APOPKA DEVELOPMENT REVIEW COMMITTEE AGENDA

February 21, 2024 9:00 AM

Apopka City Hall Council Chambers

FUTURE LAND USE AMENDMENT

1. Leon Property - Small Scale Future Land Use (SSFLUM), 3rd Submittal - Continued to DRC 2-21-24 per applicant

REZONING

1. Leon Property - Rezoning, 3rd Submittal - Continued to DRC 2-21-24 per applicant

PLAT

1. Parkview Preserve Phase 2 - Plat, 1st Submittal

SITE PLAN:

CONSTRUCTION SITE PLAN

1. Trinity Construction - Construction Site Plan (CSP), 1st Submittal - Continued to DRC 2.21.24 per applicant
2. Farm Credit Apopka - Construction Site Plan (CSP), 2nd Submittal
3. Community Health Centers - Minor Development Plan (MDP), 2nd Submittal
4. Floridian Town Center Phase 1 Infrastructure - Construction Site Plan Revision (CSP Revision), 1st Submittal
5. West Apoka Medical Offices - Construction Site Plan Revision (CSP Revision), 2nd Submittal
6. Lo Family Warehouse - Construction Site Plan (CSP), 2nd Submittal
7. Kelly Industrial Park Phase 1 - Construction Site Plan (CSP), 1st Submittal

DISCUSSION

ADJOURNMENT

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Council with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Any opening invocation that is offered before the official start of the Council meeting shall be the voluntary offering of a private person, to and for the benefit of the Council. The views or beliefs expressed by the invocation speaker have not been previously reviewed or

approved by the City Council or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Council meeting are invited to stand during the opening ceremony. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Council Chambers or exit the City Council Chambers and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance.

Land Use Plan

Date Issued: 07/12/2021

Latest Issue: 12/19/2023

Applicant:
HallDSi
1302 Osprey Ave
Orlando, Fl 32803
Contact: Jim Hall
Email: jimhall@halldsi.com
Phone: 407.257.9235

Client:
Leon David F

Po Box 770252
Winter Garden, FL
34777-0252

Sheet Index:

Page 1: Cover
Page 2: Aerial
Page 3: Wetlands
Page 4: Enviromental Conditions
Page 5: Concept Plan
Page 6: Land Use Plan
Page 7: Survey

Leon Property

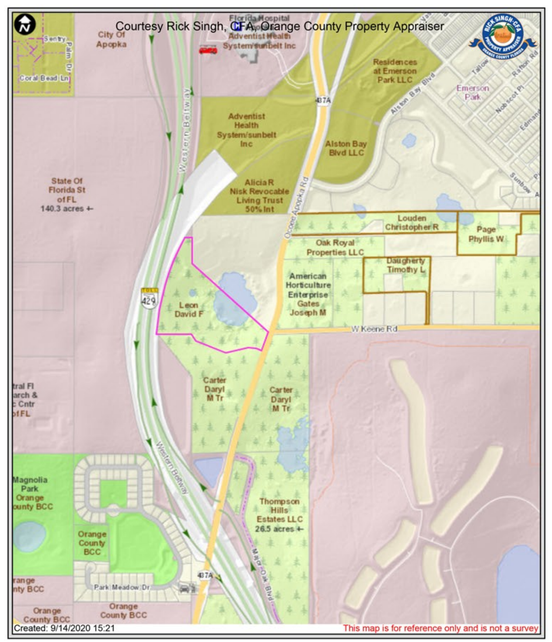
Apopka, Fl

Parcel ID: 19-21-28-0000-00-005

Request: 249 residential units in midrise building

Legal Description:

PART OF SE1/4 SEC 19-21-28 & SW1/4 SEC 20-21-28 & NW1/4 SEC 29-21-28 DESC AS BEG AE SE COR SEC 19 RUN S 28 DEG E 86.32 FT S 66 DEG E 361.46 FT N 78 DEG E 258.68 FT S 83 DEG E 96.67 FT S 69 DEG E 61.23 FT N 18 DEG E 219.46 FT N 46 DEG W TO A PT LYING 238.63 FT S OF NW COR SW1/4 OF SW1/4 OF SEC 20 N 288 FT M/L TO EXPWY W 83.97 FT SWLY 988.04 FT TH E 392.06 FT TO POBR



Hall Development Services Inc.

1302 Osprey Avenue Orlando, FL 32803
Ph: (407) 257-9235
Planning, Real Estate, and Entitlement Strategies
www.halldsi.com

GeoOrbis

Prior Park House St. James, Barbados
Ph: (246) 421-6875
Geospatial Project Management, Application Development, Base Mapping
www.geoorbis.com

HDSi

GeoOrbis

Title:
AERIAL

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

N

ISSUED	
DATE:	FOR:

KEY PLAN

Aerial Photography Source: FDOT 2017

Path: G:\20021_Leon\MXD\SiteMap_Leon24x36L.mxd

SHEET NO.

02

Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

2510 Ocoee Apopka Road
Orange County, Florida
Figure
Wetland Map

N

180
Feet

Project #: 1215-296
Produced By: LPM
Date: 8/26/2021

Wetlands

Legend

Subject Property

Wetlands

Notes:

Topography & Floodplain

Legend

Topography (5 ft.)

Subject Property

Fema Flood Zones

AE

X

Source:
Topography - SFWMD 5 ft.

Boundary - Orange County Property Appraiser

Floodplain - Fema Flood Hazard Zone Lines
Dated June 1, 2018

Soils Map

Legend

Subject Property

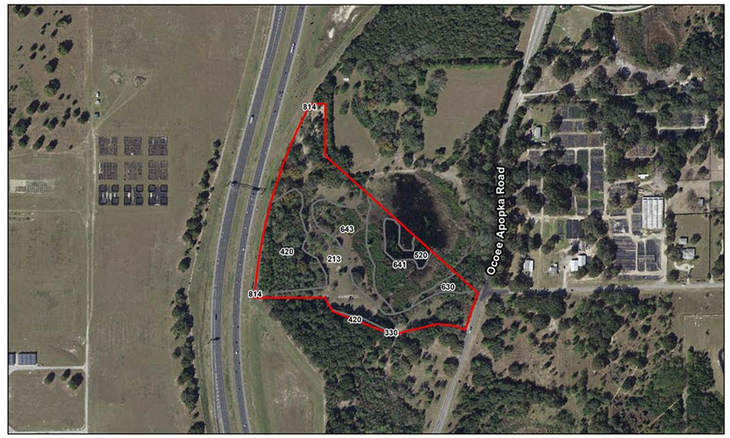
Map Unit Symbol - Map Unit Name

47 - Tavares-Millhopper fine sands, 0 to 5 percent slopes

6 - Candler-Apopka fine sands, 5 to 12 percent slopes

99 - Not Classified

Source:
Soil Survey of Orange County, Florida
National Cooperative Soil Survey,
Issued August 1989



Aerial & Existing Land Use

Legend

Subject Property

Land Use Cover

213 - Woodland Pastures

330 - Mixed Upland Nonforested

420 - Upland Hardwood Forests

520 - Lakes

630 - Wetland Forested Mixed

641 - Freshwater Marshes

643 - Wet Prairies

814 - Roads and Highways

Source:
Aerial - FDOT - 2017 Orange County Orthophotos
FLUCFCS - Statewide Land Use Land Cover 2004-2017

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GeoOrbis

Title:
ENVIROMENTAL CONDITIONS

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

N

ISSUED

DATE: FOR:

KEY PLAN

Aerial Photography Source: FDOT 2017

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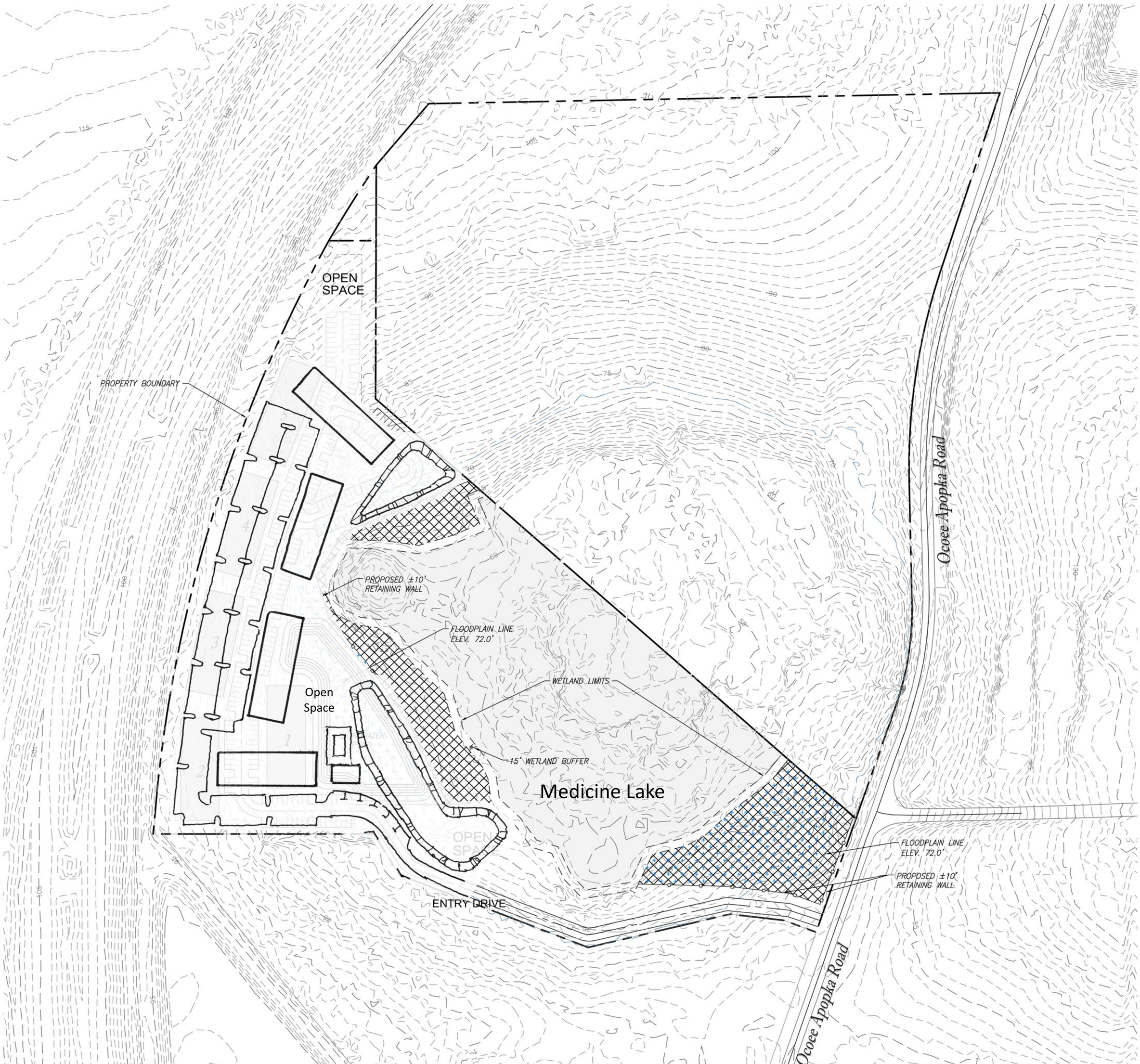
SHEET NO.

04



Residential Units: 249

General Site Data		
Project Site Area	17.85 Ac	
Total Wetlands	±5.84 Ac	
Approx. Area Of Floodplain	±11.34 Ac	
Floodplain Impact (1)	±15,742 Cu. Yd.	2.32 Ac.
Compensating Storage	±15,765 Cu. Yd.	2.17 Ac.
Total Stormwater Provided	1.10 Ac	15%
Overall Buildable Area (2)	8.35 Ac	
Net Buildable Area (3)	7.25 Ac	
Buildings	4	
Parking Count (4)	300 Parking Stalls	

Notes:

1. Floodplain impacts doesn't include the access road.
2. Overall Buildable Area includes Access Driveway.
3. Net Buildable Area excludes 15% Stormwater Pond
4. Per Section 5.1.6.A Parking Space Standards, the minimum number of vehicular parking spaces for a multifamily use is 1/studio and 1 bedroom for residents; 1.35 for all other units for residents; 0.1/resident space for visitors.

Legend

- WETLAND
- COMPENSATING STORAGE
- FLOODPLAIN IMPACT
- FLOODPLAIN LINE (ELEV. 72.0')

100' 0 100' 200'
SCALE IN FEET

Exhibit 1

Hall Development Services Inc.
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Ph: (407) 257-9235
Planning, Real Estate, and Entitlement Strategies
www.halldsi.com

POULOS & BENNETT
2602 E. Livingston St.
Orlando, Florida 32803- 407.487.2594
www.poulosandbennett.com
Certificate of Authorization No. 28567

December 12, 2023
P & B Job No.: 22-079

Z:\2022\22-079 LEON – MEDICINE LAKE\CAD\EXH & FIGS\CONCEPT PLAN

SITE DATUM

Gross acreage:	17.85
Net acreage:	12.07
Current Use on the Property:	Vacant
Current Future Land Use Designation:	RH
Requested Future Land Use Designation:	HDR-25
Current Zoning:	T
Requested Zoning:	PUD
Proposed Use & Development Program:	249 residential units

DEVELOPMENT PROGRAM

Land Use	ITE	Acres	Units	Trip Gen Rate	Trips
Apartments mid rise	221	12.07	249	4.64	1,115

ITE rate 221

Permitted land uses	Apartments
Prohibited uses	All other uses
Max Residential density	25 du/acre
Proposed Residential density	20.6 du/acre

SCHOOL AGE POPULATION

Land Use	Units	Elementary	Middle	High
Mid rise	249	34	16	19

Total School Children 69

DEVELOPMENT STANDARDS

Perimeter building setback	10'
Ocoee-Apopka Road building setback	18'
Beltway building setback	25'
Perimeter paving setback	7.5'

RESIDENTIAL STANDARDS

Min. living area	500 SF
Max. lot coverage	75%
Building separation	20'
Building Height	65'

Parking

Vehicle Parking	1/studio and 1 bedroom for residents; 1.35 for all other units for residents; 0.1/resident space for visitors; 20% of spaces over 100 spaces shall be pervious
Bicycle Parking	15 spaces
Landscaping	per 5.2.5. - Landscaping and Buffer Standards B.
Tree Protection	per Section 5.3. - Tree Protection Standards
Open Space	30%

ACCESS

Ocoee-Apopka Road will provide vehicle access.

SIGNAGE

Will comply with Section 5.10. - Signs of the LDC.
Billboards shall be prohibited

PHASING

One phase

STORMWATER

Will comply with City and Water Management District standards

SERVICE PROVIDERS

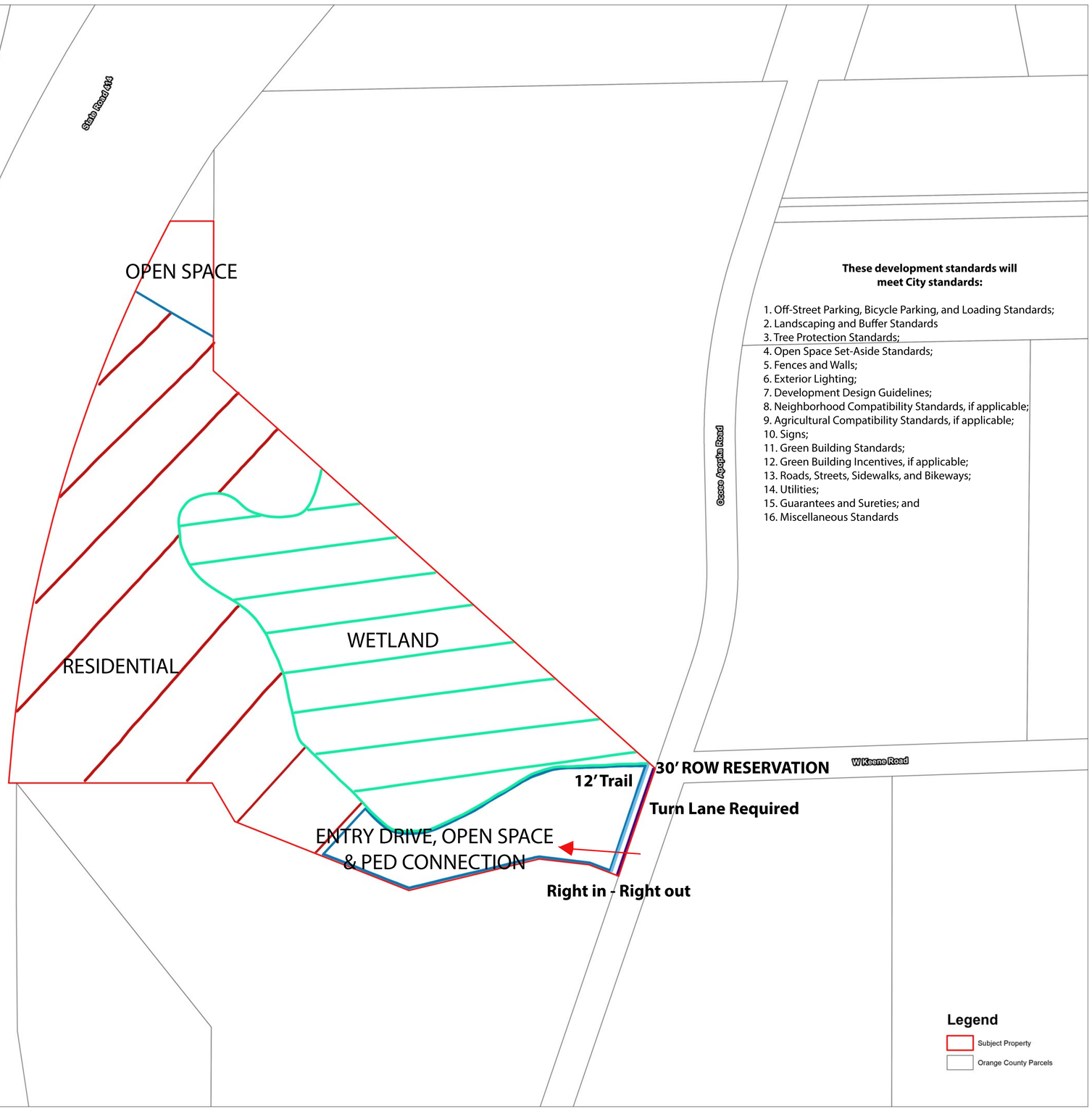
Water Service	Apopka
Wastewater	Apopka

NOTES

1. Ownership of storm water management facilities shall be determined at PDP.
2. Open space to be owned and maintained by the POA.

AMENITIES

Bicycle storage, Clubhouse, Pool, Outdoor grills



HDSi

GeoOrbis

Title:
LAND USE PLAN

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

N

ISSUED
DATE: FOR:

KEY PLAN

Aerial Photography Source: FDOT 2017

Path: G:\20021_Leon\MXD\SiteMap_Leon24x36L.mxd

SHEET NO.
06

ALTA / ACSM LAND TITLE SURVEY

HEIDRICH AND LEON PARCELS

A PORTION OF SECTIONS 19, 20 AND 29, TOWNSHIP 21 SOUTH, RANGE 28 EAST
ORANGE COUNTY, FLORIDA

N

W E

S

GRAPHIC SCALE

100 0 50 100 200 400

1 INCH = 100 FEET

LINE TABLE		
LINE	LENGTH	BEARING
L1	84.15'(M) 84.04'(D)	N89°57'52"E(M) N89°59'13"E(D)
L2	61.20'(M) 61.23'(D)	N69°48'44"W(M) N69°52'09"W(D)
L3	96.64'(M) 96.67'(D)	N83°00'33"W(M) N83°01'06"W(D)
L4	86.19'(M) 86.32'(D)	N30°27'57"W(M) N30°33'34"W(D)

LAND AREA CALCULATIONS

21.55524 ACRES	HEIDRICH PARCEL
4.99648 ACRES	LEON PARCEL #1
12.92630 ACRES	LEON PARCEL #2
39.47800 ACRES	TOTAL AREA

(WEST 1/4 CORNER)
NW CORNER OF SW 1/4, SEC 20
C.C.R. No. 82637, 82052, 65637, 34491, 11154
FND 6"X6" CM W/1" IP & NAIL IN CENTER, NO ID

N89°38'00"E(M) — N89°38'00"E(C) — 5324.24'(M) — 2638.95'(C)

N LINE OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E

(NORTH 1/4 CORNER)
NE CORNER OF NW 1/4, SEC 20
C.C.R. No. 82640, 82048, 65639, 34490, 11202
FND 6"X6" CM W/1" IP & NO ID

(CENTER OF SECTION)
NE CORNER OF SW 1/4, SEC 20

C.C.R. No. 82641, 82056, 65640, 34484, 1886
FND IRR SPIKE W/"X" CUT NO ID

NE CORNER OF SE 1/4, SEC 20, TWP 21 S, RNG 28 E
(EAST 1/4 CORNER)

P.O.C. LIMITED ACCESS RIGHT OF WAY PARCEL 63-116

1332.69'(C)
1332.63'(D)
S00°10'20"W(M)
S00°10'31"W(D)

WEST LINE OF SW 1/4, SEC 20

P.O.B. LIMITED ACCESS RIGHT OF WAY PARCEL 63-116

NORTH LINE OF SW 1/4 OF SW 1/4, SEC 20

N88°52'47"E(C)
N88°53'31"E(M)
1315.74'(C)
1009.70'(M)

NW CORNER OF SW 1/4 OF SW 1/4, SEC 20

NE CORNER OF SW 1/4 OF SW 1/4, SEC 20

FND 4"X4" CM (BROKEN)
NO ID
0.31' S OF N LINE, SW 1/4 OF SW 1/4, SEC 20

LIMITED ACCESS RIGHT OF WAY PARCEL 63-116
O.R.B. 5846, PG. 3530

FND 5/8" IRC LB024
0.09' S OF N LINE OF SW 1/4 OF SW 1/4, SEC 20

N39°43'27"E(M)
145.89'(M)

FND 5/8" IRC LB024
0.23' E OF SECTION LINE

S17°40'06"W(M)
335.92'(M)

FND 5/8" IRC LB6846

N LINE OF S 1084.00' OF SE 1/4 OF SE 1/4, SEC 19

L1

FND 5/8" IRC LB6846

426.61'(M)

FND 1" IP
NO ID

C 5

288.41'(D)
288.37'(M)

FND 5/8" IRC LB024

LIMITED ACCESS RIGHT OF WAY PARCEL 63-115
O.R.B. 5502, PG. 3054
O.R.B. 5461, PG. 4412

S00°10'24"W(D)
S00°13'48"W(M)

N00°13'48"E(M)

HEIDRICH PARCEL

C 1

COUNTY ROAD 437A
(OCOEE APOPKA ROAD)
60' RIGHT OF WAY

FND 5/8" IRC LB6846
0.19' W OF SECTION LINE

S.R. 429
(LIMITED ACCESS RIGHT OF WAY WIDTH VARIES)

C 4

S48°01'56"E(C)
S48°01'39"E(D)

N48°00'W(D)
N48°01'56"W(M)
538.21'(C)
538.21'(D)

FND 1" IP
NO ID

S01°12'56"E(M)
224.58'(M)

LEON PARCEL #1

ACCESS AND UTILITY EASEMENT
O.R.B. 6292, PG. 6011

N90°00'00"W(D)
S89°59'50"W(C)
730.14'(D)
729.96'(C)

P.O.B. LEON PARCEL #1

SET 5/8" IRC LB6771

E LINE OF SE 1/4 SEC 19
W LINE OF SW 1/4 SEC 20

SE CORNER PARCEL #1 NOT SET, FALLS IN LAKE

SET 5/8" IRC LB6771

C 2

E LINE OF SW 1/4 OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E
N00°20'50"E(C)
1315.43'(C)

E LINE OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E
N00°31'36"E(C)
N00°31'36"E(M)
2596.37'(C)
5246.72'(M)

LEON PARCEL #2

1147.93'(M)
S48°01'56"E(C)
S48°01'39"E(D)

SET 5/8" IRC LB6771

SECTION 19
TWP 21 S - RNG 28 E

SECTION 20
TWP 21 S - RNG 28 E

C 3

609.72'(C)
609.41'(D)

215.26'(M)
S18°57'04"W(M)

ACCESS EASEMENT
O.R.B. 6292, PG. 6004
(ALL OF PARCEL #2)

PERMANENT DRAINAGE EASEMENT
PARCEL 63-815
O.R.B. 5502, PG. 3054 & O.R.B. 5461, PG. 4412

C.C.R. No. 82638, 82047, 68347, 34495, 11155
FND 6"X6" CM W/ 3/4" IP NO ID (TOP BROKEN)

S LINE OF SE 1/4 OF SEC 19

S LINE OF SW 1/4 OF SW 1/4 SEC 20

N89°59'13"W(D)
N89°59'39"W(M)
2632.50'(M)
392.06'(D)
391.87'(M)

SW CORNER SEC 20

N88°07'42"E(M)
856.16'(M)
N88°07'19"E(M)

2624.45'(M)

C.C.R. No. 82642, 82050, 65665, 34833,17294, 11199
FND 1-1/2" IP IN PVMT CUT NO ID

SE CORNER OF SW 1/4, SEC 20
(S 1/4 CORNER)

FND 4"X4" CM (BROKEN)
NO ID
0.09' S OF SECTION LINE

S89°59'13"W(M)
BEARING REFERENCE

SW CORNER SE 1/4, SEC 19
(S 1/4 CORNER)

FND 5/8" IRC LB 024
0.12' N OF S LINE OF SE 1/4 SEC 19

FND 5/8" IR IN CONC. FLUME, NO ID
C.C.R. No. 82643, 82051, 65641

P.O.B. LIMITED ACCESS RIGHT OF WAY PARCEL 63-115

L4

FND 3/4" IP NO ID

ACCESS AND UTILITY EASEMENT
O.R.B. 6292, PG. 6011

DRY BROOK

N68°21'16"W(M)
N68°21'43"W(D)
361.52'(M)
361.46'(D)

S76°24'38"W(M)
S76°24'16"W(D)
258.68'(M)
258.68'(D)

FND 5/8" IRC LB6846

L3

L2

FND 5/8" IRC LB6846

S18°51'04"W(D)
S18°55'03"W(M)
219.57'(M)
219.48'(D)

FND 5/8" IRC LB6846

FND 3/4" IP NO ID

P.O.C. LEON PARCEL NUMBER 1
P.O.B. LEON PARCEL NUMBER 2
P.O.B. PERMANENT DRAINAGE EASEMENT PARCEL 63-815
P.O.C. LIMITED ACCESS RIGHT OF WAY PARCEL 63-115
P.O.B. LESS OUT (HEIDRICH PARCEL)

SECTION 30
TWP 21 S - RNG 28 E

SECTION 29
TWP 21 S - RNG 28 E

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	CH BRG
C 1	19°10'52"	1175.92'	393.66'	S08°11'43"W
C 2	20°22'18"	542.96'	193.05'	N08°40'08"E
C 3	9°18'13"(M) 9°18'24"(D)	2714.79'	440.82'(M) 440.97'(D)	N08°23'39"E(M) N08°24'59"E(D)
C 4	11°32'55"(M) 11°32'51"(D)	2714.79'	547.19'(M) 547.14'(D)	N18°51'36"E(M) N18°50'36"E(D)
C 5	3°04'34"(M) 3°04'45"(D)	2774.00'	148.93'(M) 149.08'(D)	N28°07'51"E(M) N28°11'21"E(D)

SYMBOL LEGEND

- PINE TREE
- OAK TREE
- RAIN TREE
- PALM TREE
- PECAN TREE
- CAMPHOR TREE
- MAGNOLIA TREE
- WELL
- WOOD POWER POLE
- GUY ANCHOR
- IRON ROD AND CAP
- CONCRETE MONUMENT
- IRON PIPE
- BENCHMARK
- WETLANDS DELINEATION FLAG

ABBREVIATIONS

CB	CONCRETE BLOCK
CONC	CONCRETE
(TYP)	TYPICAL
INV	INVERT
WLA	WETLAND LOCATION FLAG
EL	ELEVATION
OHW	OVERHEAD WIRE
TEL	BURIED TELEPHONE LINE
GAS	BURIED GAS LINE
RCP	REINFORCED CONCRETE PIPE
O.R.B.	OFFICIAL RECORD BOOK
PG.	PAGE
(C)	CALCULATED
(M)	FIELD MEASURED
(D)	PER LEGAL DESCRIPTION
C.C.R.	CERTIFIED CORNER RECORD
IRC	IRON ROD AND CAP
FND	FOUND
PVMT	PAVEMENT
SEC	SECTION
TWP	TOWNSHIP
RNG	RANGE
ID	IDENTIFICATION
CM	CONCRETE MONUMENT
IP	IRON PIPE
S.R.	STATE ROAD
C.R.	COUNTY ROAD
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
/W	WITH

CFCS
CENTRAL FLORIDA CONSULTING SURVEYORS
629 Maitland Avenue - Altamonte Springs, FL 32701
Tel: (407) 767-0166 Fax: (407) 767-8558
email: cfcs6771@cfl.rr.com
Certificate of Authorization No. LB6771

Land Use Plan

Date Issued: 07/12/2021

Latest Issue: 12/19/2023

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Contact: Jim Hall
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Apopka, Fl

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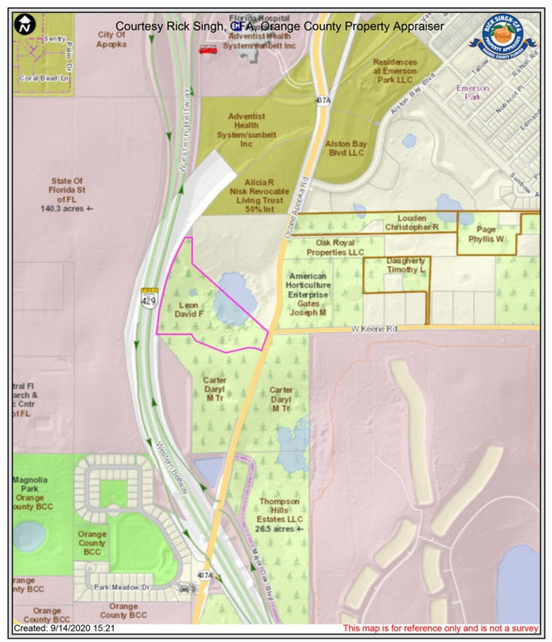

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HDSi

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Title:
AERIAL

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

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ISSUED	
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KEY PLAN

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2510 Ocoee Apopka Road
Orange County, Florida
Figure
Wetland Map

N

180
Feet

Project #: 1215-296
Produced By: LPM
Date: 8/26/2021

Wetlands

Legend

Subject Property

Wetlands

Notes:

Topography & Floodplain

Legend

Topography (5 ft.)

Subject Property

Fema Flood Zones

AE

X

Source:
Topography - SFWMD 5 ft.

Boundary - Orange County Property Appraiser

Floodplain - Fema Flood Hazard Zone Lines
Dated June 1, 2018

Soils Map

Legend

Subject Property

Map Unit Symbol - Map Unit Name

47 - Tavares-Millhopper fine sands, 0 to 5 percent slopes

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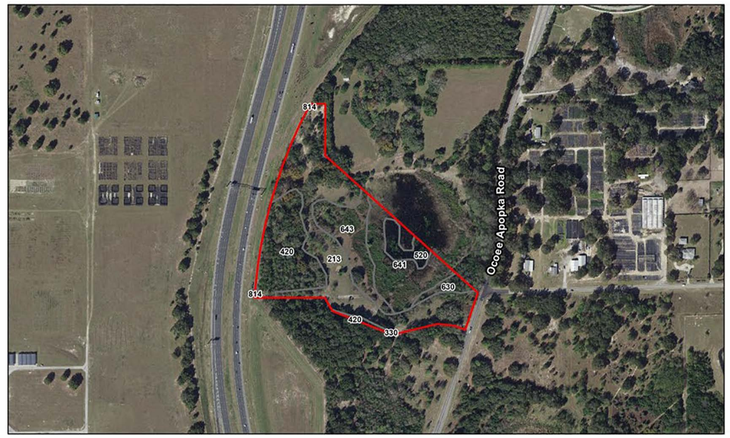
National Cooperative Soil Survey,
Issued August 1989



Aerial & Existing Land Use

Legend

Subject Property

Land Use Cover

213 - Woodland Pastures

330 - Mixed Upland Nonforested

420 - Upland Hardwood Forests

520 - Lakes

630 - Wetland Forested Mixed

641 - Freshwater Marshes

643 - Wet Prairies

814 - Roads and Highways

Source:
Aerial - FDOT - 2017 Orange County Orthophotos
FLUCFCS - Statewide Land Use Land Cover 2004-2017

HDSi

GeoOrbis

Title:
ENVIROMENTAL CONDITIONS

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

N

ISSUED

DATE: FOR:

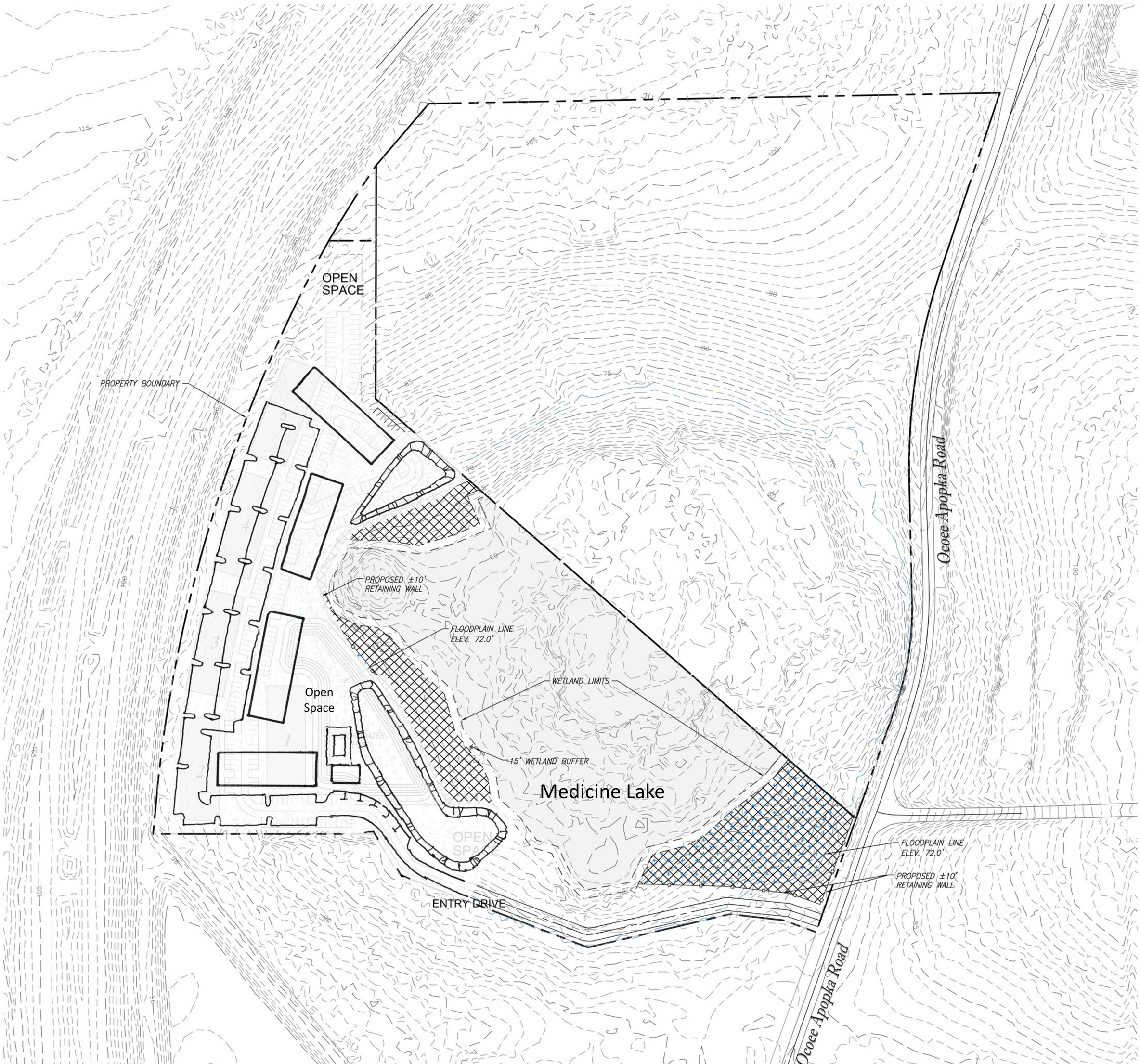
KEY PLAN

Aerial Photography Source: FDOT 2017

Path: G:\20021_Leon\MXD\SiteMap_Leon24x36L.mxd

SHEET NO.

04



Residential Units: 249

General Site Data		
Project Site Area	17.85 Ac	
Total Wetlands	±5.84 Ac	
Approx. Area Of Floodplain	±11.34 Ac	
Floodplain Impact (1)	±15,742 Cu. Yd.	2.32 Ac.
Compensating Storage	±15,765 Cu. Yd.	2.17 Ac.
Total Stormwater Provided	1.10 Ac	15%
Overall Buildable Area (2)	8.35 Ac	
Net Buildable Area (3)	7.25 Ac	
Buildings	4	
Parking Count (4)	300 Parking Stalls	

Notes:

1. Floodplain impacts doesn't include the access road.
2. Overall Buildable Area includes Access Driveway.
3. Net Buildable Area excludes 15% Stormwater Pond
4. Per Section 5.1.6.A Parking Space Standards, the minimum number of vehicular parking spaces for a multifamily use is 1/studio and 1 bedroom for residents; 1.35 for all other units for residents; 0.1/resident space for visitors.

Legend

- WETLAND
- COMPENSATING STORAGE
- FLOODPLAIN IMPACT
- FLOODPLAIN LINE (ELEV. 72.0')

Hall Development Services Inc.
1302 Osprey Avenue Orlando, FL 32803
Ph: (407) 257-9235
Planning, Real Estate, and Entitlement Strategies
www.halldsi.com

N

100' 0 100' 200'
SCALE IN FEET

December 12, 2023
P & B Job No.: 22-079

2602 E. Livingston St.
Orlando, Florida 32803- 407.487.2594
POULOS & BENNETT
www.poulosandbennett.com
Certificate of Authorization No. 28567

Exhibit 1

Z:\2022\22-079 LEON – MEDICINE LAKE\CAD\EXH & FIGS\CONCEPT PLAN

SITE DATUM

Gross acreage:	17.85
Net acreage:	12.07
Current Use on the Property:	Vacant
Current Future Land Use Designation:	RH
Requested Future Land Use Designation:	HDR-25
Current Zoning:	T
Requested Zoning:	PUD
Proposed Use & Development Program:	249 residential units

DEVELOPMENT PROGRAM

Land Use	ITE	Acres	Units	Trip Gen Rate	Trips
Apartments mid rise	221	12.07	249	4.64	1,115

ITE rate 221

Permitted land uses	Apartments
Prohibited uses	All other uses
Max Residential density	25 du/acre
Proposed Residential density	20.6 du/acre

SCHOOL AGE POPULATION

Land Use	Units	Elementary	Middle	High
Mid rise	249	34	16	19

Total School Children 69

DEVELOPMENT STANDARDS

Perimeter building setback	10’
Ocoee-Apopka Road building setback	18’
Beltway building setback	25’
Perimeter paving setback	7.5’

RESIDENTIAL STANDARDS

Min. living area	500 SF
Max. lot coverage	75%
Building separation	20’
Building Height	65’

Parking

Vehicle Parking	1/studio and 1 bedroom for residents; 1.35 for all other units for residents; 0.1/resident space for visitors; 20% of spaces over 100 spaces shall be pervious
Bicycle Parking	15 spaces
Landscaping	per 5.2.5. - Landscaping and Buffer Standards B.
Tree Protection	per Section 5.3. - Tree Protection Standards
Open Space	30%

ACCESS

Ocoee-Apopka Road will provide vehicle access.

SIGNAGE

Will comply with Section 5.10. - Signs of the LDC.
Billboards shall be prohibited

PHASING

One phase

STORMWATER

Will comply with City and Water Management District standards

SERVICE PROVIDERS

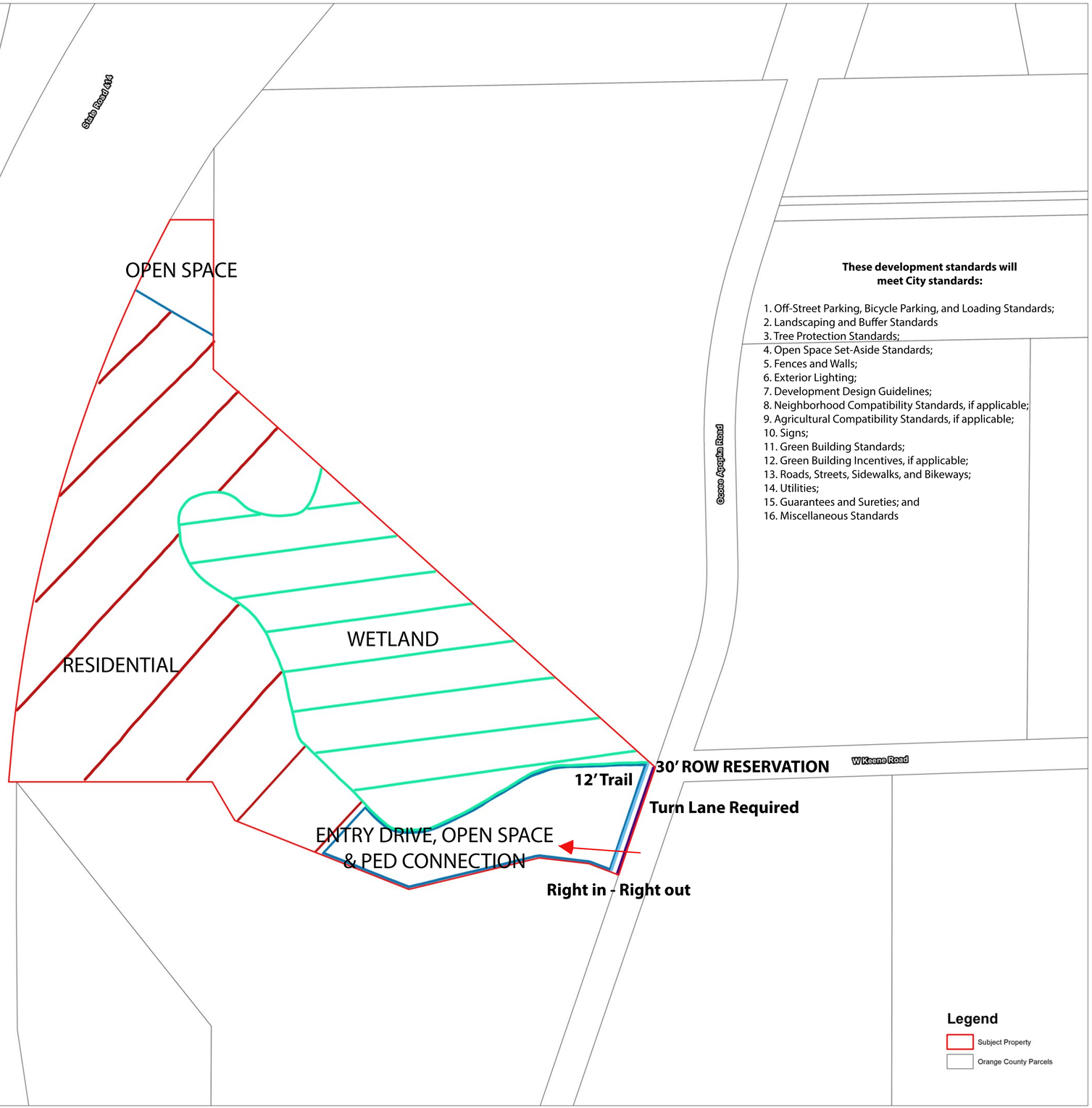
Water Service	Apopka
Wastewater	Apopka

NOTES

1. Ownership of storm water management facilities shall be determined at PDP.
2. Open space to be owned and maintained by the POA.

