21	11.87	0.0000	22.07	0.00	0
Pre-Site	100YR-24HR	17.00	15.32	0.0002	22.63	22.07	35867
Post-Dry Pond	100YR-72HR	16.00	16.02	0.0027	154.77	54.11	28884
Post-Gdwtr	100YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	100YR-72HR	16.21	15.00	0.0001	9.81	1.48	0
Post-Site	100YR-72HR	18.00	16.23	0.1532	52.69	154.77	39390
Post-Wet Pond	100YR-72HR	16.00	15.83	0.0010	68.93	9.81	94344
Pre-Gdwtr	100YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	100YR-72HR	16.21	15.00	0.0001	25.71	0.00	0
Pre-Site	100YR-72HR	17.00	15.36	0.0002	26.28	25.71	37318
Post-Dry Pond	10YR-24HR	16.00	15.91	0.0027	154.77	36.42	28169
Post-Gdwtr	10YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	10YR-24HR	16.21	11.87	0.0000	0.54	0.00	0
Post-Site	10YR-24HR	18.00	16.01	0.1532	35.07	154.77	1150
Post-Wet Pond	10YR-24HR	16.00	13.33	0.0010	46.27	0.54	73577
Pre-Gdwtr	10YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	10YR-24HR	16.21	11.87	0.0000	11.75	0.00	0
Pre-Site	10YR-24HR	17.00	15.20	0.0002	12.20	11.75	30701
Post-Dry Pond	10YR-72HR	16.00	15.93	0.0027	154.77	39.20	28327
Post-Gdwtr	10YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	10YR-72HR	16.21	15.00	0.0002	3.51	1.90	0
Post-Site	10YR-72HR	18.00	16.04	0.1532	37.22	154.77	6793
Post-Wet Pond	10YR-72HR	16.00	15.04	0.0010	49.98	3.51	83076
Pre-Gdwtr	10YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	10YR-72HR	16.21	15.00	0.0002	16.56	0.00	0
Pre-Site	10YR-72HR	17.00	15.27	0.0002	17.05	16.56	33348
Post-Dry Pond	25YR-24HR	16.00	15.94	0.0027	154.77	41.28	28443
Post-Gdwtr	25YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	25YR-24HR	16.21	11.87	0.0000	0.96	0.00	0
Post-Site	25YR-24HR	18.00	16.07	0.1532	39.87	154.77	11750
Post-Wet	25YR-24HR	16.00	13.58	0.0010	52.41	0.96	74909

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Pond							
Pre-Gdwtr	25YR-24HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	25YR-24HR	16.21	11.87	0.0000	14.44	0.00	0
Pre-Site	25YR-24HR	17.00	15.24	0.0002	14.92	14.44	32262
Post-Dry Pond	25YR-72HR	16.00	15.96	0.0027	154.77	43.62	28572
Post-Gdwtr	25YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	25YR-72HR	16.21	15.00	0.0001	6.63	1.77	0
Post-Site	25YR-72HR	18.00	16.10	0.1532	41.64	154.77	16598
Post-Wet Pond	25YR-72HR	16.00	15.26	0.0010	55.58	6.63	86189
Pre-Gdwtr	25YR-72HR	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	25YR-72HR	16.21	15.00	0.0001	19.17	0.00	0
Pre-Site	25YR-72HR	17.00	15.29	0.0002	19.69	19.17	34585
Post-Dry Pond	MA	16.00	15.83	0.0027	154.77	26.78	27584
Post-Gdwtr	MA	11.90	11.80	0.0000	0.00	0.00	0
Post-Outfall	MA	16.21	11.87	0.0001	0.15	0.00	0
Post-Site	MA	18.00	15.89	0.1532	26.07	154.77	100
Post-Wet Pond	MA	16.00	12.59	0.0010	34.09	0.15	69602
Pre-Gdwtr	MA	11.90	11.80	0.0000	0.00	0.00	0
Pre-Outfall	MA	16.21	11.87	0.0001	6.92	0.00	0
Pre-Site	MA	17.00	15.13	0.0003	7.35	6.92	27292

Background Image: Node Map



Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]	Total Inflow Volume [ac_ft]
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	0.0000	10.30	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	1.0000	10.37	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	2.0002	10.43	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	3.0001	10.50	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	4.0000	10.56	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	5.0002	10.63	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	6.0004	10.69	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	7.0000	10.76	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	8.0000	10.82	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	9.0001	10.89	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	10.0000	10.95	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	11.0001	11.02	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	12.0001	11.08	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	13.0002	11.15	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	14.0000	11.21	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	15.0001	11.28	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	16.0001	11.34	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	17.0000	11.41	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	18.0002	11.48	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	19.0000	11.54	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	20.0002	11.61	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	21.0001	11.67	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	22.0000	11.74	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	23.0001	11.80	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	24.0001	11.87	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	25.0001	11.93	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	26.0001	12.00	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	27.0000	12.06	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	28.0001	12.13	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	29.0001	12.19	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	30.0001	12.26	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	31.0000	12.32	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	32.0000	12.39	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	33.0001	12.45	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	34.0000	12.52	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	35.0001	12.58	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	36.0000	12.65	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	37.0000	12.72	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	38.0000	12.78	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	39.0000	12.85	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	40.0001	12.91	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	41.0001	12.98	0.00

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]	Total Inflow Volume [ac_ft]
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	42.0000	13.04	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	43.0001	13.11	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	44.0001	13.17	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	45.0000	13.24	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	46.0000	13.30	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	47.0001	13.37	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	48.0000	13.43	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	49.0000	13.50	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	50.0001	13.56	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	51.0001	13.63	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	52.0000	13.69	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	53.0001	13.76	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	54.0001	13.83	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	55.0000	13.89	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	56.0001	13.96	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	57.0001	14.02	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	58.0000	14.09	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	59.0002	14.15	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	60.0000	14.22	0.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	61.0001	14.28	0.03
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	62.0001	14.35	0.13
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	63.0000	14.41	0.25
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	64.0000	14.48	0.35
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	65.0001	14.54	0.43
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	66.0000	14.61	0.48
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	67.0000	14.67	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	68.0001	14.74	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	69.0001	14.80	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	70.0000	14.87	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	71.0002	14.93	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	72.0001	15.00	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	73.0033	14.98	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	74.0033	14.97	0.50
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	75.0033	14.95	0.51
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	76.0033	14.93	0.53
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	77.0033	14.92	0.55
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	78.0033	14.90	0.58
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	79.0033	14.89	0.61
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	80.0033	14.87	0.64
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	81.0033	14.85	0.67
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	82.0033	14.84	0.70
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	83.0033	14.82	0.73

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]	Total Inflow Volume [ac_ft]
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	84.0033	14.80	0.76
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	85.0072	14.79	0.79
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	86.0072	14.77	0.82
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	87.0072	14.76	0.85
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	88.0072	14.74	0.88
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	89.0072	14.72	0.91
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	90.0072	14.71	0.94
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	91.0072	14.69	0.97
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	92.0072	14.67	1.00
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	93.0072	14.66	1.03
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	94.0072	14.64	1.06
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	95.0072	14.62	1.09
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	96.0072	14.61	1.12
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	97.0072	14.59	1.15
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	98.0072	14.58	1.18
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	99.0072	14.56	1.21
Scenario2-NSLRWCD disch	10YR-72HR	Post-Outfall	100.0072	14.54	1.24

Allowable Discharge into NSLRWCD System: 2"/ac/24-hr period

12.0 ac x 2.00in x (1ft/12in) / 24 hrs = **2.0 ac-ft/24hrs**

Actual Maximum Discharge = **0.76 ac-ft/24hrs (betw. hrs 60 - 84)**

PASS

Simple Basin: Dry Pond Basin

Scenario:	Scenario2
Node:	Post-Dry Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.6560 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Site Basin

Scenario:	Scenario2
Node:	Post-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.7600 ac
Curve Number:	91.4
% Impervious:	72.60
% DCIA:	72.60
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Pre-Basin

Scenario:	Scenario2
Node:	Pre-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	48.0000 min
Max Allowable Q:	999999.00 cfs

Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	12.0000 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Wet Pond Basin

Scenario:	Scenario2
Node:	Post-Wet Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5820 ac
Curve Number:	85.4
% Impervious:	43.70
% DCIA:	43.70
% Direct:	43.70
Rainfall Name:	

Comment:

Simple Basin: Dry Pond Basin

Scenario:	Scenario2-NSLRWCD disch
Node:	Post-Dry Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.6560 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Site Basin

Scenario:	Scenario2-NSLRWCD disch
Node:	Post-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.7600 ac
Curve Number:	91.4
% Impervious:	72.60
% DCIA:	72.60
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Pre-Basin

Scenario:	Scenario2-NSLRWCD disch
Node:	Pre-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	48.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	12.0000 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Wet Pond Basin

Scenario:	Scenario2-NSLRWCD disch
Node:	Post-Wet Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5820 ac
Curve Number:	85.4
% Impervious:	43.70
% DCIA:	43.70
% Direct:	43.70
Rainfall Name:	

Comment:

Simple Basin: Dry Pond Basin

Scenario:	Scenario2-drawdown
Node:	Post-Dry Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.6560 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Site Basin

Scenario:	Scenario2-drawdown
Node:	Post-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.7600 ac
Curve Number:	91.4
% Impervious:	72.60
% DCIA:	72.60
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Pre-Basin

Scenario:	Scenario2-drawdown
Node:	Pre-Site
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	48.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	12.0000 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Wet Pond Basin

Scenario:	Scenario2-drawdown
Node:	Post-Wet Pond
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	999999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5820 ac
Curve Number:	85.4
% Impervious:	43.70
% DCIA:	43.70

% Direct: 43.70
Rainfall Name:

Comment:

Node: Post-Dry Pond

Scenario: Scenario2
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
13.00	0.1300	5663
16.00	0.6630	28880

Comment:

Node: Post-Gdwtr

Scenario: Scenario2
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Post-Outfall

Scenario: Scenario2
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30

Year	Month	Day	Hour	Stage [ft]
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Post-Site

Scenario: Scenario2
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 15.00 ft
Warning Stage: 18.00 ft

Stage [ft]	Area [ac]	Area [ft2]
15.00	0.0000	0
16.00	0.0001	4
18.00	7.7650	338243

Comment:

Node: Post-Wet Pond

Scenario: Scenario2
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
10.30	1.1280	49136
11.29	1.2410	54058
11.30	1.4400	62726
15.00	1.8940	82503
16.00	2.2200	96703

Comment:

Node: Pre-Gdwtr

Scenario: Scenario2
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft

Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Pre-Outfall

Scenario: Scenario2
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Pre-Site

Scenario: Scenario2
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.50 ft
Warning Stage: 17.00 ft

Stage [ft]	Area [ac]	Area [ft2]
14.50	0.0000	0
15.50	1.0000	43560
16.50	12.0000	522720

Comment:

Node: Post-Dry Pond

Scenario: Scenario2-NSLRWCD disch
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft

Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
13.00	0.1300	5663
16.00	0.6630	28880

Comment:

Node: Post-Gdwtr

Scenario: Scenario2-NSLRWCD disch
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Post-Outfall

Scenario: Scenario2-NSLRWCD disch
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Post-Site

Scenario: Scenario2-NSLRWCD disch
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 15.00 ft

Warning Stage: 18.00 ft

Stage [ft]	Area [ac]	Area [ft2]
15.00	0.0000	0
16.00	0.0001	4
18.00	7.7650	338243

Comment:

Node: Post-Wet Pond

Scenario: Scenario2-NSLRWCD disch
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
10.30	1.1280	49136
11.29	1.2410	54058
11.30	1.4400	62726
15.00	1.8940	82503
16.00	2.2200	96703

Comment:

Node: Pre-Gdwtr

Scenario: Scenario2-NSLRWCD disch
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Pre-Outfall

Scenario: Scenario2-NSLRWCD disch
Type: Time/Stage

Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Pre-Site

Scenario: Scenario2-NSLRWCD disch
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.50 ft
Warning Stage: 17.00 ft

Stage [ft]	Area [ac]	Area [ft2]
14.50	0.0000	0
15.50	1.0000	43560
16.50	12.0000	522720

Comment:

Node: Post-Dry Pond

Scenario: Scenario2-drawdown
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
13.00	0.1300	5663
16.00	0.6630	28880

Comment:

Node: Post-Gdwtr

Scenario: Scenario2-drawdown
Type: Time/Stage

Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Post-Outfall

Scenario: Scenario2-drawdown
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Post-Site

Scenario: Scenario2-drawdown
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 15.00 ft
Warning Stage: 18.00 ft

Stage [ft]	Area [ac]	Area [ft2]
15.00	0.0000	0
16.00	0.0001	4
18.00	7.7650	338243

Comment:

Node: Post-Wet Pond

Scenario: Scenario2-drawdown

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 11.37 ft
Warning Stage: 16.00 ft

Stage [ft]	Area [ac]	Area [ft2]
10.30	1.1280	49136
11.29	1.2410	54058
11.30	1.4400	62726
15.00	1.8940	82503
16.00	2.2200	96703

Comment:

Node: Pre-Gdwtr

Scenario: Scenario2-drawdown
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 11.80 ft
Warning Stage: 11.90 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	11.80
0	0	0	999.0000	11.80

Comment:

Node: Pre-Outfall

Scenario: Scenario2-drawdown
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.30 ft
Warning Stage: 16.21 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.30
0	0	0	72.0000	15.00
0	0	0	360.0000	10.30

Comment:

Node: Pre-Site

Scenario: Scenario2-drawdown
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.50 ft
Warning Stage: 17.00 ft

Stage [ft]	Area [ac]	Area [ft2]
14.50	0.0000	0
15.50	1.0000	43560
16.50	12.0000	522720

Comment:

Weir Link: CONC WEIR

Scenario: Scenario2
From Node: Post-Dry Pond
To Node: Post-Wet Pond
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Rectangular
Invert: 15.50 ft
Control Elevation: 15.50 ft
Max Depth: 0.50 ft
Max Width: 50.00 ft
Fillet: 0.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients
Weir Default: 2.800
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Drop Structure Link: Control

Scenario: Scenario2
From Node: Post-Wet Pond
To Node: Post-Outfall
Link Count: 1
Flow Direction: Both
Solution: Combine
Increments: 0
Pipe Count: 1
Damping: 0.0000 ft
Length: 789.00 ft
FHWA Code: 0
Entr Loss Coef: 0.50
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00

Upstream Pipe
Invert: 12.00 ft
Manning's N: 0.0120

Geometry: Circular
Max Depth: 2.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:
Manning's N: 0.0000

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:
Manning's N: 0.0000

Downstream Pipe
Invert: 10.00 ft
Manning's N: 0.0120

Geometry: Circular
Max Depth: 2.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:
Manning's N: 0.0000

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:
Manning's N: 0.0000

Bend Location: 0.00 dec
Energy Switch: Energy

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	10.30 ft	Ref Node:	
Control Elevation:	10.30 ft	**Discharge Coefficients**	
Max Depth:	0.25 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	13.00 ft	Ref Node:	
Control Elevation:	13.00 ft	**Discharge Coefficients**	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	0.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	15.00 ft	Ref Node:	
Control Elevation:	15.00 ft	**Discharge Coefficients**	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	3.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Weir Link: Perimeter

Scenario:	Scenario2
From Node:	Pre-Site
To Node:	Pre-Outfall
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	14.79 ft
Control Elevation:	14.79 ft
Cross Section:	boundary

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: Pipes

Scenario:	Scenario2
From Node:	Post-Site
To Node:	Post-Dry Pond
Link Count:	6
Flow Direction:	Both
Damping:	0.0000 ft
Length:	35.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	1.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream

Invert:	10.00 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Manning's N:	0.0000

Downstream

Invert:	10.00 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Manning's N:	0.0000

Comment:

Percolation Link: Post-Perc

Scenario:	Scenario2
From Node:	Post-Dry Pond
To Node:	Post-Gdwtr
Link Count:	1
Surface Area Option:	Vary Based on Stage/Area Table
Vertical Flow Termination:	Horizontal Flow Algorithm
Perimeter 1:	1977.00 ft

Flow Direction:	None		
Aquifer Base Elevation:	-4.00 ft	Perimeter 2:	2276.00 ft
Water Table Elevation:	11.80 ft	Perimeter 3:	2990.00 ft
Annual Recharge Rate:	0 ipy	Distance P1 to P2:	50.00 ft
Horizontal Conductivity:	8.300 fpd	Distance P2 to P3:	450.00 ft
Vertical Conductivity:	14.100 fpd	# of Cells P1 to P2:	10
Fillable Porosity:	0.300	# of Cells P2 to P3:	45
Layer Thickness:	1.20 ft		

Comment:

Percolation Link: Pre-Perc

Scenario:	Scenario2	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	Pre-Site		
To Node:	Pre-Gdwtr	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	2937.00 ft
Flow Direction:	None	Perimeter 2:	3317.00 ft
Aquifer Base Elevation:	-4.00 ft	Perimeter 3:	6732.00 ft
Water Table Elevation:	11.80 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	8.300 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	14.100 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	1.20 ft		

Comment:

Weir Link: CONC WEIR

Scenario:	Scenario2-NSLRWCD disch	**Bottom Clip**	
From Node:	Post-Dry Pond	Default:	0.00 ft
To Node:	Post-Wet Pond	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.50 ft	**Discharge Coefficients**	
Control Elevation:	15.50 ft	Weir Default:	2.800
Max Depth:	0.50 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Drop Structure Link: Control	Upstream Pipe	Downstream Pipe

Scenario:	Scenario2-NSLRWC D disch	Invert:	12.00 ft	Invert:	10.00 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	Post-Wet Pond	Geometry: Circular		Geometry: Circular	
To Node:	Post-Outfall	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Solution:	Combine	Op Table:		Op Table:	
Increments:	0	Ref Node:		Ref Node:	
Pipe Count:	1	Manning's N:	0.0000	Manning's N:	0.0000
Damping:	0.0000 ft	Top Clip			
Length:	789.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.50	Ref Node:		Ref Node:	
Exit Loss Coef:	1.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Circular	Default:	0.00 ft
Invert:	10.30 ft	Op Table:	
Control Elevation:	10.30 ft	Ref Node:	
Max Depth:	0.25 ft	Discharge Coefficients	
		Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component			
Weir:	2	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	13.00 ft	Op Table:	
Control Elevation:	13.00 ft	Ref Node:	
Max Depth:	2.00 ft	Discharge Coefficients	
Max Width:	0.50 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	15.00 ft	Ref Node:	
Control Elevation:	15.00 ft	**Discharge Coefficients**	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	3.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Weir Link: Perimeter		Bottom Clip	
Scenario:	Scenario2-NSLRWCD disch	Default:	0.00 ft
From Node:	Pre-Site	Op Table:	
To Node:	Pre-Outfall	Ref Node:	
Link Count:	1	**Top Clip**	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Irregular	**Discharge Coefficients**	
Invert:	14.79 ft	Weir Default:	2.800
Control Elevation:	14.79 ft	Weir Table:	
Cross Section:	boundary	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: Pipes		Upstream		Downstream	
Scenario:	Scenario2-NSLRWC D disch	Invert:	10.00 ft	Invert:	10.00 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	Post-Site	**Geometry: Circular**		**Geometry: Circular**	
To Node:	Post-Dry Pond	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	4	**Bottom Clip**			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	35.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000

		Top Clip			
Entr Loss Coef:	0.50				
Exit Loss Coef:	1.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Percolation Link: Post-Perc

Scenario:	Scenario2-NSLRWCD disch	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	Post-Dry Pond		
To Node:	Post-Gdwtr	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1977.00 ft
Flow Direction:	Both	Perimeter 2:	2276.00 ft
Aquifer Base Elevation:	-4.00 ft	Perimeter 3:	2990.00 ft
Water Table Elevation:	11.80 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	8.300 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	14.100 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	1.20 ft		

Comment:

Percolation Link: Pre-Perc

Scenario:	Scenario2-NSLRWCD disch	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	Pre-Site		
To Node:	Pre-Gdwtr	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	2937.00 ft
Flow Direction:	Both	Perimeter 2:	3317.00 ft
Aquifer Base Elevation:	-4.00 ft	Perimeter 3:	6732.00 ft
Water Table Elevation:	11.80 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	8.300 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	14.100 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	1.20 ft		

Comment:

Weir Link: CONC WEIR

		Bottom Clip	
Scenario:	Scenario2-drawdown		
From Node:	Post-Dry Pond	Default:	0.00 ft
To Node:	Post-Wet Pond	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	15.50 ft
Control Elevation:	15.50 ft
Max Depth:	0.50 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Drop Structure Link: Control

Scenario:	Scenario2-drawdown
From Node:	Post-Wet Pond
To Node:	Post-Outfall
Link Count:	1
Flow Direction:	Both
Solution:	Combine
Increments:	0
Pipe Count:	1
Damping:	0.0000 ft
Length:	789.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	1.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream Pipe

Invert:	12.00 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	3.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream Pipe

Invert:	10.00 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	3.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Pipe Comment:

Weir Component

Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	10.30 ft
Control Elevation:	10.30 ft
Max Depth:	0.25 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	13.00 ft	Ref Node:	
Control Elevation:	13.00 ft	Discharge Coefficients	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	0.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	15.00 ft	Ref Node:	
Control Elevation:	15.00 ft	Discharge Coefficients	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	3.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Weir Link: Perimeter		Bottom Clip	
Scenario:	Scenario2-drawdown	Default:	0.00 ft
From Node:	Pre-Site	Op Table:	
To Node:	Pre-Outfall	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Irregular	Discharge Coefficients	
Invert:	14.79 ft	Weir Default:	2.800
Control Elevation:	14.79 ft	Weir Table:	
Cross Section:	boundary		

Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: Pipes		Upstream		Downstream	
Scenario:	Scenario2-drawdown	Invert:	10.00 ft	Invert:	10.00 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	Post-Site	Geometry: Circular		Geometry: Circular	
To Node:	Post-Dry Pond	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	4	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	35.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	1.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Percolation Link: Post-Perc			
Scenario:	Scenario2-drawdown	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	Post-Dry Pond		
To Node:	Post-Gdwtr	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1977.00 ft
Flow Direction:	Both	Perimeter 2:	2276.00 ft
Aquifer Base Elevation:	-4.00 ft	Perimeter 3:	2990.00 ft
Water Table Elevation:	11.80 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	8.300 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	14.100 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	1.20 ft		

Comment:

Percolation Link: Pre-Perc			
Scenario:	Scenario2-drawdown	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	Pre-Site		
To Node:	Pre-Gdwtr	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	2937.00 ft

Flow Direction:	Both		
Aquifer Base Elevation:	-4.00 ft	Perimeter 2:	3317.00 ft
Water Table Elevation:	11.80 ft	Perimeter 3:	6732.00 ft
Annual Recharge Rate:	0 ipy	Distance P1 to P2:	50.00 ft
Horizontal Conductivity:	8.300 fpd	Distance P2 to P3:	450.00 ft
Vertical Conductivity:	14.100 fpd	# of Cells P1 to P2:	10
Fillable Porosity:	0.300	# of Cells P2 to P3:	45
Layer Thickness:	1.20 ft		

Comment:

Simulation: 100YR-24HR

Scenario: Scenario2
Run Date/Time: 2/10/2022 10:30:00 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:

Unit Hydrograph Folder:		Curve Number Set:	
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SCSIII-24
		Rainfall Amount:	9.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-72HR

Scenario:	Scenario2
Run Date/Time:	2/10/2022 10:30:12 AM
Program Version:	ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 12.00 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10YR-24HR

Scenario: Scenario2
Run Date/Time: 2/10/2022 10:30:47 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SCSIII-24
Rainfall Amount: 6.00 in
Storm Duration: 24.0000 hr

Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (1D):	100 ft2
Energy Switch (1D):	Energy

Comment:

Simulation: 10YR-72HR

Scenario: Scenario2
Run Date/Time: 2/10/2022 10:31:03 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	100.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:	
Vertical Layers Set:	
Impervious Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	8.50 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 25YR-24HR

Scenario:	Scenario2
Run Date/Time:	2/10/2022 10:31:23 AM
Program Version:	ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SCSIII-24
Rainfall Amount: 6.80 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR-72HR

Scenario: Scenario2
Run Date/Time: 2/10/2022 10:31:36 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 9.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft

Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: MA

Scenario: Scenario2
Run Date/Time: 2/10/2022 10:32:16 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:

Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SCSIII-24
		Rainfall Amount:	4.50 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 10YR-72HR

Scenario: Scenario2-NSLRWCD disch
Run Date/Time: 2/10/2022 10:32:29 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	100.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 8.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25YR-24HR

Scenario: Scenario2-drawdown
Run Date/Time: 2/10/2022 10:33:27 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

Year	Month	Day	Hour [hr]

Start Time:	0	0	0	0.0000
End Time:	0	0	0	100.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	No Rainfall
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft		
Edge Length Option:	Automatic		
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2

Energy Switch (1D): Energy

Comment:

Simulation: 25YR-72HR

Scenario: Scenario2-drawdown
Run Date/Time: 2/10/2022 10:33:45 AM
Program Version: ICPR4 4.07.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	No Rainfall
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft		
Edge Length Option:	Automatic		
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Appendix B

Nutrient Analysis by BMP Trains

Complete Report (not including cost)
Ver. 4.3.2

Project: Ft. Pierce Commercial
Date: 1/30/2022 2:31:27 PM

Site and Catchment Information

Analysis: Net Improvement

Catchment Name	High-Intensity Commercial
Rainfall Zone	Florida Zone 2
Annual Mean Rainfall	56.00

Pre-Condition Landuse Information

Landuse	Undeveloped - Wet Flatwoods: TN=1.213 TP=0.021
Area (acres)	12.00
Rational Coefficient (0-1)	0.07
Non DCIA Curve Number	74.00
DCIA Percent (0-100)	0.00
Nitrogen EMC (mg/l)	1.213
Phosphorus EMC (mg/l)	0.021
Runoff Volume (ac-ft/yr)	4.178
Groundwater N (kg/yr)	0.000
Groundwater P (kg/yr)	0.000
Nitrogen Loading (kg/yr)	6.248
Phosphorus Loading (kg/yr)	0.108

Post-Condition Landuse Information

Landuse	High-Intensity Commercial: TN=2.40 TP=0.345
Area (acres)	12.00
Rational Coefficient (0-1)	0.46
Non DCIA Curve Number	74.00
DCIA Percent (0-100)	53.00

Wet Pond Area (ac)	1.13
Nitrogen EMC (mg/l)	2.400
Phosphorus EMC (mg/l)	0.345
Runoff Volume (ac-ft/yr)	23.543
Groundwater N (kg/yr)	0.000
Groundwater P (kg/yr)	0.000
Nitrogen Loading (kg/yr)	69.669
Phosphorus Loading (kg/yr)	10.015

Catchment Number: 1 Name: High-Intensity Commercial

Project: Ft. Pierce Commercial
Date: 1/30/2022

Multiple BMP in Series Design Parameters

BMP in Series Number: 1
BMP Type: Retention

Retention Depth (in)	0.880
Retention Volume (ac-ft)	0.797

BMP in Series Number: 2
BMP Type: Wet Detention

Permanent Pool Volume (ac-ft)	9.260
Permanent Pool Volume (ac-ft) for 31 days residence	2.000
Annual Residence Time (days)	144
Littoral Zone Efficiency Credit	
Wetland Efficiency Credit	

BMP in Series Number: 3
BMP Type: Filtration

Treatment Depth (in)	1.250
Hydraulic Capture Efficiency (%)	87
Media Type	B&G CTS24
Media N Reduction (%)	75
Media P Reduction (%)	95

BMP in Series Number: 4
BMP Type: None

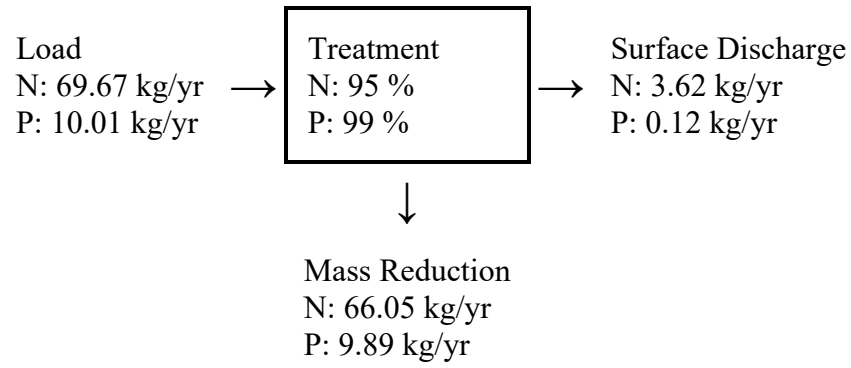
Watershed Characteristics

Catchment Area (acres)	12.00
Contributing Area (acres)	10.870
Non-DCIA Curve Number	74.00
DCIA Percent	53.00
Rainfall Zone	Florida Zone 2
Rainfall (in)	56.00

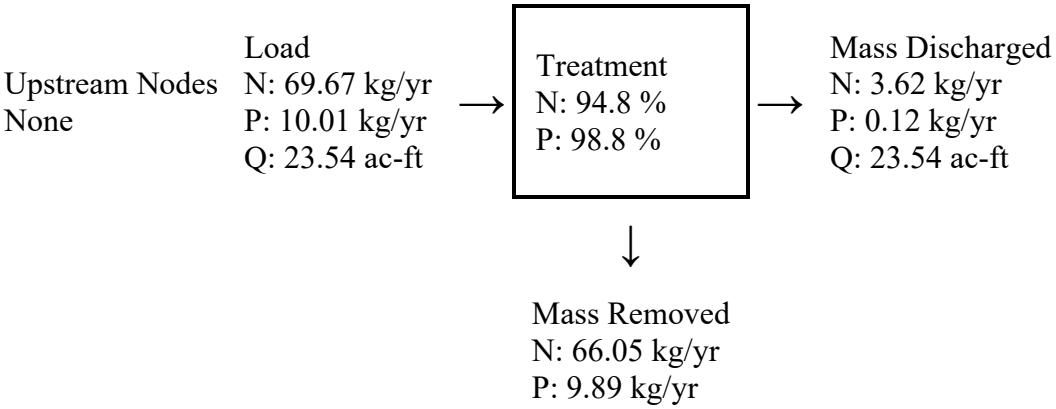
Surface Water Discharge

Required TN Treatment Efficiency (%)	91
Provided TN Treatment Efficiency (%)	95
Required TP Treatment Efficiency (%)	99
Provided TP Treatment Efficiency (%)	99

Load for Multiple BMP in Series



Load Diagram for Multiple BMP (As Used In Routing)



Summary Treatment Report Version: 4.3.2

Project: Ft. Pierce Commercial

Analysis Type: Net Improvement

Date:1/30/2022

BMP Types:

Catchment 1 - (High-Intensity Commercial)
Multiple BMP
Based on % removal values to the nearest percent

Routing Summary
Catchment 1 Routed to Outlet

Total nitrogen target removal met? **Yes**
Total phosphorus target removal met? **Yes**

Summary Report

Nitrogen

Surface Water Discharge

Total N pre load	6.25 kg/yr
Total N post load	69.67 kg/yr
Target N load reduction	91 %
Target N discharge load	6.25 kg/yr

Percent N load reduction	95 %	
Provided N discharge load	3.62 kg/yr	7.97 lb/yr
Provided N load removed	66.05 kg/yr	145.65 lb/yr

Phosphorus

Surface Water Discharge		
Total P pre load	.108 kg/yr	
Total P post load	10.015 kg/yr	
Target P load reduction	99 %	
Target P discharge load	.108 kg/yr	
Percent P load reduction	99 %	
Provided P discharge load	.122 kg/yr	.27 lb/yr
Provided P load removed	9.892 kg/yr	21.813 lb/yr

Media Filter Report

Catchment Name: High-Intensity Commercial
Treatment Depth (in): 0.88
Rate (GPM/SF): 0.05
Effective Impervious Area (acres): 7.00
Minimum Filter Area (sf): 1,115.93

Treatment rate includes the safety factor

Media Filter Report

Treatment Depth (in): 1.25
Phosphorus Removed per Year (kg OP/yr): 8.16
Filter Capacity (kg OP): 24.52
Sorption Rate (mg OP/g media): 0.20
Filter Volume Provided (cf): 2,843.00
Saturated Weight of Media (lbs/cf): 95.00
Filter OP in TP (fraction): 1.00
Service Life (years): 3.0

Appendix C

Geotechnical Reports by Universal Engineering

UNIVERSAL
ENGINEERING SCIENCES

GEOTECHNICAL EXPLORATION

FORT PIERCE COMMERCIAL
PARCEL 1 – BUILDING AND PAVEMENT AREA
FORT PIERCE, FLORIDA

UES PROJECT NO. 3330.2100159.0001

PREPARED FOR:

Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Attn: Mr. Jill K. Simpkins

PREPARED BY:

Universal Engineering Sciences
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

September 7, 2021

UNIVERSAL
ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

September 7, 2021

Ms. Jill K. Simpkins
Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Subject: Report of Geotechnical Exploration
Fort Pierce Commercial
Parcel 1 – Building and Pavement Area
Okeechobee Road, Fort Pierce, Florida
UES Project No. 3330.2100159.0001

Dear Ms. Simpkins:

Universal Engineering Sciences (UES) has completed the subsurface exploration and geotechnical engineering evaluation for the above referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with our Geotechnical Engineering Proposal No. 21-0462.00 REV#1 dated June 11, 2021, planned in conjunction with Mr. Tom Vani, Mr. Todd Howder with MBV Engineering, Inc., and authorized by you.

EXECUTIVE SUMMARY

The purpose of our subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions at the site and evaluate their impact upon the proposed construction. This report contains the results of our subsurface exploration and our engineering interpretations of these with respect to the project characteristics described to us, including providing recommendations for foundation design, pavement design, site preparation, and earthwork construction.

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing an approximate 5,000 SF single-story restaurant/retail building and associated pavement areas at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed construction on the property.

Additional details and specific structural loads were not provided to UES. For the foundation recommendations presented in this report, we assumed a maximum wall loading of 4 kips per linear foot and a maximum column load of 35 kips.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

Five (5) standard penetration test (SPT) borings (B-1 through B-5), advanced to approximate depths of 15 feet, and four (4) auger borings with hand cone penetrometer (HCP) testing (AB-1 through AB-4), advanced to depths of approximately 6 feet below the existing ground surface, were performed within the planned building and pavement areas, respectively. The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths.

Considering the results of our field exploration program, the subsurface soil conditions revealed by the borings are generally favorable for support of the proposed building and asphalt and/or concrete pavements. Conventional shallow stem wall or monolithic slab foundations may be designed using a maximum allowable soil bearing pressure of 2,500 psf.

Prior to placing fill to attain design grades with the building and pavement areas, the subgrade soils should be improved (densified) with compaction from the stripped grade. The upper 2 feet of soil below stripped grade should be compacted to a minimum of 95 percent maximum dry density as determined by the modified Proctor test (ASTM D 1557). Fill (including stem wall backfill) should be placed in maximum 12-inch thick lifts and compacted to achieve at least 95 percent modified Proctor maximum dry density. After completing the footing excavations, the bearing subgrade to a depth of 2 feet should be compacted to not less than 95 percent modified Proctor maximum dry density.

We appreciate the opportunity to be of service during this phase of the project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or comments, or if we may further assist you as your plans proceed.

Respectfully Submitted,
Universal Engineering Sciences
Florida Registry No. 4930



Digitally signed by Thomas D Montano:A01410C00000178 18498DCD000019A3
Date: 2021.09.07 07:51:53 -04'00'

This item has been digitally signed and sealed by Thomas D. Montano, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Montano, P.E.
Branch Manager
Florida Registration No. 84146

Erik Soderstrom, E.I.
Geotechnical Department Manager

Distribution:
Ms. Jill K. Simpkins – Okeejen, LLC — 1 pdf
Mr. Tom Vani — 1 pdf
Mr. Todd Howder – MBV Engineering, Inc. — 1 pdf

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1.0 INTRODUCTION

1.1 Scope of Services

The objective of our geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the proposed construction. The following scope of services is provided within this report:

1. Prepare boring logs depicting the subsurface soil conditions encountered during our field exploration.

2. Review the soil samples obtained during our field exploration for classification and additional testing if necessary.

3. Evaluate the existing soil conditions found during our exploration with respect to foundation support of the proposed structure.

4. Provide recommendations with respect to foundation support of the proposed structure, including foundation type, maximum allowable soil bearing capacity, and bearing elevations.

5. Provide recommendations for pavement design and subgrade preparation.

6. Provide site preparation criteria for the proposed construction.

1.2 Project Description

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing an approximate 5,000 SF single-story restaurant/retail building and associated pavement areas at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed construction on the property.

Additional details and specific structural loads were not provided to UES. For the foundation recommendations presented in this report, we assumed a maximum wall loading of 4 kips per linear foot and a maximum column load of 35 kips.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Description

As illustrated on the Site Vicinity Map in Appendix A, the project site is located along the south side of Okeechobee Road in Fort Pierce, Florida. At the time of our field exploration, the property was undeveloped and contained miscellaneous surface vegetation. The site was bordered by a Wawa store to the west, undeveloped land to the south and east, and Okeechobee Road to the north.

2.2 Field Exploration

Five (5) standard penetration test (SPT) borings (B-1 through B-5), advanced to approximate depths of 15 feet, and four (4) auger borings with hand cone penetrometer (HCP) testing (AB-1 through AB-4), advanced to depths of approximately 6 feet below the existing ground surface, were performed within the planned building and pavement areas, respectively. The boring depths were established based upon our knowledge of vicinity soils and confined to the zone of soil likely to be influenced by the planned construction. The locations of the borings are illustrated on the Test Location Plan in Appendix B.

The Standard Penetration Tests (SPT) were performed in general accordance with ASTM D 1586, "Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils." The SPT test procedure consists of driving a 1.4-inch I.D. split-barrel sampler into the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot, for the second and third 6-inch increment, is referred to as the N-value. The N-value has been empirically correlated with various soil properties and provides an indication of soil strength.

The auger borings were performed in substantial accordance with ASTM D 1452, "Standard Practice for Soil Exploration and Sampling by Auger Borings." Hand Cone Penetrometer (HCP) tests were conducted at one-foot depth intervals in the auger borings. The HCP test, in conjunction with information about the soil type, is empirically correlated to the relative density of subsurface soils.

Site specific survey staking of the borings was not provided for our field exploration. The indicated depth and location of each boring were approximated based upon existing grade, the provided Conceptual Site Plan, GPS coordinates, and estimated distances and relationships to existing landmarks at the site.

2.3 Visual Classification

Soil samples recovered from our field exploration were returned to our laboratory where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2487). After reviewing the soil samples, no laboratory testing was deemed necessary. The samples will be retained in our laboratory for 30 days and then discarded, unless we are notified otherwise in writing.

The recovered samples were not evaluated, either visually or analytically, for chemical composition or environmental hazards. UES will be pleased to perform these services for an additional fee, if required.

2.4 Geomorphic Conditions

The geology of the site as mapped on the USDA Soil Survey website consists of Nettles and Oldsmar sands (25). Note that the Soil Survey generally extends to a maximum depth of 80 inches below ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from our field exploration are presented in Appendix D - Log of Boring Records. The logs contain the soil descriptions, the standard penetration test (SPT) N-values, and the hand cone penetrometer (HCP) values logged during the drilling and sampling activities. Note that the soil boring data reflect information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See Appendix E - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths.

2.5 Hydrogeological Conditions

On the dates of our field exploration (July 29 and August 2, 2021), groundwater was encountered in the borings at depths ranging from approximately 3 to 6.1 feet below the ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

No additional evaluation was included in our current scope of work in relation to the wet season high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is necessary, please contact our office for additional guidance.

3.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

3.1 General

Our geotechnical engineering evaluation of the site and subsurface conditions at the property, with respect to the planned construction, and our recommendations for site preparation, foundation support, pavement design, and earthwork construction, are based upon (1) our site observations, (2) the field data obtained, and (3) our understanding of the project information presented in this report. If the stated conditions are incorrect, or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

We note that the applicability of geotechnical recommendations is very dependent upon project characteristics, specifically (1) improvement locations, (2) grade alterations, (3) and actual applied structural loads. For that reason, UES must be provided with and review the preliminary and final site and grading plans, and structural design loads to validate all recommendations provided in this report. Without performing this review, our recommendations should not be relied upon for final design or construction of any site improvements.

3.2 Site Preparation

UES recommends the following compaction requirements for this project:

- Proof Roll .....95 percent of modified Proctor
- Building Pad Fill.....95 percent of modified Proctor
- Footings .....95 percent of modified Proctor

The above compaction percentages are based upon the maximum dry density as determined by the modified Proctor test (ASTM D 1557). **All density tests should be performed to a depth of 2 feet below stripped surface and bottom of footings.** Density testing should be performed using either the nuclear method (ASTM D 6938) or the sand cone method (ASTM D 1556). Hand Cone Penetrometer (HCP) tests can also be performed to evaluate compaction.

Our recommendations for preparation of the site for use of shallow foundation systems and on-grade slabs are presented below. This approach to improving and maintaining site soils has been found to be successful on projects having similar soil conditions.

1. Initial site preparation should consist of removing surface vegetation, topsoil, near surface roots, and other miscellaneous debris within and to a distance of 5 feet beyond the planned construction limits. Foundations and the below grade remains of former structures within the footprint of the new construction should also be removed. Similarly, utility lines within the limits of the proposed construction should be removed or properly abandoned so that they will not adversely impact overlying structures.

2. Following site stripping and prior to placing fill, areas of surficial sand should be compacted (proof rolled) and tested. We recommend using a steel drum vibratory roller having sufficient static weight and vibratory impact energy to achieve the required compaction. Density tests should be performed on the proof rolled surface at a frequency of not less than one test per 2,500 square feet, or a minimum of three (3) tests, whichever is greater.

3. Fill material may then be placed for the building pad and general site grading, as required. The fill should be inorganic (i.e., contain less than 5 percent by weight organic material) and classified as SP, SW, GP, GW, SP-SM, SW-SM, GW-GP, or GP-GM. **GFA does not recommend using fill having soil fines contents exceeding 12 percent.** Fill should be placed in lifts having a maximum thickness of 12-inches. Each lift should be compacted and tested prior to placement of the next lift. Density tests should be performed within the fill at a frequency of not less than one test per 2,500 square feet per lift in building areas, or a minimum of three (3) tests per lift, whichever is greater.

4. For foundations placed on structural fill or compacted native granular soils, the bearing subgrade should be tested for compaction and observed by an engineer or geologist or his/her representative to determine if the soil is free of organic and/or deleterious material. Density tests should be performed at a frequency of not less than one (1) density test per each column footing and one (1) test per each seventy-five (75) lineal feet of wall footing.

5. The contractor should consider the final grading contours contained on the project plans when executing backfilling and compaction operations.

3.3 Vibration Monitoring

Vibrations associated with the construction activities at the site may disturb nearby structures. We recommend that these structures be monitored by UES both before and during compaction operations. A proposal for providing vibration monitoring services during earthwork construction will be provided upon request.

3.4 Design of Footings

A foundation system for any structure must be designed to resist bearing capacity failures, have settlements that are tolerable, and resist the environmental forces that the foundation may be subjected to over the life of the structure. The soil bearing capacity is the soil's ability to support loads without plunging into the soil profile. Bearing capacity failures are analogous to shear failures in structural design and are usually sudden and catastrophic.

Based on the results of the soil borings performed at the site, UES recommends the structure foundations be designed using a maximum allowable soil bearing pressure of 2,500 psf. Conventional shallow foundations and thickened-edge slab foundation systems should be embedded at least 12 inches below lowest adjacent grade. Furthermore, maintain minimum foundation widths of 18 and 24 inches for isolated strip and square footings, respectively, even if the maximum allowable soil bearing pressure is not developed in all cases.

Once site preparation has been performed in accordance with the recommendations presented in this report, the soils should readily support the proposed structure bearing upon a properly designed and constructed shallow foundation system. Footings and columns should be structurally separated from the ground floor slab, as they will be loaded differently and at different times, unless a monolithic slab foundation is designed.

3.5 Settlement Estimates

Post construction settlements of the structure will be influenced by several interrelated factors, including (1) subsurface soil stratification and the strength/compressibility characteristics, (2) footing size, bearing level, applied loads, and resulting bearing pressure beneath the footings, and (3) the site preparation and earthwork construction techniques used by the contractor. Our settlement estimates for the proposed construction are based on the use of the site preparation and earthwork construction methods recommended in this report. Any deviation from these recommendations could result in an increase in the estimated post-construction settlements of the proposed construction.

We expect the majority of settlement to occur in an elastic manner and fairly rapidly during construction. Using the recommended maximum bearing pressure, the assumed maximum structural loads, and the field test data that we have correlated geotechnical strength and compressibility characteristics of the subsurface soils, we estimate that total settlements of the structure could be on the order of one (1) inch or less.

Differential settlements result from differences in applied bearing pressures and variations in the compressibility characteristics of the subsurface soils. Because of the general uniformity of the subsurface conditions and the recommended site preparation and earthwork construction methods presented in this report, we anticipate that differential settlements of the structure should be within tolerable magnitudes (0.5 inch or less).

3.6 Ground Floor Slabs

The ground floor slab may be constructed upon either existing grade or fill following completion of the site preparation and fill placement procedures outlined in this report. We recommend that a modulus of subgrade reaction (k) of 150 pounds per cubic inch (pci) be considered during design. The floor slab should be structurally separated from walls and columns to allow for differential vertical movement, unless a monolithic slab foundation is designed.

Excessive moisture vapor transmission through foundation slabs can result in damage to floor coverings as well as cause other deleterious affects. An appropriate moisture vapor barrier should be placed beneath the slab to reduce moisture vapor from entering the structure through the slab. The barrier should be installed in general accordance with applicable ASTM procedures including sealing around pipe penetrations and at the foundation edges.

4.0 PAVEMENT AREA DESIGN AND CONSTRUCTION CONSIDERATIONS

4.1 Pavement Design Sections

The pavement sections were designed considering assumed traffic loading and previous experience with similar projects. Flexible pavement sections in the geographic area typically consist of an asphaltic wearing course, a base course, and a stabilized subgrade layer. Rigid pavements are constructed either directly upon prepared soil subgrades or upon a base course and stabilized subgrade for heavier loads.

Based on our prior experience and the assumed traffic loading criteria, recommended pavement section thicknesses are provided in Table 4.1.1 below.

Table 4.1.1 - Design Pavement Sections				
Pavement Type	Layer	Material Description	Layer Thickness	
			Light Duty	Heavy Duty
Flexible	(A)	Asphalt Wearing Surface FDOT SP-9.5 or SP-12.5	1.5	2.5
	(B)	Base rock (minimum LBR of 100), compacted to 98 percent of modified Proctor maximum dry density	6	8
	(SSG)	Stabilized subgrade (minimum LBR of 40), compacted to 98 percent of modified Proctor maximum dry density	12	12
	STRUCTURAL NUMBER (SN)		**2.7**	**3.5**
Rigid	(C)	FDOT Portland Cement Concrete	NA	8
	(B)	Base rock (minimum LBR of 100), compacted to 98 percent of modified Proctor maximum dry density	NA	-
	(CSG)	Soil subgrade compacted to 98 percent of modified Proctor maximum dry density	NA	12

4.2 Compacted Subgrade or Embankment Fill

The subgrade or embankment fill is the layer that supports the structural pavement section. Subgrade and embankment fill should be constructed following the criteria and procedures presented in Section 4.9 of this report.

4.3 Stabilized Subgrade

The stabilized subgrade is the portion of the pavement section between the compacted subgrade or embankment fill and the base course. We recommend that subgrade material be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180). The stabilized subgrade material should have a minimum Limerock Bearing Ratio (LBR) value of 40. Compliance tests should be performed upon the stabilized subgrade for full depth at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater.

4.4 Base Course

The base course is the portion of the pavement section between the surface course and stabilized subgrade. In areas where separation of at least 1.5 feet between the estimated wet seasonal high groundwater table and the bottom of the base material occurs, we recommend the base course be limerock or cemented coquina having a minimum Limerock Bearing Ratio (LBR) value of 100. The base material should be obtained from an approved source. The base material should be placed in maximum 6-inch thick lifts and compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

If the separation between the estimated wet seasonal high groundwater table and the bottom of the base material is less than 1.5 feet, we recommend that asphaltic concrete base (FDOT SP-12.5) be used in lieu of limerock or cemented coquina. The subgrade should be mechanically stabilized (compacted) to a minimum of 98 percent of modified Proctor maximum dry density (AASHTO T-180). Compliance tests should be performed on the base course at a frequency of one test per 5,000 square feet, or a minimum of two test locations, whichever is greater.

4.5 Flexible (Asphalt) Pavement

Asphalt pavement should consist of either FDOT SP-9.5 or SP-12.5 asphaltic concrete. The mixes should be a current FDOT approved design for the materials used for the project. Samples of the materials delivered to the project should be tested to verify that the aggregate gradation and asphalt content satisfies the mix design specifications.

The asphalt should be compacted to meet the requirements of the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction*. Compliance tests should be performed by obtaining cores to evaluate material thickness and density at a frequency of one test per 10,000 square feet, or a minimum of two test locations, whichever is greater.

4.6 Rigid (Concrete) Pavement

Rigid pavements should be constructed using concrete having a minimum 28-day compressive strength of 4,000 psi. Fill required to raise grades in pavement areas should be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

The pavement slabs should be reinforced to make them as rigid as practical. Proper joints should be provided at the junctions of slabs so that a small amount of independent movement can without causing structural damage. Construction and control joints should be accordance with current American Concrete Institute (ACI) and industry practices.

The pavement sections presented in this report are minimum pavement section thicknesses typically used for similar type projects. The pavement materials and construction procedures should conform to FDOT, ACI, or appropriate city/county requirements.

4.7 Effects of Water

Premature pavement section deterioration can occur due to intrusion of the wet season high groundwater table and/or improper surface water runoff management. We recommend the pavement areas be constructed to have a minimum separation of 1.5 feet between the wet season high groundwater table and the base course, regardless of the type of base material. In addition, we recommend that full-depth curb sections be designed and constructed. Using either extruded curb sections, which lie directly on top of the final surface course, or eliminating the curbing entirely, may allow runoff and/or irrigation water to migrate between the base and surface course. This condition can result in the separation of the surface course from the base course, causing a rippling effect, which results in premature deterioration of the pavement.

4.8 Construction Traffic

Incomplete pavement sections or pavement areas designed for light duty traffic will not perform satisfactorily under typical construction traffic loading. We recommend that all construction traffic (i.e., construction equipment, vehicles, etc.) either be re-routed away from these areas or the pavement sections be designed to support construction phase loading conditions.

4.9 Pavement Site Preparation

Our recommendations for preparation of the site for pavement construction are noted below. This approach to improving and maintaining site soils has been found to be successful with similar soil conditions.

1. The proposed construction limits should be cleared, stripped, and grubbed of all surface vegetation, topsoil, and associated root systems to depths of their vertical reaches. This should be performed within and to a distance of 5 feet beyond the limits of the pavement areas.

2. Prior to initiating fill operations, the existing ground surface should be compacted (proof rolled) using a steel drum vibratory roller having sufficient static weight and vibratory impact energy to achieve the required compaction. After completing the proof rolling, density tests should be performed at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater, to confirm a minimum compaction compliance of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

3. Fill material should be inorganic (classified as SP/GW) containing not more than 5 percent (by weight) fibrous organic materials. **Fill material having silt/clay-size fines contents greater than 5 percent should not be used, including cyclone sand material.** The fill should be placed in maximum 12-inch thick lifts. Each lift should be compacted to a minimum density of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

4. Compliance density tests should be performed within the fill at a frequency of not less than one test per 5,000 square feet per lift, or at a minimum of two test locations, whichever is greater.

5. Representative samples of both on-site and import materials proposed for use as fill should be obtained and tested to determine compliance with the project specifications. The testing should include moisture-density relations (AASHTO T-180) and particle size analysis.

6. The contractor should consider the contours contained on the final grading, paving, and drainage plans when executing backfilling and compaction operations.

5.0 REPORT LIMITATIONS

This consulting report has been prepared for the exclusive use of Okeejen, LLC and members of the design team for the proposed retail/commercial development of Parcel 1 at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The evaluation submitted in this report is based in part upon the data collected during a field exploration. However, the nature and extent of variations throughout the subsurface profile may not become evident until construction. If variations then appear evident, it may be necessary to reevaluate information and professional opinions provided in this report. In the event changes are made in the nature, design, or location of the proposed building or pavement areas, the evaluation and opinions contained in this report should not be considered valid unless the changes are reviewed, and our conclusions modified or verified in writing by UES.

UES should be provided the opportunity to review the final civil plans, structural plans, and project specifications to determine if UES's recommendations have been properly interpreted, communicated, and implemented. If UES is not afforded the opportunity to participate in construction related aspects of foundation installation and pavement construction as recommended in this report or any report addendum, UES cannot accept responsibility for the interpretation of our recommendations made in this report or in a report addendum for foundation or pavement performance.

6.0 BASIS FOR RECOMMENDATIONS

The recommendations presented in this report are based on the data obtained from the borings performed at the locations indicated on the Test Location Plan in Appendix B. This report does not reflect variations which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent our interpretation of the subsurface conditions at the designated boring locations on the specific dates drilled.

Any third-party reliance of our geotechnical report or parts thereof is strictly prohibited without the express written consent of Universal Engineering Sciences. The applicable SPT methodology (ASTM D 1586) and auger boring methodology (ASTM D 1452) used in performing our borings, and for determining penetration resistance and soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0000	**Drafted by: JR**	**Reviewed By: ES**	**Date: 8/16/2021**



Appendix B - Test Location Plan

Test Location Plan

Parcel 1 - Building and Pavement Area
Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0001	Drafted by: JR	Reviewed By: ES	Date: 8/26/2021



N

Legend

- Approximate 15’ Standard Penetration Test Boring Locations
- Approximate Auger Boring Locations

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots

Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor.
Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat

Appendix D - Log of Boring Records

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LOG OF BORING B-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 5.70 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	6 5 6 5	11		Gray fine sand (SP)			
2.5		2	5 4 4 5	8					
		3	4 5 5 4	10					
5.0						5.0			
						Gray clayey fine sand (SC) ▽			
		4	5 6 7 10	13		6.0 Brown fine sand with clay (SP-SC)			
7.5						8.0			
		5	5 7 6 10	13		Gray fine sand (SP)			
10.0									
12.5						13.5			
		6	10 9 7	16		Gray clayey fine sand (SC)			
15.0						15.0			

Bottom of borehole at 15.0 feet.

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/16/21 09:00 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0001- PARCEL 1 BUILDING AND F

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 5.80 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	3 3 3 5	6		Gray fine sand (SP)			
2.5		2	3 4 4 4	8					
5.0		3	4 5 5 5	10					
						5.5 ▽ Brown-gray clayey fine sand (SC) 6.0			
		4	5 5 10 9	15		Brown-gray fine sand with clay (SP-SC) 8.0			
7.5									
		5	4 5 10 11	15		Gray fine sand (SP)			
10.0									
12.5						13.5			
		6	5 5 10	15		Gray clayey fine sand (SC)			
15.0						15.0			

Bottom of borehole at 15.0 feet.

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LOG OF BORING B-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 5.70 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	2 2 4 3	6		Gray fine sand (SP)			
2.5		2	2 3 3 4	6					
						3.5 Brown clayey fine sand (SC)			
5.0		3	3 4 5 5	9		5.0 Brown fine sand (SP) ▽			
		4	4 5 5 5	10		7.0 Gray clayey fine sand (SC)			
7.5		5	4 4 5 9	9					
10.0									
12.5						13.5 Gray fine sand with silt (SP-SM)			
		6	5 5 9	14					
15.0						15.0			

Bottom of borehole at 15.0 feet.

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LOG OF BORING B-4

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.10 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	2 2 3 6	5		Gray fine sand (SP)			
2.5		2	3 3 2 5	5					
		3	3 4 4 4	8		4.0 Gray clayey fine sand (SC)			
5.0						6.0 ▽			
		4	8 7 7 9	14		Gray fine sand (SP)			
7.5						8.5			
		5	4 7 7 5	14		Gray clayey fine sand (SC)			
10.0									
12.5						13.5			
		6	6 5 5	10		Gray fine sand (SP)			
15.0						15.0			

Bottom of borehole at 15.0 feet.

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LOG OF BORING B-5

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 5.90 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	3 3 4 4	7		Gray fine sand (SP)			
2.5		2	5 4 4 4	8		3.0 Brown clayey fine sand (SC)			
5.0		3	3 5 5 4	10		4.0 Gray clayey fine sand (SC) ▽			
		4	5 6 6 8	12		7.0 Gray fine sand with silt (SP-SM)			
7.5		5	4 4 5 4	9					
10.0									
12.5						13.5			
		6	5 7 7	14		Gray clayey fine sand (SC)			
15.0						15.0 Bottom of borehole at 15.0 feet.			

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LOG OF BORING AB-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.20 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	80		2.0			
			Gray clayey fine sand (SC)			
3	80					
4	80		4.5			
5	75		Gray fine sand (SP)			
			5.0			
6	75		Gray clayey fine sand (SC) ▽			
			6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:07 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0001- PARCEL 1 BU

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LOG OF BORING AB-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.10 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	80					
3	80		3.0			
4	80		Brown clayey fine sand (SC)			
5	75		4.0 Gray clayey fine sand (SC) ▽			
6	75		6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:07 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0001- PARCEL 1 BU

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LOG OF BORING AB-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 3.00 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	80					
3	80		▽			
4	70		4.0			
5	70		Brown clayey fine sand (SC)			
6	70		6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:07 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0001- PARCEL 1 BU

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LOG OF BORING AB-4

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 1
PROJECT NUMBER 3330.2100159.0001
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
AT TIME OF DRILLING ---
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
	80					
1						
	80					
2						
	80					
3						
	70					
4			4.0			
			Brown clayey fine sand (SC)			
	70					
5			5.0			
			Brown fine sand (SP)			
	70					
6			6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:07 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0001- PARCEL 1 BU

Appendix E - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

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GEOTECHNICAL EXPLORATION

FORT PIERCE COMMERCIAL
PARCEL 1 – GRAY AREA ROADWAYS
FORT PIERCE, FLORIDA

UES PROJECT NO. 3330.2100159.0002

PREPARED FOR:

Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Attn: Mr. Jill K. Simpkins

PREPARED BY:

Universal Engineering Sciences
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

September 7, 2021

UNIVERSAL
ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

September 7, 2021

Ms. Jill K. Simpkins
Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Subject: Report of Geotechnical Exploration
Fort Pierce Commercial
Parcel 1 – Gray Area Roadways
Okeechobee Road, Fort Pierce, Florida
UES Project No. 3330.2100159.0002

Dear Ms. Simpkins:

Universal Engineering Sciences (UES) has completed the subsurface exploration and geotechnical engineering evaluation for the above referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with our Geotechnical Engineering Proposal No. 21-0462.00 REV#1 dated June 11, 2021, planned in conjunction with Mr. Tom Vani, Mr. Todd Howder with MBV Engineering, Inc., and authorized by you.

EXECUTIVE SUMMARY

The purpose of our subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions at the site and evaluate their impact upon the proposed construction. This report contains the results of our subsurface exploration and our engineering interpretations of these with respect to the project characteristics described to us, including providing recommendations for pavement design and construction.

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing two sections of paved roadway within Parcel 1 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed roadways on the property. Each section of roadway has a length of approximately 150 feet.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

Six (6) auger borings with hand cone penetrometer (HCP) testing (AB-1 through AB-6), advanced to depths of approximately 1 and 6 feet below the existing ground surface, were performed along the alignment of the roadways. The subsurface soil conditions encountered at the boring locations generally consisted of medium dense fine sand (SP), fine sand with silt (SP-SM), and clayey fine sand (SC) to the termination depths.

Refusal to hand augering was realized at a depth of approximately 1 foot below the ground surface on apparent rock in boring AB-1. Several attempts were made to redrill this boring a few feet from its initial location. Each attempt resulted in shallow auger refusal.

Based on the results of the auger borings, the soils are generally considered to be favorable for construction of the proposed roadways. Recommendations and guidelines for pavement design and construction are presented in Section 3.0 of this report.

Prior to final design and construction, UES recommends that the apparent rock obstruction encountered at the location of boring AB-1 be evaluated by performing a test pit exploration. Buried rock, debris, or other unsuitable material should be removed within the limits of the roadway and replaced with controlled, compacted fill. In general, fill should be placed in 12-inch thick loose layers and compacted to at least 98 percent of maximum dry density as determined by the modified Proctor test (AASHTO T-180).

We appreciate the opportunity to be of service during this phase of the project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or comments, or if we may further assist you as your plans proceed.

Respectfully Submitted,
Universal Engineering Sciences
Florida Registry No. 4930



Digitally signed by Thomas D Montano:A01410C00000178 18498DCD000019A3
Date: 2021.09.07 07:51:14 -04'00'

This item has been digitally signed and sealed by Thomas D. Montano, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Montano, P.E.
Branch Manager
Florida Registration No. 84146

Erik Soderstrom, E.I.
Geotechnical Department Manager

Distribution:
Ms. Jill K. Simpkins – Okeejen, LLC — 1 pdf
Mr. Tom Vani — 1 pdf
Mr. Todd Howder – MBV Engineering, Inc. — 1 pdf

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1.0 INTRODUCTION

1.1 Scope of Services

The objective of our geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the proposed construction. The following scope of services is provided within this report:

1. Prepare boring logs depicting the subsurface soil conditions encountered during our field exploration.

2. Review the soil samples obtained during our field exploration for classification and additional testing if necessary.

3. Evaluate the soil conditions encountered during our exploration with respect to construction of the proposed roadways.

4. Provide recommendations for pavement design and subgrade preparation.

5. Provide site preparation criteria for the proposed construction.

1.2 Project Description

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing two sections of paved roadways within Parcel 1 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed roadways on the property. Each section of roadway has a length of approximately 150 feet.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Description

As illustrated on the Site Vicinity Map in Appendix A, the project site is located along the south side of Okeechobee Road in Fort Pierce, Florida. At the time of our field exploration, the property was undeveloped and contained miscellaneous surface vegetation. The site was bordered by a Wawa store to the west, undeveloped land to the south and east, and Okeechobee Road to the north.

2.2 Field Exploration

Six (6) auger borings with hand cone penetrometer (HCP) testing (AB-1 through AB-6), advanced to depths of approximately 1 and 6 feet below the existing ground surface, were performed along the alignment of the roadways. The locations of the borings are illustrated on the Test Location Plan in Appendix B.

Refusal to hand augering was realized on apparent rock at a depth of approximately 1 foot below the ground surface in boring AB-1. Several attempts were made to redrill this boring a few feet from its initial location. Each attempt resulted in shallow auger refusal.

The auger borings were performed in substantial accordance with ASTM D 1452, "Standard Practice for Soil Exploration and Sampling by Auger Borings." Hand Cone Penetrometer (HCP) tests were conducted at one-foot depth intervals in the auger borings. The HCP test, in conjunction with information about the soil type, is empirically correlated to the relative density of subsurface soils.

Site specific survey staking of the borings was not provided for our field exploration. The indicated depth and location of each boring were approximated based upon existing grade, the provided Conceptual Site Plan, GPS coordinates, and estimated distances and relationships to existing landmarks at the site.

2.3 Visual Classification

Soil samples recovered from our field exploration were returned to our laboratory where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2487). After reviewing the soil samples, no laboratory testing was deemed necessary. The samples will be retained in our laboratory for 30 days and then discarded, unless we are notified otherwise in writing.

The recovered samples were not evaluated, either visually or analytically, for chemical composition or environmental hazards. UES will be pleased to perform these services for an additional fee, if required.

2.4 Geomorphic Conditions

The geology of the site as mapped on the USDA Soil Survey website consists of Nettles and Oldsmar sands (25). Note that the Soil Survey generally extends to a maximum depth of 80 inches below ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from our field exploration are presented in Appendix D - Log of Boring Records. The logs contain the soil descriptions and the hand cone penetrometer (HCP) values logged during the drilling and sampling activities. Note that the soil boring data reflect information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See Appendix E - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered at the boring locations generally consisted of medium dense fine sand (SP), fine sand with silt (SP-SM), and clayey fine sand (SC) to the termination depths.

2.5 Hydrogeological Conditions

On the date of our field exploration (July 29, 2021), groundwater was encountered in the borings at depths ranging from approximately 2.3 to 5.4 feet below the ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

No additional evaluation was included in our current scope of work in relation to the wet season high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is necessary, please contact our office for additional guidance.

3.0 PAVEMENT AREA DESIGN AND CONSTRUCTION CONSIDERATIONS

3.1 Pavement Design Sections

The pavement sections were designed considering assumed traffic loading and previous experience with similar projects. Flexible pavement sections in the geographic area typically consist of an asphaltic wearing course, a base course, and a stabilized subgrade layer. Rigid pavements are constructed either directly upon prepared soil subgrades or upon a base course and stabilized subgrade for heavier loads.

Based on our prior experience and the assumed traffic loading criteria, recommended pavement section thicknesses are provided in Table 4.1.1 below.

Table 4.1.1 - Design Pavement Sections

Pavement Type	Layer	Material Description	Layer Thickness	
			Light Duty	Heavy Duty
Flexible	(A)	Asphalt Wearing Surface FDOT SP-9.5 or SP-12.5	1.5	2.5
	(B)	Base rock (minimum LBR of 100), compacted to 98 percent of modified Proctor maximum dry density	6	8
	(SSG)	Stabilized subgrade (minimum LBR of 40), compacted to 98 percent of modified Proctor maximum dry density	12	12
	STRUCTURAL NUMBER (SN)		**2.7**	**3.5**
Rigid	(C)	FDOT Portland Cement Concrete	NA	8
	(B)	Base rock (minimum LBR of 100), compacted to 98 percent of modified Proctor maximum dry density	NA	-
	(CSG)	Soil subgrade compacted to 98 percent of modified Proctor maximum dry density	NA	12

3.2 Compacted Subgrade or Embankment Fill

The subgrade or embankment fill is the layer that supports the structural pavement section. Subgrade and embankment fill should be constructed following the criteria and procedures presented in Section 3.9 of this report.

3.3 Stabilized Subgrade

The stabilized subgrade is the portion of the pavement section between the compacted subgrade or embankment fill and the base course. We recommend that subgrade material be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180). The stabilized subgrade material should have a minimum Limerock Bearing Ratio (LBR) value of 40. Compliance tests should be performed upon the stabilized subgrade for full depth at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater.

3.4 Base Course

The base course is the portion of the pavement section between the surface course and stabilized subgrade. In areas where separation of at least 1.5 feet between the estimated wet seasonal high groundwater table and the bottom of the base material occurs, we recommend the base course be limerock or cemented coquina having a minimum Limerock Bearing Ratio (LBR) value of 100. The base material should be obtained from an approved source. The base material should be placed in maximum 6-inch thick lifts and compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

If the separation between the estimated wet seasonal high groundwater table and the bottom of the base material is less than 1.5 feet, we recommend that asphaltic concrete base (FDOT SP-12.5) be used in lieu of limerock or cemented coquina. The subgrade should be mechanically stabilized (compacted) to a minimum of 98 percent of modified Proctor maximum dry density (AASHTO T-180). Compliance tests should be performed on the base course at a frequency of one test per 5,000 square feet, or a minimum of two test locations, whichever is greater.

3.5 Flexible (Asphalt) Pavement

Asphalt pavement should consist of either FDOT SP-9.5 or SP-12.5 asphaltic concrete. The mixes should be a current FDOT approved design for the materials used for the project. Samples of the materials delivered to the project should be tested to verify that the aggregate gradation and asphalt content satisfies the mix design specifications.

The asphalt should be compacted to meet the requirements of the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction*. Compliance tests should be performed by obtaining cores to evaluate material thickness and density at a frequency of one test per 10,000 square feet, or a minimum of two test locations, whichever is greater.

3.6 Rigid (Concrete) Pavement

Rigid pavements should be constructed using concrete having a minimum 28-day compressive strength of 4,000 psi. Fill required to raise grades in pavement areas should be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

The pavement slabs should be reinforced to make them as rigid as practical. Proper joints should be provided at the junctions of slabs so that a small amount of independent movement can without causing structural damage. Construction and control joints should be accordance with current American Concrete Institute (ACI) and industry practices.

The pavement sections presented in this report are minimum pavement section thicknesses typically used for similar type projects. The pavement materials and construction procedures should conform to FDOT, ACI, or appropriate city/county requirements.

3.7 Effects of Water

Premature pavement section deterioration can occur due to intrusion of the wet season high groundwater table and/or improper surface water runoff management. We recommend the pavement areas be constructed to have a minimum separation of 1.5 feet between the wet season high groundwater table and the base course, regardless of the type of base material. In addition, we recommend that full-depth curb sections be designed and constructed. Using either extruded curb sections, which lie directly on top of the final surface course, or eliminating the curbing entirely, may allow runoff and/or irrigation water to migrate between the base and surface course. This condition can result in the separation of the surface course from the base course, causing a rippling effect, which results in premature deterioration of the pavement.

3.8 Construction Traffic

Incomplete pavement sections or pavement areas designed for light duty traffic will not perform satisfactorily under typical construction traffic loading. We recommend that all construction traffic (i.e., construction equipment, vehicles, etc.) either be re-routed away from these areas or the pavement sections be designed to support construction phase loading conditions.

3.9 Pavement Site Preparation

Our recommendations for preparation of the site for pavement construction are noted below. This approach to improving and maintaining site soils has been found to be successful with similar soil conditions.

1. The proposed construction limits should be cleared, stripped, and grubbed of all surface vegetation, topsoil, and associated root systems to depths of their vertical reaches. This should be performed within and to a distance of 5 feet beyond the limits of the pavement areas.

2. As previously noted, refusal to hand augering was realized at a depth of approximately 1 foot below the ground surface in boring AB-1. UES recommends that the apparent rock obstruction be evaluated by performing a test pit exploration either prior to or during initial site preparation. Buried rock, debris, or other unsuitable material should be removed within the limits of the roadway and replaced with controlled, compacted fill.

3. Prior to initiating fill operations, the existing ground surface should be compacted (proof rolled) using a steel drum vibratory roller having sufficient static weight and vibratory impact energy to achieve the required compaction. After completing the proof rolling, density tests should be performed at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater, to confirm a minimum compaction compliance of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

4. Fill material should be inorganic (classified as SP/GW) containing not more than 5 percent (by weight) fibrous organic materials. **Fill material having silt/clay-size fines contents greater than 5 percent should not be used, including cyclone sand material.** The fill should be placed in maximum 12-inch thick lifts. Each lift should be compacted to a minimum density of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

5. Compliance density tests should be performed within the fill at a frequency of not less than one test per 5,000 square feet per lift, or at a minimum of two test locations, whichever is greater.

6. Representative samples of both on-site and import materials proposed for use as fill should be obtained and tested to determine compliance with the project specifications. The testing should include moisture-density relations (AASHTO T-180) and particle size analysis.

7. The contractor should consider the contours contained on the final grading, paving, and drainage plans when executing backfilling and compaction operations.

4.0 REPORT LIMITATIONS

This consulting report has been prepared for the exclusive use of Okeejen, LLC and members of the design team for the proposed gray area roadways of Parcel 1 at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The evaluation submitted in this report is based in part upon the data collected during a field exploration. However, the nature and extent of variations throughout the subsurface profile may not become evident until construction. If variations then appear evident, it may be necessary to reevaluate information and professional opinions provided in this report. In the event changes are made in the nature, design, or location of the proposed pavement areas, the evaluation and opinions contained in this report should not be considered valid unless the changes are reviewed, and our conclusions modified or verified in writing by UES.

UES should be provided the opportunity to review the final civil plans, structural plans, and project specifications to determine if UES's recommendations have been properly interpreted, communicated, and implemented. If UES is not afforded the opportunity to participate in construction related aspects of pavement construction as recommended in this report or any report addendum, UES cannot accept responsibility for the interpretation of our recommendations made in this report or in a report addendum for pavement performance.

5.0 BASIS FOR RECOMMENDATIONS

The recommendations presented in this report are based on the data obtained from the borings performed at the locations indicated on the Test Location Plan in Appendix B. This report does not reflect variations which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent our interpretation of the subsurface conditions at the designated boring locations on the specific date drilled.

Any third-party reliance of our geotechnical report or parts thereof is strictly prohibited without the express written consent of Universal Engineering Sciences. The applicable auger boring methodology (ASTM D 1452) and hand cone penetrometer (HCP) methodology used in performing our borings, and for evaluating soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0000	**Drafted by: JR**	**Reviewed By: ES**	**Date: 8/16/2021**

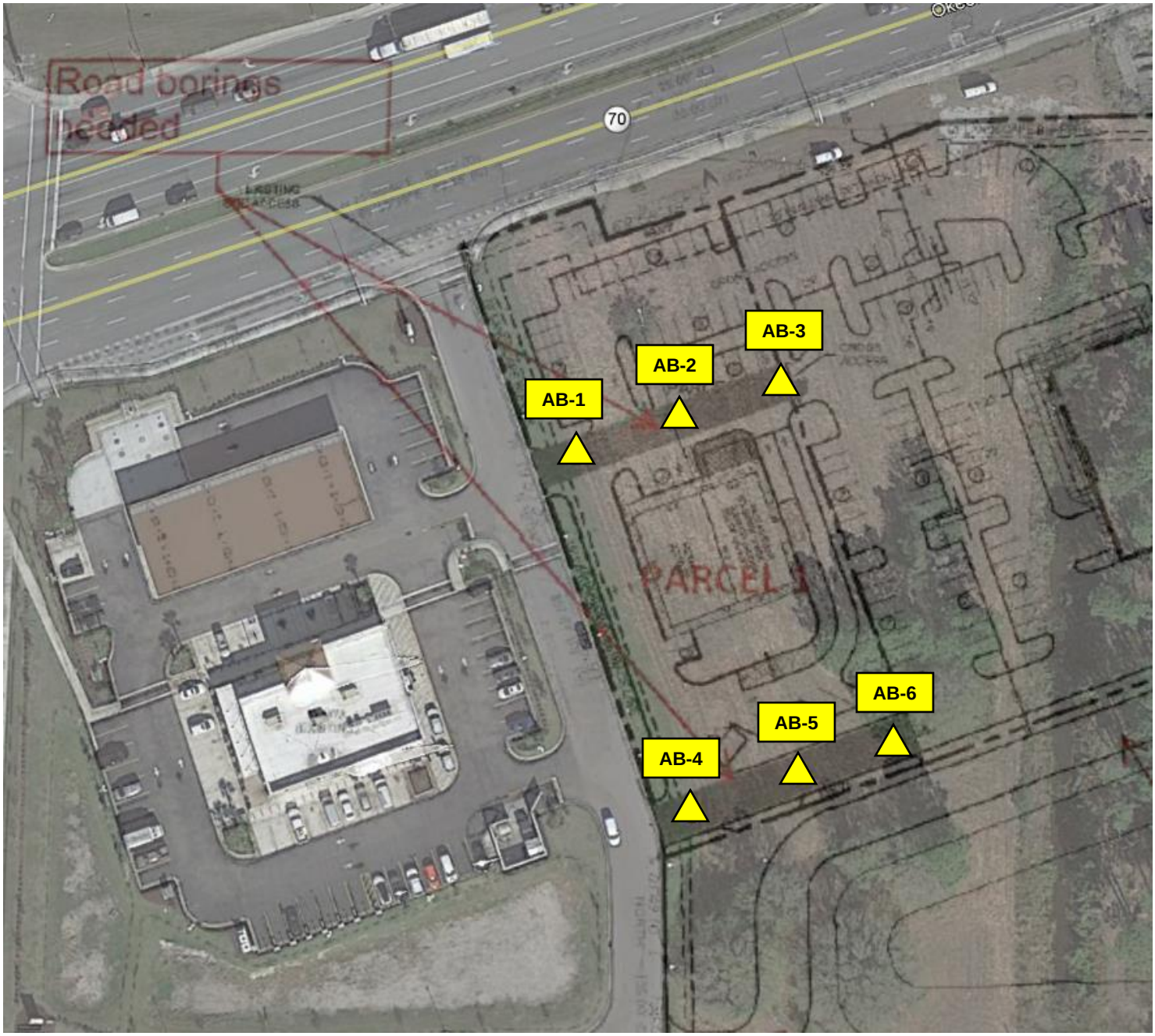


Appendix B - Test Location Plan

Test Location Plan

Parcel 1 - Gray Area Roadways
Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0002	Drafted by: JR	Reviewed By: ES	Date: 8/26/2021



N

Legend

Approximate Auger Boring Locations

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots

Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor.
Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat

Appendix D - Log of Boring Records

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
AT TIME OF DRILLING ---
DRILLER RV/LO
AT END OF ---
NOTES Refusal on apparent rock at 1 ft.
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0						
			Sand and rock			
1		1.0				

Refusal at 1.0 feet.
Bottom of borehole at 1.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 2.30 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	70		▽			
3	70					
4	70					
5	70		5.0 Brown clayey fine sand (SC)			
6	70		6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

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Port Saint Lucie, Florida 34986
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LOG OF BORING AB-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 2.90 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Dark gray fine sand (SP)			
1	80					
2	80					
3	80		▽			
4	75		4.0			
5	75		Gray clayey fine sand (SC)			
6	75		6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-4

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.40 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Dark brown organically stained fine sand with silt, trace roots (SP-SM)			
1	80					
2	80					
3	80		3.0			
			Gray fine sand (SP)			
4	80					
5	75		5.0			
			Brown clayey fine sand (SC)			
6	75		▽ 6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-5

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
AT TIME OF DRILLING ---
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	80					
3	80					
4	80		4.0			
5	75		Gray clayey fine sand (SC) 5.0			
6	75		Brown fine sand (SP) 6.0			

Bottom of borehole at 6.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/30/21 07:23 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0002 - PARCEL 1 G

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-6

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 2
PROJECT NUMBER 3330.2100159.0002
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 7/29/21 **COMPLETED** 7/29/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.20 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0			Gray fine sand (SP)			
1	80					
2	80					
3	80					
4	80		3.5 Gray-brown clayey fine sand (SC)			
5	75		5.0 Light brown fine sand with silt (SP-SM) ▽			
6	75		6.0			

Bottom of borehole at 6.0 feet.

Appendix E - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

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PRELIMINARY GEOTECHNICAL EXPLORATION

FORT PIERCE COMMERCIAL
PARCEL 2 - ALDI
FORT PIERCE, FLORIDA

UES PROJECT NO. 3330.2100159.0003

PREPARED FOR:

Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Attn: Mr. Jill K. Simpkins

PREPARED BY:

Universal Engineering Sciences
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

September 7, 2021

UNIVERSAL
ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

September 7, 2021

Ms. Jill K. Simpkins
Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Subject: Report of Preliminary Geotechnical Exploration
Fort Pierce Commercial - Parcel 2
Okeechobee Road, Fort Pierce, Florida
UES Project No. 3330.2100159.0003

Dear Ms. Simpkins:

Universal Engineering Sciences (UES) has completed a preliminary subsurface exploration and geotechnical engineering evaluation for the above referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with our Geotechnical Engineering Proposal No. 21-0462.00 REV#1 dated June 11, 2021, planned in conjunction with Mr. Tom Vani, Mr. Todd Howder with MBV Engineering, Inc., and authorized by you.

This report briefly presents our understanding of the project, describes the geotechnical exploration performed, presents the data obtained, and provides a preliminary geotechnical evaluation of the site and subsurface conditions at the property with respect to the anticipated construction.

We appreciate the opportunity to be of service during this phase of the project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or comments, or if we may further assist you as your plans proceed.

Respectfully Submitted,
Universal Engineering Sciences
Florida Registry No. 4930

THOMAS DOMINIC MONTANO LICENSE No. 84146 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Thomas D Montano:A01410C00000178 18498DCD000019A3
Date: 2021.09.07 08:06:12 -04'00'

This item has been digitally signed and sealed by Thomas D. Montano, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Montano, P.E.
Branch Manager
Florida Registration No. 84146

Erik Soderstrom, E.I.
Geotechnical Department Manager

Distribution:
Ms. Jill K. Simpkins – Okeejen, LLC 1 pdf
Mr. Tom Vani 1 pdf
Mr. Todd Howder – MBV Engineering, Inc. 1 pdf

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Appendix B - Test Location Plan
Appendix C - Notes Related to Borings
Appendix D - Log of Boring Records
Appendix E - Discussion of Soil Groups

1.0 INTRODUCTION

1.1 Scope of Services

The objective of our geotechnical exploration was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the planned construction. The following scope of services is provided within this report:

1. Prepare boring logs depicting the subsurface soil conditions encountered during our field exploration.

2. Review the soil samples obtained during our field exploration for classification and additional testing if necessary.

3. Provide preliminary recommendations for support of structure foundations, pavements, and fill placement and compaction.

1.2 Project Description

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing an Aldi store and associated pavement areas within Parcel 2 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed construction on the property.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Description

As illustrated on the Site Vicinity Map in Appendix A, the project site is located along the south side of Okeechobee Road in Fort Pierce, Florida. At the time of our field exploration, the property was undeveloped and contained miscellaneous surface vegetation. The site was bordered by a Wawa store to the west, undeveloped land to the south and east, and Okeechobee Road to the north.

2.2 Field Exploration

Six (6) auger borings with hand cone penetrometer (HCP) testing, advanced to depths of approximately 10 feet below the existing ground surface, were completed for this study. The approximate boring locations are illustrated in Appendix B - Test Location Plan.

The auger borings were performed in general accordance with ASTM D 1452, "Standard Practice for Soil Exploration and Sampling by Auger Borings." Hand Cone Penetrometer (HCP) tests were conducted at approximate one-foot depth intervals in the auger borings. The HCP test, in conjunction with information about the soil type, is empirically correlated to the relative density of subsurface soils.

Site specific survey staking of the borings was not provided for our field exploration. The indicated depth and location of each boring were approximated based upon existing grade, the provided Conceptual Site Plan, GPS coordinates, and estimated distances and relationships to existing landmarks at the site.

2.3 Visual Classification

Soil samples recovered from our field exploration were returned to our laboratory where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2487). After reviewing the samples, no laboratory testing was deemed necessary. The samples will be retained in our laboratory for 30 days and then discarded, unless we are notified otherwise in writing.

2.4 General Soil Profile

The geology of the site as mapped on the USDA Soil Survey website consists of Nettles and Oldsmar sands (25). **These are sandy soils and organic soils are not indicated.** Note that the Soil Survey generally extends to a maximum depth of 80 inches below ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from our field exploration are presented in Appendix D - Log of Boring Records. The logs contain the soil descriptions and the hand cone penetrometer (HCP) values logged during the drilling and sampling activities. The boring data reflect information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See Appendix E - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered in the borings generally consisted of medium dense fine sand (SP) and clayey fine sand (SC) to the termination depths.

2.5 Hydrogeological Conditions

On the date of our field exploration (August 3, 2021), groundwater was encountered in the borings at depths ranging from approximately 5.4 to 5.8 feet below the ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

3.0 PRELIMINARY ENGINEERING EVALUATION

3.1 General

Our geotechnical evaluation of the site and subsurface conditions at the property, with respect to the proposed construction, and our preliminary recommendations for site preparation and foundation support, are based upon (1) our site observations, (2) the limited field data obtained, and (3) our understanding of the project information presented in this report. Additional field testing and soil borings will be required prior to construction to develop detailed recommendations for foundation design, pavement design, and earthwork construction.

3.2 Site Preparation

Initial site preparation should consist of removing surface vegetation, topsoil, near surface roots, and other miscellaneous debris within and 5 feet beyond the planned construction limits. Foundations and the below-grade remains of former structures within the footprint of the construction should also be removed. Similarly, utility lines within the construction limits should be removed or properly abandoned so that they will not adversely impact overlying structures.

3.3 Fill Placement and Compaction

Prior to placing fill to attain design grades, the stripped surface should be compacted until the upper 2 feet of soil achieves at least 95 percent of modified Proctor maximum dry density (ASTM D 1557). We recommend using a steel drum vibratory roller having sufficient static weight and vibratory impact to achieve the required compaction. Density tests should be performed on the compacted surface at a frequency of not less than one test per 2,500 square feet, or a minimum of three (3) tests, whichever is greater. The density tests should be performed using either the nuclear method (ASTM D 6839) or the sand cone method (ASTM D 1556). Hand Cone Penetrometer (HCP) tests may also be performed to evaluate soil density.

Fill should be inorganic (i.e., contain less than 5 percent by weight organic material) and classified as SP, SW, GP, GW, SP-SM, SW-SM, GW-GP, or GP-GM. **UES does not recommend using fill having silt/clay-size soil fines contents exceeding 12 percent.** In general, fill required to attain design grades should be placed in maximum 12-inch thick loose lifts and compacted to at least 95 percent of modified Proctor maximum dry density (ASTM D 1557). Each lift of fill should be compacted and tested prior to the placement of the next lift. Density tests should be performed within the fill at the same frequency noted above.

3.4 Structure Foundations

Based upon our preliminary evaluation of the site and the subsurface conditions encountered at the boring locations, it appears that a conventional single story commercial structure can be constructed using shallow foundations after performing necessary site preparation and earthwork construction procedures. The boring results indicate that the maximum allowable design soil bearing pressure for shallow foundation support of the structure will be on the order of 2,000 to 2,500 psf. We emphasize that this design value is dependent upon the actual structural foundation loads and performing the necessary site preparation and earthwork construction procedures.

3.5 Pavement Areas

The upper few feet of the soils encountered in the borings generally consisted of fine sand (SP) and groundwater was encountered in the borings at depths ranging from approximately 5.4 to 5.8 feet below the ground surface. Provided that final design grades will be at or above the current ground surface elevation at the property, we anticipate that conventional asphalt and/or concrete pavements will be feasible after performing normal soil densification and subgrade preparation operations.

Premature pavement section deterioration can occur due to intrusion of the wet season high groundwater table and/or improper surface water runoff management. The pavement areas should be constructed to have a minimum separation of 1.5 feet between the wet season high groundwater table and the base course, regardless of the type of base material.

4.0 REPORT LIMITATIONS

This preliminary consulting report has been prepared for the exclusive use of Okeejen, LLC and members of the design team for the proposed commercial development of Parcel 2 at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The preliminary evaluation submitted in this report is based in part upon limited data collected during a field exploration. This report does not reflect any variations which may occur between borings. While the borings represent the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils within the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent our interpretation of the subsurface conditions at the designated boring locations on the specific date performed.

Any third-party reliance of our geotechnical report or parts thereof is strictly prohibited without the express written consent of Universal Engineering Sciences. The applicable auger boring methodology (ASTM D 1452) and hand cone penetrometer (HCP) methodology used in performing our borings, and for determining soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0000	**Drafted by: JR**	**Reviewed By: ES**	**Date: 8/16/2021**



Appendix B - Test Location Plan

Test Location Plan

Parcel 2 - Aldi
Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0003	Drafted by: JR	Reviewed By: ES	Date: 8/26/2021



N

Legend

Approximate Auger Boring Locations

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots

Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor.
Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat

Appendix D - Log of Boring Records

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 9.00 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0			Gray fine sand (SP)			
	80					
	80					
2.5	80					
			3.0			
			Gray fine sand with clay (SP-SC)			
	80					
	80					
5.0						
	75					
	75					
7.5						
	75					
	70		▽			
	70					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.70 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Brown fine sand (SP)			
	80					
2.5	80					
	80					
	75					
5.0			5.0			
	75		Brown clayey fine sand (SC) ▽			
	75					
7.5	75		7.5			
	75		Light brown fine sand (SP)			
	75					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.70 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Gray fine sand (SP)			
	80					
2.5	75					
	75					
	75		4.5			
	75		Gray clayey fine sand (SC)			
5.0						
	75		▽			
	70					
7.5						
	70					
	70					
	65					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-4

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.40 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	75		Gray fine sand (SP)			
	75					
2.5	75					
	75					
			4.0			
	75		Gray clayey fine sand (SC)			
5.0			▽			
	70					
	70					
7.5	70					
	65					
	65					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-5

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.80 ft
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Gray fine sand (SP)			
	80					
2.5	75					
	75		3.5 Gray clayey fine sand (SC)			
	75					
5.0	70		▽			
	70					
7.5	70					
	70					
	70					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-6

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 3
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/3/21 **COMPLETED** 8/3/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
AT TIME OF DRILLING ---
DRILLER RV/LO
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Gray fine sand (SP)			
	80					
2.5	80					
	75					
			4.0			
	75		Gray-brown clayey fine sand (SC)			
5.0						
	70					
	70					
7.5						
	65					
	65					
	65					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 9/7/21 08:00 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0003 - PARCEL 2 AL

Appendix E - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

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PRELIMINARY GEOTECHNICAL EXPLORATION

FORT PIERCE COMMERCIAL
PARCEL 3
FORT PIERCE, FLORIDA

UES PROJECT NO. 3330.2100159.0004

PREPARED FOR:

Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Attn: Mr. Jill K. Simpkins

PREPARED BY:

Universal Engineering Sciences
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

September 28, 2021

UNIVERSAL
ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

September 28, 2021

Ms. Jill K. Simpkins
Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Subject: Report of Preliminary Geotechnical Exploration
Fort Pierce Commercial - Parcel 3
Okeechobee Road, Fort Pierce, Florida
UES Project No. 3330.2100159.0004

Dear Ms. Simpkins:

Universal Engineering Sciences (UES) has completed a preliminary subsurface exploration and geotechnical engineering evaluation for the above referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with our Geotechnical Engineering Proposal No. 21-0462.00 REV#1 dated June 11, 2021 and Change Order No. 1 dated July 27, 2021, planned in conjunction with Mr. Tom Vani, Mr. Todd Howder with MBV Engineering, Inc., and authorized by you.

This report briefly presents our understanding of the project, describes the geotechnical exploration performed, presents the data obtained, and provides a preliminary geotechnical evaluation of the site and subsurface conditions at the site with respect to the anticipated construction, including an estimate of the seasonal high groundwater table at the property.

We appreciate the opportunity to be of service during this phase of the project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or comments, or if we may further assist you as your plans proceed.

Respectfully Submitted,
Universal Engineering Sciences
Florida Registry No. 4930

THOMAS DOMINIC MONTANO LICENSE No. 84146 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Thomas D Montano:A01410C000001 7818498DCD000019A3
Date: 2021.09.28 11:47:49 -04'00'

This item has been digitally signed and sealed Thomas D. Montano, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Montano, P.E.
Branch Manager
Florida Registration No. 84146

Erik Soderstrom, E.I.
Geotechnical Department Manager

Distribution:
Ms. Jill K. Simpkins – Okeejen, LLC 1 pdf
Mr. Tom Vani 1 pdf
Mr. Todd Howder – MBV Engineering, Inc. 1 pdf

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1.0 INTRODUCTION

1.1 Scope of Services

The objective of our geotechnical exploration was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the planned construction. The following scope of services is provided within this report:

1. Prepare boring logs depicting the subsurface soil conditions encountered during our field exploration.

2. Review the soil samples obtained during our field exploration for classification and additional testing if necessary.

3. Provide the results of the laboratory falling head permeability testing performed on the Shelby tube samples obtained at the site.

4. Provide preliminary recommendations for support of structure foundations, pavements, and fill placement and compaction.

5. Provide an estimate of the normal seasonal high groundwater table at the site.

1.2 Project Description

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of the construction of a building, pavement areas, and dry stormwater retention areas within Parcel 3 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the proposed construction on the property.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Description

As illustrated on the Site Vicinity Map in Appendix A, the project site is located along the south side of Okeechobee Road in Fort Pierce, Florida. At the time of our field exploration, the property was undeveloped and contained miscellaneous surface vegetation. The site was bordered by a Wawa store to the west, undeveloped land to the south and east, and Okeechobee Road to the north.

2.2 Field Exploration

Two (2) auger borings with hand cone penetrometer (HCP) testing (AB-1 and AB-2), advanced to depths of approximately 10 feet below the existing ground surface, were performed within the

future stormwater management areas at the referenced property. Two (2) undisturbed Shelby tube soil samples (horizontal and vertical) were also obtained adjacent to each auger boring location for laboratory falling head permeability testing. The samples were obtained at a depth of approximately 1.5 to 2 feet below the ground surface.

Five (5) standard penetration test (SPT) borings (B-1 through B-5), advanced to approximate depths of 15 feet below the ground surface, were also performed during the field exploration. The purpose of these borings was to provide a general characterization of the on site soils for future building construction. The approximate boring and Shelby tube sample locations are illustrated on the Test Location Plan in Appendix B.

The auger borings were performed in general accordance with ASTM D 1452, "Standard Practice for Soil Exploration and Sampling by Auger Borings." Hand Cone Penetrometer (HCP) tests were conducted at approximate one-foot depth intervals in the auger borings. The HCP test, in conjunction with information about the soil type, is empirically correlated to the relative density of subsurface soils.

The Standard Penetration Test (SPT) borings were performed in general accordance with ASTM D 1586, "Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils." The SPT test procedure consists of driving a 1.4-inch I.D. split-barrel sampler into the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot, for the second and third 6-inch increment, is referred to as the N-value. The N-value has been empirically correlated with various soil properties and provides an indication of soil strength.

Site specific survey staking of the borings was not provided for our field exploration. The indicated depth and location of each boring were approximated based upon existing grade, the provided Conceptual Site Plan, GPS coordinates, and estimated distances and relationships to existing landmarks at the site.

2.3 Laboratory Testing

Soil samples recovered from the borings were returned to our laboratory where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2487). The samples will be retained in our laboratory for 30 days and then discarded, unless we are notified otherwise in writing.

Falling head permeability tests were performed on the Shelby tube samples to obtain horizontal (k_h) and vertical (k_v) coefficients of permeability of the soils. The permeability test results are summarized in Table 2.3.1 below.

Table 2.3.1 - Falling Head Permeability Test Results

Test Location	Sample Depth (feet)	Sample Description	Coefficient of Permeability, k (ft/day)	
			k_h	k_v
AB-1	1.5 - 2	Gray/light brown fine sand (SP)	24.0	23.7
AB-2	1.5 - 2	Gray fine sand (SP)	8.3	14.1

2.4 General Soil Profile

The geology of the site as mapped on the USDA Soil Survey website consists of Nettles and Oldsmar sands (25). **These are sandy soils and organic soils are not indicated.** Note that the Soil Survey generally extends to a maximum depth of 80 inches below ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from our field exploration are presented in Appendix D - Log of Boring Records. The logs contain the soil descriptions, the standard penetration test (SPT) N-values, and the hand cone penetrometer (HCP) values logged during the drilling and sampling activities. The boring data reflect information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See Appendix E - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered in the borings generally consisted of loose to medium dense fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths.

2.5 Hydrogeological Conditions

On the dates of our field exploration (August 2 and September 17, 2021), groundwater was encountered in the borings at depths ranging from approximately 6 to 8 feet below the ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

2.6 Estimated Seasonal High Groundwater Table

We reviewed available rainfall data contained on the South Florida Water Management District (SFWMD) web site from February through August, 2021. Our research indicated the rainfall in St. Lucie County for the month of August 2021 was 8.34 inches (103 percent of monthly normal), for the month of July 2021 was 6.51 inches (101 percent of monthly normal), the month of June 2021 was 7.78 inches (104 percent of monthly normal), for the month of May 2021 was 1.15 inches (26 percent of monthly normal), for the month of April 2021 was 3.37 inches (113 percent of monthly normal), for the month of March 2021 was 0.73 inches (24 percent of monthly normal), and for the month of February 2021 was 3.00 inches (130 percent of monthly normal).

The normal seasonal high groundwater level each year is the level that typically occurs in the August to September period at the end of the rainy season during a year of normal or average rainfall. During periods of above normal rainfall and in extreme cases of flooding, the water table elevations typically exceed the normal seasonal high groundwater level. Under this scenario, normal high groundwater levels approach the normal seasonal high groundwater levels.

The normal seasonal high groundwater level is affected by several factors. The drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, canals, swamp areas, etc., and distance to relief points are some of the more important factors influencing the seasonal high groundwater level.

Based on our interpretations of the site conditions, the groundwater levels recorded in our borings at the time of drilling, the USDA Soil Survey, and the rainfall data contained on the SFWMD website, we estimate the normal seasonal high groundwater level to be approximately 1 to 1.5 feet above the water levels recorded in our borings. As previously noted, it is possible that higher groundwater levels may exceed the estimated normal seasonal high groundwater level as a result of significant or prolonged rainfall events. However, design for normal seasonal high groundwater conditions, instead of the extreme conditions, generally is more appropriate.

3.0 PRELIMINARY ENGINEERING EVALUATION

3.1 General

Our geotechnical evaluation of the site and subsurface conditions at the property, with respect to the proposed construction, and our preliminary recommendations for site preparation and foundation support, are based upon (1) our site observations, (2) the limited field data obtained, and (3) our understanding of the project information presented in this report. Additional field testing and soil borings will be required prior to construction to develop detailed recommendations for foundation design, pavement design, and earthwork construction.

3.2 Site Preparation

Initial site preparation should consist of removing surface vegetation, topsoil, near surface roots, and other miscellaneous debris within and 5 feet beyond the planned construction limits. Foundations and the below-grade remains of former structures within the footprint of the construction should also be removed. Similarly, utility lines within the construction limits should be removed or properly abandoned so that they will not adversely impact overlying structures.

3.3 Fill Placement and Compaction

Prior to placing fill to attain design grades, the stripped surface should be compacted until the upper 2 feet of soil achieves at least 95 percent of modified Proctor maximum dry density (ASTM D 1557). We recommend using a steel drum vibratory roller having sufficient static weight and vibratory impact to achieve the required compaction. Density tests should be performed on the compacted surface at a frequency of not less than one test per 2,500 square feet, or a minimum of three (3) tests, whichever is greater. The density tests should be performed using either the nuclear method (ASTM D 6839) or the sand cone method (ASTM D 1556). Hand Cone Penetrometer (HCP) tests may also be performed to evaluate soil density.

Fill should be inorganic (i.e., contain less than 5 percent by weight organic material) and classified as SP, SW, GP, GW, SP-SM, SW-SM, GW-GP, or GP-GM. **UES does not recommend using fill having silt/clay-size soil fines contents exceeding 12 percent.** In general, fill required to attain design grades should be placed in maximum 12-inch thick loose lifts and compacted to at least 95 percent of modified Proctor maximum dry density (ASTM D 1557). Each lift of fill should be compacted and tested prior to the placement of the next lift. Density tests should be performed within the fill at the same frequency noted above.

3.4 Structure Foundations

Based upon our preliminary evaluation of the site and the subsurface conditions encountered at the SPT boring locations, it appears that a conventional lightly loaded single story commercial structure can be constructed using shallow foundations after performing necessary site preparation and earthwork construction procedures. The boring results indicate that the maximum allowable design soil bearing pressure for shallow foundations will be on the order of 2,000 to 2,500 psf. We emphasize that this design value is dependent upon the actual structural foundation loads and performing the necessary site preparation and earthwork construction procedures.

A moderately to heavily loaded multi-level structure may require the installation of deep foundations, such as augered cast-in-place (ACIP) piles. If required, deep foundation design capacities and other parameters will be dependent upon the final building design details, structural loading, and the results of additional deeper soil borings. In lieu of deep foundations, performing in-situ ground improvement, such as vibro-compaction or vibro-replacement, may be possible so that the structure can be supported by a shallow foundation system.

3.5 Pavement Areas

The upper few feet of the soils encountered in the borings generally consisted of fine sand (SP) and groundwater was encountered in the borings at depths ranging from approximately 6 to 8 feet below the ground surface. Provided that final design grades will be at or above the current ground surface elevation at the property, we anticipate that conventional asphalt and/or concrete pavements will be feasible after performing normal soil densification and subgrade preparation operations.

Premature pavement section deterioration can occur due to intrusion of the wet season high groundwater table and/or improper surface water runoff management. The pavement areas should be constructed to have a minimum separation of 1.5 feet between the wet season high groundwater table and the base course, regardless of the type of base material.

4.0 REPORT LIMITATIONS

This preliminary consulting report has been prepared for the exclusive use of Okeejen, LLC and members of the design team for the proposed commercial development of Parcel 3 at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The preliminary evaluation submitted in this report is based in part upon limited data collected during a field exploration. This report does not reflect any variations which may occur between borings. While the borings represent the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils within the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent our interpretation of the subsurface conditions at the designated boring locations on the specific dates performed.

Any third-party reliance of our geotechnical report or parts thereof is strictly prohibited without the express written consent of Universal Engineering Sciences. The applicable SPT methodology (ASTM D 1586), auger boring methodology (ASTM D 1452), and hand cone penetrometer (HCP) methodology used in performing our borings, and for determining penetration resistance and soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0000	**Drafted by: JR**	**Reviewed By: ES**	**Date: 8/16/2021**

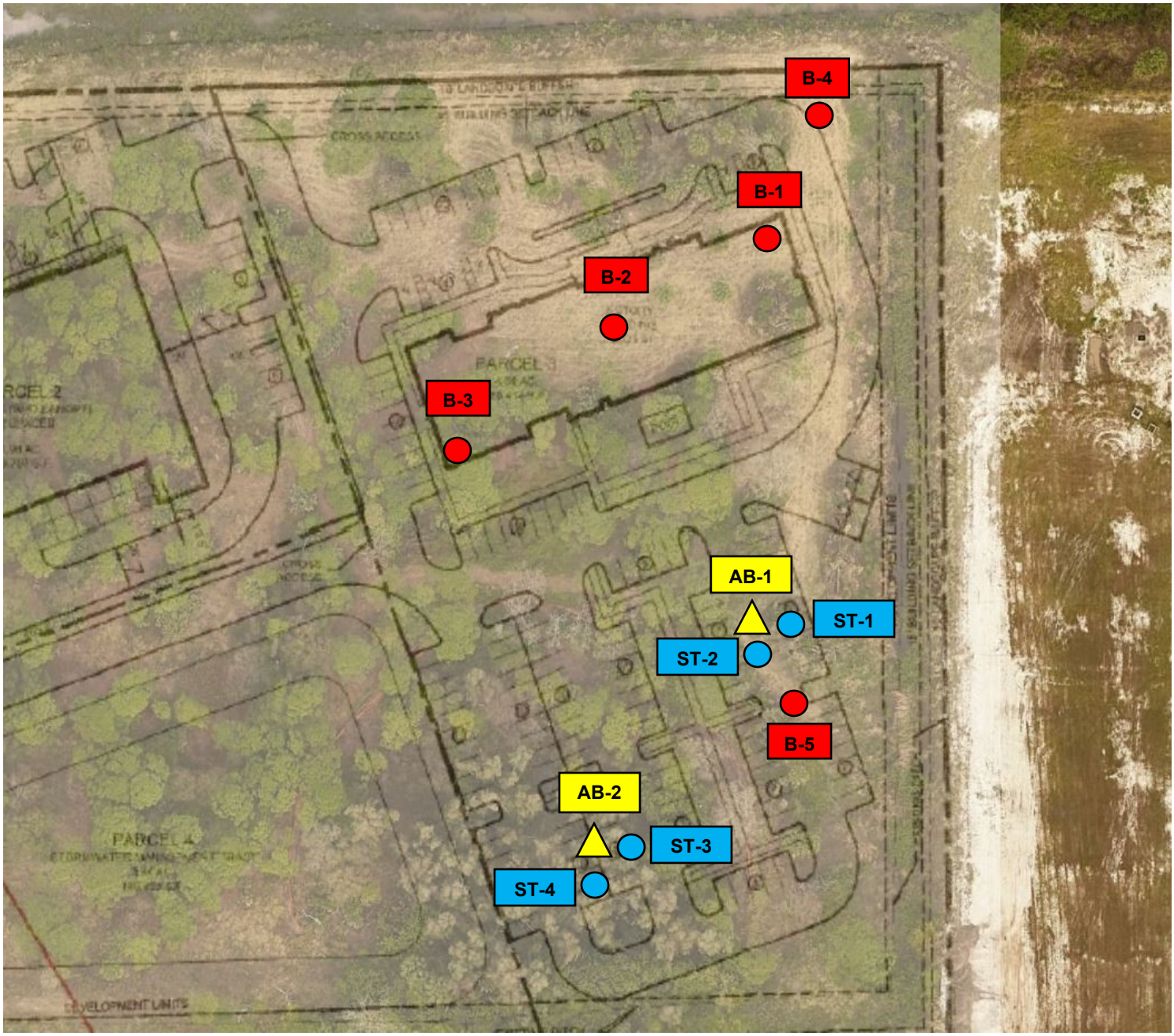


Appendix B - Test Location Plan

Test Location Plan

Parcel 3
Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0005	Drafted by: CP	Reviewed By: ES	Date: 09/23/2021



N

Legend

- Approximate 15’ Standard Penetration Test Boring Locations
- Approximate 10’ Auger Boring Locations
- Approximate Shelby Tube Locations

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots

Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor.
Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat

Appendix D - Log of Boring Records

Universal Engineering Sciences
607 Northwest Commodity Cove,
Port St. Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 4
PROJECT NUMBER 3330.2100159.0004
PROJECT LOCATION Okeechobee Road, Fort Pierce,
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 9/17/21
COMPLETED 9/17/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 8.00 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	3 2 3 4	5		Gray fine sand, trace silt (SP)			
2.5		2	5 4 5 5	9		2.5 Brown fine sand with silt, some fine roots (SP-SM)			
5.0		3	3 4 6 6	10		5.0 Gray fine sand, trace silt and fine roots (SP)			
		4	6 7 7 8	14		7.0 Gray clayey fine sand (SC)			
7.5						▽			
		5	3 4 7 7	11		8.5 Gray fine sand with silt (SP-SM)			
10.0									
12.5						13.5			
		7	2 2 2	4		Gray fine sand, trace silt (SP)			
15.0						15.0 Bottom of borehole at 15.0 feet.			

SPT LOGS - GFA DATA TEMPLATE.GDT - 9/23/21 14:41 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKE\APPEND

Universal Engineering Sciences
607 Northwest Commodity Cove,
Port St. Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 4
PROJECT NUMBER 3330.2100159.0004
PROJECT LOCATION Okeechobee Road, Fort Pierce,
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 9/17/21
COMPLETED 9/17/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.00 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	3 4 4 6	8		Gray fine sand, trace silt (SP)			
2.5		2	4 6 4 5	10					
		3	6 4 5 6	9		5.0			
5.0						Gray fine sand with clay, little fine roots (SP-SC) ▽			
		4	6 7 6 8	13		7.0			
7.5						Gray fine sand, trace silt (SP)			
		5	8 7 5 5	12					
10.0									
12.5									
		7	1 2 3	5		15.0			
15.0						Bottom of borehole at 15.0 feet.			

SPT LOGS - GFA DATA TEMPLATE.GDT - 9/23/21 14:41 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKE\APPEND

Universal Engineering Sciences
607 Northwest Commodity Cove,
Port St. Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 4
PROJECT NUMBER 3330.2100159.0004
PROJECT LOCATION Okeechobee Road, Fort Pierce,
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 9/17/21
COMPLETED 9/17/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.00 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	2 3 3 4	6		Gray fine sand, trace silt (SP)			
2.5		2	3 3 4 4	7		3.0 Brown clayey fine sand, trace fine roots (SC)			
5.0		3	3 4 5 5	9		5.0 Light brown fine sand with clay (SC) ▽			
		4	6 6 7 7	13		7.0 Gray fine sand with silt (SP-SM)			
7.5		5	4 6 7 7	13		8.5 Gray fine sand, trace silt (SP)			
10.0									
12.5									
		7	1 1 3	4		15.0			
15.0						Bottom of borehole at 15.0 feet.			

SPT LOGS - GFA DATA TEMPLATE.GDT - 9/23/21 14:41 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKE\APPEND

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-4

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 4
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 7.20 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	3 5 7 8	12		Brown fine sand (SP)			
2.5		2	5 5 8 6	13					
		3	7 5 6 5	11		5.0 Gray clayey fine sand, trace roots (SC)			
5.0		4	7 7 8 9	15		▽ 7.5 Gray fine sand (SP)			
7.5		5	3 4 4 6	8					
10.0									
12.5						13.5 Brown fine sand (SP)			
		6	4 4 7	11					
15.0						15.0 Bottom of borehole at 15.0 feet.			

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/30/21 10:35 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0004 - PARCEL 3 DRY RETENTIO

Universal Engineering Sciences
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Port Saint Lucie, Florida 34986
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LOG OF BORING B-5

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commerical - Task 4
PROJECT NUMBER 3330.2100159.0003
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 15 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/2/21
COMPLETED 8/2/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 7.50 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
		1	2 3 4 5	7		Gray fine sand, trace roots (SP)			
2.5		2	4 5 5 5	10					
						3.0 Brown fine sand, trace clay (SP)			
		3	4 5 8 10	13		5.0			
5.0						Gray clayey fine sand (SC)			
		4	7 5 10 11	15		▽			
7.5									
		5	5 5 10 8	15					
10.0									
12.5									
		6	5 10 7	17					
15.0						15.0			

Bottom of borehole at 15.0 feet.

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/30/21 10:35 - V:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0004 - PARCEL 3 DRY RETENTIO

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 4
PROJECT NUMBER 3330.2100159.0004
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/2/21 **COMPLETED** 8/2/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 7.00 ft
DRILLER PS
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Gray fine sand (SP)			
	80					
2.0			Light brown fine sand (SP)			
2.5	80					
	80					
4.0			Brown fine sand with clay, trace roots (SP-SC)			
	80					
5.0	80					
6.0			Gray fine sand with silt (SP-SM)			
	80		▽			
7.5	80					
	80					
	80					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:52 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0004 - PARCEL 3 D

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING AB-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 4
PROJECT NUMBER 3330.2100159.0004
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DATE STARTED 8/2/21 **COMPLETED** 8/2/21
LATITUDE **LONGITUDE**
DRILLING CONTRACTOR Universal Engineering Sciences
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 6.00 ft
DRILLER PS
AT END OF ---
NOTES
ESHGT

DEPTH (ft)	HAND CONE PENETROMETER (HCP) (tsf)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
0.0	80		Gray fine sand (SP)			
	80					
2.5	80					
			3.0			
	80		Brown fine sand with clay (SP-SC)			
	80					
5.0			5.0			
	80		Gray fine sand with silt (SP-SM)			
			▽			
	80					
7.5	80					
	80					
	80					
10.0			10.0			

Bottom of borehole at 10.0 feet.

HAND AUGER WITH HCP - GFA DATA TEMPLATE.GDT - 8/16/21 09:52 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0004 - PARCEL 3 D

Appendix E - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

UNIVERSAL
ENGINEERING SCIENCES

GEOTECHNICAL EXPLORATION

FORT PIERCE COMMERCIAL
PARCEL 4 – LAKE
FORT PIERCE, FLORIDA

UES PROJECT NO. 3330.2100159.0005

PREPARED FOR:

Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Attn: Mr. Jill K. Simpkins

PREPARED BY:

Universal Engineering Sciences
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

September 7, 2021

UNIVERSAL
ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

September 7, 2021

Ms. Jill K. Simpkins
Okeejen, LLC
P.O. Box 1179
Sharpes, Florida 32959

Subject: Report of Geotechnical Exploration
Fort Pierce Commercial
Parcel 4 - Lake
Okeechobee Road, Fort Pierce, Florida
UES Project No. 3330.2100159.0005

Dear Ms. Simpkins:

Universal Engineering Sciences (UES) has completed the subsurface exploration and geotechnical engineering evaluation for the above referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with our Geotechnical Engineering Proposal No. 21-0462.00 REV#1 dated June 11, 2021, planned in conjunction with Mr. Tom Vani, Mr. Todd Howder with MBV Engineering, Inc., and authorized by you.

EXECUTIVE SUMMARY

The purpose of our subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions at the site and evaluate their impact upon the proposed construction. This report contains the results of our subsurface exploration and our engineering interpretations of these with respect to the project characteristics described to us, including a discussion of the overall suitability of the soils encountered in the borings for use as controlled, compacted fill during site development.

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing a stormwater management lake in Parcel 4 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the lake on the property.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

Three (3) continuously sampled standard penetration test (SPT) borings (B-1 through B-3), advanced to approximate depths of approximately 20 feet below the existing ground surface, were performed for this study. The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths. A general discussion of the suitability of using these various soil types as controlled, compacted fill during site development is presented in Section 3.2 of this report.

We appreciate the opportunity to be of service during this phase of the project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or comments, or if we may further assist you as your plans proceed.

Respectfully Submitted,
Universal Engineering Sciences
Florida Registry No. 4930



Digitally signed by Thomas D Montano:A01410C00000178 18498DCD000019A3
Date: 2021.09.07 07:53:01 -04'00'

This item has been digitally signed and sealed by Thomas D. Montano, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Montano, P.E.
Branch Manager
Florida Registration No. 84146

Erik Soderstrom, E.I.
Geotechnical Department Manager

Distribution:
Ms. Jill K. Simpkins – Okeejen, LLC — 1 pdf
Mr. Tom Vani — 1 pdf
Mr. Todd Howder – MBV Engineering, Inc. — 1 pdf

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1.2 Project Description 4

2.0 OBSERVATIONS 4
2.1 Site Description 4
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2.3 Visual Classification 5
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Appendix A - Vicinity Map
Appendix B - Test Location Plan
Appendix C - Notes Related to Borings
Appendix D - Log of Boring Records
Appendix E - Discussion of Soil Groups

1.0 INTRODUCTION

1.1 Scope of Services

The objective of our geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the proposed construction. The following scope of services is provided within this report:

1. Review the soil samples recovered from the soil borings for classification and prepare boring logs depicting the subsurface conditions encountered during our field exploration.

2. Discuss the suitability of the soils to be excavated from the lake for use as fill during site development.

1.2 Project Description

Per our prior telephone discussions and email correspondence with Mr. Todd Howder with MBV Engineering, Inc. and Mr. Tom Vani, UES understands that the project consists of constructing a stormwater management lake in Parcel 4 of the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. We have been provided with a Conceptual Site Plan prepared by MBV Engineering, Inc. showing the location of the lake on the property.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Description

As illustrated on the Site Vicinity Map in Appendix A, the project site is located along the south side of Okeechobee Road in Fort Pierce, Florida. At the time of our field exploration, the property was undeveloped and contained miscellaneous surface vegetation. The site was bordered by a Wawa store to the west, undeveloped land to the south and east, and Okeechobee Road to the north.

2.2 Field Exploration

Three (3) continuously sampled standard penetration test (SPT) borings (B-1 through B-3), advanced to approximate depths of approximately 20 feet below the existing ground surface, were performed for this study. The locations of the borings are illustrated on the Test Location Plan in Appendix B.

The Standard Penetration Tests (SPT) were performed in general accordance with ASTM D 1586, “Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils.” The SPT test procedure consists of driving a 1.4-inch I.D. split-barrel sampler into the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot, for the

second and third 6-inch increment, is referred to as the N-value. The N-value has been empirically correlated with various soil properties and provides an indication of soil strength.

Site specific survey staking of the borings was not provided for our field exploration. The indicated depth and location of each boring were approximated based upon existing grade, the provided Conceptual Site Plan, GPS coordinates, and estimated distances and relationships to existing landmarks at the site.

2.3 Visual Classification

Soil samples recovered from our field exploration were returned to our laboratory where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2487). After reviewing the soil samples, no laboratory testing was deemed necessary. The samples will be retained in our laboratory for 30 days and then discarded, unless we are notified otherwise in writing.

The recovered samples were not evaluated, either visually or analytically, for chemical composition or environmental hazards. UES will be pleased to perform these services for an additional fee, if required.

2.4 Geomorphic Conditions

The geology of the site as mapped on the USDA Soil Survey website consists of Nettles and Oldsmar sands (25). Note that the Soil Survey generally extends to a maximum depth of 80 inches below ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from our field exploration are presented in Appendix D - Log of Boring Records. The logs contain the soil descriptions and the standard penetration test (SPT) N-values logged during the drilling and sampling activities. The soil boring data reflect information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See Appendix E - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths.

2.5 Hydrogeological Conditions

On the dates of our field exploration (August 3 and 4, 2021), groundwater was encountered in the borings at depths ranging from approximately 6.1 to 6.2 feet below the ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

No additional evaluation was included in our current scope of work in relation to the wet season high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is necessary, please contact our office for additional guidance.

3.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

3.1 General

Our geotechnical engineering evaluation of the site and subsurface conditions at the property, with respect to the planned construction, and our assessment of the overall suitability of the soils encountered in the borings for use as controlled, compacted fill during site development, are based upon (1) our site observations, (2) the field data obtained, and (3) our understanding of the project information presented in this report. If the stated conditions are incorrect, or if the project description is revised, please inform UES so that we may review our recommendations with respect to any modifications.

3.2 Borrow Suitability (Lake Excavation)

The borings were performed to evaluate the suitability of the soils for use as fill during various stages of site development. As previously discussed, the soils encountered in the borings consisted of alternating layers of fine sand (SP), fine sand with silt (SP-SM), fine sand with clay (SP-SC), and clayey fine sand (SC) to the termination depths.

Soils classified as SP (fine sand, fine sand with trace to little silt, and fine sand with trace to little clay) contain less than 5 percent fines (percent of dry weight passing the U.S. No 200 sieve). These soils dry rapidly and compact easily, even under wet conditions. They perform well for building foundations or roadway subgrade fill and are usually adequate for use as drainage material with a relatively high permeability.

Soils classified as SP-SM (fine sand with silt) and SP-SC (fine sand with clay) contain between 5 and 12 percent fines. These soils often require some drying time prior to placement and compaction but are typically suitable for use as fill for buildings and roadways. They do not drain as rapidly and have a relatively lower permeability for use as drainage material.

Soils classified as SM (silty fine sand) and SC (clayey fine sand) have fines contents exceeding 12 percent. These soils are very difficult to compact when wet, do not drain well, and have low permeability for use as drainage material. Although these soil types are suitable for use as fill, they have an affinity to retain moisture and prolonged drying time is necessary, commonly resulting in moisture-related construction delays. These soils are often used for non-structural applications, such as lawns or landscape areas.

If it is desired to use SM or SC soils as fill for the project, the soils should be spread (not stockpiled) either upon active fill areas or within designated staging areas, repeatedly disced, and then reworked frequently to promote drying. Only after the moisture content has been reduced sufficiently should they be placed and compacted as fill. These soils can also be blended with low fines content (SP) soils to lower the fines content of the mixed soils and improve their ability to be used as fill.

During excavation of soils from the lake, care should be exercised by the contractor to separate suitable and unsuitable (silty/clayey) soils. This process will facilitate the overall fill placement and compaction process. In addition, it should be anticipated that soils excavated below the groundwater table will likely require additional drying time before they can be placed as controlled, compacted fill.

3.3 Site Excavations

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P." This document was issued to better ensure the safety of workers entering trenches or excavations. It is mandated by this federal regulation that all excavations, whether they be utility trenches, basement excavations, or footing excavations, be constructed in accordance with the OSHA guidelines.

The contractor is solely responsible for designing and constructing stable temporary excavations and should shore, slope, or bench the sides of any excavations deeper than 4 feet as required to maintain stability of both the excavation sides and bottom. The contractor's responsible person, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

UES is providing this information solely as a service to our client. UES is not assuming responsibility for construction site safety or the contractor's activities. Such responsibility is not being implied and should not be inferred.

4.0 REPORT LIMITATIONS

This consulting report has been prepared for the exclusive use of Okeejen, LLC and members of the design team for the proposed development of the stormwater lake in Parcel 4 at the subject property located along the south side of Okeechobee Road in Fort Pierce, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The evaluation submitted in this report is based in part upon the data collected during a field exploration. However, the nature and extent of variations throughout the subsurface profile may not become evident until construction. If variations then appear evident, it may be necessary to reevaluate the information and professional opinions provided in this report. In the event changes are made in the design or location of the proposed lake, the evaluation and opinions contained in this report should not be considered valid unless the changes are reviewed, and our conclusions modified or verified in writing by UES.

5.0 BASIS FOR RECOMMENDATIONS

The information presented in this report is based on the data obtained from the borings performed at the locations indicated on the Test Location Plan in Appendix B. This report does not reflect variations which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent our interpretation of the subsurface conditions at the designated boring locations on the specific dates drilled.

Any third-party reliance of our geotechnical report or parts thereof is strictly prohibited without the express written consent of Universal Engineering Sciences. The applicable SPT methodology (ASTM D 1586) used in performing our borings, and for determining penetration resistance and soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0000	**Drafted by: JR**	**Reviewed By: ES**	**Date: 8/16/2021**



Appendix B - Test Location Plan

Test Location Plan

Parcel 4 - Lake
Fort Pierce Commercial
Okeechobee Road, Fort Pierce, Florida

Project No. 3330.2100159.0005	Drafted by: JR	Reviewed By: ES	Date: 8/26/2021



N

Legend

- Approximate 20’ Standard Penetration Test Boring Locations

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots

Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor.
Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat

Appendix D - Log of Boring Records

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-1

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 5
PROJECT NUMBER 3330.2100159.0005
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 20 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/3/21
COMPLETED 8/3/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.20 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
	X	1	2 5 5 5	10		Gray fine sand (SP)			
	X	2	3 4 4 5	8		2.5 Brown fine sand with clay (SP-SC)			
5	X	3	6 7 7 6	14		4.0 Brown clayey fine sand (SC)			
	X	4	5 6 7 8	13		6.0 ▽ Brown fine sand with clay (SP-SC)			
	X	5	4 5 7 8	12		8.0 Brown clayey fine sand (SC)			
10									
	X	6	5 6 7	13					
						13.5			
	X	7	3 4 5	9		Gray fine sand (SP)			
15									
	X	8	3 4 4	8					
	X	9	4 3 3	6					
20						20.0			

Bottom of borehole at 20.0 feet.

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/16/21 10:00 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKE\APPEND

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-2

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 5
PROJECT NUMBER 3330.2100159.0005
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 20 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/4/21
COMPLETED 8/4/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.10 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
	X	1	3 5 5 6	10		Gray fine sand (SP)			
	X	2	5 5 5 6	10					
5	X	3	4 5 6 4	11					
	X	4	4 5 6 5	11		▽			
	X	5	5 7 8 11	15					
10									
	X	6	4 5 4	9					
	X	7	4 5 5	10					
15									
	X	8	3 2 3	5					
	X	9	4 5 4	9					
20									

3.5 — Brown clayey fine sand (SC)
7.0 — Light brown fine sand (SP)
8.5 — Gray clayey fine sand (SC)
13.5 — Gray fine sand with silt (SP-SM)
18.5 — Gray fine sand (SP)
20.0

Bottom of borehole at 20.0 feet.

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/16/21 10:00 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKEVAPPEND

Universal Engineering Sciences
607 NW Commodity Cove
Port Saint Lucie, Florida 34986
(772) 924-3575

LOG OF BORING B-3

CLIENT Okeejen, LLC
PROJECT NAME Fort Pierce Commercial - Task 5
PROJECT NUMBER 3330.2100159.0005
PROJECT LOCATION Okeechobee Road, Fort Pierce, Florida
DRILLING CONTRACTOR Universal Engineering Sciences
HOLE DEPTH 20 ft
HOLE DIAMETER 3 in
DRILLER RV/LO
DATE STARTED 8/4/21
COMPLETED 8/4/21
DRILL RIG CME-45
GROUND WATER LEVEL: ▽ **AT TIME OF DRILLING** 6.20 ft
METHOD SPT
LATITUDE
LONGITUDE
NOTE:
HAMMER TYPE

DEPTH (ft)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS	N VALUE	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	FINES CONTENT (%)	ORGANIC CONTENT (%)
	X	1	3 4 4 5	8		Gray fine sand (SP)			
	X	2	3 4 5 4	9					
						3.0			
5	X	3	4 4 6 8	10		Gray clayey fine sand (SC)			
	X	4	6 7 7 9	14		▽			
	X	5	5 6 7 9	13		8.5			
10						Light brown fine sand (SP)			
	X	6	8 7 7	14					
	X	7	3 4 3	7					
15									
	X	8	4 4 4	8					
	X	9	4 3 3	6					
20						20.0			

Bottom of borehole at 20.0 feet.

SPT LOGS - GFA DATA TEMPLATE.GDT - 8/16/21 10:00 - Z:\PROJECTS_UES PROJECT SETUP\3330.2100159.0000 - COMMERICAL PROPERTY FORT PIERCE - GEO\21-0462.00 - COMMERICAL PROPERTY FORT PIERCE\GEO\TASK 0005 - PARCEL 4 - LAKEVAPPEND

Appendix E - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

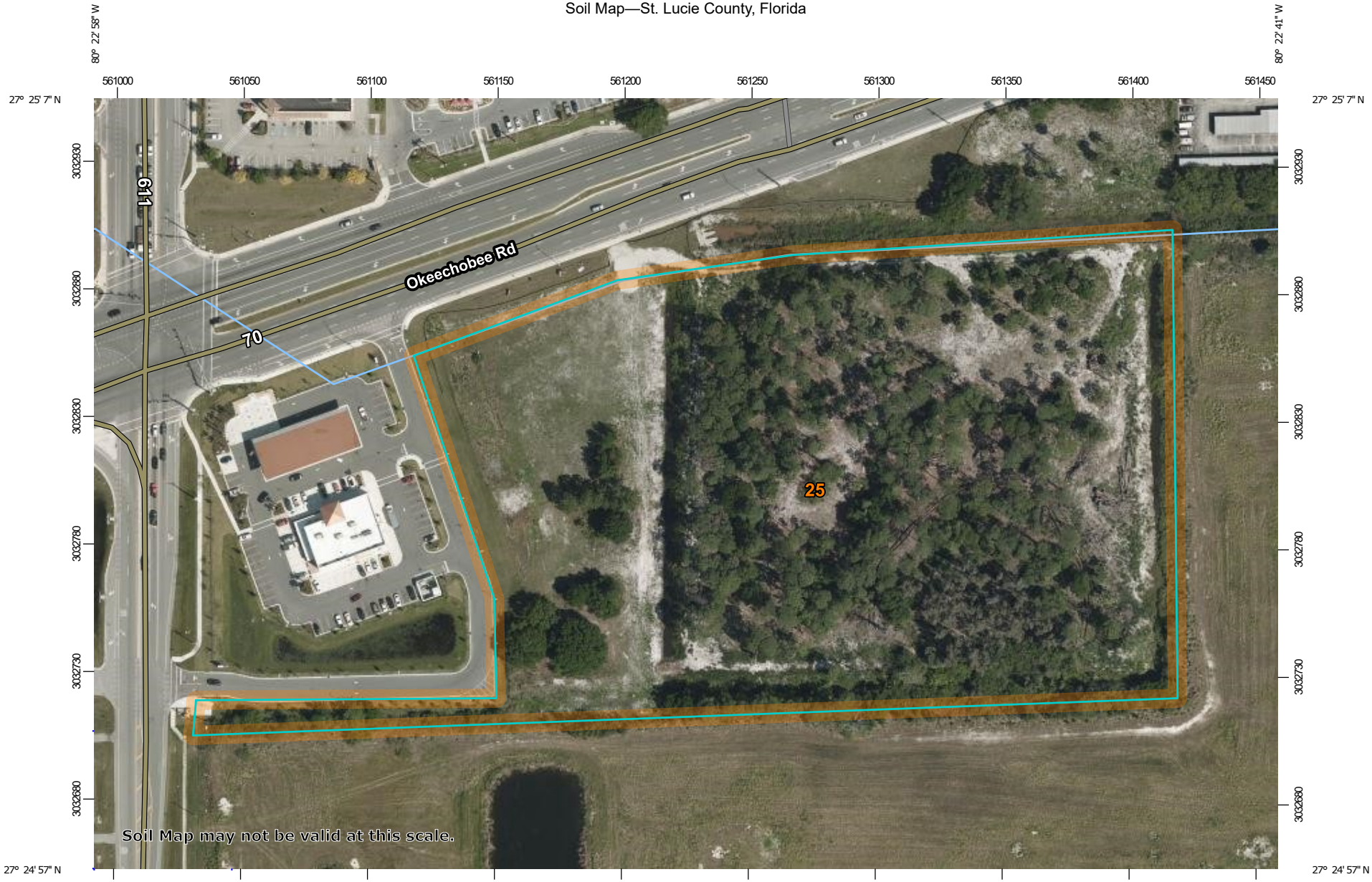
CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

Appendix D
Soil Map



Map Scale: 1:2,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 14, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 6, 2019—Mar 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

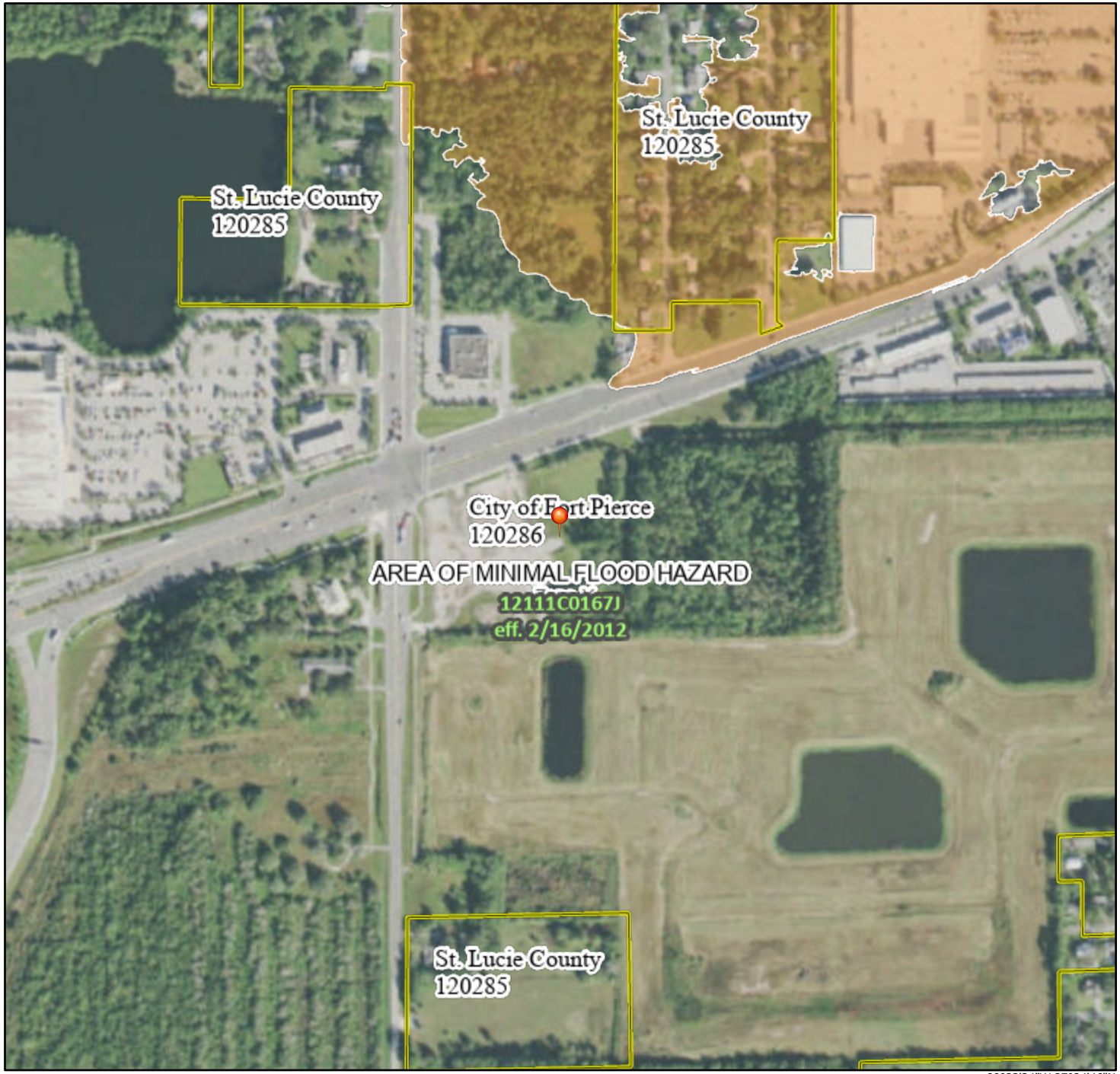
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
25	Nettles and Oldsmar sands	12.5	100.0%
Totals for Area of Interest		**12.5**	**100.0%**

Appendix E
Flood Zone Map

National Flood Hazard Layer FIRMette

FEMA

80°23'11"W 27°25'18"N



80°22'34"W 27°24'46"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/8/2021 at 2:19 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix F

Other Miscellaneous Backup (Rainfall Maps, CNs, tc Paths)

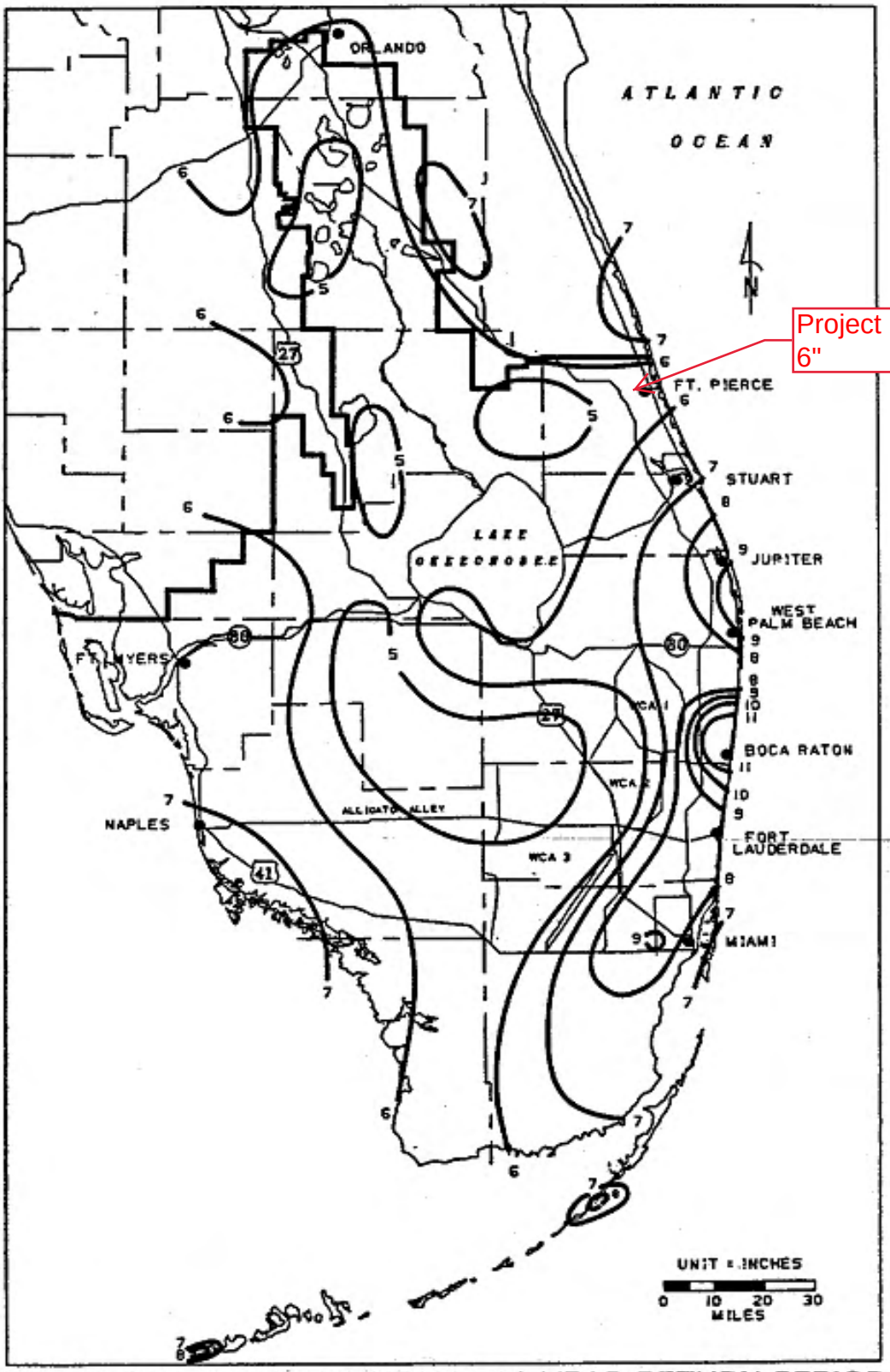


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

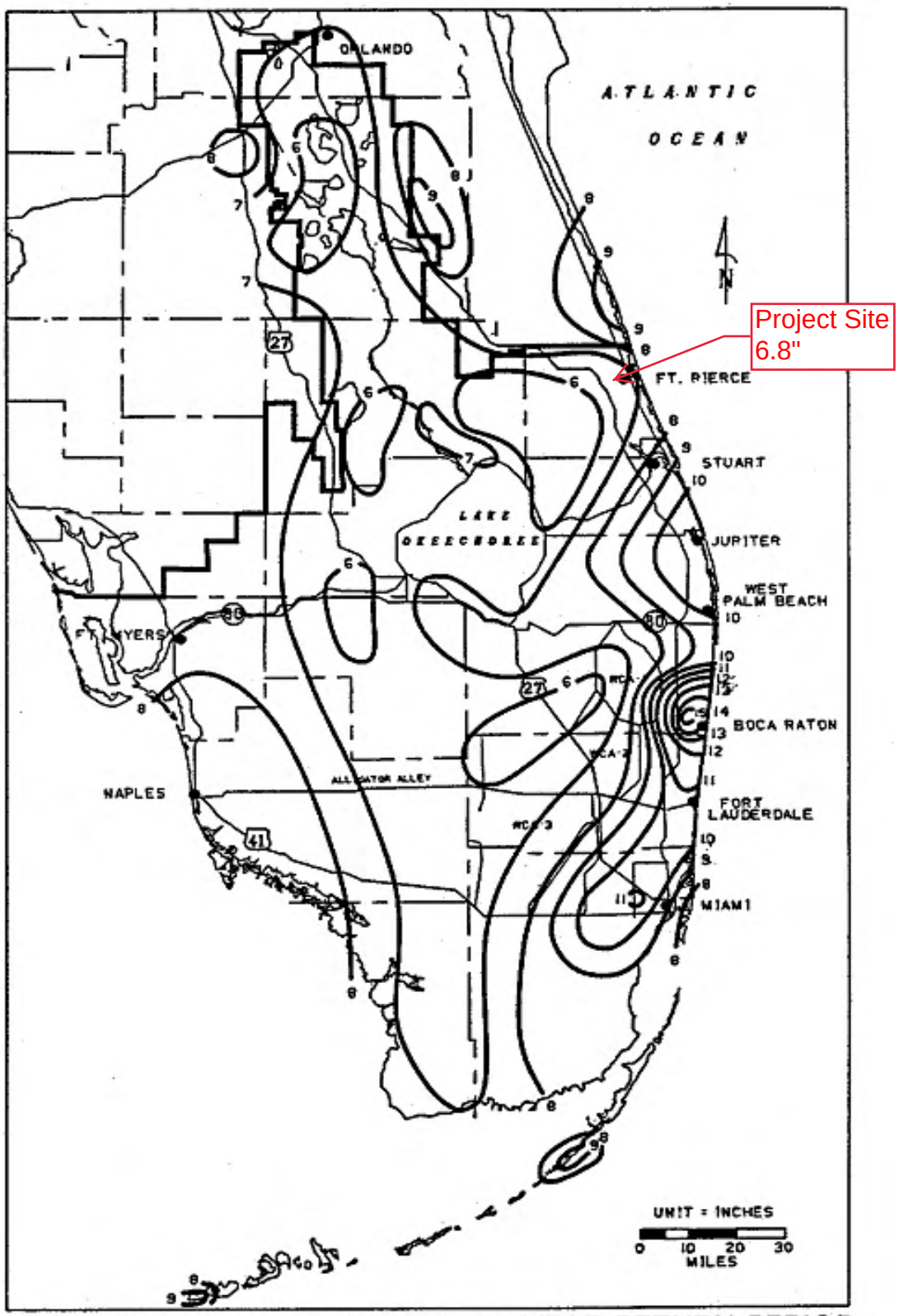


FIGURE C-5. 1-DAY RAINFALL: 25-YEAR RETURN PERIOD

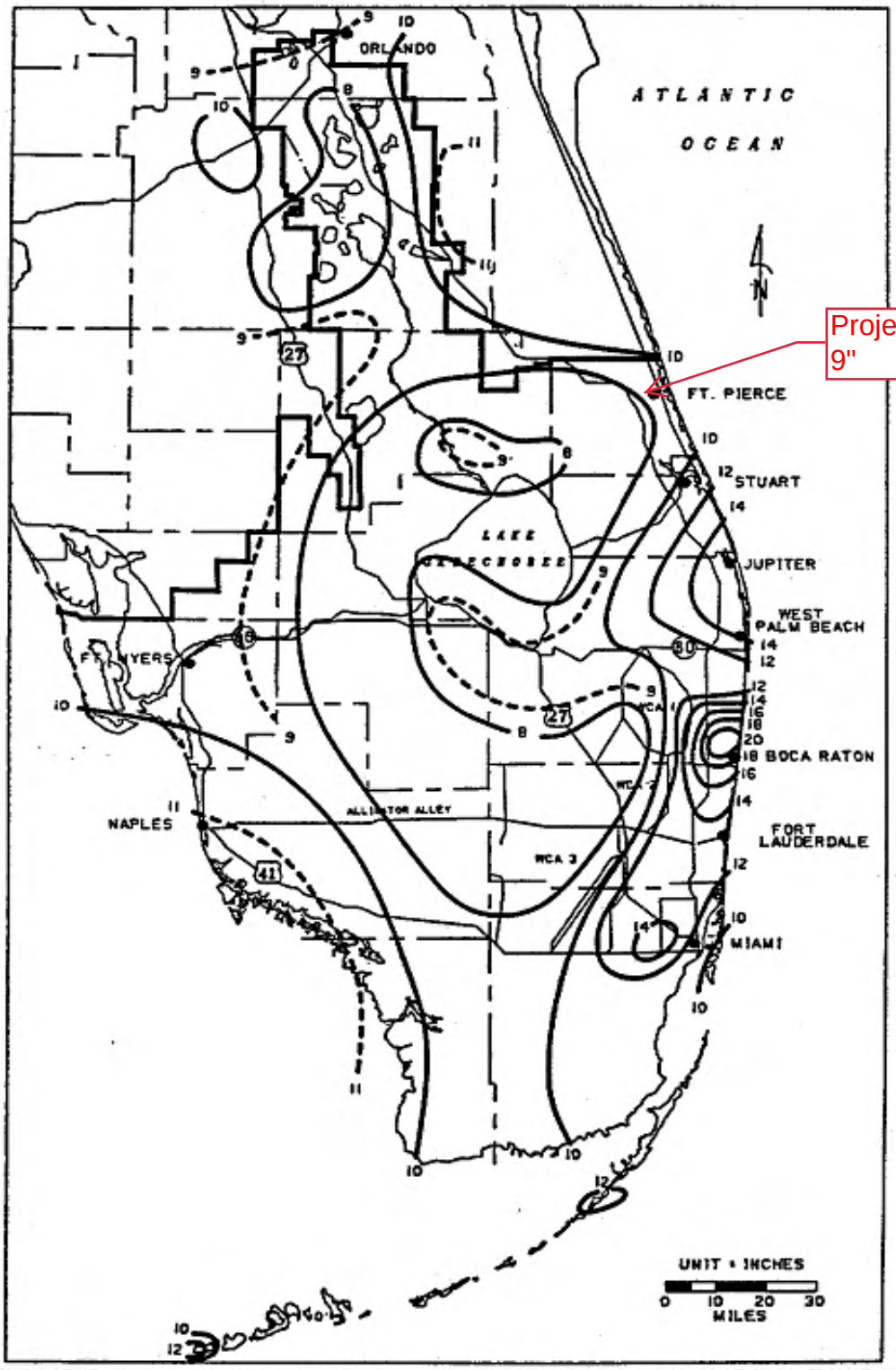


FIGURE C-6. 1-DAY RAINFALL: 100-YEAR RETURN PERIOD

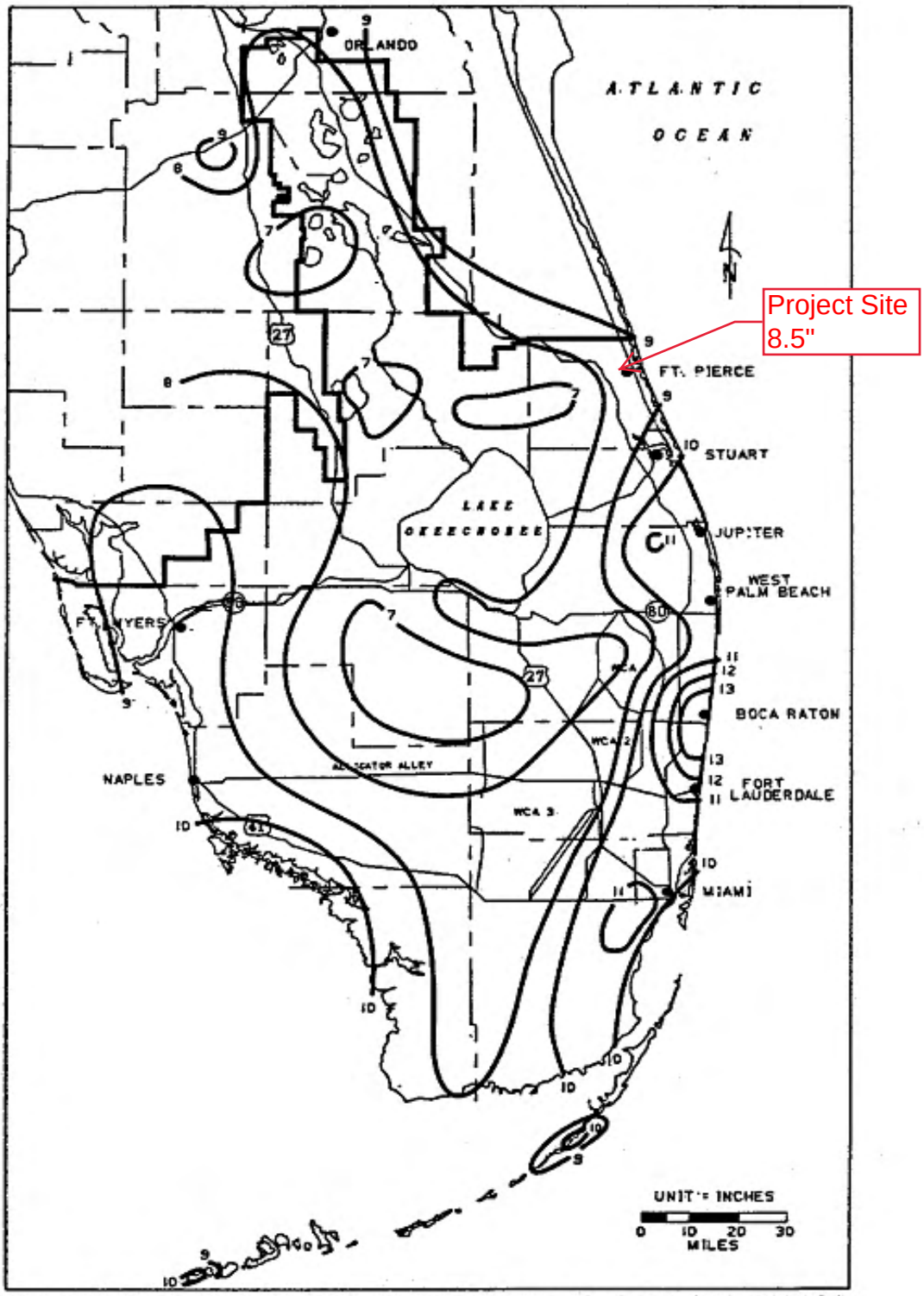


FIGURE C-7. 3-DAY RAINFALL: 10-YEAR RETURN PERIOD

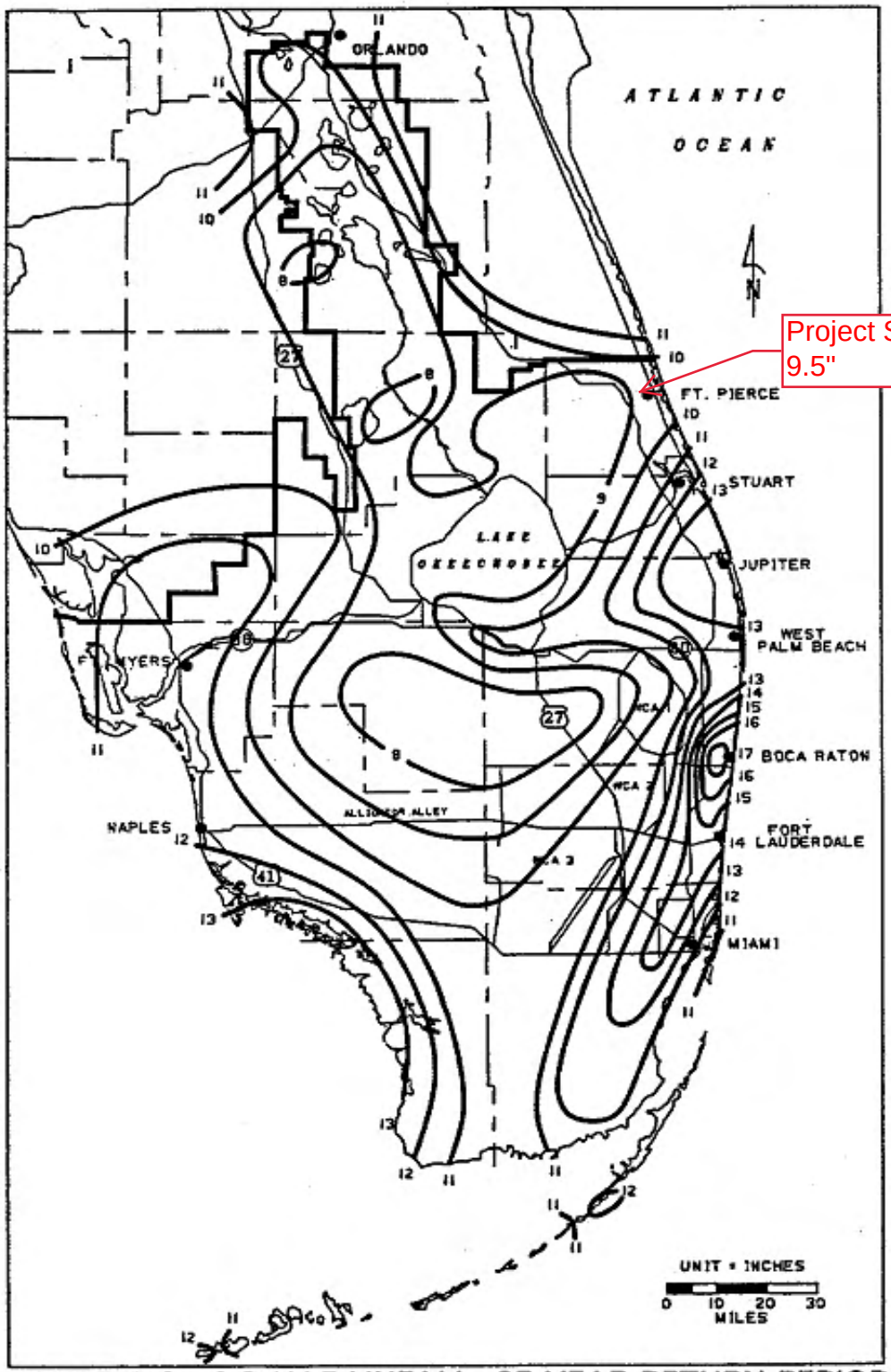


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

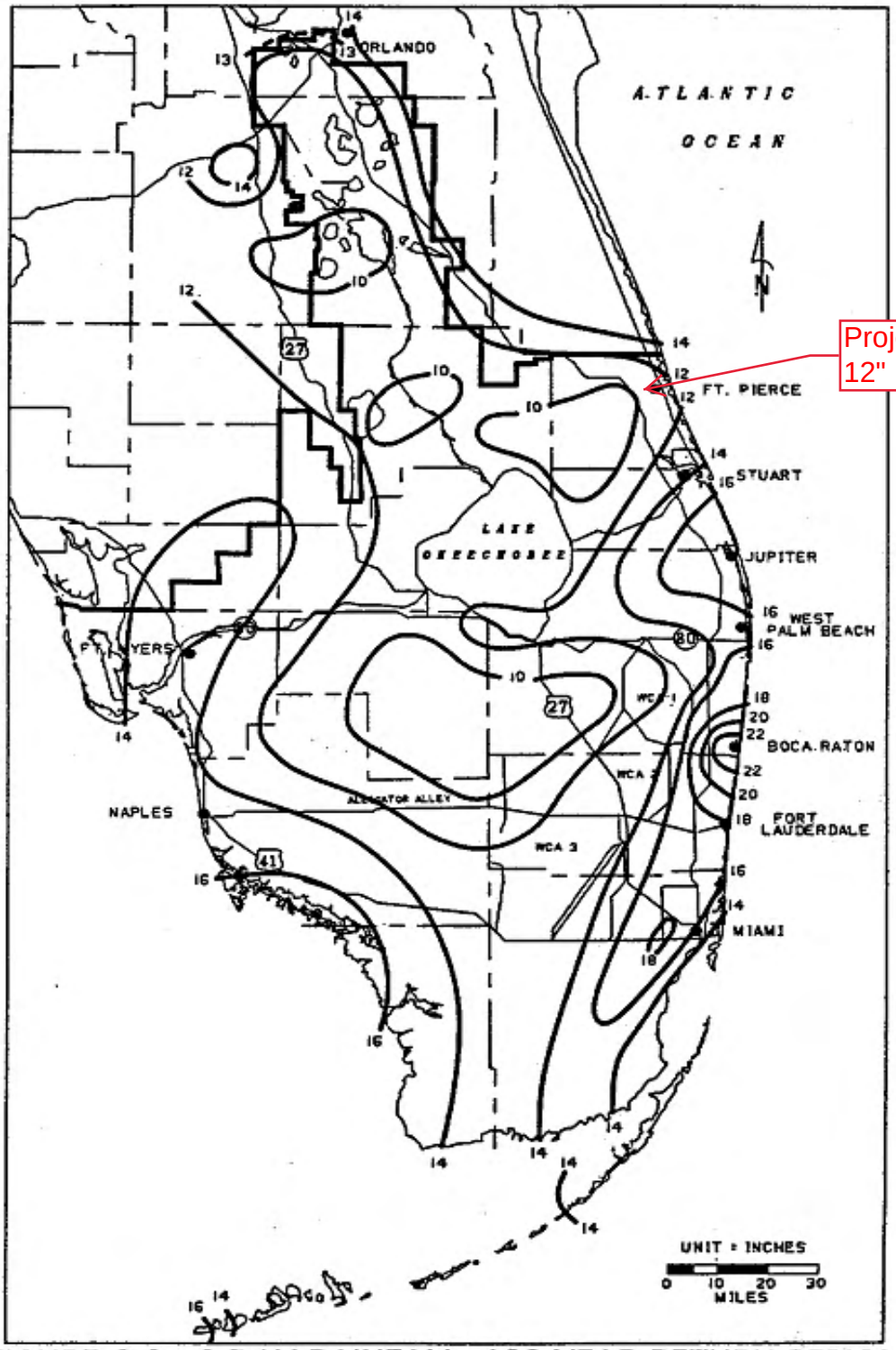


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

Table 2-2a Runoff curve numbers for urban areas [1]

Cover description: Cover type and hydrologic condition	Average percent impervious area [2]	Curve numbers for hydrologic soil group: A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1] Average runoff condition, and $I_a = 0.2S$.