AMENITIES

Bicycle storage, Clubhouse, Pool, Outdoor grills



HDSi

GeoOrbis

Title:
LAND USE PLAN

Project:
LEON PROPERTY

Location:
APOPKA, FL

0 100 200 Feet

N

ISSUED
DATE: FOR:

KEY PLAN

Aerial Photography Source: FDOT 2017

Path: G:\20021_Leon\MXD\SiteMap_Leon24x36L.mxd

SHEET NO.
06

ALTA / ACSM LAND TITLE SURVEY

HEIDRICH AND LEON PARCELS

A PORTION OF SECTIONS 19, 20 AND 29, TOWNSHIP 21 SOUTH, RANGE 28 EAST

ORANGE COUNTY, FLORIDA

N

W E

S

GRAPHIC SCALE

100 0 50 100 200 400

1 INCH = 100 FEET

LINE TABLE		
LINE	LENGTH	BEARING
L1	84.15'(M) 84.04'(D)	N89°57'52"E(M) N89°59'13"E(D)
L2	61.20'(M) 61.23'(D)	N69°48'44"W(M) N69°52'09"W(D)
L3	96.64'(M) 96.67'(D)	N83°00'33"W(M) N83°01'06"W(D)
L4	86.19'(M) 86.32'(D)	N30°27'57"W(M) N30°33'34"W(D)

C.C.R. No. 82637, 82052, 65637, 34491, 11154
FND 6"X6" CM W/1" IP & NAIL IN CENTER, NO ID

(WEST 1/4 CORNER)
NW CORNER OF SW 1/4, SEC 20

N89°38'00"E(M)
N89°38'00"E(C)

N LINE OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E
2638.95'(C)

5324.24'(M)

C.C.R. No. 82640, 82048, 65639, 34490, 11202
FND 6"X6" CM W/1" IP
NO ID

(NORTH 1/4 CORNER)
NE CORNER OF NW 1/4, SEC 20

(CENTER OF SECTION)
NE CORNER OF SW 1/4, SEC 20

C.C.R. No. 82641, 82056, 65640, 34484, 1886
FND IRR SPIKE W/"X" CUT
NO ID

NE CORNER OF SE 1/4,
SEC 20, TWP 21 S, RNG 28 E
(EAST 1/4 CORNER)

P.O.C. LIMITED ACCESS RIGHT OF WAY
PARCEL 63-116

1332.69'(C)
1332.63'(D)
S00°10'20"W(M)
S00°10'31"W(D)

WEST LINE OF SW 1/4, SEC 20

P.O.B. LIMITED ACCESS RIGHT OF WAY
PARCEL 63-116

NORTH LINE OF SW 1/4 OF SW 1/4, SEC 20

NW CORNER OF SW 1/4
OF SW 1/4, SEC 20

N88°52'47"E(C)
N88°53'31"E(M)

1315.74'(C)
1009.70'(M)

NE CORNER OF SW 1/4
OF SW 1/4, SEC 20

FND 4"X4" CM (BROKEN)
NO ID
0.31' S OF N LINE, SW 1/4 OF SW 1/4, SEC 20

LIMITED ACCESS RIGHT OF WAY
PARCEL 63-116
O.R.B. 5846, PG. 3530

FND 5/8" IRC LB024
0.09' S OF N LINE OF SW 1/4 OF SW 1/4, SEC 20

N39°43'27"E(M)
145.89'(M)

FND 5/8" IRC LB024
0.23' E OF SECTION LINE

S17°40'06"W(M)
335.92'(M)

FND 5/8" IRC
LB6846

N LINE OF S 1084.00' OF SE 1/4 OF SE 1/4, SEC 19

L1

FND 5/8" IRC
LB6846

426.61'(M)

FND 1" IP
NO ID

C 5

288.41'(D)
288.37'(M)

FND 5/8" IRC
LB024

LIMITED ACCESS RIGHT OF WAY
PARCEL 63-115
O.R.B. 5502, PG. 3054
O.R.B. 5461, PG. 4412

S00°10'24"W(D)
S00°13'48"W(M)

N00°13'48"E(M)

HEIDRICH PARCEL

C 1

COUNTY ROAD 437A
(OCOEE APOPKA ROAD)
60' RIGHT OF WAY

S.R. 429
(LIMITED ACCESS RIGHT OF WAY
WIDTH VARIES)

C 4

FND 5/8" IRC
LB6846
0.19' W OF SECTION LINE

S48°01'56"E(C)
S48°01'39"E(D)

N48°00'W(D)
N48°01'56"W(M)
538.21'(C)
538.21'(D)

FND 1" IP
NO ID

LEON
PARCEL #1

ACCESS AND UTILITY EASEMENT
O.R.B. 6292, PG. 6011

S01°12'56"E(M)
224.58'(M)

N00°20'50"E(C)

E LINE OF SW 1/4 OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E
1315.43'(C)

N00°31'36"E(C)
N00°31'36"E(M)

E LINE OF SW 1/4, SEC 20, TWP 21 S, RNG 28 E
2596.37'(C)
5246.72'(M)

N90°00'00"W(D)
S89°59'50"W(C)

730.14'(D)
729.96'(C)

P.O.B. LEON PARCEL #1

SET 5/8" IRC
LB6771

E LINE OF SE 1/4 OF SW 1/4
W LINE OF SW 1/4 SEC 20

SE CORNER PARCEL #1
NOT SET, FALLS IN LAKE

SET 5/8" IRC
LB6771

C 2

LEON
PARCEL #2

S48°01'56"E(C)
S48°01'39"E(D)

1147.93'(M)

SET 5/8" IRC
LB6771

SECTION 19
TWP 21 S - RNG 28 E

SECTION 20
TWP 21 S - RNG 28 E

C 3

609.72'(C)
609.41'(D)

215.26'(M)
S18°51'04"W(M)

ACCESS EASEMENT
O.R.B. 6292, PG. 6004
(ALL OF PARCEL #2)

PERMANENT DRAINAGE EASEMENT
PARCEL 63-815
O.R.B. 5502, PG. 3054 & O.R.B. 5461, PG. 4412

C.C.R. No. 82638, 82047, 68347, 34495, 11155
FND 6"X6" CM W/ 3/4" IP
NO ID (TOP BROKEN)

S LINE OF SE 1/4 OF SEC 19

N89°59'13"W(D)
N89°59'39"W(M)

392.06'(D)
391.87'(M)

SW CORNER SEC 20

S LINE OF SW 1/4 OF SW 1/4 SEC 20

N88°07'42"E(M)
856.16'(M)
N88°07'19"E(M)

2624.45'(M)

C.C.R. No. 82642, 82050, 65665, 34833,17294, 11199
FND 1-1/2" IP IN PVMT CUT
NO ID

SW CORNER SE 1/4, SEC 19
(S 1/4 CORNER)

S89°59'13"W(M)
BEARING REFERENCE

FND 5/8" IRC
LB 024
0.12' N OF S LINE OF SE 1/4 SEC 19

2632.50'(M)

FND 5/8" IR in CONC.
FLUME, NO ID
C.C.R. No. 82643, 82051, 65641

FND 4"X4" CM (BROKEN)
NO ID
0.09' S OF SECTION LINE

SE CORNER OF SW 1/4, SEC 20
(S 1/4 CORNER)

P.O.B. LIMITED ACCESS RIGHT OF WAY
PARCEL 63-115

P.O.C. LEON PARCEL NUMBER 1
P.O.B. LEON PARCEL NUMBER 2
P.O.B. PERMANENT DRAINAGE EASEMENT
PARCEL 63-815
P.O.C. LIMITED ACCESS RIGHT OF WAY
PARCEL 63-115
P.O.B. LESS OUT (HEIDRICH PARCEL)

L4

FND 3/4" IP
NO ID

ACCESS AND UTILITY EASEMENT
O.R.B. 6292, PG. 6011

N68°21'16"W(M)
N68°21'43"W(D)

361.52'(M)
361.46'(D)

S76°24'38"W(M)
S76°24'16"W(D)

258.68'(M)
258.68'(D)

FND 5/8" IRC
LB6846

L3

FND 5/8" IRC
LB6846

L2

FND 5/8" IRC
LB6846

S18°51'04"W(D)
S18°55'03"W(M)

219.57'(M)
218.48'(D)

SECTION 30
TWP 21 S - RNG 28 E

SECTION 29
TWP 21 S - RNG 28 E

LAND AREA CALCULATIONS	
21.55524 ACRES	HEIDRICH PARCEL
4.99648 ACRES	LEON PARCEL #1
12.92630 ACRES	LEON PARCEL #2
39.47800 ACRES	TOTAL AREA

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	CH BRG
C 1	19°10'52"	1175.92'	393.66'	S08°11'43"W
C 2	20°22'18"	542.96'	193.05'	N08°40'08"E
C 3	9°18'13"(M) 9°18'24"(D)	2714.79'	440.82'(M) 440.97'(D)	N08°23'39"E(M) N08°24'59"E(D)
C 4	11°32'55"(M) 11°32'51"(D)	2714.79'	547.19'(M) 547.14'(D)	N18°51'36"E(M) N18°50'36"E(D)
C 5	3°04'34"(M) 3°04'45"(D)	2774.00'	148.93'(M) 149.08'(D)	N28°07'51"E(M) N28°11'21"E(D)

SYMBOL LEGEND

- PINE TREE
- OAK TREE
- RAIN TREE
- PALM TREE
- PECAN TREE
- CAMPHOR TREE
- MAGNOLIA TREE
- WELL
- WOOD POWER POLE
- GUY ANCHOR
- IRON ROD AND CAP
- CONCRETE MONUMENT
- IRON PIPE
- BENCHMARK
- WETLANDS DELINEATION FLAG

ABBREVIATIONS

CB	CONCRETE BLOCK
CONC	CONCRETE
(TYP)	TYPICAL
INV	INVERT
WLA	WETLAND LOCATION FLAG
EL	ELEVATION
OHW	OVERHEAD WIRE
TEL	BURIED TELEPHONE LINE
GAS	BURIED GAS LINE
RCP	REINFORCED CONCRETE PIPE
O.R.B.	OFFICIAL RECORD BOOK
PG.	PAGE
(C)	CALCULATED
(M)	FIELD MEASURED
(D)	PER LEGAL DESCRIPTION
C.C.R.	CERTIFIED CORNER RECORD
IRC	IRON ROD AND CAP
FND	FOUND
PVMT	PAVEMENT
SEC	SECTION
TWP	TOWNSHIP
RNG	RANGE
ID	IDENTIFICATION
CM	CONCRETE MONUMENT
IP	IRON PIPE
S.R.	STATE ROAD
C.R.	COUNTY ROAD
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
/W	WITH

CFCS
CENTRAL FLORIDA CONSULTING SURVEYORS
629 Maitland Avenue - Altamonte Springs, FL 32701
Tel: (407) 767-0166 Fax: (407) 767-8558
email: cfcs6771@cfl.rr.com
Certificate of Authorization No. LB6771

PARK VIEW PRESERVE PHASE 2

A REPLAT OF TRACT FD–1, PARK VIEW PRESERVE PHASE 1
RECORDED IN PLAT BOOK 109, PAGES 109 THROUGH 115
SECTION 24, TOWNSHIP 20 SOUTH, RANGE 27 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

LEGAL DESCRIPTION

TRACT FD–1, PARK VIEW PRESERVE PHASE 1, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 109, PAGES 109 THROUGH 115, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

THE ABOVE DESCRIBED TRACT OF LAND LIES IN THE CITY OF APOPKA, ORANGE COUNTY, FLORIDA AND CONTAINS 18.637 ACRES MORE OR LESS.

INDEX KEY

SHEET 1 .....COVER SHEET
SHEET 2.....DETAIL SHEET NORTH SIDE
SHEET 3.....DETAIL SHEET SOUTH SIDE

SURVEYOR'S NOTES:

(1) BEARINGS SHOWN HEREON ARE RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM 1983 EAST ZONE. THE MONUMENTED CENTERLINE OF KINGS CANYON DRIVE, AS RECORDED IN PLAT BOOK 109, PAGES 109 THROUGH 115, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. BEING SOUTH 00°17'49" EAST.

(2) –■– DENOTES A PERMANENT REFERENCE MONUMENT (P.R.M.) A SET 4" X 4" CONCRETE MONUMENT STAMPED PRM. L.S. # 4044, UNLESS OTHERWISE NOTED.

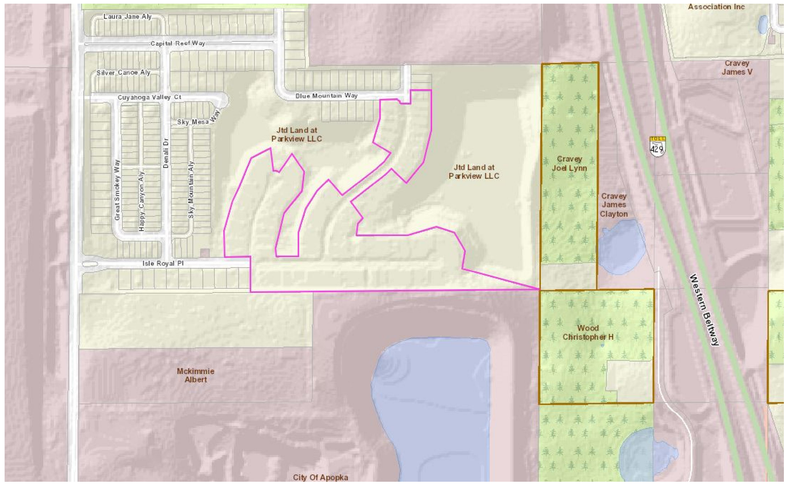
(3) –◉– DENOTES A PERMANENT CONTROL POINT (P.C.P.) A SET NAIL AND DISK STAMPED PCP L.S. # 4044.

(4) ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES.

(5) ALL LOT LINES ARE RADIAL, UNLESS OTHERWISE NOTED NON–RADIAL (N.R.).

(6) TRACT A (OPEN SPACE AREA) CONSTITUTES COMMON PROPERTY AS DEFINED IN THE COMMUNITY DECLARATION RECORDED SEPTEMBER 14, 2022 IN OFFICIAL RECORDS INSTRUMENT NO. 20220563423 AND 20220563424, AND RE–RECORDED SEPTEMBER 14, 2023 IN OFFICIAL RECORDS INSTRUMENT NO. 20220563904, AND ARE OWNED AND MAINTAINED BY THE PARK VIEW PRESERVE HOMEOWNER'S ASSOCIATION, INC. ("ASSOCIATION").

(7) TRACT RD–1 (RIGHT–OF–WAY) IDENTIFIED AS KINGS CANYON DRIVE, VOYAGEURS COURT, AND ISLE ROYALE PLACE, SHALL BE OWNED AND MAINTAINED BY THE CITY OF APOPKA.



NORTH

VICINITY MAP
NOT TO SCALE

LEGEND

P.O.C.	–	POINT OF COMMENCEMENT
P.O.B.	–	POINT OF BEGINNING
O.R.B.	–	OFFICIAL RECORDS BOOK
PG.(S)	–	PAGE(S)
ID.	–	IDENTIFICATION
C.C.R.	–	CERTIFIED CORNER RECORD
R/W	–	RIGHT–OF–WAY
LS.	–	LICENSED SURVEYOR
LB.	–	LICENSED BUSINESS
P.R.M.	–	PERMANENT REFERENCE MONUMENT
C.M.	–	CONCRETE MONUMENT
U.E.	–	UTILITY EASEMENT
P.C.	–	POINT OF CURVATURE
P.T.	–	POINT OF TANGENCY
P.B.	–	PLAT BOOK
(N.R.)	–	NON–RADIAL
P.I.	–	POINT OF INTERSECTION

NOTICE:
THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT.

THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

PEC | SURVEYING AND MAPPING, LLC
CERTIFICATE OF AUTHORIZATION NUMBER LB 7808
2100 Alafaya Trail, Suite 203 • Oviedo, Florida 32765 • 407–542–4967

PLAT BOOK ____ PAGE ____

PARK VIEW PRESERVE PHASE 2

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, that JTD Land at Parkview, LLC, a Florida limited liability company, being the owner in fee simple of all the lands described in the forgoing caption to this plat, hereby dedicates and conveys said land and plat for the uses and purposes therein expressed and dedicates an access easement over Tract RD–1 a/k/a Kings Canyon Drive, Voyageurs Court, and Isle Royale Place, utility easements and drainage easements shown herein to the perpetual use of the public.

Tract RD–1, a/k/a Kings Canyon Drive, Voyageurs Court, and Isle Royale Place, are hereby dedicated in fee simple to the City of Apopka without any restriction whatsoever. City ownership of the tracts and rights–of–way and any improvements thereon vests upon approval of this Plat by the City Council of the City of Apopka.

Recording of this Plat shall act as conveyance to the County and no further instrument shall be necessary to vest fee simple title in the County as aforementioned.

IN WITNESS WHEREOF, JTD LAND AT PARKVIEW, LLC, a Florida limited liability company, has caused this Dedication to be executed in its name by the below–named officer thereunto duly authorized this _____ day of _____, 2024.

Signed, sealed and delivered in the presence of the following two witnesses:

JTD LAND AT PARKVIEW, LLC
a Florida limited liability company

_____ By: _____
Print Name: _____ Craig Harris
(Witness) Manager

_____
Print Name: _____
(Witness)

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me, by means of [ ] physical presence or [ ] online notarization, this _____ day of _____, 2024, by Craig Harris, as Manager of JTD LAND AT PARKVIEW, LLC, a Florida limited liability company, such person [ ] is personally known to me or [ ] has produced _____ as identification.

_____
Signature of person taking acknowledgement

Print Name: _____

Notary Public – State of Florida

Commission No.: _____

My Commission Expires: _____

CERTIFICATE OF SURVEYOR AND MAPPER

KNOWN ALL MEN BY THESE PRESENTS, that the undersigned, being a licensed and registered surveyor and mapper, does hereby certify that on _____ a survey of the lands shown in the foregoing plat was completed; that said plat is a true and correct representation of the lands surveyed, that the plat was prepared under my responsible direction and supervision, and that this plat complies with all the survey requirements of Chapter 177 and Chapter 95.361, Florida Statutes.

Date _____

LS 4044 _____ Surveyor's Signature
Surveyor's Registration Number

LB 7808 _____ David A. White
Certificate of Authorization Number Surveyor's Name (printed)

PEC – Surveying and Mapping, LLC
2100 Alafaya Trail, Suite 203, Oviedo, Florida, 32765

CERTIFICATE OF APPROVAL BY REVIEWING SURVEYOR

Pursuant to Section 177.081, Florida Statutes, I have reviewed this plat for compliance with the technical requirements of that chapter; provided however, that my review does not include field verification of any of the coordinates, points or measurements shown on this plat.

Signed: _____ _____
Printed name: Date
Registration Number

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

THIS IS TO CERTIFY, that on _____, 2024 the undersigned approved the foregoing plat.

BY: _____
Chairman

CERTIFICATE OF APPROVAL BY THE MAYOR

THIS IS TO CERTIFY, that on _____, 2024 the undersigned approved the foregoing plat.

BY: _____
Bryan Nelson, Mayor of the City of Apopka

Attest: _____
Linda F. Goff, City Clerk

CERTIFICATE OF APPROVAL BY CITY ENGINEER

THIS IS TO CERTIFY, that on _____, 2024 the undersigned approved the foregoing plat.

BY: _____
Richard W. Earp, City Engineer

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, that the foregoing plat was recorded in the Orange County Official Records on _____

Comptroller in and for Orange County, Florida Document No._____

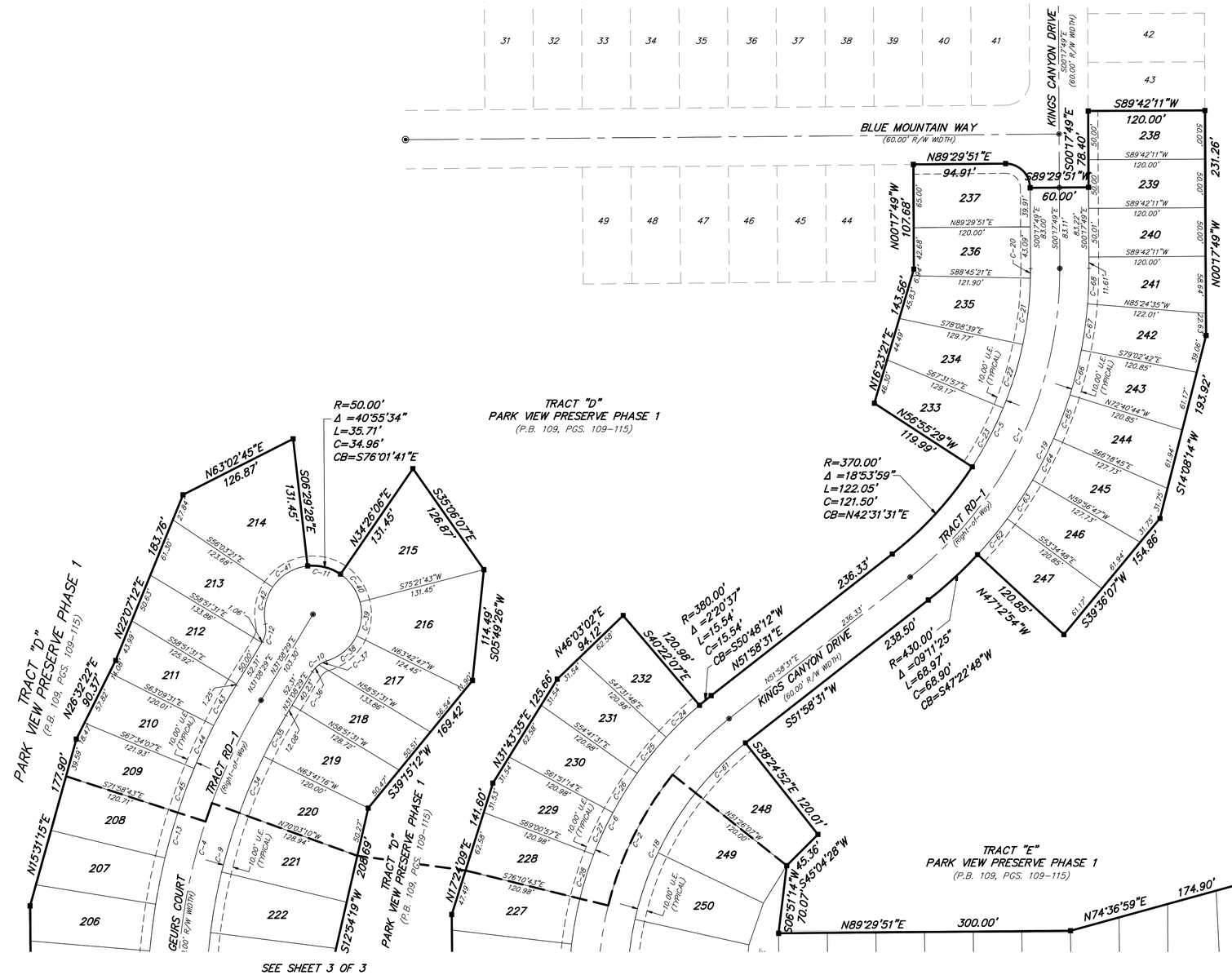
BY: _____

C:\23–101 JTD Parkview Phase 2\23–101 PARKVIEW PH 2 PLAT.dwg Dec 07, 2023 – 3:49pm

PLAT BOOK PAGE

PARK VIEW PRESERVE PHASE 2

A REPLAT OF TRACT FD–1, PARK VIEW PRESERVE PHASE 1
RECORDED IN PLAT BOOK 109, PAGES 109 THROUGH 115
SECTION 24, TOWNSHIP 20 SOUTH, RANGE 27 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



CURVE TABLE					
CURVE	RADIUS	DELTA	LENGTH	CHORD	CH. BEARING
C–1	400.00'	52°16'20"	364.93'	352.40'	S25°50'21"W
C–2	350.00'	52°28'40"	320.57'	309.48'	S25°44'11"W
C–4	600.00'	31°38'38"	331.37'	327.18'	N15°19'10"E
C–5	370.00'	52°16'20"	337.56'	325.97'	S25°50'21"W
C–6	380.00'	52°28'40"	348.05'	336.01'	S25°44'11"W
C–9	570.00'	31°38'38"	314.81'	310.82'	N15°19'10"E
C–10	25.00'	42°50'00"	18.69'	18.26'	N52°33'29"E
C–11	50.00'	265°40'01"	231.84'	73.33'	N58°51'31"W
C–12	25.00'	42°50'00"	18.69'	18.26'	S09°43'29"W
C–13	630.00'	31°38'38"	347.94'	343.54'	S15°19'10"W
C–18	320.00'	52°05'24"	290.93'	281.01'	N25°32'33"E
C–19	430.00'	52°16'20"	392.30'	378.83'	N25°50'21"E
C–20	370.00'	01°32'28"	9.95'	9.95'	S00°28'25"W
C–21	370.00'	10°36'42"	68.53'	68.43'	S06°33'00"W
C–22	370.00'	10°36'42"	68.53'	68.43'	S17°09'42"W
C–23	370.00'	10°36'35"	68.51'	68.42'	S27°46'21"W
C–24	380.00'	07°09'44"	47.50'	47.47'	S46°03'04"W
C–25	380.00'	07°09'43"	47.50'	47.47'	S38°53'21"W
C–26	380.00'	07°09'43"	47.50'	47.47'	S31°43'38"W
C–27	380.00'	07°09'43"	47.50'	47.47'	S24°33'55"W
C–28	380.00'	07°09'43"	47.50'	47.47'	S17°24'12"W
C–34	570.00'	06°21'55"	63.32'	63.29'	N23°07'47"E
C–35	570.00'	04°49'45"	48.04'	48.03'	N28°43'37"E
C–36	25.00'	23°00'57"	10.04'	9.98'	N42°38'58"E
C–37	25.00'	19°49'04"	8.65'	8.60'	N64°03'58"E
C–38	50.00'	47°41'17"	41.62'	40.42'	N50°07'51"E
C–39	50.00'	40°55'30"	35.71'	34.96'	N05°49'28"E
C–40	50.00'	40°55'20"	35.71'	34.96'	N35°05'57"W
C–41	50.00'	49°34'04"	43.26'	41.92'	S58°43'41"W
C–42	50.00'	45°38'11"	39.83'	38.78'	S11°07'34"W
C–43	630.00'	04°18'01"	47.28'	47.27'	S28°59'29"W
C–44	630.00'	04°24'36"	48.49'	48.48'	S24°38'11"W
C–45	630.00'	04°24'36"	48.49'	48.48'	S20°13'35"W
C–61	320.00'	13°01'20"	72.73'	72.57'	N45°04'35"E
C–62	430.00'	06°22'00"	47.78'	47.76'	N39°36'12"E
C–63	430.00'	06°21'59"	47.78'	47.75'	N33°14'13"E
C–64	430.00'	06°21'59"	47.78'	47.75'	N26°52'14"E
C–65	430.00'	06°21'59"	47.78'	47.75'	N20°30'16"E
C–66	430.00'	06°21'59"	47.78'	47.75'	N14°08'17"E
C–67	430.00'	06°21'53"	47.77'	47.74'	N07°46'21"E
C–68	430.00'	04°53'14"	36.68'	36.67'	N02°08'48"E

SEE SHEET 3 OF 3

NOTICE:
THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT.

THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

INDEX KEY

SHEET 1 .....COVER SHEET
SHEET 2.....DETAIL SHEET NORTH SIDE
SHEET 3.....DETAIL SHEET SOUTH SIDE

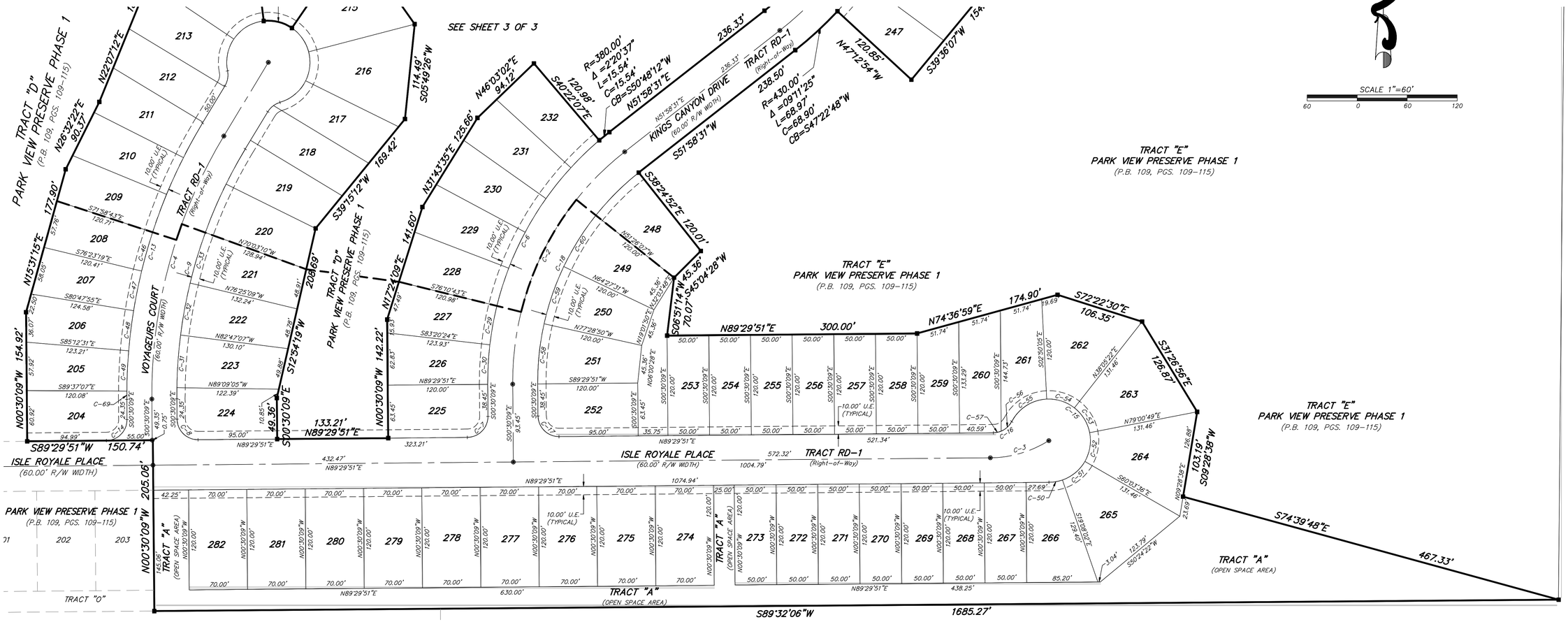
PEC | SURVEYING AND MAPPING, LLC
CERTIFICATE OF AUTHORIZATION NUMBER LB 7808
2100 Alafaya Trail, Suite 203 • Oviedo, Florida 32765 • 407–542–4967

Q:\23-101 JTD Parkview Phase 2\23-101 PARKVIEW PH 2 PLAT.dwg Dec 07, 2023 – 3:50pm

PLAT BOOK PAGE

PARK VIEW PRESERVE PHASE 2

A REPLAT OF TRACT FD–1, PARK VIEW PRESERVE PHASE 1
RECORDED IN PLAT BOOK 109, PAGES 109 THROUGH 115
SECTION 24, TOWNSHIP 20 SOUTH, RANGE 27 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



INDEX KEY

SHEET 1 .....COVER SHEET
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THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

CURVE TABLE

CURVE	RADIUS	DELTA	LENGTH	CHORD	CH. BEARING
C–2	350.00'	52°28'40"	320.57'	309.48'	S25°44'11"W
C–3	133.72'	31°44'26"	74.08'	73.14'	N73°37'38"E
C–4	600.00'	31°38'38"	331.37'	327.18'	N15°19'10"E
C–6	380.00'	52°28'40"	348.05'	336.01'	S25°44'11"W
C–7	25.00'	90°00'00"	39.27'	35.36'	S44°29'51"W
C–8	25.00'	90°00'00"	39.27'	35.36'	N45°30'09"W
C–9	570.00'	31°38'38"	314.81'	310.82'	N15°19'10"E
C–13	630.00'	31°38'38"	347.94'	343.54'	S15°19'10"W
C–14	25.00'	90°00'00"	39.27'	35.36'	S44°29'51"W
C–15	50.00'	242°24'49"	211.55'	85.53'	N31°28'38"W
C–16	25.00'	62°10'53"	27.13'	25.82'	S58°24'24"W
C–17	25.00'	90°00'00"	39.27'	35.36'	N45°30'09"W
C–18	320.00'	52°05'24"	290.93'	281.01'	N25°32'33"E
C–29	380.00'	07°09'44"	47.50'	47.47'	S10°14'28"W
C–30	380.00'	07°09'45"	47.50'	47.47'	S03°04'44"W
C–31	570.00'	06°21'58"	63.33'	63.30'	N04°01'54"E
C–32	570.00'	06°21'58"	63.33'	63.30'	N10°23'52"E
C–33	570.00'	06°21'58"	63.33'	63.30'	N16°45'50"E
C–46	630.00'	04°24'36"	48.49'	48.48'	S15°48'59"W
C–47	630.00'	04°24'36"	48.49'	48.48'	S11°24'23"W
C–48	630.00'	04°24'36"	48.49'	48.48'	S06°59'47"W
C–49	630.00'	04°24'36"	48.49'	48.48'	S02°35'11"W
C–50	50.00'	18°51'49"	16.46'	16.39'	N80°17'52"E
C–51	50.00'	40°55'34"	35.71'	34.96'	N50°24'11"E
C–52	50.00'	40°55'35"	35.72'	34.96'	N09°28'37"E
C–53	50.00'	40°55'27"	35.71'	34.96'	N31°26'54"W
C–54	50.00'	40°55'28"	35.71'	34.96'	N72°22'21"W
C–55	50.00'	59°50'57"	52.23'	49.89'	S57°14'26"W
C–56	25.00'	40°03'38"	17.48'	17.13'	S47°20'46"W
C–57	25.00'	22°07'16"	9.65'	9.59'	S78°26'13"W
C–58	320.00'	13°01'22"	72.73'	72.58'	N06°00'32"E
C–59	320.00'	13°01'19"	72.73'	72.57'	N19°01'53"E
C–60	320.00'	13°01'23"	72.73'	72.58'	N32°03'14"E
C–69	630.00'	00°53'02"	9.72'	9.72'	S00°03'38"E

PEC | SURVEYING AND MAPPING, LLC
CERTIFICATE OF AUTHORIZATION NUMBER LB 7808
2100 Alafaya Trail, Suite 203 • Oviedo, Florida 32765 • 407–542–4967

G:\23-101 JTD Parkview Phase 2\23-101 PARKVIEW PH 2 PLAT.dwg Dec 07, 2023 - 3:52pm

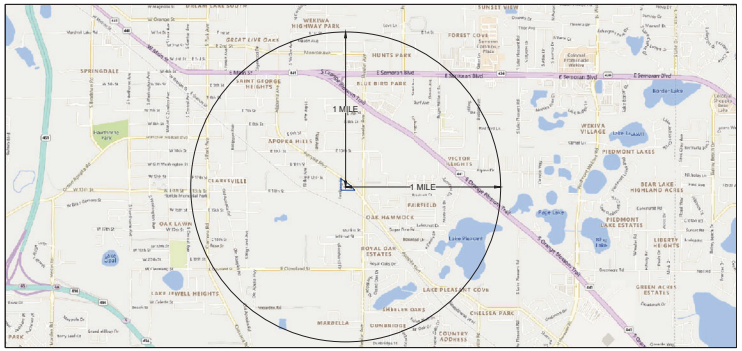
SITE CONSTRUCTION PLANS

FOR

TRINITY CONSTRUCTION

(875 E 13TH ST, APOPKA, FL 32703)

PARCEL ID#:15-21-28-0000-00-095, 15-21-28-0000-00-096



LOCATION MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" = 2000'

OWNER / APPLICANT

ADAMS BROTHERS CONSTRUCTION CO., INC.
806 EAST 13TH STREET
APOPKA, FL 32703
407-886-3455
ANTHONY W. ADAMS, PRESIDENT / DIRECTOR
1442 ATLANTIS DRIVE
APOPKA, FL 32703

CIVIL ENGINEER

CIVIL ENGINEERING SOLUTIONS, INC.
322 NORTH ROCKINGHAM AVE.
TAVARES, FL 32778
352.742.5011 FAX: 352.742.5044
DAVID CLUTTS, P.E., PRESIDENT

LANDSCAPE ARCHITECT

L.R. HUFFSTETLER, INC.
36955 LAKE YALE DRIVE
GRAND ISLAND, FL 32735
352.516.5254

ARCHITECT

BEYOND 2 DIMESIONS, INC.
JOHN. D. YOUNGMAN (AR 9601)
421 EAST SR. 434, SUITE 1015
LONGWOOD, FLORIDA 32750
407.497.0090

GENERAL NOTES:

1. PARCEL INFORMATION
   - 1.1. ALTERNATE KEY: 15-21-28-0000-00-095, 15-21-28-0000-00-096
   - 1.2. SITE AREA: 103,421-SF (2.37-AC)
   - 1.3. FLUCCS VEGETATIVE COVER: MEDIUM DENSITY, 2>5 DWELLING UNITS/ACRE (1200)
2. ZONING:
   - 2.1. EXISTING ZONING [I-L]-LIGHT INDUSTRIAL (CITY OF APOPKA)
   - 2.2. EXISTING FUTURE LAND USE: (IND) - INDUSTRIAL (CITY OF APOPKA)
4. BUILDING INFORMATION:
   - 4.1. AREA: 20,500-SF
   - 4.2. FFE: 104.50'
5. LAND PLANNING REQUIREMENTS:
   - 5.1. FLOOR AREA RATIO:
     - 5.1.2. MAX ALLOWABLE F.A.R.: 0.4 (41,368-SF)
     - 5.1.3. SHOWN: F.A.R. 0.20 (20,500-SF)
   - 5.2. BUILDING SETBACKS:
     - 5.2.1. FRONT (SOUTH): 10'
     - 5.2.2. FRONT (NORTHEAST): 10'
     - 5.2.3. SIDE (WEST): 30'
   - 5.3. LANDSCAPE BUFFERS:
     - 5.2.1. FRONT (SOUTH): 15'
     - 5.2.2. FRONT (NORTHEAST): 15'
     - 5.2.3. SIDE (WEST): 15'
   - 5.3. IMPERVIOUSNESS:
     - 5.3.1. SHOWN: 1.40-AC (59.1%)
6. UTILITIES:
   - 6.1. WATER: CITY OF APOPKA
   - 6.2. SEWER: CITY OF APOPKA
7. LIGHTING & PHOTOMETRIC PROVIDED BY OTHERS
8. FEMA FLOOD MAP:
   - 8.1. SITE DOES NOT LAY WITHIN FLOOD ZONE (FEMA MAP PANEL: 12095C0390E, DATE: 9/25/2009)
9. SITE SOILS INCLUDE:
   - 9.1. 7 - CANDLER-URBAN COMPLEX, 0 TO 5 PERCENT (HYD. GROUP 'A')
   - 9.2. 8 - CANDLER-URBAN COMPLEX, 5 TO 12 PERCENT (HYD. GROUP 'A')
10. SURVEY
    - PROVIDED BY: H&H SURVEY CONSULTANTS.
11. DATUM:
    - 11.1.VERTICAL: NAVD88
    - 11.2.HORIZONTAL: NAD83
12. PERPETUATE EXISTING MONUMENTATION

PROPERTY DESCRIPTION

PARCEL ID: 15-21-28-0000-00-096
THAT PART OF SE1/4 OF SE1/4 OF NE1/4 LYING S & W OF OLD APOPKA RD (LESS R/W ON S) IN SEC 15-21-28

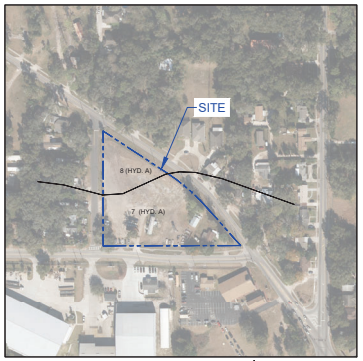
PARCEL ID: 15-21-28-0000-00-095
E 110 FT OF W1/2 OF SE1/4 OF NE1/4 LYING S OF PAVED RD (LESS W 20 FT THEREOF FOR R/W) & (LESS S 30 FT THEREOF TAKEN FOR R/W PER OR 5305/1061) IN SEC 15-21-28

CIVIL ENGINEER'S TABLE OF SHEETS

C0.00- COVER
C1.00 - EXISTING CONDITIONS
C2.00 - TREE REMOVAL & PROTECTION PLAN
C3.00 - STORMWATER POLLUTION PREVENTION PLAN
C4.00 - SITE PLAN
C5.00 - PAVING, GRADING & DRAINAGE PLAN
C5.10 - CROSS SECTIONS & DETAILS
C6.00 - UTILITY PLAN
C6.10 - LIFT STATION DETAIL
C7.00 - GENERAL NOTES
C7.10 - GENERAL DETAILS
C7.20- STORMWATER AND UTILITY DETAILS
C7.30 - UTILITY DETAILS
C8.00 - FIRE ACCESS INFORMATION SHEET

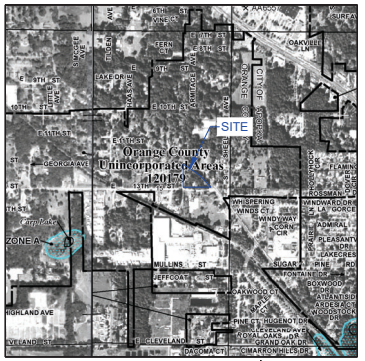
AERIAL MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" = 2000'

QUAD MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" = 2000'