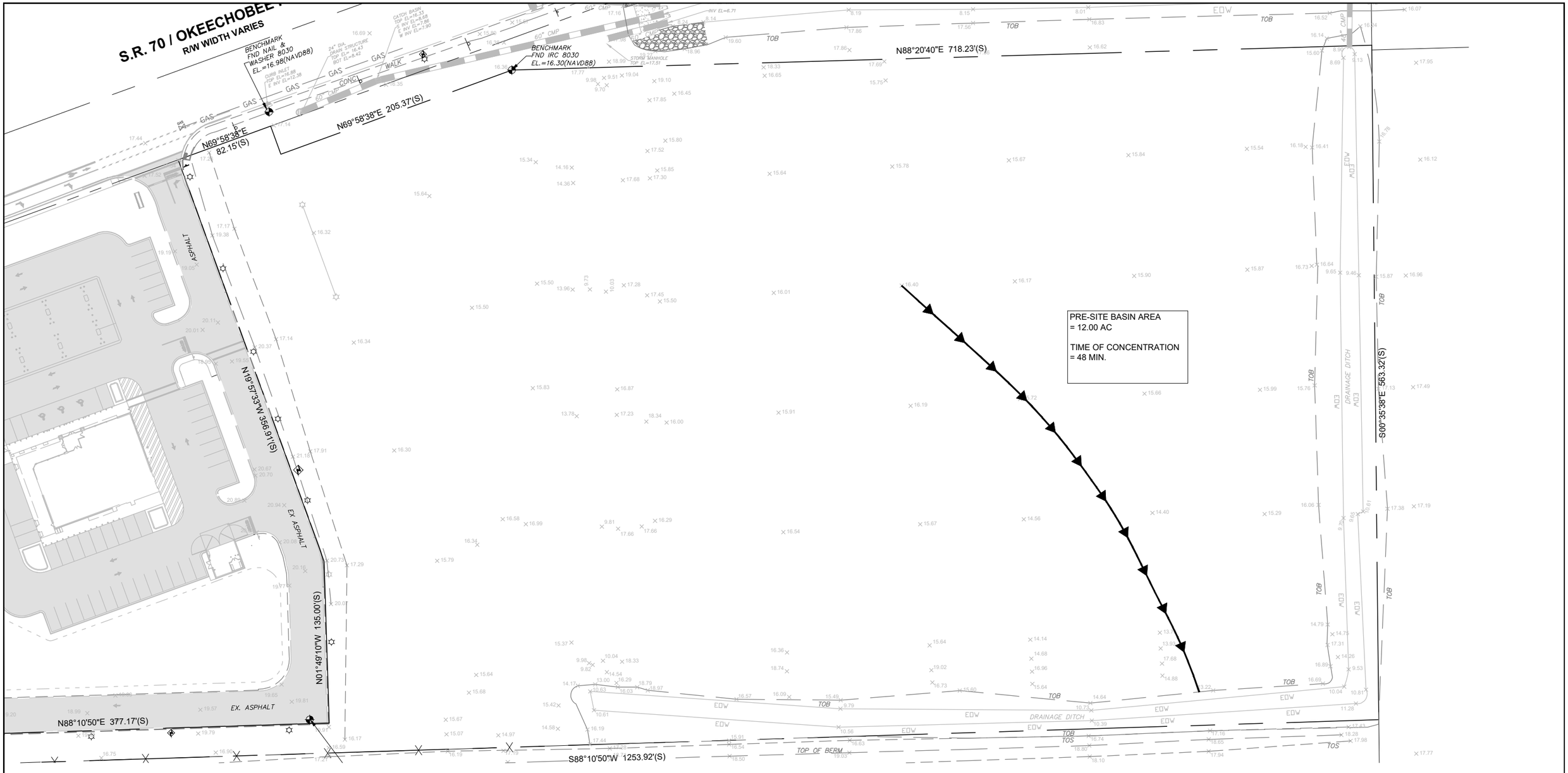
[2] The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

[3] CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

[4] Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

[5] Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Appendix G
Pre and Post Basin Maps



N

GRAPHIC SCALE

0 80 160

(IN FEET)

1 inch = 80 ft.

LEGEND

EXISTING CONTOUR

TIME OF CONCENTRATION FLOW PATH

REVISIONS	DATE

JOB NO.	
DESIGNED	RTM
DRAWN	RTM
DATE	APR. 2020
CHECKED	AJB
DATE ISSUED	TBD

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617

MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

FT. PIERCE COMMERCIAL

CITY OF FORT PIERCE FLORIDA

PRE-DEVELOPMENT BASIN MAP

DATE:

SHEET G-1

S.R. 70 / OKEECHOBEE
R/W WIDTH VARIES

BENCHMARK
FND NAIL & WASHER 8030
EL.=16.98(NAVD88)

BENCHMARK
FND IRC 8030
EL.=16.30(NAVD88)

N69°58'38"E 205.37'(S)

N69°58'38"E
82.15'(S)

N88°20'40"E 718.23'(S)

10' LANDSCAPE BUFFER

POST-SITE BASIN AREA
= 8.760 AC

TIME OF CONCENTRATION
= 10 MIN. **(MINIMUM)**

PROPOSED
CHIPOTLE RESTAURANT
2,400 SF INDOOR
350 SF OUTDOOR

MIN. F.F.E.=18.50
RETAIL
2,593 SF

DRY POND BASIN AREA
= 0.6563 AC

TIME OF CONCENTRATION
= 10 MIN. **(MINIMUM)**

WET POND BASIN AREA
= 2.582 AC

TIME OF CONCENTRATION
= 10 MIN. **(MINIMUM)**

NWL = 10.3

N19°57'33"W 356.91'(S)

N01°49'10"W 135.00'(S)

10' LANDSCAPE BUFFER

N88°10'50"E 377.17'(S)

S88°10'50"W 1253.92'(S)

S00°35'38"E 563.32'(S)

10' LANDSCAPE BUFFER

EX. ASPHALT

DRAINAGE DITCH

TOP OF BERM

TOB

TOS

EOW

GAS

CONC

WALK

CMP

LEGEND

16.0 — PROPOSED CONTOUR

TIME OF CONCENTRATION FLOW PATH

GRAPHIC SCALE

0 80 160

(IN FEET)

1 inch = 80 ft.

REVISIONS	DATE

JOB NO.	
DESIGNED	RTM
DRAWN	RTM
DATE	APR. 2020
CHECKED	AJB
DATE ISSUED	TBD

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617

MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

VETERINARY MEDICAL CLINIC OF INDIAN RIVER COUNTY

CITY OF FORT PIERCE FLORIDA

POST-DEVELOPMENT BASIN MAP

DATE:

SHEET
G-2

Dynamic Engineering Consultants, PC
100 NE 5th Avenue, Suite B2
Delray Beach, FL 33483
T. 561-921-8570

December 15, 2022

City of Fort Pierce
Planning Department
100 N US Hwy 1,
Fort Pierce, FL 34950

Attn: Planning Department

RE: JDA Self-Storage Facility
Fort Pierce
5575 Okeechobee Rd,
Fort Pierce, FL 34947
Parcel ID No. 2419-321-0001-000-5
St. Lucie County
DECPC No.: 22-00933

Stormwater Narrative

Johnson Development Associates, Inc. (the "Applicant") is the contract purchaser and developer of the +/- 4.34 acre property known as parcel 3 of the Fort Pierce Commercial Plat, whose general address is at 5575 Okeechobee Rd, Fort Pierce, FL 34947 (Parcel No. 2419-321-0001-000-5) owned by Okeejen, LLC. The Applicant proposes a stormwater infrastructure design that follows the design guidelines per the City of Fort Pierce, South Florida Water Management District (SFWMD) and North Saint Lucie River Water Control District (NSLRWCD). The Applicant is proposing a self-storage facility totaling a gross floor area of 103,022 SF with associated site features consisting of parking, landscaping, lighting, stormwater management, utilities, etc. (the "Project").

The Project is a part of the 12-acre master system approved by South Florida Water Management District (SFWMD) under ERP Number 56-107560-P. The subject site, parcel 3 of the Fort Pierce Commercial Plat, has been approved to include an 80% maximum impervious area. The attached Stormwater Calculations prepared by MBV Engineering, Inc. dated February, 2022 shows the land use areas for the Post-Development conditions, page 8. The proposed Self-storage facility development proposes an impervious area of 57.21% or 108,387 SF, meeting the design criteria of the receiving system.

The proposed development has been designed with provisions for the safe and efficient control of stormwater runoff in a manner that is not anticipated to adversely impact the existing drainage patterns, adjacent roadways, or adjacent parcels. The proposed development comply with the design criteria of the master system and connect to the existing drainage system once completed by the master development.

Please feel free to call us at 561.921.8570 or email achu@dynamicec.com with any questions or concerns you might have, or should you require additional information.

Sincerely,

Dynamic Engineering Consultants, PC

Michael D. Miles, P.E.
Regional Manager / Senior Principal

Alexandra Chú-Morales
Senior Design Engineer

Attachments:

- Individual Environmental Resource Permit No. 56-107550-P
- Approved Stormwater Report by MBV Engineering, Inc. dated February, 2022

South Florida Water Management District
Individual Environmental Resource Permit No. 56-107550-P
Date Issued: October 17, 2022

Permittee:	Okeejen, LLC 1870 Aloma Avenue, Ste 110 Winter Park, FL 32789-4050
Project:	Fort Pierce Commercial
Application No.	220301-33396
Location:	St Lucie County, See Exhibit 1

Your application for an Individual Environmental Resource Permit is approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Unless otherwise stated, this permit constitutes certification of compliance with state water quality standards under section 401 of the Clean Water Act, 33 U.S.C. 1341, and a finding of consistency with the Florida Coastal Management Program. Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource Permits.
- The attached Special Conditions.
- All referenced Exhibits.

All documents are available online through the District's ePermitting site at www.sfwmd.gov/ePermitting.

If you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

The District does not publish notices of action. If you wish to limit the time within which a person may request an administrative hearing regarding this action, you are encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Legal requirements and instructions for publishing a notice of agency action, as well as a noticing format that can be used, are available upon request. If you publish a notice of agency action, please send a copy of the affidavit of publication provided by the newspaper to the District's West Palm Beach office for retention in this file.

If you have any questions regarding your permit or need any other information, please call us at 1-800-432-2045 or email epermits@sfwmd.gov.

Gary R. Priest, P.E.
Engineering Section Administrator, Environmental Resource Bureau

South Florida Water Management District
Individual Environmental Resource Permit No. 56-107550-P

Date Issued: October 17, 2022	**Expiration Date:** October 17, 2027
Project Name:	Fort Pierce Commercial
Permittee:	Okeejen, LLC 1870 Aloma Avenue, Ste 110 Winter Park, FL 32789-4050
Operating Entity:	Okeejen, LLC 1870 Aloma Avenue, Ste 110 Winter Park, FL 32789-4050
Location:	St Lucie County
Permit Acres:	12.00 acres
Project Land Use:	Commercial
Special Drainage District:	North St Lucie River Water Control District
Water Body Classification:	CLASS III
FDEP Water Body ID:	3194A
Wetland and Surface Water Impacts:	0.84 acres
Conservation Easement to District:	No
Sovereign Submerged Lands:	No

Project Summary
This Environmental Resource Permit authorizes Construction and Operation of a stormwater management (SWM) system serving 12.0 acres of commercial development known as Fort Pierce Commercial.

The proposed project consists of the construction of a commercial business and associated infrastructure on Parcel 1 and the master SWM system to serve a four-parcel commercial plaza. Site grading and inlets within the Parcel 1 and mass grading of Parcels 2 and 3 will direct stormwater runoff to Parcel 4. The master SWM system on Parcel 4 will consist of a 0.76 acre dry detention area with an overflow weir to a wet detention pond that will provide the required water quality pretreatment, treatment and attenuation for the proposed commercial plaza. The master SWM system control structure will discharge to an existing on site ditch at the plaza south boundary. This ditch is connected via an existing culvert to the North St. Lucie River Water Control District (NSLRWCD) Canal 38. Please refer to Exhibit Nos. 2.0 and 2.1 for additional details.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062, F.A.C.

Site Description
The project site is vacant land located southeast of the intersection of Jenkins Road and SR 70 in Fort Pierce, Florida. Refer to Exhibit No. 1.0 for a location map.

For information on wetland and surface water impacts, please see the Wetlands and Other Surface Water section of this permit.

Ownership, Operation and Maintenance
Perpetual operation and maintenance of the stormwater management system will be the responsibility of Okeejen, LLC. The proposed SWM system is an interconnected system, a Declaration of Covenants, Conditions and Restrictions has been provided designating the owner of Lot 2 as the perpetual operation and maintenance entity over the entire SWM system. Please refer to Exhibit No. 4.0. Upon conveyance or division of ownership or control of the property or the system, the permittee must notify the Agency in writing within 30 days, and the new owner must request transfer of the permit.

Engineering Evaluation:

Land Use
Please refer to the attached table and Exhibit No. 2.1 for land use assumptions for Parcels 1 through 4. Building and driveway areas are assumed for Parcels 1 and 2. Parcel 3 is assumed to be 80 percent impervious (included under driveways in Exhibit No. 2.1).

Water Quality
The project is located within a watershed identified by the Florida Department of Environmental Protection as impaired for nutrients; therefore, the design includes a site-specific pollutant loading analysis and an additional 50% water quality treatment volume above the amounts required pursuant to Section 4.2.1, Volume II, as reasonable assurances that the projects discharge will not cause or contribute to violations of State water quality standards. The project provides 8.09 ac-ft of water quality treatment.

The project includes implementation of an Erosion Control Plan (Exhibit No. 2.0) as additional reasonable assurance of compliance with water quality criteria during construction and operation.

Discharge
The project discharge rate is within the allowable limit for the project basin area based on a pre-vs. post-development analysis for the 25-yr, 3-day storm event. In addition, as found in Exhibit No. 2.1, the volume discharged from the project (0.13 ac-ft) does not exceed 2.0 inches over any 24-hour period (2.00 ac-ft) in the 10-year, 3-day design storm event per NSLRWCD requirements.

Parking Lot Design
As found in Water Quantity Data Table and the the attached Exhibit Nos. 2.0 and 2.1, minimum parking lot elevations have been set at or above the calculated design storm flood elevation.

Perimeter Berm
As found in Water Quantity Data Table and the the attached Exhibit Nos. 2.0 and 2.1, minimum perimeter berm elevations have been set at or above the calculated design storm flood elevation.

Finished Floors
As found in Water Quantity Data Table and the the attached Exhibit Nos. 2.0 and 2.1, minimum finished floor elevations have been set at or above the calculated design storm flood elevation.

Certification, Operation, and Maintenance
Pursuant to Chapter 62-330.310, F.A.C., Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be

noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1 - 12.3, ERP AH Vol. I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all SWM systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of SWM systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity is responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4, ERP AH Vol. I for Minimum Operation and Maintenance Standards.

Notable project components requiring routine inspection and maintenance may include but are not limited to:

- Side slopes for stormwater lakes and ponds – maintain side slopes no steeper than 4:1 (horizontal:vertical) to a depth of 2.0 feet below the control elevation and nurtured or planted from 2.0 feet below to 1.0 feet above the control elevation pursuant to Section 5.4.2, ERP AH Vol. II.
- Conveyance pipes, conveyance structures and discharge structures – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Exfiltration trenches – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Swales – maintain the permitted cross-section and vegetative cover.
- Underground storage facilities – all facilities must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Pumps – float switches should be inspected and any obstructions removed to ensure proper operation; intake and discharge pipes should be maintained clear of trash, sediment and vegetative debris; motors should be maintained to ensure proper operation.

Engineering Evaluation Tables:

Land Use

Basin	Land Type	Area (ac)	% of Total Basin
Site	Building Coverage	0.56	4.67
	Driveway	5.20	43.33
	Impervious	0.61	5.08
	Lake	1.19	9.92
	Lake Bank	0.90	7.50
	Dry Retention Bottom	0.04	0.33
	Dry Retention Sides	0.72	6.00
	Pervious	2.78	23.17
	Total:	12.00	100%

Water Quality

Basin	Treatment Type	Treatment System	Volume Required (ac-ft)	Volume Provided (ac-ft)	Area (ac)	Overflow Elevation (ft NAVD88)
Site	Pre-Treatment	DRY RETENTION	1.72	1.72	0.76	16.00
	Treatment	WET DETENTION	6.37	6.37	1.19	16.00

Water Quantity

Basin	Elevation Type	Storm Event (Yr/Day)	Precipitation Depth (in)	Peak Stage (ft NAVD88)	Min. EL (ft NAVD88)	Peak Discharge Rate (cfs)	Allowable Discharge Rate (cfs)
Site	Finished Floor	100Y3D	12.00	17.15	18.50	N/A	N/A
	Perimeter Berm/ Discharge	25YR3D	9.50	16.44	17.00	0.26	19.12
	Parking Lot	10YR1D	6.00	16.37	16.70	N/A	N/A

Bleeder

Basin	Control EL (ft NAVD88)	Structure #	Structure Type	Count	Type	Dia.(in)	Invert EL (ft NAVD88)	Receiving Body
Site	11.80	CS-1	Discharge	1	Circular Orifice	3.00	11.80	Existing Ditch

Inlets

Basin	Control EL (ft NAVD88)	Structure #	Structure Type	Count	Type	Length (in)	Width (in)	Crest EL (ft NAVD88)	Receiving Body
Site	11.80	CS-1	Discharge	1	FDOT MOD C DROP INLET	37.0	24.0	16.00	Existing Ditch

Weir

Basin	Control EL (ft NAVD88)	Structure #	Structure Type	Count	Type	Length (in)	Width (in)	Height (in)	Crest EL (ft NAVD88)	Receiving Body
Site	11.80	Conc weir	Water Quality	1	Broad Crested	600.00	192.00	6.00	16.00	Lake

Environmental Evaluation:

Wetlands and Other Surface Waters
The project site contains one isolated wetland that is less than 1/2-acre in size and other surface water (OSW) ditches. The isolated wetland is a remnant herbaceous marsh that is presently dominated by punk tree (*Melaleuca quinquenervia*), brazilian pepper (*Schinus terebinthifolius*), and swamp fern (*Blechnum serrulatum*). Additional wetland descriptions are available in the ePermitting file.

The project will result in 0.40 acres of wetland impacts and work in a 0.44-acre OSW (ditch) as described in the table below. Mitigation for impacts to the onsite isolated wetland that is less than 1/2-acre in size, and for the work in the OSW are not required pursuant to sections 10.2.2.1, and 10.2.2.3, AH Vol I. Page 4 of Exhibit No. 2.0 identifies the locations of the wetlands/other surface waters being impacted.

The applicant has explored design modifications in an attempt to reduce wetland impacts; however, due to the small size of the project site and central location and poor quality of the isolated wetland, elimination and reduction of wetland impacts was not ecologically or economically practicable. Therefore, District Staff have determined the project meets the elimination and reduction criteria in Section 10.2.1, A.H. Vol. I.

Fish, Wildlife, and Listed Species
The project site does not contain significant habitat for wetland-dependent endangered or threatened wildlife species, or species of special concern. No wetland-dependent endangered or threatened species or species of special concern were observed onsite. Submitted information indicates that potential use of the site by such species is minimal.

This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if, in the future, endangered or threatened species or species of special concern are discovered on the site.

Environmental Evaluation Tables:
Summary

Wetlands and Other Surface Waters:	0.84	acres
Direct Impacts:	0.84	acres
Secondary impacts:	0	acres
Net UMAM Functional Loss/ Gain:	0	units
Total Onsite Mitigation Area:	0	acres
Total Offsite Mitigation Area:	0	acres
Mitigation Provided in Permit No.:		

Group 1

Activities in Wetlands or Other Surface Waters, Not Including Mitigation at a Bank

ID	Acres	Action	Community Description	Current Score	With Project Score	UMAM Loss
Wetland 1	0.4	Direct Impact	Freshwater Marshes (Exotic Dominated)			0.000
OSW 1	0.44	Works in Surface Waters	Ditches and Canals			0.000
Total:	**0.84**					**0.000**

Related Concerns:

Water Use Permit Status
The applicant has indicated that a groundwater well will be used as a source for irrigation water for the project. Water Use Permit No. 56-03994-W is curently in effect at the project site.

The applicant has indicated that dewatering is required for construction of this project. Water Use Permit No. 56-03993-W is currently in effect at the project site.

Water and Wastewater Service
Fort Pierce Utility Authority

Historical/ Archeological Resources
The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that no significant archaeological or historical resources are recorded on the project site; therefore, the project is unlikely to have an effect upon any such resources.

This permit does not release the permittee from complying with any other agencies requirements in the event that historical and/or archaeological resources are found on the site.

General Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
   b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as

applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
b. Within 30 days of submittal of the as-built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
   a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
   b. Convey to the permittee or create in the permittee any interest in real property;
   c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
    a. Immediately if any previously submitted information is discovered to be inaccurate; and
    b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from

the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

Special Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

1. The construction authorization for this permit shall expire on the date shown on page 2.

2. Operation and maintenance of the stormwater management system shall be the responsibility of Okeejen, LLC. The permittee shall notify the Agency in writing within 30 days of any conveyance or division of ownership or control of the property of the system, and the new owner must request transfer of the permit in accordance with Rule 62-330.340, F.A.C.

3. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth.

4. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

5. Prior to any future construction, the permittee shall apply for and receive an Individual ERP. As part of the permit application, the applicant for that phase shall provide documentation verifying that the proposed construction is consistent with the design of the master stormwater management system, including the land use and site grading assumptions.

6. Prior to initiating construction activities associated with this Environmental Resource Permit (ERP), the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Bureau (ERB) staff, and any other local government entities as necessary. The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties. To schedule a pre-construction meeting, please contact ERB staff from the Okeechobee Service Center at (863) 462-5260 or via e-mail at: precon@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

7. All commercial/industrial parcels shall provide a minimum dry pre-treatment volume of 1/2 inch of runoff prior to discharge into the master stormwater management system.

8. This permit does not authorize the permittee to cause any adverse impact to or “take” of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a “take” permit cannot be issued. Requests for further information or review can be sent to: FWCConservationPlanningServices@MyFWC.com.

Project Work Schedule for Permit No. 56-107550-P

The following activities are requirements of this Permit and shall be completed in accordance with the Project Work Schedule below. Please refer to General Conditions, Special Conditions and/or Specific Conditions for more information. Any deviation from these time frames will require prior approval from the District's Environmental Resources Bureau and may require a minor modification to this permit. Such requests must be made in writing and shall include: (1) reason for the change, (2) proposed start/finish and/or completion dates, and (3) progress report on the status of the project.

Condition No.	Date Added	Description (Application Number)	Due Date	Date Satisfied
GC 4	10/17/2022	Construction Commencement Notice	Prior to Construction	
GC 6	10/17/2022	Submit Certification	30 Days After Construction Completion	
GC 7	10/17/2022	Submit Operation Transfer Request	Within 30 days of Certification	
SC 6	10/17/2022	Pre-Construction Meeting	Prior to Construction	

GC = General Condition

SC = Special Condition

Distribution List

Aaron Stanton, MBV Engineering, Inc

City of Port St Lucie - Planning and Zoning Division

City of Port St Lucie - Public Works

US Army Corps of Engineers - Permit Section

St. Lucie County Engineer

St. Lucie County Planning and Development Services

City Of Fort Pierce

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website at http://my.sfwmd.gov/ePermitting and searching under this application number 220301-33396 .

Exhibit No. 1.0 Location Map

Exhibit No. 2.0 SWM Plans

Exhibit No. 2.1 Calculations

Exhibit No. 4.0 O&M Documents

NOTICE OF RIGHTS

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Florida Statutes. Persons seeking a hearing on a District decision which affects or may affect their substantial interests shall file a petition for hearing in accordance with the filing instructions set forth herein within 21 days of receipt of written notice of the decision unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Florida Statutes; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Florida Statutes. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, posting, or publication that the District has taken or intends to take final agency action. Any person who receives written notice of a District decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action that materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional point of entry pursuant to Rule 28-106.111, Florida Administrative Code.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Florida Statutes, shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The District may grant the request for good cause. Requests for extension of time must be filed with the District prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and whether the District and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at the District's headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Rules 28-106.201 and 28-106.301, Florida Administrative Code, initiation of an administrative hearing shall be made by written petition to the District in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other District identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner, petitioner's attorney or qualified representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the District's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the District's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the District's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the District to take with respect to the District's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

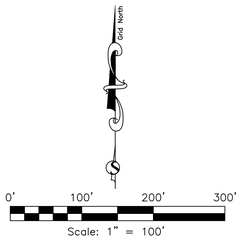
RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Florida Statutes, and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final District action may seek judicial review of the District's final decision by filing a notice of appeal with the Office of the District Clerk in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the appropriate district court of appeals via the Florida Courts E-Filing Portal.

ALTA/NSPS Land Title Survey
Parcel 3 - FORT PIERCE COMMERCIAL PLAT
Section 19, Township 35 South, Range 40 East
St. Lucie County, Florida

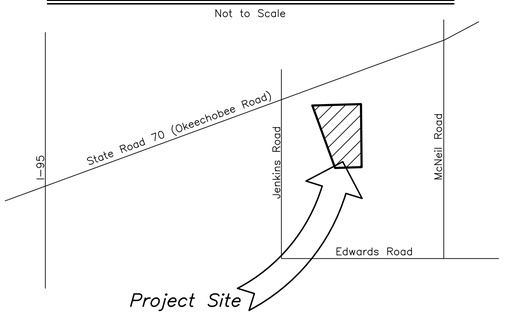
Legend of Symbols & Abbreviations

●	Found Iron Rod or Pipe		Utility Pole
○	Set 5/8" Capped Iron Rod		Light Pole
■	Found Concrete Monument		Guy Wire
	Temporary Benchmark	E	Electric Vault
TBM	Temporary Benchmark		Grate Inlet
(F)	Field Measurement		Mitered End-Section
(D)	Deed Reference		Oak
(P)	Plat Reference		Palm
PSM	Professional Surveyor and Mapper		Pine
Id.	Identification		Unknown Tree
LB	Licensed Business		Sign
OR	Official Records	T	Telephone Pull Box
No.	Number		Utility Control Box
N.S.L.R.D.D.	North St. Lucie Riverwater Drainage District		Cleanout
FDOT	Florida Department of Transportation	L	Lift Station
RE	Rim Elevation	S	Sanitary Manhole
IE	Invert Elevation	39.42	Back of Curb Elevation
TOP	Top of Pipe	38.92	Edge of Pavement Elevation
BOS	Bottom of Structure	+x.x	Spot Elevation
CMP	Corrugated Metal Pipe	+x.x	Spot Elevation on Hard Surface
D–?	Drainage Structure Designation	—D—D—	Drainage Pipe
L–?	Lift Station Structure Designation	—OL—OL—	Overhead Utility Lines
S–?	Sanitary Structure Designation		
	Backflow Preventer		
	Irrigation Control Valve		
	Water Valve		



Vicinity Map

Not to Scale



Legal Description

TRACT ONE:

PARCEL 3 OF FORT PIERCE COMMERCIAL PLAT, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK ___, PAGE ___, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

TRACT TWO:

EASEMENT AS CREATED BY THAT CERTAIN RECIPROCAL EASEMENT AGREEMENT WITH COVENANTS, CONDITIONS, AND RESTRICTIONS, RECORDED IN OFFICIAL RECORDS BOOK 3851, PAGE 2826, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

TRACT THREE:

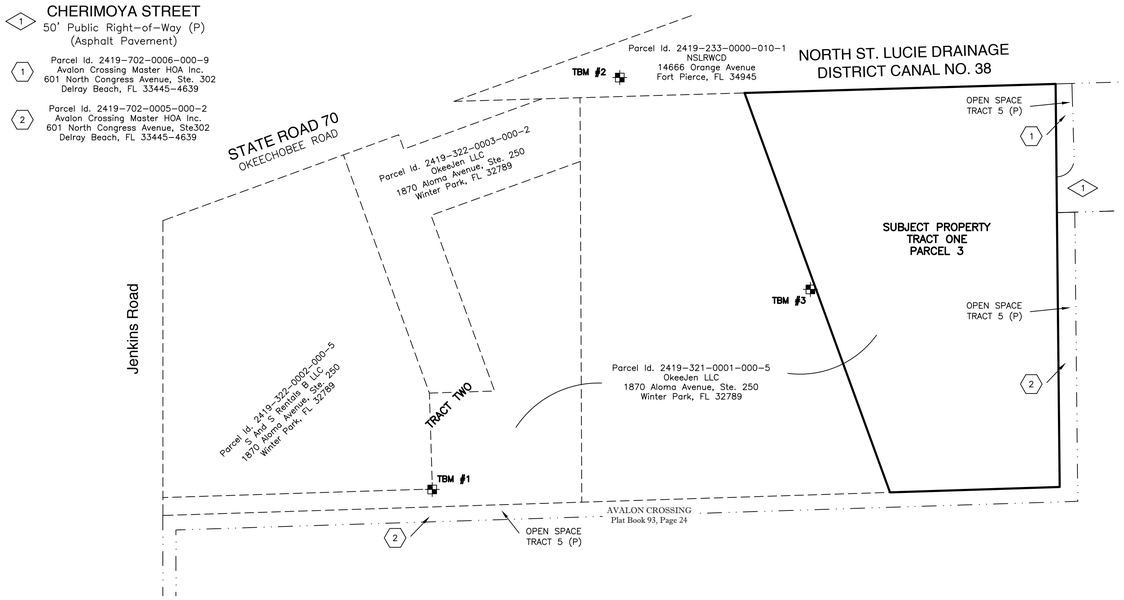
EASEMENTS AS CREATED BY THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS, RECORDED IN OFFICIAL RECORDS BOOK ____, PAGE ____, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

The above description is the same as the one described per Title Commitment File No. NCS–1138500–DC72 issued by First American Title Insurance Company, bearing an effective date of August 9, 2022 at 8:00 AM (Amended & Updated: 08/29/22)

Statement of Potential Encroachments

(A) Open & notorious evidence of drainage ditch & drainage pipe without benefit of known easement

Overview & Ownership Map



Sheet Index

SHEET 1	Miscellaneous Information
SHEET 2	Boundary Detail
SHEET 3	Schedule BII Exceptions Detail
SHEET 4–6	Topographic & Tree Detail

Benchmark Information: NAVD 1988

TBM #1
Elevation = 20.45'
Set nail & disk labeled "SurvTech Trav. Pt" in the back of a concrete "r" curb Westerly of subject property; 33'± East of a light pole; 68'± South of a light pole.

TBM #2
Elevation = 15.58'
Set nail & disk labeled "SurvTech Trav. Pt" near the Southerly most corner of a mitered end section Westerly of subject property.

TBM #3
Elevation = 16.02'
Set 5/8" capped iron rod labeled "SurvTech Trav. Pt". in grass near Western limits of subject property; 23'± Southwest of a 14" pine tree; 17'± Northwest of a 12" pine tree.

Surveyor's Notes

1.) Paper copies of this survey are not valid without the original signature and raised seal of a Florida Licensed Surveyor and Mapper. Digital copies are not valid without the digital signature of a Florida Licensed Surveyor and Mapper.
2.) The bearing structure for this survey is based on a NAD 1983 Florida State Plane East Zone, bearing of N 88°20'17" E for the South Canal Right–of–way Boundary of the North St. Lucie Drainage District Canal Number 38, also being the North Boundary of Subject Property.
3.) The horizontal datum utilized for this project is NAD 1983 Florida East Zone, 2011 Adjustment, U.S. Survey Feet. Said datum was established by utilizing the Florida Permanent Reference Network (FPRN).
4.) The vertical datum utilized for this project is NAVD 1988, U.S. Survey Feet. The benchmark utilized was St. Lucie County Benchmark "W8" with an elevation of 19.13 feet.
5.) No underground foundations or footers were excavated or located for this survey.
6.) Per Table A of the ALTA/NSPS requirements:
   a.) Item 6: a zoning report or letter was not provided to the surveyor by the client; therefore no zoning information is depicted hereon.
   b.) Item 11: All utilities depicted hereon are from visible evidence only. Surveyor did not contact subsurface utility locator service.
   c.) Item 16: there is no observable evidence of current earth moving work, building construction or building additions.
   d.) Item 17: there is no known proposed changes in street right–of–way and there is no observable evidence of recent street or sidewalk construction or repairs.
7.) Subject property does not have direct access to a publicly dedicated Right–of–way. Subject property appears to have indirect access to Okeechobee Road & Jenkins Rod, both publicly dedicated Rights–of–way, via 27.33 foot Cross Access Easement per FORT PIERCE COMMERCIAL PLAT & Cross Access Easement per Official Records Book 3851, Page 2826.
8.) Surveyor makes no guarantees as to the species of trees or to the health of each tree depicted hereon, if this information is necessary a certified arborist should be contacted.
9.) The trees shown hereon were located utilizing methods adequate for their accurate location and identification. However, this company and the signing surveyor reserves the right to verify the location of all trees critical to the design of buildings, parking and other permanent features. It is the responsibility of the design professional to inform this company and/or the signing surveyor of any trees critical to their design so that those trees can be verified prior to the completion of the design.
10.) Every effort has been made to obtain underground utilities pipe type and size, as shown. It is the responsibility of the end user to verify the invert and pipe size dimensions prior to design of new facilities.

NUMBER OF PROVIDED PARKING SPACES	
TYPE OF SPACE	TOTAL PROVIDED
REGULAR	0
HANDICAP	0
TOTAL	0

FLOOD NOTE:
By graphic plotting only, this property is in Flood Zone "X"
Flood Insurance Rate Map: 12111C
Panel No.: 0167 J
Community Name/No.: City of Fort Pierce/120286
Effective Date: February 16, 2012

Subject Property IS NOT in a Special Flood Hazard Area.

No field surveying was performed to determine this zone and an elevation certificate may be needed to verify this determination or apply for a variance from the Federal Emergency Management Agency.

REVISION	DATE	INITIALS

SURVEYING TODAY WITH TOMORROWS TECHNOLOGY

Drafted By: P. Hernandez, B. Stinson — *Drawing Name: 221611_A*
Date Drafted: 09/21/22 — *Prior Project No.: N/A*
Approved By: B. Stinson — *Last Field Date: 08/23/22*
Date Approved: 09/26/22 — *Field Book/Page: 22-05FP/17*

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
phone: (813)–621–4929
fax: (813)–621–7194
Licensed Business #7340
email: bstinson@survtechsolutions.com
http://www.survtechsolutions.com

ALTA/NSPS Land Title Survey

Parcel 3
Fort Pierce Commercial Plat
No Assigned Address
Fort Pierce, Florida 34947

Surveyor's Certification:
This is to certify to: Dynamic Engineering Consultants, PC, and Johnson Development Associates, Inc., that this map or plat and the survey on which it is based were made in accordance with the "Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys," jointly established and adopted by ALTA and NSPS in 2021, and includes Items 1–5, 6(a), 6(b), 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14 and 16–19 of Table A thereof. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of Florida the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Benjamin F. Stinson
Florida Professional Surveyor and Mapper No: 6924
SurvTech Solutions, Inc.
Florida Licensed Business No. 7340

Date Plotted: 9/23/2022 2:32:23 PM By: Ben Stinson

Boundary Detail

Additional Information

1 CHERIMOYA STREET
50' Public Right-of-Way (P)
(Asphalt Pavement)

——//——//—— Platted Lot Line per FORT PIERCE COMMERCIAL PLAT

TRACT TWO

0' 40' 80' 120'
Scale: 1" = 40'

Grid North

STATE ROAD 70
OKEECHOBEE ROAD
Public Right-of-way Width Varies
(Asphalt Pavement)

Jenkins Road
Public Right-Of-Way Width Varies
(Asphalt Pavement)

West Boundary of the Southwest 1/4 of Section 19-35S-40E (P)

East Right-of-way Boundary of Jenkins Road (P)

Found 5/8" Capped Iron Rod "Bowman LB8030"

TBM #2

N 88°20'40" E 283.35' (P)
N 88°20'17" E 283.27' (F)

Set 5/8" Capped Iron Rod "LB7340"

NORTH ST. LUCIE DRAINAGE DISTRICT CANAL NO. 38
99' Private Right-of-way
(Canal)

N 88°20'17" E 718.15' (F)
N 88°20'40" E 718.23' (P)

Found 5/8" Capped Iron Rod "Bowman LB8030"
Found 4"x4" Concrete Monument "LB6852"
3.97'S & 0.04'E
Found 5/8" Iron Rod (No Id.)
4.94'S & 0.05'E

N 88°20'40" E 434.88' (P)
N 88°20'17" E 434.88' (F)

A Open & notorious evidence of drainage ditch & drainage pipe

OPEN SPACE TRACT 6 (P)

AVALON CROSSING
Plat Book 93, Page 24

1

TRACT ONE
PARCEL 3
Total Acreage
189442.38 Square Feet
4.349 Acres

PARCEL 3 (P)

PARCEL 2 (P)

FORT PIERCE COMMERCIAL PLAT
(Unrecorded Plat)

PARCEL 1 (P)

Parcel 5 (P)

TRACT TWO

NW 1/4 of the NW 1/4 of the SW 1/4 of Section 19-35S-40E

NE 1/4 of the NW 1/4 of the SW 1/4 of Section 19-35S-40E

TBM #3

N 20°00'27" W 594.17' (F)
N 20°01'22" W 594.17' (P)

S 00°34'45" E 563.42' (F)
S 00°35'38" E 563.32' (P)

OPEN SPACE TRACT 5 (P)

AVALON CROSSING
Plat Book 93, Page 24

2

PARCEL 4
STORMWATER MANAGEMENT TRACT (P)

TBM #1

OPEN SPACE TRACT 5 (P)

AVALON CROSSING
Plat Book 93, Page 24

2

A Open & notorious evidence of drainage ditch

S 88°10'51" W 237.22' (F)
S 88°10'50" W 237.22' (P)

Found 5/8" Iron Rod (No Id.)

Set 5/8" Capped Iron Rod "LB7340"

Distance to intersection with Jenkins Road: 1017'±

ALTA/NSPS Land Title Survey
Parcel 3-FORT PIERCE COMMERCIAL PLAT

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
Licensed Business #7340
phone: (813)-621-4929
fax: (813)-621-7194
email: bstinson@survtechsolutions.com
http://www.survtechsolutions.com

Schedule B-2 Exceptions Detail

Schedule B-2 Exceptions

per Title Commitment File No. NCS–1138500–DC72 issued by First American Title Insurance Company, bearing an effective date of August 9, 2022 at 8:00 AM. (Amended & Updated: 08/29/22)

Items not listed below are standard title exceptions and/or are not matters or issues that pertain to this survey.

(10) Resolution No. 79–47 recorded in Official Records Book 314, Page 1816. Affects subject property, however not a matter of survey, therefore not plotted.

(11) Resolution No. 79–78 recorded in Official Records Book 315, Page 2088. Affects subject property, however not a matter of survey, therefore not plotted.

(12) Terms and conditions of the Agreement between City of Ft Pierce and B.W. Simpkins Trustee of the B.W. Simpkins Trust U/A/D October 4, 1976, as to undivided /2 interest and Fletcher A. Sheriff Trustee of the Fletcher A. Sheriff Trust U/A/D August 2, 1976, as to an undivided /2 interest recorded in Official Records Book 882, Page 899. Affects subject property, however not a matter of survey, therefore not plotted.

(13) Terms and conditions of the Annexation Agreement Individual between Fort Pierce Utilities Authority and B.W. Simpkins Trustee of the B.W. Simpkins Trust U/A/D October 4, 1976, as to undivided /2 interest and Fletcher A. Sheriff Trustee of the Fletcher A. Sheriff Trust U/A/D August 2, 1976, as to an undivided /2 interest recorded in Official Records Book 882, Page 901. Affects subject property, however not a matter of survey, therefore not plotted.

(14) Ordinance No. J–78 recorded in Official Records Book 886, Page 2237. Affects subject property, however not a matter of survey, therefore not plotted.

(15) Easement, granted from S&S Enterprises Inc to Cornerstone Fort Pierce Development LLC, recorded in Official Records Book 3085, Page 6. Easement plots within the current public right–of–way of Jenkins Road; may benefit subject property as depicted hereon.

(16) Reciprocal Easement Agreement with Covenants Conditions and Restrictions, granted from S&S Enterprises B LLC to S and S Rentals B LLC, recorded in Official Records Book 3851, Page 2826. May benefit subject property as depicted hereon.

(17) Easement, granted from Fort Pierce Utilities Authority of the City of Fort Pierce Florida to S&S Rentals B LLC, recorded in Official Records Book 4168, Page 395. Does not affect subject property.

(18) Declaration of Covenants, Easements and Restrictions dated _____, 2022, and recorded on _____, 2022 in Official Records Book _____, Page _____. Unable to comment

Additional Information

———//———//— Platted Lot Line per FORT PIERCE COMMERCIAL PLAT

(16) Reciprocal Easement Agreement with Covenants Conditions and Restrictions OR Book 3851, Page 2826 (also being TRACT TWO)

0' 40' 80' 120'

Scale: 1" = 40'

Grid North

NORTH ST. LUCIE DRAINAGE DISTRICT CANAL NO. 38

STATE ROAD 70
OKEECHOBEE ROAD

Jenkins Road

PARCEL 2 (P)

FORT PIERCE COMMERCIAL PLAT
(Unrecorded Plat)

PARCEL 1 (P)

PARCEL 3 (P)

PARCEL 4
STORMWATER MANAGEMENT TRACT (P)

Parcel 5 (P)

TRACT TWO

TRACT ONE
PARCEL 3

327'-4 3/4"

15.0' FPUA Easement (P)

19'-9"

309'-8 1/4"

155'-8 1/4"

57'-5 1/4"

15.0' FPUA Easement (P)

27.33' Cross Access Easement (P)

15.0' FPUA Easement (P)

27.33' Cross Access Easement (P)

10.5' X 15.0' FPUA Easement (P)

12.0' FPUA Easement (P)

10.5' X 15.0' FPUA Easement (P)

Underground Electric Easement (P)

25.0' FPUA Easement (P)

Stormwater Easement (P)

(17) Fort Pierce Utility Authority Easement OR Book 4168, Page 395

(16) Reciprocal Easement Agreement with Covenants Conditions and Restrictions OR Book 3851, Page 2826

(15) 20' Easement OR Book 3085, Page 6

(15) 15.0' FPUA Easement (P)

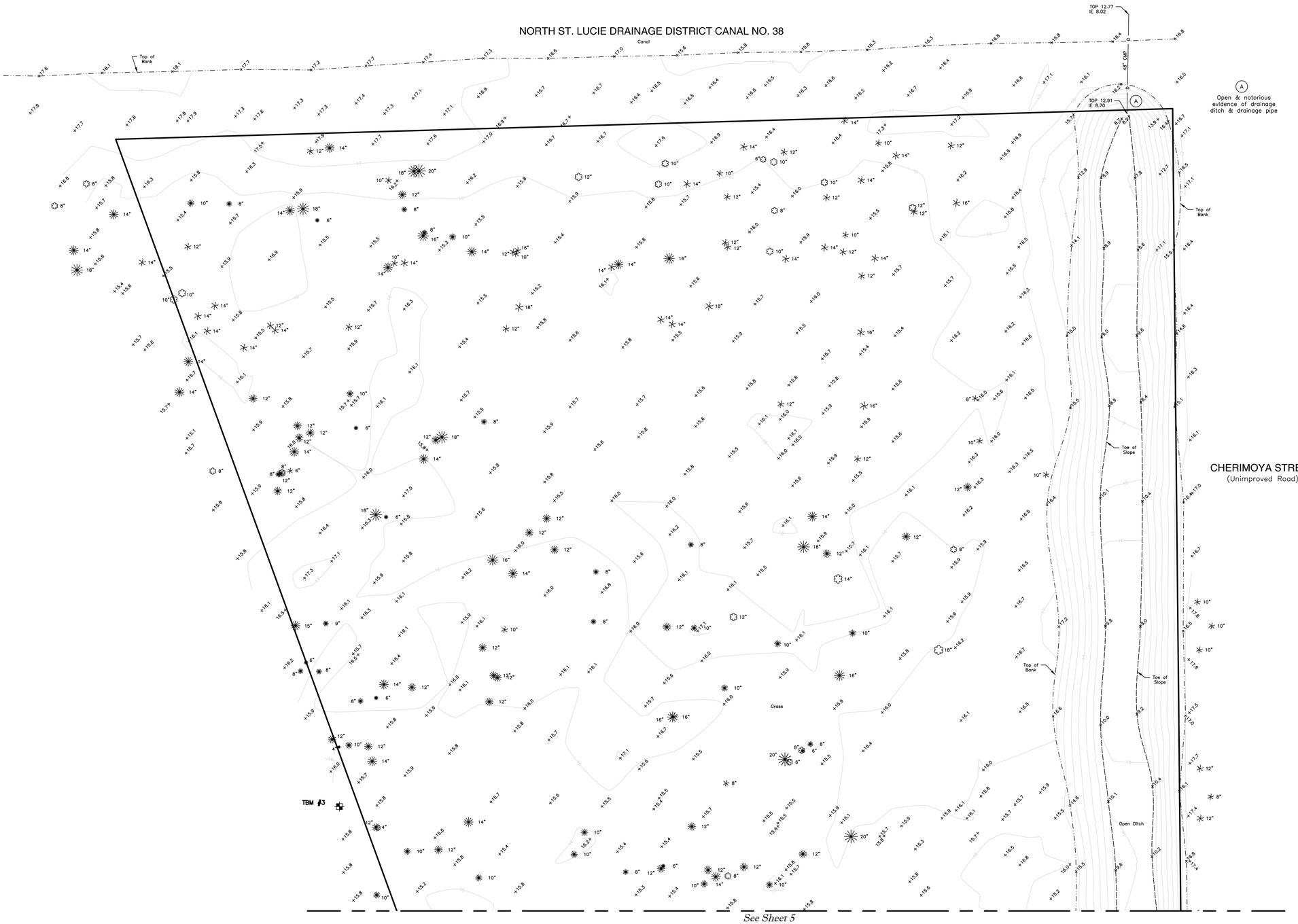
25.0' FPUA Easement (P)

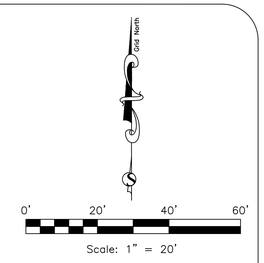
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ALTA/NSPS Land Title Survey
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Topographic & Tree Detail

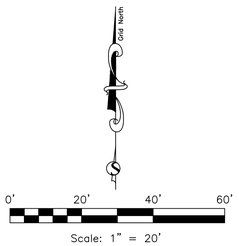


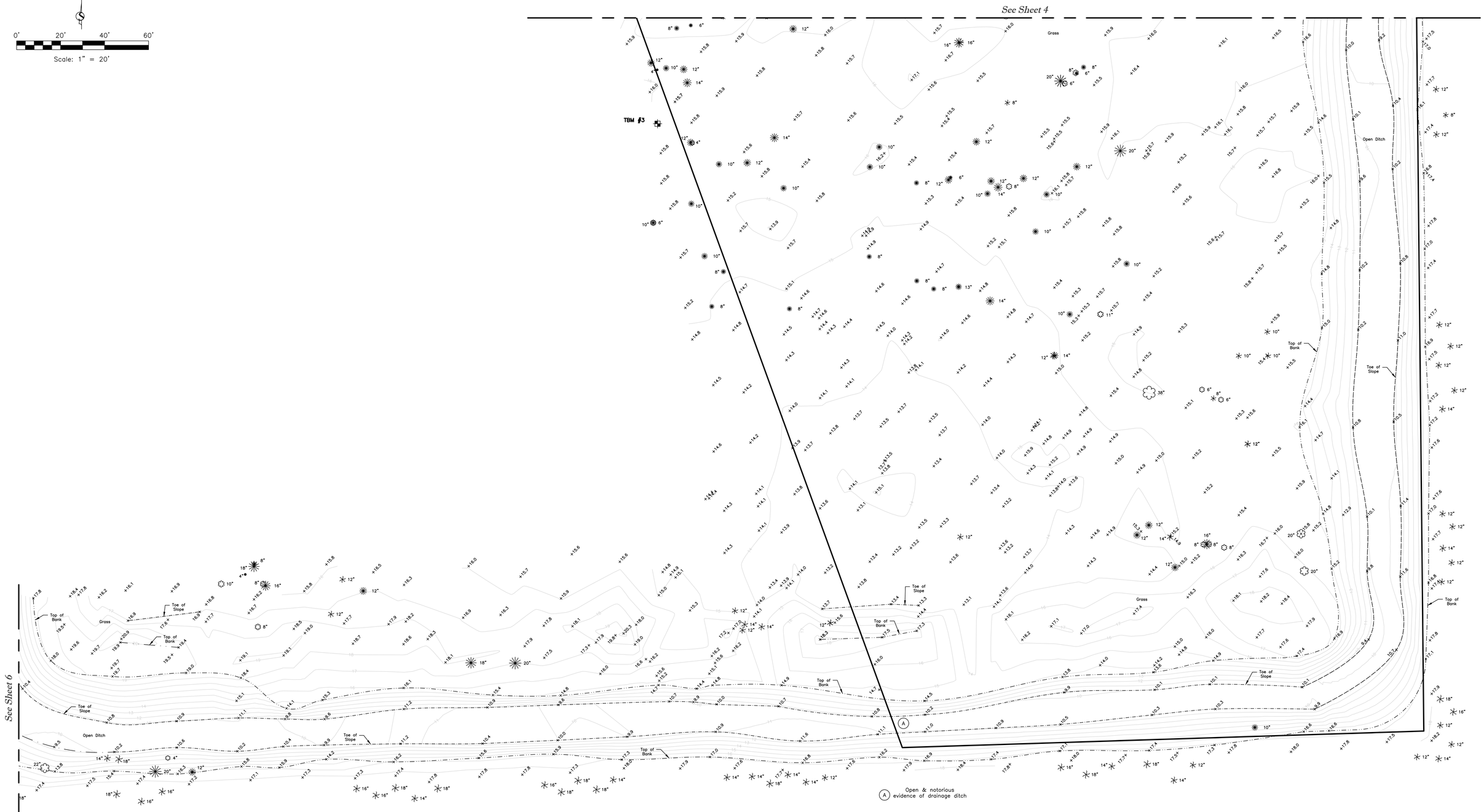


ALTA/NSPS Land Title Survey
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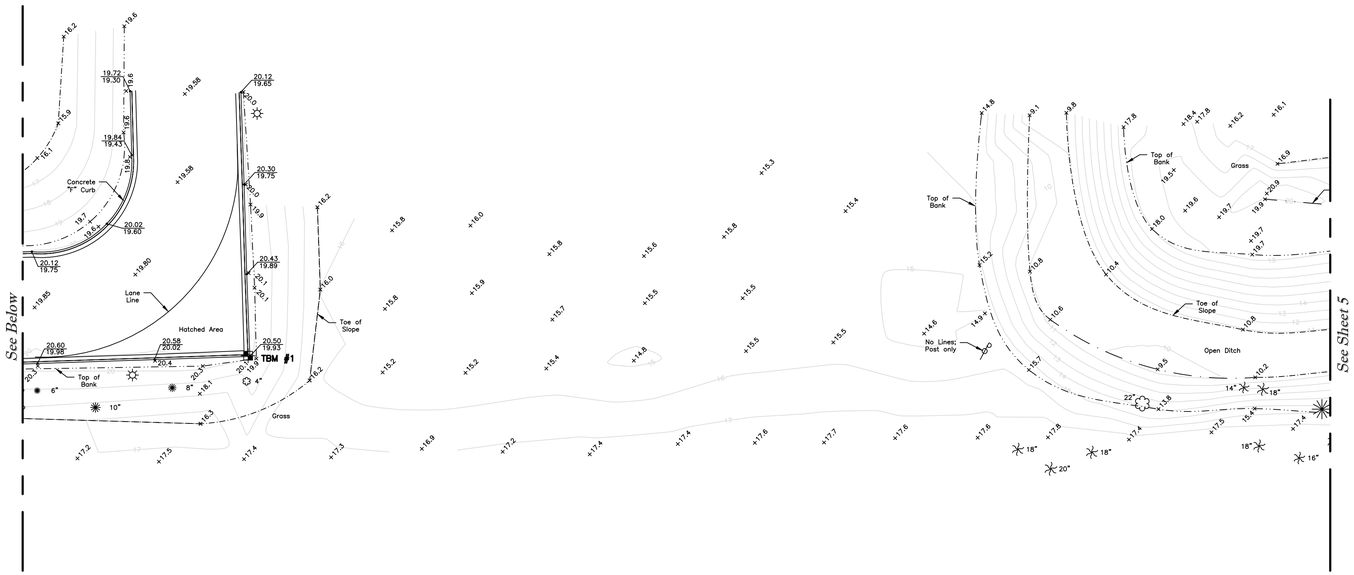




ALTA/NSPS Land Title Survey
Parcel 3-FORT PIERCE COMMERCIAL PLAT

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email: bstinson@survtechsolutions.com
http://www.survtechsolutions.com

Topographic & Tree Detail



Note A*:
Unable to confirm dimensions due to structures full of water at time of field survey

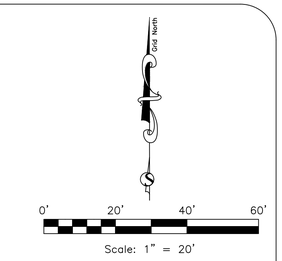
D-1
RE: 16.12
BOS: 11.92
*Full of water

D-2
RE: 18.60
Top of Box Culvert: 16.95
BOS: 12.36

LS-1
RE: 17.20
Locked

LS-2
RE: 17.22
Locked

S-1
RE: 16.77
Locked



ALTA/NSPS Land Title Survey
Parcel 3-FORT PIERCE COMMERCIAL PLAT

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
Licensed Business #7340
phone: (813)-621-4929
fax: (813)-621-7194
email: bstinson@survtechsolutions.com
http://www.survtechsolutions.com

DEVELOPMENT REVIEW PLANS
FOR
PROPOSED SELF STORAGE FACILITY



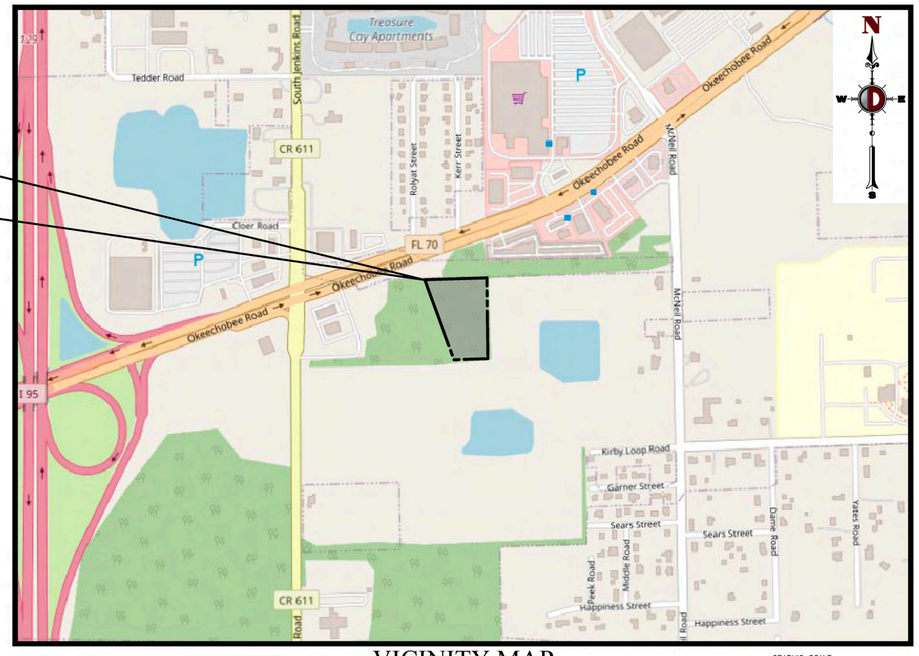
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
FORT PIERCE, FLORIDA 34947

PREPARED FOR:

JOHNSON DEVELOPMENT ASSOCIATES, INC.

DECEMBER 2022

PROJECT LOCATION



VICINITY MAP
SCALE: AS NOTED
SECTION 19, TOWNSHIP 35S, RANGE 40E

PROJECT CONTACTS:

ARCHITECT:
FWH ARCHITECTS
3336 GRAND BLVD. SUITE 201
HOLIDAY, FL, 34690
(727) 815-3336
CONTACT: GUY F. FABER

ENGINEER OF RECORD:
DYNAMIC ENGINEERING CONSULTANTS, P.C.
100 NE 5TH AVE, SUITE B2
DELRAY BEACH, FL 33483
(561) 921-8570
CONTACT: MICHAEL D. MILES, P.E.

LANDSCAPE ARCHITECT:
EVERGREEN DESIGN GROUP
2255 GLADES RD, SUITE 324A
BOCA RATON, FL, 33431
(800) 680-6630
CONTACT: KENN BATES,
RODNEY McNABB

SURVEYOR:
SURVTECH SOLUTIONS, INC.
10220 U.S. HIGHWAY 92 EAST
TAMPA, FL, 33610
(813) 621-4926
FAX: (813) 621-7194
CONTACT: BENJAMIN F. STINSON

APPLICANT:
JOHNSON DEVELOPMENT ASSOCIATES, INC
4350 WEST CYPRESS ST, SUITE 720
TAMPA, FL 33607
(201) 259-0068
CONTACT: VINCE TIBERI

AGENCY CONTACTS:

PLANNING AND ZONING:
CITY OF FORT PIERCE PLANNING DEPARTMENT
100 N U.S. HIGHWAY 1
FORT PIERCE, FL, 34950
(772) 467-3737
CONTACT: VENNIS GILMORE

FIRE RESCUE:
SAINT LUCIE COUNTY FIRE DISTRICT
5160 NW MILNER DRIVE
PORT ST. LUCIE, FL, 34983
(772) 621-3400
CONTACT: WAYNE BOYER

UTILITIES:
FORT PIERCE UTILITIES AUTHORITY
206 S 6TH STREET
FORT PIERCE, FL, 34950
(772) 466-1600
CONTACT: ANA JOHNSON

ENGINEERING:
CITY OF FORT PIERCE ENGINEERING DEPARTMENT
100 N U.S. HIGHWAY 1
FORT PIERCE, FL 34950
(772) 467-3782
CONTACT: JOHN R. ANDREWS, P.E.