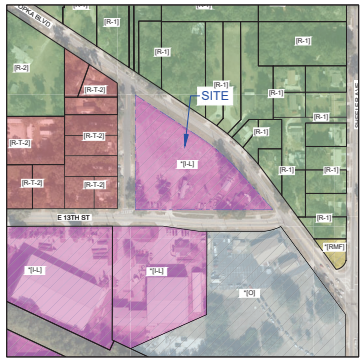
SOILS LEGEND:
7 - CANDLER-URBAN COMPLEX, 0 TO 5 PERCENT SLOPES (HYD. A)
8 - CANDLER-URBAN COMPLEX, 5 TO 12 PERCENT SLOPES (HYD. A)

SOILS MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" =200'



FIRM MAP:
12095C0140F
DATED: SEPTEMBER 25,2009

FEMA MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" =1000'



ZONING AND FUTURE LAND USE MAP
SEC 15 - TWP 21S - RNG 28E
SCALE: 1" = 200'

CITY OF APOPKA ZONING LEGEND
[I-L] LIGHT INDUSTRIAL
[O] - OFFICE
[R-1] - RESIDENTIAL SINGLE-FAMILY LARGE LOT
[C-C] COMMUNITY COMMERCIAL
[RMF] RESIDENTIAL MULTI-FAMILY
* DESIGNATES CITY OF APOPKA

ORANGE COUNTY ZONING LEGEND
[C-3] COMMERCIAL
[R-1] - SINGLE FAMILY RESIDENTIAL DISTRICT
[R-T-2] - COMBINATION MOBILE HOME/SINGLE

[R-2] RESIDENTIAL DISTRICT

FAMILY RESIDENTIAL DISTRICT

CITY OF APOPKA FUTURE LAND USE LEGEND
[IND] - INDUSTRIAL
[UNST-PU] - INSTITUTION-PUBLIC USE
[COMM] - COMMERCIAL
[RL] RESIDENTIAL LOW

ORANGE COUNTY FUTURE LAND USE LEGEND
[IND] INDUSTRIAL
[LDR] - LOW DENSITY RESIDENTIAL
[MDR] - MEDIUM DENSITY RESIDENTIAL

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
322 North Rockingham Ave, Tavares, FL 32778
Phone 352.742.5011 Fax: 352.742.5044
Certificate of Authorization #29585
David A Clutts, P.E. - FL Lic. # 47684
Date:

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTTS LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY
David Clutts
2024.01.25 on 16:58:53 -05'00'

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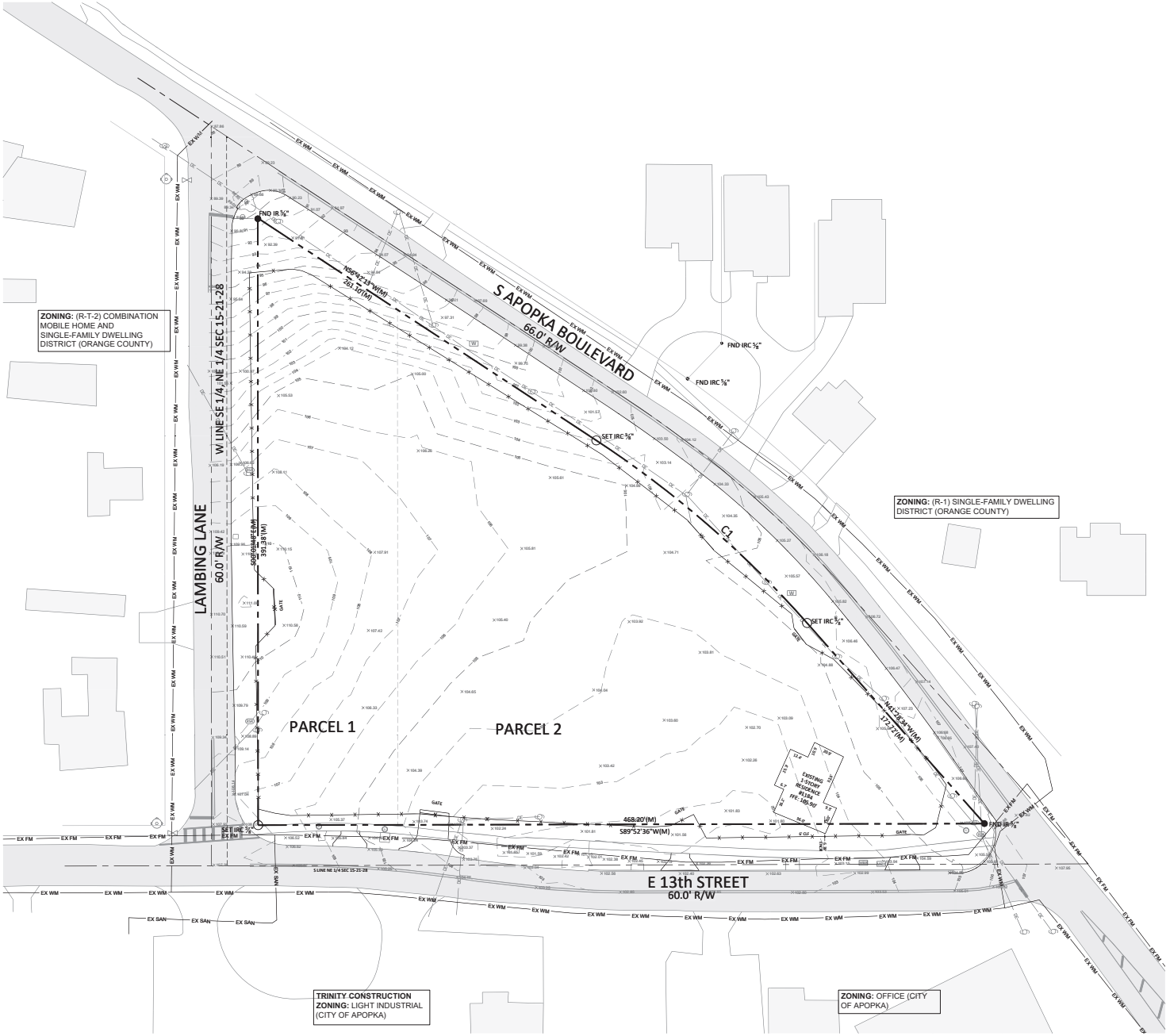
CIVIL ENGINEERING SOLUTIONS, INC
322 NORTH ROCKINGHAM AVE.
TAVARES, FLORIDA 32778
TEL. (352) 742-5011
CERT. OF AUTH #29585

DRAWN BY: WG
CHECKED BY: DC
FILE NUMBER: 23117-01
ISSUE DATE: 01/25/2024
SHEET SIZE 24 X 36

COVER

SHEET NUMBER
C0.00



SCALE: 1"= 30'

SCALE IN FEET

PROPERTY DESCRIPTION

PARCEL ID: 15-21-28-0000-00-096
THAT PART OF SE1/4 OF SE1/4 OF NE1/4 LYING S & W OF OLD APOPKA RD (LESS R/W ON S) IN SEC 15-21-28

PARCEL ID: 15-21-28-0000-00-095
E 110 FT OF W1/2 OF SE1/4 OF NE1/4 LYING S OF PAVED RD (LESS W 20 FT THEREOF FOR R/W) & (LESS S 30 FT THEREOF TAKEN FOR R/W PER OR 5305/1061) IN SEC 15-21-28

SURVEYOR'S NOTES

ADDITIONS, MODIFICATIONS, OR DELETIONS TO THIS SURVEY IS PROHIBITED WITHOUT WRITTEN CONSENT BY THE SIGNING SURVEYOR.

PROPERTY LINES SHOULD NOT BE RE-ESTABLISHED BY NOTED FENCE OR BUILDING TIES.

NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS WERE LOCATED, INCLUDING BUT NOT LIMITED TO BURIED UTILITIES, FOUNDATIONS, AND FOOTERS.

NO INSTRUMENTS OF RECORD REFLECTING OWNERSHIP OR ENCUMBRANCES WERE PROVIDED, EXCEPT AS NOTED, NOR DID THE SURVEYOR ABSTRACT THESE LANDS.

LEGEND & SYMBOLS

PSM	= PROFESSIONAL SURVEYOR & MAPPER		= BENCHMARK
LB	= LICENSED BUSINESS		
LS	= LICENSED SURVEYOR	× 00.00	= ROAD GRADE
FND	= FOUND		
SET	= SET "LB 8291"		
IR[C]	= IRON ROD [& CAP]		
NL[D]	= NAIL [& DISK]	× 00.0	= GROUND GRADE
CM	= CONCRETE MONUMENT		
TYP	= TYPICAL		
FFE	= FINISHED FLOOR ELEVATION		
BFE	= BASE FLOOD ELEVATION	SS	= SANITARY MANHOLE
BSL	= BUILDING SETBACK LINE		
BM	= BENCHMARK	W	= WELL
PP	= POWER POLE		
CONC	= CONCRETE	WM	= WATER METER
SW	= SIDEWALK		
EP	= EDGE OF PAVEMENT		
CMP	= CORRUGATED METAL PIPE	E	= ELECTRIC METER
INV	= INVERT		
R/W	= RIGHT-OF-WAY		
A/C	= AIR CONDITIONER		
D.E.	= DRAINAGE EASEMENT		= CLEANOUT
U.E.	= UTILITY EASEMENT		
WBF	= WOOD BOARD FENCE		
CLF	= CHAIN LINKED FENCE		= ELECTRICAL RISER
WVF	= WHITE VINYL FENCE		
HWF	= HOG WIRE FENCE		= TELEPHONE RISER
BWF	= BARBED WIRE FENCE		
(P)	= PLAT (M) = MEASURED (C)=CALCED		= CABLE RISER
			= POWER POLE
			= VALVE
			= IR[C] FOUND
			= 5/8" IRC SET
			= NL[D] FOUND
			= NLD SET
			= CM FOUND
			= CM SET

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
322 North Rockingham Ave. Tavares, FL 32778
Phone 352.742.2011 Fax: 352.742.2044
Certificate of Authorization #29983
Board of Florida Certificate of Authorization #29983
David Cluts, P.E. - In Charge
Date:

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTS
LICENSE
No. 47684
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON

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322 NORTH ROCKINGHAM AVE.
TAVARES, FLORIDA 32778
TEL: (352) 742-2011
CERT. OF AUTH #29983

DRAWN BY: WG
CHECKED BY: DC
FILE NUMBER: 23117-01
ISSUE DATE: 01/25/2024
SHEET SIZE 24 X 36

EXISTING CONDITIONS

SHEET NUMBER
C1.00

GENERAL NOTES:

(AN FDEP, NPDES, GENERAL PERMIT IS REQUIRED FOR SMALL ACTIVITIES - GREATER THAN 1 ACRE AND LESS THAN 5 ACRES, AND FOR LARGE ACTIVITIES - GREATER THAN 5 ACRES.)

1. A COPY OF THE NOTICE OF INTENT (NOI) OR LETTER FROM THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) CONFIRMING COVERAGE UN DER THIS GENERIC PERMIT SHALL BE POSTED AT THE CONSTRUCTION SITE IN A PROMINENT PLACE FOR PUBLIC VIEWING (SUCH AS ALONGSIDE A B UILDING PERMIT).
2. THE DISCHARGE OF HAZARDOUS SUBSTANCES OR OIL IN THE STORMWATER DISCHARGE(S) FROM A FACILITY OR ACTIVITY SHALL BE PREVENTED OR MINIMIZED IN ACCORDANCE WITH THE APPLICABLE STORMWATER POLLUTION PREVENTION PLAN FOR THE FACILITY OR ACTIVITY.
3. THE PERMITTEE SHALL PROVIDE FOR COMPLIANCE WITH THE TERMS AND SCHEDULE OF THIS PLAN BEGINNING WITH THE INITIATION OF CONSTR UCTION ACTIVITIES.
4. PERMITTEE SHALL ADHERE TO THE STATE OF FLORIDA DEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTIO N ACTIVITIES.
5. PRESERVE EXISTING VEGETATION WHERE ATTAINABLE AND STABILIZE DISTURBED PORTIONS OF THE SITE TO PREVENT EROSION. STABILIZATIO N MEASURES SHALL INCLUDE PERMANENT SEEDING, SOD, PRESERVATION OF EXISTING MATURE VEGETATION AND PROTECTION OF EXISTING TREES. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS FEASIBLE, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIE S TEMPORARILY OR PERMANENTLY CEASED.
6. EACH PLAN SHALL INCLUDE A DESCRIPTION OF STRUCTURAL PRACTICES, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, RETAIN SEDI MENT ON-SITE, OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH PRACTICES MAY INCLUDE SILT FENCES, SWALES, CHECK DAMS, STORM DRAIN INLET PROTECTION, PERIMENT SEDIMENT BASINS OR DRAINAGE RETENTION AREAS (D.R.A.'S).
7. CONSTRUCT TEMPORARY SEDIMENT CONTROL BASINS AT EACH POINT OF DISCHARGE INTO D.R.A.'S.
8. CONTROLS FOR OTHER POLLUTANTS.
   (1) SANITARY WASTE DISPOSAL. THE PLAN SHALL ASSURE THAT WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND DOES NOT AUTHORIZE SEPARATE STORM
   (2) THE PLAN SHALL ASSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED.
   (3) THE PLAN SHALL ENSURE THAT THE APPLICATION, GENERATION, AND MIGRATION OF TOXIC SUBSTANCES IS LIMITED AND THAT TOXIC MATERIALS
   (4) THE PLAN SHALL ENSURE THAT ALL DISTURBED AREAS WILL BE IMPLEMENTED AND ENFORCED. NUTRIENTS SHALL BE APP
   (5) ALL PERSONNEL INVOLVED IN CONSTRUCTION ACTIVITY SHALL INSPECT ALL POINTS OF DISCHARGE INTO SURFACE WATERS OF THE STATE OR
   (6) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. STRUCTURAL CONTROLS, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GR ACCORDANCE WITH THE GENERIC PERMIT.
9. THE PERMITTEE SHALL RETAIN COPIES OF STORMWATER POLLUTION PREVENTION PLANS AND ALL REPORTS REQUIRED BY THIS PERMIT, AND RE CORDS OF ALL DATA USED TO COMPLETE THE NOI. TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT T HE SITE IS FINALLY STABILIZED.
10. THE PERMITTEE SHALL RETAIN A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN AND ALL REPORTS, RECORDS AND DOCUMENTATION S EQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOI, FROM THE DATE O F PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
11. THE PERMITTEE SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION (N.O.T.) (DEP FORM 62-621.300(9), SIGNED IN ACCORDANCE WITH P ART VII.C. OF THIS PERMIT, WITHIN 14 DAYS OF FINAL STABILIZATION OF THE SITE TO TERMINATE COVERAGE UNDER THIS PERMIT.
    a. IF A PERMITTEE SHALL SUBMIT A N.O.T. FOR THE FOLLOWING ADDRESS:

NPDES STORMWATER NOTICES CENTER, MS 400/10
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
(STORMWATER OR ITS EMPLOYEES) ASSOCIATED WITH CONSTRUCTION ACTIVITY TO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
TALLAHASSEE, FLORIDA 32399-2400
(b) SUBMIT A COPY OF THE NOT TO THE OPERATOR OF THE MS4
REFER TO THE SITE PLANS FOR ADDITIONAL EROSION CONTROL MEASURES AND ADDITIONAL INFORMATION.

NOTES:

1. SILT FENCE LOCATION SHOWN FOR CLARITY ONLY. ACTUAL FENCE TO BE AS NEAR THE PROPERTY LINE AS PRACTICAL.
2. ALL EXISTING STORM WATER DRAINAGE PATTERNS AND CHANNELS OUTSIDE THE CONSTRUCTION AREAS SHOWN ON THESE PLANS ARE TO BE MAINT AINED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE WORK AREAS TO INTERCEPT AN EXISTING STORM WATER DRAINAGE PATTERN. THIS CO NTRACTOR SHALL FURNISH AND INSTALL TEMPORARY STRUCTURES AND PIPING AS NECESSARY TO DIVERT ALL FLOWS OF CONSTRUCTION SITE RUNOFF AWAY FACT TO CONSTRUCTION AND/OR SURROUNDING FACILITIES IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION, SEDIMENT TRA NSPORT, DISTURBED FOUNDATIONS, IMPACT TO STRUCTURES, AND ANY OTHER DAMAGE CAUSED DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PREVENT THE DISCHARGE OF SEDIMENT DUE TO CONSTRUCTION OPERATIONS. APPROVED EROSION CONTROL DEVICES SHA LL BE INSTALLED TO PREVENT DISCHARGE OF SEDIMENT INTO A DRY OR WET WATERCOURSE. RECOMMENDED EROSION CONTROL SHALL CONSIST OF S AND SILT FENCE, OR OTHER EROSION CONTROL METHODS AS SHOWN OR APPROVED BY THE PROJECT ENGINEER. ALL NEW AND EXISTING DRAIN PIPE STRUCTURES SHALL BE FLUSHED CLEAN AFTER CONSTRUCTION.
4. PROVIDE EROSION CONTROL BLANKET FOR ALL SLOPES 2 : 1 (HORIZONTAL TO VERTICAL) OR STEEPER.
5. SWALES AND DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED AS SOON AS PRACTICAL.
6. SEE THIS PLAN FOR ACTUAL LOCATION OF SILT FENCE.
7. THIS PLAN PROVIDES REASONABLE ASSURANCE THAT THE PROPOSED CONSTRUCTION ACTIVITIES WILL NOT RESULT IN EROSION AND SEDIMENT D EPOSITION IN WETLANDS OR OFF-SITE, ADVERSE IMPACTS TO WETLANDS, OFF-SITE FLOODING OR VIOLATION OF WATER QUALITY STANDARDS.

SITE DESCRIPTION:

KEY SITE DATA IS LISTED BELOW:

1. SITE AREA IS APPROXIMATELY 2.37 ACRES. THE CONFIGURATION IS TRIANGULAR WITH DIMENSIONS OF MAIN SITE = 390 FT. (NORTH-SOUTH), 262 FT. (SOUTHEAST - NORTHWEST) AND 468 FT. (EAST-WEST).
2. EXISTING GROUND COVER CONSISTS BARE SOILS, GRASS, PAVEMENT W/ A 1946-SF RESIDENTIAL BUILDING. THE SOUTH SIDE OF THE SITE SLOPES GENTLY INTO A SMALL DEPRESSION LOCATED ALONG THE SITE SOUTH PROPERTY LINE AND THE NORTH SIDE OF THE SITE SLOPES HARSHLY TO THE NORTHWEST CORNER OF THE SITE.
3. GROUND SURFACE ELEVATIONS RANGE FROM 99.0 TO 110.6 FT NGVD. THE LOW AREA IS ON NORTHWEST CORNER OF THE SITE.
4. SOIL CONSERVATION SERVICE SOIL MAP UNITS FOR THE SITE ARE CANDLER SANDS. ACCORDING TO THE NRCS OFFICIAL SERIES DESCRIPTION THE WATER TABLE IS AT DEPTHS GREATER THAN 80 INCHES.

PROJECT INFORMATION:

1. THIS PLAN IS INTENDED FOR USE IN CONJUNCTION WITH THE DRAINAGE PLANS FOR THIS PROJECT. FUTURE DEVELOPMENT WILL REQUIRE A SEPARATE SWPPP AND NOI.
2. THE CONSTRUCTION ACTIVITIES ON THIS SITE CONSIST OF AND WILL BE PERFORMED IN THE FOLLOWING ORDER: CLEARING AND GRUBBING, EXCAVATION OF THE DRAINAGE RETENTION AREA AND CONSTRUCTION OF BUILDING AND PAVED PARKING AREA.
3. THE AREA TO BE DISTURBED BY CONSTRUCTION IS 2.21± ACRES.
4. A QUALIFIED INSPECTOR (PROVIDED BY THE OPERATOR) SHALL INSPECT ALL POINTS OF DISCHARGE INTO SURFACE WATERS OF THE STATE OR A
5. MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED TER OR AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. STRUCTURAL CONTROLS, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GRE ACCORDANCE WITH THE GENERIC PERMIT.

INTENDED SEQUENCE OF CONSTRUCTION ACTIVITIES AND EROSION CONTROL IMPLEMENTATION:

1. PRIOR TO ANY CONSTRUCTION ACTIVITIES AND/OR CLEARING AND GRUBBING THE PERIMETER SILT FENCE MUST BE IN PLACE AS SHOWN ON THIS PLAN.
2. MEET ON SITE WITH CONTRACTOR TO DISCUSS IMPLEMENTATION OF PERIMETER CONTROLS, BASINS AND DIVERSIONS.
3. CONSTRUCT RETENTION BASIN TO WITHIN ONE FOOT OF FINISHED GRADE IN CONJUNCTION WITH ROUGH GRADING. RETENTION BASIN MUST BE
4. PROPERLY STABILIZED PRIOR TO DIRECTING STORMWATER RUNOFF TO THE BASIN. THIS CAN BE ACCOMPLISHED BY TEMPORARY SEED AND MULCH ING OR BY PERMANENT SODDING OF SIDESLOPES. ALL DISTURBED AREAS MUST BE STABILIZED IMMEDIATELY IF THEY ARE TO BE EXPOSED MORE T HAN 7 DAYS RATHER THAN WAITING UNTIL THE PROJECT IS COMPLETE. STORMDRAIN PROTECTION MUST BE IMPLEMENTED IMMEDIATELY FOLLOWING INLET I NSTALLATION TO PREVENT SEDIMENT BUILDING IN THE RETENTION BASIN AND STORMWATER PIPE SYSTEM.
5. FINAL GRADING AND PERMANENT STABILIZATION TO BE IN PLACE AT THE COMPLETION OF CONSTRUCTION ACTIVITIES. THE ENTIRE STORMWATE R MUST BE BUILT PER THE APPROVED STORMWATER PLANS AND PERFORM AS DESIGNED. SUBSTANTIAL DEVIATIONS FROM THE APPROVED STORMWATER PLANS MAY REQUIRE REAPPROVAL OF THE DESIGN PROFESSIONAL, APPLICABLE GOVERNMENTAL AGENCIES, AND/OR RECONSTRUCTION BY THE CONTRACTOR.

CONTRACTOR'S CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

SIGNATURE _____ DATE _____

PRINT NAME _____

ADDRESS _____

PHONE NUMBER _____

PERMITTEE'S CERTIFICATION:

THE UNDERSIGNED ENSURES THAT THE SURFACE WATER AND STORMWATER MANAGEMENT MEASURES PROPOSED IN THE PLAN WILL BE EFFECTIVELY IMPLEMENTED UNTIL COMPLETION OF THE PROJECT OR UNTIL THE PERMANENT SURFACE WATER MANAGEMENT SYSTEM IS OPERATIONAL.

NAME:

COMPANY:

SIGNATURE

DATE

STABILIZATION SCHEDULE:

(REQUIRED TO BE COMPLETED BY CONTRACTOR)

MAJOR CONSTRUCTION ACTIVITIES:
START DATE_____
END DATE_____

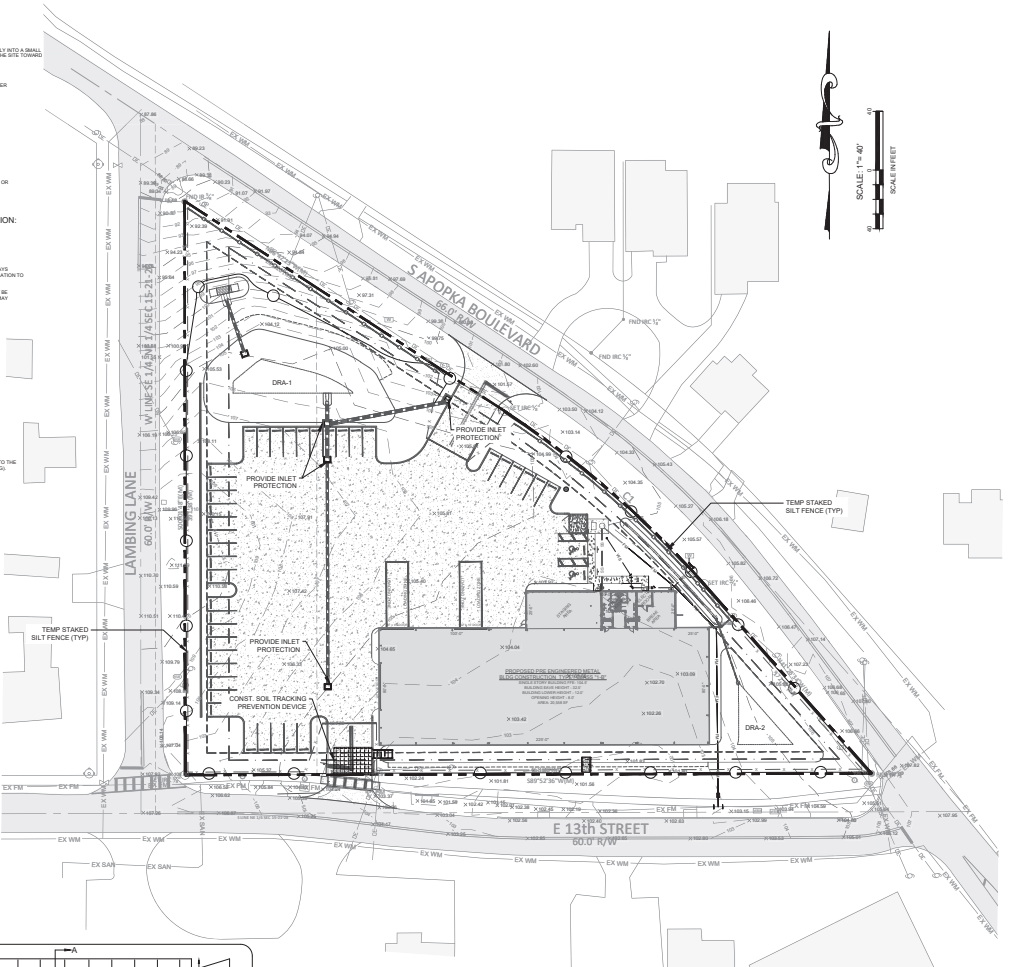
CEASE CONSTRUCTION ACTIVITIES:
TEMPORARY DATES_____
_____
_____
PERMANENT DATE _____

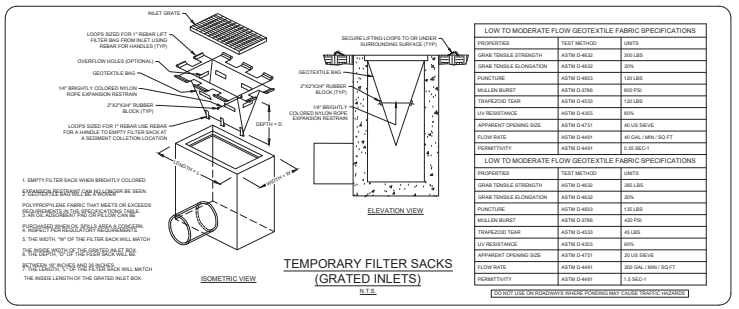
DATE THAT STABILIZATION MEASURES WERE INITIATED_____

NOTE: INSTALL EROSION CONTROL FEATURES PRIOR TO ANY CONSTRUCTION ACTIVITIES ON THIS SITE.

NON-STORMWATER DISCHARGES:

THE SITE MAY GENERATE NON-STORMWATER DISCHARGE INTO THE ON-SITE DRAINAGE SYSTEM (SUCH AS: WATER MAIN FLUSHING).





TEMPORARY FILTER SACKS (GRATED INLETS)

N.T.S.

1. EMPTY FILTER SACK WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN. A SEDIMENTATION BASIN WILL BE PROVIDED.
2. POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
3. AN OIL ABSORBENT PAD OR PILLOW CAN BE PURCHASED WHEN OIL SPILLS AREA A CONCERN.
4. INSPECTION FREQUENCY REQUIREMENTS.
5. THE WIDTH, "W" OF THE FILTER SACK WILL MATCH THE WIDTH OF THE GRATED INLET BOX.
6. THE LENGTH, "L" OF THE FILTER SACK WILL BE THE LENGTH OF THE GRATED INLET BOX.
7. THE DEPTH, "D" OF THE FILTER SACK WILL MATCH THE DEPTH OF THE GRATED INLET BOX.
8. THE INSIDE LENGTH OF THE GRATED INLET BOX.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATIONS		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	600 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	#0 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL / MIN / SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC-1

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATIONS		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	110 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL / MIN / SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC-1

DO NOT USE ON ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORM

HER

PROJECT NAME _____ PERMIT NUMBER (IDENTIFICATION NUMBER, IF R10 _____
INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.5 INCHES OR LA RGER

LOCATION	RAIN DATA	TYPE OF CONTROL	DATE INSTALLED/ IED	CURRENT CONDITION (SEE BELOW)	CORRECTIVE ACTION/OTHER REMARKS

CONDITION CODE:

P = POOR, NEEDS IMMEDIATE MAINTENANCE OR REPLACEMENT

CONTROL TYPE CODES

G = GOOD M = MARGINAL, NEEDS MAINTENANCE OR REPLACEMENT SOON

1. SILT FENCE	10. STORM DRAIN INLET PROTECTION	28. TREE PROTECTION
2. EARTH DIKES	11. VEGETATIVE BUFFER STRIP	29. DETENTION POND
3. STRUCTURAL DIVERSION	12. VEGETATIVE PRESERVATION AREA	30. RETENTION POND
4. SWALE	13. RETENTION POND	31. WASTE DISPOSAL/HOUSEKEEPING
5. SEDIMENT TRAP	14. CONST. ENTRANCE STABILIZATION	32. DAM
6. CHECK DAM	15. PERIMETER DITCH	33. SAND BAG
7. SUBSURFACE DRAIN	16. CURB AND GUTTER	34. OTHER
8. PIPE SLOPE DRAIN	17. PAVED ROAD SURFACE	
9. LEVEL SPREADERS	18. ROCK OUTLET PROTECTION	

INSPECTOR INFORMATION:

NAME QUALIFICATION

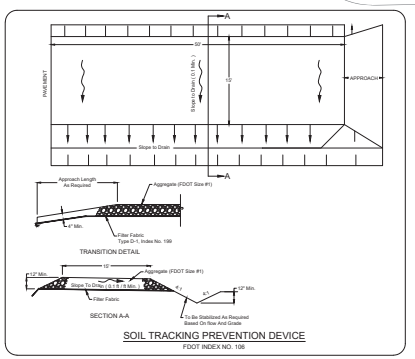
THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON-COMPLIANCE IDENTIFIED ABOVE.

DATE

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

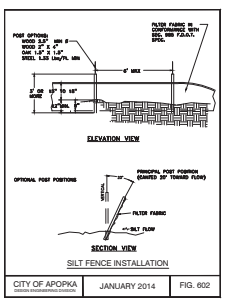
NAME (RESPONSIBLE AUTHORITY) DATE

NOTE:
CONTRACTOR COPY ONTO 8-1/2" x 11" TO CREATE REPORT FORMS



SOIL TRACKING PREVENTION DEVICE

FDOT INDEX NO. 106



SILT FENCE INSTALLATION

CITY OF APOPKA	JANUARY 2014	FIG. 602

EROSION & SEDIMENT CONTROL

PRIOR TO INITIATING CONSTRUCTION OF PLANNED IMPROVEMENTS, ALL AREAS WILL BE EXCAVATED AND ROUGH GRADED TO PROVIDE SEDIMENT AND RUNOFF CONTROL DURING CONSTRUCTION.

ALL DISTURBED AREAS WILL BE BROUGHT TO FINAL GRADE AND SEEDED AND MULCHED AS SOON AS POSSIBLE.

AREAS WHICH MAY ERODE DUE TO SLOPES OR CONCENTRATED RUNOFF DURING CONSTRUCTION WILL BE TREATED. TEMPORARY SLOPE DRAIN PROTECTION WILL BE PROVIDED PER DOT ROAD DESIGN STANDARD INDEX NO. 100.

OFF SITE DISCHARGE OF UNTREATED STORMWATER WILL BE PREVENTED USING TEMPORARY BERMS AND SWALES WHERE NEEDED. DEVICES CONSISTENT WITH DOT ROAD DESIGN STANDARD INDEX NO. 102 WILL BE USED.

UPON COMPLETION OF SITE IMPROVEMENTS, THE SWALES, BASALES, AND OTHER STORMWATER MANAGEMENT DEVICES WILL BE FINAL GRADED AND SODDED AS SPECIFIED IN THE APPROVED CONSTRUCTION PLANS.

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
322 Delk Rockingham Ave. Tavares FL 32778
Phone 352.742.0011 Fax: 352.742.0441
Email: info@civilengsolutions.com
Board of Florida Certificate of Authorization #29985

DAVID L. CLUTS LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON

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CIVIL ENGINEERING SOLUTIONS, INC
322 NORTH ROCKINGHAM AVE.
TAVARES, FLORIDA 32778
TEL: (352) 742-0011
CERT. OF AUTH #29985

REVISIONS:

TRINITY CONSTRUCTION SITE CONSTRUCTION PLANS

APOPKA, FLORIDA

DRAWN BY: WG
CHECKED BY: DC

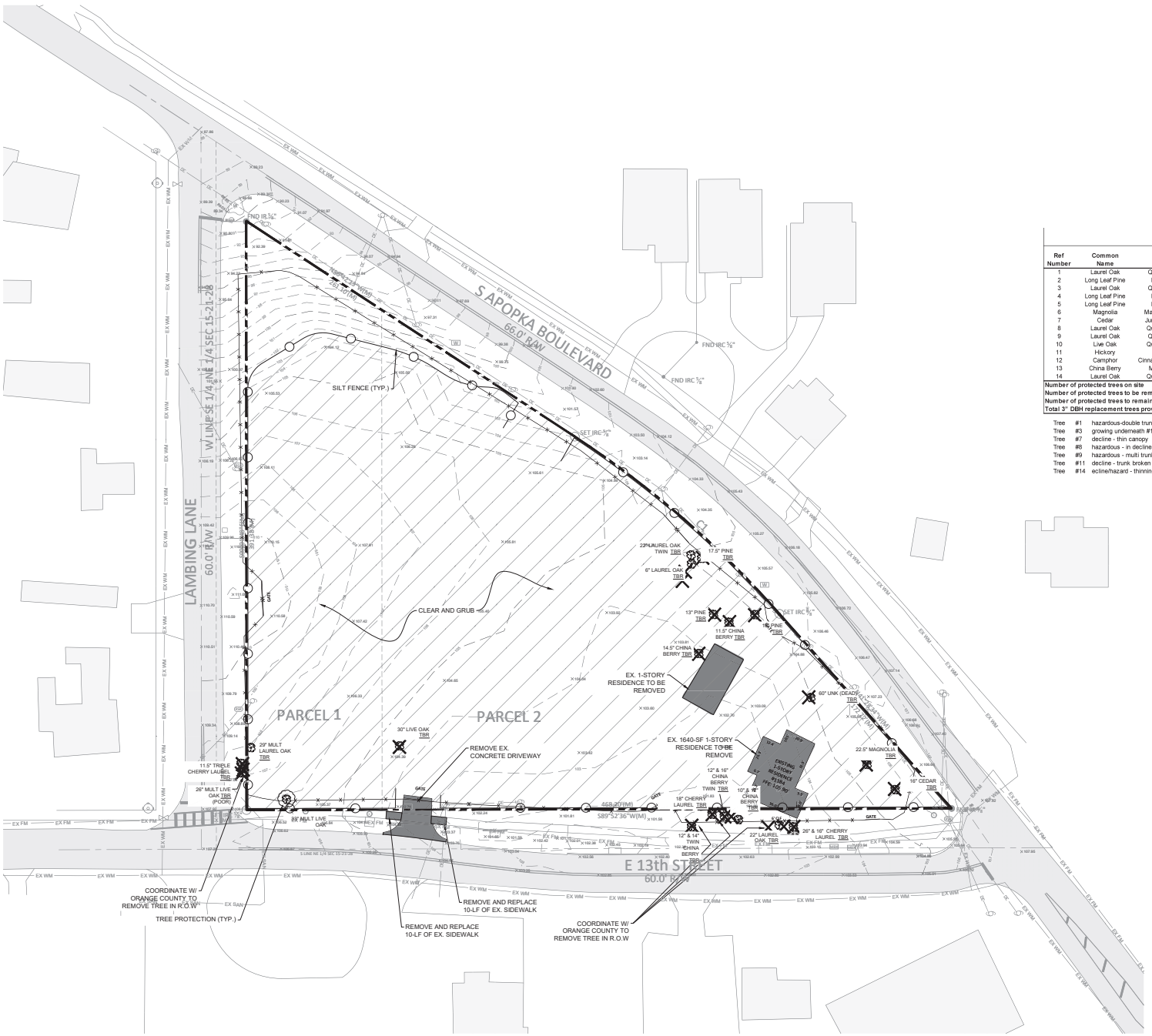
FILE NUMBER: 23117-01

ISSUE DATE: 01/25/2024

SHEET SIZE 24 X 36

STORMWATER POLLUTION PREVENTION PLAN

SHEET NUMBER C2.00



Always call 811 two full business days before you dig.

Sunshine811.com

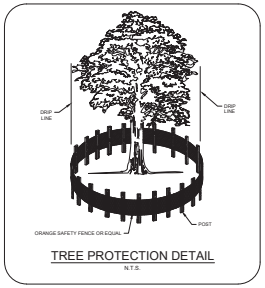
SCALE: 1"= 30'

SCALE IN FEET

Tree Removal Table

Ref Number	Common Name	Botanical Name	DBH Inches	Trunks	Trees Removed	DBH Inches Removed	Replacement Trees	Notes
1	Laurel Oak	Quercus laurifolia	22	2	1	44		decline/hazard*
2	Long Leaf Pine	Pinus palustris	17.5	1	1	17.5	5.83	native/good
3	Laurel Oak	Quercus laurifolia	6	1	1	6		decline*
4	Long Leaf Pine	Pinus palustris	13	1	1	13	4.33	native/good
5	Long Leaf Pine	Pinus palustris	18	1	1	18	6.00	native/good
6	Magnolia	Magnolia grandiflora	22.5	1	1	22.5	7.50	native/good
7	Cedar	Juniperus virginiana	16	1	1	16		decline*
8	Laurel Oak	Quercus virginiana	29	1	1	29		decline/hazard*
9	Laurel Oak	Quercus laurifolia	14	3	1	42		decline/hazard*
10	Live Oak	Quercus virginiana	16.5	2				native/good
11	Hickory	Carya spp.	60	1	1	60		decline/hazard*
12	Camphor	Cinnamomum camphora	14.5	1	1			invasive/exotic
13	China Berry	Melia azedarach	11.5	1	1			invasive/exotic
14	Laurel Oak	Quercus virginiana	16.5	1	1	16.5		decline/hazard*
Number of protected trees on site				12				
Number of protected trees to be removed					11	**284.5**		
Number of protected trees to remain Total 3" DBH				1			**23.67**	
Total 3" DBH replacement trees provided							**26.00**	

Tree #1 hazardous-double trunk with inclusions, severe pruning, mistletoe infestation, thinning crown
Tree #3 growing underneath #1, leaning west, uneven canopy
Tree #7 decline - thin canopy
Tree #8 hazardous - in decline, canopy deadwood, trunk damaged, mistletoe infestation
Tree #9 hazardous - multi trunk, decline, thinning canopy, dropping large branches, multiple inclusions in trunk
Tree #11 decline - trunk broken off at 10', structural damage with peeling bark, sucker growth.
Tree #14 ecline/hazard - thinning canopy, proximity to power line, uneven canopy from severe pruning



TREE PROTECTION DETAIL
N.T.S.

LEGEND

/ TBR
BOUNDARY LINE
SILT FENCE
TREE TO BE REMOVED
APPLY TREE PROTECTION MEASURES

AREA TO BE CLEARED & GRUBBED

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
322 North Rockingham Ave. Tavares FL 32778
Phone 352.742.2011 Fax: 352.742.5414
Certificate of Authorization #29983
David A. Cluttz, P.E. - FL Lic. # 47684
Date:

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTTZ LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

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ON

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CIVIL ENGINEERING SOLUTIONS, INC
322 NORTH ROCKINGHAM AVE.
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TEL: (352) 742-5011
CERT. OF AUTH #29983

DRAWN BY: WG
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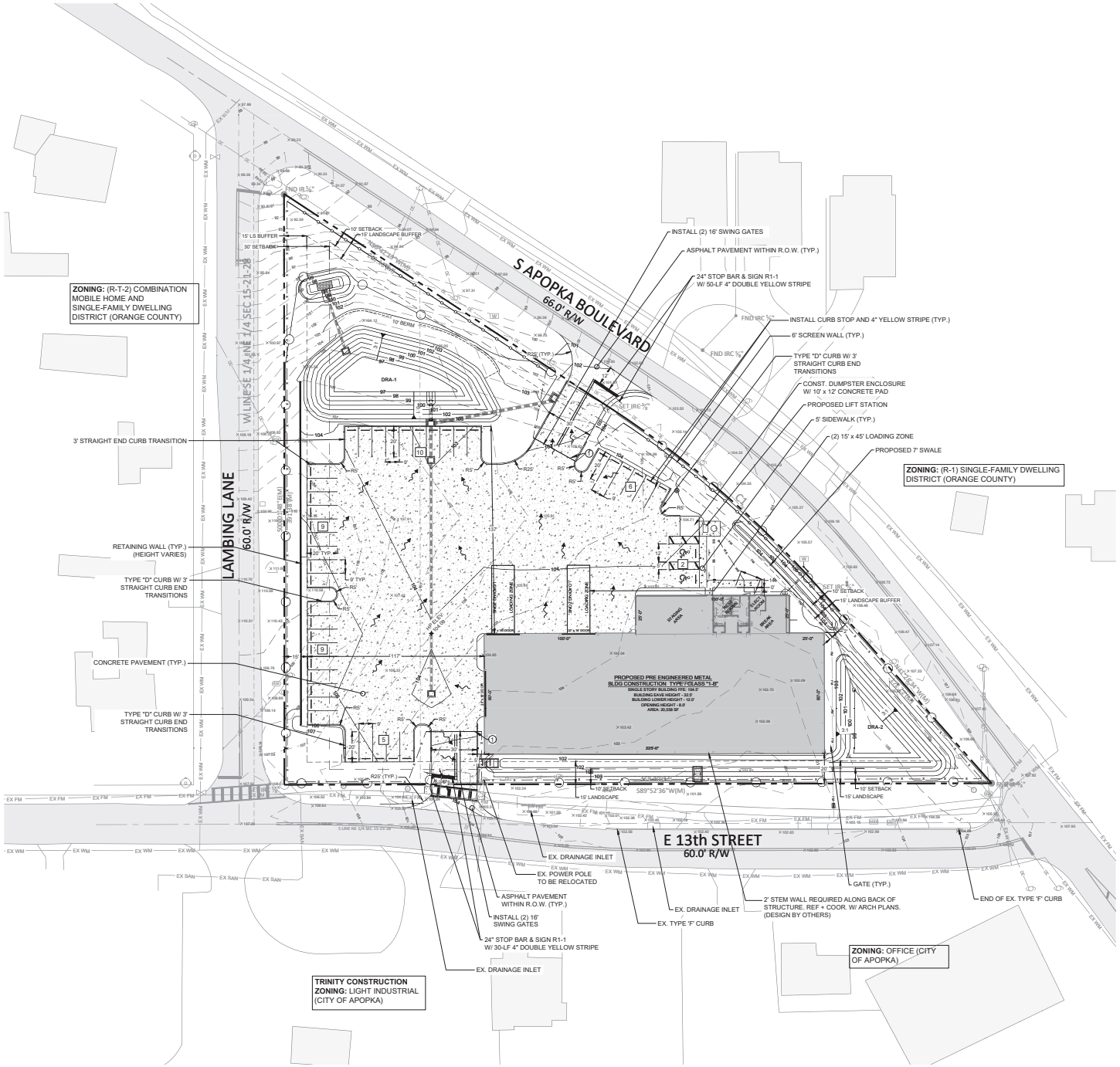
SHEET SIZE 24 X 36

DEMOLITION PLAN

SHEET NUMBER
C3.00



GENERAL NOTES:

1. PARCEL INFORMATION
   - 1.1. ALTERNATE KEY: 15-21-28-0000-00-095, 15-21-28-0000-00-096
   - 1.2. SITE AREA: 103,421-SF (2.37-AC)
   - 1.3. FLUCCS VEGETATIVE COVER: MEDIUM DENSITY, 2>5 DWELLING UNITS/ACRE (1200)
2. ZONING:
   - 2.1. EXISTING ZONING [I-1]-LIGHT INDUSTRIAL (CITY OF APOPKA)
   - 2.2. EXISTING FUTURE LAND USE: (IND) - INDUSTRIAL (CITY OF APOPKA)
4. BUILDING INFORMATION:
   - 4.1. AREA: 20,500-SF
   - 4.2. FFE: 104.50'
5. LAND PLANNING REQUIREMENTS:
   - 5.1. FLOOR AREA RATIO:
     - 5.1.2. MAX ALLOWABLE F.A.R.: 0.4 (41,368-SF)
     - 5.1.3. SHOWN: F.A.R. 0.20 (20,500-SF)
   - 5.2. BUILDING SETBACKS:
     - 5.2.1. FRONT (SOUTH): 10'
     - 5.2.2. FRONT (NORTHEAST): 10'
     - 5.2.3. SIDE (WEST): 30'
   - 5.3. LANDSCAPE BUFFERS:
     - 5.2.1. FRONT (SOUTH): 15'
     - 5.2.2. FRONT (NORTHEAST): 15'
     - 5.2.3. SIDE (WEST): 15'
   - 5.3. IMPERVIOUSNESS:
     - 5.3.1. SHOWN: 1.40-AC (59.1%)
6. UTILITIES:
   - 6.1. WATER: CITY OF APOPKA
   - 6.2. SEWER: CITY OF APOPKA
7. LIGHTING & PHOTOMETRIC PROVIDED BY OTHERS
8. FEMA FLOOD MAP
   - 8.1. SITE DOES NOT LAY WITHIN FLOOD ZONE (FEMA MAP PANEL: 12095C0390E, DATE: 9/25/2009)
9. SITE SOILS INCLUDE:
   - 9.1. 7 - CANDLER-URBAN COMPLEX, 0 TO 5 PERCENT (HYD. GROUP 'A')
   - 9.2. 8 - CANDLER-URBAN COMPLEX, 5 TO 12 PERCENT (HYD. GROUP 'A')
10. SURVEY
    PROVIDED BY: H&H SURVEY CONSULTANTS.
11. DATUM:
    - 11.1.VERTICAL: NAVD88
    - 11.2.HORIZONTAL: NAD83
12. PERPETUATE EXISTING MONUMENTATION

LAND USE BREAKDOWN			
LAND USE	AREA-SF	AREA-AC	% OF SITE
BUILDING (FOOTPRINT)	20,558	0.47	16
CONCRETE	40,581	0.93	32
ASPHALT	0	0.00	0
WRA'S	11,662	0.27	9
OPEN SPACE AREA / LANDSCAPING	30,620	0.70	24
TOTAL	103421	2.37	100

PARKING CALCULATION (CITY OF APOPKA)	
PRINCIPAL USE TYPE	MANUFACTURING, ASSEMBLY, OR FABRICATION, LIGHT
REQUIREMENT	(2) SPACES PER 1000-SF
BUILDING AREA	20,500-SF
CALCULATION	20,500-SF X (2.0 SPACES / 1000-SF) = 41 SPACES
PARKING REQUIRED	41 SPACES
PARKING PROVIDED	39 STANDARD SPACES + 2 HANDICAP SPACES = 41 TOTAL SPACES

LEGEND

BOUNDARY LINE
EXISTING WATERMAIN
EXISTING CHAIN LINK FENCE
EXISTING FORCEMAIN
EXISTING OVERHEAD POWER
EXISTING CONTOUR
EXISTING ELEVATION
PROPOSED ELEVATION
PROPOSED CONTOUR
INTERMEDIATE ELEVATION
SILT FENCE
FLOWLINE
FLOW ARROW
PROPOSED FORCEMAIN
PROPOSED SANITARY
GRADE BREAK
PROPOSED CHAIN LINK FENCE
BUILDING SETBACK
LANDSCAPE BUFFER
PROPOSED SCREEN WALL

NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER TO PROVIDE FIRE DEPARTMENT ACCESS LOCKING DEVICE. (KNOX BOX OR SIMILAR DEVICE)

SCALE: 1" = 30'

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
320 North Rockingham Ave. Tavares, FL 32778
Phone 352.742.2011 Fax: 352.742.5414
Certificate of Authorization #29983
David Clutts, P.E. - Lic. # 47684
Date:

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTTS LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

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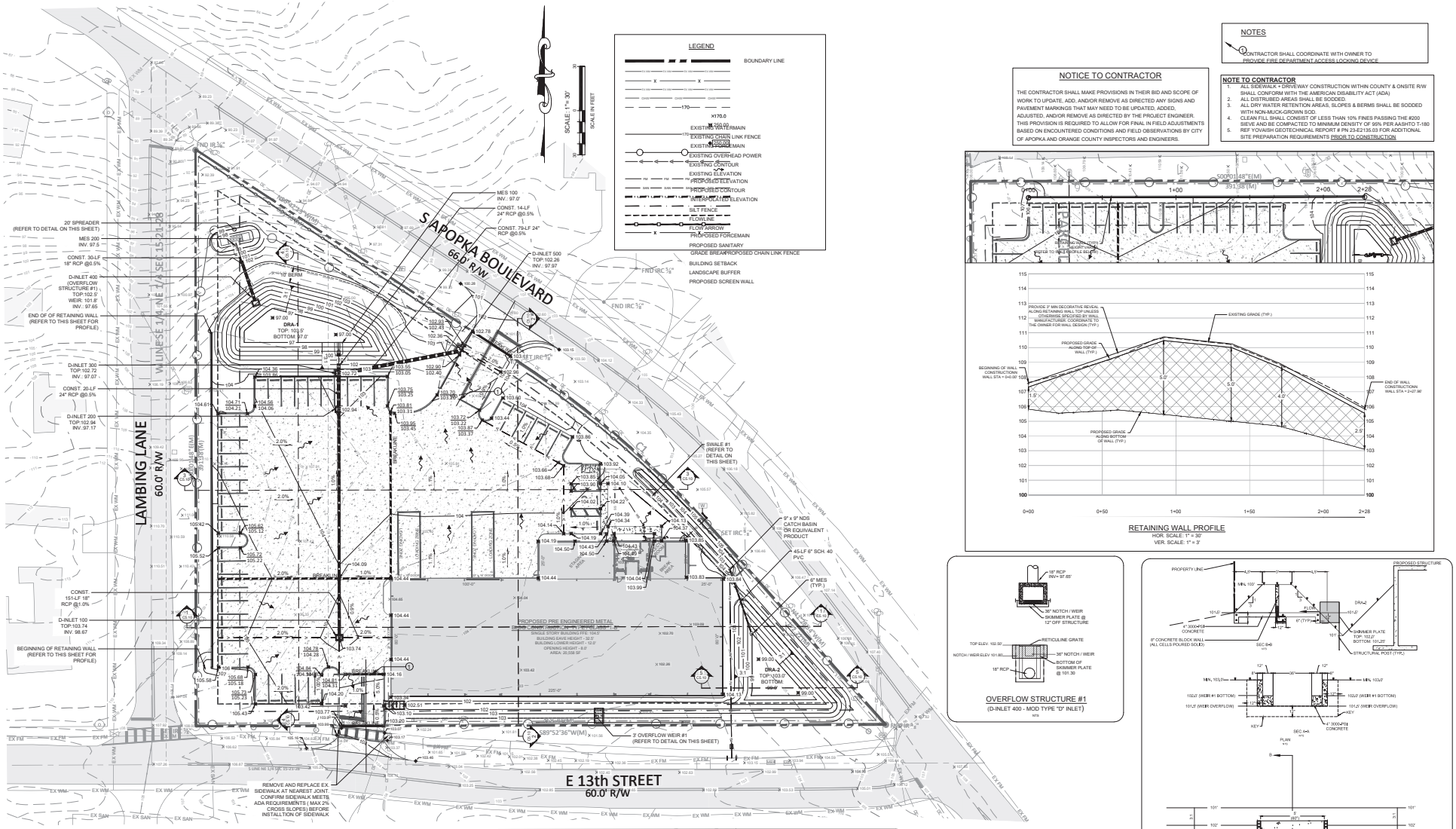
CIVIL ENGINEERING SOLUTIONS, INC
320 NORTH ROCKINGHAM AVE.
TAVARES, FLORIDA 32778
TEL: (352) 742-2011
CERT. OF AUTH #29983

DRAWN BY: WG
CHECKED BY: DC
FILE NUMBER: 23117-01
ISSUE DATE: 01/25/2024
SHEET SIZE 24 X 36

SITE PLAN

SHEET NUMBER C4.00



NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER TO PROVIDE FIRE DEPARTMENT ACCESS LOCKING DEVICE

NOTICE TO CONTRACTOR

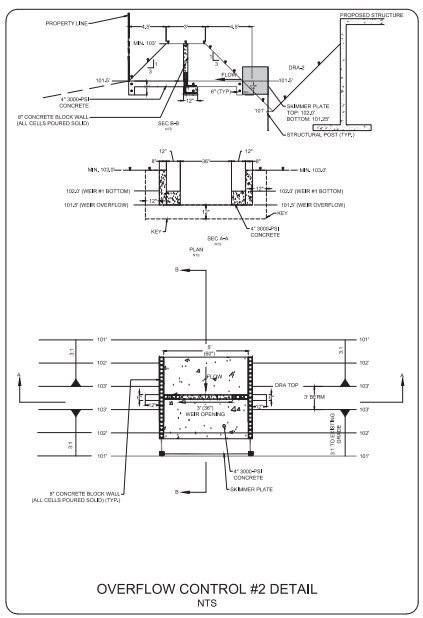
THE CONTRACTOR SHALL MAKE PROVISIONS IN THEIR BID AND SCOPE OF WORK TO UPDATE, ADD, AND/OR REMOVE AS DIRECTED ANY SIGNS AND PAVEMENT MARKINGS THAT MAY NEED TO BE UPDATED, ADDED, ADJUSTED, AND/OR REMOVE AS DIRECTED BY THE PROJECT ENGINEER. THIS PROVISION IS REQUIRED TO ALLOW FOR FINAL IN FIELD ADJUSTMENTS BASED ON ENCOUNTERED CONDITIONS AND FIELD OBSERVATIONS BY CITY OF APOPKA AND ORANGE COUNTY INSPECTORS AND ENGINEERS.

NOTE TO CONTRACTOR

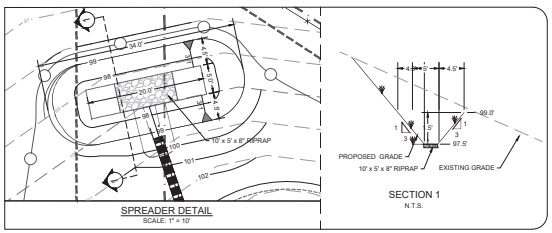
1. ALL SIDEWALK + DRIVEWAY CONSTRUCTION WITHIN COUNTY & ONSITE R/W SHALL CONFORM WITH THE AMERICAN DISABILITY ACT (ADA)
2. ALL DISTRUBED AREAS SHALL BE SODDED.
3. ALL DRY WATER RETENTION AREAS, SLOPES & BERMS SHALL BE SODDED WITH NON-MUCK-GROWN SOD.
4. CLEAN FILL SHALL CONSIST OF LESS THAN 10% FINES PASSING THE #200 SIEVE AND BE COMPACTED TO MINIMUM DENSITY OF 95% PER AASHTO T-180
5. REF YOAKISH GEOTECHNICAL REPORT # PN 23-82135.03 FOR ADDITIONAL SITE PREPARATION REQUIREMENTS PRIOR TO CONSTRUCTION

RETAINING WALL PROFILE
HOR. SCALE: 1" = 30'
VER. SCALE: 1" = 3'

OVERFLOW STRUCTURE #1
(D-INLET 400 - MOD TYPE "D" INLET)
NTS

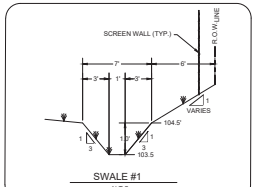


OVERFLOW CONTROL #2 DETAIL
NTS



SPREADER DETAIL
SCALE: 1" = 10'

SECTION 1
N.T.S.



SWALE #1
N.T.S.

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering
332 Welk Rockingham Ave. Oviedo, FL 32765
Phone 407.542.2911 Fax: 407.542.2944
Email: info@civilengineersolutions.com
Florida Certificate of Authorization #29985
David L. Clutts, P.E. - Lic. # 47684
Date:

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTTS LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

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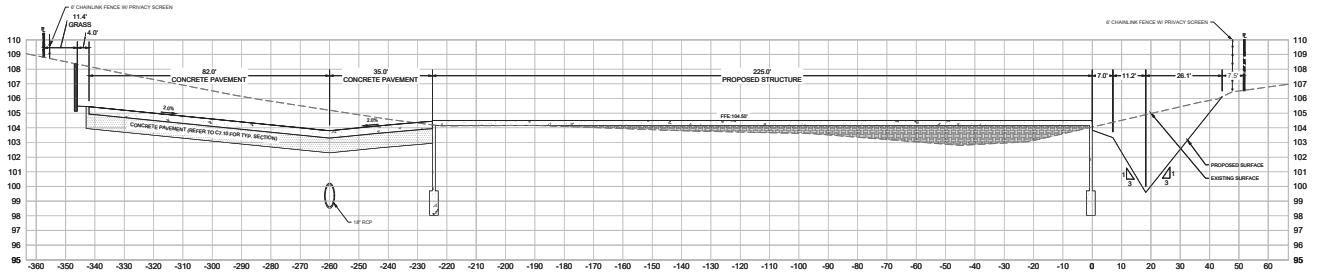
CIVIL ENGINEERING SOLUTIONS, INC
332 NORTH ROCKINGHAM AVE.
OVIEDO, FLORIDA 32765
TEL: (407) 542-2911
CERT. OF AUTH #29985

DRAWN BY: WG
CHECKED BY: DC
FILE NUMBER: 23117-01
ISSUE DATE: 01/25/2024
SHEET SIZE 24 X 36

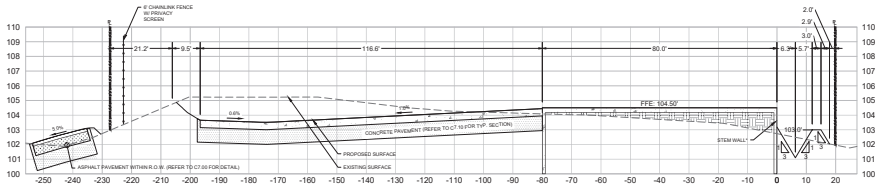
PAVING, GRADING & DRAINAG PLAN

SHEET NUMBER
C5.00



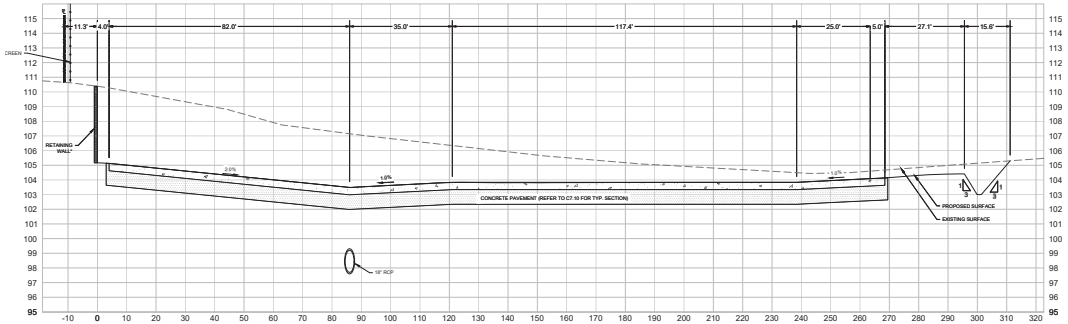
SECTION 1

SCALE: HOR. 1" = 20', VER. 1" = 4'



SECTION 2

SCALE: HOR. 1" = 20', VER. 1" = 4'



SECTION 3

SCALE: HOR. 1" = 20', VER. 1" = 4'

NOTE TO CONTRACTOR

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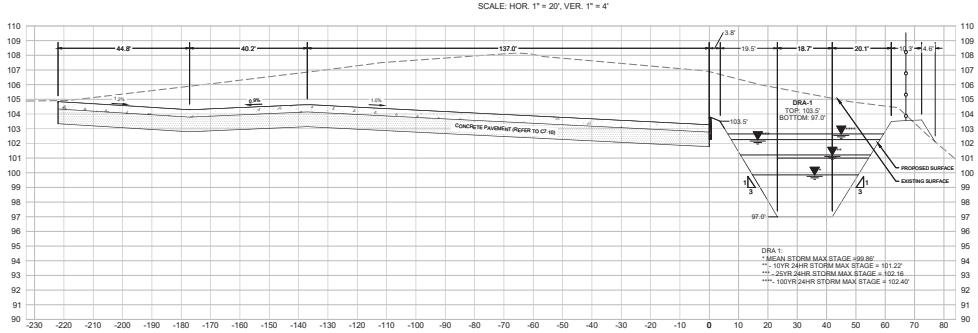
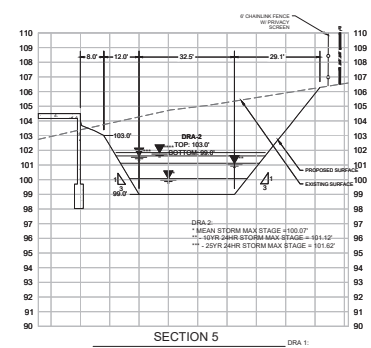
5. REF YOVAISH GEOTECHNICAL REPORT # PN 23-E2135.03 FOR ADDITIONAL SITE PREPARATION REQUIREMENTS PRIOR TO CONSTRUCTION



SECTION 4

SCALE: HOR. 1" = 20', VER. 1" = 4'



SECTION 5

SCALE: HOR. 1" = 20', VER. 1" = 4'

DRA 1:
* MEAN STORM MAX STAGE =63.59'
** - 10YR 24HR STORM MAX STAGE = 63.81'
*** - 25YR 24HR STORM MAX STAGE = 63.94'

REVISIONS:

Civil Engineering Solutions, Inc.
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322 North Rockingham Ave., Tavares, FL 32778
Phone: 352.742.0011 Fax: 352.742.0044
admin@civilengsolutions.com
State of Florida Certificate of Authorization #25985
David Clutts, P.E., P.L. Lic. # 47684
Date:

TRINITY CONSTRUCTION SITE CONSTRUCTION PLANS

APOPKA, FLORIDA

DAVID L. CLUTTS
LICENSE
No. 47684
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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322 NORTH ROCKINGHAM AVE.
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TEL. (352) 742-0011
CERT. OF AUTH #25985

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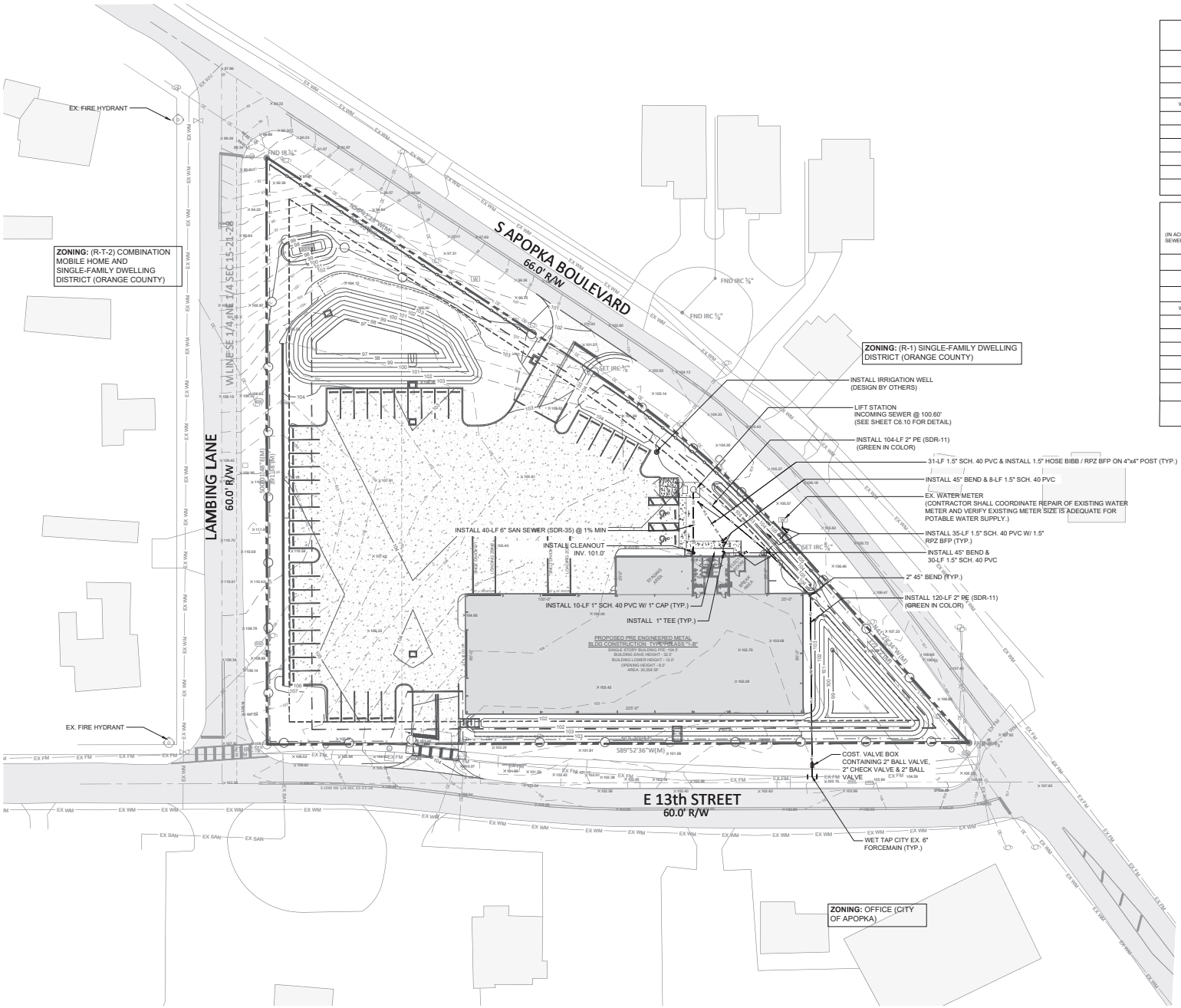
FILE NUMBER:
23117-01

ISSUE DATE:
12/21/2023

SHEET SIZE
24 X 36

CROSS SECTIONS

SHEET NUMBER
C5.10



ESTIMATED WATER USE

TRINITY CONSTRUCTION

INSTANTANEOUS WATER SUPPLY DEMAND

INDIVIDUAL FIXTURE	DEMAND (GPM)	NUMBER OF UNITS	TOTAL (GPM)
WATER CLOSET (FLUSHOMETER TANK)	1.6	3	4.6
LAVATORY	0.8	8	8.8
HOSE BIBB	5	2	7.0
URINIAL	12	2	14.0
SHOWER	2.5	2	4.5
WATER FOUNTAIN	0.75	2	2.8
		TOTAL:	41.7

ESTIMATED WASTEWATER DEMAND

(IN ACCORDANCE CITY OF APOPKA REQUIREMENTS A WATER ERU = 350 GAL/DAY AND A SEWER ERU = 300 GAL/DAY)

TRINITY CONSTRUCTION

SEWER DRAINAGE FIXTURE UNIT (FU)

INDIVIDUAL FIXTURE	FIXTURE UNIT	NUMBER OF UNITS	TOTAL (FU)
WATER CLOSET (FLUSHOMETER TANK)	4.0	3	12.0
LAVATORY	1.0	8	8.0
FLOOR DRAIN	2.0	2	4.0
URINALS	2.0	2	4.0
SHOWER	2.0	2	4.0
WATER FOUNTAIN	0.5	2	1.0
		TOTAL:	33.0
		AVG SEWER DAILY FLOW = ERU x 350-GPD =	1.65 ERU 495-GPD 577.5-GPD

AVG WATER DAILY FLOW = ERU x 350-GPD =

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF APOPKA DESIGN & CONSTRUCTION STANDARDS

LEGEND

- BOUNDARY LINE
- EXISTING WATERMAIN
- EXISTING CHAIN LINK FENCE
- EXISTING FORCEMAIN
- EXISTING OVER-HEAD POWER
- EXISTING CONTOUR
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED CONTOUR
- TIE IN ELEVATION
- SILT FENCE
- FLOWLINE
- FLOW ARROW
- PROPOSED FIRE LINE
- PROPOSED GAS LINE
- PROPOSED SANITARY
- GRADE BREAK
- BUILDING SETBACK
- LANDSCAPE BUFFER
- PROPOSED CHAIN LINK FENCE

REVISIONS:

Civil Engineering Solutions, Inc.
Civil & Environmental Engineering

TRINITY CONSTRUCTION
SITE CONSTRUCTION PLANS
APOPKA, FLORIDA

DAVID L. CLUTS LICENSE No. 47684 STATE OF FLORIDA PROFESSIONAL ENGINEER

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322 NORTH ROCKINGHAM AVE.
OVIEDO, FLORIDA 32778
TEL: (352) 742-5911
CERT. OF AUTH #25985

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CHECKED BY: DC
FILE NUMBER: 23117-01
ISSUE DATE: 01/25/2024
SHEET SIZE 24 X 36

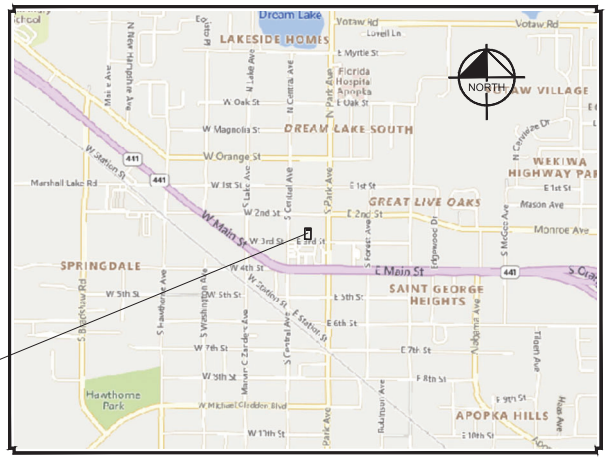
UTILITY PLAN

SHEET NUMBER
C6.00

CONSTRUCTION DOCUMENTS
FOR
FARM CREDIT APOPKA
MINOR DEVELOPMENT PLAN

57 E 3RD ST
APOPKA, FLORIDA
DECEMBER 2023

PARCEL ID: 09-21-28-0196-20-232



VICINITY MAP

N.T.S.

SECTION: 09
TOWNSHIP: 21 S
RANGE: 28 E

Sheet List Table	
Sheet Number	Sheet Title
C-000	COVER SHEET
C-010	SIGNATURE SHEET
C-015	GENERAL NOTES
C-020	AERIAL PLAN
C-030	STORMWATER POLLUTION PREVENTION PLAN
C-040	EROSION CONTROL NOTES
C-050	DEMOLITION PLAN
C-100	SITE PLAN
C-200	GRADING AND DRAINAGE PLAN
C-300	UTILITY PLAN
C-400	DETAILS
L-001	LANDSCAPE PLAN
L-002	LANDSCAPE DETAILS
IR-001	IRRIGATION PLAN
IR-002	IRRIGATION DETAILS
E-001	ELECTRICAL SYMBOLS AND SPECS
E-101	ELECTRICAL SITE PLAN
E-102	SITE PLAN - PHOTOMETRICS
E-103	ELECTRICAL DETAILS - PHOTOMETRICS
E-201	ELECTRICAL LIGHTING PLAN
E-301	ELECTRICAL POWER AND SYSTEMS PLAN
E-501	ELECTRICAL ONE LINE DIAGRAM AND SCHEDULES
E-801	ELECTRICAL DETAILS
V-01	BOUNDARY AND TOPOGRAPHIC SURVEY

PROJECT TEAM:

DEVELOPER/OWNER:
FARM CREDIT OF CENTRAL FLORIDA
204 EAST ORANGE STREET, SUITE 200
LAKELAND, FL 33801

CIVIL ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC
JASON A. ALLIGOOD
109 SOUTH KENTUCKY AVENUE
LAKELAND, FL 33801
(863) 274-2261
JASON.ALLIGOOD@KIMLEY-HORN.COM

ARCHITECT:
THE LUNZ GROUP
BRAD LUNZ
58 LAKE MORTON DRIVE
LAKELAND, FL
BLUNZ@LUNZ.COM

SURVEYOR:
DEAL LAND SURVEYING, LLC
804 S FRENCH AVENUE
SANFORD, FL 32771
INFO@DEALLANDSURVEYING.COM

UTILITY PROVIDERS

WATER/WASTEWATER:
CITY OF APOPKA
748 E. CLEVELAND STREET
APOPKA, FL 32703
REARP@APOPKA.NET

GAS:
LAKE APOPKA NATURAL GAS DISTRICT
1320 WINTER GARDEN VINELAND RD
WINTER GARDEN, FL 34787
RCOOK@LANGD.ORG

ELECTRIC
DUKE ENERGY
452 E. CROWN POINT RD
WINTER GARDEN, FL
(407) 905-3376

FIBER:
CHARTER COMMUNICATIONS
700 CARILLON PKWY
ST. PETERSBURG, FL 33716
(407) 532-8520

FIBER:
MCI
INVESTIGATIONS TEAM
(800) 624-9675 EXT.2

FIBER:
CENTURYLINK
1325 BLAIRSTONE RD
TALLAHASSEE, FL 32301
(850) 599-1444

LEGAL DESCRIPTION:

THE WEST 100 FEET OF THE EAST 100 FEET OF LOT 23, BLOCK "B", CHAPNEY'S PORTION OF APOPKA, A PER PLAT BOOK A, PAGE 87, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

BASIS OF BEARINGS AND ELEVATION:

BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH LINE OF THE SUBJECT PROPERTY, ASSUMED TO BEING N89°30'31"W.

ELEVATIONS ARE BASED UPON NAVD 88 DATUM.

CALL 2 WORKING DAYS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JASON A. ALLIGOOD, P.E. #71103. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
109 SOUTH KENTUCKY AVENUE, LAKELAND, FL 33801
PHONE: (863) 274-2261
WWW.KIMLEY-HORN.COM REG NO.: 35106

JASON ALLIGOOD LICENSE No. 71103 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 12/20/2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

COVER SHEET

FARM CREDIT APOPKA
PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-000

Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-000 COVER SHEET December 20, 2023 03:50:31pm K:\Lak_civil\046376016 - lunz farm credit apopka\CAD\PlanSheets\C-000--COVER.dwg
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Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-010 SIGNATURE SHEET December 20, 2023 03:50:41pm K:\Ode_dist\046376016 - lunz farm credit apopka\CAD\plansheets\C-010 SIGNATURE SHEET.dwg
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JASON A. ALLIGOOD
LICENSE
No 71103
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Jason A Alligood

ON THE DATE ADJACENT TO THE SEAL

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KIMLEY HORN AND ASSOCIATES, INC.
109 SOUTH KENTUCKY AVENUE
LAKELAND, FLORIDA 33801
CERTIFICATION OF AUTHORIZATION NO. 696
JASON A. ALLIGOOD, P.E. NO. 71103

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

PLAN SHEETS

C-000	COVER SHEET
C-010	SIGNATURE SHEET
C-015	GENERAL NOTES
C-020	AERIAL PLAN
C-030	STORMWATER POLLUTION PREVENTION PLAN
C-040	EROSION CONTROL NOTES
C-050	DEMOLITION PLAN
C-100	SITE PLAN
C-200	GRADING AND DRAINAGE PLAN
C-300	UTILITY PLAN
C-400	DETAILS

REGISTERED LANDSCAPE ARCHITECT
LEIGH ANN LUNZ
LA 6667086
STATE
OF
FLORIDA

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by LEIGH A LUNZ
Date: 2024.01.08 16:02:55 -05'00'

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

DIRT
922 FAIRLINGTON DRIVE
LAKELAND, FLORIDA 33813
LEIGH A. LUNZ, PLA

THE ABOVE NAMED REGISTERED LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

PLAN SHEETS

L-001	LANDSCAPE PLAN
L-002	LANDSCAPE DETAILS
IR-001	IRRIGATION PLAN
IR-002	IRRIGATION DETAILS

CRAIG W. THOMPSON
LICENSE
No 92233
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Digitally signed by Craig W Thompson
DN: CN=Craig W Thompson, ...
Date: 2023.01.06 15:05:12 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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SGM ENGINEERING
935 LAKE BALDWIN LANE
ORLANDO, FLORIDA 32814
CRAIG W. THOMPSON, P.E. NO. 92233

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

PLAN SHEETS

E-001	ELECTRICAL SYMBOLS AND SPECS
E-101	ELECTRICAL SITE PLAN
E-102	SITE PLAN - PHOTOMETRICS
E-103	ELECTRICAL DETAILS - PHOTOMETRICS
E-201	ELECTRICAL LIGHTING PLAN
E-301	ELECTRICAL POWER AND SYSTEMS PLAN
E-501	ELECTRICAL ONE LINE DIAGRAM AND SCHEDULES
E-801	ELECTRICAL DETAILS

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

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JASON A. ALLIGOOD LICENSE No 71103 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 12/20/2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JASON A. ALLIGOOD, P.E. #71103. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SIGNATURE SHEET

FARM CREDIT APOPKA
PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-010

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES INCURRED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE CONSTRUCTION PLANS AND PERMIT CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION ITEMS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
11. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
12. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
14. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA.
15. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN PREPARED UNDER THE DIRECTION OF, AND SIGNED AND SEALED BY, A LICENSED FLORIDA PROFESSIONAL ENGINEER WHO IS EXPERIENCED IN PREPARING TRAFFIC CONTROL PLANS AND WHO IS CERTIFIED PER FDOT PROCEDURE, TOPIC NO. 625-010-010. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE FDOT REQUIRES DOCUMENTATION FOR SUCCESSFUL COMPLETION OF AN APPROVED WORK ZONE TRAFFIC CONTROL TRAINING COURSE FOR THE AGENCY, UTILITY, OR CONTRACTOR EMPLOYEE(S) DESIGNING, INSTALLING, AND/OR MAINTAINING THE APPROVED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH DEPARTMENT PROCEDURE, TOPIC NO. 625-010-010. ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR THE FOLLOWING FACILITIES SHALL BE DESIGNED AND INSTALLED TO MEET THE EXISTING POSTED SPEEDS AS STATED FOR ALL TRAFFIC CONTROL PHASES: US 441/US 17-92 (ORANGE BLOSSOM TRAIL) - 35 MPH

MAINTENANCE

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 55 CUBIC YARDS / ACRE.
7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THIS EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMPS) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS. REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS FOR SEEDING AND MAINTENANCE REQUIREMENTS.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.
21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
22. SEDIMENTATION CONTROLS/BMPS SHALL PREVENT STORMWATER RUNOFF WITH TURBIDITY GREATER THAN 29 NTUS FROM LEAVING THE CONSTRUCTION SITE.
23. INSPECTIONS BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS SHALL BE CONDUCTED DAILY AND WITHIN 24 HOURS AFTER EACH 0.50 INCH OR GREATER RAINFALL EVENT, ANY NECESSARY REMEDIES SHALL BE PERFORMED IMMEDIATELY.
24. ALL EXCESS FILL TO BE HAULED OFF-SITE.
25. DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF WATER WITH TURBIDITY GREATER THAN 29 NTUS FROM THE SITE. IF ANALYTICAL RESULTS FROM GROUNDWATER SAMPLES DETERMINE THAT SITE IS CONTAMINATED, A CITY WASTEWATER INDUSTRIAL WASTE PRE-TREATMENT GROUNDWATER PERMIT MUST BE OBTAINED FOR PROPER DISPOSAL INTO CITY SANITARY SYSTEM.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE, UNLESS OTHERWISE NOTED. ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN COUNTY'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS, WHICHEVER IS MOST RESTRICTIVE OF THE TWO.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
3. TRAFFIC CONTROL ON ALL FDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
12. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO FDOT STANDARDS, IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
13. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS. FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
14. ALL CUT OR FILL SLOPES SHALL BE 4 (HORIZONTAL) : 1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
16. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.
17. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
18. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE ENVIRONMENTAL RESOURCE PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY WATER MANAGEMENT DISTRICT REPRESENTATIVES.
19. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
20. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.
21. LAKE/POND EXCAVATION NOTE: NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE, AND NO SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND/OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA, EPC MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS. IN THE ABSENCE OF ANY CONFINING OR SEMI-CONFINING UNIT CLAYEY SOILS, A MINIMUM OF FIVE FEET OF UNDISTURBED SOILS MUST REMAIN ABOVE THE UNDERLYING LIMESTONE.

SAFETY

1. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
2. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL PROVIDE FOR THE SAFETY AND CONTROL OF LOCAL TRAFFIC DURING CONSTRUCTION. ADDITIONAL INFORMATION MAY BE REQUIRED IF LANE CLOSURE DURATIONS ARE LONGER THAN DAYTIME OPERATIONS.

WATER AND SEWER UTILITY NOTES

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, SEWER FORCE MAINS, MANHOLES, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING, AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE SURVEYED BY A PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION A

Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-020 AERIAL PLAN December 20, 2023 03:51:08pm K:\lak_civil\046376016 - lunz farm credit apopka\CAD\PlanSheets\C-020-AERIAL.dwg
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SHEET NUMBER C-020

FARM CREDIT APOPKA

PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

AERIAL PLAN

KHA PROJECT	046376016
DATE	11-29-2023
SCALE	AS SHOWN
DESIGNED BY	NJL
DRAWN BY	NJL
CHECKED BY	JAA

JASON A. ALLIGOOD LICENSE No 71103 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 12/20/23

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No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

STORMWATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

PROJECT NAME AND LOCATION

FARM CREDIT APOPKA
PARCEL ID #: 09-21-28-0196-20-232
CITY OF APOPKA, FLORIDA

*SEE COVER SHEET FOR LOCATION MAP

DEVELOPER NAME AND ADDRESS

FARM CREDIT OF CENTRAL FLORIDA
204 EAST ORANGE STREET, SUITE 200
LAKELAND, FLORIDA 33801
CONTACT: DAWN TUTEN

PROJECT DESCRIPTION

THE PROPOSED PROJECT WILL CONSIST OF TEARING DOWN AND RECONSTRUCTING THE EXISTING APOPKA FARM CREDIT BANK BUILDING WITH ASSOCIATED PAVED PARKING AND ACCESS POINTS.

PROJECT AREA: 0.413 ACRES
CONTRIBUTING DRAINAGE AREA: 0.413 ACRES

LONGITUDE : W 81° 30' 38" LATITUDE: N 28° 40' 29"

ULTIMATE RECEIVING WATERS: DREAM LAKE

ACTIVITIES THAT REQUIRE EROSION CONTROL

PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; SITE GRADING; INSTALLATION OF SANITARY SEWER SERVICE AND WATER BACKFLOW AND SERVICE; CURB, ROADWAYS, AND PARKING FACILITIES.

*SEE PLANS FOR THE LOCATION OF TEMPORARY SEDIMENT BARRIERS AND OTHER EROSION CONTROL METHODS.

SOIL PARAMETERS

SOIL TYPES:

SERIES NAME	HYDROLOGIC GROUP
TAVARES FINE SAND, 0-5% SLOPES	A

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF CONSTRUCTION IS AS FOLLOWS:

1. PROVIDE STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND OTHER EROSION CONTROL METHODS
3. CLEAR SITE AND GRUB IN ACCORDANCE WITH DEMOLITION PLAN
4. CONSTRUCT EARTH DIKE AND SEDIMENT BASIN (NE CORNER OF SITE)
5. FINISH CLEARING AND GRUBBING
6. REMOVE AND STORE TOPSOIL
7. PROVIDE INITIAL GRADING AS REQUIRED
8. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE
9. INSTALL UTILITIES, CURB AND GUTTER
10. INSTALL BASE TO ROAD AND PARKING AREA
11. FINISH GRADING ENTIRE SITE
12. CONSTRUCT FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT
14. REMOVE ANY ITEMS THAT ARE NOT REQUIRED

TIMING OF CONTROL MEASURES

THE INSTALLATION OF SILT FENCE (AND OTHER EROSION CONTROL MEASURES), A STABLIZED ENTRANCE AND SEDIMENT BASIN SHALL OCCUR PRIOR TO CLEARING AND GRUBBING ACTIVITY. AFTER CONSTRUCTION IS COMPLETE, THE ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE AREAS SHALL BE REGRADED AND PERMANENTLY STABILIZED AS SHOWN ON THE PLANS.

EROSION AND SEDIMENT CONTROLS

BEST MANAGEMENT PRACTICES SHALL BE USED FOR THIS PROJECT TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN-OFF. THE LOCATION AND DETAILS OF EROSION CONTROL METHODS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING THESE CONTROL METHODS AS SHOWN ON THE PLANS OR AS REQUIRED. HE/SHE SHALL ALSO PROVIDE THE REQUIRED EROSION PROTECTION AS REQUIRED BY LOCAL, STATE AND FEDERAL LAW.

STORM WATER MANAGEMENT

STORMWATER COLLECTION SHALL BE PROVIDED BY SURFACE FLOW THAT FOLLOWS EXISTING CONDITIONS. THE RUNOFF FROM THE SITE WILL DISCHARGE TO THE EXISTING SWALE ALONG THE NORTH PROPERTY BOUNDARY AND RECOVER FROM THE DESIGN STORM IN ACCORDANCE WITH SJWMD SPECIFICATIONS AND THE CITY OF APOPKA LAND DEVELOPMENT CODE.