DRAWING INDEX

C0.00	COVER SHEET
C1.00	SITE PLAN
C1.01	VEHICLE CIRCULATION PLAN (FIRE)
C2.00	PAVING, GRADING & DRAINAGE PLAN
C3.00	UTILITY PLAN
LP-1	LANDSCAPE PLANTING
LP-2	LANDSCAPE DETAILS AND SPECIFICATIONS
SHEETS BY OTHERS	
SHEETS 1-6	ALTA/NSPS LAND TITLE SURVEY
	PHOTOMETRIC PLAN
A1.1-A1.2	FLOOR PLAN
A3.0-A3.1	EXTERIOR ELEVATIONS

PREPARED BY

DYNAMIC ENGINEERING CONSULTANTS, P.C.
100 N.E. 5th AVENUE - SUITE B2
DELRAY BEACH, FLORIDA 33483
WWW.DYNAMICEC.COM

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DYNAMIC ENGINEERING • SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
1	02/07/23	AGENCY COMMENTS	KAK

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DRAWN BY: KAK | DESIGNED BY: ADA | CHECKED BY: ACM | CHECKED BY: MDM

PROJECT: **PROPOSED SELF-STORAGE FACILITY**
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
OKEECHOBEE ROAD & JENKINS ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

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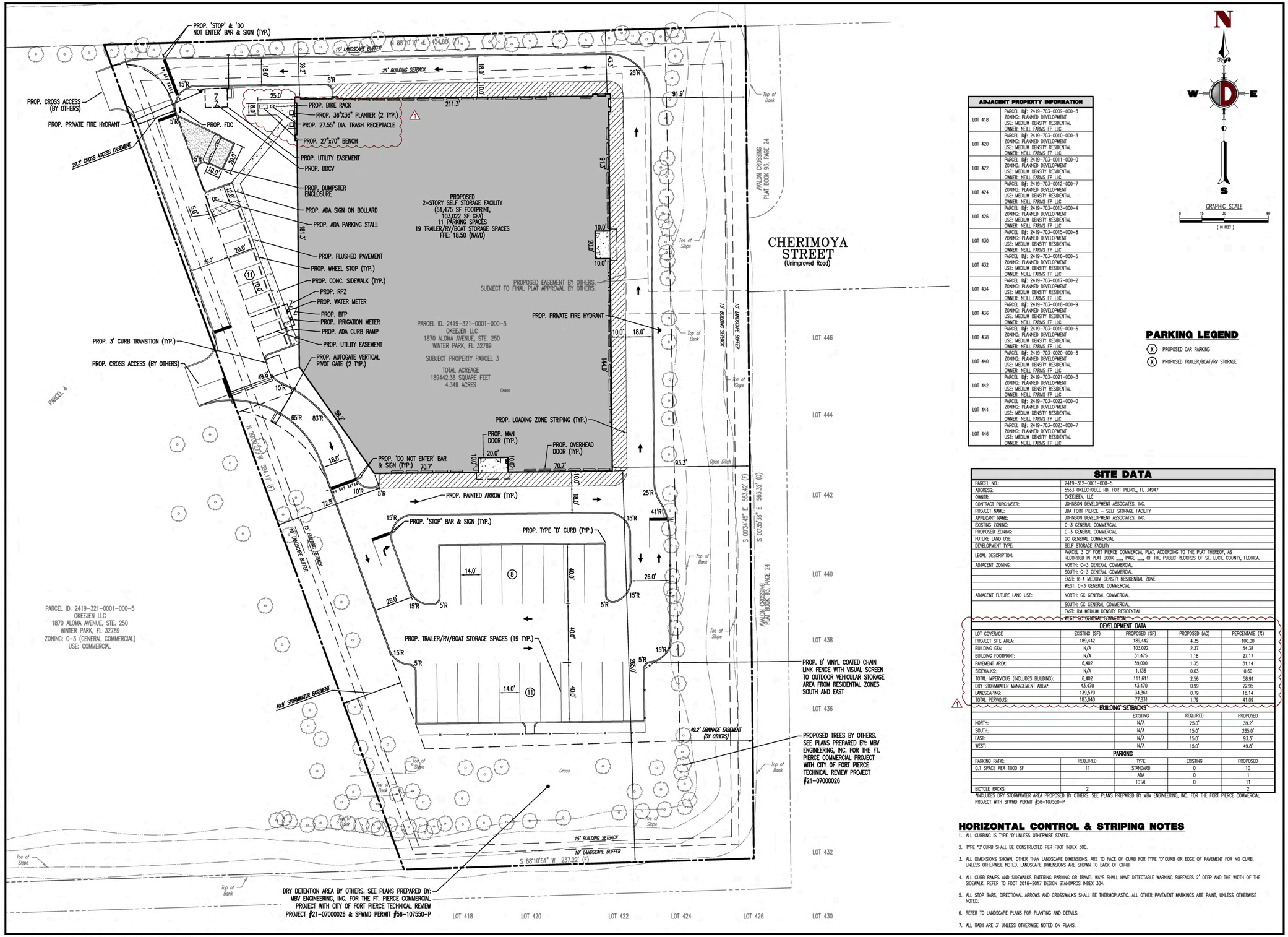
MICHAEL D. MILES
PROFESSIONAL ENGINEER
FLORIDA LICENSE No. 81313
DATE: 02/20/2023

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

TITLE: COVER SHEET

SCALE: (H) AS (V) NOTED | DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: C0.00 | Rev. #: 1



ADJACENT PROPERTY INFORMATION	
LOT 418	PARCEL ID#: 2419-703-0009-000-3 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 420	PARCEL ID#: 2419-703-0010-000-3 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 422	PARCEL ID#: 2419-703-0011-000-0 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 424	PARCEL ID#: 2419-703-0012-000-7 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 426	PARCEL ID#: 2419-703-0013-000-4 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 430	PARCEL ID#: 2419-703-0015-000-8 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 432	PARCEL ID#: 2419-703-0016-000-5 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 434	PARCEL ID#: 2419-703-0017-000-2 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 436	PARCEL ID#: 2419-703-0018-000-9 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 438	PARCEL ID#: 2419-703-0019-000-6 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 440	PARCEL ID#: 2419-703-0020-000-6 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 442	PARCEL ID#: 2419-703-0021-000-3 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 444	PARCEL ID#: 2419-703-0022-000-0 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC
LOT 446	PARCEL ID#: 2419-703-0023-000-7 ZONING: PLANNED DEVELOPMENT USE: MEDIUM DENSITY RESIDENTIAL OWNER: NEILL FARMS FP LLC

PARKING LEGEND

(X) PROPOSED CAR PARKING

(X) PROPOSED TRAILER/BOAT/RV STORAGE

SITE DATA	
PARCEL NO.:	2419-312-0001-000-5
ADDRESS:	5553 OKEECHOBEE RD, FORT PIERCE, FL 34947
OWNER:	OKEEJEEN, LLC
CONTRACT PURCHASER:	JOHNSON DEVELOPMENT ASSOCIATES, INC.
PROJECT NAME:	JDA FORT PIERCE – SELF STORAGE FACILITY
APPLICANT NAME:	JOHNSON DEVELOPMENT ASSOCIATES, INC.
EXISTING ZONING:	C-3 GENERAL COMMERCIAL
PROPOSED ZONING:	C-3 GENERAL COMMERCIAL
FUTURE LAND USE:	GC GENERAL COMMERCIAL
DEVELOPMENT TYPE:	SELF STORAGE FACILITY
LEGAL DESCRIPTION:	PARCEL 3 OF FORT PIERCE COMMERCIAL PLAT, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK ___, PAGE ___, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
ADJACENT ZONING:	NORTH: C-3 GENERAL COMMERCIAL
	SOUTH: C-3 GENERAL COMMERCIAL
	EAST: R-4 MEDIUM DENSITY RESIDENTIAL ZONE
	WEST: C-3 GENERAL COMMERCIAL
ADJACENT FUTURE LAND USE:	NORTH: GC GENERAL COMMERCIAL
	SOUTH: GC GENERAL COMMERCIAL
	EAST: RM MEDIUM DENSITY RESIDENTIAL
	WEST: GC GENERAL COMMERCIAL

DEVELOPMENT DATA				
LOT COVERAGE	EXISTING (SF)	PROPOSED (SF)	PROPOSED (AC)	PERCENTAGE (%)
PROJECT SITE AREA:	189,442	189,442	4.35	100.00
BUILDING GFA:	N/A	103,022	2.37	54.38
BUILDING FOOTPRINT:	N/A	51,475	1.18	27.17
PAVEMENT AREA:	6,402	59,000	1.35	31.14
SIDEWALKS:	N/A	1,136	0.03	0.60
TOTAL IMPERVIOUS (INCLUDES BUILDING):	6,402	111,611	2.56	58.91
DRY STORMWATER MANAGEMENT AREA*:	43,470	43,470	0.99	22.95
LANDSCAPING:	139,570	34,361	0.79	18.14
TOTAL PERVIOUS:	183,040	77,831	1.79	41.09

BUILDING SETBACKS			
	EXISTING	REQUIRED	PROPOSED
NORTH:	N/A	25.0'	39.2'
SOUTH:	N/A	15.0'	265.0'
EAST:	N/A	15.0'	93.3'
WEST:	N/A	15.0'	49.8'

PARKING				
PARKING RATIO:	REQUIRED	TYPE	EXISTING	PROPOSED
0.1 SPACE PER 1000 SF	11	STANDARD	0	10
		ADA	0	1
		TOTAL	0	11
BICYCLE RACKS:	2			2

*INCLUDES DRY STORMWATER AREA PROPOSED BY OTHERS. SEE PLANS PREPARED BY MBV ENGINEERING, INC. FOR THE FORT PIERCE COMMERCIAL PROJECT WITH SFWMD PERMIT #56-107550-P

HORIZONTAL CONTROL & STRIPING NOTES

1. ALL CURBING IS TYPE "D" UNLESS OTHERWISE STATED.
2. TYPE "D" CURB SHALL BE CONSTRUCTED PER FDOT INDEX 300.
3. ALL DIMENSIONS SHOWN, OTHER THAN LANDSCAPE DIMENSIONS, ARE TO FACE OF CURB FOR TYPE "D" CURB OR EDGE OF PAVEMENT FOR NO CURB, UNLESS OTHERWISE NOTED. LANDSCAPE DIMENSIONS ARE SHOWN TO BACK OF CURB.
4. ALL CURB RAMPS AND SIDEWALKS ENTERING PARKING OR TRAVEL WAYS SHALL HAVE DETECTABLE WARNING SURFACES 2' DEEP AND THE WIDTH OF THE SIDEWALK. REFER TO FDOT 2016-2017 DESIGN STANDARDS INDEX 304.
5. ALL STOP BARS, DIRECTIONAL ARROWS AND CROSSWALKS SHALL BE THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS ARE PAINT, UNLESS OTHERWISE NOTED.
6. REFER TO LANDSCAPE PLANS FOR PLANTING AND DETAILS.
7. ALL RADII ARE 3' UNLESS OTHERWISE NOTED ON PLANS.

REV.	DATE	COMMENTS	BY
1	02/07/23	AGENCY COMMENTS	KAK

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DRAWN BY: KAK | DESIGNED BY: ADA | CHECKED BY: ACM | CHECKED BY: MDM

PROJECT: **PROPOSED SELF-STORAGE FACILITY**
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
5553 OKEECHOBEE ROAD, JEROME ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

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Newark, New Jersey • T: 973.733.7200
Toms River, New Jersey • T: 732.875.0300
Newtown, Pennsylvania • T: 267.880.0379
Philadelphia, Pennsylvania • T: 215.355.4488
Bethlehem, Pennsylvania • T: 610.849.4400
Allen, Texas • T: 972.534.2100
Houston, Texas • T: 281.799.6400
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www.dynamicec.com

MICHAEL D. MILES
PROFESSIONAL ENGINEER
FLORIDA LICENSE No. 81313
DATE: 02/20/2023

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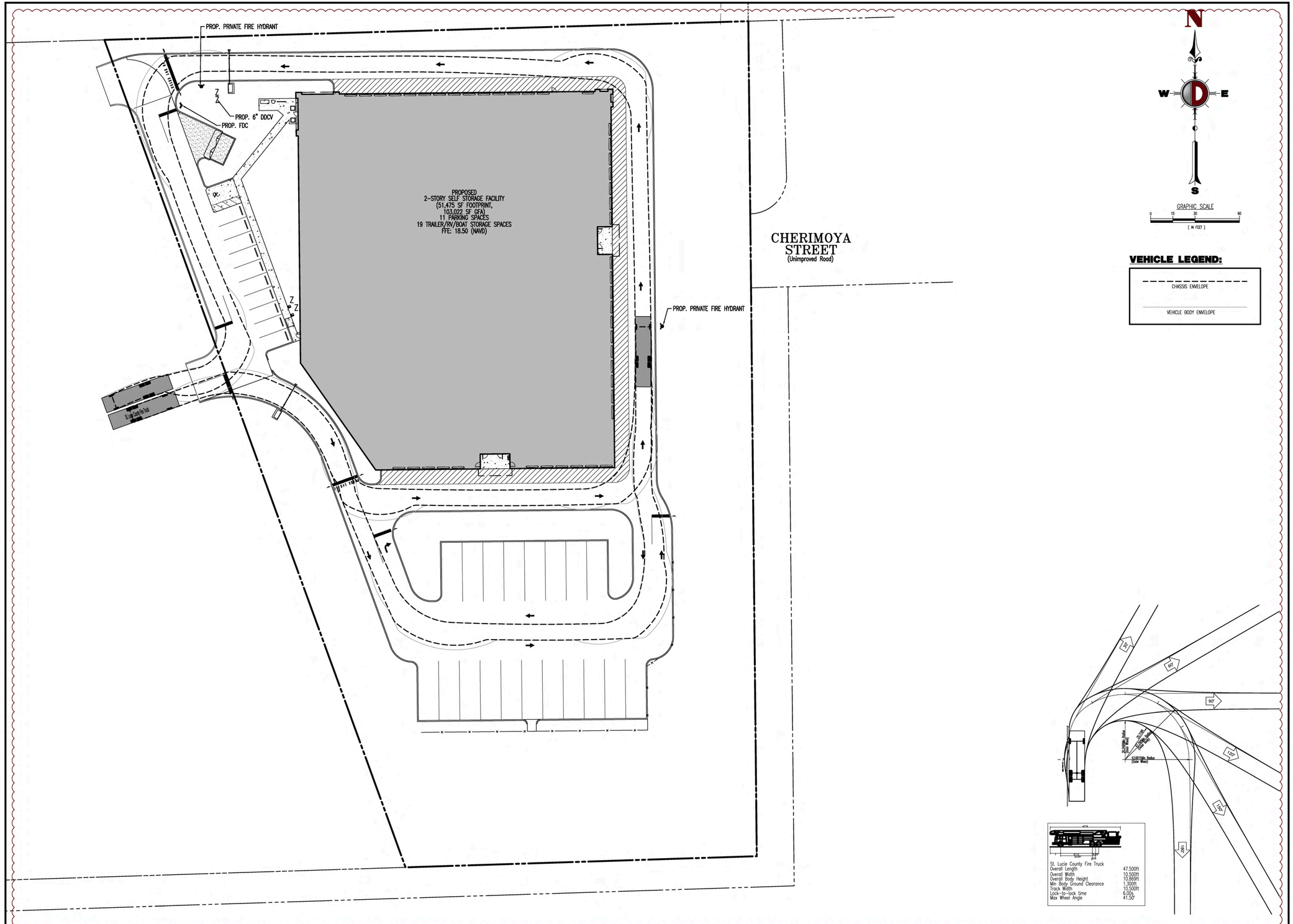
TITLE: **SITE PLAN**

SCALE: (I) AS (V) NOTED | DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: **C1.00** | Rev. #: 1

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VEHICLE LEGEND:

CHASSIS ENVELOPE

VEHICLE BODY ENVELOPE

SL Lucie County Fire Truck	
Overall Length	47.500ft
Overall Width	10.500ft
Overall Body Height	10.869ft
Min Body Ground Clearance	1.300ft
Track Width	10.500ft
Lock-to-lock time	6.00s
Max Wheel Angle	41.50°

REV.	DATE	COMMENTS	BY
1	02/07/23	AGENCY COMMENTS	KAK

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DRAWN BY: KAK | DESIGNED BY: ADA | CHECKED BY: ACM | CHECKED BY: MDM

PROJECT: **PROPOSED SELF-STORAGE FACILITY**
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
LOCATED ON THE SOUTH SIDE OF JENKINS ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

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Philadelphia, Pennsylvania • T: 215.531.4888
Bethlehem, Pennsylvania • T: 610.695.4400
Allen, Texas • T: 972.534.2720
Houston, Texas • T: 281.799.4400
Austin, Texas • T: 512.646.3444
Delray Beach, Florida • T: 561.921.8570

Florida Certificate of Authorization No. 32535

www.dynamicec.com

MICHAEL D. MILES

PROFESSIONAL ENGINEER
FLORIDA LICENSE No. 81313
DATE: 02/20/2023

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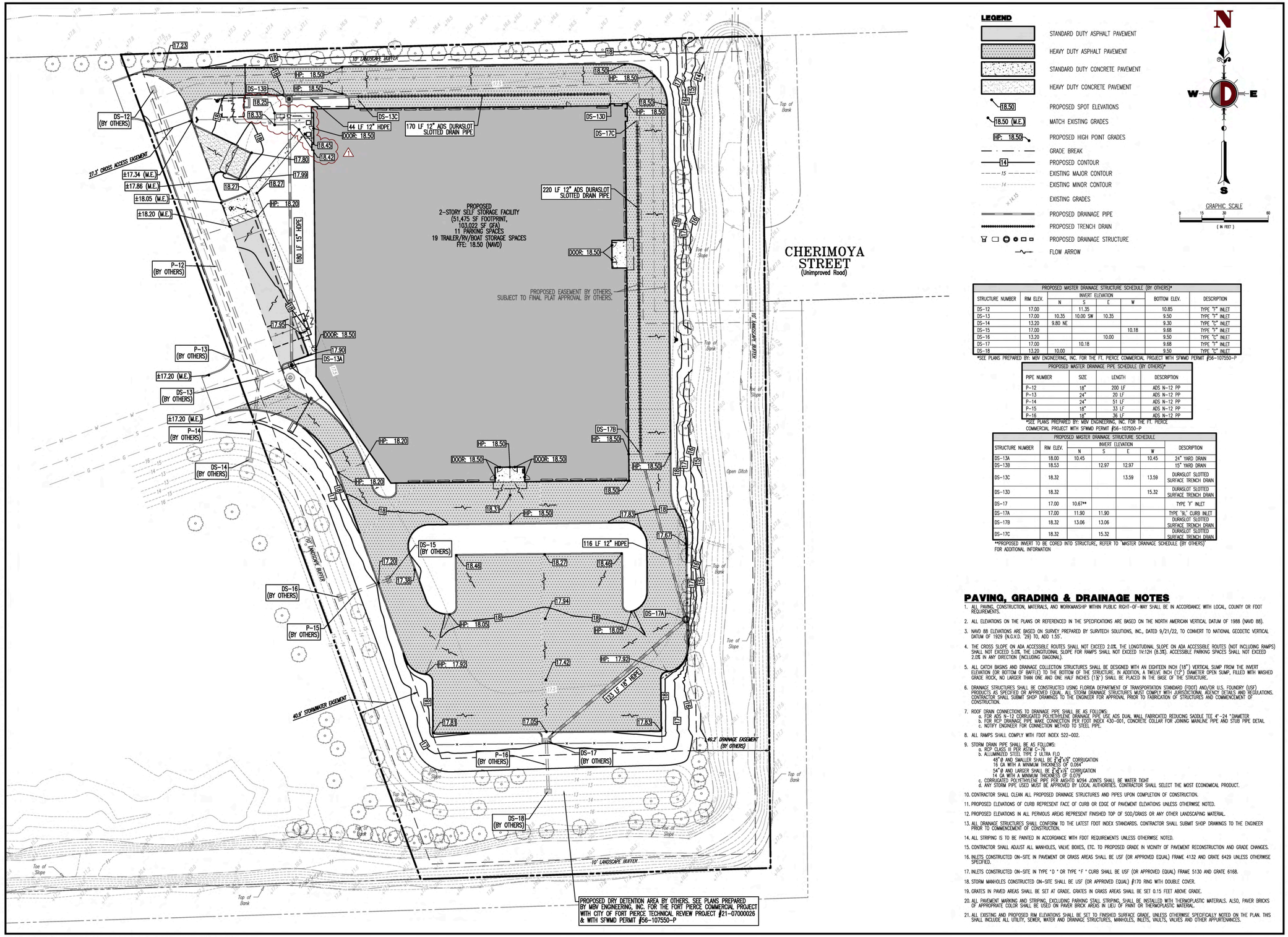
TITLE:
VEHICLE CIRCULATION PLAN (FIRE)

SCALE: (V) AS (V) NOTED | DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: **C1.01** | Rev. #: 1

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LEGEND

- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- 18.50 — PROPOSED SPOT ELEVATIONS
- 18.50 (M.E.) — MATCH EXISTING GRADES
- HP: 18.50 — PROPOSED HIGH POINT GRADES
- GRADE BREAK
- 14 — PROPOSED CONTOUR
- 15 — EXISTING MAJOR CONTOUR
- 14 — EXISTING MINOR CONTOUR
- X:14.15 — EXISTING GRADES
- PROPOSED DRAINAGE PIPE
- PROPOSED TRENCH DRAIN
- PROPOSED DRAINAGE STRUCTURE
- FLOW ARROW

N W E S

GRAPHIC SCALE
0 15 30 60
(IN FEET)

PROPOSED MASTER DRAINAGE STRUCTURE SCHEDULE (BY OTHERS)*

STRUCTURE NUMBER	RIM ELEV.	INVERT ELEVATION N	INVERT ELEVATION S	INVERT ELEVATION E	INVERT ELEVATION W	BOTTOM ELEV.	DESCRIPTION
DS-12	17.00		11.35			10.85	TYPE "I" INLET
DS-13	17.00	10.35	10.00 SW	10.35		9.50	TYPE "I" INLET
DS-14	13.20	9.80 NE				9.30	TYPE "C" INLET
DS-15	17.00				10.18	9.68	TYPE "I" INLET
DS-16	13.20			10.00		9.50	TYPE "C" INLET
DS-17	17.00		10.18			9.68	TYPE "I" INLET
DS-18	13.20	10.00				9.50	TYPE "C" INLET

*SEE PLANS PREPARED BY: MBV ENGINEERING, INC. FOR THE FT. PIERCE COMMERCIAL PROJECT WITH SFWMD PERMIT #56-107550-P

PROPOSED MASTER DRAINAGE PIPE SCHEDULE (BY OTHERS)*

PIPE NUMBER	SIZE	LENGTH	DESCRIPTION
P-12	18"	200 LF	ADS N-12 PP
P-13	24"	20 LF	ADS N-12 PP
P-14	24"	51 LF	ADS N-12 PP
P-15	18"	33 LF	ADS N-12 PP
P-16	18"	36 LF	ADS N-12 PP

*SEE PLANS PREPARED BY: MBV ENGINEERING, INC. FOR THE FT. PIERCE COMMERCIAL PROJECT WITH SFWMD PERMIT #56-107550-P

PROPOSED MASTER DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	RIM ELEV.	INVERT ELEVATION N	INVERT ELEVATION S	INVERT ELEVATION E	INVERT ELEVATION W	DESCRIPTION
DS-13A	18.00	10.45			10.45	24" YARD DRAIN
DS-13B	18.53		12.97	12.97		15" YARD DRAIN
DS-13C	18.32			13.59	13.59	DURASLOT SLOTTED SURFACE TRENCH DRAIN
DS-13D	18.32				15.32	DURASLOT SLOTTED SURFACE TRENCH DRAIN
DS-17	17.00	10.67**				TYPE "I" INLET
DS-17A	17.00	11.90	11.90			TYPE "SL" CURB INLET
DS-17B	18.32	13.06	13.06			DURASLOT SLOTTED SURFACE TRENCH DRAIN
DS-17C	18.32		15.32			DURASLOT SLOTTED SURFACE TRENCH DRAIN

**PROPOSED INVERT TO BE CORED INTO STRUCTURE, REFER TO "MASTER DRAINAGE SCHEDULE (BY OTHERS)" FOR ADDITIONAL INFORMATION

PAVING, GRADING & DRAINAGE NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL, COUNTY OR FDOT REQUIREMENTS.
2. ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. NAVD 88 ELEVATIONS ARE BASED ON SURVEY PREPARED BY SURVTECH SOLUTIONS, INC., DATED 9/21/22, TO CONVERT TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D. '29) TO, ADD 1.55'.
4. THE CROSS SLOPE ON ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 2.0%. THE LONGITUDINAL SLOPE ON ADA ACCESSIBLE ROUTES (NOT INCLUDING RAMPS) SHALL NOT EXCEED 5.0%. THE LONGITUDINAL SLOPE FOR RAMPS SHALL NOT EXCEED 1V:12H (8.3%). ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2.0% IN ANY DIRECTION (INCLUDING DIAGONAL).
5. ALL CATCH BASINS AND DRAINAGE COLLECTION STRUCTURES SHALL BE DESIGNED WITH AN EIGHTEEN INCH (18") VERTICAL SUMP FROM THE INVERT ELEVATION (OR BOTTOM OF BAFFLE) TO THE BOTTOM OF THE STRUCTURE. IN ADDITION, A TWELVE INCH (12") DIAMETER OPEN SUMP, FILLED WITH WASHED GRADE ROCK, NO LARGER THAN ONE AND ONE HALF INCHES (1.5") SHALL BE PLACED IN THE BASE OF THE STRUCTURE.
6. DRAINAGE STRUCTURES SHALL BE CONSTRUCTED USING FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD (FDOT) AND/OR U.S. FOUNDRY (USF) PRODUCTS AS SPECIFIED OR APPROVED EQUAL. ALL STORM DRAINAGE STRUCTURES MUST COMPLY WITH JURISDICTIONAL AGENCY DETAILS AND REGULATIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION OF STRUCTURES AND COMMENCEMENT OF CONSTRUCTION.
7. ROOF DRAIN CONNECTIONS TO DRAINAGE PIPE SHALL BE AS FOLLOWS:
   a. FOR ADS N-12 CORRUGATED POLYETHYLENE DRAINAGE PIPE USE ADS DUAL WALL FABRICATED REDUCING SADDLE TEE 4"-24 "DIAMETER
   b. FOR RCP DRAINAGE PIPE MAKE CONNECTION PER FDOT INDEX 430-001, CONCRETE COLLAR FOR JOINING MAINLINE PIPE AND STUB PIPE DETAIL
   c. NOTIFY ENGINEER FOR CONNECTION METHOD TO STEEL PIPE.
8. ALL RAMPS SHALL COMPLY WITH FDOT INDEX 522-002.
9. STORM DRAIN PIPE SHALL BE AS FOLLOWS:
   a. RCP CLASS III PER ASTM C-76
   b. ALUMINIZED STEEL TYPE 2 ULTRA FLO
      48" Ø AND SMALLER SHALL BE 2"x1/2" CORRUGATION
      16 GA WITH A MINIMUM THICKNESS OF 0.064"
      54" Ø AND LARGER SHALL BE 2"x1/2" CORRUGATION
      14 GA WITH A MINIMUM THICKNESS OF 0.079"
   c. CORRUGATED POLYETHYLENE PIPE PER AASHTO M294 JOINTS SHALL BE WATER TIGHT
   d. ANY STORM PIPE USED MUST BE APPROVED BY LOCAL AUTHORITIES. CONTRACTOR SHALL SELECT THE MOST ECONOMICAL PRODUCT.
10. CONTRACTOR SHALL CLEAN ALL PROPOSED DRAINAGE STRUCTURES AND PIPES UPON COMPLETION OF CONSTRUCTION.
11. PROPOSED ELEVATIONS OF CURB REPRESENT FACE OF CURB OR EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
12. PROPOSED ELEVATIONS IN ALL PERVIOUS AREAS REPRESENT FINISHED TOP OF SOD/GRASS OR ANY OTHER LANDSCAPING MATERIAL.
13. ALL DRAINAGE STRUCTURES SHALL CONFORM TO THE LATEST FDOT INDEX STANDARDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. ALL STRIPING IS TO BE PAINTED IN ACCORDANCE WITH FDOT REQUIREMENTS UNLESS OTHERWISE NOTED.
15. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE BOXES, ETC. TO PROPOSED GRADE IN VICINITY OF PAVEMENT RECONSTRUCTION AND GRADE CHANGES.
16. INLETS CONSTRUCTED ON-SITE IN PAVEMENT OR GRASS AREAS SHALL BE USF (OR APPROVED EQUAL) FRAME 4132 AND GRATE 6429 UNLESS OTHERWISE SPECIFIED.
17. INLETS CONSTRUCTED ON-SITE IN TYPE "D " OR TYPE "F " CURB SHALL BE USF (OR APPROVED EQUAL) FRAME 5130 AND GRATE 6168.
18. STORM MANHOLES CONSTRUCTED ON-SITE SHALL BE USF (OR APPROVED EQUAL) #170 RING WITH DOUBLE COVER.
19. GRATES IN PAVED AREAS SHALL BE SET AT GRADE. GRATES IN GRASS AREAS SHALL BE SET 0.15 FEET ABOVE GRADE.
20. ALL PAVEMENT MARKING AND STRIPING, EXCLUDING PARKING STALL STRIPING, SHALL BE INSTALLED WITH THERMOPLASTIC MATERIALS. ALSO, PAVER BRICKS OF APPROPRIATE COLOR SHALL BE USED ON PAVER BRICK AREAS IN LIEU OF PAINT OR THERMOPLASTIC MATERIAL.
21. ALL EXISTING AND PROPOSED RIM ELEVATIONS SHALL BE SET TO FINISHED SURFACE GRADE, UNLESS OTHERWISE SPECIFICALLY NOTED ON THE PLAN. THIS SHALL INCLUDE ALL UTILITY, SEWER, WATER AND DRAINAGE STRUCTURES, MANHOLES, INLETS, VAULTS, VALVES AND OTHER APPURTENANCES.

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File: P:\DEC\PC PROJECTS\1974 Johnson Development Associates\22-00933 Fort Pierce FL\Dwg\Entitlements\1974220933SG1.dwg, ---> C2.00 PAVING GRADING & DRAINAGE PLAN

DYNAMIC ENGINEERING CONSULTANTS, LLC • SURVEY • TRAFFIC

BY	DESCRIPTION	DATE	REV.
KAK	AGENCY COMMENTS	02/07/23	1

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: KAK
DESIGNED BY: ADA
CHECKED BY: ACM
CHECKED BY: MDM

PROJECT: **PROPOSED SELF-STORAGE FACILITY**
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
SE OF OKEECHOBEE ROAD AND JENKINS ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

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Newark, New Jersey • T: 973.735.7200
Toms River, New Jersey • T: 732.675.9300
Newtown, Pennsylvania • T: 267.685.0374
Philadelphia, Pennsylvania • T: 215.355.4900
Bethlehem, Pennsylvania • T: 610.849.4400
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Florida Certificate of Authorization No. 32535
www.dynamicec.com

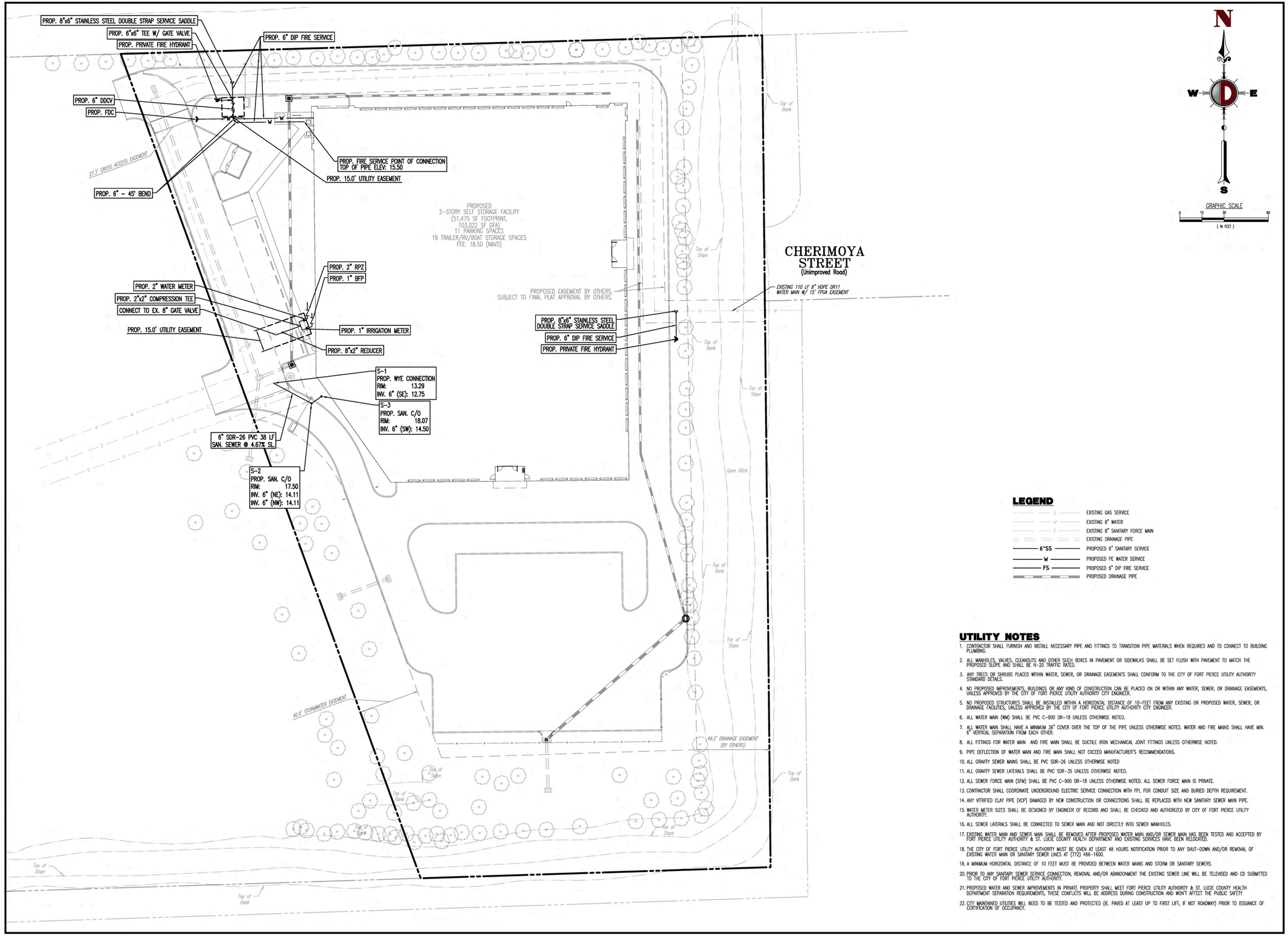
MICHAEL D. MILES
PROFESSIONAL ENGINEER
FLORIDA LICENSE No. 81313
DATE: 02/20/2023

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

TITLE: PAVING, GRADING & DRAINAGE PLAN

SCALE: (V) AS (V) NOTED
DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: C2.00
Rev. #: 1



LEGEND

- G —— EXISTING GAS SERVICE
- W —— EXISTING 8" WATER
- S —— EXISTING 8" SANITARY FORCE MAIN
- EXISTING DRAINAGE PIPE
- 6"SS —— PROPOSED 6" SANITARY SERVICE
- W —— PROPOSED PE WATER SERVICE
- FS —— PROPOSED 6" DIP FIRE SERVICE
- PROPOSED DRAINAGE PIPE

UTILITY NOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL NECESSARY PIPE AND FITTINGS TO TRANSITION PIPE MATERIALS WHEN REQUIRED AND TO CONNECT TO BUILDING PLUMBING.
2. ALL MANHOLES, VALVES, CLEANOUTS AND OTHER SUCH BOXES IN PAVEMENT OR SIDEWALKS SHALL BE SET FLUSH WITH PAVEMENT TO MATCH THE PROPOSED SLOPE AND SHALL BE H-20 TRAFFIC RATED.
3. ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER, OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF FORT PIERCE UTILITY AUTHORITY STANDARD DETAILS.
4. NO PROPOSED IMPROVEMENTS, BUILDINGS OR ANY KIND OF CONSTRUCTION CAN BE PLACED ON OR WITHIN ANY WATER, SEWER, OR DRAINAGE EASEMENTS, UNLESS APPROVED BY THE CITY OF FORT PIERCE UTILITY AUTHORITY CITY ENGINEER.
5. NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10-FEET FROM ANY EXISTING OR PROPOSED WATER, SEWER, OR DRAINAGE FACILITIES, UNLESS APPROVED BY THE CITY OF FORT PIERCE UTILITY AUTHORITY CITY ENGINEER.
6. ALL WATER MAIN (WM) SHALL BE PVC C-900 DR-18 UNLESS OTHERWISE NOTED.
7. ALL WATER MAIN SHALL HAVE A MINIMUM 36" COVER OVER THE TOP OF THE PIPE UNLESS OTHERWISE NOTED. WATER AND FIRE MAINS SHALL HAVE MIN. 6" VERTICAL SEPARATION FROM EACH OTHER.
8. ALL FITTINGS FOR WATER MAIN AND FIRE MAIN SHALL BE DUCTILE IRON MECHANICAL JOINT FITTINGS UNLESS OTHERWISE NOTED.
9. PIPE DEFLECTION OF WATER MAIN AND FIRE MAIN SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS.
10. ALL GRAVITY SEWER MAINS SHALL BE PVC SDR-26 UNLESS OTHERWISE NOTED
11. ALL GRAVITY SEWER LATERALS SHALL BE PVC SDR-35 UNLESS OTHERWISE NOTED.
12. ALL SEWER FORCE MAIN (SFM) SHALL BE PVC C-900 DR-18 UNLESS OTHERWISE NOTED. ALL SEWER FORCE MAIN IS PRIVATE.
13. CONTRACTOR SHALL COORDINATE UNDERGROUND ELECTRIC SERVICE CONNECTION WITH FPL FOR CONDUIT SIZE AND BURIED DEPTH REQUIREMENT.
14. ANY VITRIFIED CLAY PIPE (VCP) DAMAGED BY NEW CONSTRUCTION OR CONNECTIONS SHALL BE REPLACED WITH NEW SANITARY SEWER MAIN PIPE.
15. WATER METER SIZES SHALL BE DESIGNED BY ENGINEER OF RECORD AND SHALL BE CHECKED AND AUTHORIZED BY CITY OF FORT PIERCE UTILITY AUTHORITY.
16. ALL SEWER LATERALS SHALL BE CONNECTED TO SEWER MAIN AND NOT DIRECTLY INTO SEWER MANHOLES.
17. EXISTING WATER MAIN AND SEWER MAIN SHALL BE REMOVED AFTER PROPOSED WATER MAIN AND/OR SEWER MAIN HAS BEEN TESTED AND ACCEPTED BY FORT PIERCE UTILITY AUTHORITY & ST. LUCIE COUNTY HEALTH DEPARTMENT AND EXISTING SERVICES HAVE BEEN RELOCATED.
18. THE CITY OF FORT PIERCE UTILITY AUTHORITY MUST BE GIVEN AT LEAST 48 HOURS NOTIFICATION PRIOR TO ANY SHUT-DOWN AND/OR REMOVAL OF EXISTING WATER MAIN OR SANITARY SEWER LINES AT (772) 466-1600.
19. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET MUST BE PROVIDED BETWEEN WATER MAINS AND STORM OR SANITARY SEWERS.
20. PRIOR TO ANY SANITARY SEWER SERVICE CONNECTION, REMOVAL AND/OR ABANDONMENT THE EXISTING SEWER LINE WILL BE TELEVISED AND CD SUBMITTED TO THE CITY OF FORT PIERCE UTILITY AUTHORITY.
21. PROPOSED WATER AND SEWER IMPROVEMENTS IN PRIVATE PROPERTY SHALL MEET FORT PIERCE UTILITY AUTHORITY & ST. LUCIE COUNTY HEALTH DEPARTMENT SEPARATION REQUIREMENTS, THESE CONFLICTS WILL BE ADDRESS DURING CONSTRUCTION AND WON'T AFFECT THE PUBLIC SAFETY
22. CITY MAINTAINED UTILITIES WILL NEED TO BE TESTED AND PROTECTED (IE. PAVED AT LEAST UP TO FIRST LIFT, IF NOT ROADWAY) PRIOR TO ISSUANCE OF CERTIFICATION OF OCCUPANCY.

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Plotted: 02/13/23 – 4:15 PM, By: ikonikus
File: P:\DEC\PC PROJECTS\1974 Johnson Development Associates\22-00933 Fort Pierce FL\Dwg\Entitlements\1974220933SU1.dwg, ---> C3.00 UTILITY PLAN

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• ENGINEERING • LAND PLANNING
• SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
1	02/07/23	AGENCY COMMENTS	KAK

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DRAWN BY: KAK | DESIGNED BY: ADA | CHECKED BY: ACM | CHECKED BY: MDM

PROJECT: **PROPOSED SELF-STORAGE FACILITY**
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 3 OF THE FORT PIERCE COMMERCIAL PLAT
OKEECHOBEE ROAD (SR 70) & JENKINS ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

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MICHAEL D. MILES
PROFESSIONAL ENGINEER
FLORIDA LICENSE No. 81313
DATE: 02/20/2023

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

TITLE: **UTILITY PLAN**

SCALE: (V) AS (V) NOTED | DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: **C3.00** | Rev. #: 1

Dynamic Traffic, LLC
100 NE 5th Avenue, Suite B2
Delray Beach, FL 33483
T. 732.681.0760

MEMORANDUM

To: **City of Fort Pierce Planning Department**

From: **Craig W. Peregoy, PE** Craig W Peregoy Digitally signed by Craig W Peregoy Date: 2023.02.20 10:14:55 -05'00'

Date: **February 13, 2023**

Re: **Parking Assessment**
JDA Self-Storage Facility Fort Pierce
5575 Okeechobee Rd, Fort Pierce, FL 34947
Parcel ID No: 2419-321-0001-000-5

Dynamic Traffic, LLC has prepared a parking assessment for a proposed self-storage facility development at the above referenced location. Specifically, the development proposal includes the construction of two-story self-storage facility of 103,022 square feet. A total of 11 striped passenger vehicle spaces are proposed to support the development along with approximately 580 linear feet of loading space around three (3) sides of the building and 19 trailer/RV/boat storage spaces.

Parking Assessment

Parking requirements for these types of facilities are not provided in the local zoning code. Therefore, in order to quantify the anticipated parking need, national parking demand data collected by the Institute of Transportation Engineers (ITE) within their publication *Parking Generation, 5th Edition* was referenced. This publication establishes peak parking demands for multiple land uses based upon different independent variables, such as floor area and employees. For Land Use Code (LUC) 151 – Mini-Warehouse (defined as "self-storage facilities), ITE sets forth an average peak parking demand of a maximum of 0.10 vehicles per 1,000 SF of gross floor area (GFA). This equates to a demand of 10.3 parking spaces. Consequently, it can be anticipated that the proposed 11 parking space supply will be more than sufficient to support the project and is consistent with modern self-storage parking demands. It should be noted that in addition to the 11 striped parking spaces, the striped loading area around the building is often utilized by customers for accessing their storage unit. Assuming a vehicle length of 25-feet, this area can accommodate up to 23 additional vehicles on-site. Similarly, it is anticipated that vehicular activity for the trailer/RV/boat storage will occur in the vicinity of those spaces and not within the striped parking area at the front of the building.

Conclusion

The parking supply proposed exceeds the average peak parking demand observed at similar facilities throughout the country as published by ITE. Therefore, it can be concluded that the proposed parking supply is appropriate and will be more than sufficient to accommodate the maximum anticipated demand.

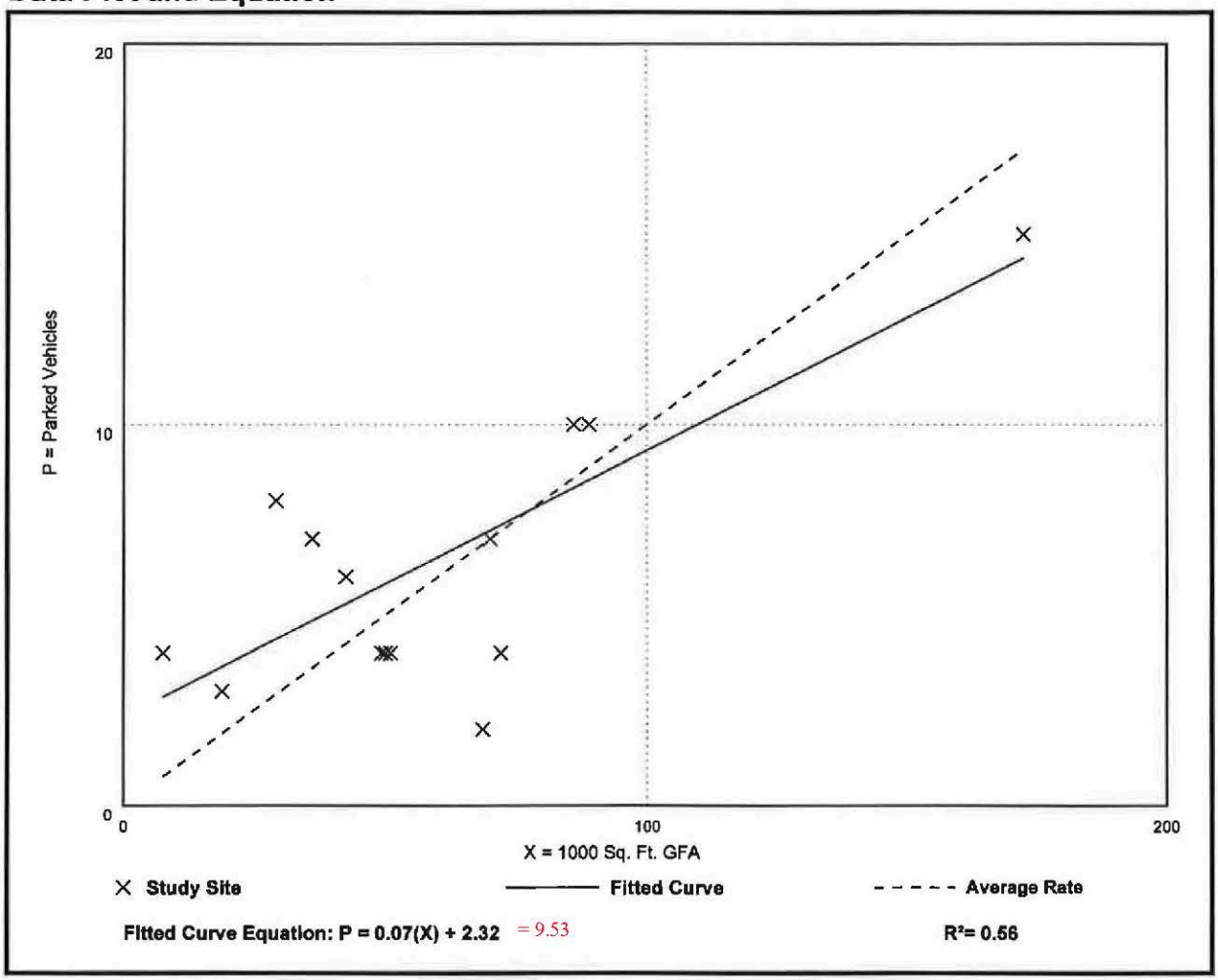
Mini-Warehouse
(151)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 4:00 - 6:00 p.m.
Number of Studies: 14
Avg. 1000 Sq. Ft. GFA: 60

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.10 x 103.022 = 10.3	0.03 - 0.53	0.08 / 0.25	***	0.07 (70%)

Data Plot and Equation



Fitted Curve Equation: P = 0.07(X) + 2.32 = 9.53

R^2= 0.56

Mini-Warehouse
(151)

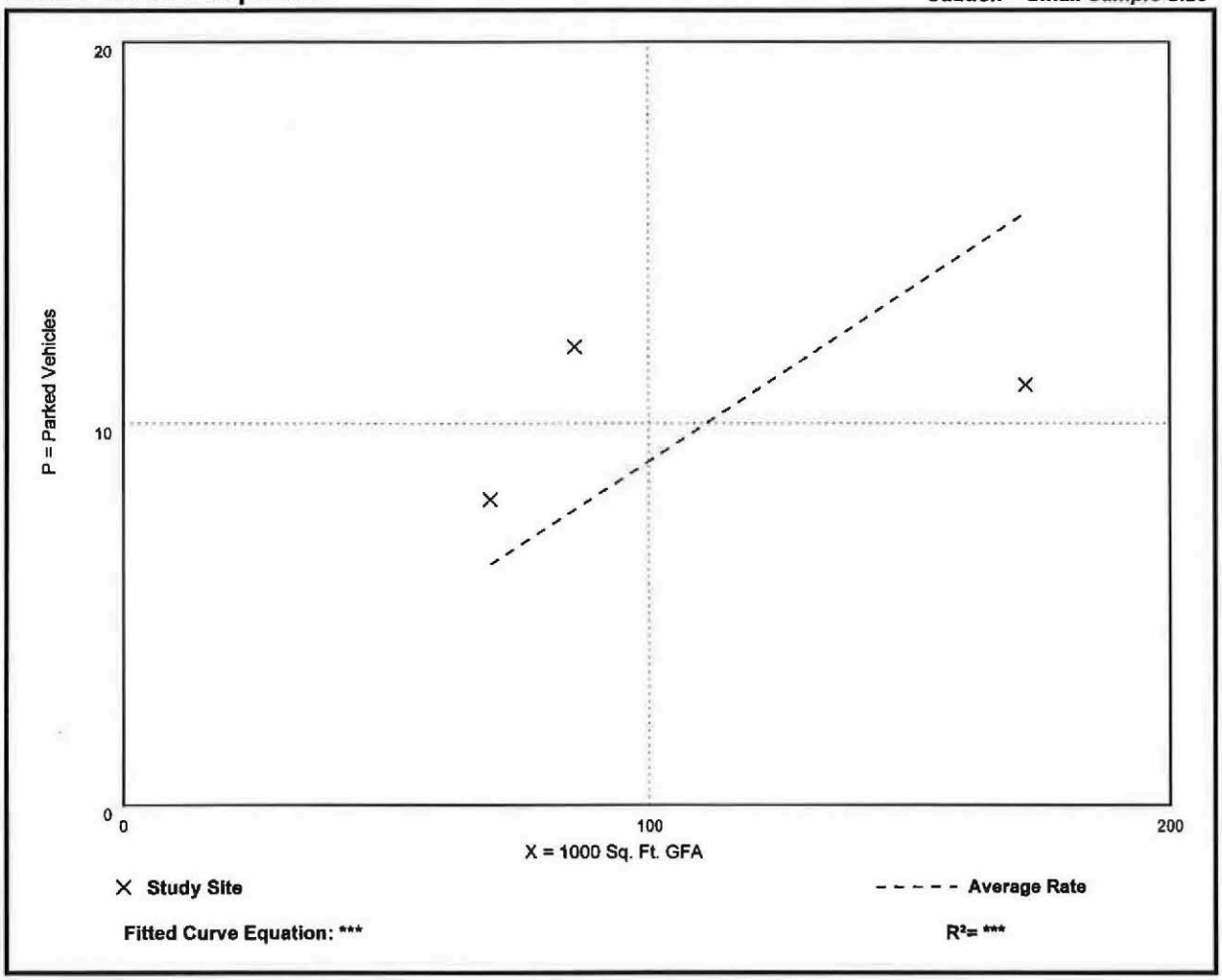
Peak Period Parking Demand vs: 1000 Sq. Ft. GFA
On a: Saturday
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 1:00 - 5:00 p.m.
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 109

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.09 x103.022 = 9.27	0.06 - 0.14	0.08 / 0.14	***	0.04 (44%)

Data Plot and Equation

Caution – Small Sample Size



DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

Dynamic Engineering Consultants, PC
100 NE 5th Avenue, Suite B2
Delray Beach, FL 33483
T. 561-921-8570

February 20, 2023

City of Fort Pierce Planning Department
100 N. U.S. Highway 1
Fort Pierce, Florida 34950

Attn: Vennis Gilmore

RE: Site Plan Development & Design Review
5553 Okeechobee Road
Fort Pierce, Florida 34947
DEC# 1974 22-00933
#22-07000032

Dear Mr. Gilmore,

On behalf of our clients, Johnson Development Associates, the following contains our responses to the comments received in regard to the above-mentioned project. The responses have been provided in bold for your reference:

City of Fort Pierce Planning Department Comments

1. A completion certification by a landscape architect, cost estimate and landscape bond pursuant to City Code 123-6 shall be required before the Final Certificate of Occupancy is approved for the site.

   Response: Acknowledged.

2. Prior to the issuance of any site clearing permits, the applicant shall provide a Tree Mitigation Survey and coordinate with the City of Ft. Pierce Arborist for the required mitigation of the City regulated trees proposed to be removed as a result of this site's development/construction activity.

   Response: Acknowledged.

3. Per City Code Chapter 121 Subdivisions, a Final Plat is required.

   Response: Acknowledged.

4. After completion of the Final Plat, please submit a General Address Request Form for the newly created Parcel ID and for each proposed building.

   Response: Acknowledged.

5. If a monument sign is proposed, please consider installing a landscaped area around the proposed monument sign base which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges, or similar vegetative materials.

   Response: Acknowledged.

6. Per City Code Section 125-314. – Design Review, (4) Elevations (k): Blank walls are discouraged. Walls shall be punctuated with windows, doors, or architectural elements. New construction that includes long dimensions of continuous wall shall employ the use of site breaks to punctuate the streetscape. (Please employ site breaks with any of the above examples)

   Response: The north exterior elevation and west exterior elevation have been revised. storefront veneer windows and trim have been added to reduce the blank wall areas on these facades. Refer to revised Sheet A3.0. The revised areas have been clouded and tagged with a Delta No. 1.

7. Per City Code Section 125-314. – Design Review, (5) Streetscape improvement guidelines: Streetscape improvements include those architectural or functional facilities or structures which occur on site but are not part of the building and which contribute to the overall appearance of the development and encourage and facilitate human interaction with the environment. Examples include, but are not limited to, decorative light fixtures, fountains, sculpture and other civic art, benches and tables, planters, retaining walls, pedestrian and bicycle paths, bicycle parking structures, trash receptacles and enclosures, vendor areas, bollards, and fences. These improvements shall be designed to be consistent with all guidelines of this section and shall be reviewed for aesthetic functionality and compatibility with the city's design expectations. Please employ Streetscape Improvements.

   Response: Two (2) planters have been added to the northeast entrance, as well as a bench and trash receptacle. Please see Sheet C1.00 "Site Plan".

8. Please provide justification for the parking calculation that includes the use of interior and exterior storage.

   Response: A parking assessment memorandum has been provided with the resubmittal package. The assessment includes parking calculations and justification for the parking facilities for self-storage facilities.

9. Please consider a decorative or vinyl fence instead of chain-link for the outside storage area.

   Response: A proposed 8 ft tall vinyl coated chain link fence with visual screen is located outside the Trailer/RV/Boat storage space. See Sheet C1.00 "Site Plan".

St. Lucie County Planning Department

Comments may be forthcoming

Response: Acknowledged, no comments have been received at the time of this letter.

St. Lucie County PW/Engineering

The following comments are offered by SLC PW - Engineering:

1. A review of the traffic report is required by the County's traffic consultant at the cost of the applicant.

   Response: The traffic study prepared by Pinder Troutman Consulting, Inc., dated September 3, 2021 has been submitted, along with the traffic impact statement prepared by Dynamic Traffic, LLC, dated December 12, 2022.

2. Advisory: When Jenkins Road is widened in the future, left turns entering and exiting Jenkins Road driveway may be eliminated.

   Response: Acknowledged.

3. Provide response and the TIS or TIR directly to the County for review. The city does not provide for you.

   Response: Acknowledged.

4. For discussion regarding these comments and response, please contact me at 772-462-2741, chambersg@stlucieco.org or David Hays at 772-462-1491, haysd@stlucieco.org.

   Response: Acknowledged.

Fort Pierce Police Department

Comments may be forthcoming

Response: Acknowledged, no comments have been received at the time of this letter.

City Clerk Office

No comments received

Response: Acknowledged, no comments have been received at the time of this letter.

Code Enforcement

No comments received

Response: Acknowledged, no comments have been received at the time of this letter.

St. Lucie County Fire District

1. Please submit a completed application for Development/Site Plan Review (St. Lucie County Fire District Development & Site Plan Review Application). This form is available on-line at https://www.slcfd.com

   Response: The application, along with the Warranty Deed, Property Card, General Location Map, Survey, revised Plans, check for review fee, and a flash drive with digital copies of all the application documents are being submitted to St. Lucie County Fire District for Development & Site Plan Review.

2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.

   Response: A check dated February 9, 2023 has been included with the application package.

3. Please send the Fire District electronic plans for the site and buildings.

   Response: A flash drive with all application documents, including a complete digitally signed and sealed set of plans, is included with the application package.

4. Be advised: Dimensions of largest vehicle are as follows: 38 tons or 77k lbs, 47.5 ft. total length, 21.5 ft. wheel base, 10.5 ft. total width, 41.5 degree turning radius.

   Response: The fire truck vehicle has been revised to have 47.5' of total length, 21.5' of wheelbase, 10.5' of total width, and 41.5-degree turning radius. See Sheet C1.01 "Vehicle Circulation Plan (Fire)".

5. Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft.

   Response: The minimum width of the proposed two-way traffic driveways is 26 ft. See Sheet C1.00 "Site Plan".

6. Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft.

   Response: The minimum width of the proposed one-way traffic driveways is 18 ft. See Sheet C1.00 "Site Plan".

Florida Department of Transportation

Comments may be forthcoming

Response: Acknowledged, no comments have been received at the time of this letter.

St. Lucie County School Board

No Comments

Response: Acknowledged, no comments have been received at the time of this letter.

St. Lucie Transportation Planning Organization

Comments may be forthcoming

Response: Acknowledged, no comments have been received at the time of this letter.

St. Lucie Transit

Comments may be forthcoming

Response: Acknowledged, no comments have been received at the time of this letter.

Building Department Technical Review Committee (TRC) Comments

1. Building Official or his representative has no comment at the time of this meeting, but reserves submission of comments upon completion of the official plan review.

   Response: Acknowledged.

2. Must meet the following Accessibility requirements:
   - Accessible route
   - Handicapped parking spaces
   - Means of egress

   Response: Acknowledged.

3. Building permit required.

   Response: Acknowledged.

4. Will need to meet the Fire Code.

   Response: Acknowledged.

FPUA W/WW Engineering Comments

1. Water and Sewer services are not immediately available to serve this parcel. Availability would be contingent upon the completion of the required infrastructure under the Fort Pierce Commercial Project, and payment of the applicable fees. Please visit our website at www.fpua.com to review developer requirements, specifications, details, fees, etc. To connect to these services please submit Utility Plan (3 complete sets) along with a completed plan review application to the Water and Wastewater Engineering Department, at 1701 S 37th Street Fort Pierce Florida, 34947.

Should you have any questions please contact John Biggs at 772 466-1600 ext. 3474

Response: Acknowledged.

FPUA Electric & Gas Engineering Comments

1. FPUA Electric & Gas Engineering has reviewed the application. Approved. Both 3-phase electric and gas services are available to serve the site.

   Please contact Sal Scimeca for electric customer requirements and project coordination.

   Sal Scimeca
   Engineering Technician II
   Electric & Gas Engineering
   Fort Pierce Utilities Authority
   sscimeca@fpua.com
   772.466.1600 ext. 6957

   Please contact Billy Dupre for gas customer requirements.

   Billy Dupre
   Business Development Representative
   Gas Operations
   Fort Pierce Utilities Authority
   1701 S 37th Street
   Fort Pierce FL 34947
   C: 772-216-3498
   O: 772-466-1600 X4705
   F: 772-468-241

   Response: Acknowledged.

Engineering Advisory Comments

1. The submitted Stormwater Management Calculations are not the current version. The current/updated Stormwater Management Calculations were revised August 2022. Please ensure the design reflects the most current calculations. Drainage will be more fully reviewed at DPCR submittal, please show calculations for on-site drainage improvements (HGL elevations for the 10 yr 24 hr Storm at inlets if pipe slopes are 0%; OR stormwater profiles showing HGL elevations for the 10 yr 24 hr storm).

   Response: Acknowledged.

2. A Maintenance Plan and Agreement signed by the owner and/or operating entity shall be submitted to the City Engineer prior to issuance of a Certificate of Occupancy. The agreement shall include the operation and maintenance of all stormwater facilities and shall ensure the stormwater management system has a plan for the removal of nuisance and invasive exotics or other vegetation to ensure no re-growth of the same.

   Response: Acknowledged.

3. Recommend west access to Trailer/RV/Boat Storage be one-way entrance to storage lot.

   Response: The west access to the Trailer/RV/Boat Storage spaces is a one-way road. See Sheet C1.00 "Site Plan".

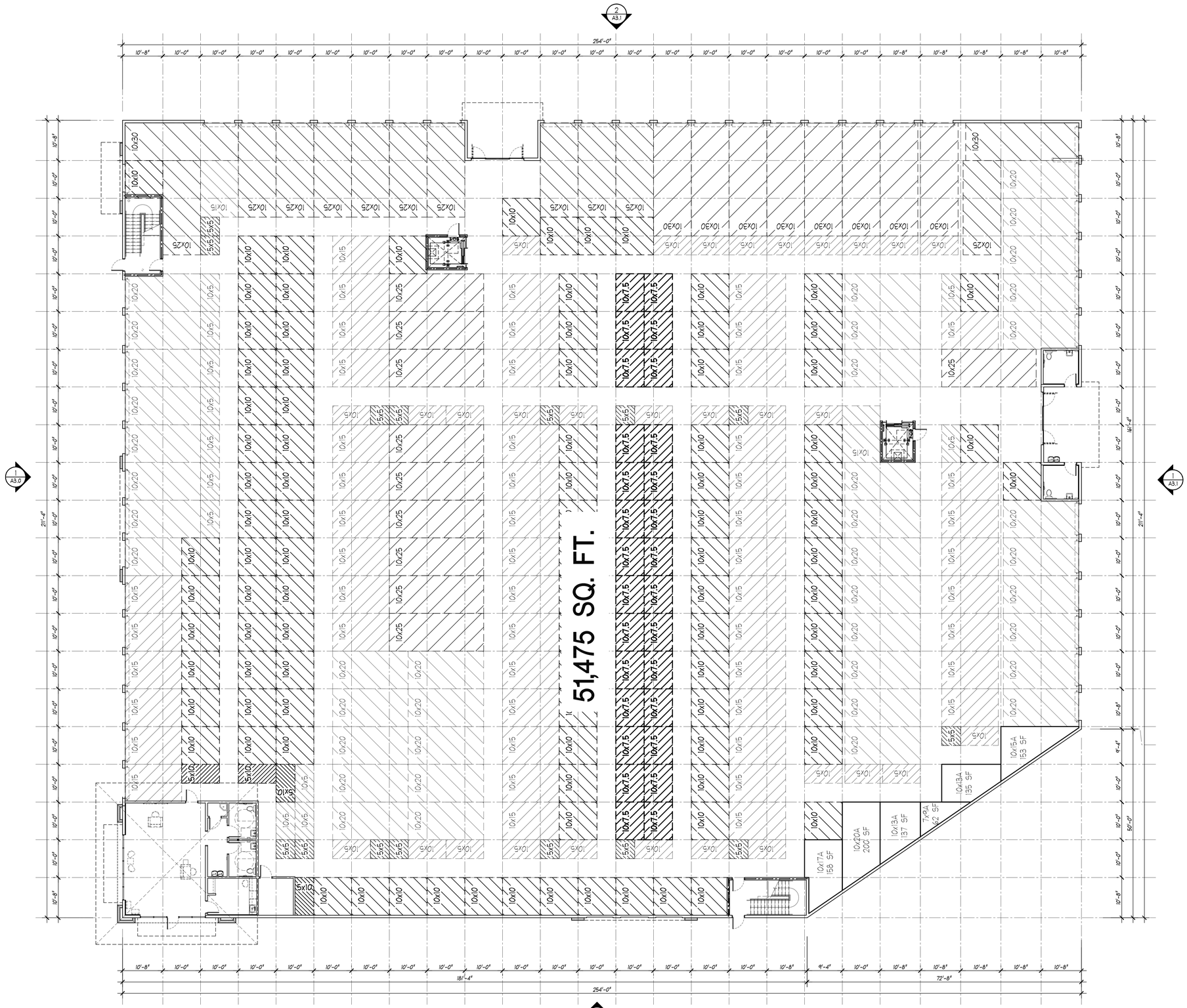
Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,

DYNAMIC ENGINEERING CONSULTANTS, PC



Juan Rivillas
Design Engineer



FIRST FLOOR PLAN

SCALE: 3/32" = 1'-0"

NORTH

51,475 GROSS SQ. FT.

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
FABER@FWHARCHITECTS.COM

JOHNSON DEVELOPMENT ASSOCIATES, INC.
REAL ESTATE DEVELOPERS
100 DUNBAR STREET
SPARTANBURG, SC 29306
Ph. (864) 585-2000

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

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no.	date	revision descriptions

DEVELOPMENT REVIEW PLANS
PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-0005
FORT PIERCE, FLORIDA 34947

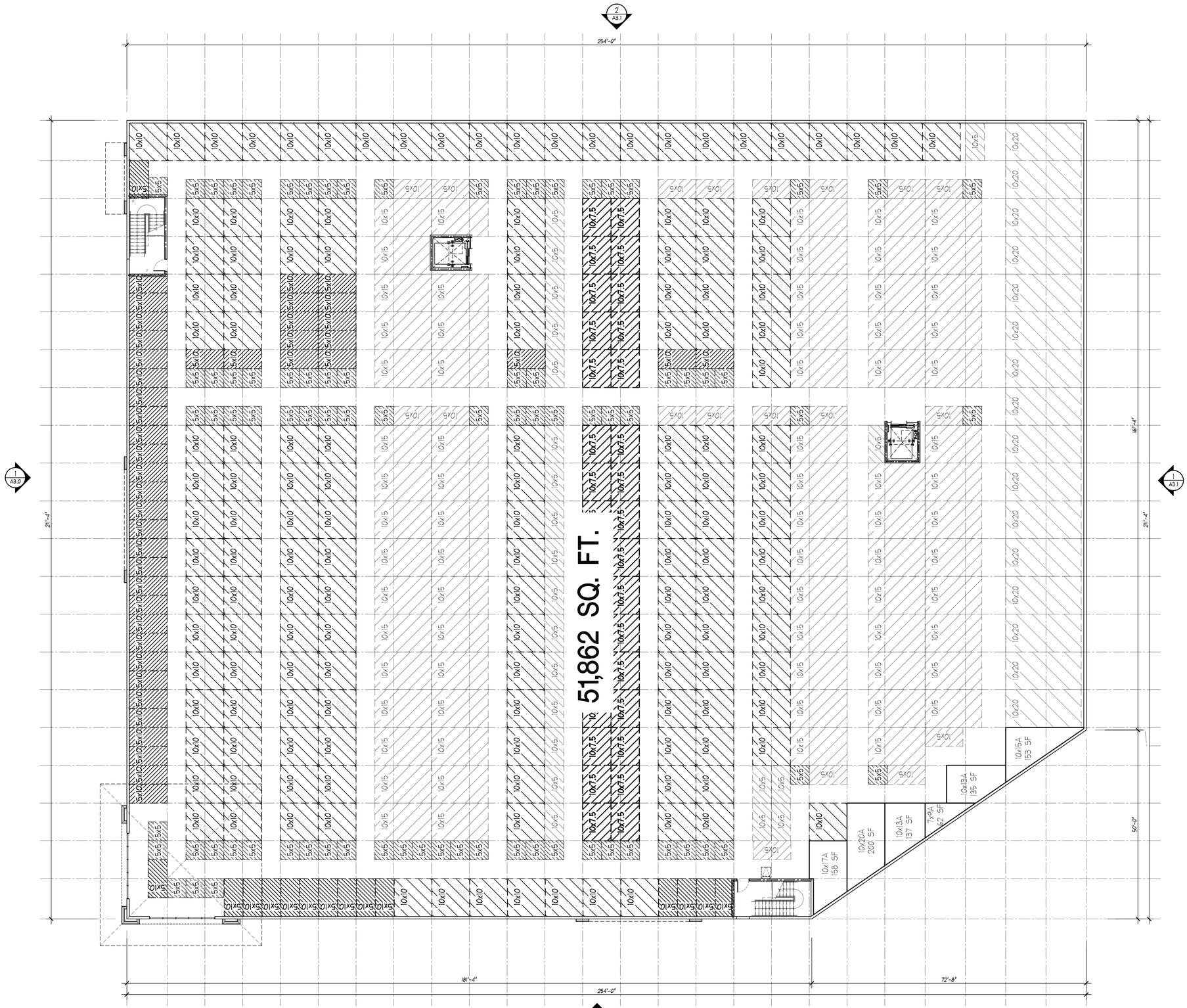
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FIRST
FLOOR PLAN

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SECOND FLOOR PLAN

SCALE: 3/32" = 1'-0"

NORTH

51,862 GROSS SQ. FT.