STABILIZATION PRACTICES:

TEMPORARY STABILIZATION - TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE, SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED REQUIRED CAN BE FOUND IN TABLE 1.65 A OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, WHERE SOILS ARE ACIDIC 2 TONS OF PULVERIZED AGRICULTURAL LIMESTONE SHOULD BE ADDED PER ACRE AND 450 POUNDS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EACH ACRE. AFTER SEEDING, EACH AREA SHALL BE IMMEDIATELY MULCHED WITH STRAW OR EQUIVALENT EQUAL. AREAS OF THE SITE WHICH ARE TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE APPROPRIATE PERMANENT SEED MIX CAN BE FOUND IN TABLES 1.66A, 1.66B AND 1.66C OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, 2 TONS/ACRE OF FINELY GROUND AGRICULTURAL LIMESTONE AND THE PROPER FERTILIZER BASED ON THE TYPE OF SEEDING SHALL BE APPLIED TO EACH ACRE TO PROVIDE PLANT NUTRIENTS. AFTER SEEDING, EACH AREA SHALL BE MULCHED IMMEDIATELY.

STRUCTURAL PRACTICES:

EARTH DIKE - IF REQUIRED, AN EARTH DIKE SHALL BE CONSTRUCTED ALONG THE SITE PERIMETER. A PORTION OF THE DIKE SHALL DIVERT RUN-ON AROUND THE CONSTRUCTION SITE. THE REMAINING PORTION OF THE DIKE SHALL COLLECT RUNOFF FROM THE DISTURBED AREA AND DIRECT THE RUNOFF TO THE SEDIMENT BASIN.

SEDIMENT BASIN - A SEDIMENT BASIN SHALL BE CONSTRUCTED IN THE COMMON DRAINAGE AREA FOR THE SITE. ALL SEDIMENT COLLECTED IN THE BASIN MUST BE REMOVED FROM THE BASIN UPON COMPLETION OF CONSTRUCTION. SEDIMENT FROM THE BASIN MAY BE USED AS FILL ON THE SITE IF IT IS SUITABLE SOIL.

WASTE DISPOSAL

WASTE MATERIALS - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.

HAZARDOUS WASTE - HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THESE PROCEDURES SHALL BE POSTED ON THE SITE. THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.

SANITARY WASTE - SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.

OFF-SITE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE MAJOR ROAD CONNECTED TO THE PROJECT SHALL BE CLEANED ONCE A DAY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK RESULTING FROM CONSTRUCTION TRAFFIC. ALL TRUCKS HAULING MATERIALS OFFSITE SHALL BE COVERED WITH A TARPAULIN.

DUST & DEBRIS CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL WITHIN THE CONSTRUCTION LIMITS AS WELL AS ALONG HAUL ROUTES AND ROADWAYS USED BY THE EQUIPMENT AND VEHICLES. THE CONTRACTOR SHALL ENSURE THAT EXCESSIVE DUST IS NOT TRANSPORTED BEYOND THE LIMITS OF CONSTRUCTION IN POPULATED AREAS. THE CONTRACTOR MAY CONTROL DUST FOR EMBANKMENTS OR OTHER CLEARED OR UNSURFACED AREAS BY APPLYING WATER. INSTALL MULCH, SEED, SOD, OR TEMPORARY PAVING AS EARLY AS PRACTICAL. CONTROL DUST DURING STORAGE AND HANDLING OF DUSTY MATERIALS BY WETTING, COVERING, OR OTHER MEANS AS APPROVED BY THE ENGINEER. CONTRACTOR SHALL ENFORCE REDUCED VEHICLE SPEEDS ON UNPAVED ROADS AND IF NECESSARY PROHIBIT CONSTRUCTION GRADING WHEN WIND GUSTS EXCEED 25 MPH, OR OTHERWISE DIRECTED BY E.O.R. OR COUNTY INSPECTOR.

ITEMS REQUIRING POLLUTION PREVENTION

THE FOLLOWING ITEMS ARE EXPECTED TO BE PRESENT ON THE PROJECT SITE:

-ASPHALT
-CONCRETE
-FERTILIZERS
-METAL PIECES
-PETROLEUM BASED PRODUCTS
-TAR
-CLEANING SUPPLIES
-DETERGENTS
-MASONARY BLOCK/BRICKS
-PAINT
-WOOD

THE FOLLOWING ARE NON-STORM WATER SOURCES THAT WILL BE ENCOUNTERED AT THE SITE AND SHOULD BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE:

-UNCONTAMINATED GROUNDWATER EXPOSED DURING EXCAVATION
-WATER FROM WATER LINE FLUSHING
-PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

SPILL PREVENTION AND CONTROL

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.

STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT COMPLETION.

ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.

ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.

PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.

ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

HAZARDOUS PRODUCTS

MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS AND PRODUCT INFORMATION SHALL BE SAVED.

PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.

PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS MUST BE STORED IN PROPER CONTAINERS AND CLEARLY LABELED. VEHICLES CONTAINING PETROLEUM PRODUCTS SHALL BE PERIODICALLY INSPECTED FOR LEAKS. PRECAUTIONS SHALL BE TAKEN TO AVOID LEAKAGE OF PETROLEUM PRODUCTS ON SITE.

THE MINIMUM AMOUNT OF FERTILIZER SHALL BE USED AND MIXED INTO THE SOIL IN ORDER TO LIMIT EXPOSURE TO STORM WATER. FERTILIZERS SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINT CONTAINERS SHALL BE SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT MUST BE DISPOSED OF IN AN APPROVED MANNER.

CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

-SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.

-THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAWDUST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.

-ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.

-WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.

-TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.

-AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL, MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.

-THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

MAINTENANCE AND INSPECTION PRACTICES

THE FOLLOWING ARE MAINTENANCE AND INSPECTION PRACTICES THAT SHALL BE COMPLETED BY THE CONTRACTOR:

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE CHECKED DAILY AND AFTER EACH 0.5 INCH OR GREATER RAINFALL BY THE SUPERINTENDENT OR SOMEONE UNDER HIS/HER DIRECT SUPERVISION.

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE KEPT IN GOOD CONDITION. REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.

-THE SILT FENCE SHALL BE INSPECTED PERIODICALLY FOR HEIGHT OF SEDIMENT AND CONDITION OF FENCE.

-THE SILT FENCE SHALL BE CLEARED OF SEDIMENT WHEN SEDIMENT MEASURES ONE-THIRD THE HEIGHT OF THE FENCE.

-THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED MONTHLY FOR DEPTH OF SEDIMENT. THEY SHALL BE CLEANED WHEN SEDIMENT REACHES 10% OF TOTAL CAPACITY AND AFTER CONSTRUCTION IS COMPLETE.

-DIVERSION DIKES SHALL BE INSPECTED MONTHLY. ANY BREACHES SHALL BE PROMPTLY REPAIRED.

-ALL SEEDING SHALL BE CHECKED FOR PROPER GROWTH AND UNIFORMITY. UNSTABALIZED AREAS SHALL BE RE-SODDED.

-A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN ORGANIZED MANNER AND RETAINED ON-SITE DURING CONSTRUCTION. AFTER CONSTRUCTION IS COMPLETED, THE REPORTS SHALL BE SAVED FOR AT LEAST THREE YEARS. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.

-THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: _____ DATE:_____

JASON A. ALLIGOOD, P.E.
FLORIDA REGISTRATION NUMBER: 71103
PROFESSIONAL ENGINEER

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FORM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

SIGNATURE AND DATE	NAME AND TITLE, COMPANY / ADDRESS AND TELEPHONE NUMBER	RESPONSIBILITY

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
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JASON A. ALLIGOOD — STATE OF FLORIDA — No. 71103 — PROFESSIONAL ENGINEER — DATE: 11-29-2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY N.JL
DRAWN BY N.JL
CHECKED BY JAA

STORMWATER POLLUTION PREVENTION PLAN

FARM CREDIT APOPKA
PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-030

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Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-030 EROSION CONTROL PLAN December 20, 2023 03:51:20pm K:\Ofc_civil\046376016 - lunz farm credit apopka\CAD\PlanSheets\C-030-EROS.dwg
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CLEARING AND SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.
2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.
3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.
5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.
6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.
7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.
8. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, DEMOLITION RUBBLE, AND OTHER UNDESIRABLE MATERIALS. SUCH MATERIALS SHALL BE PROMPTLY HAULED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH GOVERNING LAWS AND CODES.

EROSION AND SILTATION CONTROL:

1. GENERAL: ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. DURING CONSTRUCTION, CLEARED AREAS SHALL BE COVERED BY MULCHES SUCH AS STRAW, HAY AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR HAY BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMIZE DOWNSTREAM SILTATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.
2. PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS THAT PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.
3. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
4. SEDIMENT BASINS AND SEDIMENT TRAPPING MEASURES: PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE WEEK OF INSTALLATION.
5. SWALES, DITCHES AND CHANNELS: CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITH ARGENTINE BAHIA WITHIN THREE (3) DAYS OF EXCAVATION.
6. UNDERGROUND UTILITY CONSTRUCTION: UNDERGROUND UTILITY LINES AND OTHER STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
   A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPEN AT ANY ONE TIME;
   B. EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES AS LONG AS SAFETY AND SPACE CONSIDERATION ALLOW. TRENCH MATERIAL SHALL NOT BE CAST INTO, (OR ONTO THE SLOPE OF) ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.
7. ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE REGULARLY INSPECTED AND MAINTAINED, (ESPECIALLY AFTER EACH RAINFALL) AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
8. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO RAIN SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM.
9. APPLICATION RATES AND METHODS FOR USE OF FERTILIZERS AND PESTICIDES AT THE CONSTRUCTION SITE SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION SUCH THAT DISCHARGES WILL NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF STATE SURFACE OR GROUNDWATER QUALITY STANDARDS.
10. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED BY CONTRACTOR.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF LOCAL, STATE, AND FEDERAL REGULATIONS. THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL.
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT EROSION AND SEDIMENT CONTROL MANUAL AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

SECTION 1 GENERAL EROSION CONTROL:

1. GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLOPE FAILURES. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.
2. CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY USED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY AND/OR OVERSEEDED AND SUFFICIENTLY WATERED TO STABILIZE THE TEMPORARY GROUNDCOVER.
3. BANKS OF RETENTION/DETENTION PONDS SHALL NOT BE CONSTRUCTED STEEPER THAN 4H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.
4. A 1-FOOT WIDE STRIP OF SOD SHALL BE PLACED ALONG ALL CURBING AND AROUND ALL INLETS. SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.
5. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING COMPLETION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY THE OWNER. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER REGARDING THE TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

1. SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.
2. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.
3. EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:
   A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
   B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FDOT INDEX 102. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.
4. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENTSUMPS WITHIN SUCH AREAS TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.
5. SILT BARRIERS: ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.
6. PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE BY INSTALLING A TEMPORARY SEDIMENT SUMP AS REQUIRED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

SECTION 3 CONTROL OF WIND EROSION:

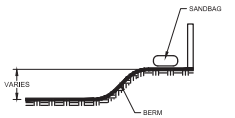
1. WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:
   A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
   B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION BARE EARTH AREAS SHALL BE VEGETATED.
   C. ANY TIME DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR THE TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX 102, EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

DEMOLITION NOTES (IF NECESSARY):

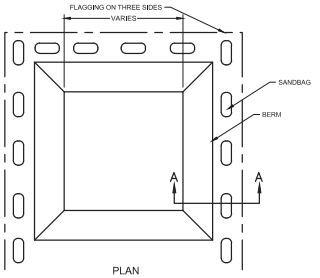
1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.
2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.
3. SITE DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO:
   A. ROADWAY
   B. DRAINAGE AREA
   C. SITE UTILITIES
   D. LANDSCAPING
4. CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
5. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN."
6. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
7. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.
8. LOCATE EXISTING ABOVE-GROUND AND UNDERGROUND UTILITIES IN AREAS OF WORK. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION OPERATION.
9. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
10. DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED."
11. PROTECT: STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES FROM DAMAGE CAUSED BY: SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.
12. FOR SELECTIVE CLEARING REFER TO LANDSCAPE PLAN.
13. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. FURTHERMORE, CONTRACTOR SHALL PROVIDE TO THE ENGINEER A PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS NOTED ON PLANS.
14. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING 100-YEAR STORM EVENTS.

DEWATERING NOTES (IF NECESSARY):

1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE A CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE WETLANDS PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.
2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO ON-SITE WETLANDS.
3. DURING EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER IF PRESENT. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.
4. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH A CHEMICAL ADDITIVE SUCH AS ALUM IN ORDER TO PROMOTE THE COAGULATION AND SETTLEMENT OF THE PARTICLES FOR THE WATER TO BECOME LESS TURBID. IF TURBID WATER IS ENCOUNTERED DURING EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OFACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBITY AND ALLOW DISCHARGE THAT MEETS AFTER QUALITY STANDARDS.
5. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER PONDS SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY TO ENSURE THE WATER WITHIN THE SEDIMENT BASIN BECOMES NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.



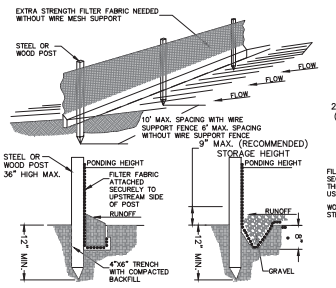
SECTION A - A



PLAN

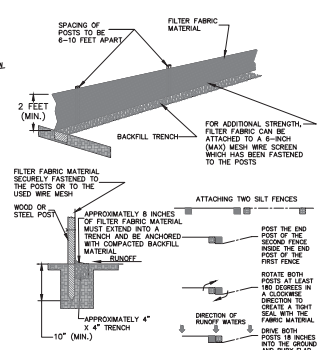
3 C103 CONCRETE WASHOUT AREA
SCALE : NTS

NOTE: CONCRETE WASHOUT SHALL BE SIZED APPROPRIATELY FOR CONCRETE POUR TASK AT HAND

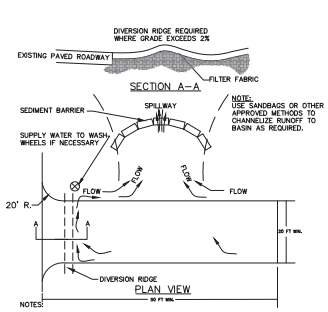


NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAIL



SILT FENCE INSTALLATION DETAIL



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

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PHONE: 863-577-1701
WWW.KIMLEY-HORN.COM REG NO.: 35106

STATE OF FLORIDA — JASON A. ALLGOOD — No 71103 — PROFESSIONAL ENGINEER — DATE: 12/20/2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY N.J.L.
DRAWN BY N.J.L.
CHECKED BY JAA

EROSION CONTROL NOTES

FARM CREDIT APOPKA

PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-040

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Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-040 EROSION CONTROL NOTES December 20, 2023 03:51:32pm K:\Ldv_civil\046376016 – lunz farm credit apopka\CAD\PlanSheets\C-040-EROS-NOTE.dwg
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DEMOLITION & EROSION CONTROL NOTES:

1. ALL EXISTING INFRASTRUCTURE WITHIN THE LIMITS OF DEMOLITION SHALL BE REMOVED, CLEARED AND GRUBBED.
2. ALL DEMOLITION SHALL BE WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
3. CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
4. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN.
5. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
6. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
7. LOCATE EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES IN AREAS OF WORK IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION OPERATION.
8. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
9. DEMOLISH AND COMPLETELY REMOVE FROM SITE, MATERIAL INDICATED ON PLAN OR NOTES.
10. THE USE OF EXPLOSIVES IS NOT PERMITTED.
11. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.
12. CONTRACTOR IS TO PROVIDE APPROVED EROSION CONTROL/SEDIMENTATION BARRIERS TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL AS NEEDED ON THE GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE.
13. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF DEMOLITION SHALL BE RE-LANDSCAPED AND IRRIGATION SYSTEMS REPAIRED TO PREVIOUS WORKING CONDITIONS.
14. ALL UTILITIES LOCATED WITHIN THE LIMITS OF DEMOLITION SHALL BE REMOVED TO THE LIMITS OF DEMOLITION AND/OR R/W AND CAPPED IF UNUSED (WHERE APPLICABLE) UNLESS OTHERWISE NOTED.
15. ALL EXISTING CURBING AND ASPHALT PAVEMENT WITHIN THE LIMITS OF DEMOLITION SHALL BE SAW CUT AND REMOVED UNLESS OTHERWISE NOTED.
16. CONTRACTOR TO FIELD VERIFY PRESENCE OF ALL ASPHALT PAVEMENT WITHIN THE LIMITS OF DEMOLITION.
17. CONTRACTOR IS TO OBTAIN PROPER PERMITS PRIOR TO DEMOLITION OF EXISTING STRUCTURES.
18. CONTRACTOR TO INSTALL SAFETY FENCE AND PROPERLY SIGN/MARK AROUND WORK AND STAGING AREA TO PREVENT PEDESTRIAN TRAFFIC FROM ENTERING.
19. CONTRACTOR SHALL PROVIDE ADEQUATE MAINTENANCE OF TRAFFIC AROUND WORK AND STAGING AREA.
20. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND, REMOVING, AND/OR RELOCATING EXISTING UTILITIES AND COORDINATE WITH UTILITY PROVIDER AS NEEDED.
21. CONTRACTOR TO COORDINATE WITH OWNER ON LOCATION OF CONSTRUCTION ENTRANCE.
22. CONTRACTOR SHALL REMOVE ALL INVASIVE PLANT MATERIALS LOCATED ONSITE.
23. IF APPLICABLE, EXISTING SEPTIC TANK(S), DOSING TANK(S), AND DRAINFIELD(S) TO BE PROPERLY REMOVED AND LEGALLY DISPOSED OF BY A LICENSED SEPTIC SYSTEM CONTRACTOR.
24. BUILDING SEWER LATERALS FOUND DURING CONSTRUCTION AND NOT BEING REMOVED TO BE CAPPED AS CLOSE TO THE MAIN AS POSSIBLE.
25. CONTRACTOR SHALL DOCUMENT IN AS-BUILTS ANY REMOVED/SEALED SANITARY SEWER MANHOLES, SERVICES, AND PIPES AND MUST HAVE AS-BUILTS RECEIVED AND ACCEPTED BY THE COUNTY PRIOR TO FRAMING.
26. IF SERVICE LATERALS ARE ENCOUNTERED WITHIN THE PROPERTY, THEY ARE TO BE REMOVED TO THE R/W AND CAPPED.

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

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JASON A. ALLGOOD LICENSE No 71103 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 12/20/2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

FARM CREDIT APOPKA

PREPARED FOR
THE LUNZ GROUP

CITY OF APOPKA FLORIDA

DEMOLITION PLAN

SHEET NUMBER
C-050

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Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-050 DEMOLITION PLAN December 20, 2023 03:51:46pm K:\Kok-dat\046376016 - lunz farm credit apopka\CAD\PlanSheets\C-050-DEMO.dwg
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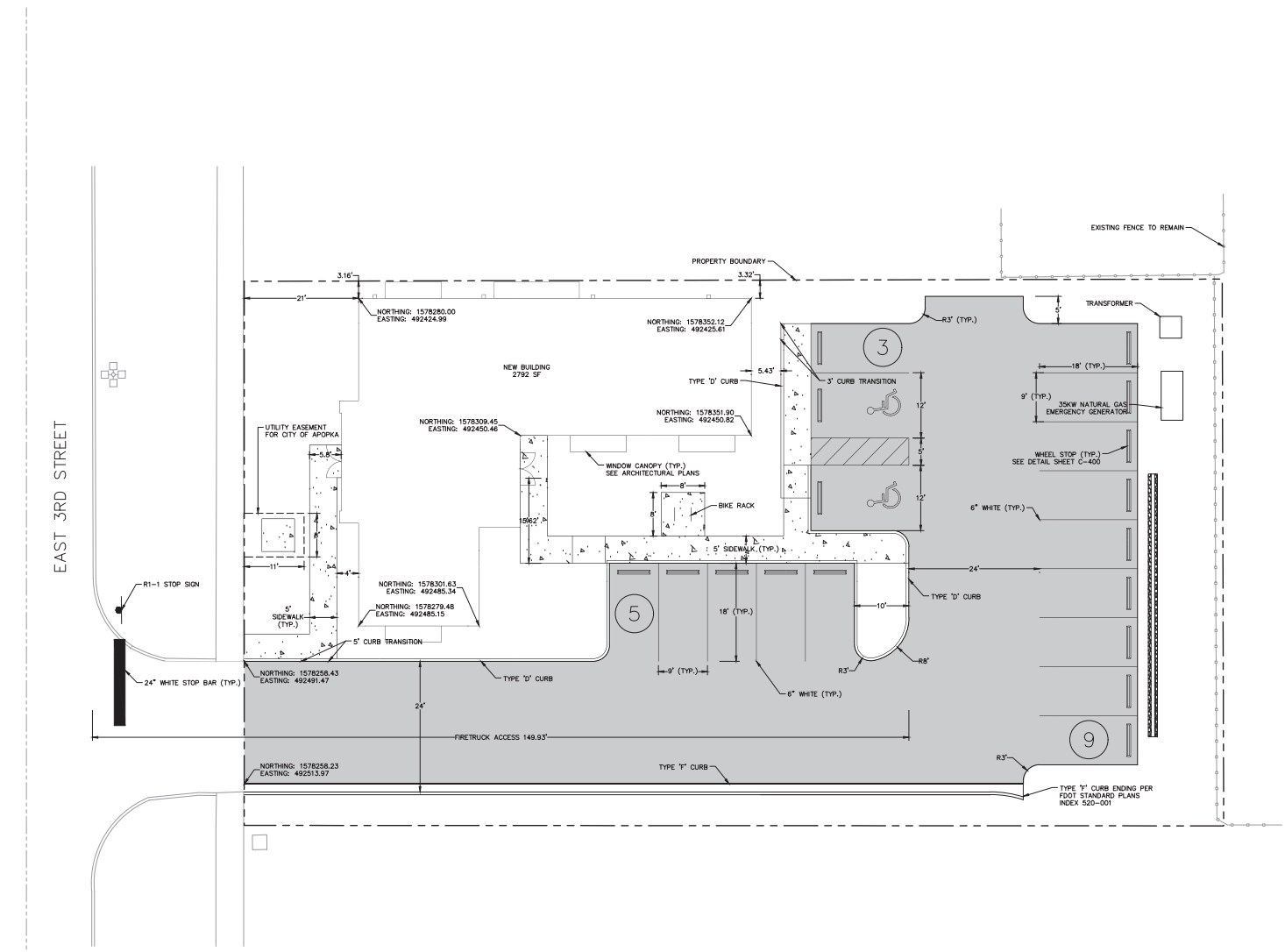

GRAPHIC SCALE IN FEET
0 5 10 20

LEGEND:

ASPHALT PAVEMENT

CONCRETE

SITE DATA TABLE	
LOCATION	SECTION 09, TOWNSHIP 21 S, RANGE 28 E
PARCEL ID	09-21-28-0196-20-232
ADDRESS	57 E 3RD STREET APOPKA, FLORIDA 32703
SITE AREA	0.413 AC
ZONING INFORMATION	
FLU:	COMMERCIAL (COMM)
ZONING:	MIXED-USE DOWNTOWN (MU-D)
PROVIDED F.A.R.	0.16
MAXIMUM F.A.R.	2.0
PROVIDED OPEN SPACE:	35.5%
MINIMUM OPEN SPACE:	7.5%
FLOOD ZONE:	ZONE X
PARKING SPACE INFORMATION	
EXISTING:	15 STANDARD
PROPOSED:	15 STANDARD 2 ADA 17 TOTAL

No.	REVISIONS	DATE	BY
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1	DD SET	08/18/23	JAA

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PHONE: 863-701-5702
WWW.KIMLEY-HORN.COM REG NO.: 35106

JASON A. ALLIGOOD
LICENSE
No 71103
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 12/20/23

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

SITE PLAN

FARM CREDIT APOPKA

PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-100

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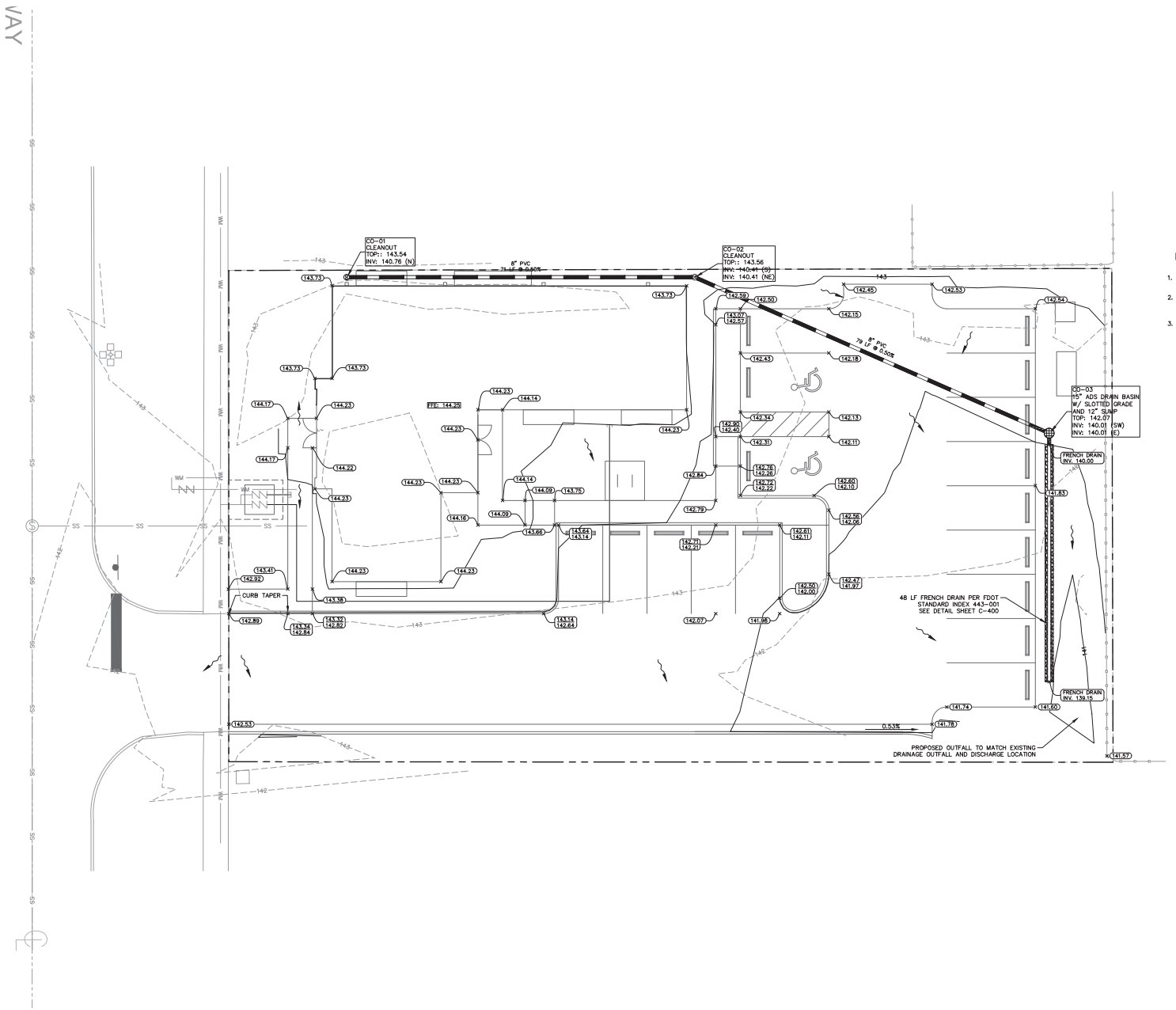

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20

LEGEND:

144.14 SURFACE ELEVATION LABEL

144.64 / 144.14 TOP OF CURB / EDGE OF PAVEMENT

DRAINAGE NOTES:

1. CONTRACTOR TO MAINTAIN EXISTING DRAINAGE PATTERNS.
2. CONTRACTOR TO CONSTRUCT TEMPORARY SEDIMENT BASIN AT NORTHEAST CORNER OF SITE, NEAR EXISTING DISCHARGE LOCATION, DURING CONSTRUCTION.
3. ROOF DOWNSPOUTS TO SURFACE DISCHARGE TOWARDS PAVED AREAS ON THE NORTH, EAST, OR SOUTH SIDES OF THE BUILDING ONLY. NO DOWNSPOUTS SHALL DISCHARGE TO THE WEST SO AS TO NOT CAUSE ADVERSE DRAINAGE IMPACTS TO ADJACENT PROPERTY'S STORMWATER CONVEYANCE.

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109 SOUTH KENTUCKY AVENUE, LAKELAND FL, 33801
PHONE: 863-701-8702
WWW.KIMLEY-HORN.COM REG NO.: 35106

JASON A. ALLGOOD
LICENSE
No 71103
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 12/20/23

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

GRADING AND DRAINAGE PLAN

FARM CREDIT APOPKA
PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-200

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Plotted By:Lamoreaux, Nathan Sheet Set:Kha Layout:C-200 MASTER GRADING PLAN December 20, 2023 03:52:13pm K:\lak_civil\046376016 - lunz farm credit apopka\CAD\PlanSheets\C-200-GRAD-MSTR.dwg
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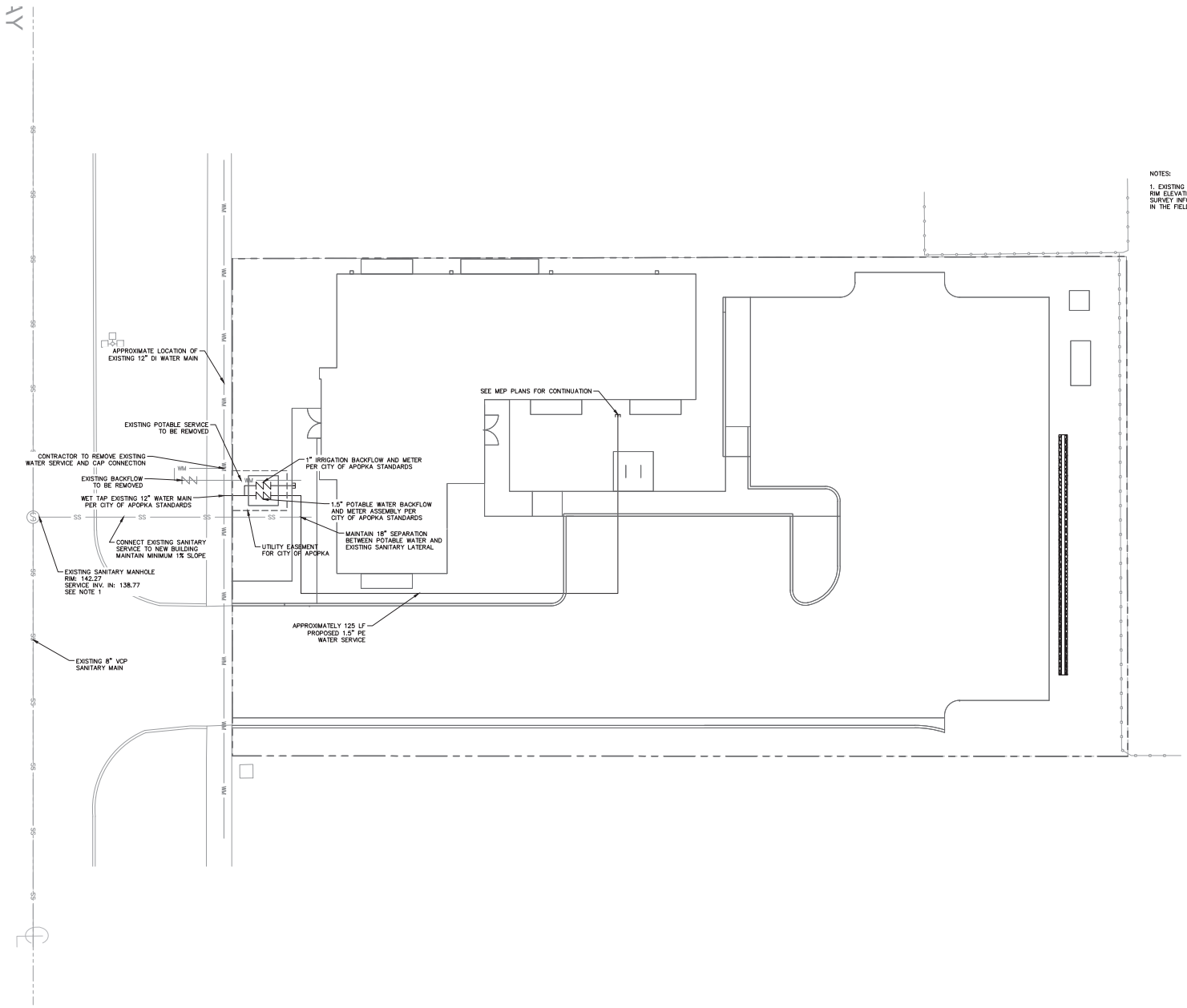

NOTES:

1. EXISTING SANITARY MANHOLE NOT INCLUDED IN SURVEY. RIM ELEVATION IS APPROXIMATE BASED UPON GENERAL SURVEY INFORMATION. SANITARY SERVICE INVERT MEASURED IN THE FIELD RELATIVE TO MANHOLE TOP.

No.	REVISIONS	DATE	BY
4	PER CITY COMMENTS	12/20/23	JAA
3	FOR CITY REVIEW	09/28/23	JAA
2	80% SET	09/08/23	JAA
1	DD SET	08/18/23	JAA

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DATE: 12/20/23

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY NJL
DRAWN BY NJL
CHECKED BY JAA

UTILITY PLAN

FARM CREDIT APOPKA
PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-300

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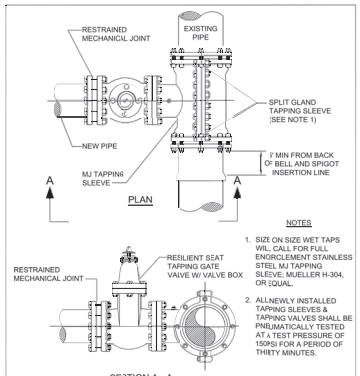
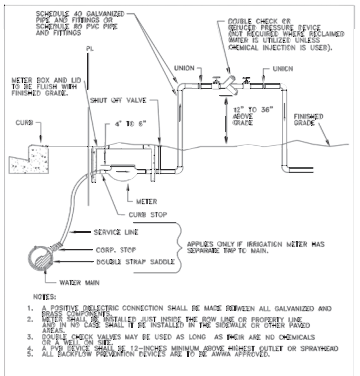


NOTES

1. SIZE ON SIZE WET TAPS WIL CALL FOR FULL ENORCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE, MUELLER H-304, OR EQUAL.
2. ALLNEW Y INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406

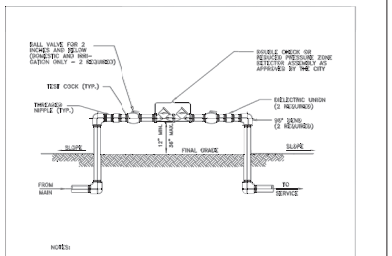


NOTES:

1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS CONNECTIONS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS ON THE SYSTEM.
4. 4" FOR SERVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 502



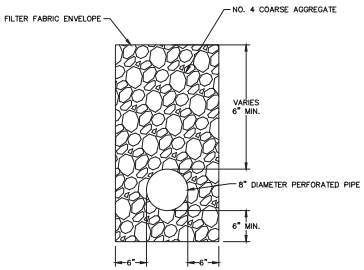
NOTES:

1. ALL PIPE, FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY

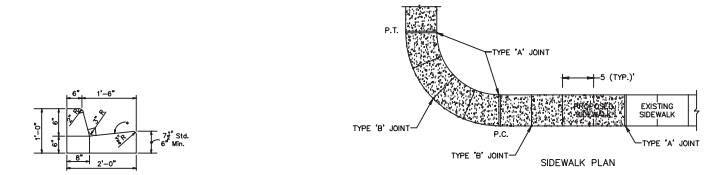
2 INCH AND BELOW ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 A

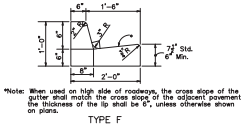


FRENCH DRAIN DETAIL

N.T.S

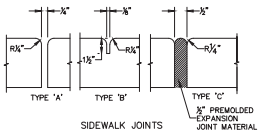


SIDEWALK PLAN



*Note: When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement the thickness of the lip shall be 6", unless otherwise shown on plans.

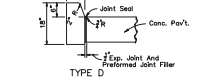
TYPE F



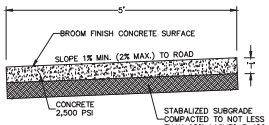
SIDEWALK JOINTS

¾" PREMOLDED EXPANSION JOINT MATERIAL

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
'A'	100' MAX. SPACING, P.C./P.T. OF CURVES, JUNCTION OF EXISTING AND NEW SIDEWALKS.
'B'	5'-0" CENTER TO CENTER
'C'	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS AND SIMILAR STRUCTURES.



TYPE D



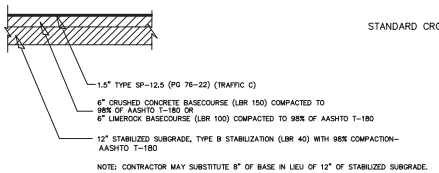
STANDARD CROSS SECTION

TABLE OF SIDEWALK THICKNESS	
LOCATION	"t"
PEDESTRIAN ONLY AREAS	4"
DRIVEWAYS AND OTHER TRAFFIC AREAS	6"

NOTE:
ALL SIDEWALK STREET CROSSINGS MUST MEET THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT (ADA) COMPLIANCE GUIDE. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.

CONCRETE SIDEWALK

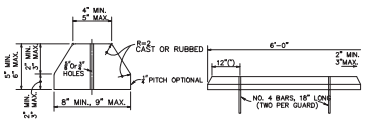
N.T.S



NOTE: CONTRACTOR MAY SUBSTITUTE 8" OF BASE IN LIEU OF 12" OF STABILIZED SUBGRADE.

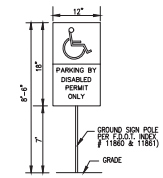
STANDARD DUTY PAVEMENT SECTION

N.T.S.



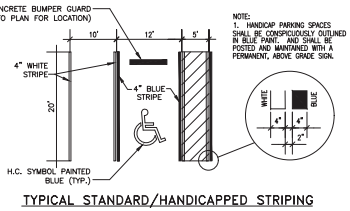
CONCRETE WHEELSTOP

SCALE : NTS



HANDICAP SIGN DETAIL

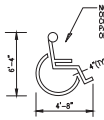
NOT TO SCALE



NOTE:
1. HANDICAP PARKING SPACES SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE GRADE SIGN.

TYPICAL STANDARD/HANDICAPPED STRIPING

NOT TO SCALE



TYPICAL SYMBOL FOR HANDICAP PKG.

NOT TO SCALE

1. TOP PORTION OF FTP 25 & 26 SHALL HAVE A REFLECTIVE SYMBOL AND BORDER.
2. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP 25 & 26 MAY BE FABRICATED ON ONE PANEL OR TWO.
4. FTP 25 MAY BE SUBSTITUTED FOR THE FTP 26 IN AREAS WHERE SPACE IS LIMITED.
5. SIGNS ARE TO BE MOUNTED AT STANDARD HEIGHT. (7' FROM PAVEMENT TO BOTTOM OF SIGN).