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
FABER@FWHARCHITECTS.COM

JOHNSON DEVELOPMENT ASSOCIATES, INC.
REAL ESTATE DEVELOPERS
100 DUNBAR STREET
SPARTANBURG, SC 29306
Ph. (864) 585-2000

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

DEVELOPMENT REVIEW PLANS
PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-0005
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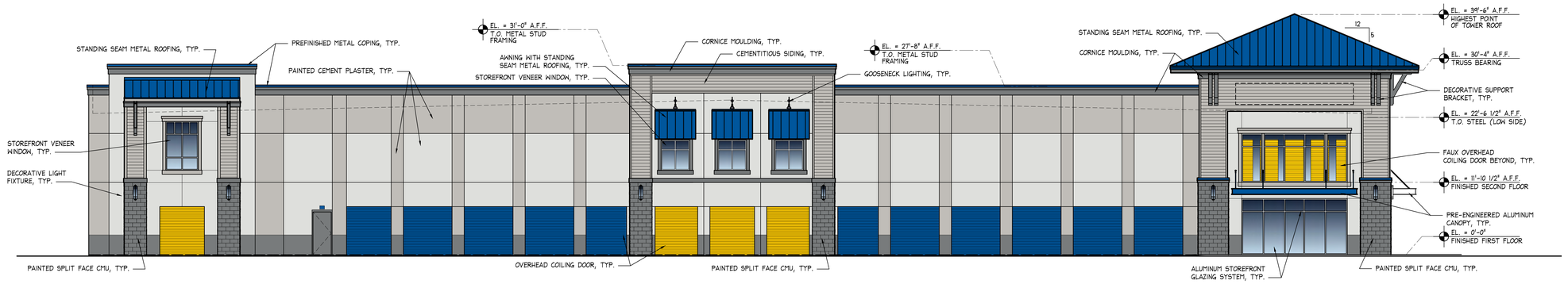
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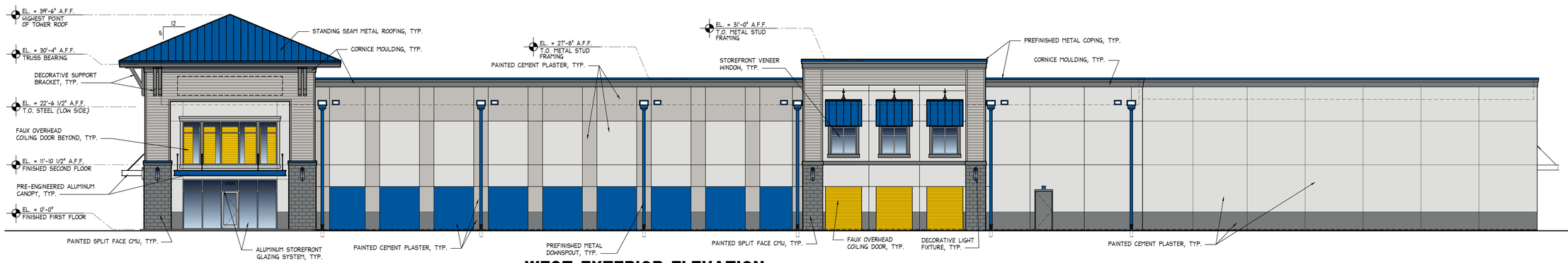
SECOND
FLOOR PLAN

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1 NORTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"

GENERAL NOTES

SIGNAGE NOTES:

ANY BUILDING MOUNTED SIGNAGE DEPICTED IN THESE DOCUMENTS IS FOR COORDINATION PURPOSES ONLY AND IS NOT INTENDED FOR FABRICATION OR INSTALLATION BY THE GENERAL CONTRACTOR. IT SHALL BE UNDERSTOOD THAT ALL EXTERIOR BUILDING MOUNTED AND SITE SIGNAGE WILL BE PERMITTED SEPARATELY BY THE OWNER'S SIGN VENDOR. AT THAT TIME, COMPLETE DETAILS INCLUDING, BUT NOT LIMITED TO, SIGN FABRICATION, SIGN INSTALLATION, SIGN AREA AND QUANTITIES, ETC. SHALL BE SUBMITTED (BY THE SIGN VENDOR) FOR PERMIT AND APPROVAL PRIOR TO COMMENCEMENT OF WORK. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS

FACILITY ADDRESS REQUIREMENTS:

NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY

ADDRESS NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMERALS SHALL BE AT LEAST 6 INCHES IN HEIGHT

WHERE ADDRESS IDENTIFICATION IS REQUIRED BY THE FIRE OFFICIAL ON OTHER ELEVATIONS OF BUILDINGS, SUCH NUMERALS SHALL NOT BE LESS THAN SIX INCHES IN HEIGHT

ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS

WALL COUNTERFLASHING DETAILS:

REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

EXTERIOR FINISH NOTES

EXTERIOR INSULATION FINISH SYSTEM (EIFS) REQUIREMENTS:

1. THE STANDARD FINISH COAT OVER CEMENT PLASTER SURFACES SHALL BE AN ACRYLIC EIFS FINISH COAT, 'DRYVIT TAFTS' (OPTION 1) AS MANUFACTURED BY DRYVIT SYSTEMS, INC. COLORS, AS SPECIFIED ON THE EXTERIOR FINISH SCHEDULE, HAVE BEEN SELECTED FROM DRYVIT'S STANDARD COLORS. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 10-YEAR MANUFACTURER WARRANTY

2. WHERE A CUSTOM COLOR IS REQUIRED FOR THE FINISH COAT OVER CEMENT PLASTER SURFACES, AN ACRYLIC EIFS FINISH COAT, 'DRYVIT TAFTS' (OPTION 1) WITH STRATOTONE COLOR MATCHING SYSTEM AS MANUFACTURED BY DRYVIT SYSTEMS, INC. SHALL BE PROVIDED. CUSTOM COLORS ARE SPECIFIED ON THE EXTERIOR FINISH SCHEDULE. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 5-YEAR MANUFACTURER WARRANTY

3. ALL FINISH COAT TEXTURES SHALL BE 'SANDPEBBLE FINE' UNLESS OTHERWISE NOTED

4. WHERE FOAM TRIM, CORNICE MOLDING OR OTHER SHAPES ARE SPECIFIED, COMPONENTS SHALL BE AS MANUFACTURED BY 'DRYVIT SHAPES BY ACROCORE' AND SHALL BE COMPRISED OF A TYPE I CLASSIFICATION EXPANDED POLYSTYRENE WRAPPED IN A FLEXIBLE IMPACT RESISTANT FIBERGLASS MESH AND COATED WITH A FACTORY APPLIED POLYMER MODIFIED, FLEXIBLE CEMENT COATING

5. ALL GENERAL CONTRACTOR BIDS SHALL INCLUDE THE ABOVE STATED SYSTEMS / PRODUCTS IN THEIR BASE BIDS. SUBSTITUTIONS WILL BE CONSIDERED FOR APPROVAL BUT ONLY IF FULLY QUALIFIED IN BIDS INCLUDING COMPLETE SYSTEM / PRODUCT SPECIFICATIONS AND ASSOCIATED COSTS

ALUMINUM COPING, DRIP EDGES, SCUPPERS AND DOWNSPOUT REQUIREMENTS:

1. ALL COMPONENTS SHALL BE PREFINISHED WITH A FACTORY APPLIED, KYNAR 500 FINISH OR MANUFACTURER EQUIVALENT. COLORS SHALL BE AS SPECIFIED FROM THE MANUFACTURER'S STANDARD COLOR OPTIONS

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EXTERIOR FINISH SCHEDULE

PAINT COLOR	**PAINT COLOR**	**PAINT COLOR**	**METAL COLOR**	**METAL COLOR**	**METAL COLOR**	**METAL COLOR**	**GLAZING**
BENJAMIN MOORE 1-04 DECORATORS WHITE	BENJAMIN MOORE AC-28 SMOKE EMBERS	BENJAMIN MOORE 2121-20 STEEL WOOL	LIFE STORAGE BLUE PANTONE COATED 286C PANTONE 2935U	LIFE STORAGE YELLOW PANTONE COATED 116C PANTONE 116U	JANUS INTERNATIONAL SATIN WHITE	YKK CLEAR ANODIZED ALUMINUM	CLEAR, NON-TINTED

12/15/2022 8:43 PM

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
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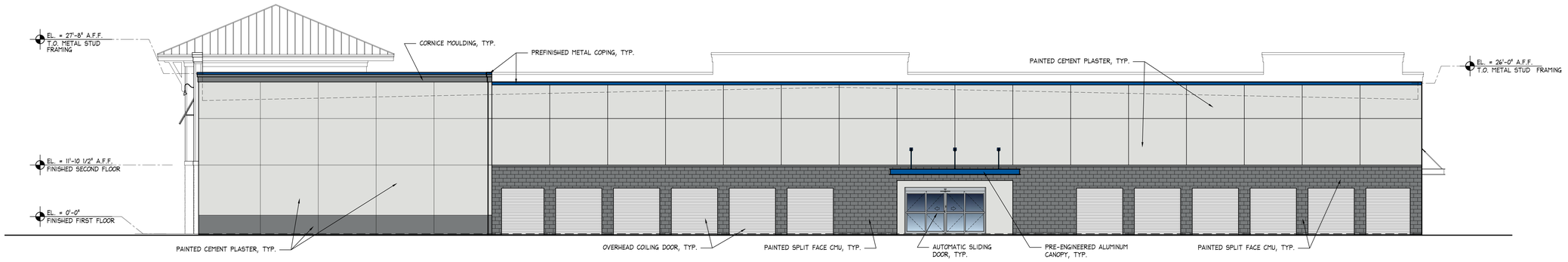
DEVELOPMENT REVIEW PLANS
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PARCEL ID #2419-32-1-0001-0005
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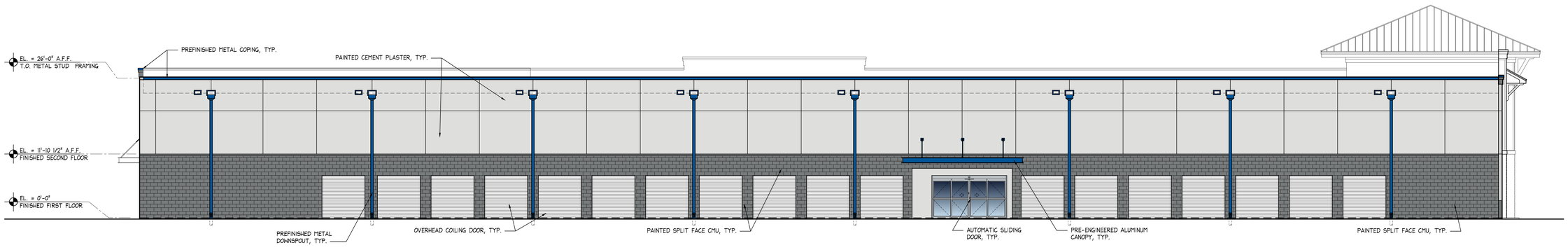
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EXTERIOR ELEVATIONS

A3.0



1 SOUTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



2 EAST EXTERIOR ELEVATION
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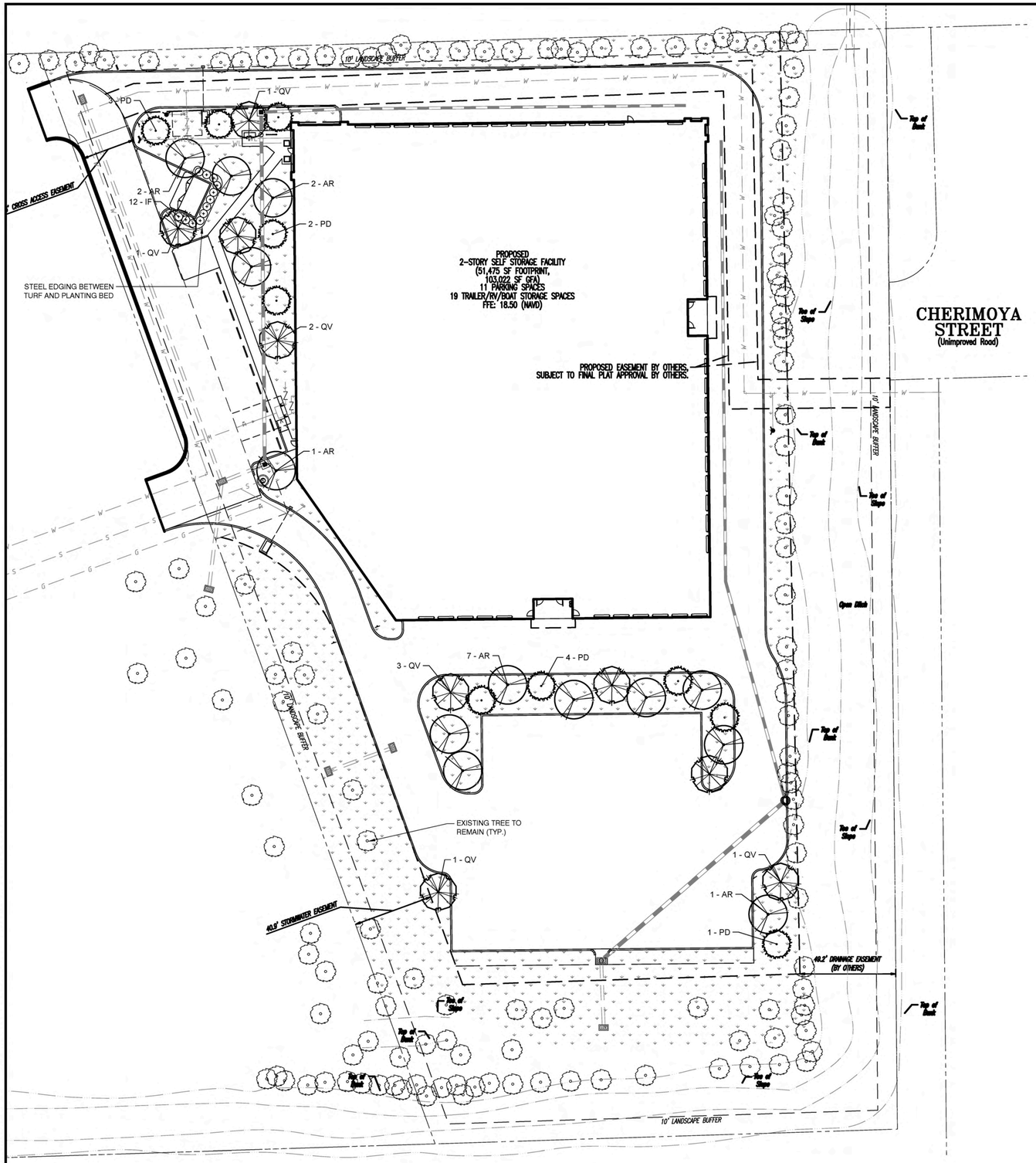
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EXTERIOR ELEVATIONS

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PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CALIPER	ROOT	HEIGHT	QTY
	AR	Acer rubrum var. drummondii / Drummond Red Maple Native	2.5" Cal.	B&B or Cont.	12`-14`	13
	PD	Pinus elliotti densa / Slash Pine Native	2.5" Cal.	B&B or Cont.	12` min.	10
	QV	Quercus virginiana / Southern Live Oak Native; Drought Tolerant	2.5" Cal.	B&B or Cont.	12` min.	9

SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	
+	IF	Illicium floridanum / Florida Anise Native; Drought Tolerant	3 gal.	Cont.	48" o.c.	12

GROUND COVERS	CODE	BOTANICAL / COMMON NAME	QTY
	PN	Paspalum notatum / Bahiagrass Sod	42,335 sf

LANDSCAPE CALCULATIONS

TREE REQUIREMENTS

PERIMETER LANDSCAPE STRIP (ABUTTING ROW)
0 TREES REQUIRED*

PERIMETER LANDSCAPE STRIP
(ABUTTING OTHER PROPERTIES) = 1,235 LF x 10' WIDE
12,350 SF DIV. BY 200 = 62 TREES REQUIRED — 89 TREES PROVIDED**

INTERIOR VEHICULAR USE AREAS
= 47,343 S.F. (PARCEL ONE ONLY
47,343/15 = 3,156 S.F. REQUIRED PLANTING AREA — 4,547 SF PROVIDED
1 TREE PER 100 SF OF REQUIRED PLANTING AREA
32 INTERIOR VUA TREES REQUIRED — 32 TREES PROVIDED

TOTAL TREES REQUIRED: 94 TREES — 121 TOTAL TREES PROVIDED**

SHRUB REQUIREMENTS

PERIMETER LANDSCAPE STRIP (ABUTTING ROW) = 0 LF*
PERIMETER LANDSCAPE STRIP (ABUTTING RESIDENTIAL)= 1,235 LF
CONTINUOUS HEDGE @ 36" OC = 412 SHRUBS REQUIRED — 412 SHRUBS PROVIDED
TOTAL SHRUBS REQUIRED: 412 SHRUBS — 412 TOTAL SHRUBS PROVIDED

*LOT DOES NOT ABUT A ROW
**TREE TOTALS INCLUDE EXISTING TREES

GENERAL GRADING AND PLANTING NOTES

1. BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
3. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
   a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
   b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
   c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (**BASED ON A SOIL TEST** PER SPECIFICATIONS), AND FINISH GRADES TO BE ESTABLISHED.
   d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
   e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
   f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
4. ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
   a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
   b. **NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.** IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING (VIA PROPER CHANNELS).
   c. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE LANDSCAPE ARCHITECT AND THE OWNER/OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
5. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
6. PLANT MATERIALS USED FOR CONFORMANCE WITH THIS ARTICLE SHALL MEET OR EXCEED THE STANDARDS FOR FLORIDA NO. 1 AS SET OUT IN THE MOST CURRENT EDITION OF GRADES AND STANDARDS FOR NURSERY PLANTS PART 1 AND PART 2, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE.
7. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" THICK LAYER OF 1-1/2" SHREDDED WOOD MULCH, NATURAL (UNDYED), OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS (EXCEPT FOR TURF AND SEEDED AREAS). CYPRESS MULCH SHALL NOT BE USED. CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).



GRAPHIC SCALE
0 15 30 60
(IN FEET)

EVERGREEN
DESIGN GROUP
(800) 680-6630
2255 Glades Road, Suite 324A
Boca Raton, FL 33431
www.EvergreenDesignGroup.com
LA #6666710

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PROJECT: PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
LOT 1, PLAT NO. 1 OF THE CHERIMOYA COMMERCIAL PLAT
OKEECHOBEE ROAD (SR 70) & JENKINS ROAD
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

TITLE: LANDSCAPE PLANTING

SCALE: (H) (V) | DATE: 12/15/2022
PROJECT No: 22-00933

SHEET No: LP-1 | Rev. #:

Plotted: 02/15/23 – 11:41 AM, By:
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PLANTING SPECIFICATIONS

GENERAL

A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR
   1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
   2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
   3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE APPROPRIATE LOCAL JURISDICTION.

B. SCOPE OF WORK
   1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
   2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
   3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

PRODUCTS

A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.
B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
   1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS.
   2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
   3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.
   4. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
   5. ALL TREES SHALL BE FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
   6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
   7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
   8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.
D. SEED: PROVIDE BLEND OF SPECIES AND VARIETIES AS NOTED ON THE PLANS, WITH MAXIMUM PERCENTAGES OF PURITY, GERMINATION, AND MINIMUM PERCENTAGE OF WEED SEED AS INDICATED ON PLANS. EACH BAG OF SEED SHALL BE ACCOMPANIED BY A TAG FROM THE SUPPLIER INDICATING THE COMPOSITION OF THE SEED.
E. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS.
F. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENSIM NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
G. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).
H. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
I. TREE STAKING AND GUYING
   1. STAKES: 6' LONG GREEN METAL T-POSTS.
   2. GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER.
   3. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
L. STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL.
M. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

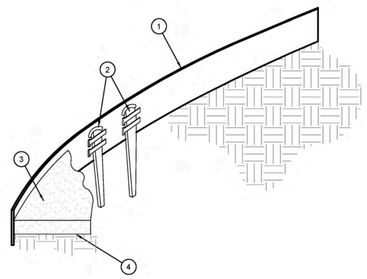
METHODS

A. SOIL PREPARATION
   1. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
   2. SOIL TESTING:
      a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL, TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.
      b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC) , LIME, SODIUM (AS ABSORPTION RATIO AR) AND BORON CONTENT
      c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
      d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWNG (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM AND RATE FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
   3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
   4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
      a. TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
         i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
         ii. PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) - 15 LBS PER 1,000 S.F.
         iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
      b. TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
         i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
         ii. 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) - 10 LBS. PER CU. YD.
         iii. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE
         iv. IRON SULPHATE - 2 LBS. PER CU. YD.
   5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.
      a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
      b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
      c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (**BASED ON A SOIL TEST**, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
      d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
      e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.
      f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
   6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

B. SUBMITTALS
   1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES.
   2. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE, PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE APPROPRIATE).
   3. SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY).
   4. WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE ITEM BEING CONSIDERED.
C. GENERAL PLANTING
   1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
   2. EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
   3. TRENCHING NEAR EXISTING TREES:
      a. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
      b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
      c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
      d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.
C. TREE PLANTING
   1. TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES.
   2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
   3. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
   4. INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.
   5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.
   6. TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:

a.	1"-2" TREES	TWO STAKES PER TREE
b.	2-1/2"-4" TREES	THREE STAKES PER TREE
c.	TREES OVER 4" CALIPER	GUY AS NEEDED
d.	MULTI-TRUNK TREES	THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE

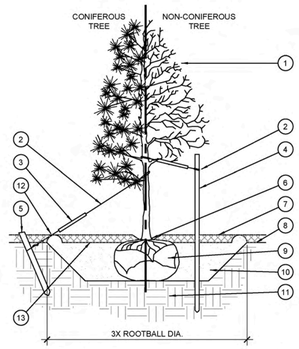
   7. UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH MULCH (TYPE AND DEPTH PER PLANS).
D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING
   1. DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
   2. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA.
E. SODDING
   1. SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
   2. LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN.
   3. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
   4. ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH.
   5. WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.
F. MULCH
   1. INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND TREE RINGS.
   2. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
I. CLEAN UP
   1. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
   2. LEGALLY DISPOSE ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
J. INSPECTION AND ACCEPTANCE
   1. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
   2. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
   3. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
K. LANDSCAPE MAINTENANCE
   1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES,REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
   2. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER.
   3. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
      a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
      b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
      c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.
L. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS
   1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED/HYDROMULCHED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
   2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.
M. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.



1. ROLLED-TOP STEEL EDGING PER PLANS.
2. TAPERED STEEL STAKES.
3. MULCH, TYPE AND DEPTH PER PLANS.
4. FINISH GRADE.

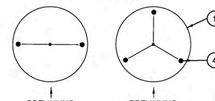
NOTES:
1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED.
2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE.
3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.

C STEEL EDGING
SCALE: NOT TO SCALE



1. TREE CANOPY.
2. CINCH-TIES (24" BOX/2" CAL. TREES AND SMALLER) OR 12 GAUGE GALVANIZED WIRE WITH NYLON TREE STRAPS AT TREE AND STAKE (36" BOX/2.5" CAL. TREES AND LARGER). SECURE TIES OR STRAPS TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
3. 24" X 3/4" P.V.C. MARKERS OVER WIRES.
4. GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN. INTO UNDISTURBED SOIL.
5. PRESSURE-TREATED WOOD DEADMAN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
6. TRUNK FLARE.
7. MULCH, TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 6" OF TRUNK.
8. FINISH GRADE.
9. ROOT BALL.
10. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
11. UNDISTURBED NATIVE SOIL.
12. 4" HIGH EARTHEN WATERING BASIN.
13. FINISH GRADE.

STAKING EXAMPLES (PLAN VIEW)



NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 2"-4" ABOVE FINISH GRADE.
3. FOR B&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL.
4. REMOVE ALL NURSERY STAKES AFTER PLANTING.
5. FOR TREES 36" BOX/2.5" CAL. AND LARGER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
6. STAKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT IN WIND.

A TREE PLANTING
SCALE: NOT TO SCALE

OPEN LANDSCAPE PARKWAY

1. TYPICAL WALKWAY OR PAVING
2. TREE TRUNK
3. TYPICAL SYMBOL FOR LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND MANUFACTURER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
4. TREE CANOPY
5. TYPICAL PLANTING AREA
6. TYPICAL CURB AND GUTTER

D ROOT BARRIER - PLAN VIEW
SCALE: NOT TO SCALE

1. SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
2. MULCH, TYPE AND DEPTH PER PLANS. PLACE NO MORE THAN 1" OF MULCH WITHIN 6" OF PLANT CENTER.
3. FINISH GRADE.
4. ROOT BALL.
5. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
6. UNDISTURBED NATIVE SOIL.
7. 3" HIGH EARTHEN WATERING BASIN.

B SHRUB AND PERENNIAL PLANTING
SCALE: NTS

EVERGREEN DESIGN GROUP
(800) 680-6630
2255 Glades Road, Suite 324A
Boca Raton, FL 33431
www.EvergreenDesignGroup.com
LA #6666710

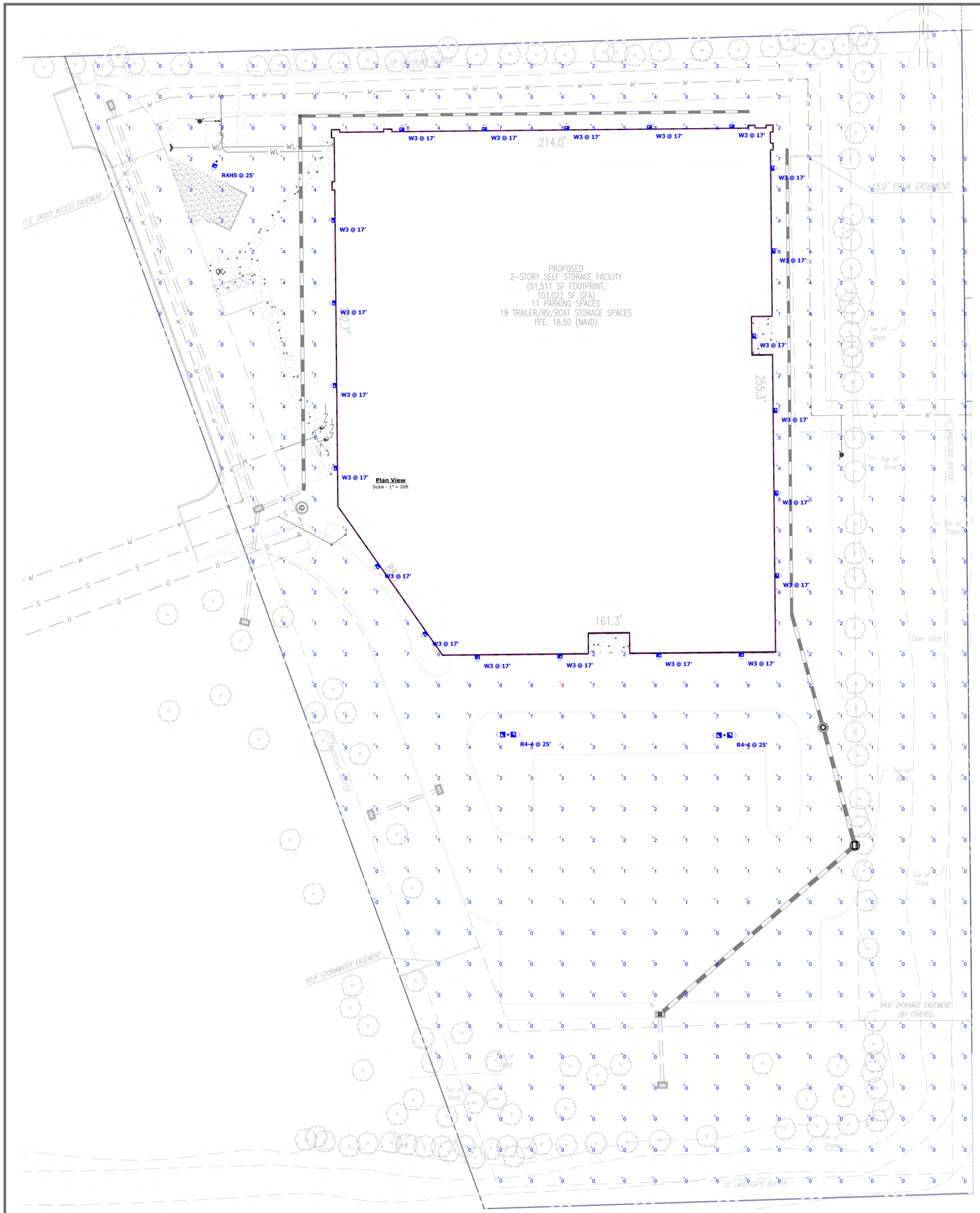
DYNAMIC
ENGINEERING • LANDSCAPE ARCHITECTURE • EARTH
SURVEY • TRAFFIC

REV.	DATE	COMMENTS	BY
1	02/07/23	AGENCY COMMENTS	KAK

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DRAWN BY: JWG | DESIGNED BY: JWG | CHECKED BY: KB | CHECKED BY: RM

PROJECT: PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-000-5
SOUTHWEST QUADRANT OF FE



Plan View
Scale - 1" = 20ft

Luminaire Locations

		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	R4-4	1486.03	-255.72	25.00	25.00	270.00	0.00			
	R4-4-1	1483.45	-255.72	25.00	25.00	270.00	0.00	1484.74	-255.72	0.00
	R4-4-2	1488.61	-255.72	25.00	25.00	90.00	0.00	1487.32	-255.72	0.00
2	R4-4	1590.88	-256.00	25.00	25.00	270.00	0.00			
	R4-4-1	1588.30	-256.00	25.00	25.00	270.00	0.00	1589.59	-256.00	0.00
	R4-4-2	1593.46	-256.00	25.00	25.00	90.00	0.00	1592.17	-256.00	0.00
2	R4HS	1344.81	21.88	25.00	25.00	203.70	0.00	1344.35	20.83	0.00
1	W3	1434.55	37.33	17.00	17.00	0.00	0.00	1434.55	37.33	0.00
2	W3	1614.13	18.54	17.00	17.00	90.00	0.00	1614.13	18.54	0.00
3	W3	1599.07	-217.05	17.00	17.00	180.00	0.00	1599.07	-217.05	0.00
4	W3	1474.58	37.54	17.00	17.00	0.00	0.00	1474.58	37.54	0.00
5	W3	1514.54	38.02	17.00	17.00	0.00	0.00	1514.54	38.02	0.00
6	W3	1554.53	38.43	17.00	17.00	0.00	0.00	1554.53	38.43	0.00
7	W3	1594.53	38.79	17.00	17.00	0.00	0.00	1594.53	38.79	0.00
8	W3	1614.67	-21.47	17.00	17.00	90.00	0.00	1614.67	-21.47	0.00
9	W3	1605.09	-62.68	17.00	17.00	90.00	0.00	1605.09	-62.68	0.00
10	W3	1615.53	-98.75	17.00	17.00	90.00	0.00	1615.53	-98.75	0.00
11	W3	1616.07	-138.76	17.00	17.00	90.00	0.00	1616.07	-138.76	0.00
12	W3	1616.33	-178.76	17.00	17.00	90.00	0.00	1616.33	-178.76	0.00
13	W3	1559.08	-217.26	17.00	17.00	180.00	0.00	1559.08	-217.26	0.00
14	W3	1511.15	-217.85	17.00	17.00	180.00	0.00	1511.15	-217.85	0.00
15	W3	1471.16	-218.22	17.00	17.00	180.00	0.00	1471.16	-218.22	0.00
16	W3	1445.92	-206.95	17.00	17.00	237.42	0.00	1445.92	-206.95	0.00
17	W3	1422.88	-174.21	17.00	17.00	237.42	0.00	1422.88	-174.21	0.00
18	W3	1402.56	-126.70	17.00	17.00	270.00	0.00	1402.56	-126.70	0.00
19	W3	1402.16	-86.64	17.00	17.00	270.00	0.00	1402.16	-86.64	0.00
20	W3	1401.81	-46.68	17.00	17.00	270.00	0.00	1401.81	-46.68	0.00
21	W3	1401.41	-6.61	17.00	17.00	270.00	0.00	1401.41	-6.61	0.00

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Property Boundary	+	1 fc	9 fc	0 fc	N/A	N/A

Schedule

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Light Loss Factor	Wattage
	R4HS		1	Lithonia Lighting	DSX1 LED P4 40K T4M MVOLT HS	DSX1 LED P4 40K T4M MVOLT with houseside shield	11006	0.92	125
	W3		21	Lithonia Lighting	KAXW LED P3 40K R4 MVOLT	Wall Pack, Higher Lumen	9707	0.92	79
	R4-4		2	Lithonia Lighting	DSX1 LED P6 40K T4M	DSX1 LED P6 40K T4M MVOLT, dual heads	20845	0.92	330.5

Existing Lighting Survey Notes

1. Readings are shown in units of maintained footcandles.
2. Total Light Loss Factor (LLF) = 8% or 0.92
3. Test Plane = 0' AFF
4. Fixture Mounting Height = 25 ' AG for all pole-mounted area lights, 17' for wall packs; 15' for under-canopy lights; see fixture location schedule.
5. Building Height = 45' AFF
6. Building Reflectance Value = 10/10/10
7. Fixture Spacing = See Fixture Locations Schedule
8. This photometric layout was calculated using specific criteria. Any deviation from stated parameters will affect actual performance.
9. These lighting calculations are not a substitute for independent engineering analysis of lighting system suitability and safety.

Lighting · Energy · Design
SPECIALISTS
NATIONAL ACCOUNTS

JDA Self Storage
Fort Pierce, FL
Preliminary Site Photometric

Designer
SC
Date
12/14/2022
Scale
Not to Scale
Drawing No.
ORIG
Summary

FT. PIERCE COMMERCIAL
TRAFFIC IMPACT STUDY

Prepared for

OKEEJEN, LLC

Prepared by

PINDER TROUTMAN CONSULTING, INC.
Certificate of Authorization Number: 7989
2005 Vista Parkway, Suite 111
West Palm Beach, FL 33411
(561) 296-9698



Digitally signed by
Rebecca J Mulcahy
Date: 2021.11.04
12:08:45 -04'00'

#PTC21-064
September 3, 2021
Revised November 4, 2021

Rebecca J. Mulcahy, State of Florida, Professional Engineer, License No. 42570
This item has been electronically signed and sealed by Rebecca J. Mulcahy, P.E. on 11/4/21 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FT. PIERCE COMMERCIAL
TRAFFIC IMPACT STUDY

Introduction

Pinder Troutman Consulting, Inc. (PTC) has been retained to conduct a traffic impact analysis for a proposed commercial development located in the City of Ft. Pierce. The purpose of this study is to examine the traffic impacts of the proposed development on the surrounding roadway network and to determine compliance with Chapter 105 – Concurrency Management, of the City of Ft. Pierce Land Development Code.

Site Data

The site, which is currently vacant, is located in the southeast quadrant of Okeechobee Road and Jenkins Road, as shown on **Exhibit 1**. The proposed Project consists of 2,533 SF Retail, 19,209 SF Grocery Store and 2,448 SF High Turnover Restaurant. Proposed access to the site is via one driveway connection to Okeechobee Road and one driveway connection to Jenkins Road. Both driveways will be shared with Wawa and are existing today. See **Appendix A** for Conceptual Site Plan. Any reference to intersection geometrics is conceptual in nature and subject to final design and approval by others. A 2024 buildout is proposed.

Existing Traffic Conditions

The latest available daily and peak hour traffic volumes and adopted level of service volumes for the surrounding roadway links were used. The sources of the traffic count data are the St. Lucie TPO "Traffic Counts and Level of Service Report, Fall 2021" and the FDOT Florida Traffic Online. The intersection count of Okeechobee Road & Jenkins Road was obtained in April 2019. Existing driveway counts were obtained in October 2021. The traffic counts and peak season factor reports are provided in **Appendix B**.

Roadway Improvements

The Transportation Improvement Program from the St. Lucie TPO was reviewed to determine if any roadways within the study area are scheduled to be improved during the buildout of this project. Kings

Highway from south of Okeechobee Road to north of Picos Road is currently being widened to four lanes. There are no other scheduled construction projects at this time.

Trip Generation

The Institute of Transportation Engineers (ITE), Trip Generation, *10th Edition* was reviewed to determine acceptable daily and peak hour trip generation rates for the proposed project. **Exhibit 2** provides the daily, AM and PM peak hour trip generation data for the proposed development. Because of the mix of commercial uses, internalization of trips is expected. **Appendix C** contains the internalization matrices. Based on these calculations, the Project generates 1,698 daily, 54 AM peak hour and 141 PM peak hour trips. Based on the peak hour trips, a two-mile radius of development influence is required.

Trip Distribution and Assignment

A directional distribution was developed based on a review of land use patterns, existing travel patterns and the roadway network. The resultant Project distribution is shown on **Exhibit 3A**. **Exhibits 3B and 3C** show the assignment of AM and PM peak hour Project traffic on the surrounding roadway network, as well as the Project's impact percentage (% of peak hour directional service volume) to determine Project significance. Project traffic is considered to be significant on the directly accessed Major Road where Project traffic consumes one percent or more of the directional capacity, and on any other Major Road within two miles where Project traffic consumes five percent or more of the directional capacity. Therefore, the significantly impacted roadway link is Jenkins Road from Edwards Road to Okeechobee Road in the PM peak hour.

Historic Growth

Historic growth trends must be analyzed in the projection of future background traffic volumes. Historic growth data was obtained from FDOT Traffic Online for a three-year period and is shown on **Exhibit 4** for the surrounding roadway links. In order to account for area growth and committed development traffic, an areawide growth rate of 3.90% was used in the link and intersection analyses.

Intersection Analysis

Intersection capacity analyses are required for the major intersections within a significantly impacted roadway segment. The intersection of Okeechobee Road & Jenkins Road was analyzed using Highway Capacity Manual procedures. Turning movement counts for this intersection were collected in April 2019 and are included in **Appendix B**. Projected, year 2024, background traffic was calculated based on a 3.90% growth rate. Project traffic was then added to the background traffic. The intersection worksheets and HCS capacity analyses (using optimized signal timing) are provided in **Appendix D**. The results are summarized on **Exhibit 5**. The intersection is currently operating at level of service (LOS) C, and is projected to do so with the Project in 2024.

Roadway Link Capacity Analysis

Exhibit 6 provides future peak hour traffic projections for the significantly impacted roadway links. The total traffic consists of existing traffic plus the historic growth and Project traffic. The roadway links are projected to operate at LOS C without the Project, and with the Project in 2024.

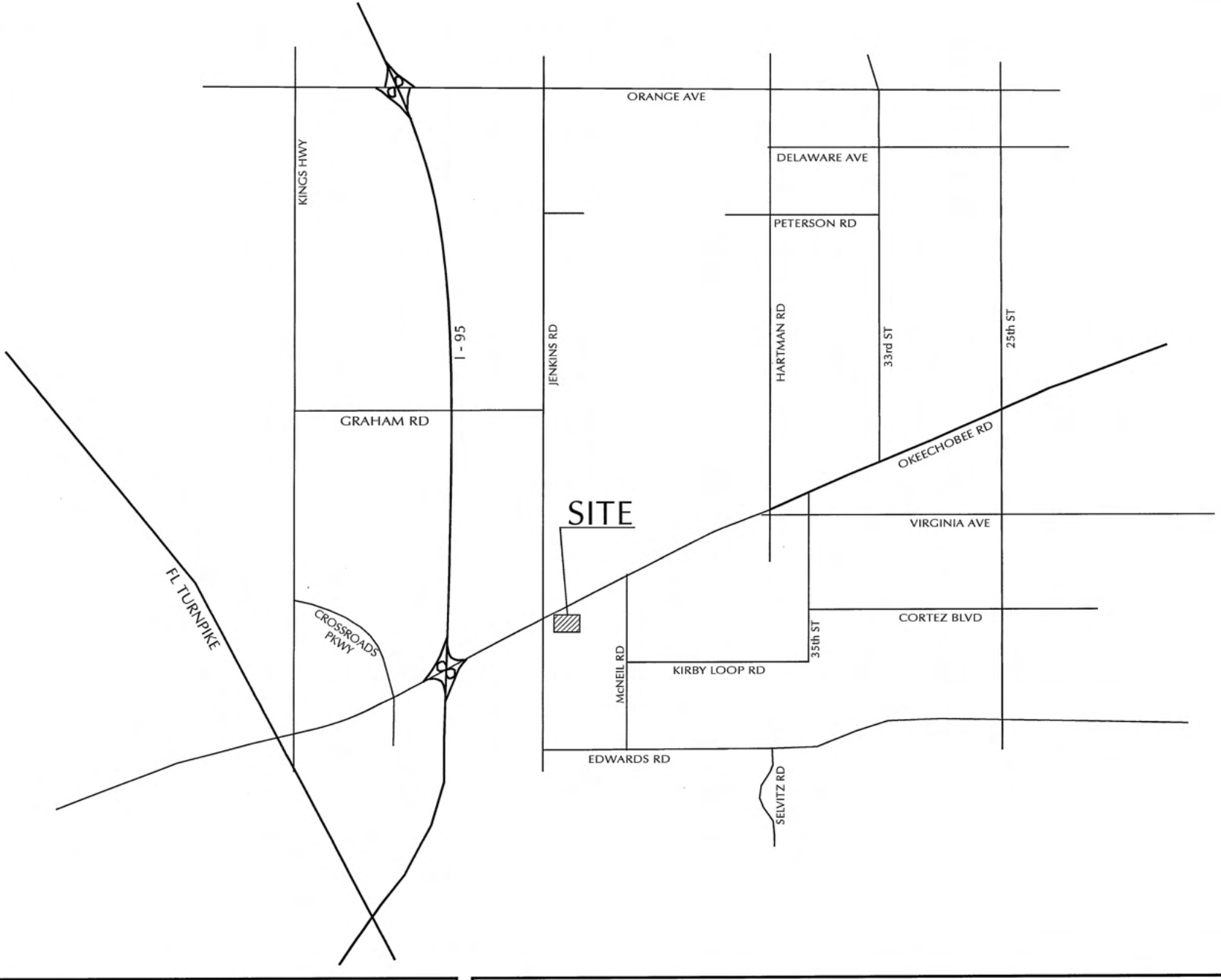
Site Access

This site accesses Okeechobee Road and Jenkins Road via shared-access driveways with the adjacent Wawa. The driveway volumes were counted in October 2021 and are provided in **Appendix B**. Project driveway volumes and total driveway volumes are shown on **Exhibit 7**. Based on these volumes, an eastbound right turn lane on Okeechobee Road at the driveway is warranted. This turn lane is already in place. An analysis of the Jenkins Road driveway was conducted for several scenarios: 2024 background traffic, 2024 with Project traffic, 2024 with Project traffic and prohibited westbound left turns out of the site. The analyses are provided in **Appendix E** and are summarized on **Exhibit 8**. As shown, the driveway intersection is projected to operate at LOS C or better for all scenarios. Therefore, it is recommended to maintain the full median opening with the existing lanes until such time as Jenkins Road is widened in this area. At that point, the left turns out of the site will most likely be restricted by a median diverter.

Conclusion

This analysis shows that the impacted roadway links and intersection are projected to operate at the adopted level of service standards (LOS D or better) with the proposed development. Therefore, the Project is in conformance with the requirements of Chapter 105 – Concurrency Management, of the City of Ft. Pierce Land Development Code.

EXHIBITS



8/27/21
21-064

FT PIERCE COMMERCIAL

EXHIBIT 1 PROJECT LOCATION

PTC

Exhibit 2
Ft. Pierce Commercial
Trip Generation - Proposed Uses

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips	Internal Trips (2) Trips	Internal Trips (2) %	External Trips	Pass-by Trips (1)		Total Trips
Gen. Commercial	820	2,533 SF	Ln (T) = 0.68Ln (X)+5.57	50%	494	29	5.9%	465	158	34%	307
Supermarket	850	19,209 SF	106.78 / 1000 SF	50%	2,051	51	5.9%	2,000	720	36%	1,280
High Turnover Sit-Down Rest.	932	2,448 SF	112.18 / 1000 SF	50%	275	80	29.2%	195	84	43%	111
TOTAL					2,820	160	5.7%	2,660	962		1,698

AM PEAK HOUR

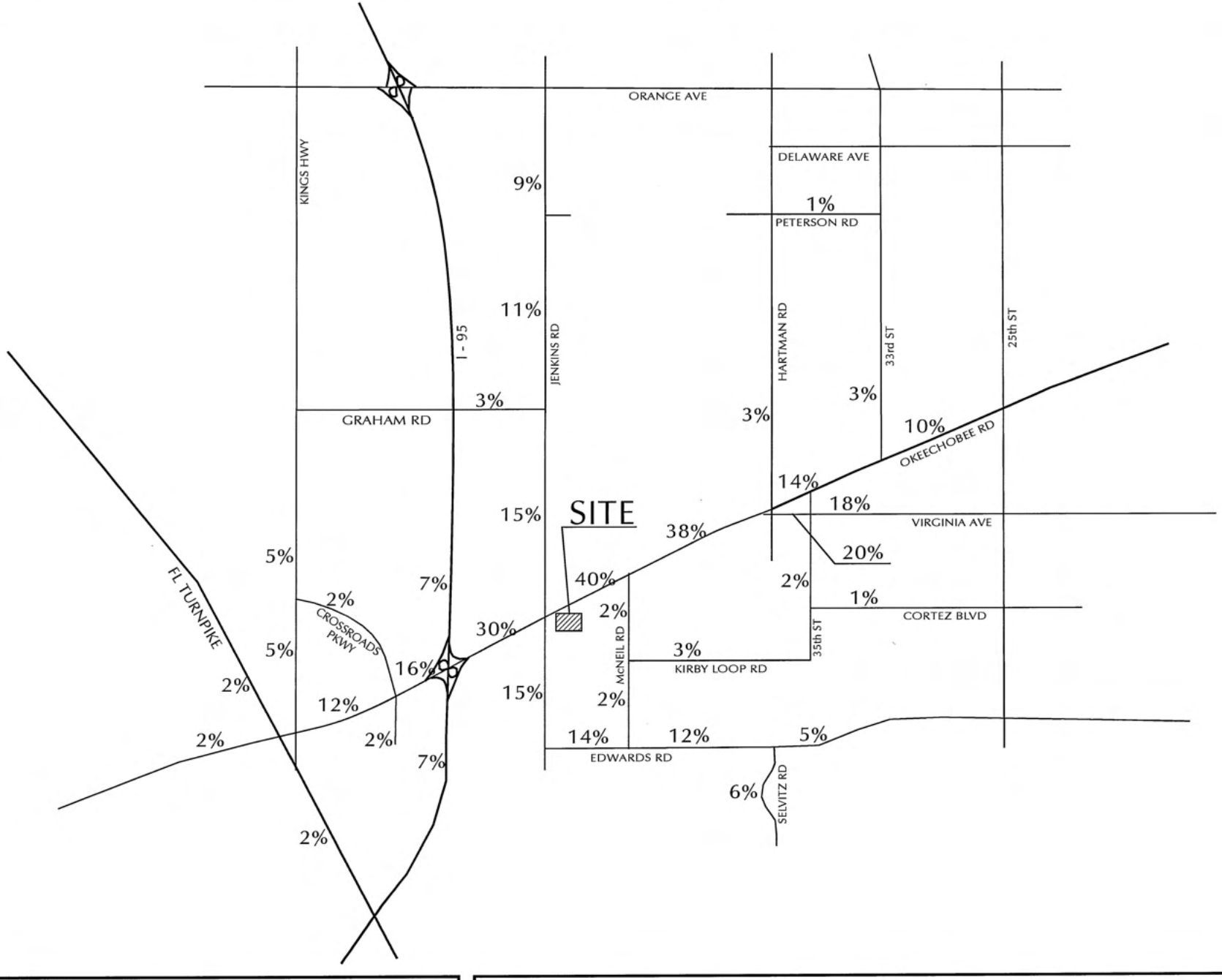
Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (2) Trips	Internal Trips (2) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Gen. Commercial	820	2,533 SF	0.94 / 1000 SF	62%	1	1	2	-	8.0%	1	1	2	1	34%	1	-	1
Supermarket	850	19,209 SF	3.82 / 1000 SF	60%	44	29	73	6	8.0%	42	25	67	24	36%	27	16	43
High Turnover Sit-Down Rest.	932	2,448 SF	9.94 / 1000 SF	55%	13	11	24	6	25.0%	9	9	18	8	43%	5	5	10
TOTAL					58	41	99	12	12.1%	52	35	87	33		33	21	54

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (2) Trips	Internal Trips (2) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Gen. Commercial	820	2,533 SF	Ln (T) = 0.74Ln (X)+2.89	48%	17	19	36	1	3.8%	17	18	35	12	34%	11	12	23
Supermarket	850	19,209 SF	9.24 / 1000 SF	51%	90	87	177	7	3.8%	86	84	170	61	36%	55	54	109
High Turnover Sit-Down Rest.	932	2,448 SF	9.77 / 1000 SF	62%	15	9	24	8	33.3%	11	5	16	7	43%	6	3	9
TOTAL					122	115	237	16	6.8%	114	107	221	80		72	69	141

(1) Source: ITE Trip Generation, 10th Edition.

(2) See internalization matrices in Appendix C.



8/27/21
21-064

FT PIERCE COMMERCIAL

EXHIBIT 3A PROJECT TRAFFIC DISTRIBUTION

PTC

Exhibit 3B
Ft. Pierce Commercial
Project Traffic Assignment - AM Peak Hour

Roadway	Link	Existing Lanes	Dir	Project Traffic 33 / 21 % Dist	Project Traffic In / Out Trips	Total Project Impact	Service Volume (1)	Significant Impact? (Yes/No)
33rd Street	Okeechobee Rd to Delaware Ave	2L	NB	3%	1	0.13%	750	No
			SB	3%	1	0.13%	750	No
35th Street	Kirby Loop Rd to Cortez Blvd	2L	NB	2%	1	0.19%	540	No
			SB	2%	0	0.00%	540	No
	Cortez Blvd to Virginia Ave	2L	NB	2%	1	0.13%	790	No
			SB	2%	0	0.00%	790	No
Cortez Blvd	35th St to 25th St	2L	EB	1%	0	0.00%	750	No
			WB	1%	0	0.00%	750	No
Crossroads Pkwy	Okeechobee Rd to Kings Hwy	2L	NB	2%	0	0.00%	790	No
			SB	2%	1	0.13%	790	No
Edwards Rd	Jenkins Rd to McNeil Rd	2L	EB	14%	3	0.48%	630	No
			WB	14%	5	0.79%	630	No
	McNeil Rd to Selvitz Rd	2L	EB	12%	3	0.43%	700	No
			WB	12%	4	0.57%	700	No
Graham Rd	Kings Hwy to Jenkins Rd	2L	EB	3%	1	0.16%	630	No
			WB	3%	1	0.16%	630	No
Hartman Rd	Okeechobee Rd to Peterson Rd	2L	NB	3%	1	0.13%	750	No
			SB	3%	1	0.13%	750	No
I-95	Midway Rd to Okeechobee Rd	6LX	NB	7%	2	0.04%	4580	No
			SB	7%	1	0.02%	4580	No
	Okeechobee Rd to Orange Ave	8LX	NB	7%	1	0.01%	7320	No
			SB	7%	2	0.03%	7320	No
Jenkins Rd	*Edwards Rd to Okeechobee Rd (2)*	2L	NB	15%	5	0.57%	880	No
			SB	15%	3	0.34%	880	No
	Okeechobee Rd to Graham Rd	2L	NB	15%	3	0.33%	920	No
			SB	15%	5	0.54%	920	No
	Graham Rd to Peterson Rd	2L	NB	11%	2	0.32%	630	No
			SB	11%	4	0.63%	630	No
	Peterson Rd to Orange Ave	2L	NB	9%	2	0.22%	920	No
			SB	9%	3	0.33%	920	No
Kings Highway	Okeechobee Rd to Crossroads Pkwy	2L	NB	5%	1	0.12%	830	No
			SB	5%	2	0.24%	830	No
	Crossroads Pkwy to Graham Rd	2L	NB	5%	1	0.15%	660	No
			SB	5%	2	0.30%	660	No
Kirby Loop Rd	Edwards Rd to 35th St	2L	EB	3%	1	0.16%	630	No
			WB	3%	1	0.16%	630	No
McNeil Rd	Okeechobee Rd to Kirby Loop Rd	2L	NB	2%	1	0.13%	790	No
			SB	2%	0	0.00%	790	No
	Kirby Loop Rd to Edwards Rd	2L	NB	2%	0	0.00%	540	No
			SB	2%	1	0.19%	540	No
Okeechobee Rd	McCarty Rd to Fl Turnpike	4LD	EB	2%	1	0.06%	1810	No
			WB	2%	0	0.00%	1810	No
	Fl Turnpike to Kings Hwy	4LD	EB	2%	1	0.05%	2010	No
			WB	2%	0	0.00%	2010	No
	Kings Hwy to Crossroads Pkwy	6LD	EB	12%	4	0.10%	4170	No
			WB	12%	3	0.07%	4170	No
	Crossroads Pkwy to I-95	6LD	EB	16%	5	0.12%	4170	No
			WB	16%	3	0.07%	4170	No
	I-95 to Jenkins Rd	8LD	EB	30%	10	0.24%	4240	No
			WB	30%	6	0.14%	4240	No
	Jenkins Rd to McNeil Rd (2)	8LD	EB	40%	8	0.20%	4040	No
			WB	40%	13	0.32%	4040	No
	McNeil Rd to Virginia Ave	6LD	EB	38%	8	0.25%	3170	No
			WB	38%	13	0.41%	3170	No
	Virginia Ave to Hartman Rd	4LD	EB	17%	4	0.19%	2100	No
			WB	17%	6	0.29%	2100	No
	Hartman Rd to 35th St	4LD	EB	14%	3	0.18%	1630	No
			WB	14%	5	0.31%	1630	No
	35th St to 33rd St	4LD	EB	14%	3	0.18%	1630	No
			WB	14%	5	0.31%	1630	No
	33rd St to 25th St	4LD	EB	10%	2	0.12%	1630	No
			WB	10%	3	0.18%	1630	No
Peterson Rd	Bent Creek Dr to Hartman Rd	2L	EB	1%	0	0.00%	540	No
			WB	1%	0	0.00%	540	No
Selvitz Rd	Glades Cut-off Rd to Edwards Rd	2L	NB	6%	2	0.25%	790	No
			SB	6%	1	0.13%	790	No
Virginia Ave	Okeechobee Rd to Hartman Rd	6LD	EB	20%	4	0.13%	3020	No
			WB	20%	7	0.23%	3020	No
	Hartman Rd to 35th St	6LD	EB	20%	4	0.13%	3020	No
			WB	20%	7	0.23%	3020	No
	35th St to 25th St	6LD	EB	18%	4	0.13%	3020	No
			WB	18%	6	0.20%	3020	No

(1) Based on St. Lucie County TPO Traffic Counts and Level of Service Report 2021. See Appendix B.

(2) First accessed roadway link.

Exhibit 3C
Ft. Pierce Commercial
Project Traffic Assignment - PM Peak Hour

Roadway	Link	Existing Lanes	Dir	Project Traffic 72 In 69 Out % Dist	Project Traffic Trips	Total Project Impact	Service Volume (1)	Significant Impact? (Yes/No)
33rd Street	Okeechobee Rd to Delaware Ave	2L	NB	3%	2	0.27%	750	No
			SB	3%	2	0.27%	750	No
35th Street	Kirby Loop Rd to Cortez Blvd	2L	NB	2%	1	0.19%	540	No
			SB	2%	1	0.19%	540	No
	Cortez Blvd to Virginia Ave	2L	NB	2%	1	0.13%	790	No
			SB	2%	1	0.13%	790	No
Cortez Blvd	35th St to 25th St	2L	EB	1%	1	0.13%	750	No
			WB	1%	1	0.13%	750	No
Crossroads Pkwy	Okeechobee Rd to Kings Hwy	2L	NB	2%	1	0.13%	790	No
			SB	2%	1	0.13%	790	No
Edwards Rd	Jenkins Rd to McNeil Rd	2L	EB	14%	10	1.59%	630	No
			WB	14%	10	1.59%	630	No
	McNeil Rd to Selvitz Rd	2L	EB	12%	8	1.14%	700	No
			WB	12%	9	1.29%	700	No
Graham Rd	Kings Hwy to Jenkins Rd	2L	EB	3%	2	0.32%	630	No
			WB	3%	2	0.32%	630	No
Hartman Rd	Okeechobee Rd to Peterson Rd	2L	NB	3%	2	0.27%	750	No
			SB	3%	2	0.27%	750	No
I-95	Midway Rd to Okeechobee Rd	6LX	NB	7%	5	0.11%	4580	No
			SB	7%	5	0.11%	4580	No
	Okeechobee Rd to Orange Ave	8LX	NB	7%	5	0.07%	7320	No
			SB	7%	5	0.07%	7320	No
Jenkins Rd	*Edwards Rd to Okeechobee Rd (2)*	2L	NB	15%	11	1.25%	880	YES
			SB	15%	10	1.14%	880	YES
	Okeechobee Rd to Graham Rd	2L	NB	15%	10	1.09%	920	No
			SB	15%	11	1.20%	920	No
	Graham Rd to Peterson Rd	2L	NB	11%	8	1.27%	630	No
			SB	11%	8	1.27%	630	No
	Peterson Rd to Orange Ave	2L	NB	9%	6	0.65%	920	No
			SB	9%	6	0.65%	920	No
Kings Highway	Okeechobee Rd to Crossroads Pkwy	2L	NB	5%	3	0.36%	830	No
			SB	5%	4	0.48%	830	No
	Crossroads Pkwy to Graham Rd	2L	NB	5%	3	0.45%	660	No
			SB	5%	4	0.61%	660	No
Kirby Loop Rd	Edwards Rd to 35th St	2L	EB	3%	2	0.32%	630	No
			WB	3%	2	0.32%	630	No
McNeil Rd	Okeechobee Rd to Kirby Loop Rd	2L	NB	2%	1	0.13%	790	No
			SB	2%	1	0.13%	790	No
	Kirby Loop Rd to Edwards Rd	2L	NB	2%	1	0.19%	540	No
			SB	2%	1	0.19%	540	No
Okeechobee Rd	McCarty Rd to Fl Turnpike	4LD	EB	2%	1	0.06%	1810	No
			WB	2%	1	0.06%	1810	No
	Fl Turnpike to Kings Hwy	4LD	EB	2%	1	0.05%	2010	No
			WB	2%	1	0.05%	2010	No
	Kings Hwy to Crossroads Pkwy	6LD	EB	12%	9	0.22%	4170	No
			WB	12%	8	0.19%	4170	No
	Crossroads Pkwy to I-95	6LD	EB	16%	12	0.29%	4170	No
			WB	16%	11	0.26%	4170	No
	I-95 to Jenkins Rd	8LD	EB	30%	22	0.52%	4240	No
			WB	30%	21	0.50%	4240	No
	Jenkins Rd to McNeil Rd (2)	8LD	EB	40%	28	0.69%	4040	No
			WB	40%	29	0.72%	4040	No
	McNeil Rd to Virginia Ave	6LD	EB	38%	26	0.82%	3170	No
			WB	38%	27	0.85%	3170	No
	Virginia Ave to Hartman Rd	4LD	EB	17%	12	0.57%	2100	No
			WB	17%	12	0.57%	2100	No
	Hartman Rd to 35th St	4LD	EB	14%	10	0.61%	1630	No
			WB	14%	10	0.61%	1630	No
	35th St to 33rd St	4LD	EB	14%	10	0.61%	1630	No
			WB	14%	10	0.61%	1630	No
	33rd St to 25th St	4LD	EB	10%	7	0.43%	1630	No
			WB	10%	7	0.43%	1630	No
Peterson Rd	Bent Creek Dr to Hartman Rd	2L	EB	1%	1	0.19%	540	No
			WB	1%	1	0.19%	540	No
Selvitz Rd	Glades Cut-off Rd to Edwards Rd	2L	NB	6%	4	0.51%	790	No
			SB	6%	4	0.51%	790	No
Virginia Ave	Okeechobee Rd to Hartman Rd	6LD	EB	20%	14	0.46%	3020	No
			WB	20%	14	0.46%	3020	No
	Hartman Rd to 35th St	6LD	EB	20%	14	0.46%	3020	No
			WB	20%	14	0.46%	3020	No
	35th St to 25th St	6LD	EB	18%	12	0.40%	3020	No
			WB	18%	13	0.43%	3020	No

(1) Based on St. Lucie County TPO Traffic Counts and Level of Service Report 2021. See Appendix B.

(2) First accessed roadway link.

Exhibit 4
Ft. Pierce Commercial
Historic Growth

Roadway	Link	AADT Traffic Volumes [1]		Growth Rate
		2016	2019	
Jenkins Road	Edwards Rd to Okeechobee Rd	7,300	7,500	0.91% /Year
	Okeechobee Rd to Graham Rd	9,700	9,200	-1.75% /Year
Okeechobee Road	I-95 to Jenkins Rd	28,500	33,000	5.01% /Year
	Jenkins Rd to McNeil Rd	26,000	30,500	5.47% /Year
Intersection Growth Rate		71,500	80,200	3.90% /Year

(1) Count data from FDOT Traffic Online. See Appendix B. Because the 2020 volumes were lower due to the COVID pandemic, 2019 volumes were used.

Exhibit 5
Ft. Pierce Commercial
Intersection Analysis (1)

Intersection	AM Peak Hour		PM Peak Hour	
	Inters. Delay (sec)	LOS	Inters. Delay (sec)	LOS
Okeechobee Road / Jenkins Road				
Existing (2019)	24.7	C	25.1	C
Buildout (2024)	28.3	C	29.8	C

(1) See Appendix D for intersection capacity analyses.

Exhibit 6
Ft. Pierce Commercial
Link Analysis

Roadway	Link	Lanes	PM PEAK HOUR									
			Existing (2021) [1]	Growth (2024) Volume	Growth (2024) %/Year	Total Bkgd.	Bkgd. LOS	Project	Total (2024)	Buildout LOS	Service Volume	Meets Std?
Jenkins Rd	Edwards Rd to Okeechobee Rd	2L	593	72	3.90%	665	C	11	676	C	880	Yes

[1] Count data from St. Lucie TPO Traffic Counts and Level of Service Report 2021. See Appendix B.



#21-064
11/2/21

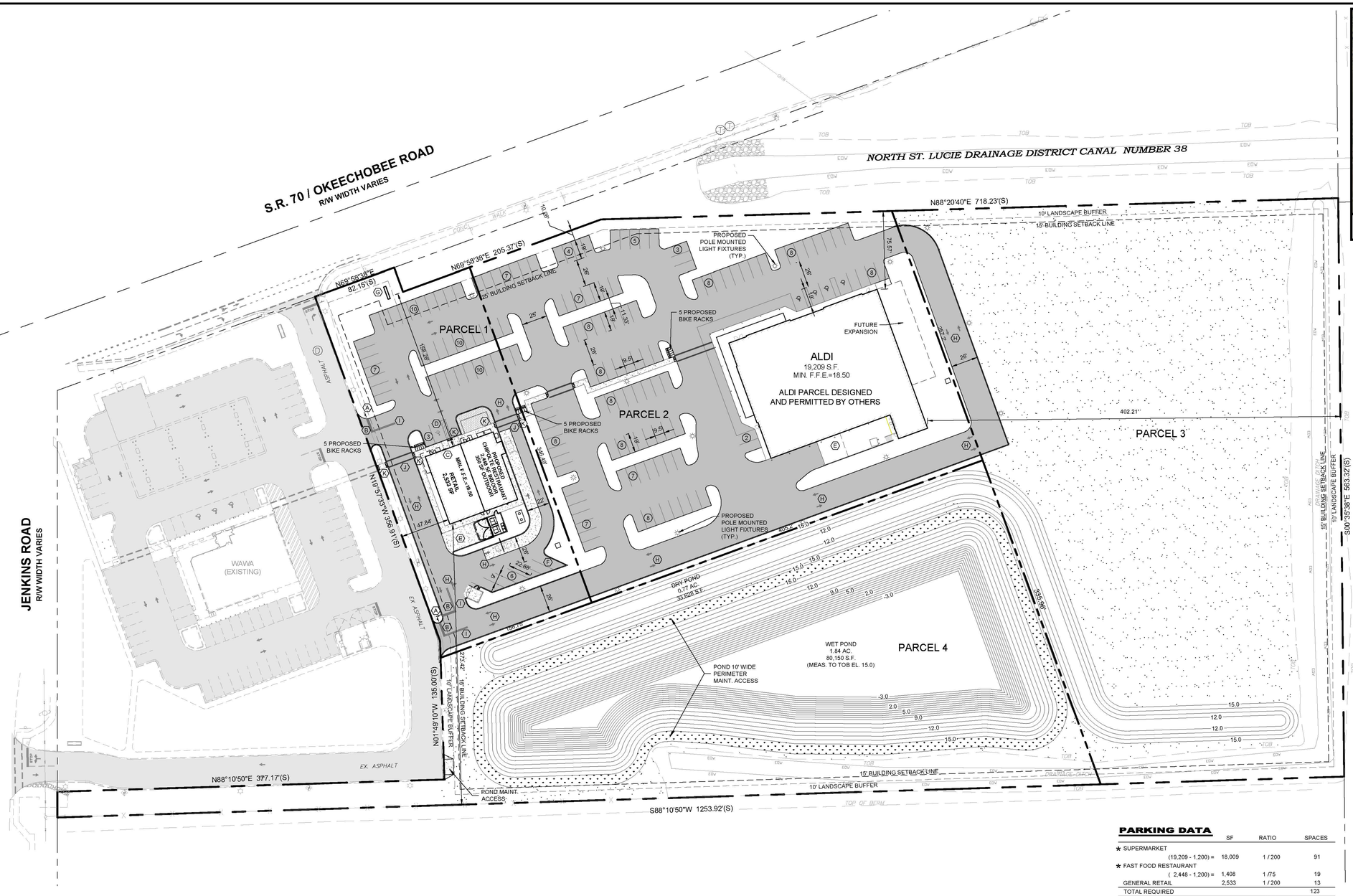
FT PIERCE COMMERCIAL	EXHIBIT 7 PROJECT DRIVEWAY VOLUMES	PTC

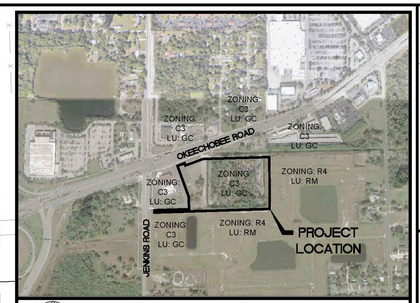
Exhibit 8
Ft. Pierce Commercial
Driveway Analysis (1)

Intersection	AM Peak Hour		PM Peak Hour	
	Inters. Delay (sec)	LOS	Inters. Delay (sec)	LOS
Jenkins Road / Project Driveway				
Existing (2021)	15.3	C	13.8	B
Buildout (2024)	17.8	C	17.2	C
Buildout (2024) w/o WBLT	16.0	C	14.7	B

(1) See Appendix E for driveway analyses.

APPENDIX A





LOCATION MAP

PROJECT INFORMATION

PROJECT DESCRIPTION

THIS PROJECT PROPOSES A MASTER COMMERCIAL DEVELOPMENT PARCEL WITH AN OVERALL AREA OF 12.00 ACRES. THE MASTER DEVELOPMENT WILL BE DIVIDED INTO FOUR (4) SEPARATE PARCELS AS DESCRIBED BELOW:

PARCEL 1: 1.26 AC PARCEL CONTAINING A 2,448 SF CHIPOTLE RESTAURANT AND 2,533 SF RETAIL BUILDING
PARCEL 2: 2.96 AC PARCEL CONTAINING A 19,209 SF ALDI GROCERY STORE
PARCEL 3: 4.35 AC PARCEL (3.06 AC NET DEVELOPABLE) FOR FUTURE COMMERCIAL DEVELOPMENT
PARCEL 4: 3.44 AC STORMWATER TRACT

THE MASTER DEVELOPER WILL RETAIN OWNERSHIP OF THE LAND AND ENTER INTO LAND-LEASE AGREEMENTS WITH THE INDIVIDUAL PARCEL USERS. THE DEVELOPMENT WILL BE DESIGNED TO PROVIDE MASTER INFRASTRUCTURE IMPROVEMENTS CONSISTING OF ROADS, WATER AND SEWER LINES, STORMWATER, GAS AND ELECTRIC. THE DEVELOPER WILL BE RESPONSIBLE FOR THE DESIGN AND PERMITTING OF THE MASTER INFRASTRUCTURE AND WILL PREPARE "PAD - READY" SITES FOR PARCEL 2 AND PARCEL 3. UTILITY STUBS WILL BE PROVIDED TO EACH PARCEL FOR THE INDIVIDUAL DEVELOPMENT TO CONNECT TO. PARCEL 4 IS THE PROPOSED STORMWATER TRACT THAT WILL PROVIDE THE REQUIRED STORMWATER TREATMENT AND ATTENUATION FOR THE MASTER DEVELOPMENT.

OWNER/APPLICANT
OKEEJEN, LLC
1870 ALOMA AVENUE, SUITE 110
WINTER PARK, FLORIDA 32789
PHONE (321) 228-8510

SURVEYOR
INDIAN RIVER SURVEY, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-7880

ENGINEER
MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

ARCHITECT
FWH ARCHITECTS
3336 GRAND BLVD., SUITE 201
HOLIDAY, FLORIDA 34690
PHONE (727) 815-3336

ALDI ENGINEER
THOMAS ENGINEERING GROUP
6300 NW 31ST AVENUE
FORT LAUDERDALE, FLORIDA 33309
PHONE (954) 202-7000

ALDI ARCHITECT
APD ENGINEERING & ARCHITECTURE, PLLC
615 FISHERS RUN
VICTOR, NEW YORK 14564
PHONE (585) 742-0213

SITE ADDRESS
5575 OKEECHOBEE ROAD
FORT PIERCE, FLORIDA 34947

TAX PARCEL I.D. NUMBER
2419-321-0001-000-5
2419-322-0003-000-2

ZONING
C-3

LAND USE
GC

LATITUDE
27°25'3.24" N

LONGITUDE
80°22'51.80" W

SITE DATA

	SF	AC	%
SITE AREA	522,635 SF	12.00 AC	100.00%
EXISTING LAND IS VACANT			
PROPOSED SITE DATA			
TOTAL SITE AREA	522,635 SF	12.00 AC	100.00%
PARCEL 1:			
PARCEL AREA	54,722 SF	1.26 AC	10.47%
PROPOSED BUILDINGS	4,981 SF	0.11 AC	0.95%
PROPOSED PAVEMENT	30,944 SF	0.71 AC	5.92%
PROPOSED CONCRETE	3,733 SF	0.08 AC	0.71%
IMPERVIOUS AREA	39,658 SF	0.91 AC	7.58%
PERVIOUS AREA	15,064 SF	0.35 AC	2.88%
PARCEL 2:			
PARCEL AREA	128,797 SF	2.96 AC	24.64%
PROPOSED BUILDINGS	19,209 SF	0.44 AC	3.67%
PROPOSED PAVEMENT	63,058 SF	1.45 AC	12.06%
PROPOSED CONCRETE	3,583 SF	0.08 AC	0.70%
IMPERVIOUS AREA	85,850 SF	1.97 AC	16.43%
PERVIOUS AREA	42,947 SF	0.99 AC	8.22%
PARCEL 3 (FUTURE DEVELOPMENT):			
PARCEL AREA	189,414 SF	4.35 AC	36.24%
IMPERVIOUS AREA	142,050 SF	3.26 AC	27.18%
PERVIOUS AREA	47,364 SF	1.09 AC	9.06%
PARCEL 4 (STORMWATER):			
PARCEL AREA	149,903 SF	3.44 AC	28.68%
WET POND AT CONTROL	80,150 SF	1.84 AC	15.33%
IMPERVIOUS AREA	80,150 SF	1.84 AC	15.33%
PERVIOUS AREA	69,753 SF	1.60 AC	13.35%
SITE TOTAL:			
IMPERVIOUS AREA	347,708 SF	7.98 AC	66.53%
PERVIOUS AREA	174,927 SF	4.02 AC	33.47%

ZONING DATA

C-3 CRITERIA	REQUIRED	EXISTING	PROPOSED
LOT SIZE	10,000 SF	522,635 SF	522,635 SF
LOT WIDTH	70' MIN.	287.52'	287.52'
LOT DEPTH	90' MIN.	563.35'	563.35'
BUILDING SETBACKS:			
FRONT (NORTH)	25'	0'	158.28'
SIDE (NORTH)	15'	0'	75.57'
SIDE (WEST)	15'	0'	47.84'
SIDE (EAST)	15'	0'	402.21'
SIDE (SOUTH)	15'	0'	273.42'
BUILDING COVERAGE	60% MAX.	0%	4.62%
OPEN SPACE	20% MIN.	100%	33.47%
BUILDING HEIGHT	65' MAX.	NA	65' MAX.

SITE PLAN

SCALE: 1" = 50'

GRAPHIC SCALE
50 0 25 50
(IN FEET)
1 inch = 50 ft.

LEGEND

- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED GRASS STABILIZATION
- PROPOSED POLE MOUNTED LIGHTING

72 HOURS BEFORE DIGGING CALL TOLL FREE 811
Know what's below. Call before you dig.

SIGNAGE & PAVEMENT MARKING SCHEDULE

SIGN ID NUMBER	SIZE	DESIGNATION / NOTES
A	30"	R1-1 "STOP" SIGN
B	24"	SOLID WHITE STOP BAR
C	12"	FTP-20-06 HC PARKING SIGN (WALL MOUNTED)
D		PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001
E		12' X 35' LOADING ZONE
F	4"	PAINTED WHITE STRIPE
G		GROUND SIGNAGE (DESIGNED AND PERMITTED BY OTHERS)
H		DESIGNED TRAFFIC FLOW INDICATOR (FOR SITE PLANNING PURPOSES ONLY)
I	6"	25 LF DOUBLE YELLOW STRIPE
J		12" PAINTED CROSSWALK PER FDOT INDEX #711-001
K		DETECTABLE WARNINGS PER FDOT INDEX #522-002 CURRENT EDITION

PERMITS REQUIRED
CITY OF FORT PIERCE (CoFP) DEVELOPMENT REVIEW
CoFP VEGETATION REMOVAL
CoFP CONCURRENCY REVIEW
CoFP EROSION AND SEDIMENT CONTROL AFFIDAVIT
CoFP DESIGN REVIEW
FORT PIERCE UTILITY AUTHORITY
NORTH ST. LUCIE DRAINAGE DISTRICT
SFWMD ERP PERMIT
FDEP WATER
FDEP DOMESTIC WASTEWATER
FDEP NPDES NOTICE OF INTENT
FDEP WETLANDS
FDOT DRAINAGE
FDOT UTILITY

TRAFFIC STATEMENT
PER TRAFFIC IMPACT ANALYSIS PREPARED BY PINDER TROUTMAN CONSULTING, INC, DATED SEPTEMBER 3, 2021:

PROJECT ADT = 1,716 TRIPS
PROJECT AM / PM PEAK HOUR = 56 AM & 142 PM PEAK TRIPS

REFER TO ENCLOSED TRAFFIC STUDY FOR FURTHER INFORMATION

CONSTRUCTION SCHEDULE
CONSTRUCTION START: JANUARY 2022
CONSTRUCTION END: JANUARY 2023

PARKING DATA

	SF	RATIO	SPACES
★ SUPERMARKET			
(19,209 - 1,200) =	18,009	1 / 200	91
★ FAST FOOD RESTAURANT			
(2,448 - 1,200) =	1,408	1 /75	19
GENERAL RETAIL	2,533	1 / 200	13
TOTAL REQUIRED			123
		PROVIDED (INCL. 9 H.C)	160

★ 1,200 SF Exemption per The Code of Ordinances of The City of Fort Pierce, Sec. 125-315.(a)(4)a. PROVIDING 15 BIKE RACKS

STORMWATER DESCRIPTION
ON-SITE STORMWATER RUNOFF FROM THE PROPOSED NEW IMPERVIOUS AREA INCLUDING BUILDINGS AND ROOFTOPS WILL BE COLLECTED BY STORM INLETS AND ROUTED TO THE MASTER STORMWATER TRACT. THE DEVELOPMENT'S WILL UTILIZE A COMBINATION OF DRY AND WET RETENTION FOR WATER WATER QUALITY TREATMENT AND WATER QUANTITY ATTENUATION. THE STORMWATER SYSTEM WILL BE DESIGNED IN ACCORDANCE WITH, NSLDD, SFWMD AND CITY OF FT. PIERCE REQUIREMENTS. STORMWATER OUTFALL IS PROPOSED TO THE EXISTING DITCH TO THE SOUTH WHICH WILL ROUTE THE OUTFALL RUNOFF TO THE NE CORNER WHERE THE EXISTING OUTFALL IS DISCHARGED INTO THE NSLDD CANAL NO. 38.

FLOOD ZONE
THE LANDS BOUND BY THIS SURVEY ARE LOCATED WITHIN AN AREA HAVING A FLOOD ZONE DESIGNATION "X" (AREA OF MINIMAL FLOOD HAZARD) BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ON FLOOD INSURANCE RATE MAP NUMBER 12111C0167J, DATED FEBRUARY 16, 2012, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY THIS PARCEL IS SITUATED IN.

LEGAL DESCRIPTION
SEE SURVEY SHEETS

WASTEWATER SOURCE
FORT PIERCE UTILITY AUTHORITY

POTABLE WATER SOURCE
FORT PIERCE UTILITY AUTHORITY

ALL ELEVATIONS REFERENCE NAVD 88

REVISIONS	DATE
8 -	- -
7 -	- -
6 -	- -
5 -	- -
4 -	- -
3 -	- -
2 -	- -
1 -	- -

JOB NO.	21-0056
DESIGNED	TH
DRAWN	SS
DATE	SEPTEMBER 2021
CHECKED	AS
DATE ISSUED	09/04/2021

MBV ENGINEERING, INC.
MOIA, BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #5728
MELBOURNE, FL - PH: (321) 133-4135
FT PIERCE, FL - PH: (772) 466-9553
1835 - 20TH STREET
VERO BEACH, FL 32960
PH: (772) 569-0035
FX: (772) 778-3417

OVERALL SITE PLAN

FT. PIERCE COMMERCIAL

FLORIDA

CITY OF FORT PIERCE

AARON G. STANTON
LICENSE
No. 72460
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

AARON G. STANTON
FL. P.E. #72460

SHEET
C6

21-0056

© MBV ENGINEERING 2020 21-0056 Ft. Pierce Commercial Master Infrastructure and Chipotle Parcel\Drawings\21-0056-SITE.dwg 9/17/2021 11:40 AM STEVE SMITH

APPENDIX B

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
2021

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
2ND ST	CITRUS AVE to ORANGE AVE	601	2,133	2017	540	187	C	0.346	158	C	0.293
2ND ST	ORANGE AVE to AVENUE A	602	2,267	2017	540	145	C	0.269	136	C	0.252
7TH ST	SUNRISE BLVD to GEORGIA AVE	519	989	2019	600	65	C	0.108	72	C	0.12
7TH ST	GEORGIA AVE to DELAWARE AVE	517	1,634	2019	790	99	C	0.125	103	C	0.13
7TH ST	DELAWARE AVE to CITRUS AVE	515	2,454	2019	790	148	C	0.187	146	C	0.185
7TH ST	CITRUS AVE to ORANGE AVE	515	2,454	2019	750	148	C	0.197	146	C	0.195
7TH ST	ORANGE AVE to AVENUE C	603	2,910	2016	750	200	C	0.267	219	C	0.292
7TH ST	AVENUE C to AE BACKUS AVE	603	2,910	2016	540	200	C	0.37	219	C	0.406
7TH ST	AE BACKUS AVE to AVENUE D	603	2,910	2016	750	200	C	0.267	219	C	0.292
7TH ST	AVENUE D to AVENUE H	604	1,700	2017	750	111	C	0.148	109	C	0.145
10TH ST	DELAWARE AVE to ORANGE AVE	605	250	2017	600	27	C	0.045	26	C	0.043
10TH ST	ORANGE AVE to AVENUE C	605	250	2017	600	27	C	0.045	26	C	0.043
10TH ST	AVENUE C to AVENUE D	605	250	2017	540	27	C	0.05	26	C	0.048
13TH ST	VIRGINIA AVE to NEBRASKA AVE	527	6,605	2020	750	407	D	0.543	427	D	0.569
13TH ST	NEBRASKA AVE to GEORGIA AVE	527	6,605	2020	790	407	D	0.515	427	D	0.541
13TH ST	GEORGIA AVE to DELAWARE AVE	525	5,700	2021	750	280	C	0.373	289	C	0.385
13TH ST	DELAWARE AVE to ORANGE AVE	523	3,711	2017	750	245	C	0.327	229	C	0.305
13TH ST	ORANGE AVE to AVENUE B	521	2,602	2017	750	153	C	0.204	150	C	0.2
13TH ST	AVENUE B to AVENUE D	521	2,602	2017	750	153	C	0.204	150	C	0.2
13TH ST	AVENUE D to AVENUE H	165	2,530	2017	750	151	C	0.201	140	C	0.187
13TH ST	AVENUE H to AVENUE I	165	2,530	2017	540	151	C	0.28	140	C	0.259
13TH ST	AVENUE I to AVENUE O	165	2,530	2017	540	151	C	0.28	140	C	0.259
13TH ST	AVENUE O to AVENUE Q	165	2,530	2017	540	151	C	0.28	140	C	0.259
17TH ST	GEORGIA AVE to DELAWARE AVE	606	3,333	2016	600	184	C	0.307	185	C	0.308
17TH ST	DELAWARE AVE to ORANGE AVE	607	6,422	2020	790	305	C	0.386	293	C	0.371

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
2021

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	2,400	2021	750	134	C	0.179	128	C	0.171
17TH ST	AVENUE D to AVENUE Q	608	2,400	2021	750	134	C	0.179	128	C	0.171
25TH ST	MIDWAY RD to BELL AVE	940016	18,200	2020	2,100	1,097	C	0.522	1,023	C	0.487
25TH ST	BELL AVE to EDWARDS RD	159	17,500	2021	2,100	1,026	C	0.489	1,024	C	0.488
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	19,700	2020	2,000	1,097	C	0.549	1,093	C	0.547
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	23,633	2020	2,000	1,330	C	0.665	1,419	C	0.71
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	22,000	2020	2,000	1,195	C	0.598	1,071	C	0.536
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	22,000	2020	2,000	1,195	C	0.598	1,071	C	0.536
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	21,500	2021	1,630	993	D	0.609	1,030	D	0.632
25TH ST	GEORGIA AVE to DELAWARE AVE	609	21,500	2021	1,630	993	D	0.609	1,030	D	0.632
25TH ST	DELAWARE AVE to ORANGE AVE	940014	20,200	2020	1,630	976	D	0.599	970	D	0.595
25TH ST	ORANGE AVE to AVENUE D	610	17,459	2020	1,630	805	D	0.494	831	D	0.51
25TH ST	AVENUE D to AVENUE Q	940050	18,900	2020	1,630	904	D	0.555	879	D	0.539
25TH ST	AVENUE Q to JUANITA AVE	945152	17,200	2020	2,000	849	C	0.425	778	C	0.389
25TH ST	JUANITA AVE to ST LUCIE BLVD	945165	9,400	2020	2,100	438	C	0.209	488	C	0.232
25TH ST	ST LUCIE BLVD to US 1	945165	9,400	2020	2,100	438	C	0.209	488	C	0.232
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	6,647	2020	750	398	D	0.531	349	C	0.465
33RD ST	DELAWARE AVE to ORANGE AVE	948507	6,000	2020	790	277	C	0.351	277	C	0.351
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,559	2020	540	517	D	0.957	422	D	0.781
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,559	2020	790	517	D	0.654	422	D	0.534
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,500	2021	750	221	C	0.295	238	C	0.317
53RD ST	ANGLE RD to JUANITA AVE	614	2,833	2016	540	151	C	0.28	167	C	0.309
AE BACKUS AVE	7TH ST to US 1	632	1,067	2017	750	72	C	0.096	84	C	0.112
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	17,605	2019	2,100	1,149	C	0.547	967	C	0.46
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	17,605	2019	2,100	1,149	C	0.547	967	C	0.46

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AIROSO BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	243	19,000	2021	2,100	952	C	0.453	986	C	0.47
AIROSO BLVD	PRIMA VISTA BLVD to FLORESTA DR	101	14,500	2021	2,000	723	C	0.362	748	C	0.374
AIROSO BLVD	FLORESTA DR to ST JAMES DR	301	21,862	2019	2,100	1,160	C	0.552	1,176	C	0.56
ANGLE RD	ORANGE AVE to AVENUE D	100	9,500	2021	840	465	D	0.554	446	D	0.531
ANGLE RD	AVENUE D to AVENUE Q	100	9,500	2021	580	465	D	0.802	446	D	0.769
ANGLE RD	AVENUE Q to 53RD ST	615	8,119	2020	640	479	D	0.748	492	D	0.769
ANGLE RD	53RD ST to KEEN RD	616	5,786	2020	630	308	C	0.489	344	C	0.546
ANGLE RD	KEEN RD to KINGS HWY	616	5,786	2020	880	308	C	0.35	344	C	0.391
ANGLE RD	KINGS HWY to JOHNSTON RD	617	3,333	2016	1,480	205	B	0.139	199	B	0.134
ANGLE RD	JOHNSTON RD to FLORIDA'S TURNPIKE	948505	2,400	2020	1,480	125	B	0.084	125	B	0.084
AVENUE A	7TH ST to US 1	945034	1,100	2020	840	99	C	0.118	99	C	0.118
AVENUE A	US 1 to INDIAN RIVER DR	945033	2,300	2020	640	114	C	0.178	105	C	0.164
AVENUE D	ANGLE RD to 29TH ST	164	3,579	2016	600	203	C	0.338	200	C	0.333
AVENUE D	29TH ST to 25TH ST	164	3,579	2016	790	203	C	0.257	200	C	0.253
AVENUE D	25TH ST to 17TH ST	163	7,000	2021	750	348	C	0.464	342	C	0.456
AVENUE D	17TH ST to 13TH ST	162	3,458	2016	750	160	C	0.213	172	C	0.229
AVENUE D	13TH ST to 10TH ST	161	1,763	2016	750	83	C	0.111	93	C	0.124
AVENUE D	10TH ST to 7TH ST	160	2,305	2016	750	115	C	0.153	125	C	0.167
AVENUE D	7TH ST to US 1	160	2,305	2016	750	115	C	0.153	125	C	0.167
AVENUE I	25TH ST to 17TH ST	620	2,483	2016	750	214	C	0.285	167	C	0.223
AVENUE I	17TH ST to 13TH ST	620	2,483	2016	750	214	C	0.285	167	C	0.223
AVENUE H	13TH ST to 7TH ST	618	1,533	2017	540	89	C	0.165	96	C	0.178
AVENUE H	7TH ST to US 1	619	1,250	2017	750	68	C	0.091	67	C	0.089
AVENUE Q	ANGLE RD to 25TH ST	700	5,981	2020	750	316	C	0.421	303	C	0.404
AVENUE Q	25TH ST to 17TH ST	701	3,200	2021	750	187	C	0.249	194	C	0.259

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AVENUE Q	17TH ST to 13TH ST	701	3,200	2021	540	187	C	0.346	194	C	0.359
AVENUE O	13TH ST to US 1	685	1,867	2017	540	105	C	0.194	108	C	0.2
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	C	0.037	21	C	0.039
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,623	2019	830	412	C	0.496	358	C	0.431
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	29,000	2021	2,100	1,432	C	0.682	1,401	C	0.667
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	19,200	2020	2,100	886	C	0.422	886	C	0.422
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	29,500	2021	2,100	1,412	C	0.672	1,434	C	0.683
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,934	2019	920	849	C	0.923	879	D	0.955
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	14,000	2021	790	730	C	0.924	660	C	0.835
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	14,000	2021	800	730	D	0.913	660	D	0.825
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,567	2017	540	252	C	0.467	215	C	0.398
BECKER RD	VILLAGE PKWY to I-95	624	4,700	2021	3,170	357	C	0.113	323	C	0.102
BECKER RD	I-95 to SAVONA BLVD	625	19,000	2021	2,000	1,539	C	0.77	1,450	C	0.725
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	16,500	2021	2,100	943	C	0.449	989	C	0.471
BECKER RD	ALBACORE ST to DARWIN BLVD	302	9,300	2021	1,500	828	C	0.552	744	C	0.496
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	9,300	2021	2,100	828	C	0.394	744	C	0.354
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	12,500	2021	1,500	1,083	C	0.722	920	C	0.613
BECKER RD	DARWIN BLVD to ATHENA DR	627	12,500	2021	2,000	1,083	C	0.542	920	C	0.46
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	15,000	2021	2,100	1,045	C	0.498	1,275	C	0.607
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	9,900	2021	920	873	D	0.949	912	D	0.991
BELL AVE	25TH ST to SUNRISE BLVD	104	4,853	2019	790	319	C	0.404	333	C	0.422
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,880	2019	600	219	C	0.365	225	C	0.375
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	8,100	2021	750	491	D	0.655	425	D	0.567
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	11,500	2021	920	608	C	0.661	586	C	0.637
CALIFORNIA BLVD	SAVONA BLVD to DEL RIO BLVD	635	13,000	2021	920	797	C	0.866	653	C	0.71

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CALIFORNIA BLVD	DEL RIO BLVD to CROSSTOWN PKWY	636	17,000	2021	920	1,035	F	1.125	899	D	0.977
CALIFORNIA BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	234	16,000	2021	920	775	C	0.842	874	D	0.95
CALIFORNIA BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	234	16,000	2021	920	775	C	0.842	874	D	0.95
CALIFORNIA BLVD	ST LUCIE WEST BLVD to COUNTRY CLUB DR	233	8,886	2019	920	477	C	0.518	473	C	0.514
CALIFORNIA BLVD	COUNTRY CLUB DR to UNIVERSITY BLVD	724	7,991	2019	790	544	C	0.689	477	C	0.604
CALIFORNIA BLVD	UNIVERSITY BLVD to PEACOCK BLVD	724	7,991	2019	630	544	C	0.863	477	C	0.757
CALIFORNIA BLVD	PEACOCK BLVD to TORINO PKWY	637	10,500	2021	630	636	F	1.01	629	D	0.998
CAMEO BLVD	PORT ST LUICE BLVD to CALIFORNIA BLVD	638	4,860	2019	750	397	D	0.529	297	C	0.396
CAMEO BLVD	CALIFORNIA BLVD to CROSSTOWN PKWY	639	9,900	2021	790	700	D	0.886	589	D	0.746
CAMPBELL RD	PICOS RD to ORANGE AVE	640	533	2017	540	44	C	0.081	43	C	0.08
CANE SLOUGH RD	US 1 to LENNARD RD	167	9,300	2021	1,710	470	C	0.275	474	C	0.277
CARLTON RD	CARLTON RD (S) to OKEECHOBEE RD	641	367	2017	390	32	B	0.082	29	B	0.074
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	11,000	2021	630	721	F	1.144	670	F	1.063
CASHMERE BLVD	DEL RIO BLVD to CROSSTOWN PKWY	642	10,500	2021	920	646	C	0.702	633	C	0.688
CASHMERE BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	232	14,500	2021	920	809	C	0.879	710	C	0.772
CASHMERE BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	232	14,500	2021	920	809	C	0.879	710	C	0.772
CASHMERE BLVD	ST LUCIE WEST BLVD to PEACOCK BLVD	231	13,500	2021	920	947	F	1.029	916	D	0.996
CITRUS AVE	7TH ST to US 1	643	1,108	2019	800	154	C	0.193	154	C	0.193
CITRUS AVE	US 1 to 2ND ST	940160	5,200	2020	840	247	C	0.294	251	C	0.299
CITRUS AVE	2ND ST to INDIAN RIVER DR	644	4,337	2016	580	264	C	0.455	267	C	0.46
COMMUNITY BLVD	WESTCLIFFE LN to TRADITION PKWY	647	5,400	2021	1,470	298	C	0.203	311	C	0.212
COMMERCE CENTER DR	CROSSTOWN PKWY to ST LUCIE WEST BLVD	645	3,900	2021	1,710	231	C	0.135	280	C	0.164
COMMERCE CENTER DR	ST LUCIE WEST BLVD to GLADES CUT-OFF RD	646	7,453	2019	540	398	D	0.737	457	D	0.846
CORTEZ BLVD	35TH ST to 25TH ST	948500	2,300	2020	750	112	C	0.149	112	C	0.149
CORTEZ BLVD	25TH ST to SUNRISE BLVD	648	3,000	2019	750	215	C	0.287	197	C	0.263

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COUNTRY CLUB DR	ST LUCIE WEST BLVD to CALIFORNIA BLVD	725	8,304	2019	1,710	535	C	0.313	490	C	0.287
CROSSTOWN PKWY	COMMERCE CENTER DR to I-95	650	15,500	2021	3,170	738	C	0.233	789	C	0.249
CROSSTOWN PKWY	I-95 to CALIFORNIA BLVD	651	29,500	2021	3,170	1,667	C	0.526	1,874	C	0.591
CROSSTOWN PKWY	CALIFORNIA BLVD to CASHMERE BLVD	652	30,500	2021	3,170	1,719	C	0.542	1,616	C	0.51
CROSSTOWN PKWY	CASHMERE BLVD to CAMEO BLVD	653	34,000	2021	3,170	1,840	C	0.58	1,768	C	0.558
CROSSTOWN PKWY	CAMEO BLVD to BAYSHORE BLVD	654	40,500	2021	3,170	2,014	C	0.635	2,111	C	0.666
CROSSTOWN PKWY	BAYSHORE BLVD to AIROSO BLVD	655	30,000	2021	3,170	1,560	C	0.492	1,531	C	0.483
CROSSTOWN PKWY	AIROSO BLVD to SANDIA DR	656	17,500	2021	3,170	847	C	0.267	908	C	0.286
CROSSTOWN PKWY	SANDIA DR to MANTH LN	657	20,500	2021	3,170	1,047	C	0.33	1,027	C	0.324
CROSSTOWN PKWY	FLORESTA DR to US 1	66	33,000	2021	3,170	2,191	C	0.691	1,994	C	0.629
CROSSROADS PKWY	OKEECHOBEE RD to KINGS HWY	649	2,333	2017	790	117	C	0.148	117	C	0.148
DARWIN BLVD	BECKER RD to PAAR DR	235	7,400	2021	630	658	F	1.044	609	D	0.967
DARWIN BLVD	PAAR DR to TULIP BLVD	235	7,400	2021	920	658	C	0.715	609	C	0.662
DARWIN BLVD	TULIP BLVD to PORT ST LUCIE BLVD	659	11,500	2021	920	542	C	0.589	537	C	0.584
DEL RIO BLVD	PORT ST LUCIE BLVD to CALIFORNIA BLVD	311	10,293	2019	920	804	C	0.874	725	C	0.788
DEL RIO BLVD	CALIFORNIA BLVD to CASHMERE BLVD	660	8,002	2019	880	488	C	0.555	484	C	0.55
DEL RIO BLVD	CASHMERE BLVD to CALIFORNIA BLVD	661	4,900	2021	880	261	C	0.297	264	C	0.3
DELAWARE AVE	HARTMAN RD to 33RD ST	662	1,617	2016	600	251	C	0.418	202	C	0.337
DELAWARE AVE	33RD ST to 25TH ST	500	2,891	2017	1,710	192	C	0.112	220	C	0.129
DELAWARE AVE	25TH ST to OKEECHOBEE RD	948526	2,000	2020	1,220	92	C	0.075	92	C	0.075
DELAWARE AVE	OKEECHOBEE RD to 13TH ST	663	11,462	2020	790	628	D	0.795	584	D	0.739
DELAWARE AVE	13TH ST to 10TH ST	664	7,700	2021	750	418	D	0.557	399	D	0.532
DELAWARE AVE	10TH ST to 7TH ST	664	7,700	2021	600	418	D	0.697	399	D	0.665
DELAWARE AVE	7TH ST to US 1	665	7,188	2020	750	390	D	0.52	401	D	0.535
EAST TORINO PKWY	CASHMERE BLVD to TORINO PKWY	710	10,500	2021	830	619	C	0.746	612	C	0.737

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EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2021	880	940	F	1.068	811	C	0.922
EASY ST	US 1 to BUCHANAN DR	106	5,400	2021	750	299	C	0.399	379	D	0.505
EASY ST	BUCHANAN DR to YUCCA DR	106	5,400	2021	540	299	D	0.554	379	D	0.702
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2021	630	529	C	0.84	533	C	0.846
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2021	700	529	C	0.756	533	C	0.761
EDWARDS RD	SELVITZ RD to 25TH ST	110	14,500	2021	880	729	C	0.828	741	C	0.842
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,000	2021	1,700	778	D	0.458	778	D	0.458
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,401	2019	1,700	764	D	0.449	745	D	0.438
EDWARDS RD	OLEANDER AVE to US 1	173	9,616	2019	1,700	529	C	0.311	462	C	0.272
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,848	2019	750	128	C	0.171	125	C	0.167
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	17,572	2019	920	1,216	F	1.322	929	F	1.01
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	15,459	2019	880	1,002	F	1.139	913	F	1.038
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	15,459	2019	880	1,002	F	1.139	913	F	1.038
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2021	920	609	C	0.662	559	C	0.608
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,000	2021	920	497	C	0.54	549	C	0.597
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,400	2021	630	316	C	0.502	336	C	0.533
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,400	2021	880	316	C	0.359	336	C	0.382
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,613	2019	580	271	D	0.467	277	D	0.478
GARDENIA AVE	OLEANDER AVE to US 1	666	2,867	2017	750	191	C	0.255	204	C	0.272
GATLIN BLVD	W OF I-95 to E OF I-95	945075	48,500	2020	3,170	3,352	F	1.057	2,732	C	0.862
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	48,500	2020	3,170	3,352	F	1.057	2,732	C	0.862
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	48,500	2020	3,170	3,352	F	1.057	2,732	C	0.862
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	48,500	2020	3,170	3,352	F	1.057	2,732	C	0.862
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	48,500	2020	3,170	3,352	F	1.057	2,732	C	0.862
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,778	2020	600	295	C	0.492	266	C	0.443

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GEORGIA AVE	OKEECHOBEE RD to 17TH ST	667	4,778	2020	750	295	C	0.393	266	C	0.355
GEORGIA AVE	17TH ST to 13TH ST	508	4,723	2019	600	263	C	0.438	267	C	0.445
GEORGIA AVE	13TH ST to 7TH ST	506	2,165	2019	600	133	C	0.222	136	C	0.227
GEORGIA AVE	7TH ST to US 1	504	1,939	2019	600	122	C	0.203	135	C	0.225
GILSON RD	MARTIN C.L. to BECKER RD	111	10,500	2021	710	880	F	1.239	910	F	1.282
GILSON RD	BECKER RD to LAKERIDGE DR	111	10,500	2021	540	880	F	1.63	910	F	1.685
GLADES CUT-OFF RD	RANGE LINE RD to RESERVE BLVD	668	2,967	2017	1,070	209	B	0.195	264	B	0.247
GLADES CUT-OFF RD	RESERVE BLVD to COMMERCE CENTER DR	119	3,634	2016	1,070	336	B	0.314	336	B	0.314
GLADES CUT-OFF RD	CARLTON RD to RANGE LINE RD	668	2,967	2017	390	209	B	0.536	264	C	0.677
GLADES CUT-OFF RD	COMMERCE CENTER DR to MIDWAY RD	940279	3,400	2020	920	187	C	0.203	171	C	0.186
GLADES CUT-OFF RD	MIDWAY RD to JENKINS RD	115	8,500	2021	790	510	D	0.646	540	D	0.684
GLADES CUT-OFF RD	JENKINS RD to SELVITZ RD	113	6,575	2020	830	368	C	0.443	384	C	0.463
GRAHAM RD	KINGS HWY to JENKINS RD	669	3,833	2017	630	262	C	0.416	250	C	0.397
GREEN RIVER PKWY	MARTIN C.L. to CHARLESTON DR	319	5,700	2021	1,070	395	C	0.369	359	B	0.336
GREEN RIVER PKWY	CHARLESTON DR to MELALEUCA BLVD	319	5,700	2021	1,070	395	C	0.369	359	B	0.336
GREEN RIVER PKWY	MELALEUCA BLVD to WALTON RD	319	5,700	2021	1,070	395	C	0.369	359	B	0.336
HARTMAN RD	OKEECHOBEE RD to PETERSON RD	670	6,000	2021	750	286	C	0.381	280	C	0.373
HARTMAN RD	PETERSON RD to DELAWARE AVE	670	6,000	2021	540	286	D	0.53	280	D	0.519
HARTMAN RD	DELAWARE AVE to ORANGE AVE	670	6,000	2021	790	286	C	0.362	280	C	0.354
HEADER CANAL RD	OKEECHOBEE RD to ORANGE AVE	121	570	2019	670	47	B	0.07	57	B	0.085
HILLMOOR DR	US 1 to LENNARD RD	671	7,057	2019	790	366	C	0.463	465	D	0.589
I-95	GATLIN BLVD to ST LUCIE WEST BLVD	941901	80,500	2020	5,500	4,122	C	0.749	3,723	C	0.677
I-95	ST LUCIE WEST BLVD to MIDWAY RD	941904	66,431	2018	5,500	3,736	C	0.679	3,222	B	0.586
I-95	MIDWAY RD to OKEECHOBEE RD	941902	79,206	2018	5,500	5,004	D	0.91	4,063	C	0.739
I-95	OKEECHOBEE RD to ORANGE AVE	940260	60,386	2020	7,320	2,804	B	0.383	2,804	B	0.383

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I-95	ORANGE AVE to INDRIO RD	941905	48,500	2020	7,320	2,470	B	0.337	2,274	B	0.311
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	945029	6,600	2020	800	310	C	0.388	355	C	0.444
INDIAN RIVER DR	ORANGE AVE to AVENUE A	940003	5,500	2020	750	260	C	0.347	253	C	0.337
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	7,200	2020	840	344	C	0.41	405	D	0.482
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	7,200	2020	540	344	C	0.637	405	D	0.75
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	850	2020	1,080	40	B	0.037	43	B	0.04
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	850	2020	3,240	40	B	0.012	43	B	0.013
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	9,800	2020	3,240	480	B	0.148	505	B	0.156
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	9,800	2020	700	480	C	0.686	505	C	0.721
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	9,800	2020	880	480	C	0.545	505	C	0.574
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	8,600	2020	920	471	C	0.512	397	C	0.432
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	8,600	2020	790	471	D	0.596	397	D	0.503
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	5,909	2020	840	378	C	0.45	370	C	0.44
INDRIO RD	SLASH PINE TRL to US 1	114	5,909	2020	920	378	C	0.411	370	C	0.402
INDRIO RD	US 1 to OLD DIXIE HWY	672	900	2016	750	63	C	0.084	85	C	0.113
JENNINGS RD	US 1 to LENNARD RD	673	4,633	2016	2,100	306	C	0.146	250	C	0.119
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	133	11,500	2021	880	541	C	0.615	593	C	0.674
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	131	9,900	2021	920	517	C	0.562	523	C	0.568
JENKINS RD	GRAHAM RD to PETERSON RD	131	9,900	2021	630	517	C	0.821	523	C	0.83
JENKINS RD	PETERSON RD to ORANGE AVE	131	9,900	2021	920	517	C	0.562	523	C	0.568
JOHNSTON RD	ANGLE RD to L20	674	2,700	2016	1,070	183	B	0.171	177	B	0.165
JOHNSTON RD	L20 to MEADOWOOD DR	675	2,333	2017	1,070	148	B	0.138	144	B	0.135
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	675	2,333	2017	1,070	148	B	0.138	144	B	0.135
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	675	2,333	2017	1,070	148	B	0.138	144	B	0.135
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	8,424	2020	1,070	477	C	0.446	479	C	0.448

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JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	135	8,424	2020	1,070	477	C	0.446	479	C	0.448
JUANITA AVE	53RD ST to 25TH ST	122	2,176	2017	750	140	C	0.187	128	C	0.171
JUANITA AVE	25TH ST to US 1	120	3,226	2017	750	180	C	0.24	177	C	0.236
KEEN RD	ANGLE RD to JUANITA AVE	129	2,926	2019	630	176	C	0.279	206	C	0.327
KEEN RD	JUANITA AVE to ST LUCIE BLVD	129	2,926	2019	630	176	C	0.279	206	C	0.327
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	940757	7,900	2020	880	363	C	0.413	371	C	0.422
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	940757	7,900	2020	700	363	C	0.519	371	C	0.53
KINGS HWY	GRAHAM RD to PICOS RD	940076	7,000	2020	700	337	C	0.481	324	C	0.463
KINGS HWY	PICOS RD to ORANGE AVE	940076	7,000	2020	880	337	C	0.383	324	C	0.368
KINGS HWY	ORANGE AVE to ANGLE RD	940077	14,100	2020	920	662	C	0.72	666	C	0.724
KINGS HWY	ANGLE RD to ST LUCIE BLVD	940751	10,500	2020	880	531	C	0.603	533	C	0.606
KINGS HWY	ST LUCIE BLVD to INDRIO RD	940006	13,200	2020	880	744	C	0.845	699	C	0.794
KIRBY LOOP RD	EDWARDS RD to 35TH ST	677	2,400	2021	630	139	C	0.221	129	C	0.205
KITTERMAN RD	OLEANDER AVE to US 1	124	3,482	2018	750	229	C	0.305	208	C	0.277
KITTERMAN RD	US 1 to LENNARD EXT	678	2,233	2017	750	127	C	0.169	129	C	0.172
LENNARD RD	US 1 to MARIPOSA AVE	325	20,078	2019	1,710	1,034	D	0.605	1,068	D	0.625
LENNARD RD	MARIPOSA AVE to MELALEUCA BLVD	325	20,078	2019	1,710	1,034	D	0.605	1,068	D	0.625
LENNARD RD	MELALEUCA BLVD to JENNINGS RD	325	20,078	2019	1,630	1,034	D	0.634	1,068	D	0.655
LENNARD RD	JENNINGS RD to HILLMOOR DR	325	20,078	2019	1,710	1,034	D	0.605	1,068	D	0.625
LENNARD RD	HILLMOOR DR to TIFFANY AVE	325	20,078	2019	1,710	1,034	D	0.605	1,068	D	0.625
LENNARD RD	TIFFANY AVE to WALTON RD	323	5,764	2016	1,710	301	C	0.176	305	C	0.178
LENNARD RD	WALTON RD to S OF SAVANNA CLUB BLVD	679	3,600	2021	790	249	C	0.315	236	C	0.299
LYNGATE DR	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	306	10,536	2020	920	659	C	0.716	701	C	0.762
LYNGATE DR	MORNINGSIDE BLVD to US 1	306	10,536	2020	920	659	C	0.716	701	C	0.762
MARIPOSA AVE	LENNARD RD to HALLAHAN ST	166	6,912	2019	880	524	C	0.595	741	C	0.842

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MCCARTY RD	WILLIAMS RD to MIDWAY RD	680	383	2017	540	33	C	0.061	36	C	0.067
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	681	391	2020	540	34	C	0.063	34	C	0.063
MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	682	6,480	2020	790	396	D	0.501	395	D	0.5
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	682	6,480	2020	540	396	D	0.733	395	D	0.731
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	683	11,000	2021	920	647	C	0.703	617	C	0.671
MIDWAY RD	EAST TORINO PKWY to MILNER DR	134	20,500	2021	880	1,001	F	1.137	1,053	F	1.197
MIDWAY RD	MILNER DR to W OF SELVITZ RD	134	20,500	2021	790	1,001	F	1.267	1,053	F	1.333
MIDWAY RD	OKEECHOBEE RD to SHINN RD	940732	8,400	2020	760	408	C	0.537	519	C	0.683
MIDWAY RD	SHINN RD to MCCARTY RD	940732	8,400	2020	630	408	C	0.648	519	C	0.824
MIDWAY RD	MCCARTY RD to I-95	940732	8,400	2020	700	408	C	0.583	519	C	0.741
MIDWAY RD	I-95 to GLADES CUT-OFF RD	945140	19,400	2020	2,100	899	C	0.428	996	C	0.474
MIDWAY RD	GLADES CUT-OFF RD to EAST TORINO PKWY	228	20,000	2021	2,100	1,056	C	0.503	1,087	C	0.518
MIDWAY RD	W OF SELVITZ RD to SELVITZ RD	134	20,500	2021	920	1,001	F	1.088	1,053	F	1.145
MIDWAY RD	SELVITZ RD to CHRISTENSEN RD	132	16,500	2021	920	793	C	0.862	756	C	0.822
MIDWAY RD	CHRISTENSEN RD to 25TH ST	132	16,500	2021	840	793	E	0.944	756	D	0.9
MIDWAY RD	25TH ST to SUNRISE BLVD	130	18,855	2016	840	1,029	F	1.225	945	F	1.125
MIDWAY RD	SUNRISE BLVD to OLEANDER AVE	130	18,855	2016	840	1,029	F	1.225	945	F	1.125
MIDWAY RD	OLEANDER AVE to US 1	242	15,197	2016	840	802	E	0.955	794	E	0.945
MIDWAY RD	US 1 to WALLACE ST	940023	3,600	2020	840	196	C	0.233	216	C	0.257
MIDWAY RD	WALLACE ST to WEATHERBEE RD	940023	3,600	2020	920	196	C	0.213	216	C	0.235
MIDWAY RD	WEATHERBEE RD to INDIAN RIVER DR	940023	3,600	2020	630	196	C	0.311	216	C	0.343
MORNINGSIDE BLVD	WESTMORELAND BLVD to PORT ST LUCIE BLVD	333	2,577	2017	920	155	C	0.168	148	C	0.161
MORNINGSIDE BLVD	PORT ST LUCIE BLVD to LYNGATE DR	331	3,910	2020	880	311	C	0.353	330	C	0.375
NEBRASKA AVE	25TH ST to 13TH ST	684	3,733	2017	1,710	232	C	0.136	196	C	0.115
OAKRIDGE DR	MOUNTWELL ST to OAKLYN ST	621	6,623	2019	700	412	C	0.589	358	C	0.511

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OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,400	2017	540	261	C	0.483	255	C	0.472
OHIO AVE	COLONIAL RD to US 1	686	4,400	2017	750	261	C	0.348	255	C	0.34
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	11,000	2021	1,580	575	B	0.364	618	B	0.391
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	11,000	2021	2,000	575	B	0.288	618	B	0.309
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	7,500	2020	2,100	349	B	0.166	341	B	0.162
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	7,500	2020	2,100	349	B	0.166	341	B	0.162
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	7,500	2020	2,100	349	B	0.166	341	B	0.162
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	7,500	2020	2,450	349	B	0.142	341	B	0.139
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	7,500	2020	3,110	349	B	0.112	341	B	0.11
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	5,584	2020	3,240	303	B	0.094	303	B	0.094
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	8,600	2020	3,240	391	B	0.121	405	B	0.125
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	8,600	2020	2,100	391	C	0.186	405	C	0.193
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	22,500	2020	4,240	1,028	C	0.242	1,085	C	0.256
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	26,500	2020	4,240	1,213	C	0.286	1,240	C	0.292
OKEECHOBEE RD	I-95 to JENKINS RD	940029	32,000	2020	4,240	1,981	C	0.467	1,713	C	0.404
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	32,000	2020	4,040	1,981	C	0.49	1,713	C	0.424
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	29,500	2020	3,170	1,468	C	0.463	1,531	C	0.483
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,171	2020	2,100	669	C	0.319	708	C	0.337
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,171	2020	1,630	669	C	0.41	708	C	0.434
OKEECHOBEE RD	35TH ST to 33RD ST	689	15,993	2020	1,630	868	D	0.533	849	D	0.521
OKEECHOBEE RD	33RD ST to 25TH ST	689	15,993	2020	1,630	868	D	0.533	849	D	0.521
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,110	2020	1,630	754	D	0.463	716	C	0.439
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,110	2020	1,710	754	C	0.441	716	C	0.419
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,233	2017	790	407	D	0.515	369	C	0.467
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,750	2020	750	82	C	0.109	82	C	0.109

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OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,019	2016	790	148	C	0.187	115	C	0.146
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,350	2020	870	63	C	0.072	63	C	0.072
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,900	2021	540	168	C	0.311	190	C	0.352
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	141	5,500	2021	750	320	C	0.427	320	C	0.427
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	139	7,055	2020	750	386	D	0.515	418	D	0.557
OLEANDER AVE	WEATHERBEE RD to BELL AVE	139	7,055	2020	580	386	D	0.666	418	D	0.721
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	240	11,500	2021	580	555	E	0.957	526	D	0.907
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	240	11,500	2021	800	555	D	0.694	526	D	0.658
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	505	9,200	2021	800	558	D	0.698	464	D	0.58
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	505	9,200	2021	580	558	E	0.962	464	D	0.8
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	505	9,200	2021	840	558	D	0.664	464	D	0.552
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	503	4,553	2019	640	259	C	0.405	269	C	0.42
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	144	4,600	2021	670	269	C	0.401	256	C	0.382
ORANGE AVE	SNEED RD to HEADER CANAL RD	144	4,600	2021	670	269	C	0.401	256	C	0.382
ORANGE AVE	SHINN RD to CAMPBELL RD	940144	2,700	2020	1,070	148	B	0.138	148	B	0.138
ORANGE AVE	CAMPBELL RD to KINGS HWY	940144	2,700	2020	1,070	148	B	0.138	148	B	0.138
ORANGE AVE	KINGS HWY to I-95	940041	19,000	2020	2,100	856	C	0.408	863	C	0.411
ORANGE AVE	I-95 to JENKINS RD	940035	14,700	2020	2,100	797	C	0.38	750	C	0.357
ORANGE AVE	JENKINS RD to HARTMAN RD	940028	14,400	2020	2,100	705	C	0.336	655	C	0.312
ORANGE AVE	HARTMAN RD to ANGLE RD	940028	14,400	2020	2,100	705	C	0.336	655	C	0.312
ORANGE AVE	ANGLE RD to 25TH ST	945044	10,449	2020	1,710	507	C	0.296	590	C	0.345
ORANGE AVE	25TH ST to 17TH ST	945040	11,700	2020	1,630	534	C	0.328	586	C	0.36
ORANGE AVE	17TH ST to 13TH ST	945040	11,700	2020	1,710	534	C	0.312	586	C	0.343
ORANGE AVE	13TH ST to 10TH ST	945040	11,700	2020	750	534	D	0.712	586	D	0.781
ORANGE AVE	10TH ST to 7TH ST	940155	9,200	2020	600	418	D	0.697	481	D	0.802

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ORANGE AVE	7TH ST to US 1	945134	5,400	2020	600	313	D	0.522	278	C	0.463
ORANGE AVE	US 1 to 2ND ST	945133	3,600	2020	600	181	C	0.302	177	C	0.295
ORANGE AVE	2ND ST to INDIAN RIVER DR	945133	3,600	2020	750	181	C	0.241	177	C	0.236
PARR DR	PORT ST LUCIE BLVD to DARWIN BLVD	209	952	2016	700	69	C	0.099	61	C	0.087
PARR DR	DARWIN BLVD to TULIP BLVD	723	1,929	2019	540	169	C	0.313	128	C	0.237
PARR DR	SAVONA BLVD to PORT ST LUCIE BLVD	209	952	2016	700	69	C	0.099	61	C	0.087
PARR DR	ROSSER BLVD to SAVONA BLVD	209	952	2016	630	69	C	0.11	61	C	0.097
PEACOCK BLVD	CALIFORNIA BLVD to CASHMERE BLVD	693	4,900	2021	630	310	C	0.492	345	C	0.548
PEACOCK BLVD	UNIVERSITY BLVD to CALIFORNIA BLVD	694	9,600	2021	920	659	C	0.716	540	C	0.587
PEACOCK BLVD	ST LUCIE WEST BLVD to UNIVERSITY BLVD	948514	17,200	2020	2,100	794	C	0.378	794	C	0.378
PETERSON RD	BENT CREEK DR to HARTMAN RD	695	1,200	2017	540	96	C	0.178	81	C	0.15
PICOS RD	CAMPBELL RD to KINGS HWY	696	1,333	2017	540	92	C	0.17	86	C	0.159
PORT ST LUCIE BLVD	MARTIN C.L. to BECKER RD	948519	14,600	2020	920	674	C	0.733	674	C	0.733
PORT ST LUCIE BLVD	BECKER RD to PAAR DR	948519	14,600	2020	920	674	C	0.733	674	C	0.733
PORT ST LUCIE BLVD	PAAR DR to TULIP BLVD	948519	14,600	2020	700	674	D	0.963	674	D	0.963
PORT ST LUCIE BLVD	TULIP BLVD to DARWIN BLVD	948519	14,600	2020	920	674	C	0.733	674	C	0.733
PORT ST LUCIE BLVD	DARWIN BLVD to GATLIN BLVD	697	31,500	2021	3,020	1,612	C	0.534	1,592	C	0.527
PORT ST LUCIE BLVD	GATLIN BLVD to DEL RIO BLVD	698	43,000	2021	3,170	2,335	C	0.737	2,217	C	0.699
PORT ST LUCIE BLVD	DEL RIO BLVD to CAMEO BLVD	945074	44,500	2020	3,170	2,819	C	0.889	2,559	C	0.807
PORT ST LUCIE BLVD	CAMEO BLVD to FLORIDA'S TURNPIKE	945074	44,500	2020	3,020	2,819	C	0.933	2,559	C	0.847
PORT ST LUCIE BLVD	FLORIDA'S TURNPIKE to BAYSHORE BLVD	945074	44,500	2020	3,170	2,819	C	0.889	2,559	C	0.807
PORT ST LUCIE BLVD	BAYSHORE BLVD to AIROSO BLVD	945073	45,500	2020	3,020	2,641	C	0.875	2,616	C	0.866
PORT ST LUCIE BLVD	AIROSO BLVD to FLORESTA DR	940780	49,500	2020	3,020	2,918	C	0.966	2,557	C	0.847
PORT ST LUCIE BLVD	FLORESTA DR to VETERANS MEMORIAL PKWY	940778	49,000	2020	3,020	3,435	F	1.137	2,562	C	0.848
PORT ST LUCIE BLVD	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	940776	34,000	2020	3,020	2,142	C	0.709	1,900	C	0.629

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PORT ST LUCIE BLVD	MORNINGSIDE BLVD to US 1	945072	33,000	2020	3,170	2,399	C	0.757	1,496	C	0.472
PRIMA VISTA BLVD	BAYSHORE BLVD to AIROSO BLVD	314	24,000	2021	2,100	1,055	C	0.502	1,157	C	0.551
PRIMA VISTA BLVD	AIROSO BLVD to FLORESTA DR	150	20,000	2021	2,100	850	C	0.405	843	C	0.401
PRIMA VISTA BLVD	FLORESTA DR to NARANJA AVE	148	26,500	2021	2,100	1,525	C	0.726	1,451	C	0.691
PRIMA VISTA BLVD	NARANJA AVE to RIO MAR DR	148	26,500	2021	2,000	1,525	C	0.763	1,451	C	0.726
PRIMA VISTA BLVD	RIO MAR DR to US 1	146	17,500	2021	2,100	911	C	0.434	824	C	0.392
PRIMA VISTA BLVD	US 1 to LENNARD RD	699	8,500	2021	1,790	459	C	0.256	437	C	0.244
RANGE LINE RD	MARTIN C.L. to BECKER RD	145	1,767	2019	1,080	118	B	0.109	118	B	0.109
RANGE LINE RD	BECKER RD to 2 MI S OF GLADES CUT-OFF RD	145	1,767	2019	1,080	118	B	0.109	118	B	0.109
RANGE LINE RD	2 MI S OF GLADES CUT-OFF RD to GLADES CUT-OF...	145	1,767	2019	1,080	118	B	0.109	118	B	0.109
RIO MAR DR	PRIMA VISTA BLVD to BEACH AVE	147	5,856	2020	750	362	C	0.483	380	D	0.507
RIO MAR DR	BEACH AVE to US 1	147	5,856	2020	790	362	C	0.458	380	C	0.481
ROSSER BLVD	APRICOT RD to GATLIN BLVD	948510	4,400	2020	920	203	C	0.221	203	C	0.221
ROSSER BLVD	PAAR DR to APRICOT RD	948510	4,400	2020	1,070	203	B	0.19	203	B	0.19
SAVONA BLVD	BECKER RD to PAAR DR	236	9,200	2021	790	819	E	1.037	736	D	0.932
SAVONA BLVD	PAAR DR to GATLIN BLVD	236	9,200	2021	750	819	F	1.092	736	D	0.981
SAVONA BLVD	GATLIN BLVD to CALIFORNIA BLVD	702	13,000	2021	790	603	D	0.763	636	D	0.805
SAVAGE BLVD	GATLIN BLVD to GALIANO RD	168	4,030	2018	920	265	C	0.288	214	C	0.233
SAVANNAH RD	US 1 to INDIAN RIVER DR	514	2,178	2019	540	155	C	0.287	152	C	0.281
SELVITZ RD	BAYSHORE BLVD to ST JAMES BLVD	948501	8,600	2020	750	419	D	0.559	419	D	0.559
SELVITZ RD	ST JAMES BLVD to MIDWAY RD	948501	8,600	2020	750	419	D	0.559	419	D	0.559
SELVITZ RD	MIDWAY RD to GLADES CUT-OFF RD	703	8,600	2021	700	504	C	0.72	508	C	0.726
SELVITZ RD	GLADES CUT-OFF RD to EDWARDS RD	704	13,500	2021	790	715	D	0.905	713	D	0.903
SHINN RD	MIDWAY RD to OKEECHOBEE RD	705	800	2017	580	53	C	0.091	50	C	0.086
SHINN RD	OKEECHOBEE RD to ORANGE AVE	149	804	2019	1,080	60	B	0.056	61	B	0.056

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SNEED RD	OKEECHOBEE RD to ORANGE AVE	151	1,080	2019	670	68	B	0.101	83	B	0.124
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	337	16,500	2021	790	832	E	1.053	900	F	1.139
SR A1A NORTH	US 1 to OLD DIXIE HWY	940709	10,400	2020	920	596	C	0.648	597	C	0.649
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	706	10,500	2021	920	593	C	0.645	628	C	0.683
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	940114	7,800	2020	920	353	C	0.384	387	C	0.421
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	940719	3,700	2020	920	188	C	0.204	169	C	0.184
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	940116	3,500	2020	700	283	C	0.404	227	C	0.324
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	945016	8,100	2020	600	375	D	0.625	449	D	0.748
SR A1A SOUTH	OCEAN DR to BINNEY DR	940115	15,000	2020	600	679	F	1.132	710	F	1.183
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	940115	15,000	2020	790	679	D	0.859	710	D	0.899
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	940711	11,700	2020	1,550	585	C	0.377	529	C	0.341
SR A1A SOUTH	INDIAN RIVER DR to US 1	940711	11,700	2020	1,710	585	C	0.342	529	C	0.309
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	172	18,439	2020	2,100	1,261	C	0.6	1,216	C	0.579
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	239	18,796	2020	2,100	1,330	C	0.633	1,287	C	0.613
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	172	18,439	2020	1,800	1,261	C	0.701	1,216	C	0.676
ST JAMES DR	TELFORD AVE to MIDWAY RD	345	23,363	2020	2,100	1,424	C	0.678	1,405	C	0.669
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	707	4,900	2021	790	272	C	0.344	272	C	0.344
ST LUCIE BLVD	KINGS HWY to KEEN RD	156	6,700	2021	880	448	C	0.509	492	C	0.559
ST LUCIE BLVD	KEEN RD to 25TH ST	156	6,700	2021	880	448	C	0.509	492	C	0.559
ST LUCIE BLVD	25TH ST to SENECA AVE	940270	5,100	2020	800	233	C	0.291	236	C	0.295
ST LUCIE BLVD	SENECA AVE to US 1	940270	5,100	2020	840	233	C	0.277	236	C	0.281
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	152	15,000	2021	700	689	D	0.984	704	F	1.01
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	318	39,000	2021	2,100	1,840	C	0.876	1,840	C	0.876
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	318	39,000	2021	2,100	1,840	C	0.876	1,840	C	0.876
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	318	39,000	2021	2,100	1,840	C	0.876	1,840	C	0.876

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ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	45,500	2021	3,170	1,995	C	0.629	2,125	C	0.67
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,500	2021	540	211	C	0.391	223	C	0.413
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,793	2016	750	251	C	0.335	284	C	0.379
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	6,590	2020	600	584	D	0.973	465	D	0.775
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	6,590	2020	750	584	D	0.779	465	D	0.62
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,073	2020	750	399	D	0.532	393	D	0.524
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,967	2017	1,540	247	C	0.16	287	C	0.186
SUNRISE BLVD	7TH ST to US 1	708	3,967	2017	1,710	247	C	0.144	287	C	0.168
TIFFANY AVE	US 1 to HILLMOOR DR	322	16,941	2019	2,100	966	C	0.46	973	C	0.463
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	16,941	2019	2,100	966	C	0.46	973	C	0.463
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,200	2021	2,100	204	C	0.097	198	C	0.094
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	6,200	2021	630	397	C	0.63	362	C	0.575
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,700	2021	630	310	C	0.492	253	C	0.402
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	6,200	2021	1,710	649	C	0.38	629	C	0.368
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	33,500	2021	3,170	1,691	C	0.533	1,833	C	0.578
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,471	2019	790	541	D	0.685	471	D	0.596
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	8,800	2021	790	492	D	0.623	526	D	0.666
TULIP BLVD	PAAR DR to DARWIN BLVD	714	8,800	2021	790	492	D	0.623	526	D	0.666
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,971	2015	660	447	C	0.677	447	C	0.677
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R...	940269	11,200	2020	870	700	C	0.805	642	C	0.738
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	12,400	2020	870	649	C	0.746	682	C	0.784
US 1	MARTIN C.L. to LENNARD RD	945071	58,500	2020	4,240	2,664	C	0.628	3,132	C	0.739
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	58,500	2020	4,040	2,664	C	0.659	3,132	C	0.775
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	30,000	2020	3,020	1,409	C	0.467	1,495	C	0.495
US 1	JENNINGS RD to TIFFANY AVE	945070	30,000	2020	3,020	1,409	C	0.467	1,495	C	0.495

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US 1	TIFFANY AVE to WALTON RD	945070	30,000	2020	3,020	1,409	C	0.467	1,495	C	0.495
US 1	WALTON RD to VILLAGE GREEN DR	945150	49,500	2020	3,020	2,623	C	0.869	2,352	C	0.779
US 1	VILLAGE GREEN DR to SPANISH LAKES BLVD	940265	51,500	2020	3,170	2,767	C	0.873	2,590	C	0.817
US 1	SPANISH LAKES BLVD to PRIMA VISTA BLVD	940265	51,500	2020	3,170	2,767	C	0.873	2,590	C	0.817
US 1	PRIMA VISTA BLVD to RIO MAR DR	940264	39,500	2020	3,170	1,827	C	0.576	1,798	C	0.567
US 1	RIO MAR DR to KITTERMAN RD	940266	34,000	2020	3,170	1,719	C	0.542	1,557	C	0.491
US 1	KITTERMAN RD to S OF SAEGER AVE	940266	34,000	2020	3,020	1,719	C	0.569	1,557	C	0.516
US 1	S OF SAEGER AVE to EASY ST	940266	34,000	2020	3,170	1,719	C	0.542	1,557	C	0.491
US 1	EASY ST to MIDWAY RD	945156	29,500	2020	3,170	1,423	C	0.449	1,383	C	0.436
US 1	MIDWAY RD to WEATHERBEE RD	940012	41,500	2020	2,100	1,867	C	0.889	1,889	C	0.9
US 1	WEATHERBEE RD to FARMER'S MARKET RD	940012	41,500	2020	2,000	1,867	C	0.934	1,889	C	0.945
US 1	FARMER'S MARKET RD to EDWARDS RD	940012	41,500	2020	2,000	1,867	C	0.934	1,889	C	0.945
US 1	EDWARDS RD to SAVANNAH RD	945002	29,000	2020	2,000	1,344	C	0.672	1,318	C	0.659
US 1	GARDENIA AVE to VIRGINIA AVE	945002	29,000	2020	2,000	1,344	C	0.672	1,318	C	0.659
US 1	SAVANNAH RD to GARDENIA AVE	945002	29,000	2020	2,000	1,344	C	0.672	1,318	C	0.659
US 1	VIRGINIA AVE to OHIO AVE	945003	25,000	2020	2,000	1,165	C	0.583	1,174	C	0.587
US 1	OHIO AVE to GEORGIA AVE	945003	25,000	2020	1,630	1,165	D	0.715	1,174	D	0.72
US 1	GEORGIA AVE to DELAWARE AVE	945008	35,500	2020	1,630	1,734	F	1.064	1,658	E	1.017
US 1	DELAWARE AVE to CITRUS AVE	945014	32,500	2020	1,630	1,594	D	0.978	1,553	D	0.953
US 1	CITRUS AVE to ORANGE AVE	940118	30,000	2020	1,630	1,563	D	0.959	1,409	D	0.864
US 1	ORANGE AVE to AVENUE A	945014	32,500	2020	1,630	1,594	D	0.978	1,553	D	0.953
US 1	AVENUE A to AE BACKUS AVE	945014	32,500	2020	1,630	1,594	D	0.978	1,553	D	0.953
US 1	AE BACKUS AVE to AVENUE D	945014	32,500	2020	1,630	1,594	D	0.978	1,553	D	0.953
US 1	AVENUE D to SR A1A SOUTH	945014	32,500	2020	1,630	1,594	D	0.978	1,553	D	0.953
US 1	SR A1A SOUTH to AVENUE H	715	31,500	2021	2,100	1,590	C	0.757	1,584	C	0.754

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US 1	AVENUE H to OLD DIXIE HWY	715	31,500	2021	2,000	1,590	C	0.795	1,584	C	0.792
US 1	OLD DIXIE HWY to AVENUE O	940123	29,000	2020	2,000	1,709	C	0.855	1,336	C	0.668
US 1	AVENUE O to SR A1A NORTH	940123	29,000	2020	2,100	1,709	C	0.814	1,336	C	0.636
US 1	SR A1A NORTH to JUANITA AVE	940010	21,500	2020	2,100	1,222	C	0.582	979	C	0.466
US 1	JUANITA AVE to ST LUCIE BLVD	940010	21,500	2020	2,100	1,222	C	0.582	979	C	0.466
US 1	ST LUCIE BLVD to 25TH ST	940009	20,500	2020	2,100	1,077	C	0.513	1,033	C	0.492
US 1	25TH ST to INDRIO RD	940009	20,500	2020	2,100	1,077	C	0.513	1,033	C	0.492
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	24,000	2020	2,100	1,164	C	0.554	1,157	C	0.551
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	24,000	2020	2,100	1,164	C	0.554	1,157	C	0.551
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	17,256	2019	2,100	927	C	0.441	973	C	0.463
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	8,400	2021	2,100	429	C	0.204	434	C	0.207
VILLAGE GREEN DR	US 1 to WALTON RD	716	16,500	2021	2,100	987	C	0.47	1,040	C	0.495
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,733	2017	920	254	C	0.276	240	C	0.261
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	16,000	2021	2,650	792	C	0.299	806	C	0.304
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	16,000	2021	1,710	792	D	0.463	806	D	0.471
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,500	2021	1,710	1,294	D	0.757	1,295	D	0.757
VILLAGE PKWY	WESTCLIFFE LN to CROSSTOWN PKWY	720	13,043	2019	1,710	696	C	0.407	689	C	0.403
VIRGINIA AVE	35TH ST to 25TH ST	940032	22,000	2020	3,020	1,075	C	0.356	1,047	C	0.347
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	20,000	2020	3,020	975	C	0.323	939	C	0.311
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	20,000	2020	3,020	975	C	0.323	939	C	0.311
VIRGINIA AVE	25TH ST to 13TH ST	940033	21,000	2020	3,020	988	C	0.327	1,052	C	0.348
VIRGINIA AVE	13TH ST to 11TH ST	940794	21,500	2020	3,020	1,002	C	0.332	1,002	C	0.332
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	21,500	2020	3,170	1,002	C	0.316	1,002	C	0.316
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	21,100	2020	3,020	1,055	C	0.349	985	C	0.326
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,300	2020	3,170	902	C	0.285	882	C	0.278

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
2021

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,300	2020	3,020	902	C	0.299	882	C	0.292
WALTON RD	US 1 to VILLAGE GREEN DR	330	10,500	2021	1,710	537	C	0.314	566	C	0.331
WALTON RD	VILLAGE GREEN DR to LENNARD RD	328	22,000	2021	1,710	1,252	D	0.732	1,172	D	0.685
WALTON RD	LENNARD RD to GREEN RIVER PKWY	326	12,500	2021	880	682	C	0.775	744	C	0.845
WALTON RD	GREEN RIVER PKWY to INDIAN RIVER DR	324	5,393	2018	630	416	C	0.66	430	C	0.683
WEATHERBEE RD	OLEANDER AVE to US 1	721	3,795	2019	750	281	C	0.375	257	C	0.343
WEATHERBEE RD	US 1 to MIDWAY RD	158	6,234	2020	750	427	D	0.569	456	D	0.608
WESTCLIFFE LN	TREMONTE AVE to VILLAGE PKWY	722	7,067	2018	1,470	495	C	0.337	381	C	0.259
WESTMORELAND BLVD	MORNINGSIDE BLVD to PORT ST LUCIE BLVD	339	12,000	2021	920	592	C	0.643	640	C	0.696
WESTMORELAND BLVD	MARTIN C.L. to MORNINGSIDE BLVD	245	9,673	2019	920	539	C	0.586	597	C	0.649

Countywide Performance

Weighted V/C = **0.60**

% VMT below Standard = **3.83%**

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
* **Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 7027 - ON JENKINS RD SOUTH - S. OF OKEECHOBEE RD (COUNTY 133)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	7100 R	N 3600	S 3500	9.00	51.30	31.50
2019	7500 T	N 3800	S 3700	9.00	51.00	7.80
2018	7500 S	N 3800	S 3700	9.00	51.30	16.70
2017	7500 F	N 3800	S 3700	9.00	50.90	16.70
2016	7300 C	N 3700	S 3600	9.00	50.90	16.70
2015	7300 S	N 3800	S 3500	9.00	51.00	41.80
2014	7300 F	N 3800	S 3500	9.00	50.80	49.50
2013	7300 C	N 3800	S 3500	9.00	50.80	11.90
2012	6400 F	N 3200	S 3200	9.00	56.80	7.10
2011	6400 C	N 3200	S 3200	9.00	57.20	16.40
2010	6500 F	N 3200	S 3300	10.32	55.40	16.40
2009	6500 C	N 3200	S 3300	10.27	57.35	16.40

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0273 - CR 611/JENKINS RD - N. OF SR 70/OKEECHOBEE RD (COUNTY 131)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	8800 F	N 4400	S 4400	9.00	51.30	31.50
2019	9200 C	N 4600	S 4600	9.00	51.00	7.80
2018	10000 V	N 4400	S 5600	9.00	51.30	5.80
2017	9900 R	N 4400	S 5500	9.00	50.90	10.00
2016	9700 T	N 4300	S 5400	9.00	50.90	6.20
2015	9600 S	N 4300	S 5300	9.00	51.00	41.80
2014	9600 F	N 4300	S 5300	9.00	50.80	49.50
2013	9600 C	N 4300	S 5300	9.00	50.80	11.90
2012	7100 S	N 3600	S 3500	9.00	56.80	4.80
2011	7100 F	N 3600	S 3500	9.00	57.20	4.80
2010	7100 C	N 3600	S 3500	10.32	55.40	4.80
2009	8500 C	N 4200	S 4300	10.27	57.35	10.70
2008	9100 C	N 4500	S 4600	10.45	58.06	6.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0029 - SR 70 / OKEECHOBEE RD - E OF SR 9/I-95 (COUNTY 29)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	32000 F	E 16500	W 15500	9.00	51.30	11.00
2019	33000 C	E 17000	W 16000	9.00	51.00	11.00
2018	31000 C	E 15000	W 16000	9.00	51.30	4.70
2017	34500 C	E 17500	W 17000	9.00	50.90	12.30
2016	28500 F	E 14000	W 14500	9.00	50.90	12.30
2015	28500 C	E 14000	W 14500	9.00	51.00	12.30
2014	25500 F	E 14000	W 11500	9.00	50.80	4.90
2013	25500 C	E 14000	W 11500	9.00	50.80	4.90
2012	28000 C	E 14000	W 14000	9.00	56.80	4.90
2011	30500 C	E 15500	W 15000	9.00	57.20	10.90
2010	30500 C	E 15500	W 15000	10.32	55.40	10.90
2009	26500 C	E 13000	W 13500	10.27	57.35	10.90
2008	29500 C	E 15500	W 14000	10.45	58.06	6.70
2007	33000 C	E 17000	W 16000	10.31	58.74	5.20
2006	31000 C	E 16000	W 15000	10.73	65.89	16.00
2005	26500 C	E 13500	W 13000	10.80	60.70	16.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0742 - SR 70/OKEECHOBEE RD - SW OF SR 70/VIRGINIA AVE (COUNTY 742)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	29500 F	E 14000	W 15500	9.00	51.30	4.60
2019	30500 C	E 14500	W 16000	9.00	51.00	4.60
2018	31500 C	E 16500	W 15000	9.00	51.30	4.60
2017	31500 C	E 15500	W 16000	9.00	50.90	12.00
2016	26000 C	E 15500	W 10500	9.00	50.90	12.00
2015	26500 C	E 11500	W 15000	9.00	51.00	12.00
2014	30000 C	E 15000	W 15000	9.00	50.80	6.10
2013	27000 C	E 12500	W 14500	9.00	50.80	3.80
2012	33000 C	E 16500	W 16500	9.00	56.80	3.80
2008	32500 C	E 16500	W 16000	10.45	58.06	6.70
2007	31500 C	E 15000	W 16500	10.31	58.74	7.40
2006	35500 C	E 18500	W 17000	10.73	65.89	5.00
2005	32500 C	E 16500	W 16000	10.80	60.70	5.70

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

KMF Traffic Group, LLC
Stuart, FL
(772) 221-7971

Manual Traffic Count - All Traffic
Okeechobee Rd and Jenkins Rd
Fort Pierce, FL

File Name : OKEJEN
Site Code : PTC1901
Start Date : 4/23/2019
Page No : 1

Groups Printed- All Traffic

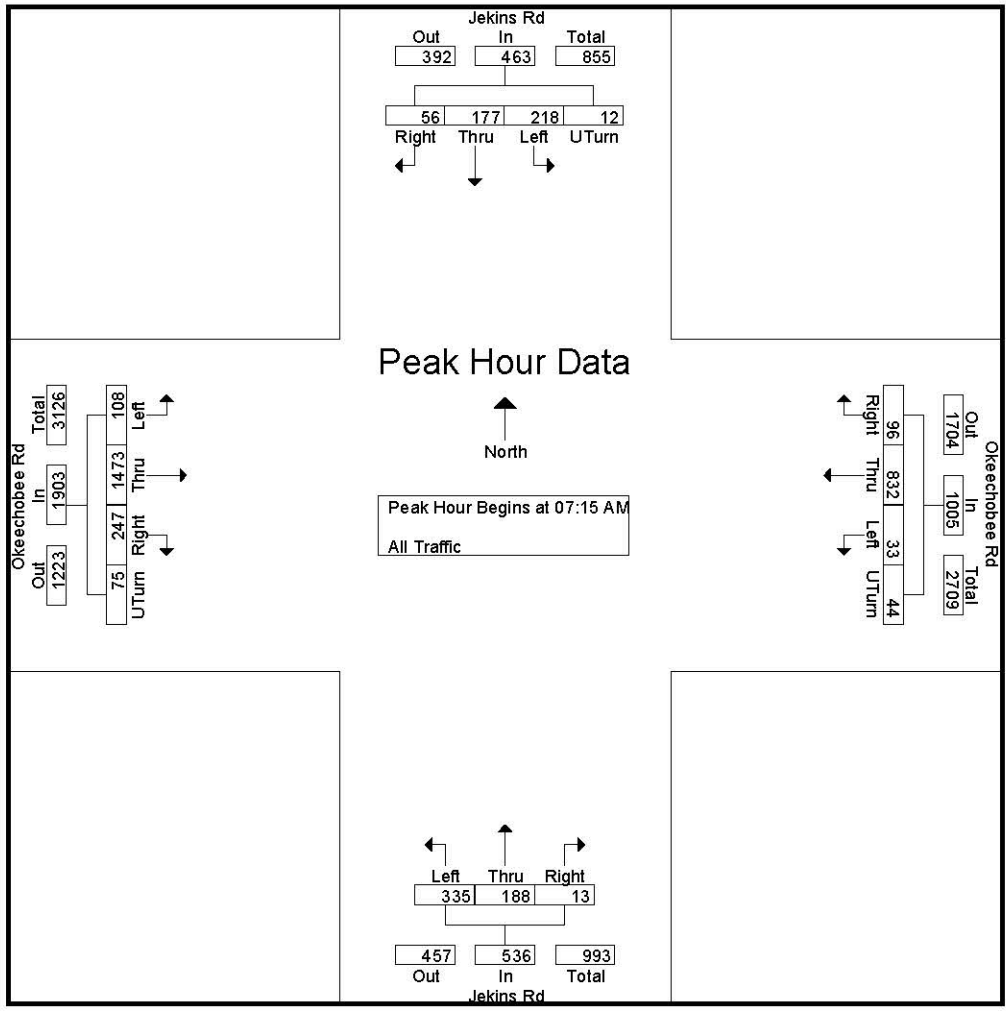
	Jekins Rd NB				Jekins Rd SB					Okeechobee Rd EB					Okeechobee Rd WB					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Int. Total
07:00 AM	2	23	59	84	25	47	28	2	102	58	215	34	22	329	13	186	3	7	209	724
07:15 AM	2	53	80	135	16	63	52	2	133	60	317	27	18	422	12	221	6	12	251	941
07:30 AM	5	42	101	148	14	50	40	2	106	64	416	23	29	532	48	188	11	10	257	1043
07:45 AM	2	46	67	115	13	33	75	4	125	62	437	28	13	540	12	229	6	8	255	1035
Total	11	164	307	482	68	193	195	10	466	244	1385	112	82	1823	85	824	26	37	972	3743
08:00 AM	4	47	87	138	13	31	51	4	99	61	303	30	15	409	24	194	10	14	242	888
08:15 AM	3	36	57	96	15	28	30	6	79	42	283	34	13	372	55	160	5	17	237	784
08:30 AM	3	39	81	123	13	34	58	4	109	44	290	25	26	385	35	218	4	19	276	893
08:45 AM	4	46	81	131	14	42	81	4	141	25	284	29	11	349	21	145	6	21	193	814
Total	14	168	306	488	55	135	220	18	428	172	1160	118	65	1515	135	717	25	71	948	3379
*** BREAK ***																				
04:00 PM	3	36	51	90	17	68	148	8	241	46	227	15	30	318	42	364	6	8	420	1069
04:15 PM	1	24	56	81	29	60	126	7	222	56	297	27	20	400	48	285	8	10	351	1054
04:30 PM	5	37	76	118	15	52	112	11	190	50	223	27	18	318	48	309	4	20	381	1007
04:45 PM	7	20	68	95	24	41	84	8	157	55	253	17	11	336	29	317	11	16	373	961
Total	16	117	251	384	85	221	470	34	810	207	1000	86	79	1372	167	1275	29	54	1525	4091
05:00 PM	11	31	70	112	12	58	89	11	170	60	263	15	22	360	32	380	7	17	436	1078
05:15 PM	2	34	69	105	17	38	79	11	145	54	298	20	13	385	38	381	7	6	432	1067
05:30 PM	8	39	75	122	11	38	93	9	151	42	251	19	17	329	33	282	15	14	344	946
05:45 PM	4	27	42	73	9	34	64	16	123	44	193	10	18	265	45	256	4	11	316	777
Total	25	131	256	412	49	168	325	47	589	200	1005	64	70	1339	148	1299	33	48	1528	3868
Grand Total	66	580	1120	1766	257	717	1210	109	2293	823	4550	380	296	6049	535	4115	113	210	4973	15081
Apprch %	3.7	32.8	63.4		11.2	31.3	52.8	4.8		13.6	75.2	6.3	4.9		10.8	82.7	2.3	4.2		
Total %	0.4	3.8	7.4	11.7	1.7	4.8	8	0.7	15.2	5.5	30.2	2.5	2	40.1	3.5	27.3	0.7	1.4	33	

KMF Traffic Group, LLC
Stuart, FL
(772) 221-7971

Manual Traffic Count - All Traffic
Okeechobee Rd and Jenkins Rd
Fort Pierce, FL

File Name : OKEJEN
Site Code : PTC1901
Start Date : 4/23/2019

	Jekins Rd NB				Jekins Rd SB					Okeechobee Rd EB					Okeechobee Rd WB					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:15 AM																				
07:15 AM	2	53	80	135	16	63	52	2	133	60	317	27	18	422	12	221	6	12	251	941
07:30 AM	5	42	101	148	14	50	40	2	106	64	416	23	29	532	48	188	11	10	257	1043
07:45 AM	2	46	67	115	13	33	75	4	125	62	437	28	13	540	12	229	6	8	255	1035
08:00 AM	4	47	87	138	13	31	51	4	99	61	303	30	15	409	24	194	10	14	242	888
Total Volume	13	188	335	536	56	177	218	12	463	247	1473	108	75	1903	96	832	33	44	1005	3907
% App. Total	2.4	35.1	62.5		12.1	38.2	47.1	2.6		13	77.4	5.7	3.9		9.6	82.8	3.3	4.4		
PHF	.650	.887	.829	.905	.875	.702	.727	.750	.870	.965	.843	.900	.647	.881	.500	.908	.750	.786	.978	.936

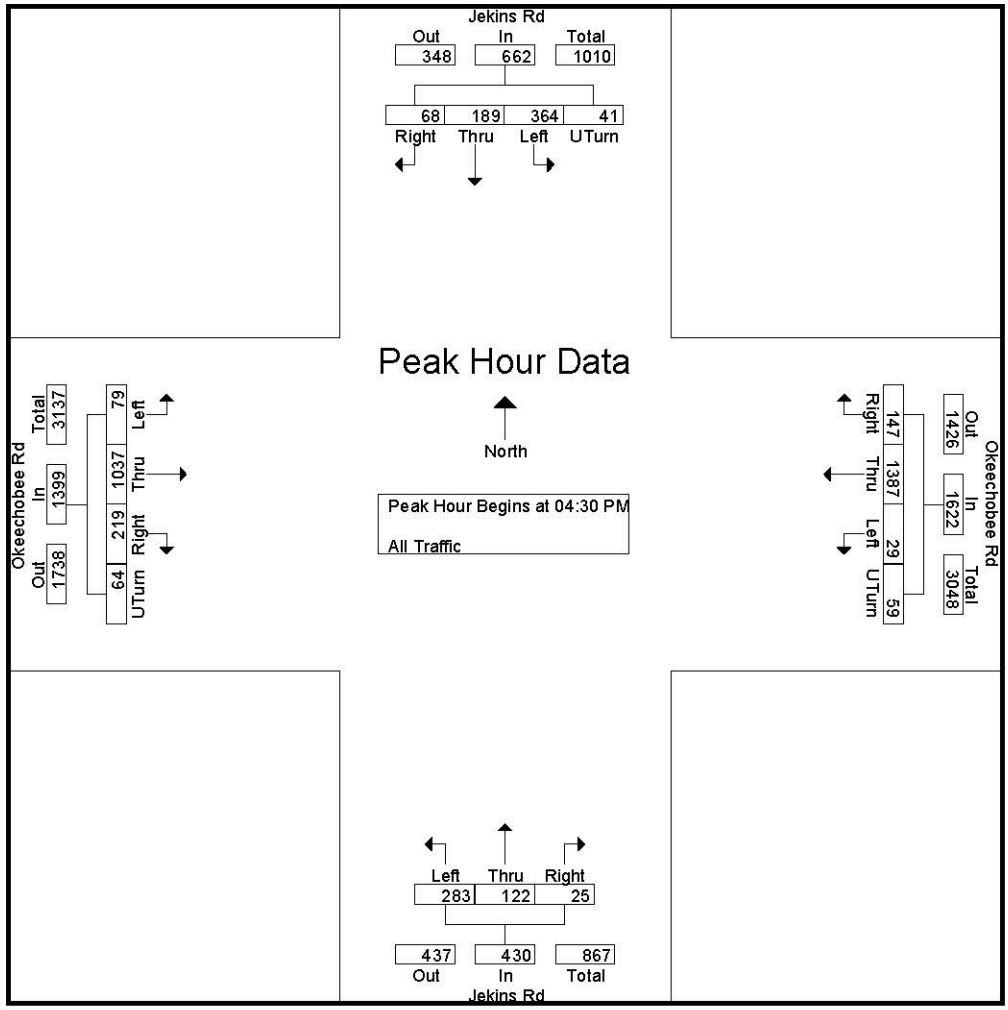


KMF Traffic Group, LLC
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Manual Traffic Count - All Traffic
Okeechobee Rd and Jenkins Rd
Fort Pierce, FL

File Name : OKEJEN
Site Code : PTC1901
Start Date : 4/23/2019
Page No : 3

	Jekins Rd NB				Jekins Rd SB					Okeechobee Rd EB					Okeechobee Rd WB					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Right	Thru	Left	UTurn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:30 PM																				
04:30 PM	5	37	76	118	15	52	112	11	190	50	223	27	18	318	48	309	4	20	381	1007
04:45 PM	7	20	68	95	24	41	84	8	157	55	253	17	11	336	29	317	11	16	373	961
05:00 PM	11	31	70	112	12	58	89	11	170	60	263	15	22	360	32	380	7	17	436	1078
05:15 PM	2	34	69	105	17	38	79	11	145	54	298	20	13	385	38	381	7	6	432	1067
Total Volume	25	122	283	430	68	189	364	41	662	219	1037	79	64	1399	147	1387	29	59	1622	4113
% App. Total	5.8	28.4	65.8		10.3	28.5	55	6.2		15.7	74.1	5.6	4.6		9.1	85.5	1.8	3.6		
PHF	.568	.824	.931	.911	.708	.815	.813	.932	.871	.913	.870	.731	.727	.908	.766	.910	.659	.738	.930	.954



2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9401 CEN.-W OF US1 TO I95

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	1.01	1.09
2	01/07/2018 - 01/13/2018	0.99	1.06
3	01/14/2018 - 01/20/2018	0.96	1.03
* 4	01/21/2018 - 01/27/2018	0.95	1.02
* 5	01/28/2018 - 02/03/2018	0.94	1.01
* 6	02/04/2018 - 02/10/2018	0.93	1.00
* 7	02/11/2018 - 02/17/2018	0.92	0.99
* 8	02/18/2018 - 02/24/2018	0.92	0.99
* 9	02/25/2018 - 03/03/2018	0.92	0.99
*10	03/04/2018 - 03/10/2018	0.92	0.99
*11	03/11/2018 - 03/17/2018	0.92	0.99
*12	03/18/2018 - 03/24/2018	0.93	1.00
*13	03/25/2018 - 03/31/2018	0.94	1.01
*14	04/01/2018 - 04/07/2018	0.94	1.01
*15	04/08/2018 - 04/14/2018	0.95	1.02
*16	04/15/2018 - 04/21/2018	0.96	1.03
17	04/22/2018 - 04/28/2018	0.98	1.05
18	04/29/2018 - 05/05/2018	0.99	1.06
19	05/06/2018 - 05/12/2018	1.01	1.09
20	05/13/2018 - 05/19/2018	1.02	1.10
21	05/20/2018 - 05/26/2018	1.02	1.10
22	05/27/2018 - 06/02/2018	1.02	1.10
23	06/03/2018 - 06/09/2018	1.01	1.09
24	06/10/2018 - 06/16/2018	1.01	1.09
25	06/17/2018 - 06/23/2018	1.02	1.10
26	06/24/2018 - 06/30/2018	1.03	1.11
27	07/01/2018 - 07/07/2018	1.03	1.11
28	07/08/2018 - 07/14/2018	1.04	1.12
29	07/15/2018 - 07/21/2018	1.05	1.13
30	07/22/2018 - 07/28/2018	1.06	1.14
31	07/29/2018 - 08/04/2018	1.06	1.14
32	08/05/2018 - 08/11/2018	1.07	1.15
33	08/12/2018 - 08/18/2018	1.07	1.15
34	08/19/2018 - 08/25/2018	1.08	1.16
35	08/26/2018 - 09/01/2018	1.08	1.16
36	09/02/2018 - 09/08/2018	1.09	1.17
37	09/09/2018 - 09/15/2018	1.09	1.17
38	09/16/2018 - 09/22/2018	1.08	1.16
39	09/23/2018 - 09/29/2018	1.07	1.15
40	09/30/2018 - 10/06/2018	1.05	1.13
41	10/07/2018 - 10/13/2018	1.04	1.12
42	10/14/2018 - 10/20/2018	1.03	1.11
43	10/21/2018 - 10/27/2018	1.03	1.11
44	10/28/2018 - 11/03/2018	1.03	1.11
45	11/04/2018 - 11/10/2018	1.02	1.10
46	11/11/2018 - 11/17/2018	1.02	1.10
47	11/18/2018 - 11/24/2018	1.02	1.10
48	11/25/2018 - 12/01/2018	1.02	1.10
49	12/02/2018 - 12/08/2018	1.01	1.09
50	12/09/2018 - 12/15/2018	1.01	1.09
51	12/16/2018 - 12/22/2018	0.99	1.06
52	12/23/2018 - 12/29/2018	0.98	1.05
53	12/30/2018 - 12/31/2018	0.96	1.03