No.	REVISIONS	DATE	BY
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JASON A. ALLGOOD LICENSE NO. 71103 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 12/20/2023

KHA PROJECT 046376016
DATE 11-29-2023
SCALE AS SHOWN
DESIGNED BY N.J.L.
DRAWN BY N.J.L.
CHECKED BY JAA

DETAILS

FARM CREDIT APOPKA

PREPARED FOR
THE LUNZ GROUP
CITY OF APOPKA FLORIDA

SHEET NUMBER
C-400

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OPEN SPACE

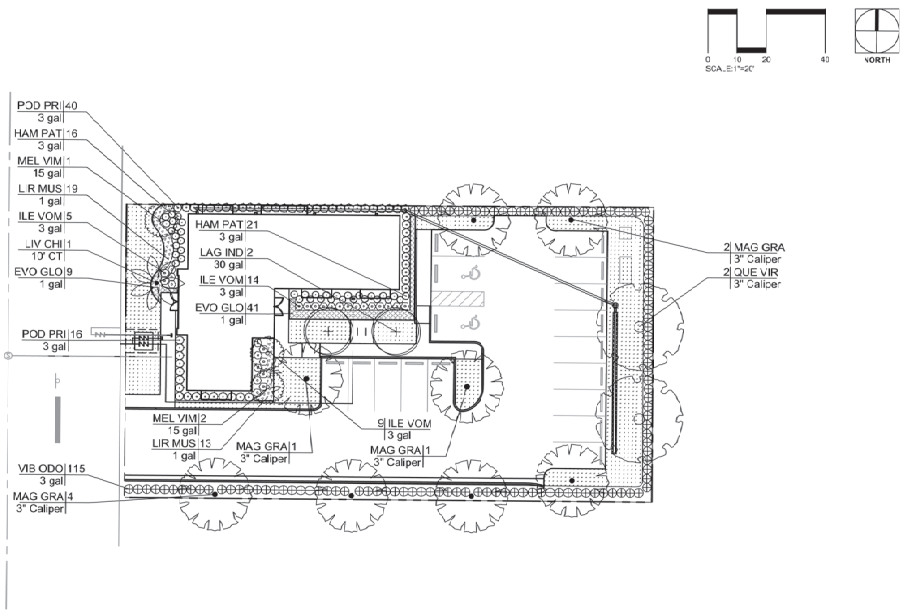
Area of Site - 18,000 Square Feet

Open Space on Site - 6,040 Square Feet
Percentage of Open Space - 33%

Sod proposed on site - 2,971 Scuare Feet
Percentage of Sod in Open Space - 49%

PLANTING NOTES

- Planting area along Right of way is a minimum of 4' in width and is the length of the building facade as required per LDC section 5.2.5.a.1.
- Foundation shrubs a minimum of 24" in height and 30" on center



PLANT SCHEDULE

TREES	BOTANICAL	COMMON	CONT	QTY	SPECIFICATIONS
LAG IND	Lagerstoema (indica x fauriei) Tuskegee	Tuskegee Crape Myrtle	30 gallon	2	10-12' Tall, Multi-Trunk
MAG GRA	Magnolia grandiflroa 'Bracker's Brown Beauty'	Bracken's Brown Beauty Magnolia	3" DBH	8	12-14' Tall, Standard
MAG GRA	Melaleuca viminalis 'Red Cascade	Red Cascade Weeping Bottlebrush	15 gallon	3	6-8' Tall, Standard
QUE VIR	Quercus virginiana 'Boardwalk'	Boardwalk Live Oak	3" DBH	2	14-16' Tall
PALMS	BOTANICAL	COMMON	CONT	QTY	SPECIFICATIONS
LIV CHI	Livistona chinensis	Chinese Fan Palm	10' C.T.	1	Matched Specimens
SHRUBS & GROUNDCOVERS	BOTANICAL	COMMON	CONT	QTY	SPECIFICATIONS
EVO GLO	Evolvulus glomeratus 'Blue Daze'	Blue My Mind Blue Daze	1 gal	50	8-12" Tall
HAM PAT	Hamelia patens 'Compacta'	Dwarf Firebush	3 gal	37	24" Tall, 18-24" Spread
ILE VOM	Ilex vomitoria 'Stoke's Dwarf'	Stoke's Dwarf Yaupon Holly	3 gal	28	15-18" Tall, 15-18" Spread
LIR MUS	Liriope muscari	Liriope	1 gal	32	8-12" Tal , 12" Spread
POD PRI	Podocarpus macrophyl us 'Pringles'	Pringles Dwarf Podocarpus	7 gal	56	24" Tall, 18" Spread
VIB ODO	Viburnum odoratissimum	Sweet Viburnum	3 gal	115	24" Tall, 24" Spread
TURF GRASS	BOTANICAL	COMMON	CONT	QTY	SPECIFICATIONS
ST. AUGUSTINE	Stenotaphrum secundatum 'Palmetto'	Palmetto St. Augustine Grass	SOD		

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THE LUNZ GROUP
Architecture | Interior Design

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fl. lic. LC0000766

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Date: 2024.01.08 16:01:03 -05'00'

FARM CREDIT - APOPKA
57 E 3RD ST
APOPKA, FL 32703

LANDSCAPE PLAN & SCHEDULE

#	ISSUED FOR	DATE
	CONSTRUCTION DOCUMENTS	09.15.2023
	SUBMITTED FOR PERMIT	12.01.2023
	DRAINAGE REVISIONS	01.24.2023

DRAWN BY: LAL
REVIEW BY: LAL

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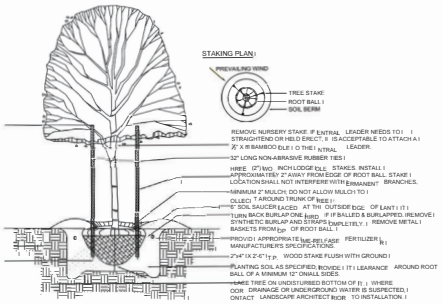

TREE PLANTING TAIL WITH STAKING

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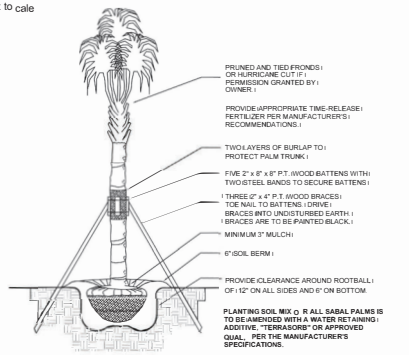
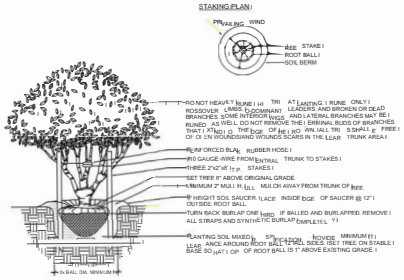


PALM PLANTING TAIL

t to scale



UL I-TRUNK EE LANTING DETAIL

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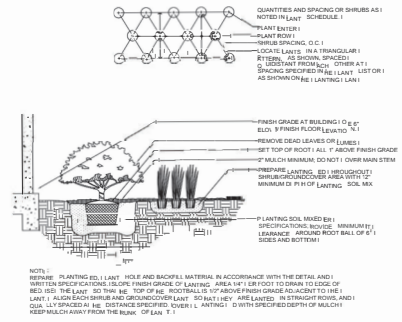

SHRUB & ROUNDCOVER PLANTING AND SPACING TAIL

not to cale

LANDSCAPE LANTING TES

1. Refer to civil plans for utility location and final grading. If actual site conditions vary from what is shown on the plans, contact the owner's representative for direction before proceeding.

2. Verify locations of pertinent site improvements installed under other sections. If any part of this plan cannot be followed due to ite conditions, contact owner's representative for in tructions prior to commencing work.

3. Verify plant counts and square footages: Quantities are provided a information only. If quantities on plant list differ from graphic indications, then graphics shall prevail.

4. Contact base engineering or the local underground utility services for utility location and identification prior to any excavating activity.

5. Perform excavation in the vicinity of underground utilities with care. The contractor bears full responsibility for thi work and disruption or damage to utilities shall be repaired immediately at no expense to the government.

6. Trees to be planted a minimum of 5 feet from face of building, or pavement, except a approved by owner's representative.

7. Provide matching forms and sizes for plant materials within each species and size designated on the drawings. All plant material shall conform to the standards of Florida #1 or better, based on the Florida Department of of Agriculture and Consumer Services Publications "Grade and Standards of Nursery Plants, Part I& II. (Contractor refer to section 720.C of the Polk County Land Development Code)

8. Mulch shall consist of a minimum of three (3) inches of Pinebark Mulch or Eucalyptus Mulch. Non-porou materials shall not be placed under mulch. Mulch must be replenished to maintain the 3" depth.

9. A three (3) foot wide ring of mulch must be maintained around all trees planted in an open area and not incorporated into a planting bed.

10. Planter beds shall be filled with native topsoil free of weeds and gras es, and incorporated organic matter to promote healthy plant growth. All plant beds are to be free of lime rock, construction debris, and any impervious material.

11. Hatracking, top pruning, or other severe pruning or maintenance practices of required plant materials that result in stunted, abnormal, or other unreasonable deviation from their normal, healthy growth i not allowed and will require replacement of affected plant material.

12. All trimming undertaken on a tree protected by the provisions of the Land Development Code hall be in accordance with the American National Standards Institute (ANSI) A-300 Pruning Standards.

13. An 8' minimum separation is required between large trees and underground water and ewer lines. A 5' minimum separation i required between small/medium and underground water and ewer lines.

14. The owner/developer i responsible for the establishment and maintenance of all plant materi al. Landscaped areas must be maintained to present a healthy, neat and orderly appearance at all time and shall be free of trash and debris.

SOD NOTES

1. Thickness of Le Turfgrass sod shall be machine cut at uni form soil thickness i at the time of cutting. Measurement for thickness of ki excludes top growth and thatch.

2. I ed Sizes: Individual pieces of turfgrass and shall be cut to the supplier's standard width and length. Max imum allowable deviation from standard i widths and lengths shall be plus or minus 0.5 inch (15 mm) on w idth and plus or minus five percent on length. I rolled pads and torn or unsuita ble ends will not be acceptable.

3. Strength of Turf Sod Sed ling: Standard s ile sections of s ri ds/grass sod shall b e strong enough that it can be picked up and handled without damage.

4. Moisture Content: Turfgrass sod sh all not be harvested or transplanted when t he moisture content (excessively dry or wet) may adversely affect its survival.

5. Sod pads to be laid flush with adjacent pads and tight against all adjacent l ands. No gaps. Butt with "heavy fit" if requested by Landscape Architect.

"If you require further clarification of what this document represents, please contact the DA coordinator of ity o f popka at 07-703-1700. "

THE LUNZ GROUP
Architecture | Interior Design
937 Fairgrove Drive
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dirt.

Digitally signed by LEIGH A LUNZ
Date: 2024.01.08 16:01:31 -05'00'

F RM CREDIT - POPKA
57 E 3RD ST.
POPKA, FL 3 703

LANDSC PE DET ILS & NOTES

#	ISSUED FOR	DATE
	CONSTRUCTION DOCUMENTS	09.13.2023
	SUBMITTAL FOR PERMIT	12.05.2023
	DRAINAGE REVISIONS	01.04.2023

DRAWN BY LAH
REVIEW BY LAL

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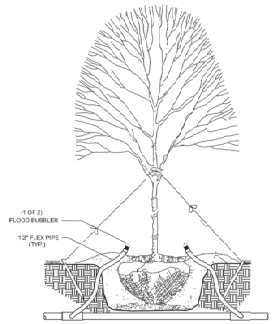
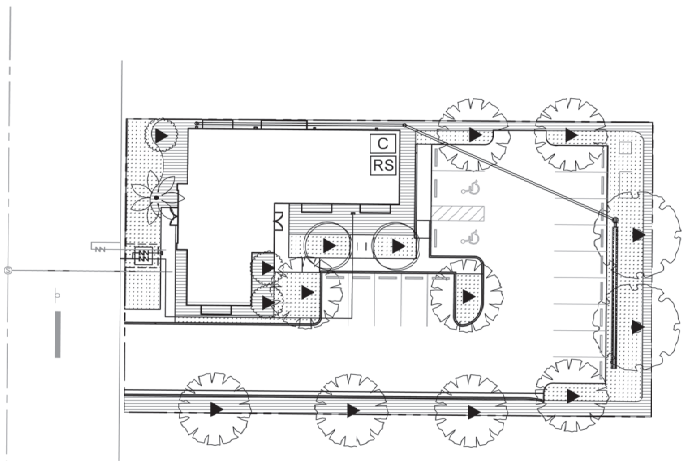
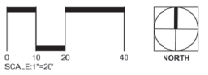
L-002



TREE BUBBLER DETAIL





IRRIGATION LEGEND

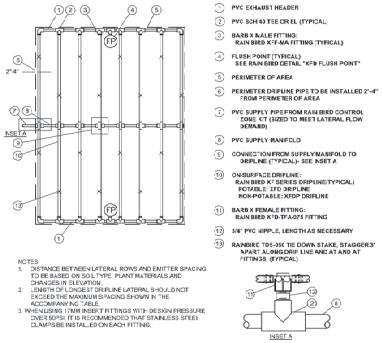
- MICRO IRRIGATION
- ROTOR & SPRAY HEADS FOR SAINT AUGUSTINE TURF
- TREE BUBBLERS
- IRRIGATION SLEEVES

PIPE SLEEVE: PVC SCHEDULE 40
TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18" BEYOND EDGES OF PAVING OR CONSTRUCTION.

- C — CONTROLLER IN POOL EQUIPMENT ENCLOSURE

NOTES:
1. CONNECT TO CITY WATER WITH AN IRRIGATION METER
2. IRRIGATION CONTRACTOR TO PROVIDE AS-BUILTS SHOWING MAINLINE, VALVES, SPRAY PATTERNS, AND ZONES.

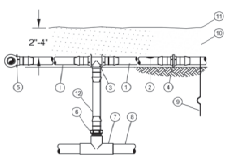
- RS — RAIN SENSOR



1. PVC SCH40 MST HEADER
2. PVC SCH 40 TEE OR ELL (TYPICAL)
3. BARB X MALE FITTING: RAIN BIRD XF-MA FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFD FLUSH POINT"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2'-4" FROM PERIMETER OF AREA
7. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
8. PVC SUPPLY MANIFOLD
9. CONNECTION FROM SUPPLY MANIFOLD TO DRIPLINE (*TYPICAL)- SEE INSET A
10. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE(TYPICAL) POTABLE: XFD DRIPLINE NON-POTABLE: XFDP DRIPLINE
11. BARB X FEMALE FITTING: RAIN BIRD XFD-FA-075 FITTING
12. 3/4" PVC NIPPLE, LENGTH AS NECESSARY
13. RAINBIRE TDS-356 TIE DOWN STAKE, STAGGERED 3' APART ALONG DRIP LINE AND AT END AT FITTINGS (TYPICAL)

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE. PLANT MATERIALS AND CHANGES IN ELEVATION.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50 PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

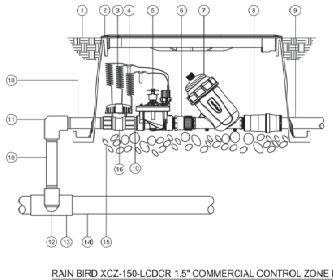
XFD ON-SURFACE DRIPLINE - CENTER FEED LAYOUT



1. ON-SURFACE DRIPLINE: RAIN BIRD 6" SERIES DRIPLINE POTABLE: XFD DRIPLINE NON-POTABLE: XFDP DRIPLINE
2. INLINE DRIP EMITTER OUTLET, SEE PLANS FOR DRIPLINE OUTLET SPACING.
3. BARB TEE 17x17x17mm RAIN BIRD XFF-TEE
4. BARB COUPLING 17x17mm RAIN BIRD XFF-COUP
5. BARB ELBOW 17x17mm RAIN BIRD XFF-ELBOW
6. BARB MALE ADAPTER 17mm X 1/2" MPT RAIN BIRD XFF-MA-050 17mm X 3/4" MPT RAIN BIRD XFF-MA-075
7. PVC TEE SxSxT
8. PVC LATERAL SUPPLY HEADER
9. TIE DOWN STAKE: RAIN BIRD TDS-600 WITH BEND (TYP)
10. MULCH
11. FINISH GRADE
12. RAIN BIRD XF SERIES BLANK TUBING LENGTH AS REQUIRED

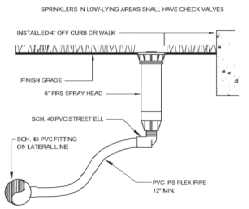
NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND. FOUR FEET IN LOAM AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

XFD ON-SURFACE DRIPLINE RISER ASSEMBLY

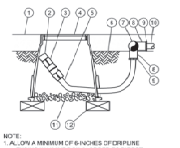


1. FINISH GRADE/TOP OF MULCH
2. JUMBO VALVE BOX WITH PURPLE COVER: RAIN BIRD VBJMBPL
3. 30-INCH LINEAR LENGTH OF WIRE COILED
4. WATERPROOF CONNECTION: RAIN BIRD DB SERIES
5. 1 1/2" PESB-PF VALVE (INCLUDED IN XCZ-150-LCDR KIT)
6. 1 1/2" SCH 40 ADAPTER (MALE X FEMALE) INCLUDED IN XCZ-150-LCDR KIT
7. 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY DISC FILTER (INCLUDED IN XCZ-150-LCDR KIT)
8. 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN XCZ-150-LCDR KIT)
9. LATERAL PIPE
10. PVC SCH 80 NIPPLE 1 1/2"
11. PVC SCH 40 ELBOW
12. PVC SCH 80 NIPPLE (2"LENGTH, HIDDEN) AND PVC 40 ELBOW
13. PVC SCH 40 TEE OR ELBOW
14. MAINLINE PIPE
15. 6" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
16. ISOLATION VALVE, LINE SIZE

RAIN BIRD XCZ-150-LCDCR 1.5" COMMERCIAL CONTROL ZONE KIT IN JUMBO VALVE BOX

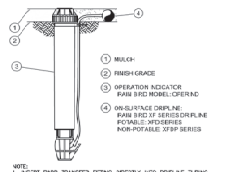


6" POP-UP SPRAY HEAD DETAIL



NOTE:
1. ALLOW A MINIMUM OF 6 INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

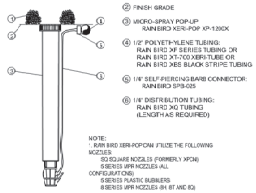
XFD ON-SURFACE DRIPLINE FLUSH POINT



1. MULCH
2. FINISH GRADE
3. OPERATION INDICATOR RAIN BIRD MODEL OPEN/RD
4. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFD SERIES NON-POTABLE: XFDP SERIES

NOTE:
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
2. ANY NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO A PATTERN.

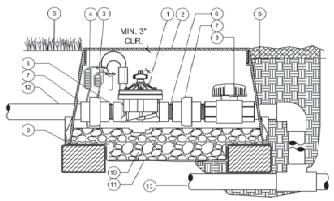
ON-SURFACE DRIPLINE OPERATIONAL INDICATOR



1. PLANT MATERIAL
2. FINISH GRADE
3. MICRO-SPRAY POP-UP RAIN BIRD XER-POP XP-1206X
4. 1/2" POLYETHYLENE TUBING: RAIN BIRD XF SERIES TUBING OR RAIN BIRD XT-700 XERI-TUBE OR RAIN BIRD XES BLACK STRIPE TUBING
5. 1/8" SELF-PIERCING BARB CONNECTOR: RAIN BIRD SPS-025
6. 1/4" DISTRIBUTION TUBING: RAIN BIRD 3/4D TUBING (LENGTH AS REQUIRED)

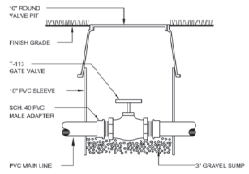
NOTE:
1. RAIN BIRD XER-POPCAP INCLUDE THE FOLLOWING NOZZLES:
   - 5Q SQUARE NOZZLES (FORMERLY XPCN)
   - 5 SERIES XPR NOZZLES ALL CONFIGURATIONS
   - 5 SERIES PLASTIC BUBBLERS
   - 5 SERIES XPR NOZZLES (#4 #7 AND #9)

XERI-POP MICRO SPRAY



1. REMOTE CONTROL VALVE WITH FLOW CONTROL - PER PLAN
2. IRRIGATION VALVE BOX, HEAT STAMPED WITH "IRCV" IN 2" LETTERS
3. WATERPROOF CONNECTORS (2)
4. 18"-24" COILED WIRE TO CONTROLLER
5. FINISH GRADE AT ADJACENT SURFACE ("TOP OF MULCH")
6. SCH. 80 CLOSE NIPPLE, SIZE PER BOM
7. PVC SLIP (CF FPT) X FPT UNION
8. ISOLATION VALVE, LINE SIZE
9. BRICK SUPPORTS (3)
10. FILTER FABRIC - WRAP TWICE AROUND BRICK SUPPORTS
11. 3/4" WASHED GRAVEL - 4" MIN. DEPTH
12. IRRIGATION LATERAL
13. MAINLINE AND FITTINGS

ELECTRIC REMOTE CONTROL VALVE



ISOLATION GATE VALVE

"If you require further clarification of what this document represents, please contact the ADA coordinator of City of Apopka at 407-703-1700."

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FARM CREDIT - APOPKA
57 3RD ST
APOPKA, FL 32703

IRRIGATION PLAN & DETAILS

#	ISSUED FOR	DATE
	CONSTRUCTION DOCUMENTS	30.11.2023
	SUBMITTED FOR PERMIT	11.01.2023
	DRAWING REVISIONS	31.04.2023

DRAWN BY: LAL
REVIEW BY: LAL

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IR-001

WATERING SCHEDULE NOTES

- WATER APPLICATION(S) TO COMPLY WITH ALL APPLICABLE LOCAL STATE, AND/OR WATER MANAGEMENT DISTRICT ISSUES & REGULATIONS.
- WATERING SCHEDULE IS BASED ON A ONE (1) DAY APPLICATION TO PROVIDE A ONE (1) ACRE INCH VOLUME OF WATER PER NOTE.
- DURATION OF WATERING TIMES SHALL BE ADJUSTED FOR MULTIPLE WATERING DAYS, IF ALLOWED. (I.E. ONE-HALF OF THE RECOMMENDED TIME SHOWN FOR A TYPE OF BAY PER WEEK SCHEDULE.
- WATERING SCHEDULE IS PROVIDED FOR PURPOSES OF ASCERTAINING WATER VOLUME REQUIREMENTS FROM AVAILABLE WATER SOURCE ONLY AND SHALL NOT CONSTRUED AS PRESCRIPTION FOR WATERING APPLICATION FOR SPECIFIC TREES, SHRUBS, GROUND COVERS OR SOD. FINAL WATER APPLICATION AS NEEDED FOR PLANTS, TREES, AND SOD SHALL BE RESPONSIBILITY OF THE OWNER.

TREE IRRIGATION AFTER PLANTING DURING ESTABLISHMENT

SIZE OF NURSERY STOCK	IRRIGATION SCHEDULE FOR "ITALITY"
LESS THAN 2" CALIPER	EARLY FOR TWO WEEKS, EVERY OTHER DAY FOR TWO MONTHS, WEEKLY UNTIL ESTABLISHED
2"-4" CALIPER	EARLY FOR ONE MONTH, EVERY OTHER DAY FOR THREE MONTHS, WEEKLY UNTIL ESTABLISHED
GREATER THAN 4" CALIPER	EARLY FOR SIX WEEKS, EVERY OTHER DAY FOR FIVE MONTHS, WEEKLY UNTIL ESTABLISHED

1. AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER AT THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL. DO NOT WATER IF THE ROOT BALL IS PRESATURATED ON THE IRRIGATION DAY.

2. DELETE DAILY IRRIGATION WHEN PLANTING IN WINTER. ESTABLISHMENT TAKES THREE (HARDINESS ZONE 10-11) TO FOUR (HARDINESS ZONE 1-9) MONTHS PER INCH TRUNK CALIPER. NEVER APPLY IRRIGATION IF THE SOIL IS SATURATED.

WATERING SCHEDULE AND RESTRICTIONS

-Lawn watering is limited to twice-per-week schedule for potable (drinking water) and other water resources, regardless of the source such as wells, surface waterss.
-Watering times are midnight to 10 a.m. or 4 p.m. to midnight.
-Rinse washing or micro-irrigation of landscape other than actual lawn areas are allowed at any time.
-Locations without a discernible address are areas such as rights-of-way and other common areas is also subdivision are included in the restrictions.

Potable (Drinking Water and all other sources) - Irrigation Schedule

Watering Hours: midnight to 10 a.m. or 4 p.m. to midnight
If Your Address is Watering Days
Even address Thursday and/or Sunday
Odd Address Wednesday and/or Saturday
*Common Areas Tuesday and/or Friday
*All common areas and properties where no address can be determined

Using Reclaimed Water Only – Irrigation Schedule

Watering Hours: midnight to 10 a.m. or 4 p.m. to midnight
If Your Address is Watering Days
Even address Thursday and/or Sunday
Odd Address Wednesday and/or Saturday
*Common Areas Tuesday and/or Friday
*All common areas and properties where no address can be determined

New Lawns and Plants
New lawns and plants have a 30-90 establishment period, which allows any watering during the first 30 days and limited watering during the second 30-day time to cover. The new plant/lawn users must still abide by the permitted hours except on the day of installation, during which residents may irrigate as needed within the 10 a.m. to 4 p.m. within the otherwise prohibited time frame.
New Lawns and Plants - Address Numbering Watering Days

Days 1 - 30 Any Day - Water as needed
Days 30 -60 Hours: midnight to 10 a.m. or 4 p.m. to midnight
Even address Tuesday, Thursday and/or Sunday
Odd Address Monday, Wednesday and/or Saturday
*Common Areas Tuesday, Friday and/or Sunday
*All common areas and properties where no address can be determined

IRRIGATION SYSTEM PERFORMANCE NOTES

1. IRRIGATION SYSTEM IS DESIGNED TO OPERATE OFF A POTABLE WATER METER PROVIDING A MINIMUM FLOW OF 21 GPM UNDER A MINIMUM PRESSURE OF 65 PSI.

   CONTRACTOR MUST CONTACT THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION IF THE AVAILABLE FLOW AND PRESSURE DIFFER FROM THESE BY MORE THEN 5% OR WILL AFFECT THE PERFORMANCE OF THE SYSTEM.

   MINIMUM PRESSURE REQUIREMENTS: 45 PSI AT THE POINT OF CONNECTION
   A. 45 PSI AT THE BASE OF THE POP-UP 80 "ORIFICE" ROTATOR HEADS
   B. 30 PSI AT THE BASE OF THE POP-UP SPRAY HEADS

2. HEADLAYOUT IS BASED ON BASE INFORMATION PROVIDED. HEADS SHALL BE ADJUSTED TO ACCOMMODATE FIELD VARIATIONS WHILE MAINTAINING 100% COVERAGE AND MINIMIZING OVER-SPRAY ONTO PAVED AREAS AND BUILDINGS.

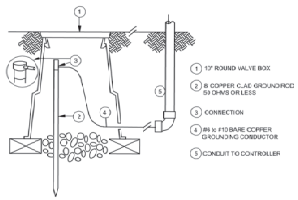
3. ½" PIPE SHALL NOT BE USED FOR LATERAL PIPING.

DRIP TUBING NOTES

1. INSTALL DRIP TUBING AT GRADE AND COVER WITH MULCH. TYPICAL SPACING FOR DRIP TUBING IS 12" TO 18" ON CENTER, SPACING TO BE DETERMINED BY PLANT LAYOUT. REFER TO LANDSCAPE PLAN. ANCHOR TUBING EVERY 10' WITH 12" LONG PLASTIC TUBING STAKES. INSTALL FLUSH VALVE ASSEMBLIES AT ALL TUBING "DEAD ENDS".
2. GRID LAYOUT SHALL BE USED ON THIS PROJECT. USE CENTER GRID LAYOUT WHERE POSSIBLE.
3. WHEN SLEEVING DRIPLINE, USE BLACK DRIPLINE IN SLEEVE. SLEEVE SHALL BE 2X DRIPLINE DIAMETER, MINIMUM. DRIPLINE SHALL BE PLACED IN SLEEVE.
4. THE LENGTH OF ANY DRIPLINE LATERAL SHALL NOT BE LONGER THAN:
   12" EMITTERS @ 3 GPH
   a) @ 15 PSI = 150' FEET
   b) @ 20 PSI = 169' FEET
   c) @ 30 PSI = 203' FEET
   d) @ 44 PSI = 255' FEET
   LATERAL LENGTHS CAN BE DOUBLED WHEN CENTER FEED LAYOUT IS USED (SEE CENTER FEED LAYOUT DETAIL).
5. MANUAL FLUSH VALVE SHALL BE USED & PLACED WITH A 6" X 6" SUMP. VALVES SHALL BE OPENED EVERY WATERING DAY FOR 2 WEEKS AND THEN A MINIMUM OF 2 TIMES A YEAR TO CLEAR DRIPLINE OF DEBRIS.
6. AIR/VACUUM RELIEF SHALL BE INSTALLED WHEN THE CHANGE IN SLOPE OCCURS 3% OR GREATER.
7. STAPLES SHALL BE USED AT 6' O.C. AND 2 STAPLES "EYE OVER EACH OTHER WITH ANY CHANGE IN DIRECTION: ELBOWS, OR CROSSES.
8. SUPPLY EXHAUST HEADERS AND DRIPLINE SHALL BE PLACED 2'- 0" FROM PLANTS AND PAVEMENT EDGES.
9. BLANK DRIPLINE SHALL BE USED FOR ALL SUPPLY AND EXHAUST HEADERS, UNLESS OTHERWISE NOTED ON PLANS.
10. PRIOR TO COVERING DRIPLINE, DRIPLINE CIRCUIT WILL BE PRESSURIZED AND TESTED FOR PROPER OPERATION.
11. DRIP LINE LATERALS SHALL BE LAID IN THE LONGEST RUN, WHETHER IT BE THE WIDTH OR LENGTH OF THE ZONE.

GENERAL IRRIGATION NOTES

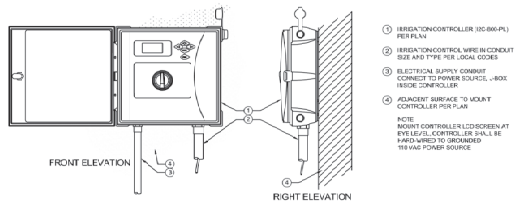
1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE.
2. ALL LATERAL AND SUBMAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER (CLASS 200 PVC PIPE).
3. NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH.
4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
5. ALL THREADED JOINTS TO BE COATED WITH "TEFLON TAPE OR LIQUID TEFLON.
6. ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.
7. SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
8. ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS SHOWN ON DETAILS
9. ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.
10. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE "FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
11. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT" BY THE CONTRACTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
12. ALL 24 VOLT WIRE SHALL BE #12 UFB, FOR COMMON WIRE, AND #14 UFB FOR CONTROL WIRES. DIRECT BURIAL SOLID COPPER.
13. CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. i.e ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.
14. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING. i.e VERIFY ROOF BALL SIZE FOR PLANTING.
15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN A VALVE BOX. WRAP AROUND 3/4" PIPE 12 TIMES.
16. SPRINKLERS IN LOW-LYING AREAS SHALL HAVE CHECK VALVES
17. ALL SPRINKLERS TO BE MOUNTED ON FLEX PIPE - REFER TO DETAILS.
18. INSTALL DRIP LINE TUBING AND NON-PRESSURE LATERAL LEAD LINE PIPING IN LANDSCAPE AREAS AND ADJACENT TO SELECTED PLANT MATERIAL AS SHOWN IN DETAILS.
19. CONTRACTOR SHALL UTILIZE VALVED "TAGS ON ALL REMOTE CONTROL VALVES.
20. 24 VOLT WIRE SHALL BE COLOR CODE: COMMON-WHITE, CONTROL-RED
21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH DEEP COPPER CLAD GROUND RODS.
22. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION OR FAULT GROUND AND LIGHTNING PROTECTION.
23. CONTROLLER GROUNDING MUST BE PER ASHC REQUIREMENTS
24. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER.
   A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEAD AND VALVE SUPPLIED.
   B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
   C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.
25. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING, ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPED AREAS AND BY REFERENCE "THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW.
26. CONTRACTOR TO ADD EXTENSION RISERS TO POP-UP HEADS WHERE NEEDED TO PROVIDE PROPER COVERAGE.
27. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 18" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURBS OR EDGES.
28. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS. CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS OR SPECIFICATIONS.
29. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER/LANDSCAPE ARCHITECT WITH A REPRODUCIBLE AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN A PDF FILE FORMAT BEFORE FINAL ACCEPTANCE. PROVIDE CROSS-MEASURED LOCATIONS OF ALL VALVE LOCATIONS, CONTROLLER, WATER SOURCE, WIRE SPLICES, SLEEVE LOCATIONS, ETC.
30. A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START-UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.
31. PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIAL, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS. CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE.
32. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE TWO PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE(S) TO SHOW NO DROP IN PRESSURE DURING DURATION OF THE TEST).
   A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE
   B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE
33. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE THE OWNER WITH A COLOR-CODED ZONE DIAGRAM PLAN & ½" (12.7MM) LAMINATED SHEETS WITH AN ELECTRONIC FILE COPY TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH CONTROLLER. THE LAMINATED CHART IS TO BE LOCATED IN AN ADHESIVE "POUCH" ATTACHED TO THE INSIDE OF CONTROLLER(S).
34. THE CONTROLLER(S) SHALL SCHEDULE PROGRAM "A" TO A REGULAR RUN-TIME SETTINGS FOR AFTER THE ESTABLISHMENT PERIOD OF THE PLANT MATERIAL (PROGRAM "B" SHALL BE USED DURING THE ESTABLISHMENT PERIOD AND TURNED OFF AFTER THE 30-60 DAYS OF PLANT INSTALLATION.
35. THE IRRIGATION CONTRACTOR WILL READ ALL SPECIFICATIONS AND REVIEW ALL DETAILS AND EXAMINE THESE PLANS CAREFULLY PRIOR TO BIDDING THIS PROJECT. FAILURE TO READ THIS INFORMATION IS NOT AN ACCEPTABLE REASON IF THE JOB IS UNDERBID.
36. THE PLAN MAY NOT" INCLUDE ALL MATERIALS. THIS DOES NOT RELIEVE THE CONTRACTOR FROM BEING RESPONSIBLE TO PROVIDE A COMPLETE SYSTEM IN PERFECT WORKING ORDER.



1. 12" ROUND VALVE BOX
2. #6 COPPER CLAD GROUNDROD 50 OHMS OR LESS
3. CONNECTION
4. #6 to #10 BARE COPPER GROUNDING CONDUCTOR
5. CONDUIT TO CONTROLLER

CONTROLLER GROUNDING

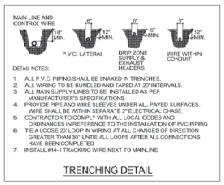
GROUND PER N.E.C.



1. IRRIGATION CONTROLLER (ICC-800-PL)
2. IRRIGATION CONTROL WIRE IN CONDUIT SIZE AND TYPE PER LOCAL CODES
3. ELECTRICAL SUPPLY CONDUIT CONNECT TO POWER SOURCE, J-BOX INSIDE CONTROLLER
4. ADJACENT SURFACE TO MOUNT CONTROLLER PER PLAN

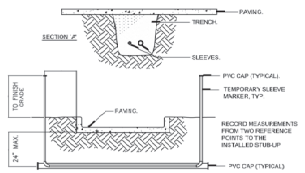
NOTE
MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC POWER SOURCE

IRRIGATION CONTROLLER (ICC-800-PL)



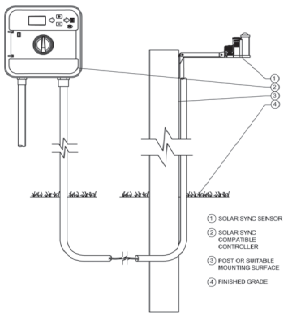
DETAIL NOTES:
1. ALL P.V.C. PIPING IS TO BE SNAKED IN TRENCHES.
2. ALL WIRING TO BE BUNDLED AND TAPED AT 20' INTERVALS.
3. ALL MAIN SUPPLY LINES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
4. PROVIDE PIPE AND WIRE SLEEVES UNDER ALL PAVED SURFACES. WIRE SHALL BE WITHIN SEPARATE 2" ELECTRICAL CHASE.
5. CONTRACTOR TO COMPLY WITH ALL LOCAL CODES AND ORDINANCES IN REFERENCE TO THE INSTALLATION OF PVC PIPING
6. TIE A LOOSE 20" LOOP IN WIRING AT ALL CHANGES OF DIRECTION GREATER THAN 30° UNTIL ALL LOOPS AFTER ALL CONNECTIONS HAVE BEEN COMPLETED
7. INSTALL #14-1 TRACKING WIRE NEXT TO MAINLINE

TRENCHING DETAIL



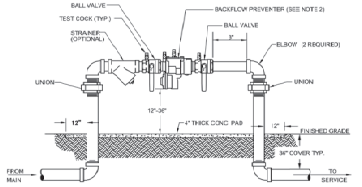
NOTES:
1. IRRIGATION SLEEVES SHALL BE CLASS 200 PIPE FOR 1" AND LARGER AND SCHEDULE 40 PVC FOR 2" AND SMALLER.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, STEP THE SMALLER SLEEVE TO ONE SIDE AND THE LARGER SLEEVE ON THE OPPOSITE SIDE AND PARALLEL SLEEVE LOCATIONS.
4. REMOVE DEFLECTION AND SLEEVES INSIDE
5. MECHANICALLY TAMP TO 95% PROCTOR.
6. SLEEVE SHALL BE TWICE (2) TIMES DIAMETER OF NOMINAL SIZE OF PIPE WITHIN SLEEVE

IRRIGATION SLEEVE DETAIL



1. SOLAR SYNC SENSOR
2. SOLAR SYNC COMPATIBLE CONTROLLER
3. POST OR SUITABLE MOUNTING SURFACE
4. FINISHED GRADE

SOLAR SYNC WITH WALL MOUNT CONTROLLER



NOTES:
1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL OR BRASS.
2. ALL BACKFLOW PREVENTER DEVICES SHALL BE APPROVED BY THE CITY/COUNTY BACKFLOW PREVENTER TECHNICIAN.
3. ALL REDUCED PRESSURE BACKFLOW DEVICES SHALL BE USC APPROVED.
4. CONCRETE PAD IS REQUIRED FOR ALL INSTALLATIONS 1-1/2" OR LARGER.

REDUCED PRESSURE BACKFLOW PREVENTER

"If you require further clarification of what this document represents, please contact the ADA coordinator of City of Apopka at 407-703-1700."

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FARM CREDIT - APOPKA
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APOPKA, FL 32703

IRRIGATION DETAILS & NOTES

#	ISSUED FOR	DATE
	CONSTRUCTION DOCUMENTS	09.15.2020
	SUBMITTAL FOR PERMIT	12.01.2020
	DRAINAGE REVISIONS	01.24.2020

DRAWN BY: LAL
REVIEWED BY: LAL

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22248.01

IR-002

GENERAL NOTES:

a. ALL ELECTRICAL WORK AND MATERIALS SHALL BE IN COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING.
   A. NFPA 70 NATIONAL ELECTRICAL CODE 2017)
   B. NFPA 72 NATIONAL FIRE CODE 2016)
   C. NFPA 101 - LIFE SAFETY CODE 2018)
   D. FLORIDA FIRE PREVENTION CODE 2020)
   E. FLORIDA BUILDING CODE (2020
   F. LOCAL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION

b. ELECTRICAL OUTLETS OR BOXES LOCATED ON OPPOSITE SIDES OF RATED WALLS OR PARTITIONS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES UNLESS FIRE RATED ELECTRICAL BOXES OR FIRE RATED INTUMESCENT PUTTY PADS ARE USED.

c. SEE ELECTRICAL SPECIFICATIONS ON SHEET E-0.2 FOR SPEC DETAILS.

d. CONTRACTOR TO COORDINATE AVAILABLE FAULT CURRENT WITH POWER COMPANY AND SGM ENGINEERING. CONTRACTOR TO SUBMIT EQUIPMENT SHOWING EQUIPMENT MEETS ALLOWABLE FAULT CURRENT.

e. CONTRACTOR TO SUBMIT CUT SHEETS SHOWING SERIES RATING TO PLANS REVIEWER.

f. CONTRACTOR TO PROVIDE CUT SHEETS FOR MAINS AND METER CENTERS TO PLANS REVIEWER.

g. CONTRACTOR TO SUBMIT ELEVATOR SHAFT ELECTRICAL LAYOUT.

h. FIRE ALARM SHOWN FOR REFERENCE ONLY.

ELECTRICAL LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED

POWER DEVICES

- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- GFCI RECEPTACLE
- ABOVE COUNTER GFCI RECEPTACLE
- WP — WEATHERPROOF GFCI RECEPTACLE WITH FLUSH/MOUNT COVER.
- USB a+c TYPE RECEPTACLE
- DUPLEX RECEPTACLE, HALF SWITCHED
- SINGLE 250V NON-LOCKING TYPE RECEPTACLE
- TV — DUPLEX RECEPTACLE FOR TV. COORDINATE HEIGHT AND LOCATION WITH ARCHITECT/ID/OWNER PRIOR TO ROUGH IN.
- CEILING MOUNTED RECEPTACLE
- FLOOR MOUNTED RECEPTACLE
- FLOOR OUTLET WITH POWER / DATA
- DISCONNECT SWITCH, NUMBER OF POLES AND RATING AS INDICATED ON PLANS
- J — JUNCTION BOX
- PB — PULL BOX
- EQUIPMENT CONNECTION
- TRANSFORMER
- J_F — JUNCTION BOX, FAN RATED
- MOTOR
- GROUND BUS BAR
- 5/8"□ X 30'L GROUND ROD WITH TEST INSPECTION WELL
- UTILITY TRANSFORMER

LOW VOLTAGE DEVICES

- GD — GARAGE DOOR KEYPAD
- GARAGE DOOR OPENER

ABBREVIATIONS

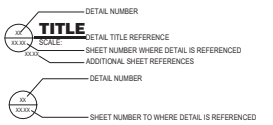
A	AMPERES	EXIST	EXISTING
AFC	ABOVE FINISHED CEILING	EXP	EXPLOSION PROOF
AFF	ABOVE FINISHED FLOOR	FA	FIRE ALARM
AFG	ABOVE FINISHED GRADE	FLA	FULL LOAD AMPERES
AIC	AMPERES INTERUPTING CAPACITY	FLUOR	FLUORESCENT
		GFCI	GROUND FAULT CIRCUIT INTERRUPTER
AL	ALUMINUM		
AWG	AMERICAN WIRE GAUGE	GFP	GROUND FAULT PROTECTION
BFC	BELOW FINISHED CEILING	GND	GROUND
BFG	BELOW FINISHED GRADE	HGT	HEIGHT
C	CONDUIT	HID	HIGH INTENSITY DISCHARGE
CAB	CABINET	HPS	HIGH PRESSURE SODIUM
CKT	CIRCUIT	HOA	HAND-OFF-AUTOMATIC
CLG	CEILING	HP	HORSEPOWER
CL	CENTERLINE	HVAC	HEATING/VENTILATING/ AIR CONDITIONING
CT's	CURRENT TRANSFORMERS		
CU	COPPER	HV	HIGH VOLTAGE
DISC	DISCONNECT ING	INC	INCANDESCENT
DWG	DRAWING S	JB	JUNCTION BOX
EA	EACH	KV	KILO-VOLTS
ECB	ENCLOSED CIRCUIT BREAKER	KVA	KILO-VOLTS-AMPERES
EF	EXHAUST FAN	KVAR	KILO-VOLTS-AMPERES REACTIVE
EMT	ELECTRICAL METALLIC TUBING	kW	KILO-WATTS
EQUIP	EQUIPMENT	kWH	KILO-WATT-HOURS
EUH	ELECTRIC UNIT HEATER	LTG	LIGHTING
EWC	ELECTRIC WATER COOLER		
EWH	ELECTRIC WATER HEATER		

m	METER		
mm	MILLIMETER		
MAX	MAXIMUM		
MCB	MAIN CIRCUIT BREAKER		
MFR	MANUFACTURER		
MH	METAL HALIDE		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
MTD	MOUNTED		
MTG	MOUNTING		
NEC	NATIONAL ELECTRICAL CODE		
PNL	PANEL		
PSI	PULL STATION INSIDE		
PVC	POLYVINYL CHLORIDE		
REC	RECEPTACLE		
RGS	RIGID GALVANIZED STEEL		
SPD	SURGE PROTECTION DEVICE		
TEL	TELEPHONE		
TYP	TYPICAL		
UON	UNLESS OTHERWISE NOTED		
USB	RECEPTACLE WITH USB PORT		
V	VOLTS		
VA	VOLT-AMPERES		
W	WATTS		
WP	WEATHER PROOF		
XFMR	TRANSFORMER		

TELEVISION DISTRIBUTION SYSTEM

- TV — TELEVISION COAXIAL OUTLET

MISCELLANEOUS SYMBOL LEGEND



LIGHTING FIXTURES

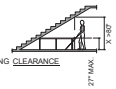
- 1'x4' OR 1'x 8' STRIP LUMINAIRE/EMERGENCY
- 1'x4' FLUORESCENT LUMINAIRE, CEILING/WALL
- 2'x2' FLUORESCENT LUMINAIRE
- 2'x4' FLUORESCENT LUMINAIRE
- 1'x4 FLUORESCENT LUMINAIRE, BATTERY/EMERGENCY, CEILING/WALL
- 2'x2' FLUORESCENT LUMINAIRE, BATTERY/EMERGENCY
- 2'x4' FLUORESCENT LUMINAIRE, BATTERY/EMERGENCY
- TRACK LUMINAIRE
- CEILING MOUNTED LUMINAIRE, BATTERY/EMERGENCY
- CEILING LUMINAIRE, WALL WASHER
- WALL MOUNTED LUMINAIRE, BATTERY/EMERGENCY
- LIGHTING FIXTURE, CEILING MOUNTED
- EMERGENCY LIGHT LUMINAIRE
- SINGLE FACE EXIT LIGHT ARROW INDICATES DIRECTION OF EGRESS
- DOUBLE FACE EXIT LIGHT ARROW INDICATES DIRECTION OF EGRESS
- POLE MOUNTED SITE LIGHTING LUMINAIRE RECTANGLES INDICATE NUMBER OF FIXTURES
- POST TOP SITE LIGHTING LUMINAIRE
- BOLLARD OR PENDANT LUMINAIRE, EMERGENCY
- "DARKROOM IN USE" SIGN
- CEILING FAN

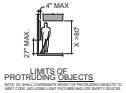
SWITCHES

- $S — SWITCH
- S_2 — SWITCH, 2 POLE
- S_3 — SWITCH, 3-WAY
- S_4 — SWITCH, 4-WAY
- S_D — SWITCH - DIMMER
- S_K — SWITCH, KEYSWITCH
- $S_A S_B$ — SWITCH, LOWER CASE LETTERS MARK FIXTURES CONTROLLED BY THAT SWITCH
- S_M — MOTOR RATED SWITCH
- $S_{L\#}$ — LOW VOLTAGE SWITCH, WHERE "#" REPRESENTS THE NUMBER OF BUTTONS REQUIRED. WATTSTOPPER LVSW-100 OR EQUAL
- S_{PH} — MOMENTARY SWITCH

FIRE ALARM SYSTEM DEVICES

- P — MANUAL FIRE ALARM PULL STATION
- FIRE ALARM MINIHORN
- FIRE ALARM COMBINATION HORN/STROBE DEVICE .75 CANDELA MINIMUM, 110 CANDELA WHERE NOTED
- H — FIRE ALARM STROBE ONLY, 75 CANDELA MINIMUM
- 135° HEAT DETECTOR
- SMOKE DETECTOR, WIRED TO BUILDING FACP
- SD — UNIT SMOKE ALARM, 120V, W/BATTERY BACK-UP.
- SD — UNIT SMOKE ALARM, 120V, W/BATTERY BACK-UP, WALL MOUNTED
- SD CO — COMBINATION SMOKE ALARM/CARBON MONOXIDE DETECTOR, 120V, W/BATTERY BACK-UP
- S — DUCT SMOKE DETECTOR - "R" RETURN, "S" SUPPLY. PROVIDE LED SUPERVISORY INDICATOR FOR BOTH DETECTORS IN AN ACCESSIBLE LOCATION AND CLEARLY LABELED.
- CM — CONTROL MODULE RELAY
- MM — MONITOR MODULE
- WF — WEATHERPROOF WATER FLOW SWITCH FOR CONNECTION TO FIRE SPRINKLER SYSTEM
- WT — WEATHERPROOF WATER TAMPER SWITCH FOR CONNECTION TO FIRE SPRINKLER SYSTEM
- WALL DATA OUTLET, INSTALL (2 D EDICATED HOMERUN (4 PAIR C 6 T6. SURFACE MOUNTED AT 18" ABOVE FINISHED FLOOR TO TOP OF BACKBOX. # IS THE NUMBER OF OF DATA OUTLETS PER BOX.
- COMBINATION DATA / VIDEO WALL DATA OUTLET. COORDINATE MOUNTING HEIGHT WITH ID / DESIGNER / ARCHITECT.
- TV — COMBINATION TELEVISOIN/ WALL DATA OUTLET. COORDINATE MOUNTING HEIGHT WITH INTERIOR DESIGNER/ ARCHITECT.
- F — FIRE DEPARTMENT TWO-WAY COMMUNICATION PHONE OUTLET, COORDINATE WITH FIRE DEPARTMENT FOR MOUNTING HEIGHT
- TELEPHONE OUTLET, MOUNTED @ 18" AFF, TO CENTER.
- TV — TELEVISION OUTLET, MOUNTED @ 18" AFF, TO CENTER.
- TV — COMBINATION TELEPHONE/TV OUTLET, MOUNTED AT 18" AFF, TO CENTER





POWER DISTRIBUTION

- 120/208V PANELBOARD, SURFACE MOUNT
- 120/208V PANELBOARD, RECESSED
- 1R1-1 — HOMERUN CONSISTING OF ONE SINGLE-PHASE, 1-POLE CIRCUIT: 2) 12 AWG + (1 12 AWG GND IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. PANELBOARD AND CIRCUIT DESIGNATION ARE INDICATED.
- 1M1-1:3 — HOMERUN CONSISTING OF ONE SINGLE-PHASE, 3-POLE CIRCUIT: 2 12 AWG + (1 12 AWG GND IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. PANELBOARD AND CIRCUIT DESIGNATIONS ARE INDICATED.