* PEAK SEASON

25-FEB-2019 16:26:26 830UPD 4_9401_PKSEASON.TXT

KMF Traffic Group, LLC
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Mario Fiorillo (772) 924-6993 cell

Manual Traffic Count - All Traffic
Wawa North Access at Okeechobee Rd
Fort Pierce, FL

File Name : WaNA
Site Code : 2104
Start Date : 10/26/2021

Groups Printed- ALL TRAFFIC

	OUT NB	IN SB	
Start Time	Thru	Thru	Int. Total
07:00 AM	21	42	63
07:15 AM	29	26	55
07:30 AM	26	39	65
07:45 AM	28	47	75
Total	104	154	258
08:00 AM	46	32	78
08:15 AM	30	37	67
08:30 AM	20	42	62
08:45 AM	23	34	57
Total	119	145	264

*** BREAK ***

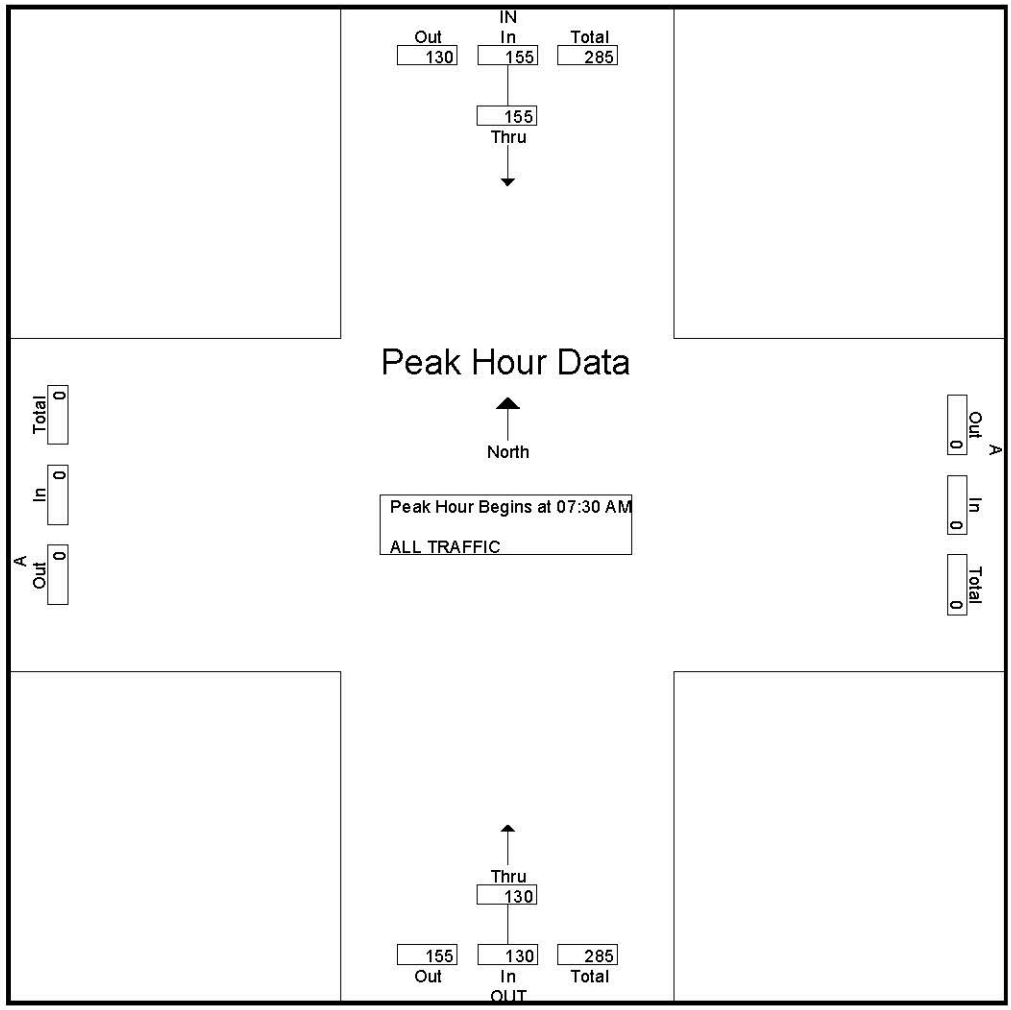
04:00 PM	11	24	35
04:15 PM	20	34	54
04:30 PM	30	35	65
04:45 PM	20	26	46
Total	81	119	200
05:00 PM	17	38	55
05:15 PM	22	27	49
05:30 PM	25	30	55
05:45 PM	19	20	39
Total	83	115	198
Grand Total	387	533	920
Apprch %	100	100	
Total %	42.1	57.9	

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Manual Traffic Count - All Traffic
Wawa North Access at Okeechobee Rd
Fort Pierce, FL

File Name : WaNA
Site Code : 2104
Start Date : 10/26/2021

	OUT NB		IN SB		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 07:30 AM					
07:30 AM	26	26	39	39	65
07:45 AM	28	28	47	47	75
08:00 AM	46	46	32	32	78
08:15 AM	30	30	37	37	67
Total Volume	130	130	155	155	285
% App. Total	100		100		
PHF	.707	.707	.824	.824	.913

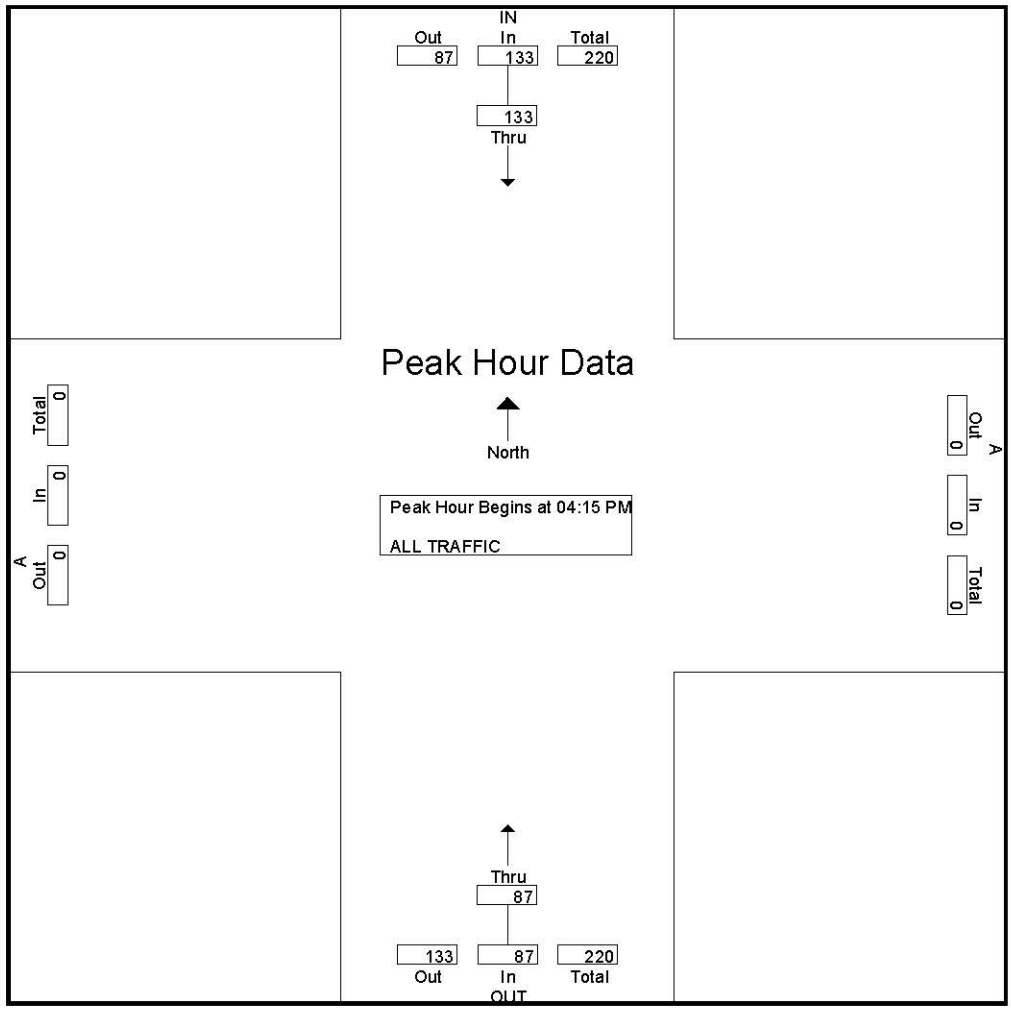


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Manual Traffic Count - All Traffic
Wawa North Access at Okeechobee Rd
Fort Pierce, FL

File Name : WaNA
Site Code : 2104
Start Date : 10/26/2021
Page No : 3

	OUT NB		IN SB		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 04:15 PM					
04:15 PM	20	20	34	34	54
04:30 PM	30	30	35	35	65
04:45 PM	20	20	26	26	46
05:00 PM	17	17	38	38	55
Total Volume	87	87	133	133	220
% App. Total	100		100		
PHF	.725	.725	.875	.875	.846



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Manual Traffic Count - All Traffic
S Jenkins Rd and Wawa WB Driveway
Fort Pierce, FL

File Name : JWawa
Site Code : 2104
Start Date : 10/26/2021
Page No : 1

Groups Printed- ALL TRAFFIC

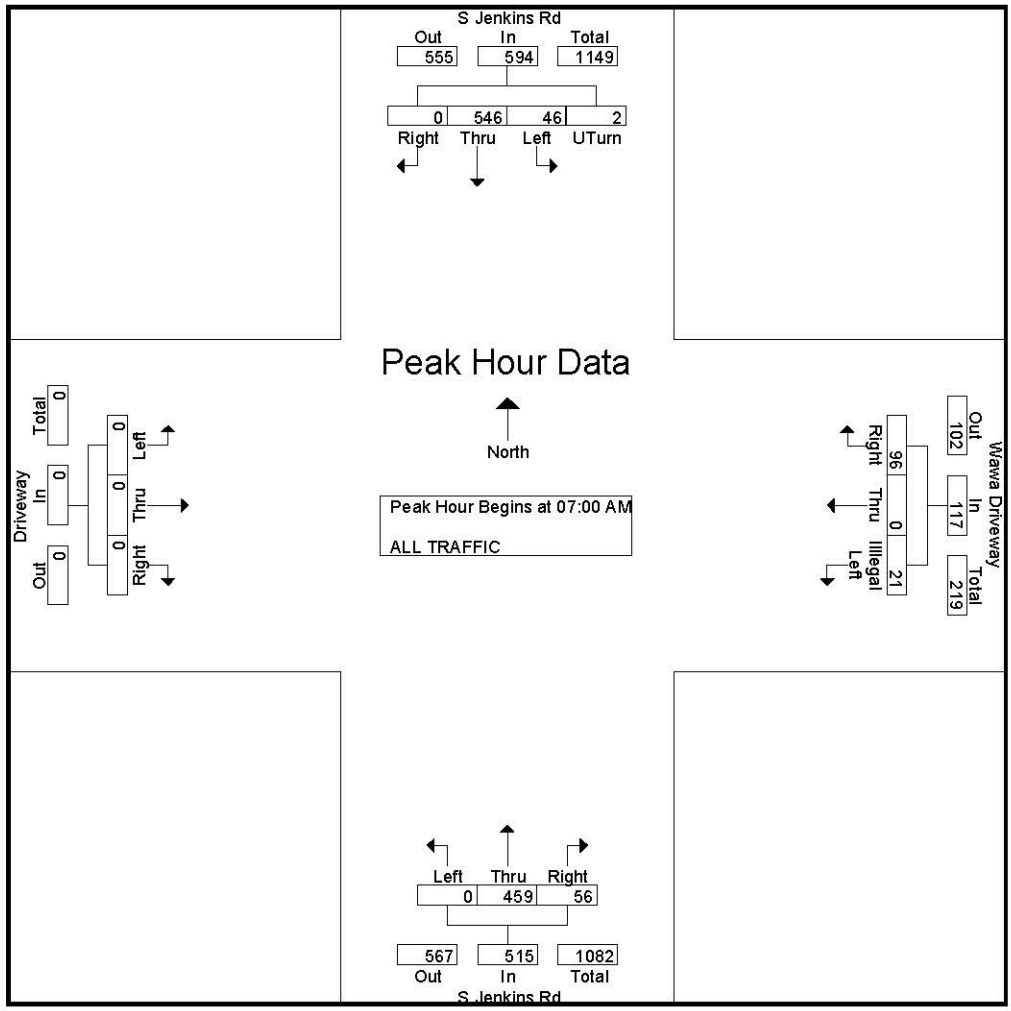
	S Jenkins Rd NB			S Jenkins Rd SB				Driveway EB			Wawa Driveway WB			
Start Time	Left	Thru	Right	UTurn	Left	Thru	Right	Left	Thru	Right	Illegal Left	Thru	Right	Int. Total
07:00 AM	0	70	11	0	7	123	0	0	0	0	2	0	22	235
07:15 AM	0	79	11	0	16	134	0	0	0	0	8	0	28	276
07:30 AM	0	164	17	1	14	142	0	0	0	0	4	0	21	363
07:45 AM	0	146	17	1	9	147	0	0	0	0	7	0	25	352
Total	0	459	56	2	46	546	0	0	0	0	21	0	96	1226
08:00 AM	0	82	16	0	8	88	0	0	0	0	5	0	24	223
08:15 AM	0	72	3	1	6	92	0	0	0	0	9	0	24	207
08:30 AM	0	78	8	1	9	80	0	0	0	0	4	0	15	195
08:45 AM	0	97	13	1	5	78	0	0	0	0	8	0	23	225
Total	0	329	40	3	28	338	0	0	0	0	26	0	86	850
*** BREAK ***														
04:00 PM	0	98	9	0	7	133	0	0	0	0	12	0	29	288
04:15 PM	0	92	7	0	11	85	0	0	0	0	8	0	20	223
04:30 PM	0	93	5	0	6	104	0	0	0	0	6	0	11	225
04:45 PM	0	96	13	0	9	103	0	0	0	0	8	0	20	249
Total	0	379	34	0	33	425	0	0	0	0	34	0	80	985
05:00 PM	0	92	6	0	8	118	0	0	0	0	7	0	22	253
05:15 PM	0	89	5	1	18	98	0	0	0	0	9	0	25	245
05:30 PM	0	86	3	0	10	91	0	0	0	0	4	0	22	216
05:45 PM	0	87	6	0	7	89	0	0	0	0	8	0	16	213
Total	0	354	20	1	43	396	0	0	0	0	28	0	85	927
Grand Total	0	1521	150	6	150	1705	0	0	0	0	109	0	347	3988
Apprch %	0	91	9	0.3	8.1	91.6	0	0	0	0	23.9	0	76.1	
Total %	0	38.1	3.8	0.2	3.8	42.8	0	0	0	0	2.7	0	8.7	

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Manual Traffic Count - All Traffic
S Jenkins Rd and Wawa WB Driveway
Fort Pierce, FL

File Name : JWawa
Site Code : 2104
Start Date : 10/26/2021
Page No : 2

	S Jenkins Rd NB				S Jenkins Rd SB					Driveway EB				Wawa Driveway WB				
Start Time	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Illegal Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	70	11	81	0	7	123	0	130	0	0	0	0	2	0	22	24	235
07:15 AM	0	79	11	90	0	16	134	0	150	0	0	0	0	8	0	28	36	276
07:30 AM	0	164	17	181	1	14	142	0	157	0	0	0	0	4	0	21	25	363
07:45 AM	0	146	17	163	1	9	147	0	157	0	0	0	0	7	0	25	32	352
Total Volume	0	459	56	515	2	46	546	0	594	0	0	0	0	21	0	96	117	1226
% App. Total	0	89.1	10.9		0.3	7.7	91.9	0		0	0	0		17.9	0	82.1		
PHF	.000	.700	.824	.711	.500	.719	.929	.000	.946	.000	.000	.000	.000	.656	.000	.857	.813	.844

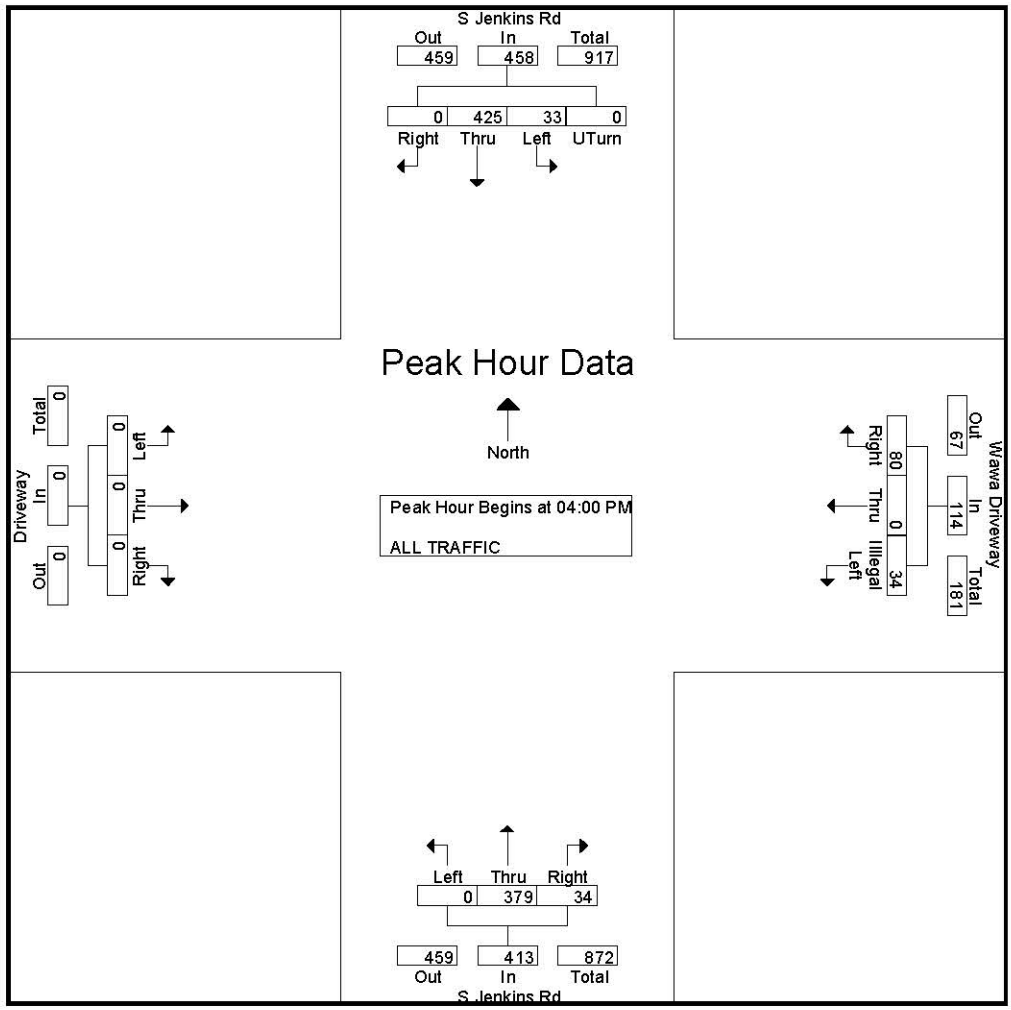


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Manual Traffic Count - All Traffic
S Jenkins Rd and Wawa WB Driveway
Fort Pierce, FL

File Name : JWawa
Site Code : 2104
Start Date : 10/26/2021
Page No : 3

	S Jenkins Rd NB				S Jenkins Rd SB					Driveway EB				Wawa Driveway WB				
Start Time	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Illegal Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM	0	98	9	107	0	7	133	0	140	0	0	0	0	12	0	29	41	288
04:15 PM	0	92	7	99	0	11	85	0	96	0	0	0	0	8	0	20	28	223
04:30 PM	0	93	5	98	0	6	104	0	110	0	0	0	0	6	0	11	17	225
04:45 PM	0	96	13	109	0	9	103	0	112	0	0	0	0	8	0	20	28	249
Total Volume	0	379	34	413	0	33	425	0	458	0	0	0	0	34	0	80	114	985
% App. Total	0	91.8	8.2		0	7.2	92.8	0		0	0	0		29.8	0	70.2		
PHF	.000	.967	.654	.947	.000	.750	.799	.000	.818	.000	.000	.000	.000	.708	.000	.690	.695	.855



2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL

CATEGORY: 9401 CEN.-W OF US1 TO I95

MOCF: 0.93

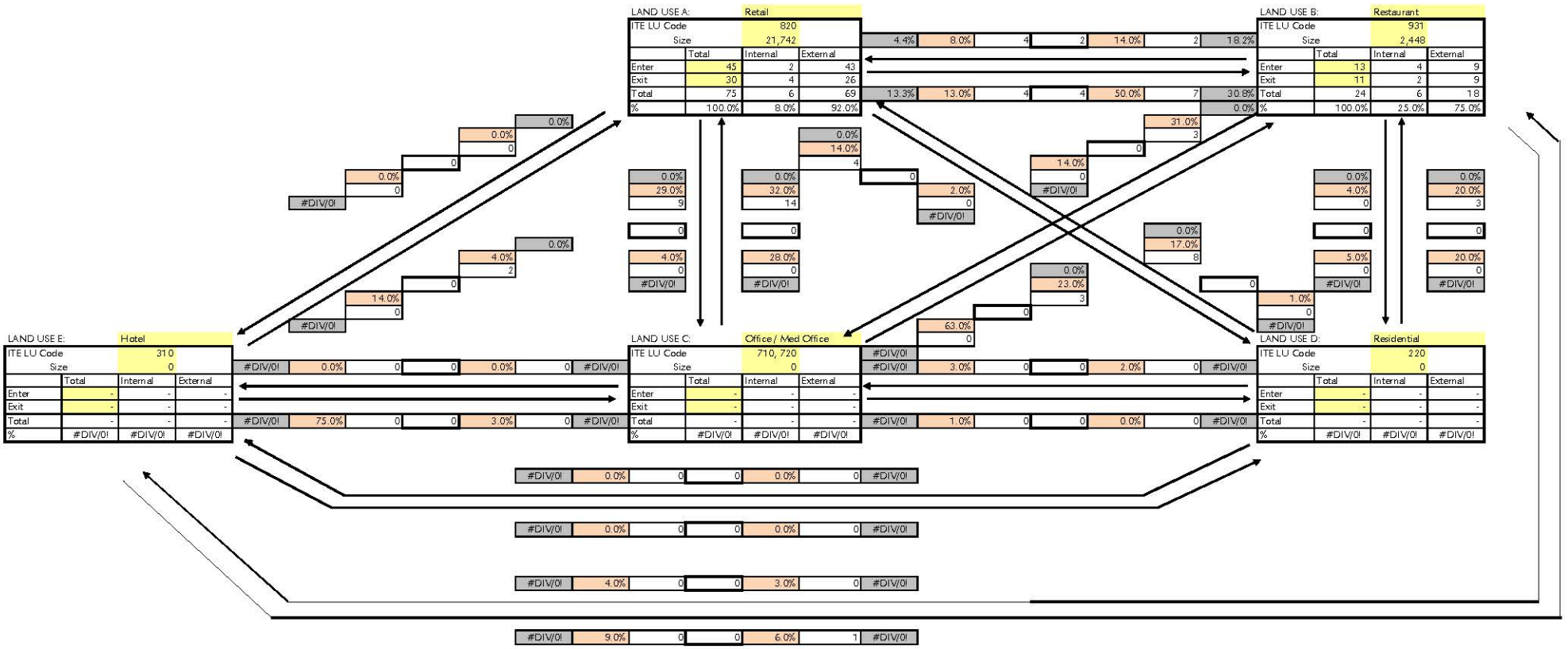
WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.96	1.03
* 2	01/05/2020 - 01/11/2020	0.92	0.99
* 3	01/12/2020 - 01/18/2020	0.88	0.95
* 4	01/19/2020 - 01/25/2020	0.88	0.95
* 5	01/26/2020 - 02/01/2020	0.87	0.94
* 6	02/02/2020 - 02/08/2020	0.87	0.94
* 7	02/09/2020 - 02/15/2020	0.86	0.92
* 8	02/16/2020 - 02/22/2020	0.89	0.96
* 9	02/23/2020 - 02/29/2020	0.92	0.99
*10	03/01/2020 - 03/07/2020	0.94	1.01
*11	03/08/2020 - 03/14/2020	0.97	1.04
*12	03/15/2020 - 03/21/2020	1.00	1.08
*13	03/22/2020 - 03/28/2020	1.08	1.16
14	03/29/2020 - 04/04/2020	1.16	1.25
15	04/05/2020 - 04/11/2020	1.24	1.33
16	04/12/2020 - 04/18/2020	1.32	1.42
17	04/19/2020 - 04/25/2020	1.26	1.35
18	04/26/2020 - 05/02/2020	1.20	1.29
19	05/03/2020 - 05/09/2020	1.13	1.22
20	05/10/2020 - 05/16/2020	1.07	1.15
21	05/17/2020 - 05/23/2020	1.06	1.14
22	05/24/2020 - 05/30/2020	1.04	1.12
23	05/31/2020 - 06/06/2020	1.03	1.11
24	06/07/2020 - 06/13/2020	1.01	1.09
25	06/14/2020 - 06/20/2020	1.00	1.08
26	06/21/2020 - 06/27/2020	1.01	1.09
27	06/28/2020 - 07/04/2020	1.02	1.10
28	07/05/2020 - 07/11/2020	1.03	1.11
29	07/12/2020 - 07/18/2020	1.04	1.12
30	07/19/2020 - 07/25/2020	1.04	1.12
31	07/26/2020 - 08/01/2020	1.04	1.12
32	08/02/2020 - 08/08/2020	1.03	1.11
33	08/09/2020 - 08/15/2020	1.03	1.11
34	08/16/2020 - 08/22/2020	1.03	1.11
35	08/23/2020 - 08/29/2020	1.02	1.10
36	08/30/2020 - 09/05/2020	1.02	1.10
37	09/06/2020 - 09/12/2020	1.01	1.09
38	09/13/2020 - 09/19/2020	1.01	1.09
39	09/20/2020 - 09/26/2020	1.00	1.08
40	09/27/2020 - 10/03/2020	1.00	1.08
41	10/04/2020 - 10/10/2020	0.99	1.06
42	10/11/2020 - 10/17/2020	0.98	1.05
43	10/18/2020 - 10/24/2020	0.98	1.05
44	10/25/2020 - 10/31/2020	0.99	1.06
45	11/01/2020 - 11/07/2020	0.99	1.06
46	11/08/2020 - 11/14/2020	1.00	1.08
47	11/15/2020 - 11/21/2020	1.00	1.08
48	11/22/2020 - 11/28/2020	0.99	1.06
49	11/29/2020 - 12/05/2020	0.98	1.05
50	12/06/2020 - 12/12/2020	0.97	1.04
51	12/13/2020 - 12/19/2020	0.96	1.03
52	12/20/2020 - 12/26/2020	0.92	0.99
53	12/27/2020 - 12/31/2020	0.88	0.95

* PEAK SEASON

APPENDIX C

INTERNAL CAPTURE WORKSHEET

PROJECT: Ft. Pierce Commercial
TIME PERIOD: AM Peak Hour Traffic
DATE: 10/22/21



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	43	9	0	0	0	52	
Exit	26	9	0	0	0	35	
Total	69	18	0	0	0	87	
Single-Use Trip Gen Estimate	75	24	0	0	0	99	12.1%

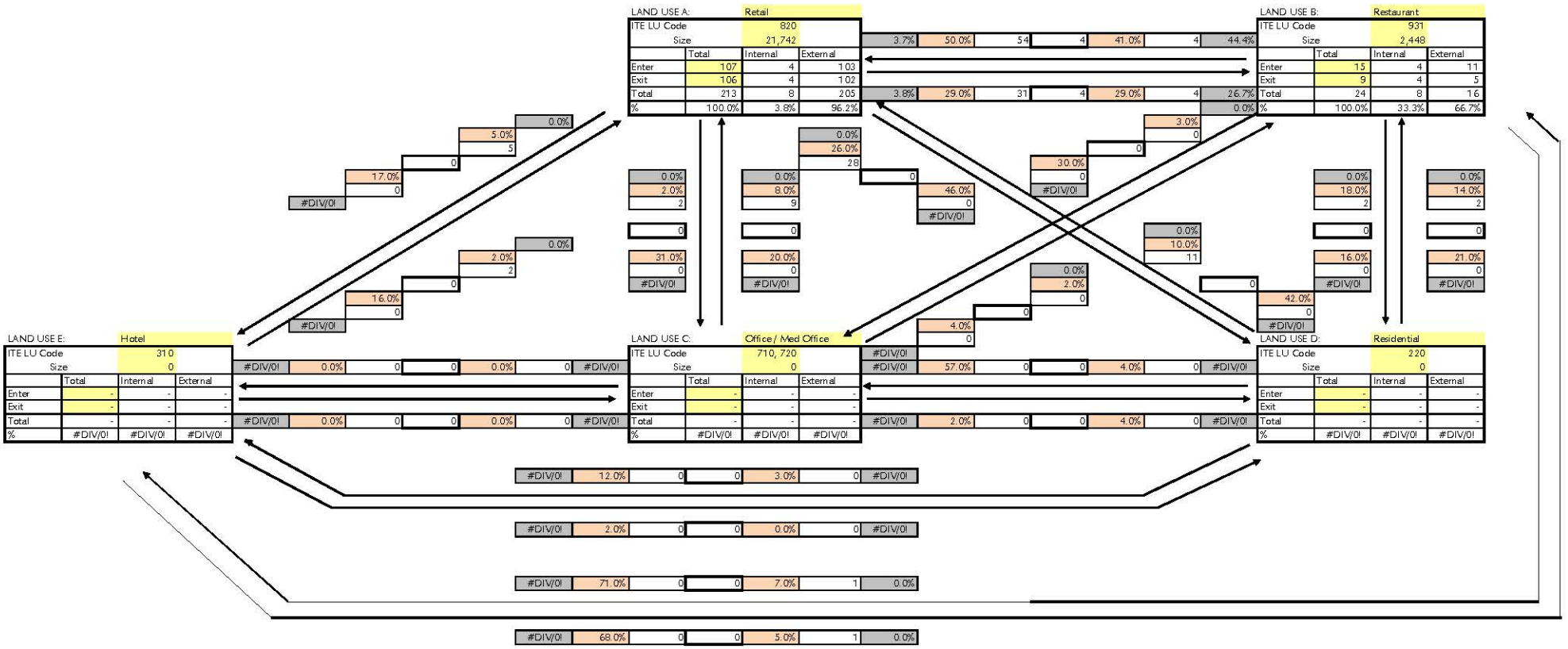
INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684 (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input by user.
12	Balanced number of trips (lowest value) between two land uses.

INTERNAL CAPTURE WORKSHEET

PROJECT: Ft. Pierce Commercial
TIME PERIOD: PM Peak Hour Traffic
DATE: 10/22/21



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	103	11	0	0	0	114	
Exit	102	5	0	0	0	107	
Total	205	16	0	0	0	221	
Single-Use Trip Gen Estimate	213	24	0	0	0	237	6.8%

INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684 (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input by user.
12	Balanced number of trips (lowest value) between two land uses.

INTERNAL CAPTURE WORKSHEET

PROJECT: Ft. Pierce Commercial
TIME PERIOD: Daily - Weighted Average
DATE: 10/22/21

	Internalization				
	AM Peak Hour		PM Peak Hour		Straight
Land Use	Trips	%	Trips	%	Average
A - Retail	6	8.0%	8	3.8%	5.9%
B - Restaurant	6	25.0%	8	33.3%	29.2%

APPENDIX D

INTERSECTION ANALYSIS SHEET
Ft. Pierce Commercial

Okeechobee Rd & Jenkins Rd

(Existing Geometrics w/Project)

Nominal Growth Rate = 3.90%
Peak Season = 1.05
Buildout Year = 2024
Years = 5

AM Peak Hour

Intersection Volume Development

	Northbound			Southbound			Eastbound			Westbound		
	LT	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**
Existing Volume (4/23/19)	335	188	13	230	177	56	183	1473	247	77	832	96
Peak Season Volume	**352**	**197**	**14**	**242**	**186**	**59**	**192**	**1547**	**259**	**81**	**874**	**101**
Nominal Growth	74	42	3	51	39	12	40	326	55	17	184	21
Background Traffic	**426**	**239**	**17**	**293**	**225**	**71**	**232**	**1873**	**314**	**98**	**1058**	**122**
% Project Traffic	15%	15%	0%	10%	5%	0%	0%	25%	5%	40%	15%	0%
Direction	out	out	out	in	in	in	in	in	in	in	out	in
Project Traffic	**5**	**5**	**0**	**5**	**3**	**0**	**0**	**13**	**3**	**21**	**5**	**0**
Total	**431**	**244**	**17**	**298**	**228**	**71**	**232**	**1,886**	**317**	**119**	**1,063**	**122**
Critical Volume Analysis												
No. of Lanes	2	2	< 0	2	2	1	2	4	1	1	4	1
Right Turn on Red			10			60			60			60
Per Lane Volume - RTOR	216	126	n/a	149	114	11	116	472	257	119	266	62
RT - LT Overlap			-119			-105			41			-87
North-South Critical	NB LT + SB TH =			330			SB LT + NB TH =			275		
East-West Critical	EB LT + WB TH =			382			WB LT + EB TH =			591		
Maximum Critical Sum	330			+	591		=			921		
STATUS ?	**UNDER**											

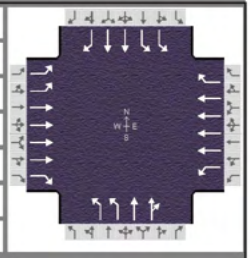
PM Peak Hour

Intersection Volume Development

	Northbound			Southbound			Eastbound			Westbound		
	LT	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**
Existing Volume (4/23/19)	283	122	25	405	189	68	143	1037	219	88	1387	147
Peak Season Volume	**297**	**128**	**26**	**425**	**198**	**71**	**150**	**1089**	**230**	**92**	**1456**	**154**
Nominal Growth	63	27	5	90	42	15	32	230	48	19	307	32
Background Traffic	**360**	**155**	**31**	**515**	**240**	**86**	**182**	**1319**	**278**	**111**	**1763**	**186**
% Project Traffic	15%	15%	0%	10%	5%	0%	0%	25%	5%	40%	15%	0%
Direction	out	out	out	in	in	in	in	in	in	in	out	in
Project Traffic	**16**	**16**	**0**	**11**	**6**	**0**	**0**	**29**	**6**	**46**	**16**	**0**
Total	**376**	**171**	**31**	**526**	**246**	**86**	**182**	**1,348**	**284**	**157**	**1,779**	**186**
Critical Volume Analysis												
No. of Lanes	2	2	< 0	2	2	1	2	4	1	1	4	1
Right Turn on Red			10			60			60			60
Per Lane Volume - RTOR	188	96	n/a	263	123	26	91	337	224	157	445	126
RT - LT Overlap			-157			-65			36			-137
North-South Critical	NB LT + SB TH =			311			SB LT + NB TH =			359		
East-West Critical	EB LT + WB TH =			536			WB LT + EB TH =			494		
Maximum Critical Sum	359			+	536		=			895		
STATUS ?	**UNDER**											

HCS7 Signalized Intersection Results Summary

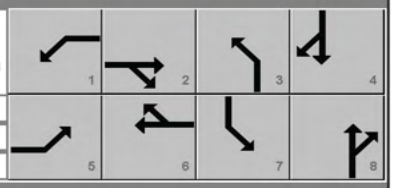
General Information				Intersection Information	
Agency	PTC			Duration, h	0.250
Analyst	#21-064	Analysis Date	Sep 1, 2021	Area Type	Other
Jurisdiction	SLC	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Okeechobee Rd	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Okeechobee Rd & Jenki…	File Name	Okee Jenkins AM 2019.xus		
Project Description	Ft. Pierce Commercial				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	192	1547	259	81	874	101	352	197	14	242	186	59

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.3	43.8	9.3	11.1	4.2	9.3	
Yellow	5.0	5.0	5.0	5.0	0.0	5.0	
Red	2.0	2.0	2.0	2.0	0.0	2.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	16.3	67.1	14.3	65.1	22.3	20.5	18.1	16.3
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	8.8		7.6		14.6	8.9	10.7	8.4
Green Extension Time (g_e), s	0.4	0.0	0.1	0.0	0.8	0.9	0.5	0.9
Phase Call Probability	1.00		0.94		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		0.00	0.00	0.00	0.00

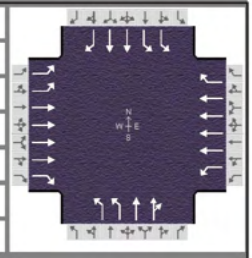
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	202	1628	273	85	920	106	371	112	111	255	196	62
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698		1781	1698	1585	1730	1870	1827	1730	1781	1585
Queue Service Time (g_s), s	6.8	14.1		5.6	7.1	3.1	12.6	6.8	6.9	8.7	6.4	4.5
Cycle Queue Clearance Time (g_c), s	6.8	14.1		5.6	7.1	3.1	12.6	6.8	6.9	8.7	6.4	4.5
Green Ratio (*g/C*)	0.08	0.50		0.06	0.48	0.48	0.13	0.11	0.11	0.09	0.08	0.08
Capacity (*c*), veh/h	270	3400		109	3283	766	442	210	205	321	276	123
Volume-to-Capacity Ratio (*X*)	0.748	0.479		0.785	0.280	0.139	0.838	0.531	0.539	0.793	0.710	0.506
Back of Queue (*Q*), ft/ln (50 th percentile)	80.8	110		65.2	61.8	28	137.1	79.6	77.8	95	72.8	44.6
Back of Queue (*Q*), veh/ln (50 th percentile)	3.2	4.3		2.6	2.4	1.1	5.4	3.1	3.1	3.7	2.9	1.8
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	52.6	12.3		54.4	12.3	3.7	51.1	50.3	50.3	53.3	54.0	11.3
Incremental Delay (d_2), s/veh	9.5	0.5		4.6	0.2	0.4	1.7	0.8	0.8	1.7	1.3	1.2
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	62.1	12.8	0.0	59.0	12.5	4.1	52.8	51.0	51.1	55.0	55.3	12.5
Level of Service (LOS)	E	B	A	E	B	A	D	D	D	D	E	B
Approach Delay, s/veh / LOS	15.9	B		15.3	B		52.2	D		50.0	D	
Intersection Delay, s/veh / LOS	24.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.61	C	2.98	C	3.09	C
Bicycle LOS Score / LOS	1.36	A	0.95	A	0.98	A	0.91	A

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HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	PTC			Duration, h	0.250
Analyst	#21-064	Analysis Date	Nov 3, 2021	Area Type	Other
Jurisdiction	SLC	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Okeechobee Rd	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Okeechobee Rd & Jenki…	File Name	Okee Jenkins AM 2024 Total.xus		
Project Description	Ft. Pierce Commercial - TOTAL TRAFFIC				

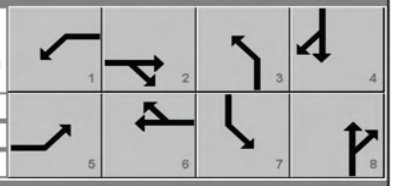


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	232	1886	317	119	1063	122	431	244	17	298	228	71

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	10.3	34.3	11.2	13.3	5.0	10.9
Yellow	5.0	5.0	5.0	5.0	0.0	5.0
Red	2.0	2.0	2.0	2.0	0.0	2.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	18.2	59.5	17.3	58.6	25.3	23.0	20.3	17.9
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	10.2		10.2		17.4	10.4	12.6	9.9
Green Extension Time (g_e), s	0.9	0.0	0.2	0.0	0.9	1.1	0.6	1.0
Phase Call Probability	1.00		0.98		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		0.00	0.00	0.00	0.00

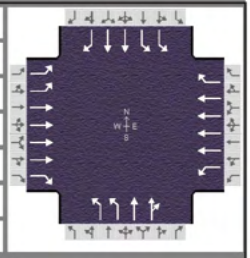
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	244	1985	334	125	1119	128	454	138	137	314	240	75
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698		1781	1698	1585	1730	1870	1827	1730	1781	1585
Queue Service Time (g_s), s	8.2	23.9		8.2	10.8	4.7	15.4	8.3	8.4	10.6	7.9	5.4
Cycle Queue Clearance Time (g_c), s	8.2	23.9		8.2	10.8	4.7	15.4	8.3	8.4	10.6	7.9	5.4
Green Ratio (*g/C*)	0.09	0.44		0.09	0.43	0.43	0.15	0.13	0.13	0.11	0.09	0.09
Capacity (*c*), veh/h	325	2972		153	2916	680	527	249	243	382	324	144
Volume-to-Capacity Ratio (*X*)	0.751	0.668		0.821	0.384	0.189	0.860	0.555	0.562	0.821	0.740	0.518
Back of Queue (*Q*), ft/ln (50 th percentile)	95	195.4		93.4	95.7	41.7	167	97.3	94.8	116.5	88.8	52.8
Back of Queue (*Q*), veh/ln (50 th percentile)	3.7	7.7		3.7	3.8	1.6	6.6	3.8	3.8	4.6	3.5	2.1
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	51.1	19.1		52.2	17.0	4.1	49.6	48.7	48.7	52.2	53.2	11.4
Incremental Delay (d_2), s/veh	8.2	1.2		4.1	0.4	0.6	1.6	0.7	0.8	1.7	1.3	1.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	59.3	20.3	0.0	56.4	17.4	4.7	51.3	49.4	49.5	53.9	54.4	12.4
Level of Service (LOS)	E	C	A	E	B	A	D	D	D	D	D	B
Approach Delay, s/veh / LOS	21.3	C		19.7	B		50.6	D		49.2	D	
Intersection Delay, s/veh / LOS	28.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.61	C	2.98	C	3.09	C
Bicycle LOS Score / LOS	1.54	B	1.05	A	1.09	A	1.01	A

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HCS7 Signalized Intersection Results Summary

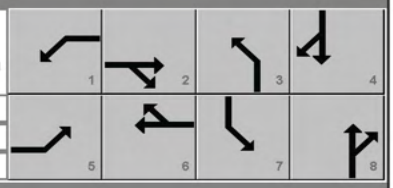
General Information				Intersection Information	
Agency	PTC			Duration, h	0.250
Analyst	#21-064	Analysis Date	Sep 1, 2021	Area Type	Other
Jurisdiction	SLC	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Okeechobee Rd	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Okeechobee Rd & Jenki…	File Name	Okee Jenkins PM 2019.xus		
Project Description	Ft. Pierce Commercial				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	1089	230	92	1456	154	297	128	26	425	198	71

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.2	43.3	7.4	13.2	4.8	8.1
Yellow	5.0	5.0	5.0	5.0	0.0	5.0
Red	2.0	2.0	2.0	2.0	0.0	2.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	14.4	64.7	15.2	65.5	20.2	15.1	25.0	19.9
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	7.4		8.4		12.6	7.3	17.2	8.7
Green Extension Time (g_e), s	0.0	0.0	0.1	0.0	0.6	0.8	0.8	0.8
Phase Call Probability	0.99		0.96		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		0.00	0.00	0.00	0.00

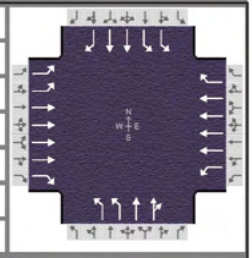
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	158	1146	242	97	1533	162	313	82	80	447	208	75
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698		1781	1698	1585	1730	1870	1762	1730	1781	1585
Queue Service Time (g_s), s	5.4	9.4		6.4	13.6	5.0	10.6	5.1	5.3	15.2	6.7	5.3
Cycle Queue Clearance Time (g_c), s	5.4	9.4		6.4	13.6	5.0	10.6	5.1	5.3	15.2	6.7	5.3
Green Ratio (*g/C*)	0.06	0.48		0.07	0.49	0.49	0.11	0.07	0.07	0.15	0.11	0.11
Capacity (*c*), veh/h	214	3268		121	3312	773	381	126	119	518	382	170
Volume-to-Capacity Ratio (*X*)	0.739	0.351		0.797	0.463	0.210	0.821	0.647	0.674	0.863	0.546	0.440
Back of Queue (*Q*), ft/ln (50 th percentile)	65.3	79.8		73.5	108.7	42.6	116.1	61.6	59.9	168.6	74.2	51.3
Back of Queue (*Q*), veh/ln (50 th percentile)	2.6	3.1		2.9	4.3	1.7	4.6	2.4	2.4	6.6	2.9	2.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	54.1	12.8		53.7	13.1	3.8	52.2	54.5	54.7	49.8	50.8	7.7
Incremental Delay (d_2), s/veh	11.2	0.3		4.5	0.5	0.6	1.7	2.1	2.5	3.7	0.5	0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	65.3	13.1	0.0	58.2	13.6	4.4	53.9	56.6	57.1	53.5	51.2	8.4
Level of Service (LOS)	E	B	A	E	B	A	D	E	E	D	D	A
Approach Delay, s/veh / LOS	16.4	B		15.2	B		54.9	D		48.3	D	
Intersection Delay, s/veh / LOS	25.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.61	C	2.98	C	3.09	C
Bicycle LOS Score / LOS	1.13	A	1.23	A	0.88	A	1.09	A

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HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	PTC			Duration, h	0.250
Analyst	#21-064	Analysis Date	Nov 3, 2021	Area Type	Other
Jurisdiction	SLC	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Okeechobee Rd	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Okeechobee Rd & Jenki…	File Name	Okee Jenkins PM 2024 Total.xus		
Project Description	Ft. Pierce Commercial - TOTAL TRAFFIC				

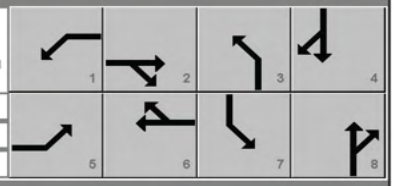


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	182	1348	284	157	1779	186	376	171	31	526	246	86

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	13.0	31.8	8.7	16.2	5.5	9.8
Yellow	5.0	5.0	5.0	5.0	0.0	5.0
Red	2.0	2.0	2.0	2.0	0.0	2.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	15.7	54.5	20.0	58.8	23.2	16.8	28.6	22.3
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	8.5		12.9		15.4	9.0	20.7	10.2
Green Extension Time (g_e), s	0.2	0.0	0.2	0.0	0.8	0.9	0.9	1.0
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		0.00	0.01	0.06	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	192	1419	299	165	1873	196	396	107	105	554	259	91
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698		1781	1698	1585	1730	1870	1771	1730	1781	1585
Queue Service Time (g_s), s	6.5	16.4		10.9	22.2	7.5	13.4	6.7	7.0	18.7	8.2	6.3
Cycle Queue Clearance Time (g_c), s	6.5	16.4		10.9	22.2	7.5	13.4	6.7	7.0	18.7	8.2	6.3
Green Ratio (*g/C*)	0.07	0.40		0.11	0.43	0.43	0.13	0.08	0.08	0.18	0.13	0.13
Capacity (*c*), veh/h	252	2690		193	2932	684	466	153	145	623	454	202
Volume-to-Capacity Ratio (*X*)	0.761	0.527		0.856	0.639	0.286	0.849	0.701	0.724	0.888	0.570	0.448
Back of Queue (*Q*), ft/ln (50 th percentile)	78.5	142.8		121.2	182.2	64.5	146.3	80.7	78.2	217.3	91.2	60.5
Back of Queue (*Q*), veh/ln (50 th percentile)	3.1	5.6		4.8	7.2	2.5	5.8	3.2	3.1	8.6	3.6	2.4
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	53.2	21.0		50.4	19.2	4.2	50.7	53.6	53.8	48.0	49.3	7.8
Incremental Delay (d_2), s/veh	11.3	0.7		4.2	1.1	1.1	1.7	2.2	2.6	8.3	0.4	0.6
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	64.5	21.7	0.0	54.6	20.3	5.3	52.4	55.8	56.3	56.3	49.7	8.4
Level of Service (LOS)	E	C	A	D	C	A	D	E	E	E	D	A
Approach Delay, s/veh / LOS	22.6	C		21.5	C		53.7	D		49.6	D	
Intersection Delay, s/veh / LOS	29.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.61	C	2.98	C	3.09	C
Bicycle LOS Score / LOS	1.28	A	1.41	A	0.99	A	1.23	A

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APPENDIX E

INTERSECTION ANALYSIS SHEET
Ft. Pierce Commercial

Jenkins Rd & Project Driveway
(Existing Geometrics w/Project)

Nominal Growth Rate = 3.90%
Peak Season = 1.06
Buildout Year = 2024
Years = 3

AM Peak Hour
Intersection Volume Development

	Northbound			Southbound			Eastbound			Westbound		
	LT	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**
Existing Volume (10/26/21)	0	459	56	48	546	0	0	0	0	21	0	96
Peak Season Volume	**0**	**487**	**59**	**51**	**579**	**0**	**0**	**0**	**0**	**22**	**0**	**102**
Nominal Growth	0	59	0	0	70	0	0	0	0	0	0	0
Background Traffic	**0**	**546**	**59**	**51**	**649**	**0**	**0**	**0**	**0**	**22**	**0**	**102**
% Project Traffic	0%	0%	15%	30%	0%	0%	0%	0%	0%	15%	0%	30%
Direction	out	out	in	in	in	in	in	in	in	out	out	out
Project Traffic	**0**	**0**	**8**	**16**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**11**
Total	**0**	**546**	**67**	**67**	**649**	**0**	**0**	**0**	**0**	**27**	**0**	**113**
Critical Volume Analysis												
No. of Lanes	0	2	< 0	0 >	2	0	0		0	0 >	1	< 0
Right Turn on Red			10			0			0			10
Per Lane Volume - RTOR	0	307	n/a	67	425	0	0	0	0	27	143	n/a
RT - LT Overlap			-27			0			0			-67
North-South Critical	NB LT + SB TH =			425			SB LT + NB TH =			374		
East-West Critical	EB LT + WB TH =			143			WB LT + EB RT =			27		
Maximum Critical Sum	**425**			**+**	**143**		**=**		**568**			
STATUS ?	**UNDER**											

PM Peak Hour
Intersection Volume Development

	Northbound			Southbound			Eastbound			Westbound		
	LT	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**	**LT**	**Thru**	**RT**
Existing Volume (10/26/21)	0	379	34	33	425	0	0	0	0	34	0	80
Peak Season Volume	**0**	**402**	**36**	**35**	**451**	**0**	**0**	**0**	**0**	**36**	**0**	**85**
Nominal Growth	0	49	0	0	55	0	0	0	0	0	0	0
Background Traffic	**0**	**451**	**36**	**35**	**506**	**0**	**0**	**0**	**0**	**36**	**0**	**85**
% Project Traffic	0%	0%	15%	30%	0%	0%	0%	0%	0%	15%	0%	30%
Direction	out	out	in	in	in	in	in	in	in	out	out	out
Project Traffic	**0**	**0**	**17**	**34**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**32**
Total	**0**	**451**	**53**	**69**	**506**	**0**	**0**	**0**	**0**	**52**	**0**	**117**
Critical Volume Analysis												
No. of Lanes	0	2	< 0	0 >	2	0	0		0	0 >	1	< 0
Right Turn on Red			10			0			0			10
Per Lane Volume - RTOR	0	252	n/a	69	0	0	0	0	0	52	0	n/a
RT - LT Overlap			-52			0			0			-69
North-South Critical	NB LT + SB RT =			0			SB LT + NB TH =			321		
East-West Critical	EB LT + WB TH =			0			WB LT + EB RT =			52		
Maximum Critical Sum	**321**			**+**	**52**		**=**		**373**			
STATUS ?	**UNDER**											

HCS7 Two-Way Stop-Control Report

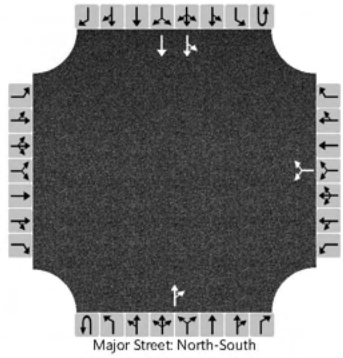
General Information

Analyst	#21-064
Agency/Co.	PTC
Date Performed	11/2/2021
Analysis Year	2021
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Ft. Pierce Commercial

Site Information

Intersection	Jenkins Rd & Project Dwy
Jurisdiction	SLC
East/West Street	Project Driveway
North/South Street	Jenkins Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	2	0
Configuration							LR					TR		LT	T	
Volume (veh/h)						22		102			487	59		51	579	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.2						4.1		
Critical Headway (sec)						6.86		6.26						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							135							55		
Capacity, c (veh/h)							484							972		
v/c Ratio							0.28							0.06		
95% Queue Length, Q_{95} (veh)							1.1							0.2		
Control Delay (s/veh)							15.3							8.9		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						15.3								1.0		
Approach LOS						C										

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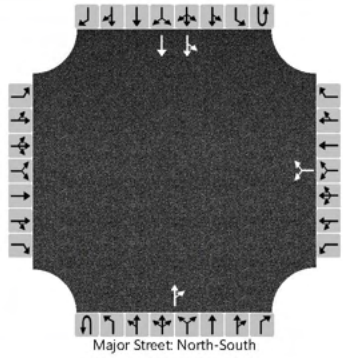
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Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	2	0
Configuration							LR					TR		LT	T	
Volume (veh/h)						27		113			546	67		67	649	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.2						4.1		
Critical Headway (sec)						6.86		6.26						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							152							73		
Capacity, c (veh/h)							433							912		
v/c Ratio							0.35							0.08		
95% Queue Length, Q_{95} (veh)							1.6							0.3		
Control Delay (s/veh)							17.8							9.3		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						17.8								1.3		
Approach LOS						C										

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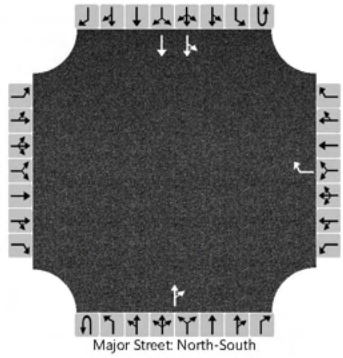
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Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	2	0
Configuration								R				TR		LT	T	
Volume (veh/h)								140			546	67		67	649	
Percent Heavy Vehicles (%)								3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)								6.2						4.1		
Critical Headway (sec)								6.26						4.16		
Base Follow-Up Headway (sec)								3.3						2.2		
Follow-Up Headway (sec)								3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								152						73		
Capacity, c (veh/h)								477						912		
v/c Ratio								0.32						0.08		
95% Queue Length, Q_{95} (veh)								1.4						0.3		
Control Delay (s/veh)								16.0						9.3		
Level of Service (LOS)								C						A		
Approach Delay (s/veh)						16.0								1.3		
Approach LOS						C										

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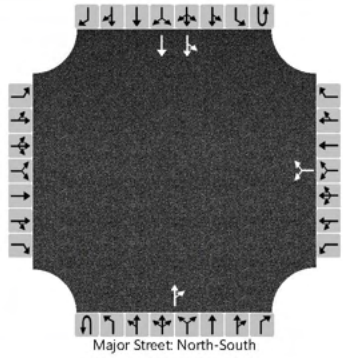
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Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	2	0
Configuration							LR					TR		LT	T	
Volume (veh/h)						36		85			402	36		35	451	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.2						4.1		
Critical Headway (sec)						6.86		6.26						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							132							38		
Capacity, c (veh/h)							542							1075		
v/c Ratio							0.24							0.04		
95% Queue Length, Q_{95} (veh)							0.9							0.1		
Control Delay (s/veh)							13.8							8.5		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						13.8								0.8		
Approach LOS						B										

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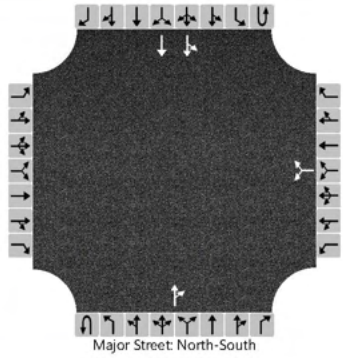
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Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	2	0
Configuration							LR					TR		LT	T	
Volume (veh/h)						52		117			451	53		70	506	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.2						4.1		
Critical Headway (sec)						6.86		6.26						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							184							76		
Capacity, c (veh/h)							478							1011		
v/c Ratio							0.38							0.08		
95% Queue Length, Q_{95} (veh)							1.8							0.2		
Control Delay (s/veh)							17.2							8.9		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						17.2								1.4		
Approach LOS						C										

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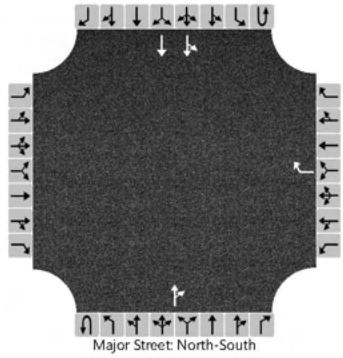
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Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	2	0
Configuration								R				TR		LT	T	
Volume (veh/h)								169			451	53		70	506	
Percent Heavy Vehicles (%)								3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left Only								1						

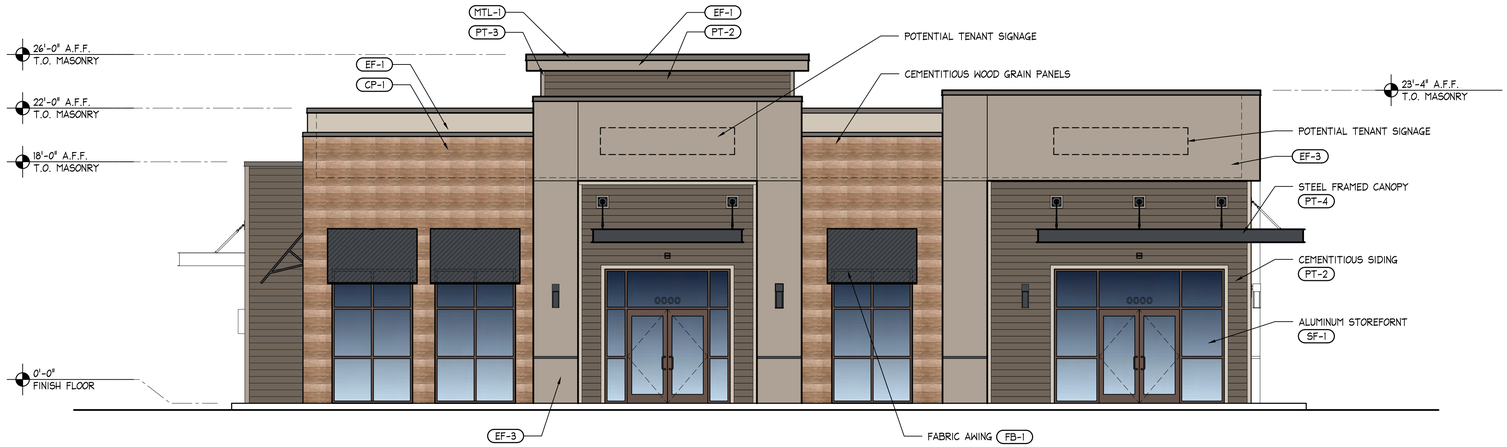
Critical and Follow-up Headways

Base Critical Headway (sec)								6.2						4.1		
Critical Headway (sec)								6.26						4.16		
Base Follow-Up Headway (sec)								3.3						2.2		
Follow-Up Headway (sec)								3.33						2.23		

Delay, Queue Length, and Level of Service

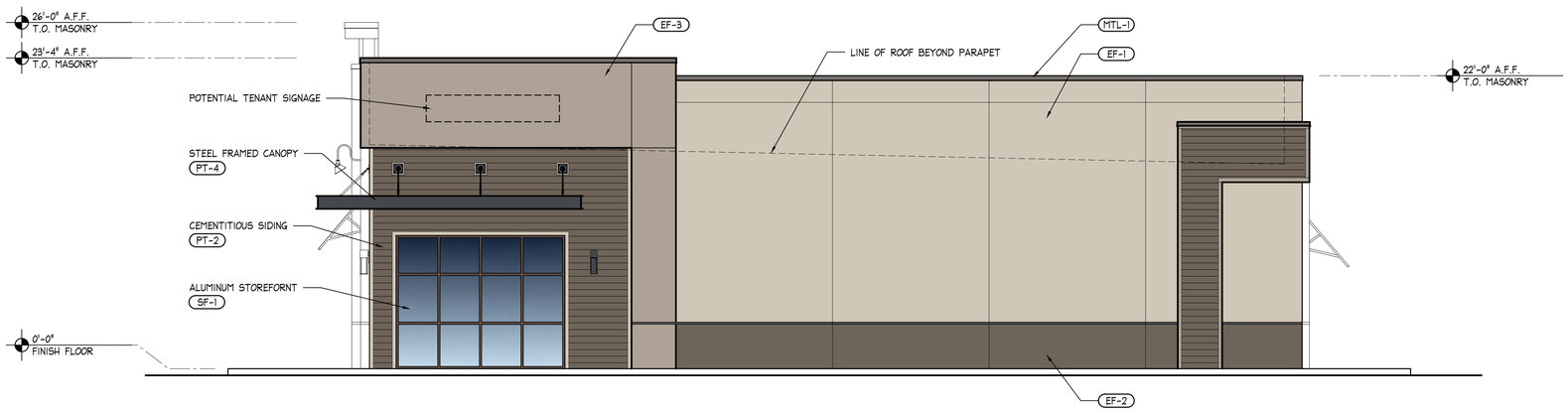
Flow Rate, v (veh/h)								184						76		
Capacity, c (veh/h)								552						1011		
v/c Ratio								0.33						0.08		
95% Queue Length, Q_{95} (veh)								1.5						0.2		
Control Delay (s/veh)								14.7						8.9		
Level of Service (LOS)								B						A		
Approach Delay (s/veh)						14.7								1.4		
Approach LOS						B										

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1 NORTH EXTERIOR ELEVATION

SCALE: 3/16" = 1'-0"



2 WEST EXTERIOR ELEVATION

SCALE: 3/16" = 1'-0"

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

SIGNAGE NOTES:

ANY BUILDING MOUNTED SIGNAGE DEPICTED IN THESE DOCUMENTS IS FOR COORDINATION PURPOSES ONLY AND IS NOT INTENDED FOR FABRICATION OR INSTALLATION BY THE GENERAL CONTRACTOR. IT SHALL BE UNDERSTOOD THAT ALL EXTERIOR BUILDING MOUNTED AND SITE SIGNAGE WILL BE PERMITTED SEPARATELY BY THE OWNER'S SIGN VENDOR. AT THAT TIME, COMPLETE DETAILS INCLUDING, BUT NOT LIMITED TO, SIGN FABRICATION, SIGN INSTALLATION, SIGN AREA AND QUANTITIES, ETC. SHALL BE SUBMITTED (BY THE SIGN VENDOR) FOR PERMIT AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS

FACILITY ADDRESS REQUIREMENTS:
NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY

ADDRESS NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMERALS SHALL BE AT LEAST 6 INCHES IN HEIGHT

WHERE ADDRESS IDENTIFICATION IS REQUIRED BY THE FIRE OFFICIAL ON OTHER ELEVATIONS OF BUILDINGS, SUCH NUMERALS SHALL NOT BE LESS THAN SIX INCHES IN HEIGHT

ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS

CRITICAL NOTES

WALL FINISHES AT PARAPET RETURNS:
THE DESIGN INTENT FOR PARAPET WALLS THAT RETURN ONTO THE ROOF SURFACE IS THAT THEY, WHERE EXPOSED TO VIEW, ARE TO BE PROVIDED WITH WALL FINISHES THAT ARE CONSISTENT WITH THE ADJACENT BUILDING ELEVATIONS. FOR EXAMPLE, IF CEMENT PLASTER IS PROVIDED ALONG THE MAIN BUILDING ELEVATION, THE PARAPET RETURNS ARE TO BE PROVIDED WITH EQUAL FINISHES

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE WALL FINISHES WITH APPLICABLE TRADES PRIOR TO INSTALLATION. UNDER NO CIRCUMSTANCES WILL EXPOSED ROOF MEMBRANE BE ACCEPTED AS A WALL FINISH AT THE PARAPET RETURN CONDITIONS NOTED

WALL COUNTERFLASHING DETAILS:
REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

EXTERIOR FINISH NOTES

EXTERIOR INSULATION FINISH SYSTEM (EIFS) REQUIREMENTS:

1. THE STANDARD FINISH COAT OVER CEMENT PLASTER SURFACES SHALL BE AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) AS MANUFACTURED BY DRYVIT SYSTEMS, INC. COLORS, AS SPECIFIED ON THE EXTERIOR FINISH SCHEDULE, HAVE BEEN SELECTED FROM DRYVIT'S STANDARD COLORS. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 10-YEAR MANUFACTURER WARRANTY

2. WHERE A CUSTOM COLOR IS REQUIRED FOR THE FINISH COAT OVER CEMENT PLASTER SURFACES, AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) WITH STRATOTONE COLOR MATCHING SYSTEM AS MANUFACTURED BY DRYVIT SYSTEMS, INC. SHALL BE PROVIDED. CUSTOM COLORS ARE SPECIFIED ON THE EXTERIOR FINISH SCHEDULE. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 5-YEAR MANUFACTURER WARRANTY

3. ALL FINISH COAT TEXTURES SHALL BE "SANDPEBBLE" UNLESS OTHERWISE NOTED

4. WHERE FOAM TRIM, CORNICE MOLDING OR OTHER SHAPES ARE SPECIFIED, COMPONENTS SHALL BE AS MANUFACTURED BY "DRYVIT SHAPES BY ACROCORE" AND SHALL BE COMPRISED OF A TYPE I CLASSIFICATION EXPANDED POLYSTYRENE WRAPPED IN A FLEXIBLE IMPACT RESISTANT FIBERGLASS MESH AND COATED WITH A FACTORY APPLIED POLYMER MODIFIED, FLEXIBLE CEMENT COATING

5. ALL GENERAL CONTRACTOR BIDS SHALL INCLUDE THE ABOVE STATED SYSTEMS / PRODUCTS IN THEIR BASE BIDS. SUBSTITUTIONS WILL BE CONSIDERED FOR APPROVAL BUT ONLY IF FULLY QUALIFIED IN BIDS INCLUDING COMPLETE SYSTEM / PRODUCT SPECIFICATIONS AND ASSOCIATED COSTS

ALUMINUM COPING, DRIP EDGES, SCUPPERS AND DOWNSPOUT REQUIREMENTS:

1. ALL COMPONENTS SHALL BE PREFINISHED WITH A FACTORY APPLIED, KYNAR 500 FINISH OR MANUFACTURER EQUIVALENT. COLORS SHALL BE AS SPECIFIED FROM THE MANUFACTURER'S STANDARD COLOR OPTIONS

GENERAL:

1. WHERE PLASTER REVEALS ARE NOT PREFINISHED, REVEALS SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR UNLESS OTHERWISE NOTED

2. ALL EXPOSED, BUILDING MOUNTED UTILITIES AND CONDUITS SHALL BE PAINTED TO MATCH THE ADJACENT WALL SURFACES UNLESS OTHERWISE NOTED

THE CONTRACTOR SHALL REQUEST A COLORIZED COPY OF THE ELEVATIONS FROM THE ARCHITECT PRIOR TO ORDERING OR APPLYING EIFS, PAINT AND OTHER EXTERIOR FINISHES. THE COLORIZED ELEVATIONS WILL HELP CONFIRM COLORS AND ASSIST THE PAINTER WHERE COLOR CHANGES OCCUR

EXTERIOR FINISH SCHEDULE

CEMENT PLASTER / EIFS FINISHES
(ACRYLIC EIFS FINISH WITH INTEGRAL COLOR AND TEXTURE)

TAG	MANUFACTURER	COLOR	DESCRIPTION
EF-1	DRYVIT	SW 7036 "ACCESSIBLE BEIGE"	MATCH PAINT MFG'S COLOR
EF-2	DRYVIT	SW 7026 "GRIFFIN"	MATCH PAINT MFG'S COLOR
EF-3	DRYVIT	SW 7031 "MEGA GRIEGE"	MATCH PAINT MFG'S COLOR

PAINT FINISHES

PT-1	SHERWIN WILLIAMS	SW 7036 "ACCESSIBLE BEIGE"	STANDARD COLOR
PT-2	SHERWIN WILLIAMS	SW 7026 "GRIFFIN"	STANDARD COLOR
PT-3	SHERWIN WILLIAMS	SW 7031 "MEGA GRIEGE"	STANDARD COLOR
PT-4	SHERWIN WILLIAMS	SW 7076 "CYBERSPACE"	STANDARD COLOR

COMPOSITE WOOD GRAIN PANELS

CP-1	NICHIHA	"SPRUCE"	VINTAGE WOOD

METAL TRIM, COPING, DOWNSPOUTS AND SCUPPERS

MTL-1	PAC-CLAD	"SLATE GRAY"	STANDARD COLOR

FABRIC

FB-1	SUNBRELLA	"SLATE"	STANDARD COLOR

ALUMINUM STOREFRONT

SF-1	YKK	"DARK BRONZE"	STANDARD COLOR

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
FABER@FWHARCHITECTS.COM

SRS Real Estate Partners
200 S ORANGE AVENUE
SUITE 1300
ORLANDO, FL 32801

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

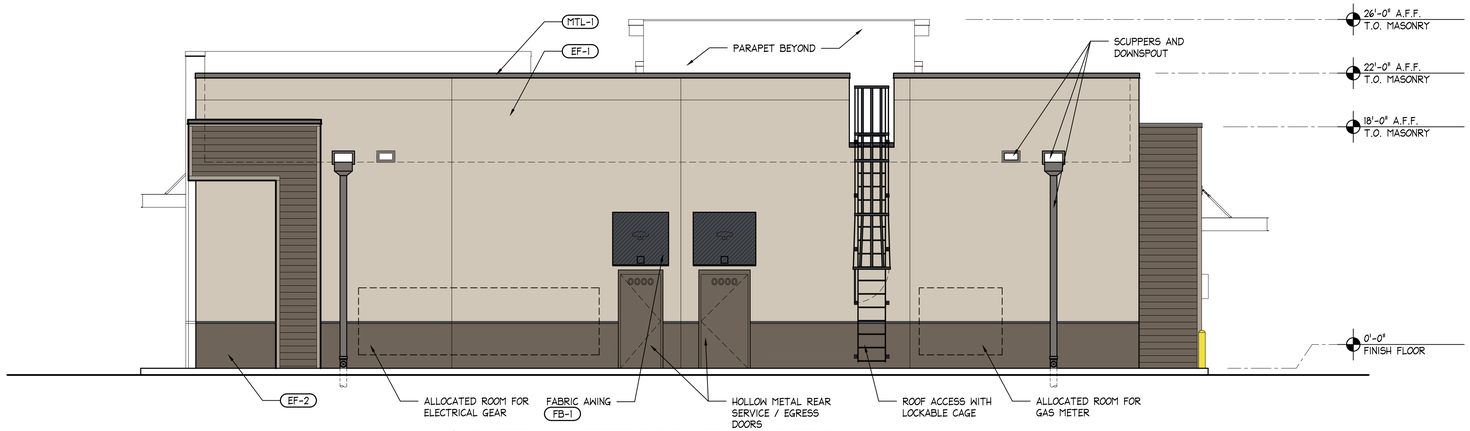
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BUILDING SHELL
OKEECHOBEE RD.
FORT PIERCE, FLORIDA 34947

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EXTERIOR ELEVATIONS

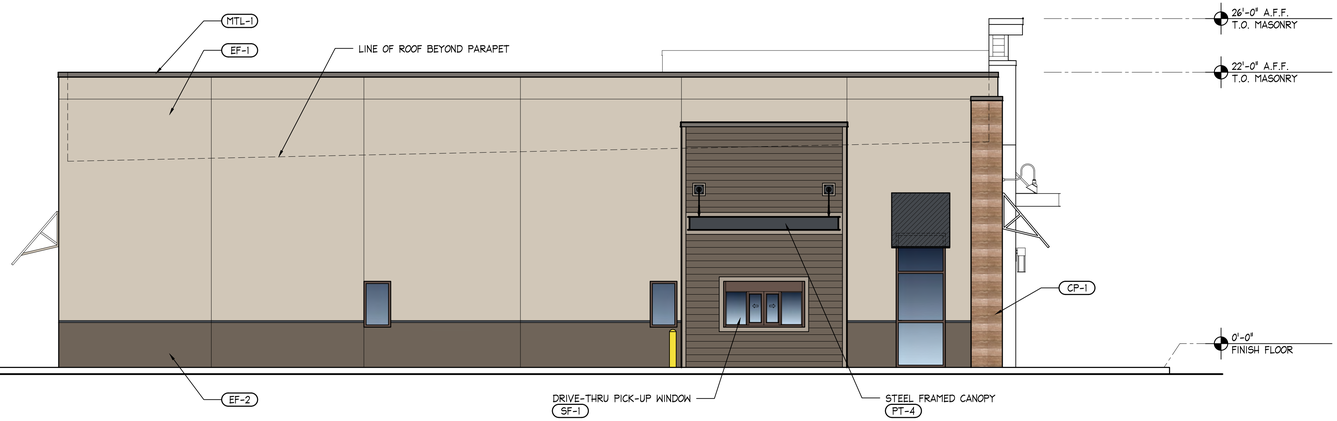
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1 SOUTH EXTERIOR ELEVATION

SCALE: 3/16" = 1'-0"



2 EAST EXTERIOR ELEVATION

SCALE: 3/16" = 1'-0"

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

SIGNAGE NOTES:

ANY BUILDING MOUNTED SIGNAGE DEPICTED IN THESE DOCUMENTS IS FOR COORDINATION PURPOSES ONLY AND IS NOT INTENDED FOR FABRICATION OR INSTALLATION BY THE GENERAL CONTRACTOR. IT SHALL BE UNDERSTOOD THAT ALL EXTERIOR BUILDING MOUNTED AND SITE SIGNAGE WILL BE PERMITTED SEPARATELY BY THE OWNER'S SIGN VENDOR. AT THAT TIME, COMPLETE DETAILS INCLUDING, BUT NOT LIMITED TO, SIGN FABRICATION, SIGN INSTALLATION, SIGN AREA AND QUANTITIES, ETC. SHALL BE SUBMITTED (BY THE SIGN VENDOR) FOR PERMIT AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS

FACILITY ADDRESS REQUIREMENTS:
NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY

ADDRESS NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMERALS SHALL BE AT LEAST 6 INCHES IN HEIGHT

WHERE ADDRESS IDENTIFICATION IS REQUIRED BY THE FIRE OFFICIAL ON OTHER ELEVATIONS OF BUILDINGS, SUCH NUMERALS SHALL NOT BE LESS THAN SIX INCHES IN HEIGHT

ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS

CRITICAL NOTES

WALL FINISHES AT PARAPET RETURNS:
THE DESIGN INTENT FOR PARAPET WALLS THAT RETURN ONTO THE ROOF SURFACE IS THAT THEY, WHERE EXPOSED TO VIEW, ARE TO BE PROVIDED WITH WALL FINISHES THAT ARE CONSISTENT WITH THE ADJACENT BUILDING ELEVATIONS. FOR EXAMPLE, IF CEMENT PLASTER IS PROVIDED ALONG THE MAIN BUILDING ELEVATION, THE PARAPET RETURNS ARE TO BE PROVIDED WITH EQUAL FINISHES

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE WALL FINISHES WITH APPLICABLE TRADES PRIOR TO INSTALLATION. UNDER NO CIRCUMSTANCES WILL EXPOSED ROOF MEMBRANE BE ACCEPTED AS A WALL FINISH AT THE PARAPET RETURN CONDITIONS NOTED

WALL COUNTERFLASHING DETAILS:
REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

EXTERIOR FINISH NOTES

EXTERIOR INSULATION FINISH SYSTEM (EIFS) REQUIREMENTS:

1. THE STANDARD FINISH COAT OVER CEMENT PLASTER SURFACES SHALL BE AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) AS MANUFACTURED BY DRYVIT SYSTEMS, INC. COLORS, AS SPECIFIED ON THE EXTERIOR FINISH SCHEDULE, HAVE BEEN SELECTED FROM DRYVIT'S STANDARD COLORS. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 10-YEAR MANUFACTURER WARRANTY

2. WHERE A CUSTOM COLOR IS REQUIRED FOR THE FINISH COAT OVER CEMENT PLASTER SURFACES, AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) WITH STRATOTONE COLOR MATCHING SYSTEM AS MANUFACTURED BY DRYVIT SYSTEMS, INC. SHALL BE PROVIDED. CUSTOM COLORS ARE SPECIFIED ON THE EXTERIOR FINISH SCHEDULE. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 5-YEAR MANUFACTURER WARRANTY

3. ALL FINISH COAT TEXTURES SHALL BE "SANDPEBBLE" UNLESS OTHERWISE NOTED

4. WHERE FOAM TRIM, CORNICE MOLDING OR OTHER SHAPES ARE SPECIFIED, COMPONENTS SHALL BE AS MANUFACTURED BY "DRYVIT SHAPES BY ACROCORE" AND SHALL BE COMPRISED OF A TYPE I CLASSIFICATION EXPANDED POLYSTYRENE WRAPPED IN A FLEXIBLE IMPACT RESISTANT FIBERGLASS MESH AND COATED WITH A FACTORY APPLIED POLYMER MODIFIED, FLEXIBLE CEMENT COATING

5. ALL GENERAL CONTRACTOR BIDS SHALL INCLUDE THE ABOVE STATED SYSTEMS / PRODUCTS IN THEIR BASE BIDS. SUBSTITUTIONS WILL BE CONSIDERED FOR APPROVAL BUT ONLY IF FULLY QUALIFIED IN BIDS INCLUDING COMPLETE SYSTEM / PRODUCT SPECIFICATIONS AND ASSOCIATED COSTS

ALUMINUM COPING, DRIP EDGES, SCUPPERS AND DOWNSPOUT REQUIREMENTS:

1. ALL COMPONENTS SHALL BE PREFINISHED WITH A FACTORY APPLIED, KYNAR 500 FINISH OR MANUFACTURER EQUIVALENT. COLORS SHALL BE AS SPECIFIED FROM THE MANUFACTURER'S STANDARD COLOR OPTIONS

GENERAL:

1. WHERE PLASTER REVEALS ARE NOT PREFINISHED, REVEALS SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR UNLESS OTHERWISE NOTED

2. ALL EXPOSED, BUILDING MOUNTED UTILITIES AND CONDUITS SHALL BE PAINTED TO MATCH THE ADJACENT WALL SURFACES UNLESS OTHERWISE NOTED

THE CONTRACTOR SHALL REQUEST A COLORIZED COPY OF THE ELEVATIONS FROM THE ARCHITECT PRIOR TO ORDERING OR APPLYING EIFS, PAINT AND OTHER EXTERIOR FINISHES. THE COLORIZED ELEVATIONS WILL HELP CONFIRM COLORS AND ASSIST THE PAINTER WHERE COLOR CHANGES OCCUR

EXTERIOR FINISH SCHEDULE

CEMENT PLASTER / EIFS FINISHES
(ACRYLIC EIFS FINISH WITH INTEGRAL COLOR AND TEXTURE)

TAG	MANUFACTURER	COLOR	DESCRIPTION
EF-1	DRYVIT	SW 7036 "ACCESSIBLE BEIGE"	MATCH PAINT MFG'S COLOR
EF-2	DRYVIT	SW 7026 "GRIFFIN"	MATCH PAINT MFG'S COLOR
EF-3	DRYVIT	SW 7031 "MEGA GRIEGE"	MATCH PAINT MFG'S COLOR
PAINT FINISHES			
PT-1	SHERWIN WILLIAMS	SW 7036 "ACCESSIBLE BEIGE"	STANDARD COLOR
PT-2	SHERWIN WILLIAMS	SW 7026 "GRIFFIN"	STANDARD COLOR
PT-3	SHERWIN WILLIAMS	SW 7031 "MEGA GRIEGE"	STANDARD COLOR
PT-4	SHERWIN WILLIAMS	SW 7076 "CYBERSPACE"	STANDARD COLOR
COMPOSITE WOOD GRAIN PANELS			
CP-1	NICHIHA	"SPRUCE"	VINTAGE WOOD
METAL TRIM, COPING, DOWNSPOUTS AND SCUPPERS			
MTL-1	PAC-CLAD	"SLATE GRAY"	STANDARD COLOR
FABRIC			
FB-1	SUNBRELLA	"SLATE"	STANDARD COLOR
ALUMINUM STOREFRONT			
SF-1	YKK	"DARK BRONZE"	STANDARD COLOR

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21070
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EXTERIOR ELEVATIONS

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ENVIRONMENTAL IMPACT REPORT
FT. PIERCE COMMERCIAL
ST. LUCIE COUNTY, FLORIDA

February 27, 2022

Prepared by:

ECOLOGICAL CONSULTING OF FLORIDA
850 NW FEDERAL HIGHWAY, SUITE 109
STUART, FL 34994
sopotnick@ecf-llc.com

1760.00

1.0 INTRODUCTION

This assessment is in support of the site plan approval through the City of Fort Pierce for the subject ±12.00-acre site.