NOTE: ALL SYMBOLS MAY NOT BE USED.

FIRE ALARM SYSTEM DEVICES

- ELECTROMAGNETIC DOOR HOLDER/RELEASE
- PS — PULL STATION INSIDE, SEE DETAIL
- KB — KNOXBOX WITH TAMPER SWITCH MOUNTED 8..0" TO 12'-0" ABOVE FINISHED GRADE.
- FACP — FIRE ALARM CONTROL UNIT "FACU"
- FAAC — FIRE ALARM ANNUNCIATOR PANEL "FAAP"
- FATC — FIRE ALARM TERMINAL CABINET "FATC", NEMA 1 RATED
- FACP — FIRE ALARM CONTROL PANEL "FACP"
- EVAC — VOICE EVACUATION PANEL "EVAC"

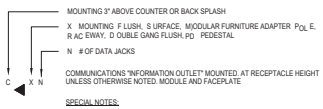
Lighting Fixture Schedule

Type Mark	Manufacturer	Model	Description	Voltage	Wattage	Comments
A	LITHONIA LIGHTING	2BLT2 33L ADP LP835	2x2 HIGH PROFILE LED	120 V	26 W	
B	LITHONIA LIGHTING	2BLT4 48L ADP LP835	2x4 HIGH PROFILE LED	120 V	38 W	
C	LITHONIA LIGHTING	LDN6 35/15 L06AR LSS MVOLT EZ10	6" OPEN and WALLWASH LED	120 V	44 W	
D	FLUXWERX	VU1-B-B-C-35-A-04-G-E1-M-06	SUSPENDED LINEAR FIXTURE	120 V	29 W	
G	LITHONIA LIGHTING	BLWP4 40L ADP LP840	LOW PROFILE LED WRAPAROUND	120 V	35 W	
W	LITHONIA LIGHTING	WST LED P2 40K VW MVOLT DDBXD	EXTERIOR ARCHITECTURAL WALL SCONCE	120 V	30 W	
X	LITHONIA LIGHTING	LQM S W 3 R 120/277 EL N M6	EXIT LIGHT	120 V	2 W	

LIGHTING CONTROL DEVICES

- PC — PHOTOCELL
- TC — TIMECLOCK
- RB LT — p IR-WALL MOUNT SENSOR, LOW TEMP, 24 VDC/AC, 20mA. WATTSTOPPER CB-100 OR EQUAL.
- CI — PIR-CEILING MOUNT SENSOR 24 VDC/VAC, 11mA, WATTSTOPPER CI-205 OR EQUAL.
- DT — DUAL ULTRASONIC/PIR-CEILING MOUNT SENSOR, 24 VDC/VAC, 35mA. WATTSTOPPER DT-305 OR EQUAL.
- D — UAL ULTRASONIC/PIR-WALL MOUNT SENSOR, 24 VAC/VDC, 35mA. WATTSTOPPER DT-200 OR EQUAL.
- C — ULT RASONIC-CEILING CORRIDOR MOTION SENSOR, 24 VDC/VAC, 40mA. WATTSTOPPER WT-2250 OR EQUAL.
- DS — PIR-WALL SWITCH DECORATOR MOTION SENSOR, 120/277 VAC, 800/1200W. WATTSTOPPER PW-100 OR EQUAL.
- D1 — DUAL ULTRASONIC/PIR-WALL SWITCH DECORATOR MOTION SENSOR, 120/277VAC, 800/1200W. WATTSTOPPER DW-100 OR EQUAL.
- D2 — DUAL ULTRASONIC/PIR-DUAL RELAY WALL SWITCH DECORATOR MOTION SENSOR, 120/277VAC, 800/1200W. WATTSTOPPER DW-200 OR EQUAL.
- LVS — UL 924 LISTED FAILSAFE EMERGENCY SWITCHING RELAY, LVS EPC-A OR EQUAL. LOWER CASE LETTER NEXT TO DEVICE INDICATES SWITCHLEG CONTROLLED.
- P — POWER PACK 120/277 VAC, 20 AMPS, 225mA SECONDARY. WATTSTOPPER BZ-150 OR EQUAL.
- F — OR LOW VOLTAGE OCCUPANCY SENSORS, PROVIDE POWER PACKS 120/277 VAC; 20 AMPS, 225mA SECONDARY AS NEEDED FOR ZONE/AREA CONTROL. WATTSTOPPER BZ-150 OR EQUAL.

PREMISE DISTRIBUTION SYSTEM



- MOUNTING 3" ABOVE COUNTER OR BACK SPLASH
- X MOUNTING F LUSH, S URFACE, M)ODULAR FURNITURE ADAPTER P OL E, R AC EWAY, D OUBLE GANG FLUSH, PD PEDESTAL
- N # OF DATA JACKS
- COMMUNICATIONS "INFORMATION OUTLET" MOUNTED, AT RECEPTACLE HEIGHT UNLESS OTHERWISE NOTED. MODULE AND FACEPLATE

SPECIAL NOTES:

1. DATA JACKS:
   EACH RJ45 CAT6 JACK FOR DATA SHALL BE CONNECTED TO A DEDICATED UTP 4 PR CAT6 CABLE

- W F1 — WALL TELEPHONE OUTLET FOR HOUSE PHONE. MOUNTED AT 52" ABOVE FINISHED FLOOR TO TOP.
- WIRELESS ACCESS POINT. PROVIDE CAT 6 CABLE HOMERUN TO IDF AND TERMINATE WITH RJ45 JACK FLUSH CEILING MOUNTED, WITH 10 OF COILED CABLE ABOVE CEILING. AT CEILING PROJECTOR LOCATION PROVIDE TWO (2 RJ45 JACKS FLUSH MOUNTED IN PROJECTOR PLATE, HOMERUN TWO (2 CAT 6 CABLES TO IDF.
- WAP — WIRELESS ACCESS POINT WALL MOUNTED 10-0" TO 12 -0" ABOVE FINISHED FLOOR PROVIDE CAT 6 CABLE HOMERUN TO IDF AND TERMINATE TO RJ45 JACK FLUSH ON WALL.
- SX — WALL DATA OUTLET. SURFACE MOUNTED AT 48" ABOVE FINISHED FLOOR TO TOP OF BACKBOX. X = # OF DATA JACKS
- C — CEILING BOX DATA OUTLET. DATA OUTLET INSTALLED IN FLOOR BOX WITH UTP HOMERUN TO COMM ROOM. X # OF DATA JACKS
- F — FLOOR BOX DATA OUTLET. DATA OUTLET INSTALLED IN FLOOR BOX WITH UTP HOMERUN TO COMM ROOM. X = # OF DATA JACKS
- PD — POWER/DATA POLE FOR DATA AND 120 VAC CABLING AND OUTLETS.
- 3/4" PLYWOOD BACKBOARD. BY DIVISION 16

IF YOU REQUIRE FURTHER CLARIFICATION OF WHAT THIS DOCUMENT REPRESENTS, PLEASE CONTACT THE ADA COORDINATOR OF CITY OF APOPKA AT 407-703-1700.

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SGM #: 2023-345

Digitally signed by Craig W Thompson
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FARM CREDIT - APOPKA
57 E 3RD ST.
APOPKA, FL 32703

ELECTRICAL SYMBOLS AND SPECIFICATIONS

#	ISSUED FOR	DATE

DRAWN BY: Author
REVIEW BY: Checker

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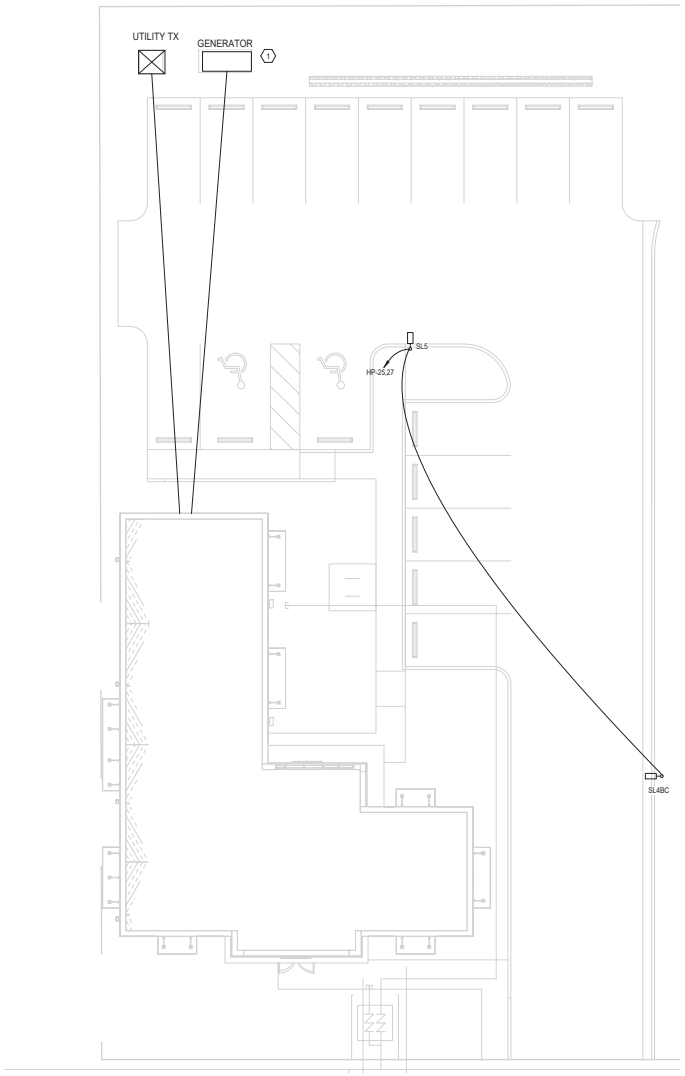

1 ELECTRICAL SITE PLAN
E-101 1" 10'-0"

GENERAL NOTES - SITE

a NO LIGHTS SHALL BE INSTALLED IF THERE ARE OBVIOUS CONFLICTS ON SITE. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR REVIEW.

b ANY PROPOSED LIGHTING SUBSTITUTIONS MUST BE SUBMITTED FOR OWNER AND/OR OWNERS REPRESENTATIVE APPROVAL PRIOR TO PURCHASE AND INSTALLATION. PHOTOMETRICS MUST BE INCLUDED WITH ANY SITE LIGHTING SUBSTITUTIONS.

c REFER TO LANDSCAPE ARCHITECT PLANS FOR LANDSCAPE TYPE AND EXACT LOCATION.

d ALL SITE LIGHTING SHALL BE 2 #10 THWN, 1 #10 GND, 3/4" CONDUIT UNLESS NOTED OTHERWISE.

e ALL EXTERIOR BUILDING AND SITE LIGHTS ARE TO BE ON PHOTOCELL CONTROL.

f VERIFY EXACT LOCATIONS OF TRANSFORMERS WITH LOCAL POWER COMPANY. COORDINATE EXACT LOCATION OF TRANSFORMERS, METER CENTERS AND CT CABINETS PRIOR TO ROUGH-IN.

PLAN KEYNOTES: (#)

1 PROVIDE WEATHER PROTECTED ENCLOSURE FOR THE GENERATOR. SEE GENERATOR DETAILS ON SHEET E-501.

1 ELECTRICAL EQUIPMENT HAS BEEN RELOCATED / CHANGED BASED ON BACKGROUND CHANGE.

IF YOU REQUIRE FURTHER CLARIFICATION OF WHAT THIS DOCUMENT REPRESENTS, PLEASE CONTACT THE ADA COORDINATOR OF CITY OF APOPKA AT 407-703-1700.

THE LUNZ GROUP

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FARM CREDIT - APOPKA
57 E 3RD ST,
APOPKA, FL 32703

ELECTRICAL SITE PLAN

#	ISSUED FOR:	DATE:
1	Revision 1	2023.11.29

DRAWN BY: Author
REVIEW BY: Checker

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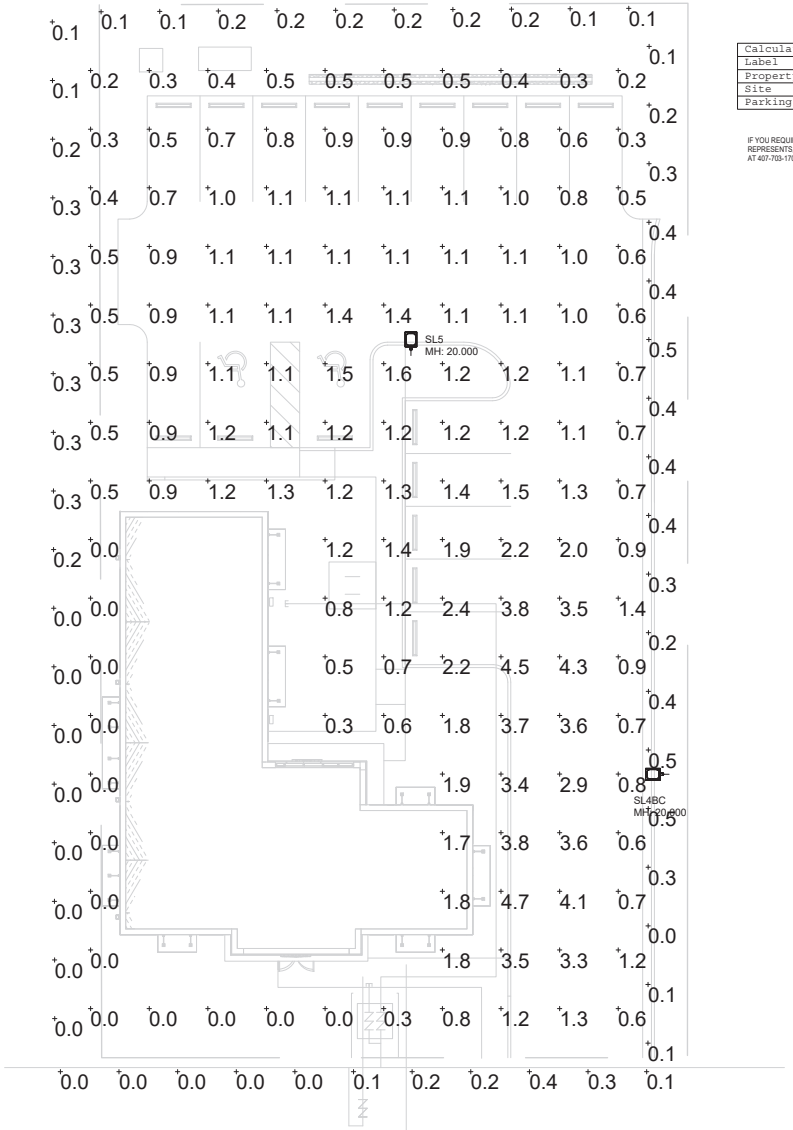
22248.01

E-101



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property line	Illuminance	Fc	0.19	0.5	0.0	N.A.	N.A.
Site	Illuminance	Fc	1.17	4.7	0.0	N.A.	N.A.
Parking Lot	Illuminance	Fc	1.62	4.7	0.5	3.24	9.40

IF YOU REQUIRE FURTHER CLARIFICATION OF WHAT THIS DOCUMENT REPRESENTS, PLEASE CONTACT THE ADA COORDINATOR OF CITY OF APOPKA AT 407-703-1700.

Parking Lot

Illuminance (Fc)
Average = 1.62
Maximum = 4.7
Minimum = 0.5
Avg/Min Ratio = 3.24
Max/Min Ratio = 9.40

ELECTRICAL EQUIPMENT HAS BEEN RELOCATED / CHANGED BASED ON BACKGROUND CHANGE.

Luminaire Schedule										
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	[MANUFAC]	Mounting Height
	1	SL4BC	Single	VP-1-160L-115-4K7-4W-UNV-A2-BLT-BC / VALMONT 190830505TE-D1-DBL-HH	0.950	9279	111.9	111.9	BEACON PRODUCTS	20
	1	SL5	Single	VP-1-160L-75-4K7-5QW-UNV-A2-BLT / VALMONT 190830505TE-D1-DBL-HH	0.950	10512	72.1	72.1	BEACON PRODUCTS	20

1 E-102 **ELECTRICAL SITE PLAN - PHOTOMETRICS**
1" 10'-0"

THE LUNZ GROUP

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Date: 2024.01.09 07:34:45-05'00'

C. W. THOMPSON
CERTIFIED PROFESSIONAL ENGINEER
STATE OF FLORIDA
PROFESSIONAL ENGINEER
CERTIFICATE NO. 82233

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FARM CREDIT - APOPKA
57 E 3RD ST.
APOPKA, FL 32703

SITE PLAN - PHOTOMETRICS

#	ISSUED FOR	DATE
	Revision 1	2023.11.29

DRAWN BY: Author
REVIEW BY: Checker

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E-102

BEACON

DATE 8.29.23 LOCATION Florida

TYPE SLW PROJECT Cross Creek Gardens

CATALOG # VP-1-160L-730-4K7-4F-UNV-A2-BLT / Valmont 2406-40 60 5 T E D1 DBL HH

VIPER Area/Site

VIPER LUMINAIRE

MICRO STRIKE | STRIKE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls®, wiSCAPE and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped

10-DAY QUICK SHIP PROGRAM

IP65

CONTROL TECHNOLOGY

NX wiSCAPE

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous aperture, providing a low glare appearance. Cataloging logic found on page 2
- Strike Optics (96, 72, 108, or 162 LED counts) provide best in class distributions and maximize spacing in area light applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side visors are available for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included

INSTALLATION (CONTINUED)

- Knuckle arm filter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/ IEEE C62.41.2 Category C High and Surge Location Category C3. Automatically fails in future off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are connected from the luminaire. Both options cannot be combined

CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0- 10V Dimming Drivers are standard and dimming leads are extended out of the fixture for ease of access for splicing connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls® available with in fixture wireless control module; features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module; features dimming and occupancy sensor. Also available in 7-pin configuration

CERTIFICATIONS

- DLC® Design Lights Consortium® qualified. See DLC® website for Qualified Configurations. Not all product variations listed in this document are DLC® qualified. Refer to http://www.designlights.org for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product qualifies as a "designated country construction material" per FAR 52.225-11 American Construction Materials under Trade Agreements effective 08/23/2020.

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	5,000–80,000
Wattage Range	36–600
Efficacy Range (LPW)	92–155
Weight lbs. (kg)	13.7-30.9 (6.2-13.9)

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BEACON

DATE 9.19.23 LOCATION Florida

TYPE SLS PROJECT FARM CREDIT STORE

CATALOG # VP-1-160L-754-4K7-SQW-UNV-A2-BRT / Valmont 2406 30 60 5 T E D1 DBL HH

VIPER Area/Site

VIPER LUMINAIRE

Service Program Limit of 8 Luminaires

MICROSTRIKE OPTICS – ORDERING GUIDE

Example: VP–2–320L-145–3K7–2–R–UNV–A3–BLT

CATALOG # VP-1-160L-754-4K7-SQW-UNV-A3 BLT BC / VALMONT 1908305015 D1 BBL HH

VP		2		160L-754		4K7		SQW		UNV	
Series	Optic Pattern	Size		Light Engine		CCT/CRI		Distribution		Voltage	
VP Viper	Micro Strike	1 Size 1		160L-754 *	5500 lumens	AP	AP-Amber Phosphor Converted	2 Type 2		UNV 120-277V	
		2 Size 2		160L-553 *	7500 lumens	27K8	2700K, 80 CRI	3 Type 3		120 120V	
				160L-754	10000 lumens	3K7	3000K, 70 CRI	AF Type 4 Forward		208 208V	
				160L-1003	12500 lumens	3K8	3000K, 80 CRI	4W Type 4 Wide		240 240V	
				160L-755	15000 lumens	35K8	3500K, 80 CRI	SQW Type 5 Square Wide		277 277V	
		3 Size 3		160L-1255	18000 lumens	4K7	4000K, 70 CRI			347 347V	
				160L-1505	20000 lumens	4K8	4000K, 80 CRI			480 480V	
		4 Size 4		320L-145	2000 lumens	40K8	4000K, 80 CRI				
				320L-170	2400 lumens	5K7	5000K, 70 CRI				
				320L-185	2700 lumens	5K8	5000K, 80 CRI				
				320L-210	3000 lumens						
				320L-235	3600 lumens						
				320L-255 *	4000 lumens						
				480L-255 *	4000 lumens						
				480L-320	4600 lumens						
				480L-340	4800 lumens						
				480L-390	5200 lumens						
				480L-426	5500 lumens						
				480L-470 *	6000 lumens						
				720L-435	6000 lumens						
				720L-475	6500 lumens						
				720L-515	7000 lumens						
				720L-555 *	7500 lumens						
				720L-600 *	8000 lumens						
				CLO	Custom Lumen Output *						

A1		BLT		Options	
Mounting		Color			
A	Arm mount for square pole/flat surface (B1 Drill Pattern) (Does not include round pole adapter)	BLT	Black Matte Textured	F	Fusing
A_	Arm mount for round pole *	BLS	Black Gloss Smooth	2FP	Dual Power Feed
ASQU	Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	DBT	Dark Bronze Matte Textured	2DR	Dual Driver
A_U	Universal arm mount for round pole *	DBS	Dark Bronze Gloss Smooth	TE	Tenons Entry
AAU	Adjustable arm for pole mounting (universal drill pattern)	GTT	Graphite Matte Textured	BC	Backlight Control
AA_U	Adjustable arm mount for round pole *	LGS	Light Grey Gloss Smooth	TB	Terminal Block
ADU	Decorative upsweptarm mount for round pole *	LGT	Light Grey Gloss Textured		
AD_U	Decorative upsweptarm mount for round pole *	PSS	Platinum Silver Smooth		
MAF	Mast arm filter for 2-3/8" OD horizontal arm	WHT	White Matte Textured		
K	Knuckle	WHS	White Gloss Smooth		
T	Trunnion	VGT	Verde Green Textured		
WB	Wall Bracket, horizontal tenon with MAF				
WM	Wall mount bracket with decorative upsweptarm				
WA	Wall mount bracket with adjustable arm				

Network Control Options	
NXMSRF	NX Networked Wireless Enabled Integral NXSMPO LMO PR Occupancy Sensor with Automatic Dimming Protocol and Bluetooth Programming [5,6]
NXMS40F	NX Networked Wireless Enabled Integral NXSMPO HMO PR Occupancy Sensor with Automatic Dimming Protocol and Bluetooth Programming [5,6]
NXM	NX Networked Wireless Radio Module NXRMO and Bluetooth Programming, without Sensor [5,6]
WR	wiSCAPE® 7-Pin Receptacle [6]
WRSC	wiSCAPE® Module and Occupancy Sensor [6]
Stand Alone Sensors	
BTS-NF	Bluetooth® Programmable, BTSMFLMO PR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
BTS-40F	Bluetooth® Programmable, BTSMFHMO PR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
BTSO-12F	Bluetooth® Programmable, BTSMFONMO PIR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
7PR	7-Pin Receptacle *
7PR-SC	7-Pin receptacle with shorting cap *
3PR	3-Pin twist lock *
3PR-SC	3-Pin receptacle with shorting cap *
3PR-TL	3-Pin PCR with photocontrol *
Programmed Controls	
SCP_F	Sensor Control Programmable, 8F or 40F *
ADD	AutoDim Timer Based Dimming *
ADT	AutoDim Time of Day Dimming *
Photocontrols	
PC	Button Photocontrol [6]

A2		C1		C2	
Mounting		Color		Options	
A	Arm mount for square pole/flat surface (B1 Drill Pattern) (Does not include round pole adapter)	BLT	Black Matte Textured	F	Fusing
A_	Arm mount for round pole *	BLS	Black Gloss Smooth	2FP	Dual Power Feed
ASQU	Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	DBT	Dark Bronze Matte Textured	2DR	Dual Driver
A_U	Universal arm mount for round pole *	DBS	Dark Bronze Gloss Smooth	TE	Tenons Entry
AAU	Adjustable arm for pole mounting (universal drill pattern)	GTT	Graphite Matte Textured	BC	Backlight Control
AA_U	Adjustable arm mount for round pole *	LGS	Light Grey Gloss Smooth	TB	Terminal Block
ADU	Decorative upsweptarm mount for round pole *	LGT	Light Grey Gloss Textured		
AD_U	Decorative upsweptarm mount for round pole *	PSS	Platinum Silver Smooth		
MAF	Mast arm filter for 2-3/8" OD horizontal arm	WHS	White Gloss Smooth		
K	Knuckle	VGT	Verde Green Textured		
T	Trunnion				
WB	Wall Bracket, horizontal tenon with MAF				
WM	Wall mount bracket with decorative upsweptarm				
WA	Wall mount bracket with adjustable arm				

Network Control Options	
NXMSRF	NX Networked Wireless Enabled Integral NXSMPO LMO PR Occupancy Sensor with Automatic Dimming Protocol and Bluetooth Programming [5,6]
NXMS40F	NX Networked Wireless Enabled Integral NXSMPO HMO PR Occupancy Sensor with Automatic Dimming Protocol and Bluetooth Programming [5,6]
NXM	NX Networked Wireless Radio Module NXRMO and Bluetooth Programming, without Sensor [5,6]
WR	wiSCAPE® 7-Pin Receptacle [6]
WRSC	wiSCAPE® Module and Occupancy Sensor [6]
Stand Alone Sensors	
BTS-NF	Bluetooth® Programmable, BTSMFLMO PR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
BTS-40F	Bluetooth® Programmable, BTSMFHMO PR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
BTSO-12F	Bluetooth® Programmable, BTSMFONMO PIR Occupancy Sensor with Automatic Dimming Protocol and 360° Lens *
7PR	7-Pin Receptacle *
7PR-SC	7-Pin receptacle with shorting cap *
3PR	3-Pin twist lock *
3PR-SC	3-Pin receptacle with shorting cap *
3PR-TL	3-Pin PCR with photocontrol *
Programmed Controls	
SCP_F	Sensor Control Programmable, 8F or 40F *
ADD	AutoDim Timer Based Dimming *
ADT	AutoDim Time of Day Dimming *
Photocontrols	
PC	Button Photocontrol [6]

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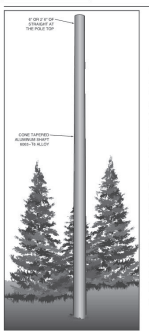
valmont STRUCTURES ALUMINUM

8′ TO 30′ ROUND TAPERED EMBEDDED (DIRECT BURIAL) POLES



- 8′ to 30′ mounting heights.
- Tenons, brackets, and arms designed for single or multiple luminaire mounting.
- Luminaires may be mounted on tenons, brackets or shaft may be drilled to manufacturer's mounting specifications.

SPECIFICATIONS

All aluminum alloys shall comply with metallurgical and mechanical properties set forth in the Aluminum Association Standards.

Shaft: The shaft shall be spun tapered from all new seamless 6063 alloy aluminum tubing and shall be heat treated to produce a T6 temper. Each shaft shall have a minimum of 6" straight length at the top. Top straight section serves as a slipfitter for a luminaire or for the hub of the appropriate Valmont bracket or tapered arm. Alternatively, the straight section may be drilled for mounting luminaires. The shaft shall be cone tapered to the base diameter. All Valmont shafts shall be polished with fine grain aluminum oxide cloths, resulting in a high quality circumferential satin brushed finish. After finishing, each pole shall be wrapped for protection in shipment.

Direct Embedment: Unless otherwise specified, the length of the embedded section of a 4" diameter shaft shall be 3', 5' and 6' shall be 4', 7' and 8' shall be 5'. A 1-1/2" diameter grommeted wire inlet hole located 1' 6" below grade shall be included. The embedded section of the pole shall be coated inside and outside with zinc rich paint.

Special Finishes: Natural anodize, duranodic, or painted finishes may be specified as an addition to the satin brushed finish, if required. All aluminum parts and accessories shall receive a finish similar to that specified.

Ground Lug: Each pole shall include a 5/16"-18 tapped provision for ground connector.

Handhole: Available as an option.

Anti-Rotation Device: Available as an option.

CATALOG LOGIC

Foot and Inches	Top Diameter	Base Diameter	Wall Thickness	Shape of Shaft	Base or Mounting	Fixture Mounting	Finishes	Options
1908	30	50	5	T	E	D1	DBL	HH

Foot & Inches* (Diameter* / Wall Thickness**)

- 0708 – 7′ (7" DIA / 0.120")
- 0908 – 9′ (9" DIA / 0.120")
- 1108 – 11′ (11" DIA / 0.120")
- 1308 – 13′ (13" DIA / 0.120")
- 1508 – 15′ (15" DIA / 0.120")
- 1708 – 17′ (17" DIA / 0.120")
- 1908 – 19′ (19" DIA / 0.120")
- 2408 – 23′ (24" DIA / 0.120")
- 2908 – 28′ (29" DIA / 0.120")

Diameter* (for square* or round)

- 30 – 3"
- 40 – 4"
- 50 – 4-1/2"
- 60 – 5"
- 70 – 7"
- 80 – 8"
- 90 – 9"
- 00 – 10"

Wall Thickness (for shapes in 6" base or less)

- 4 – 0.125" Wall
- 5 – 0.156" Wall
- 6 – 0.188" Wall

Shape of Shaft

- T – Tapered Round
- S – Straight

Base or Mounting

- E – Embedded

Fixture Mounting

- D1 – 1@90°
- D2 – 2@180°
- D3 – 3@120°
- D4 – 4@90°
- D5 – 2@90°
- D6 – 6@60°
- P2 – 2-3/8" x 6" Tenon
- PV – Offset Tenon (Penna Specify)

Finishes (see Accessory Section) (Penna Specify with Code #)

STANDARD FINISHES

- DBL – Black
- DCO – Charcoal Grey
- DDB – Dark Bronze
- DGN – Forest Green
- DNA – Natural Aluminum
- DSA – Sandstone
- DWH – White
- NC – Special Color (Penna Specify)

MARINE

- CLR – Clear Natural
- 311 – Light Bronze*
- 313 – Med Bronze*
- 313 – Dark Bronze*
- 233 – Black*

* Consumer Awaiting

MARINE

- SBF – Satin Brushed Finish

* For available Base Diameter, Wall Thickness and Length Combinations, see Dimensional Load Data Table that follows.

Options

See Accessory Section (Penna Specify with Code #)

Customer Approval: _____ Date: _____

Job Name: _____ Quote: _____

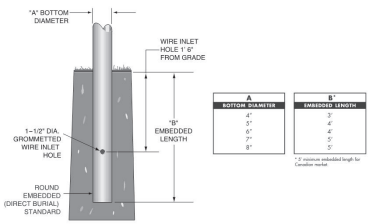
Client Name: _____

Created By: _____ Date: _____

valmont STRUCTURES ALUMINUM

8′ TO 30′ ROUND TAPERED EMBEDDED (DIRECT BURIAL) POLES

ANCHOR BASE AND BOLT DETAIL



A BOTTOM DIAMETER	B* EMBEDDED LENGTH
4"	3'
5"	4'
6"	4'
7"	5'
8"	5'

* 2' minimum embedded length for Canadian market

DIMENSIONAL AND LOAD DATA

NOMINAL MOUNTING HEIGHT	TYPICAL LUMINAIRE WEIGHT (LBS.)	EFFECTIVE PROJECTED AREA IN SQUARE FEET AT: 70 MPH	80 MPH	90 MPH	100 MPH	110 MPH	DIMENSIONS OF POLES: OVERALL SHAFT LENGTH	TOP	BASE	WALL	MODEL NUMBER**
8′	75	19.1	14.4	11.1	8.8	7.1	7′8″	10″	3″	.125″	0708-30404TE
10′	75	14.3	10.6	8.1	6.3	5.0	9′8″	12″	3″	.125″	0908-30404TE
12′	75	11.0	8.0	6.0	4.5	3.5	11′8″	14″	3″	.125″	1108-30404TE
12′	75	18.5	13.8	10.5	8.3	6.6	11′8″	15″	3″	.125″	1108-30504TE
14′	75	14.2	10.5	8.0	6.3	5.0	13′8″	16″	3″	.125″	1308-30404TE
14′	75	14.8	10.8	8.2	6.3	5.0	13′8″	17″	3″	.125″	1308-30504TE
16′	75	7.1	5.0	3.5	2.4	1.7	15′8″	18″	3″	.125″	1508-30404TE
16′	75	12.0	8.6	6.4	4.8	3.8	15′8″	19″	3″	.125″	1508-30504TE
16′	75	15.3	11.1	8.4	6.5	5.1	15′8″	19″	3″	.156″	1508-30505TE
18′	75	9.7	6.7	4.9	3.6	2.7	17′8″	21″	3″	.125″	1708-30504TE
18′	150	12.2	8.7	6.4	4.9	3.8	17′8″	21″	3″	.156″	1708-30505TE
18′	150	19.1	14.1	10.8	8.5	6.9	17′8″	21″	4″	.156″	1708-40605TE
20′	75	8.2	5.5	3.8	2.6	1.9	19′8″	23″	3″	.125″	1908-30504TE
20′	75	10.4	7.2	5.1	3.7	2.8	19′8″	23″	3″	.156″	1908-30505TE
20′	150	10.5	7.1	5.1	3.8	2.9	19′8″	24″	4″	.156″	2408-40605TE
25′	150	13.5	9.4	6.9	5.3	4.2	24′8″	28″	4″	.188″	2408-40606TE
30′	150	11.1	7.5	5.3	4.0	3.0	29′8″	34″	4″	.156″	2908-40705TE
30′	150	16.7	12.0	9.1	7.0	5.5	29′8″	34″	4.5″	.188″	2908-45805TE

* 10% calculations are based on a 1.3 Gust Factor. Variations from sizes listed above, available upon inquiry at the factory. Satisfactory performance of lighting poles is dependent upon the pole being properly attached to a supporting foundation of adequate design. Valmont does not design or offer recommendations for foundations.
** Model number does not include mounting options or finish designation.

SPEC SHEETS ARE FOR REFERENCE ONLY. Please refer to the most recent product information and submittals from your local representative for the most accurate and complete information.

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THE LUNZ GROUP

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FARM CREDIT - APOPKA

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APOPKA, FL 32703

ELECTRICAL DETAILS - PHOTOMETRICS

#	ISSUED FOR	DATE

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REVIEW BY: Checker

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E-103

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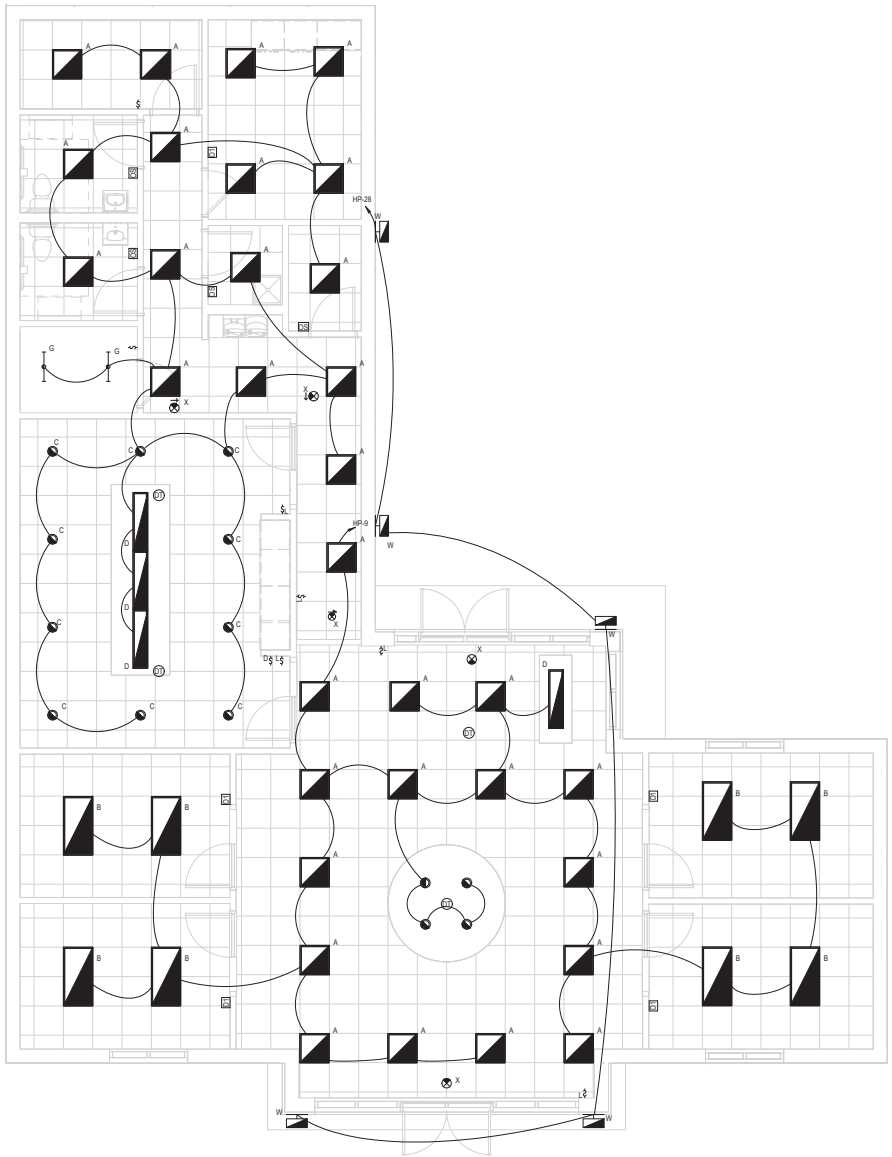

1 ELECTRICAL LIGHTING PLAN

1/4" = 1'-0"

GENERAL NOTES

a REFER TO SYMBOL LEGEND ON SHEET E-001.
b REFER TO BOOK SPECIFICATIONS.
c REFER TO ARCHITECTURAL INTERIOR ELEVATIONS TO COORDINATE THE EXACT PLACEMENT OF ALL DEVICES, EQUIPMENT, FIXTURES, SWITCHES, LIGHTING AND OUTLETS.
d REFER TO EQUIPMENT SCHEDULES FOR DISCONNECT, CONDUIT AND WIRE SIZES.
e PLANS ARE DIAGRAMMATIC IN NATURE. CEILING AND WALL-MOUNTED DECEIVES ARE SHOWN IN APPROXIMATE LOCATIONS. REFER TO ARCHITECTURAL CEILING PLANS AND ELEVATIONS. COORDINATE WITH ALL OTHER TRADES PRIOR TO ROUGH-IN.
f MAINTAIN A CLEARANCE OF AT LEAST 3'-0" IN FRONT OF THE ELECTRICAL PANELS.
g COORDINATE A/C PAD LOCATIONS WITH ARCHITECTURAL SITE PLAN.
h ALL EXTERIOR LIGHTING TO BE CONTROLLED VIA PHOTOCELL ON/ PHOTOCELL OFF.