The development will include a retail development with associated parking and stormwater facilities.

2.0 SITE LOCATION

The subject property is made up of an undeveloped property located off Jenkins Road and SR 70 within the City of Fort Pierce, St. Lucie County, FL. The property is located immediately west of the intersection of Jenkins Road and SR 70 within Section 19, Township 35 South, Range 40 East, St. Lucie County, Florida (Figure 1). The site coordinates are *27°25'02.50" N, 80°22'48.87" W.*

3.0 METHODOLOGY

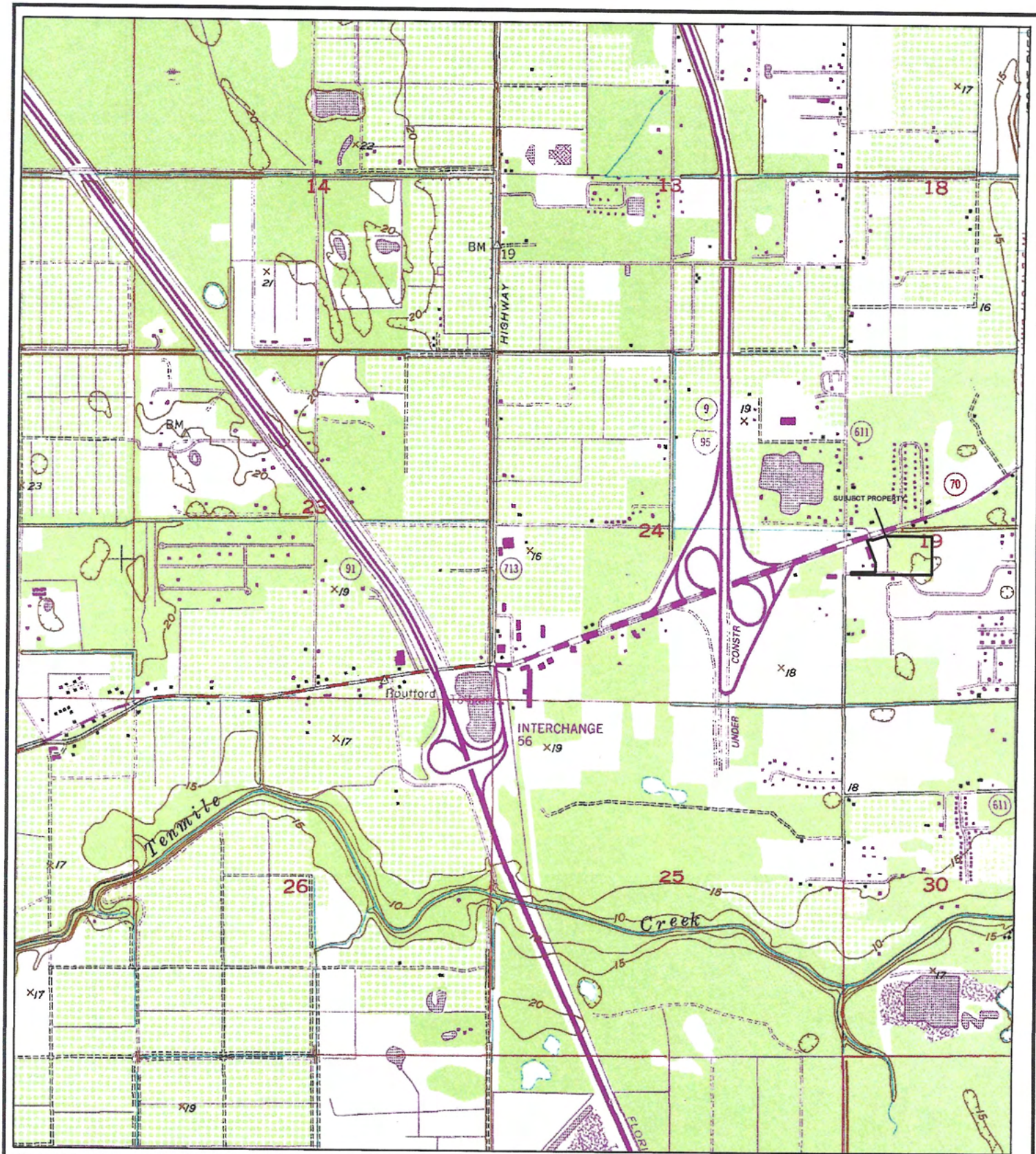
The assessment methodology consisted of the review of topographic information, soils maps, and recent aerial photographs.

A field reconnaissance of the subject property was then conducted which included pedestrian transects through the site to map and identify specific habitat and land uses and vegetative cover types. Field notes were taken and an aerial photograph was marked with land use and cover types and any environmental findings.

4.0 TOPOGRAPHY/HYDROLOGY

According to the U.S.G.S. topographic quadrangle (Fort Pierce NW), the property has an average elevation of between 15-20 feet NGVD. The quadrangle does not identify any structures on site. A road is present along the south boundary coming off of Jenkins Road, and a ditch bisects the site. The quadrangle also shows a depressional wetland in the southeast corner extending offsite to the east and south.

Field reconnaissance indicates that the parcel is relatively flat, ditched with a wetland present in the southeast corner.



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1,000 0 1,000 3,000

1 inch = 2,000 ft.

ECF
NATURAL RESOURCE CONSULTING

USGS TOPOGRAPHIC MAP
FT. PIERCE COMMERCIAL

ST. LUCIE COUNTY FLORIDA

N
W E
S

SOURCE: USGS QUADRANGLE,
FORT PIERCE NW
SEC 19, TWN 35 S, RNG 40 E

FIGURE 1

DATE: 2-27-22

PROJECT No. 1760.00

5.0 SOILS

According to the *Soil Survey of St. Lucie County, FL* (USDA-NRCS, Web Soil Survey), the following soils are found on site (Figure 2).

- Nettles & Oldsmar sands (25)

This soils is classified as poorly drained, and is generally associated with mesic lowlands and flatwood type vegetative communities in its natural setting. The site has been altered by past development, with the western portion cleared and a ditch system draining the remaining wooded areas.

6.0 SITE CONDITIONS

An assessment of the extent, distribution, and composition of vegetative communities for the property was conducted by Chris Sopotnick of Ecological Consulting of Florida (ECF), originally January 16, 2018, and again on July 7, 2021.

Pedestrian transects were conducted throughout the parcels with vegetative communities identified on a recent aerial photograph.

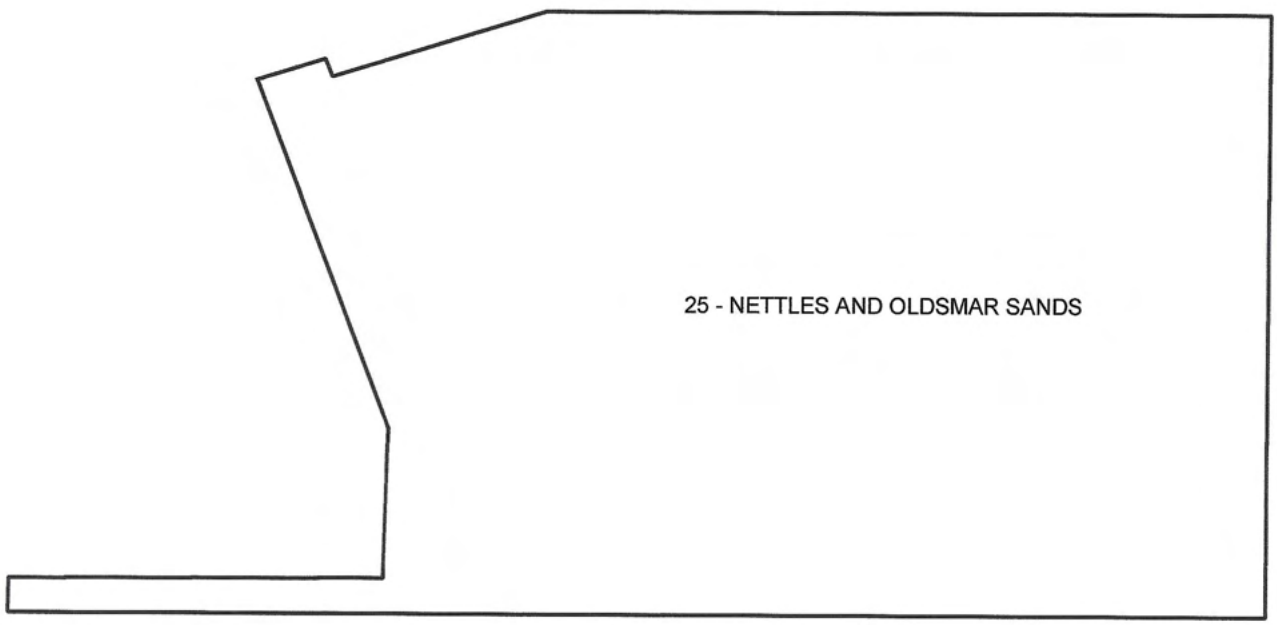
A description of each community type is provided in the Habitat/Land Use section of this report.

7.0 HABITAT/LAND USE

Onsite habitats and adjacent land uses have been characterized using the *Florida Land Cover Classifications System* (FWC 2009) (FLCCS), and are described below and depicted on the Land Use and Cover Map (Figure 3).

- 1300 – Pine Flatwoods: This cover type is dominated by a slash pine canopy (*Pinus elliottii*), occasional cabbage palm (*Sabal palmetto*) and laurel oak (*Quercus laurifolia*) with an understory of saw palmetto (*Serenoa repens*), gall berry (*Ilex glabra*), and grapevine (*Vitus spp.*). This area was underbrushed in 2018 with the understory being fairly open.

- 4220 - Ditch: This feature is a remnant excavated drainage ditch that bisects the pine flatwoods from the mowed grass habitat and then continues around the south and east boundaries of the site. The ditch system has exotic vegetation such as cattails (*Typha spp.)* melaleuca (*Melaleuca quinquenervia*) and primrose willow (*Ludwigia peruviana*). The vegetation is dense with no openings to the water surface.



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1 inch = 200 ft.

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NATURAL RESOURCE CONSULTING

SOILS MAP
FT. PIERCE COMMERCIAL

ST. LUCIE COUNTY FLORIDA

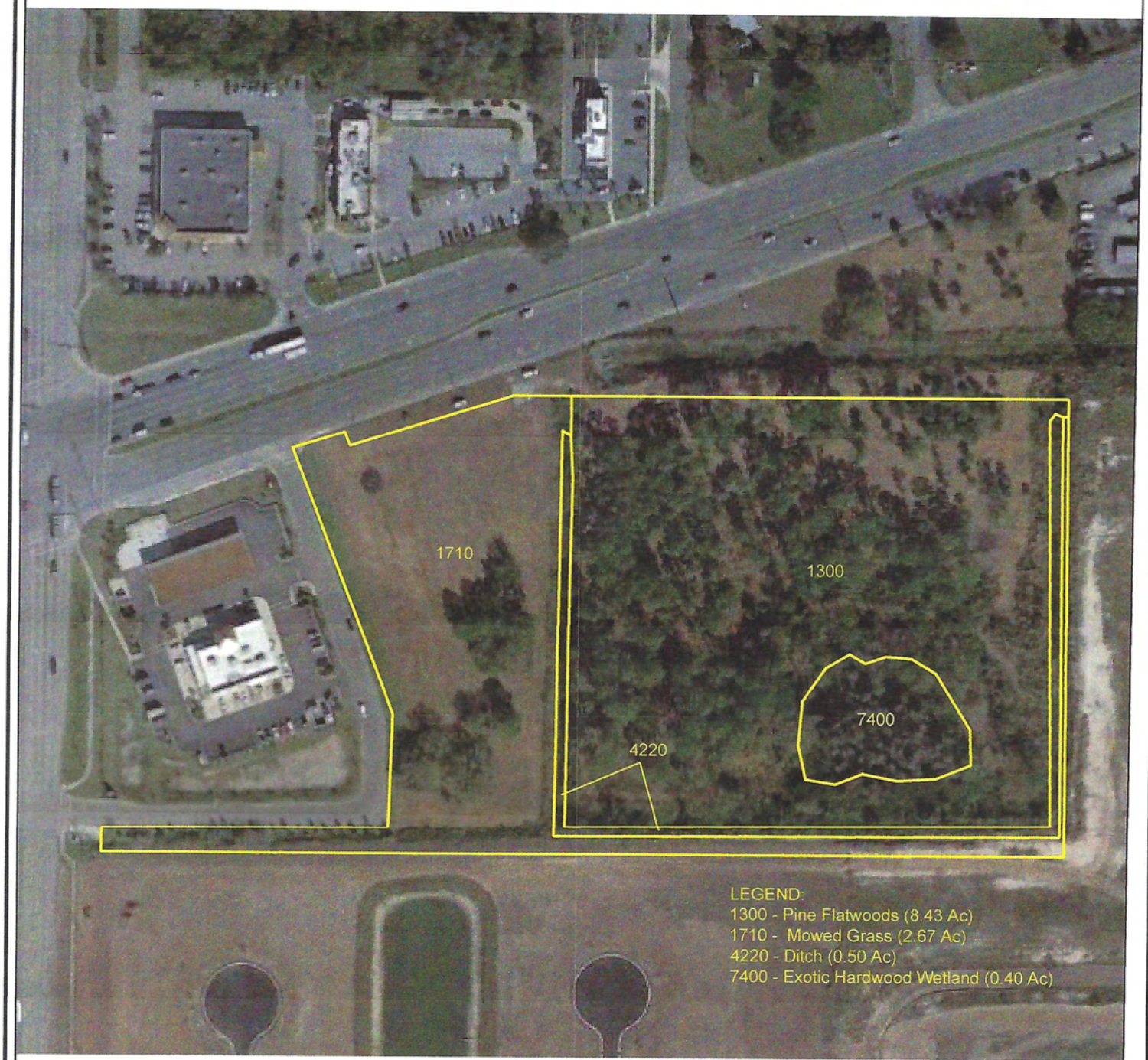
N
W E
S

SOURCE: WEB SOILS
SEC 19, TWN 35 S, RNG 40 E

FIGURE 2

DATE: 2-27-22

PROJECT No. 1760.00



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1 inch = 200 ft.

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NATURAL RESOURCE CONSULTING

LAND USE AND COVER MAP
FT. PIERCE COMMERCIAL

ST. LUCIE COUNTY FLORIDA

N
W E
S

SOURCE: GOOGLE EARTH
SEC 19, TWN 35 S, RNG 40 E

FIGURE 3

DATE: 2-27-22

PROJECT No. 1760.00

- 7400 – Exotic Wetland Hardwoods: This feature is a remnant isolated wetland that was originally a herbaceous marsh. The wetland is now dominated by melaleuca, Brazilian pepper (*Shinus terebinthifolius*), maiden cane (*Panicum hemitomon*) and redroot (*Lachnanthes caroliniana*).

- 1710 – Mowed Grass: This area has been altered by the clearing of native vegetation and planting of grass. The area has been maintained on a regular basis and is vegetated primarily by bahia grass (*Paspalum notatum*), with occasional beggar ticks (*Bidens spp.*), dog fennel (*Eupatorium capillifolium*), and guinea grass (*Megathyrsus maximus*).

TABLE 1 – LAND USE AND COVER SUMMARY

FLUCCS CODE	COMMUNITY NAME	ACRES	PERCENT
1300	Pine Flatwoods	8.43	70.2
1710	Mowed Grass	2.67	22.3
4220	Ditch	0.50	4.2
7400	Exotic Wetland Hardwoods	0.40	3.3
Total Area		12.00	100.0

8.0 CRITICAL HABITAT/ LISTED SPECIES OBSERVATION

The site was reviewed for the presence of habitat conducive to federal and state listed flora and fauna. An initial review documented vegetative communities and noted areas listed as potential habitat. A cursory listed species survey was performed by ECF on January 16-19, 2018, a follow up was conducted on July 7, 2021 the methodology included meandering transects throughout the parcel as well as the surrounding perimeter with random stations monitored. In addition, a gopher tortoise burrow survey was conducted by an FWC Authorized Agent on September 18, 2018. A current one will be conducted prior to construction.

Non-listed wildlife or signs of species observed include grackle, black racer, armadillo, cotton tailed rabbit and raccoon. All species of wildlife observed are typical representatives of the different habitats on site. None are unusual for the St. Lucie County area. No tortoise burrows and no listed species were observed on site.

The Florida Natural Areas Inventory (FNAI) provides a matrix by County of rare and endangered species in Florida. Based on the known distribution and preferred habitats of certain species, the following listed wildlife has the potential to occur on site:

TABLE 2 – FNAI LISTED SPECIES

COMMON NAME	SCIENTIFIC NAME	EVIDENCE/SIGHTING	STATUS	
			FWC	USFWS
Eastern Indigo snake	*Drymarchon corias couperi*	Not observed	T	T
Gopher tortoise	*Gopherus Polyphemus*	Not observed	T	
Gopher frog	*Rana capito*	Not observed	SSC	
Florida pine snake	*Pituophis melanoleucus mugitus*	Not observed	SSC	
Florida Panther	*Puma concolor coryi*	Not observed	E	E
Burrowing owl	*Speotyto cunicularia*	Not observed	SSC	
Woodstork	*Mycteria Americana*	Not observed	E	E
American Alligator	*Alligator mississippiensis*	Not observed	T	T
Crested caracara	*Caracara cheriway*	Not observed	T	T
Florida scrub-jay	*Aphelocoma coeruluscens*	Not observed	T	T
Piping Plover	*Charadrius melodus*	Not observed	T	T
Red-cockaded woodpecker	*Picoides villosus*	Not observed	E	E
Southeastern American kestrel	*Falco sparverius Paulus*	Not observed	T	
Florida sandhill crane	*Grus Canadensis pratensis*	Not observed	SSC	
Osprey	*Pandion haliaetus*	Not observed	SSC	
Snail kite	*Rostrhamus sociabilis plumbeous*	Not observed	E	E
Least tern	*Sterna antillarum*	Not observed	T	
Sherman's fox squirrel	*Sciurus niger shermani*	Not observed	SSC	
Manatee	*Trichechus manatus*	Not observed	E	E

Abbreviations:

SSC = Species of Special Concern, T = Threatened
USFWS = United States Fish and Wildlife Service, FWC = Florida Fish and Wildlife Conservation Commission,

A database search of FWC records for documented bald eagle nests was conducted and none were noted for the property or within 0.5 mile of the site.

9.0 WETLANDS AND SURFACE WATERS

The soils map, topographic map and National Wetland Inventory (NWI) were reviewed to identify potential wetland areas. Subsequent field reconnaissance was performed to confirm limits of wetlands within the project site.

A small, isolated wetland is identified in the southeast portion of the site (FLCCS 7400 – Figure 4). This wetland was delineated and approved by the South Florida Water Management District (SFWMD) and the US Army Corps of Engineers (USACOE) in 2018. Copies of the informal determination and the preliminary jurisdictional determination for each agency is provided in Appendix 1.

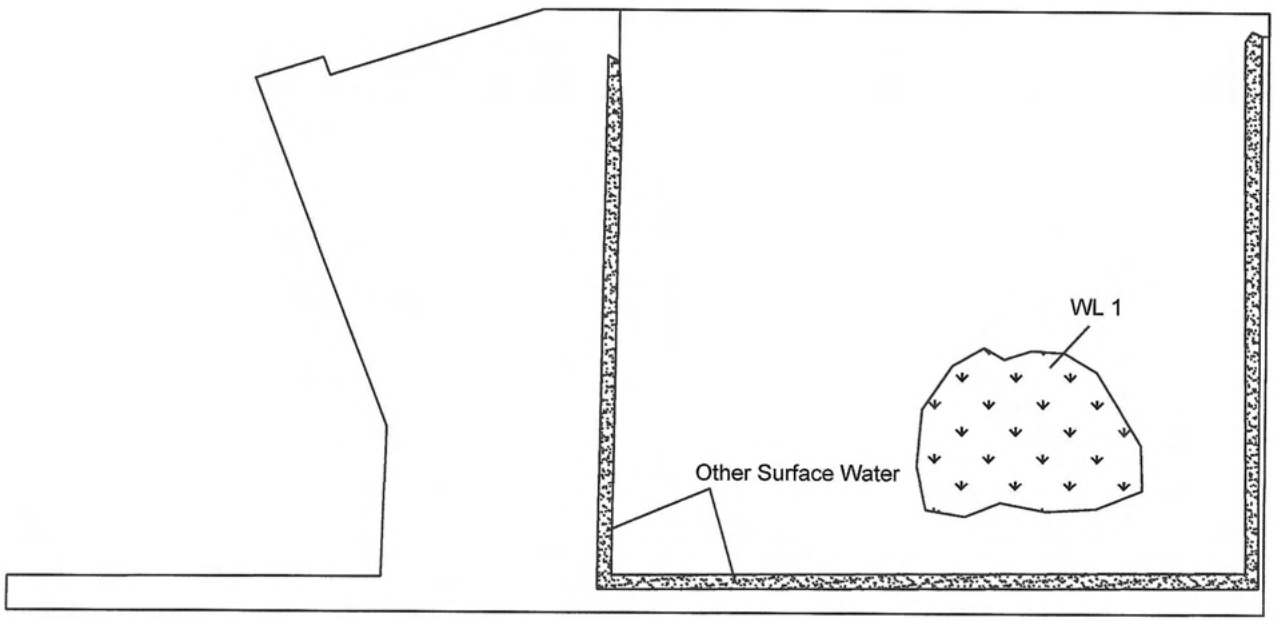
This wetland has been impacted by the construction of the southern and eastern portion of the ditch. Appendix 2 shows the historical1958 aerial depicting the construction of the ditch and impacts to the wetland. The wetland is less than 0.5 acre and is isolated and will be addressed in the permitting with SFWMD.

The wetland and ditching have been confirmed to not be considered 404 jurisdiction by the Florida Department of Environmental Protection (FDEP). The No Permit Required letter from FDEP is provided in Appendix 3.

10.0 AVOIDANCE AND MINIMIZATION

The wetland is located in an area of the site that makes it difficult to plan around. The wetland is highly degraded and dominated by exotic vegetation. The wetland hydrology is affected by the adjacent upland cut ditch. And finally, the wetland is isolated and is below the SFWMD 0.5 acre threshold for mitigation. Avoidance and minimization of the wetland impacts was not possible based on the above addressed items.

The ditch is classified as an other surface water. This is upland cut and overgrown and is not considered viable foraging habitat for wading birds to the dense cover. The function provided by the ditch will be replaced in the proposed stormwater system.



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100 0 100 300

1 inch = 200 ft.

ECF
NATURAL RESOURCE CONSULTING

WETLAND AND SURFACE WATERS
FT. PIERCE COMMERCIAL

ST. LUCIE COUNTY FLORIDA

N
W E
S

SOURCE: GOOGLE EARTH
SEC 19, TWN 35 S, RNG 40 E

FIGURE 4

DATE: 2-27-22

PROJECT No. 1760.00

11.0 SECONDARY AND CUMULATIVE IMPACTS

This wetland is typical in the area, provides marginal function, and is considered low quality. The wetland is less than 0.5 acre and is isolated and therefore secondary and cumulative impacts are not considered adverse.

The ditch is considered an other surface water. Impacts to the ditch function will be replaced by the proposed stormwater system. There are no secondary or cumulative impacts anticipated from impacting the ditch.

12.0 MITIGATION

As this wetland is isolated and less than the SFWMD 0.5 acre threshold no mitigation is proposed. There is no mitigation required for surface water impacts.

13.0 MAINTENANCE AND MONITORING

No wetlands will remain on site, therefore maintenance and monitoring is not proposed.

APPENDIX 1 – JURISDICITONAL DETERMINATIONS

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

May 30, 2018

** Delivered via email*

S & S Enterprises "B", LLC
400 High Point Dr. Ste. 500
Cocoa, FL 32926

Subject: S & S Development Parcel
Application No. 180425-520
Informal Wetland Determination No. 56-100312-P
St Lucie County

Dear Mr. Simpkins:

The District reviewed your request for an informal determination of the jurisdictional wetland and other surface water boundaries within the subject property, which is located as shown on the attached Exhibit 1. A site inspection was conducted on May 15, 2018.

Based on the information provided and the results of the site inspection, jurisdictional wetlands and other surface waters as defined in Chapter 62-340, Florida Administrative Code, exist on the property. Exhibit 2, attached, identifies the boundaries of the property inspected and the approximate landward limits of the wetlands and other surface waters.

This correspondence is an informal jurisdictional wetland determination pursuant to Section 373.421(6), Florida Statutes, and Section 7.3 of Environmental Resource Permit Applicant's Handbook Volume I. It does not bind the District, its agents or employees, nor does it convey any legal rights, expressed or implied. Persons obtaining this informal jurisdictional determination are not entitled to rely upon it for purposes of compliance with provision of law or District rules.

Sincerely,

Barbara A Conmy

Barbara Conmy
Section Leader

c: Chris Sopotnick, Ecological Consulting Of Florida *

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (http://my.sfwmd.gov/ePermitting) and searching under this application number 180425-520.

Exhibit 1

Exhibit 2



Exhibit No: 1	Exhibit Created On: 2018-05-16	ST. LUCIE COUNTY, FL

Application

REGULATION DIVISION

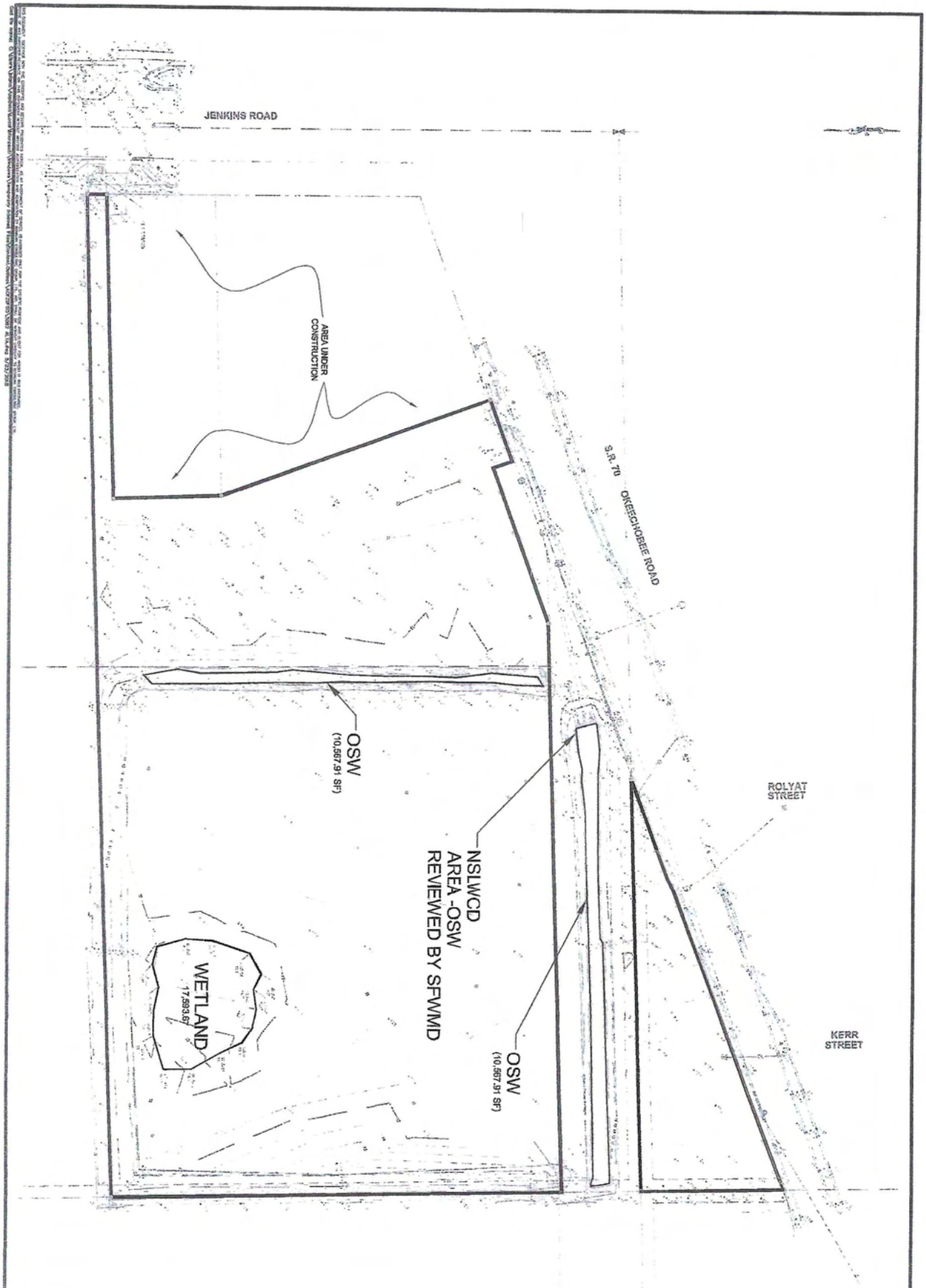
Project Name: S & S Development Parcel

Application Number: 180425-520

0 1,500 3,000 Feet

N

South Florida Water Management District



SFWMD JURISDICTIONAL AREAS

ST. LUCIE COUNTY FLORIDA

Bowman Consulting Group, Ltd., Inc.
301 S.E. Ocean Blvd, Suite 301
Stuart, FL 34994
Phone: (772) 223-1413
Fax: (772) 220-7301
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

Bowman CONSULTING

PROFESSIONAL SURVEYORS AND MAPPERS, CERTIFICATE NO. LB 8030
BOARD OF PROFESSIONAL ENGINEERS, CERTIFICATE OF AUTHORIZATION NUMBER 30642

PROJECT NO

D.A.L. SN.B.

DATE: MAY. 23, 2018

SFWD IMDS

1 OF 1

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
4400 PGA BOULEVARD, SUITE 500
PALM BEACH GARDENS, FLORIDA 33410

July 26, 2018

REPLY TO
ATTENTION OF

Regulatory Division
Palm Beach Gardens Permits Section
SAJ-2018-01213(JD-VEK)
PRELIMINARY JD

Mr. Bernie Simpkins
400 High Point Drive
Suite 500
Cocoa, FL 32926

Dear Mr. Simpkins:

Reference is made to your request for a preliminary jurisdictional determination (preliminary JD) received April 25, 2018. Based on information submitted to the U.S. Army Corps of Engineers (Corps) we have preliminarily determined there may be waters of the United States, including wetlands, on your parcel at Parcel ID #'s 2419-234-0001-000-8 and 2419-321-0001-000-5, in Section 19, Township 35 South, Range 40, East, Fort Pierce, St. Lucie County, Florida. A copy of the preliminary JD form in support of our preliminary JD is enclosed. Please carefully read the preliminary JD form, then sign and return one of the copies to us at the letterhead address within 30 days from the date of this letter.

Please be advised a Department of the Army permit will be required for regulated work in all areas which may be waters of the United States, as indicated in this preliminary JD. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands, which would be affected in any way by the permitted activity on the site, as if they are jurisdictional waters of the United States.

Should you desire an official Corps determination that jurisdictional "waters of the United States," or "navigable waters of the United States," or both, are either present or absent on a particular site, the Corps will issue an approved JD when requested.

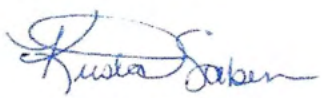
You are cautioned that work performed in areas which may be waters of the United States, as indicated in the preliminary JD, without a Department of the Army permit could subject you to enforcement action. Receipt of a permit from the Florida Department of Environmental Protection or the Water Management District does not obviate the requirement for obtaining a Department of the Army permit for such work prior to commencing work.

This preliminary JD has been conducted to identify the potential for Clean Water Act and/or Rivers and Harbors Act jurisdiction for the particular site identified in this request. This preliminary JD may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

The Corps' Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise.

Thank you for your cooperation with our permit program. If you have any questions concerning this matter please contact Virginia King by mail at the letterhead address, by electronic mail at Virginia.E.King@usace.army.mil, or by telephone at 561-472-3515.

Sincerely,



for

Shawn H. Zinszer
Chief, Regulatory Division

Enclosures
Attachment 1: PJD Form
Attachment 2: Site Maps

Copy Furnished:

Chris Sopotnick; Ecological Consulting of Florida; sopotnick@ecf-llc.com

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM
(RGL 16-01 Appendix 2)

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: July 26, 2018

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
S&S Enterprises B LLC
c/o B.W. Simpkins
400 High Point Drive, Suite 500
Cocoa, FL 32926

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
CESAJ-RD-SP, S&S Development Parcel, SAJ-2018-01213

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
Parcel ID #'s 2419-321-0001-000-5 & 2419-234-0001-000-8
Section 19, Township 35 South, Range 40 East

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)
State:FL County/parish/borough: St. Lucie County City: Fort Pierce

Center coordinates of site (lat/long in degree decimal format):
Lat. 27.417308°, Long. -80.379772°

Universal Transverse Mercator:

Name of nearest waterbody: North Fork of St. Lucie River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): June 20, 2018

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e. wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e. Section 404 or Section 10/404
Wetland 1	27.41684	-80.37953	0.40 acres	wetland	404
Canal 1	27.41815	-80.37993	0.24 acres	Non-wetland waters	404
Canal 2	27.41650	-80.38004	0.50 acres	Non-wetland waters	404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) that the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in

any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as is practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Map: "USACOE JURISDICTIONAL AREAS" Map composed by Bowman Consulting

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☒ Data sheets prepared by the Corps:

☐ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .
- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name: .

☒ Natural Resources Conservation Service Soil Survey. Citation: This product was generated from the following USDA-NRCS certified data:
Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 10, Oct 6, 2017.

☐ National wetlands inventory map(s). Cite name: .

☐ State/Local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

☒ Photographs: ☒ Aerial (Name & Date): Google Earth; January 3, 2018.
or ☐ Other (Name & Date): .

☐ Previous determination(s). File no. and date of response letter: .

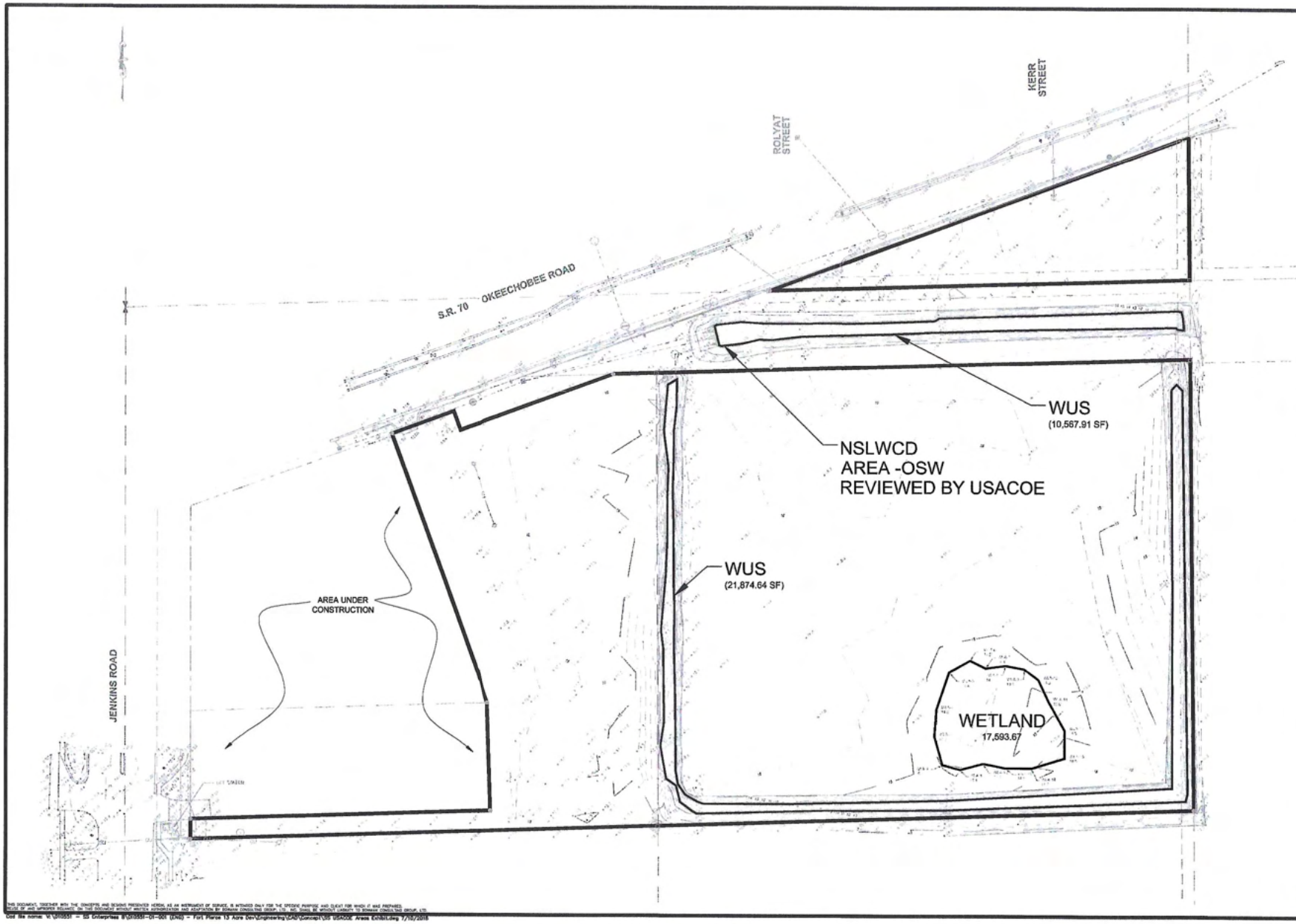
☒ Other information (please specify): Hydrography Dataset (NHD) Flow Lines feature on Google Earth.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

7/26/18

Signature and date of
Regulatory staff member
completing PJD

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)[1]



Bowman CONSULTING

PROFESSIONAL SURVEYORS AND MAPPERS, CERTIFICATE NO. LB 8160
HOUSE OF PROFESSIONAL ENGINEERS, CERTIFICATE OF AUTHORIZATION NO. 32462

Bowman Consulting Group, Ltd., Inc.
301 S.E. Ocean Blvd., Suite 301
Stuart, FL 34994
Phone: (772) 283-1413
Fax: (772) 220-7851
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

USACOE JURISDICTIONAL AREAS

FLORIDA

ST. LUCIE COUNTY

PROJECT NO
3062-01-01

DATE	DESCRIPTION

JMB	S.N.B.
DRAWN	CHKD

SCALE: 1" = 100'

JOB NO. 3062-01-001

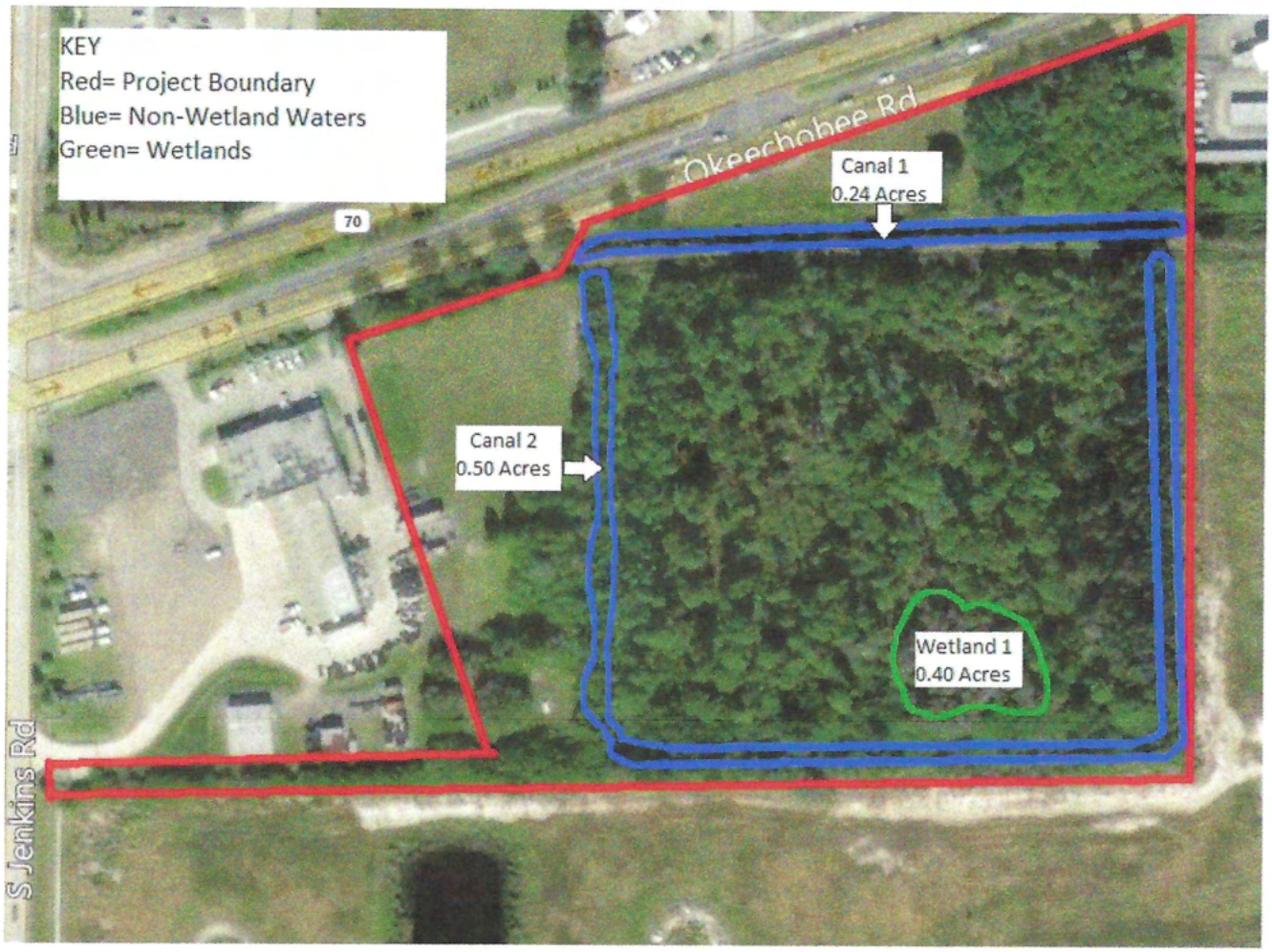
DATE JULY 10, 2018

FILE NO SFWMD AREAS

SHEET 1 OF 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING GROUP, LTD. INC. SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING GROUP, LTD.

Civil file name: H:\2018\3062 — SS Enterprises B\3062-01-001 (ENG) – Fort Pierce 13 Acre Dev\Engineering\CAD\Concept\3D USACOE Areas Exhibit.dwg 7/10/2018


KEY
Red= Project Boundary
Blue= Non-Wetland Waters
Green= Wetlands
Okeechobee Rd
70
Canal 1
0.24 Acres
Canal 2
0.50 Acres
Wetland 1
0.40 Acres
S Jenkins Rd

APPENDIX 2 – 1958 HISTORIC AERIAL



THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTATION BY ECOLOGICAL CONSULTING OF FLORIDA SHALL BE WITHOUT LIABILITY TO ECOLOGICAL CONSULTING OF FLORIDA.

NOT TO SCALE

ECF
NATURAL RESOURCE CONSULTING

1958 Aerial

S&S Development Parcel

ST. LUCIE COUNTY FLORIDA

N
W E
S

SOURCE: FDOT AERIALS
SECTION 28, TOWNSHIP 40 SOUTH, RANGE 32 EAST

FIGURE 2

DATE: 8-29-21

PROJECT No. 1760.00

APPENDIX 3 – FDEP NO PERMIT REQUIRED

FLORIDA DEPARTMENT OF Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
561-681-6600

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

1/13/2022

S&S Enterprises B, LLC
c/o B.W Simpkins
400 Highpoint Dr., Suite 500
Cocoa, FL 32926
Via email: tomvani27@hotmail.com

Re: File No.: 400959-001, Jill Simpkins
St. Lucie County

Dear Mr/Ms. Simpkins:

On 3/22/2021, we received your request for verification that a State 404 Program permit will not be required for the activity described below.

The project proposes the construction of a commercial development at 27°25'2.3088" N latitude, -80°22'47.1792" W longitude, Parcel # 2419-321-0001-000-5 Section 19 Township 35 South, Range 40 East, St. Lucie County.

Based on a review of the information submitted, the Department has verified that the activity, as proposed, does not involve discharge of dredged or fill material into the Waters of the United States and therefore, does not require a permit or other form of authorization under the State 404 Program, as described in Chapter 62-331, Florida Administrative Code (F.A.C.).

This verification reflects current regulations and is only valid for a period of no longer than five years from the date of this letter unless new information warrants a revision of this verification before the expiration date.

Please retain this letter. The activities described above may be inspected by authorized state personnel in the future to ensure compliance with appropriate statutes and administrative codes. If the activities are not in compliance, you may be subject to enforcement action and possible penalties.

This letter does not relieve you from the responsibility of obtaining other federal, state (including ERP), or local authorizations that maybe required for this activity.

If you have any questions regarding this letter or permitting requirements, please contact Jeffrey Meyer by telephone at 561-681-6645 or by e-mail at Jeffrey.L.Meyer@floridadep.gov .

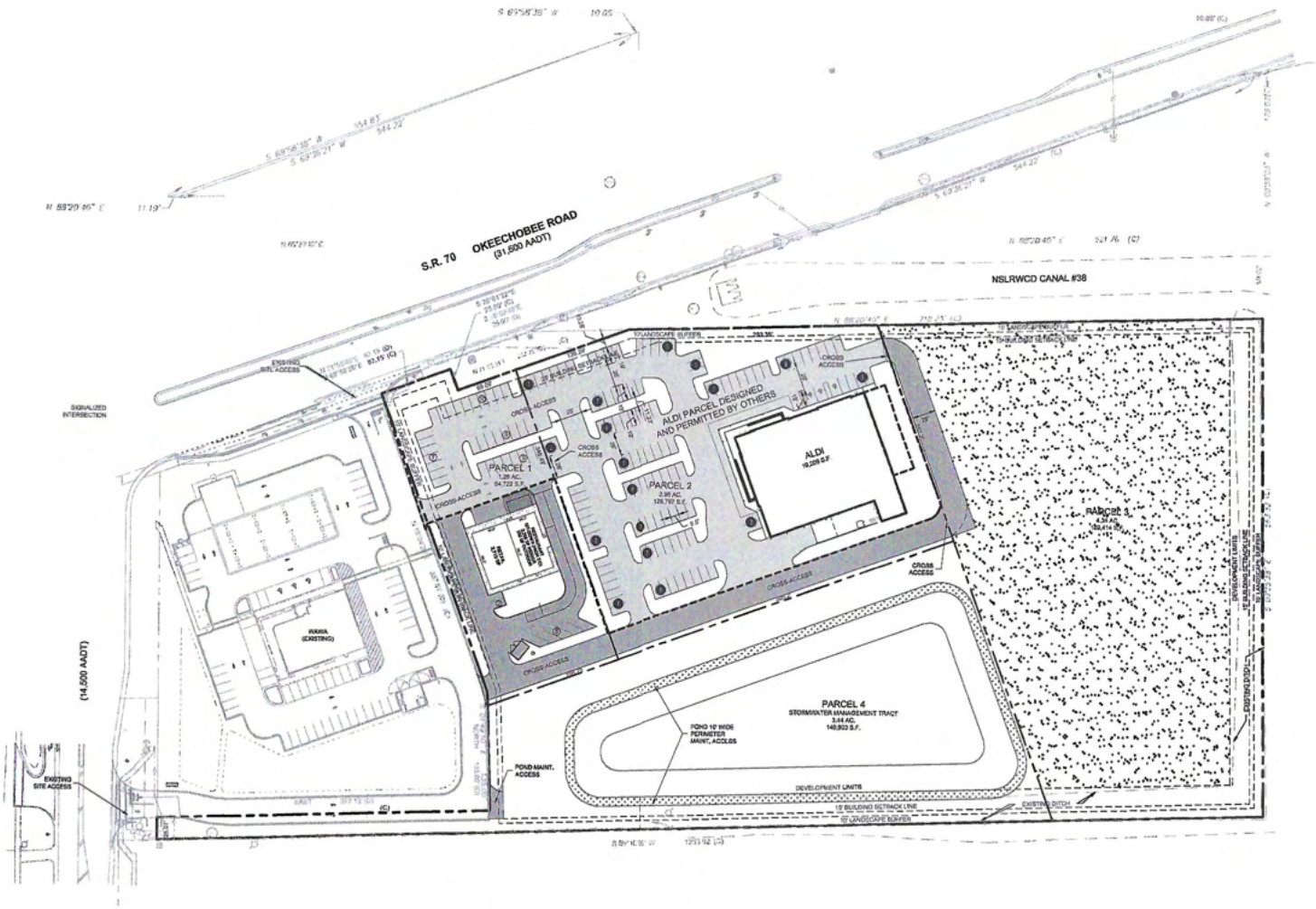
Sincerely,



Norva Blandin, MSEM
Permitting Administrator, Southeast District
Florida Department of Environmental Protection

Enclosures:
62-340, F.A.C., Data forms, site photos and supplemental information **30** pages

CC:
FDEP- Norva Blandin, Jeff Meyer
Chris Sopotnick, Ecological Consulting of Florida, Sopotnick@ecf-lic.com



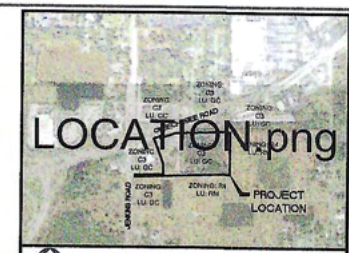
PRELIMINARY MASTER SITE PLAN WITH ALDI

SCALE: 1" = 60'

GRAPHIC SCALE
60 0 30 60
(IN FEET)
1 inch = 60 ft.

LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT (BY MASTER DEVELOPER)
- PROPOSED ASPHALT (BY ALDI)



LOCATION MAP

PROJECT INFORMATION

SITE ADDRESS
SW CORNER OF JENKINS ROADF AND SR 70, EAST AND SOUTH OF THE EXISTION WAWA GAS STATION
FT. PIERCE, FLORIDA

OWNER/APPLICANT
S AND S ENTERPRISES, II, LLC
100 HIGH POINT DR. STE 509
DODGA, FLORIDA 32508
PH.: (321) 639-6200

ENGINEER
MBV ENGINEERING, INC.
1935 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-8035

ARCHITECT
N/A

SURVEYOR
BOWMAN CONSULTING GROUP, LTD., INC
361 S.E. OCEAN BLVD., STE 201
STUART, FLORIDA 34994
PHONE (772) 283-1413

TAX PARCEL I.D NUMBER(S)
2419-321-0001-000-2
2419-323-0003-000-2

JURISDICTION
CITY OF FORT PIERCE

ZONING	LAND USE	OVERLAY DISTRICT
C3	GC	N/A

LATITUDE	LONGITUDE
27° 23' 3.24" N	80° 22' 51.26" W

SITE DATA

	SF	ACRES	%
SITE AREA (OVERALL)	622,635 SF	12.69 AC	100%
PARCEL 1 - FAST FOOD & RETAIL	54,722 SF	1.26 AC	10%
PARCEL 2 - SUPERMARKET	128,797 SF	2.96 AC	25%
PARCEL 3 - HOTEL	189,414 SF	4.35 AC	30%
PARCEL 4 - STORM POND	149,903 SF	3.44 AC	29%

PARKING DATA

PARCEL NO.	USE	BUILDING AREA	PARKING REQUIRED	PARKING PROPOSED
PARCEL 1				
RETAIL	VARIETY	2,710 SF	14	15
RESTAURANT	SIT DOWN - HIGH TO	2,208 SF	31	34
PARCEL 2	SUPERMARKET	19,209 SF	57	149
PARCEL 3	HOTEL	136 RMS	109	109
PARCEL 4	STORM POND	NA	NA	NA

ZONING DATA

	BUILDING SETBACK	LANDSCAPE BUFFERS
FRONT	25 FT	10 FT
SIDE	15 FT	10 FT
REAR	15 FT	10 FT

TRANSPORTATION - TRIP GENERATION

PARCEL 1
RESTAURANT USE:
ITE USE TYPE: 932 (HIGH TURNOVER)
BUILDINGA AREA: 2,910 SF
INDEPENDENT VARIABLE: PER 1000 SF
WEEKDAY PM PEAK TRIPS: 43

RETAIL USE:
ITE USE TYPE: 814 (VARIETY STORE)
BUILDINGA AREA: 3,500 SF
INDEPENDENT VARIABLE: PER 1000 SF
WEEKDAY PM PEAK TRIPS: 28

PARCEL 2
ITE USE TYPE: 850 (SUPERMARKET)
BUILDINGA AREA: 19,209 SF
INDEPENDENT VARIABLE: PER 1000 SF
WEEKDAY PM PEAK TRIPS: 237

PARCEL 3
ITE USE TYPE: 310 (HOTEL)
NUMBER OF ROOMS: 136
INDEPENDENT VARIABLE: # OF ROOMS
WEEKDAY PM PEAK TRIPS: 85

PARCEL 4
STORM POND TRACT N/A

TRANSPORTATION - ROAD JURISDICTION

OKEECHOBEE ROAD (SR 70)	FDOT
SOUTH JENKINS ROAD	SLC COUNTY

FLOOD ZONE
THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X, PER FLOOD INSURANCE RATE MAP #12111C0167 J, DATED FEB. 05, 2012.

NOTES
1.) SITE IS CONCEPTUAL IN NATURE AND SPECIFIC SITE DETAILS MAY NOT BE KNOWN UNTIL

DATE	REVISIONS
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
2/8/22	
1_2/8/22	
7/19/2021	

JOB NO.	19-0015
DESIGNED	TH
DRAWN	VDO
DATE	MAY 2020
CHECKED	AJB
DATE ISSUED	7/19/2021

MBV ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING
1935 20TH ST. VERO BEACH, FL 32960
PH: (772) 569-8035
CA #3726

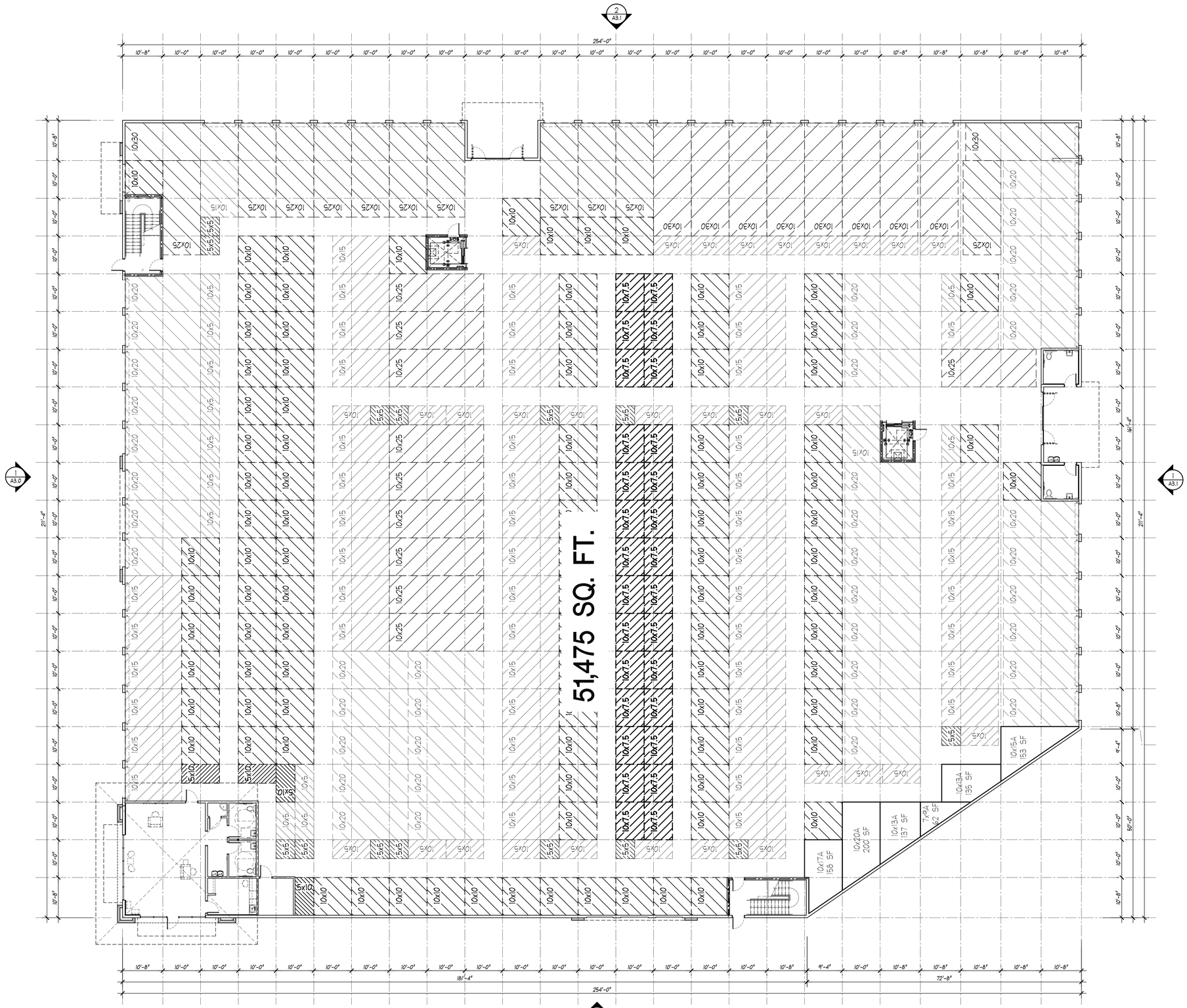
MASTER DEVELOPMENT EXHIBIT
(REVISED 6-29-2021)

FT. PIERCE COMMERCIAL
CITY OF FORT PIERCE FLORIDA

NOT FOR CONSTRUCTION
PLAN SHEETS ARE PRELIMINARY AND FOR INFORMATION ONLY. PLANS SHOULD NOT BE USED AS A BASIS FOR BIDS. CONTRACTOR SHOULD ORDER THE OFFICIAL PLANS FROM THE ENGINEER OF RECORD TO ENSURE THAT ANY ADDENDUMS ARE PROPERLY DISTRIBUTED. PLANS ARE INVALID WITHOUT ENGINEER OF RECORDS SEAL AND SIGNATURE.

SHEET
CSP2B
OF 1
19-0015

72 HOURS BEFORE DIGGING CALL TOLL FREE 811
Know what's below. Call before you dig.



FIRST FLOOR PLAN

SCALE: 3/32" = 1'-0"

NORTH

51,475 GROSS SQ. FT.

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
FABER@FWHARCHITECTS.COM

JOHNSON DEVELOPMENT ASSOCIATES, INC.
REAL ESTATE DEVELOPERS
100 DUNBAR STREET
SPARTANBURG, SC 29306
Ph. (864) 585-2000

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

DEVELOPMENT REVIEW PLANS
PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-0005
FORT PIERCE, FLORIDA 34947

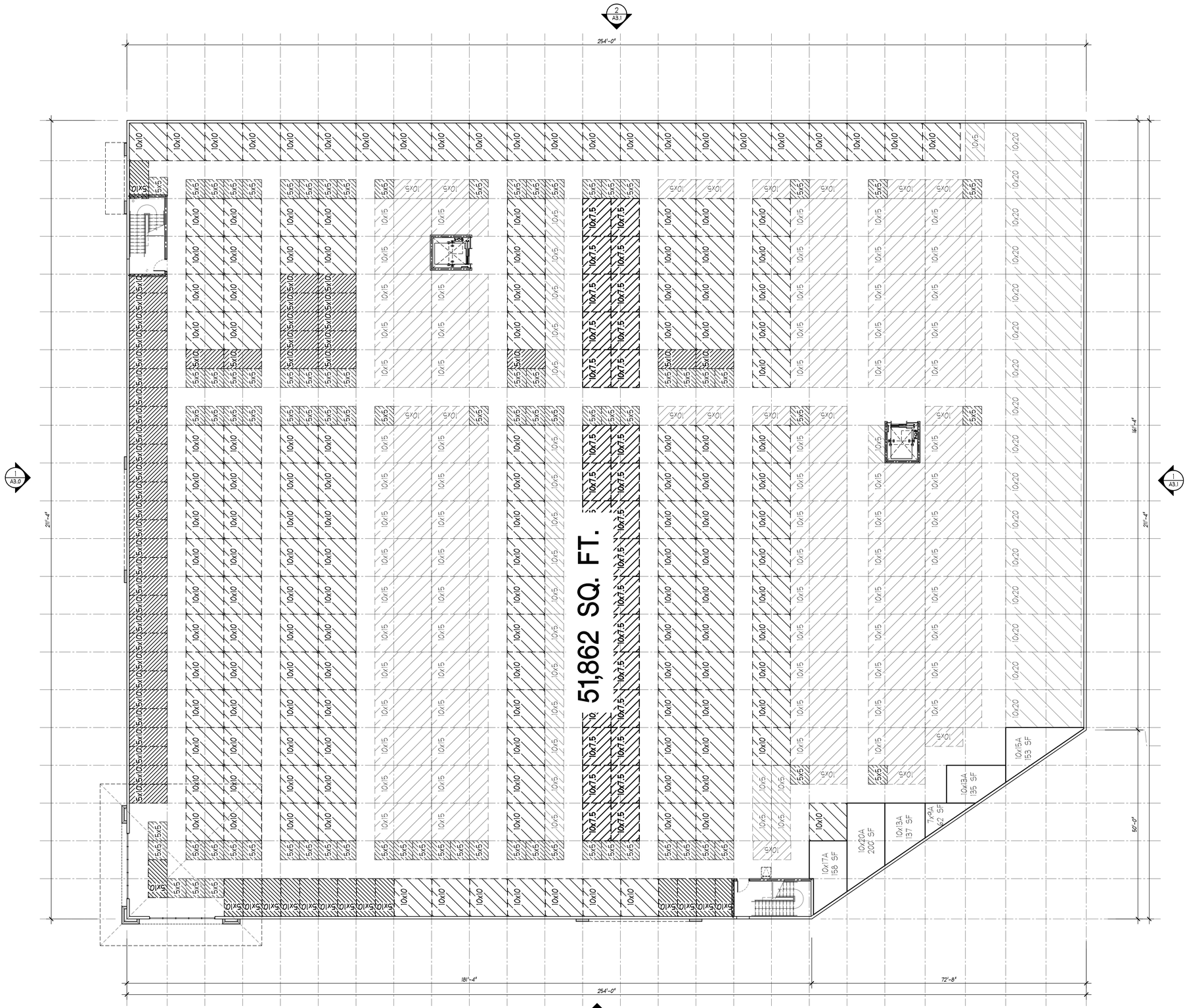
12.15.22
date

22056
comm. no.

FIRST
FLOOR PLAN

A1.1

12/15/2022 8:27 PM



SECOND FLOOR PLAN

SCALE: 3/32" = 1'-0"

NORTH

51,862 GROSS SQ. FT.

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336
FABER@FWHARCHITECTS.COM

JOHNSON DEVELOPMENT ASSOCIATES, INC.
REAL ESTATE DEVELOPERS
100 DUNBAR STREET
SPARTANBURG, SC 29306
Ph. (864) 585-2000

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

DEVELOPMENT REVIEW PLANS
PROPOSED SELF-STORAGE FACILITY
JOHNSON DEVELOPMENT ASSOCIATES, INC.
PARCEL ID #2419-321-0001-0005
FORT PIERCE, FLORIDA 34947

12.15.22
date

22056
comm. no.

SECOND
FLOOR PLAN

A1.2

12/15/2022 8:24 PM