1 ELECTRICAL EQUIPMENT HAS BEEN RELOCATED / CHANGED BASED ON BACKGROUND CHANGE.

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STATE OF FLORIDA
CRAIG W. THOMPSON FL-92233

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ELECTRICAL LIGHTING PLAN

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1	Revision 1	2023.11.29

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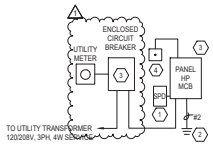
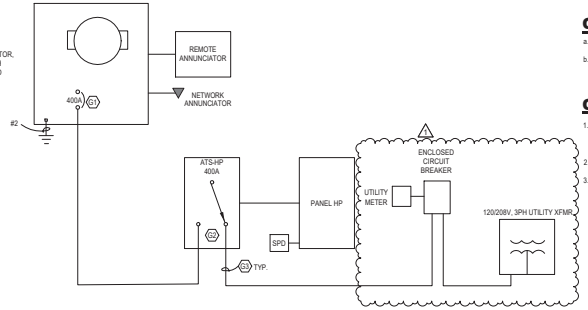


POWER RISER - HOUSE PANEL

NOT TO SCALE

BUILDING RISER KEY NOTES: (4)

1. INSTALL SURGE PROTECTOR OUTSIDE OF MAIN CIRCUIT BREAKER ENCLOSURE.
2. REFER TO TYPICAL GROUNDING DETAIL ON SHEET E-801.
3. REFER TO PANEL CALCULATIONS FOR BREAKER SIZE AND FEEDER SIZE ON SHEET E-501. PROVIDE BRANCH BREAKERS AS REQUIRED FOR SITE AND BUILDING LIGHTING.
4. PROVIDE BREAKER WITH SHUNT TRIP COIL. PROVIDE SHUNT TRIP BREAK GLASS OPERATOR. COORDINATE EXACT LOCATION WITH FIRE DEPARTMENT. PROVIDE A PLAQUE USING SUITABLE GRAPHICS OR TEXT DESCRIBING ALL SERVICE DISCONNECT LOCATIONS FOR ALL SUPPLY CHARACTERISTICS. LOCATE ON THE BUILDING OR STRUCTURE SERVED AND AS NEAR AS PRACTICAL TO THE POINT S OF ENTRY FOR EACH SERVICE. COORDINATE WITH AHJ.



EMERGENCY POWER RISER DIAGRAM

NOT TO SCALE

GENERATOR GENERAL NOTES:

a. GENERATOR IS IN COMPLIANCE WITH NFPA 110, 2016 EDITION.

b. GENERATOR IS CLASS 17, LEVEL 1, TYPE 10.

GENERATOR POWER RISER NOTES: (G#)

1. INSTANTANEOUS MAGNETIC TRIP CIRCUIT BREAKER FOR SHORT CIRCUIT PROTECTION ONLY. ADJUST TRIP SETTINGS BASED ON MOTOR NAMEPLATE DATA.
2. 140 4W AUTOMATIC TRANSFER SWITCH.
3. EXPOSED CONDUIT IN BUILDING TO BE ENCASED IN 2" CONCRETE.

Branch Panel: HP

Location: SERVER 115 | **Volts:** 120/208V Wye | **A.I.C. Rating:** 42,000
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: Recessed | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 400 A

Notes:

CKT	Circuit Description	Load	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load	Circuit Description	CKT
1	BREAKRM / HVAC RM RECS	R	20 A	1	1.08			1.08			1	20 A	R	OFFICE 105, 106 RECS	2
3	SERVER ROOM RECS	R	20 A	1		0.54			0.90		1	20 A	R	HALLWAY / JANITOR / STOR /...	4
5	CONFERENCE ROOM RECS	R	20 A	1			1.08			0.90	1	20 A	R	HALLWAY / RECEPTION / OFFICE...	6
7	OFFICE 103, 104 RECS	R	20 A	1	1.08			1.08			1	20 A	R	OFFICE 105, 103, RECEPTION...	8
9	RECEPTION / OFFICE LTG	L	20 A	1		0.93			1.00		1	20 A	R	EWC	10
11	STOR/ HALLWAY / OFFICE LTG	L	20 A	1			0.94			0.50	1	20 A	E	FIRE ALARM CONTROL PANEL...	12
13	BATHROOM MOTION ACTIVATION	E	20 A	1	0.40			1.25							14
15	AHU-1	H	60 A	2		4.40			1.25		2	15 A	E	EWH-1	16
17							4.40			3.30					18
19	CU-1	H	30 A	3	0.00			3.30			2	40 A	H	AHU-2	20
21						0.00			0.00						22
23							0.00			0.00	3	20 A	H	CU-2	24
25	SITE LIGHTING	L	20 A	2	0.09			0.00							26
27						0.09			0.15		1	20 A	L	LIGHTING - EXTERIOR	28
29	TTB	R	20 A	1			1.00			1.00	1	20 A	R	TVTB	30
31	DX-1	H	15 A	2	1.00										32
33						1.00									34
35															36
37															38
39															40
41															42
43															44
45															46
47															48
49								0.00							50
51									0.00		3	30 A	--	SURGE PROTECTION	52
53										0.00					54
				Total...	10363 VA		10209 VA			13079 VA					
				Total...	87 A		85 A			109 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	17400 VA	100.00%	17400 VA	
Lighting	2195 VA	125.00%	2743 VA	**Total Conn. Load:** 33648 VA
Receptacle	10740 VA	96.55%	10370 VA	**Total Est. Demand:** 33807 VA
Equipment	3400 VA	100.00%	3400 VA	**Total Conn. Current:** 93 A
				Total Est. Demand... 94 A

Notes:
CONDENSING UNITS ARE NON-COINCIDENTAL LOADS

PANEL FEEDER SCHEDULE:

WIRE SIZES ARE BASED ON NFPA 70 TABLE 310.15 B 16 60 DEGREE AL COLUMN FOR SIZES OF 100A AND LESS, ALL OTHERS BASED ON 75 DEGREE COLUMN.
LOAD AMPS AND DISTANCE SHOWN FOR VD CALCULATION ONLY. SEE PANEL SCHEDULE FOR ACTUAL LOAD. ACTUAL DISTANCE MAY VARY DEPENDENT ON ROUTING.

FEEDER DESCRIPTION SOURCE	LOAD	VOLTS	PH	NEUT Y/N	DBL NEUT	GRND Y/N	IG Y/N	MAIN RATING	LOAD AMPS*		DISCONNECT SIZE	DISCONNECT FUSE	DISCONNECT NEMA		ALUM PHASE WIRE	ALUM NEUT WIRE	COPPER GND WIRE	ISO GND	# OF RUNS	CONDUIT SIZE	APPROX FT	VOLT DROP VD%	NOTES
UTILITY TX	ENCLOSED CIRCUIT BREAKER	208	3	Y	N	N	N	400	400						#250	#250			2	2-1/2"			
ENCLOSED CIRCUIT BREAKER	PANEL HP	208	3	Y	N	Y	N	400	400						#250	#250	#3		2	2-1/2"	10	0.14%	
GENERATOR	ATS-HP	208	3	Y	N	Y	N	400	400						#250	#250	#3		2	2-1/2"	100	1.43%	
ATS-HP	PANEL HP	208	3	Y	N	Y	N	400	400						#250	#250	#3		2	2-1/2"	10	0.14%	

EQUIPMENT FEEDER SCHEDULE:

* WIRE SIZES ARE BASED ON NFPA 70 TABLE 310.15(B 16) 60 DEGREE CU COLUMN FOR SIZES OF 100A OR LESS, ALL OTHERS BASED ON 75 DEGREE COLUMN.
DISTANCE SHOWN FOR VOLTAGE DROP CALCULATION ONLY. ACTUAL DISTANCE MAY VARY DEPENDENT ON ROUTING.

EQUIPMENT DESCRIPTION	VOLTS	PH	NEUT Y/N	MOTOR LA RGEST H.P.	MOTOR LA RGEST FLA	ADDITIONAL MOTORS H.P.	ADDITIONAL MOTORS FLA	HEAT STRIPS KW	HEAT STRIPS AMPS	MISC AMPS	TOTAL AMPS	MIN CKT A MCA	PNL C.B. SIZE	DISCONNECT SIZE	DISCONNECT OCPD	STARTER SIZE	STARTER NEMA TYPE	WIRE PER PHASE*	NEUT WIRE	GND WIRE	# OF RUNS	CONDUIT SIZE	APPROX DIST. FT	VOLT DROP VD%	NOTES
AHU-1	208	1	Y	0.75	7.60			7.2	34.6		42.2	52.8	60	60				#4	#4	#10	1	1-1/4"	40	0.50%	
AHU-2	208	1	Y		4.30			5.8	27.7		32.0	40.0	40	60				#8	#8	#10	1	1"	40	0.96%	
CU-1	208	3	Y		15.90		1.00				16.9	20.9	30	30				#10	#10	#10	1	3/4"	50	0.84%	
CU-2	208	3	Y		9.00		1.00				10.0	12.3	20	30				#12	#12	#12	1	3/4"	50	0.83%	
EWH-1	208	1	Y					2.5	12.0		12.0	15.0	15	30				#12	#12	#12	1	3/4"	25	0.58%	
EF-1 / EF-2	120	1	Y	0.10	1.60						1.6	2.0	15	MMS				#12	#12	#12	1	3/4"	25	0.13%	
DX-1 / CU-DX-1	208	1	Y		10.00						10.0	12.5	15	30				#12	#12	#12	1	3/4"	10	0.19%	

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ELECTRICAL ONE LINE DIAGRAM & SCHEDULES

#	ISSUED FOR	DATE
1	Revision 1	2023.11.29

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REVIEW BY: Checker

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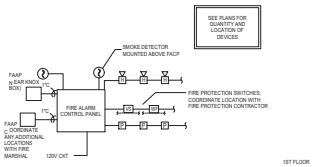


FIRE ALARM RISER DIAGRAM

NOT TO SCALE

1. FIRE ALARM CONTRACTOR SHALL SUBMIT FIRE ALARM PLANS TO THE BUILDING DEPARTMENT FOR APPROVAL WITH ORIGINAL PERMIT DOCUMENTS. PROVIDE CONDUCTOR TYPES AND SIZES, RACEWAY TYPES AND SIZES, AND EQUIPMENT LITERATURE.
2. ALL COMPONENTS SHALL REFLECT UL FOR FIRE SERVICE USE AND SHALL BE COMPATIBLE.
3. FIRE ALARM SYSTEM SHALL BE IDENTIFIED AS TO WHETHER THEY ARE "POWER LIMITED".
4. CABLE PENETRATION INTO OR THROUGH PLENUM AREAS USED FOR TRANSFER OF ENVIRONMENTAL AIR SHALL BE TEFLON INSULATED TYPE OR OF AN APPROVED TYPE IN ACCORDANCE WITH SECTION 800-3 (D) OF THE NATIONAL ELECTRIC CODE.
5. ALL COMMUNICATION AND POWER LINES TO AND FROM FIRE ALARM CONTROL PANEL TO BE SURGE AND LIGHTNING PROTECTED.
6. MINIMUM WIRE SIZE SHALL BE #14 THWN COPPER, IN 1/2"C MIN. . PROVIDE LARGER WIRE WHERE REQUIRED TO MAINTAIN VOLTAGE DROP OR SIGNAL STRENGTH WITHIN ACCEPTABLE .4 LIMITS OF NFPA 72, CHAPTER
7. ALL ALARM NOTIFICATION APPLIANCES SHALL MEET REQUIREMENTS OF NFPA 72.
8. BACK-UP POWER FOR FACP IN THE CLUBHOUSE, SHALL BE PROVIDED BY STORAGE BATTERIES WITH CHARGING EQUIPMENT PER NFPA 72, PARAGRAPH 4.4.1.5 REQUIREMENTS. BATTERIES SHALL HAVE SUFFICIENT CAPACITY TO OPERATE THE FIRE ALARM SYSTEM UNDER QUIESCENT LOAD SYSTEM OPRATING IN A NONALARM CONDITION FOR A MINIMUM OF 24 HOURS AND, AT THE END OF THAT PERIOD, SHALL BE CAPABLE OF OPERATING ALL ALARM NOTIFICATION APPLIANCES USED FOR EVACUATION OR TO DIRECT AID TO THE LOCATION OF AN EMERGENCY FOR 15 MINUTES.
9. A PUBLIC SAFETY RADIO ENHANCEMENT SYSTEM SHALL BE PROVIDED IN A NEW BUILDING WHERE MINIMUM RADIO STRENGTH FOR FIRE DEPARTMENT COMMUNICATIONS IS NOT ACHIEVED AT A LEVEL DETERMINED BY THE AHJ. NFPA 1 11.10 AFTER SUBSTANTIAL COMPLETION OF THE BUILDING CONSTRUCTION, FIRE DEPARTMENT COMMUNICATIONS TESTING WILL OCCUR TO DETERMINE RADIO COVERAGE AND WHAT SYSTEM COMPONENTS AND ENHANCEMENTS WILL BE NEEDED. PLANS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.
10. COORDINATE ALARM TRANSMITTER, RADIO WITH LOCAL ALARM, WITH RESPONDING COMPANY.

FIRE ALARM SYSTEM DESCRIPTION

A. GENERAL

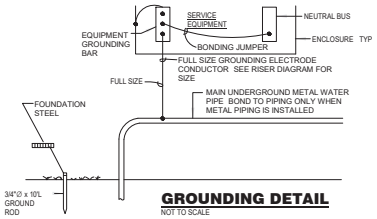
1. ADDRESSABLE FIRE ALARM SYSTEM AND ITS COMPONENTS AND SYSTEM OPERATIONS SHALL ALSO MEET THE APPROVAL OF THE LOCAL FIRE DEPARTMENT.

B. FUNCTIONS

1. ACTUATION OF ANY ALARM INITIATING DEVICE SHALL NOTIFY THE CONTROL PANEL, REMOTE ANNUNCIATORS, AND MAIN FIRE ALARM CONTROL PANEL OF ENTIRE SITE OF ADDRESSABLE DEVICE LOCATION.
   a. OPERATE ALL AUDIBLE AND VISUAL ALARM SIGNALS.
   b. AUDIBLE DEVICES MUST NOTIFY BUILDING OCCUPANTS IN ACCORDANCE WITH ANSI S3.41, "AUDIBLE EMERGENCY EVACUATION SIGNAL"
   c. HAVE PROVISIONS TO TRANSMIT FIRE ALARM SIGNAL TO THE LOCAL FIRE DEPARTMENT VIA TELEPHONE LINES.
2. IT SHALL BE POSSIBLE TO SILENCE THE ALARM SIGNALS BEFORE OPERATING THE RESET SWITCH BY DEPRESSING THE SIGNAL SILENCE SWITCH. HOWEVER, WITH THE SIGNALS SILENCED SUBSEQUENT ALARMS WILL RESPOND TO THE SIGNALS.
3. POWER FAILURE, OPENS, GROUNDS OR ANY DISARRANGEMENT OF SYSTEM WIRING OR COMPONENTS SHALL BE INDICATED BY A VISUAL AND AUDIBLE TROUBLE SIGNAL AT REMOTE ANNUNCIATORS AND THE FIRE CONTROL PANEL. THE TROUBLE SIGNAL MAY BE SILENCED, BUT THE TROUBLE LIGHT MUST REMAIN ILLUMINATED UNTIL THE SYSTEM HAS BEEN RETURNED TO NORMAL, AT WHICH TIME THE TROUBLE SIGNAL SHALL RESOUND UNTIL THE TROUBLE SILENCE SWITCH HAS BEEN RETURNED TO THE NORMAL POSITION.

C. EQUIPMENT

1. FIRE ALARM CONTROL PANEL SHALL BE LOCATED AS INDICATED ON THE DRAWINGS.
2. FIRE ALARM HORN/LIGHT UNITS SHALL BE SURFACE MOUNTED WITH RED FINISH OR STAINLESS STEEL TRIM. LIGHT LENS SHALL BE SILK SCREENED WITH THE WORD "FIRE" IN RED LETTERING.
3. PULL STATIONS SHALL BE NON-CODED, MANUALLY OPERATED, DOUBLE ACTION TYPE.
4. PROVIDE WEATHERPROOF COVERS FOR ALL PULLSTATIONS EXPOSED TO RAIN.
5. RESIDENTIAL UNIT HORNS SHALL BE FLUSH MOUNTED IN A SINGLE GANG BOX WITH A RED FINISH.
6. PHOTOELECTRIC SMOKE DETECTOR AS SHOWN ON THE PLANS SHALL BE OF THE SOLID STATE PHOTOELECTRIC TYPE UTILIZING A STABLE LED LIGHT SOURCE AND A SILICON PHOTO DIODE AS THE RECEIVING ELEMENT TO FORM A HIGHLY ACCURATE MEANS OF SMOKE DETECTION. REGARDLESS OF SENSITIVITY SETTING, THE DETECTORS STABILITY SHALL BE UNAFFECTED BY HIGH AIR VELOCITY. NO RADIOACTIVE MATERIAL SHALL BE USED.
7. HEAT DETECTORS SHALL BE 135 DEGREES FIXED TEMPERATURE WITH RATE OF RISE FEATURE.
8. RESIDENTIAL UNIT SMOKE DETECTORS SHALL BE PHOTO-ELECTRIC TYPE WITH LOCAL ALARM SUITABLE FOR 120VAC OPERATION WITH BATTERY BACK-UP FEATURE. SMOKE DETECTORS SHALL BE INTERCONNECTED SO THAT ACTIVATION OF A SINGLE DETECTOR SHALL ALARM ALL DETECTORS WITHIN THAT LIVING UNIT.
9. PROVIDE AN APPROVED DIGITAL COMMUNICATOR TO TRANSMIT THE FIRE ALARM AND SUPERVISORY SIGNALS TO A CENTRAL STATION. THE DIGITAL COMMUNICATOR SHALL BE UL AND FM LISTED FOR FIRE REPORTING TO A CENTRAL STATION AND SHALL CONFORM TO THE REQUIREMENTS IN NFPA 72.
10. FIRE ALARM SYSTEMS WIRING: ALARM INITIATING CIRCUITS SHALL BE 16 AWG STRANDED OR LARGER, WITH 7 STRANDS (MAXIMUM , OR 14 AWG SOLID. ALARM INDICATING CIRCUITS SHALL BE 14 AWG SOLID OR LARGER. INSTALL PER MANUFACTURERS WIRING DIAGRAMS.
11. PROVIDE SURGE PROTECTION ON ALL FACP POWER CIRCUITS AND ALL COMMUNICATIONS LINES BETWEEN BUILDINGS AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER. SURGE PROTECTION TO BE UL LISTED.



GROUNDING DETAIL

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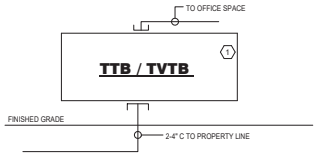

TTB / TVTB TELEPHONE RISER DIAGRAM

NOT TO SCALE

TTB / TVTB TELEPHONE RISER DIAGRAM NOTES: (#)

1. 4 X 8 X 3/4" PLYWOOD TELEPHONE TERMINAL BOARD. FROM TVTB/TTB PROVIDE #6 THWN Cu GREEN WIRE TO BUILDING GROUNDING SYSTEM AND LEAVE 6 -0" COIL OF WIRE ATT TVTB / TTB LOCATION.

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ELECTRICAL DETAILS

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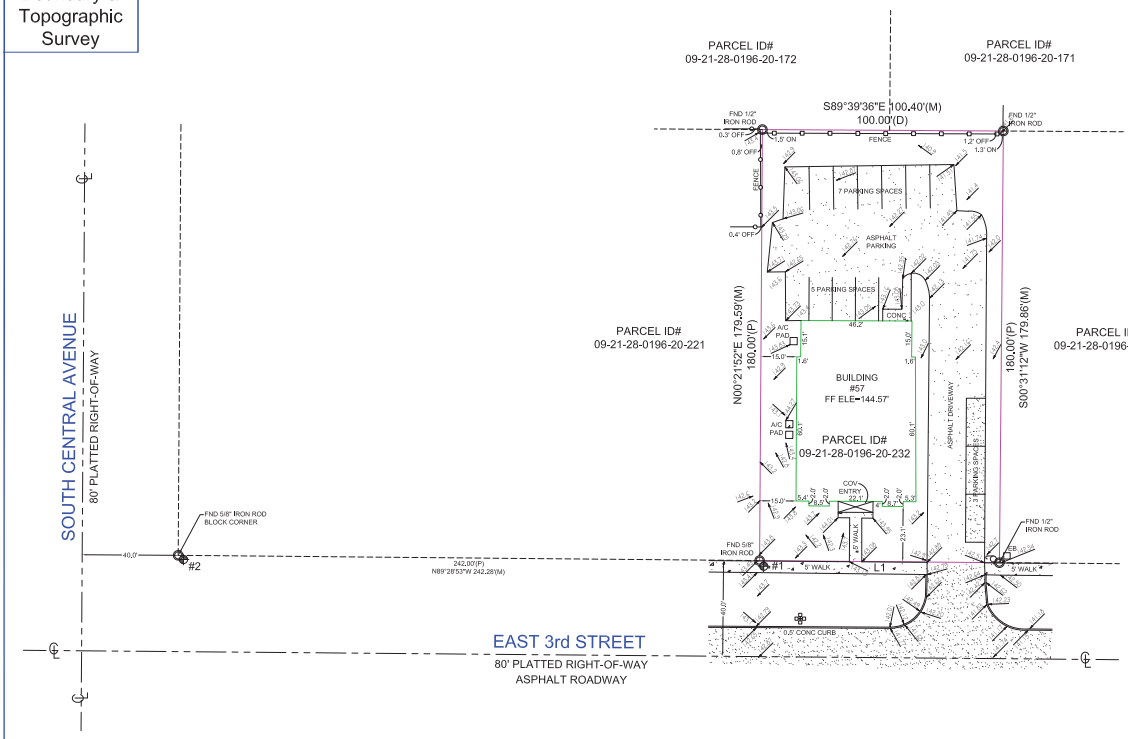
Boundary & Topographic Survey



-Site Benchmark Information-

#1
Found 5/8" Iron Rod on SW Property Corner.
Elevation: 142.95'

#2
Found 5/8" Iron Rod on Block Corner.
Elevation: 146.48'

-Benchmark Information-

Orange County Datum
Based on GPS Observations.
(Elevations are based upon NAVD 88 Datum)

NORTH

1" = 40'
GRAPHIC SCALE
0 20 40

ADDRESS

57 EAST 3rd STREET
APOPKA, FLORIDA 32703

LEGAL DESCRIPTION: (AS FURNISHED)

THE WEST 100 FEET OF THE EAST 100 FEET OF LOT 23, BLOCK "B", CHAPNEY'S PORTION OF APOPKA, A PER PLAT BOOK A, PAGE 87, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

BASIS OF BEARINGS: BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH LINE OF THE SUBJECT PROPERTY, ASSUMED TO BEING N 89°30'31" W.

LEGEND

A/C	- Air Conditioner	P	- Plat
C	- Calculated	PB	- Plat Book
E	- Centerline	PC	- Point of Curvature
CB	- Concrete Block	PI	- Point of Intersection
CM	- Concrete Monument	POB	- Point of Beginning
CONC	- Concrete	POC	- Point of Commencement
COV	- Covered	PP	- Power Pole
D	- Description	PRC	- Point of Reverse Curvature
DE	- Drainage Easement	PRM	- Permanent Reference Monument
DUE	- Drainage & Utility Esmt	R	- Radius
D/W	- Driveway	RAD	- Radial
EB	- Electric Box	R&C	- Rebar & Cap
FFE	- Finished Floor Elevation	RFD	- Roofed
FND	- Found	UE	- Utility Easement
IP	- Iron Pipe	WM	- Water Meter
L	- Length (Arc)	Δ	- Delta (Central Angle)
M	- Measured	⊸	- Wood/PVC Fence
N&D	- Nail & Disk	⊸	- Chain Link Fence
NR	- Non-Radial	○	- Wood Power Pole
OHU	- Overhead Utility Line	☼	- Light Pole
ORB	- Official Records Book		

DLS #: D23-07-0050
CLIENT #:
FIELD DATE: 07/17/23
DRAFTER: DJC
APPROVED: BHH
SCALE: 1" = 40'

FLOOD ZONE INFORMATION
(FOR INFORMATIONAL PURPOSES ONLY)

SUBJECT PROPERTY SHOWN HEREON APPEARS TO BE LOCATED IN FLOOD ZONE X, AREA OUTSIDE OF THE 100 YEAR FLOODPLAIN, PER F.I.R.M. PANEL NUMBER 12095C 0120H LAST REVISION DATE 09/24/21

CERTIFIED TO: (AS FURNISHED)

FARM CREDIT OF CENTRAL FLORIDA

LIST OF POSSIBLE ENCROACHMENTS: FENCES AS SHOWN

THIS SURVEY IS PREPARED FOR THE EXCLUSIVE USE AND BENEFIT OF THE PARTIES LISTED HEREON. LIABILITY TO THIRD PARTIES MAY NOT BE TRANSFERRED OR ASSIGNED.

NOTES

1. Abutting properties have not been researched for gaps, overlaps, and/or hiatus
2. In compliance with F.A.C. 61G17-6,(2)(3)-6.E, if portion of easements or rights-of-way of record, other than those on recorded plats, is required, this information must be furnished to the surveyor and mapper
3. Fence ownership is not determined
4. No underground improvements or structures were located by this survey, unless otherwise noted
5. This survey should not be used for construction purposes
6. Any septic tank or manhole locations (if found) are approximate
7. Property lines and or improvements shown were physically located
8. Bearing Basis
9. Monuments found or set are shown
Calculated lines and information are noted by (C)
9. Computations of lines and or data not found are shown as (C)
10. Accuracies obtained in this survey are greater than (rural) 1" in 5000', (suburban) 1" in 7500', (commercial/ high) 1" in 10,000'
11. Prior to survey, information obtained was legal description provided by client or from publicly published county tax assessor site, recorded plats and/or section corner records, if applicable
12. If only a digital survey copy is required, a survey report will be placed in file. The digital survey is not full and complete without the survey report file.

DEAL LAND SURVEYING

FOR ALL INQUIRIES CONTACT:
Deal Land Surveying, LLC
804 S French Avenue
Sanford, FL 32771
407-878-3796
INFO@deallandsurveying.com

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SKETCH OF SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 472.027 FLORIDA ADMINISTRATIVE CODE ; FURTHER, THIS DOCUMENT IS ELECTRONICALLY SIGNED AND SEALED PURSUANT TO THE FLORIDA STATUTES SECTION 5J-17.062,2 AND 5J-17.062,3 OF THE FLORIDA ADMINISTRATIVE CODE.

DATE SIGNED: 07/20/2023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THOMAS C. LITTLE, PSM 6107, ON THIS DATE 07/20/2023
SURVEYOR'S NAME: THOMAS C. LITTLE PSM 6107

DEAL LAND SURVEYING, LLC LB 8121

NOT VALID WITHOUT AN AUTHENTICATED ELECTRONIC SIGNATURE AND AUTHENTICATED ELECTRONIC SEAL

DATE	REVISION	DATE	REVISION

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
	10+00	PARKING SETBACK
		BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
200'RA		200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB AND GUTTER
CC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
EN	EN	BUILDING ENTRANCE
LD	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
10	10	PARKING COUNT
245	245	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW 38.5 BW	45.0 TW 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
2"DW	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
		PLUG OR CAP
CO		CLEANOUT
		FLARED END SECTION
		HEADWALL
S	S	SEWER MANHOLE CONCENTRIC
S	S	SEWER MANHOLE ECCENTRIC
CB	CB	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GS	GS	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
Match Line See Sheet C1.01		MATCHLINE

Abbreviations

General

ABAN	ABANDON	ELEV	ELEVATION	MCC	MONOLITHIC CONCRETE CURB	R&D	REMOVE AND DISPOSE
ACR	ACCESSIBLE CURB RAMP	EX	EXISTING	MIN	MINIMUM	R&R	REMOVE AND RESET
ADJ	ADJUST	FDN	FOUNDATION	NIC	NOT IN CONTRACT	TOB	TOP OF BANK
APPROX	APPROXIMATE	FFE	FIRST FLOOR ELEVATION	NTS	NOT TO SCALE	TS	TOP OF SLOPE
BIT	BITUMINOUS	GTD	GRADE TO DRAIN	PERF	PERFORATED	TYP	TYPICAL
BS	BOTTOM OF SLOPE	LA	LANDSCAPE AREA	PROP	PROPOSED		
CONC	CONCRETE	LOD	LIMIT OF DISTURBANCE	REM	REMOVE		
EL	ELEVATION	MAX	MAXIMUM	RET	RETAIN		

Utility

CB	CATCH BASIN	FES	FLARED END SECTION	I=	INVERT ELEVATION	R=	RIM ELEVATION
CMP	CORRUGATED METAL PIPE	FM	FORCE MAIN	LP	LIGHT POLE	RIM=	RIM ELEVATION
CO	CLEANOUT	GI	GUTTER INLET	MES	MITERED END SECTION	SMH	SEWER MANHOLE
DCB	DOUBLE CATCH BASIN	GV	GATE VALVE	PIV	POST INDICATOR VALVE	UG	UNDERGROUND
DMH	DRAINAGE MANHOLE	HDPE	HIGH DENSITY POLYETHYLENE PIPE	PVC	POLYVINYLCHLORIDE PIPE	UP	UTILITY POLE
CIP	CAST IRON PIPE	HYD	HYDRANT	PV	PLUG VALVE		
DIP	DUCTILE IRON PIPE	INV	INVERT ELEVATION	RCP	REINFORCED CONCRETE PIPE		

Notes

GENERAL NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF CITY OF APOPKA, FLORIDA.
2. PAVEMENT STRIPING TO BE IN ACCORDANCE WITH ORANGE COUNTY SPECIFICATIONS AND WITH THE FLORIDA D.O.T. STANDARD PLANS FOR ROAD CONSTRUCTION, INDEX 711-001.
3. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THEY ARE DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
4. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY.
5. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS.
6. WHERE MUCK OR OTHER ORGANIC MATERIAL IS FOUND, IT SHALL BE REPLACED WITH GOOD QUALITY BACKFILL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED BY THE GEOTECHNICAL ENGINEER. THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN BACKFILL SOIL AS APPROVED BY THE GEOTECHNICAL ENGINEER OR PLACED AS APPROVED BY OWNER.
7. ALL FINISHED GRADES AND ELEVATIONS ARE AS DENOTED BY THE APPLICABLE LEGEND.
8. AS PART OF THE CLEARING AND GRUBBING OPERATION, THE CONTRACTOR IS TO REMOVE ALL FENCING MATERIALS FACILITIES FROM THE SITE, UNLESS OTHERWISE NOTED ON THE PLANS.
9. SIDEWALKS SHALL BE CONSTRUCTED TO BE FLORIDA ACCESSIBILITY AND ADA COMPLIANT INCLUDING HANDICAP RAMPS AT ALL INTERSECTIONS.
10. THE CONTRACTOR SHALL NOTIFY CITY OF APOPKA UTILITIES DIVISION 48-HOURS PRIOR TO ANY UTILITIES CONSTRUCTION. ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
11. CONTRACTOR IS RESPONSIBLE FOR OBTAINING FDEP GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY IN ACCORDANCE OF FLORIDA ADMINISTRATIVE CODE 62-621.300 (2), 62-620, AND FLORIDA STATUTES CHAPTER 403.
12. CONTRACTOR SHALL NOT WILLFULLY INSTALL OR CONSTRUCT ITEMS AS SHOWN ON THE DRAWINGS WHEN IT IS APPARENT IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES IN STRUCTURE, OR AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED PRIOR TO INSTALLATION OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
13. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES.
14. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
15. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
16. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (GCP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

UTILITY NOTES:

1. THE CONSTRUCTION OF ALL UTILITIES CONNECTING TO CITY OF APOPKA UTILITY SYSTEMS SHALL CONFORM TO THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL, 2016 EDITION.
2. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
3. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
4. TOP ELEVATIONS OF MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND OTHER SUCH UTILITY STRUCTURES SHALL BE SET/RESET IN GRASSED AREAS MINIMUM ONE (1) INCH ABOVE FINISHED GRADE AND FLUSH WITH FINISHED GRADE IN ALL PAVED, CONCRETE, AND ACCESSIBLE SURFACES.
5. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE ELECTRICAL DRAWINGS OR INDICATED ON THE DRAWINGS.

SANITARY SEWER NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL, 2016 EDITION.
2. ALL MANHOLES SHALL BE 4 FT. INSIDE DIAMETER.
3. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE.
4. ALL SANITARY SERVICE LATERALS SHALL BE 6 INCH DIAMETER.
5. INVERTS OF SANITARY SERVICE LATERALS AT THEIR CONNECTION TO SANITARY MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT.
6. MINIMUM AS BUILT 8" PVC SEWER LINE SLOPE WILL BE 0.28%. MINIMUM AS BUILT 10" PVC SEWER LINE SLOPE WILL BE 0.21%. MINIMUM AS BUILT 12" PVC SEWER LINE SLOPE WILL BE 0.17%. MINIMUM AS BUILT 15" PVC SEWER LINE SLOPE WILL BE 0.12%. MINIMUM AS BUILT 18" PVC SEWER LINE SLOPE WILL BE 0.10%. MINIMUM AS BUILT 24" PVC SEWER LINE SLOPE WILL BE 0.08%. IF MINIMUM PIPE SLOPE IS NOT MET, THE PIPE WILL BE RELAYED BY CONTRACTOR TO MEET THE MINIMUM REQUIREMENT AT NO ADDITIONAL COST.
7. MARK LATERALS WITH 6' HIGH PIECE OF 2" X 4" PLANE PAINTED GREEN WITH LOT NUMBER CLEARLY MARKED AND AN 'S' IMPRINTED IN THE CURB.
8. LEAKAGE TESTS ARE SPECIFIED REQUIRING THAT:
   1) THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 150 GALLONS PER DAY, PER INCH OF PIPE DIAMETER PER MILE PER DAY AS MEASURED BETWEEN ADJACENT MANHOLES OVER A TWO (2) HOUR TESTING PERIOD.
   2) EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET; AND
   3) LOW PRESSURE AIR LEAKAGE TEST, SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURE FOR "CONVENIENCED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" AS ESTABLISHED BY THE UNIBELL PVC PIPE ASSOCIATION, PASSING THIS TEST SHALL BE PRESUMED TO ESTABLISH LEAKAGE TEST LIMITS OF FIFTY (50) GALLONS PER DAY, PER INCH OF DIAMETER PER MILE OF SEWER.
9. DESIGN REQUIRES:
   1) MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS BE SEALED WITH NON-SHRINKING MORTAR OR OTHER APPROPRIATE MATERIAL;
   2) INLET AND OUTLET PIPES BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION OR ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL; AND
   3) WATERTIGHT MANHOLE COVERS BE USED WHEREVER THE MANHOLE TOPS MAY BE FLOODED BY STREET RUNOFF OR HIGH WATER.

PAVING AND DRAINAGE NOTES:

1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES.
2. ALL MEDIANS AND ISLANDS TO BE FILLED WITH CLEAN SOIL.
3. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
4. CURB RADII ARE THREE (3) FEET UNLESS OTHERWISE NOTED.
5. CURBING SHALL BE CONCRETE CURB, TYPE D WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE PADS FOR MECHANICAL EQUIPMENT, LOADING DOCKS, BOLLARDS, ETC.
7. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
8. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
9. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.
10. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.
11. ALL CONCRETE DRAINAGE STRUCTURES TO BE CONSTRUCTED PER D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL PLACE BLUE REFLECTIVE MARKERS ON PAVEMENT IN FRONT OF FIRE HYDRANTS.
13. MINIMUM LONGITUDINAL SLOPE OF CURB SHALL BE 0.3%.
14. THE CONTRACTOR SHALL INSTALL AS PART OF THE INFRASTRUCTURE AND PRIOR TO CERTIFICATE OF COMPLETION, DROP CURBS (MIN. 4 PER INTERSECTION) AT ALL INTERSECTIONS OF THE SIDEWALK WITH THE PROPOSED PAVEMENT TO MEET CITY OF APOPKA AND A.D.A. SPECIFICATIONS.

EROSION CONTROL NOTES:

1. SODDING OF DETENTION POND SIDE SLOPES SHOULD BE ACCOMPLISHED WITHIN 48 HOURS OF THE COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
2. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
3. AT A MINIMUM SILT BARRIERS SHALL BE PLACED AS SHOWN ON THE PLANS TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING WETLAND. IF DURING CONSTRUCTION THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH CITY OF APOPKA AND S.J.R.W.M.D EROSION PROTECTION STANDARDS. THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST ALSO MEET FDEP'S MINIMUM SPECIFICATIONS, SEE PART 5.1 OF THE CGP, WHICH REFERENCES THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
4. CONTRACTOR IS RESPONSIBLE TO SUBMIT EROSION CONTROL PLAN TO THE COUNTY ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF PRE-CONSTRUCTION CONFERENCE.
5. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION PROTECTION COSTS, INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
6. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING PONDS AND WETLAND/CONSERVATION AREAS ON OR OFF-SITE. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT BE LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS.
7. A TWO FEET STRIP OF SOD SHALL BE PLACED BEHIND BACK OF CURB OR AS OTHERWISE DETAILED IN THE APPROPRIATE SECTION. A TEMPORARY SOD STRIP OF 4' MIN. SHALL BE USED DURING CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND ADHERING TO A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE TO THE REQUIREMENTS OF THE NPDES CONSTRUCTION GENERIC PERMIT (CGP). REFER TO PART 4 OF THE CGP, 62-621.300(4)(A), FOR ADDITIONAL INFORMATION.
9. ALL PERMANENT EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 7 DAYS OF ANY AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE EITHER TEMPORARILY OR PERMANENTLY CEASED (PART 5.4). ALL TEMPORARY EROSION CONTROLS SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE COMPLETED AND ESTABLISHED.
10. DISCHARGE OF GROUNDWATER FROM DEWATERING OPERATIONS REQUIRES APPROVAL FROM FDEP AND THE APPLICABLE WATER MANAGEMENT DISTRICT. THE DEVELOPER/CONTRACTOR SHALL OBTAIN AN FDEP GENERIC PERMIT FOR THE DISCHARGE OF GROUND WATER FROM DEWATERING FACILITIES TO WATERS OF THE STATE. THE SJRWMD REQUIRES A CONSUMPTIVE USE PERMIT FOR FLORIDA STATUTES CHAPTER 373. DISCHARGES DIRECTED TO THE COUNTY'S MS4 REQUIRE AN ORANGE COUNTY RIGHT-OF-WAY UTILIZATION PERMIT FOR DEWATERING PRIOR TO THE START OF ANY DISCHARGES. TO OBTAIN RIGHT-OF-WAY APPROVAL, COPIES OF THE FDEP PERMIT, NOI, DOCUMENTATION SHOWING DEWATERING AT THE SITE IS NOT WITHIN 500 FT OF KNOWN CONTAMINATION, AND A DEWATERING PLAN SHALL BE SUBMITTED TO ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION (407-836-1400) AND ORANGE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING PERMITTING SECTION. ANALYTICAL RESULTS OF GROUNDWATER MAY BE REQUESTED BY ORANGE COUNTY ON A CASE-BY-CASE BASIS TO CONFIRM SITE CONTAMINATION STATUS.

RECORD DRAWING NOTES:

NOT LESS THAN THREE (3) WORKING DAYS PRIOR TO THE FINAL INSPECTION BY THE CITY, THE DEVELOPER'S ENGINEER SHALL PROVIDE A WRITTEN CERTIFICATION SIGNED, SEALED AND DATED, THAT ALL RECORD DRAWING PLANS, ACCURATELY AND COMPLETELY REFLECT ANY AND ALL DEVIATIONS FROM OR CHANGES MADE TO THE CITY APPROVED CONSTRUCTION PLANS. THE SUBMITTAL SHALL INCLUDE ONE (1) COMPLETE SET OF SIGNED, SEALED, AND DATED RECORD DRAWING PLANS. IN ADDITION TO THE PLANS THE DEVELOPER'S ENGINEER MUST ALSO SUBMIT ONE (1) ELECTRONIC COPY IN TIFF FORMAT (NOT PDF) AND ONE (1) ELECTRONIC COPY IN AUTOCAD 2013 (OR EARLIER VERSION) OF THE RECORD DRAWINGS TO THE CITY PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF ACCEPTANCE FOR THE IMPROVEMENTS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON THE APPROVED PLANS AS CONSTRUCTION PROGRESSES. RECORD DRAWINGS SUBMITTED TO THE CITY AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
2. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND WATER, RECLAIMED WATER STORM DRAINAGE AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL CHANGES SHALL BE BASED HORIZONTAL CONTROL DATUM NAD1983 STATE PLANE FLORIDA EAST (US FEET) AND VERTICAL CONTROL DATUM NAVD88. DRAWINGS SHALL SHOW ACTUAL INSTALLED PIPE SIZE, TYPE OF MATERIAL AND PRESSURE CLASS.
3. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL.
4. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE SHOWN.
5. LOCATION OF ALL MANHOLES, HYDRANTS, VALVES, AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO AND PREFERABLY THREE PERMANENT POINTS.
6. DIMENSIONS BETWEEN ALL MANHOLES SHALL BE FIELD VERIFIED AND SHOWN. THE INVERTS, GRADE ELEVATIONS AND SLOPE OF ALL MANHOLES SHALL BE SHOWN. SEWER LATERALS SHALL BE LOCATED ALONG THE MAINS MEASURED FROM THE NEAREST DOWNSTREAM MANHOLE.
7. THE DEPTH FROM FINISH GRADE OF POTABLE WATER, RECLAIMED WATER, AND SEWER FORCE MAINS SHALL BE INDICATED AT ALL VALVE LOCATIONS.
8. THE INFORMATION LISTED IN ITEM 2, 5, 6 AND 7, SHALL BE COMPLETED BY A CERTIFIED PROFESSIONAL LAND SURVEYOR. SIGNED AND SEALED CERTIFICATION PREPARED BY THE SURVEYOR SHALL BE SUBMITTED TO THE CITY.
9. THE CERTIFIED RECORD DRAWINGS SHALL BE PRESENTED IN DIGITAL FORMAT. THE FORMAT SHALL BE A HIGH RESOLUTION TIFF IMAGE AS WELL AS AUTOCAD, AT THE SAME SIZE AND SCALE AS THE DEVELOPMENT PLAN. THE RECORD DRAWINGS SHALL CONSIST OF EACH SHEET THAT APPEARS IN THE APPROVED FINAL DEVELOPMENT PLAN, PLUS ANY ADDITIONAL PLAN SHEETS NECESSARY TO COMPLETE THE PROJECT CONSTRUCTION.
10. EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED, AND DATED BY THE DEVELOPER'S ENGINEER AS BEING RECORD DRAWINGS. CONSTRUCTION PLANS SIMPLY STAMPED RECORD DRAWINGS NOT CERTIFYING THE ACCURACY OF THE LOCATION, ELEVATION AND CONFIRMATION OF SUCH UTILITIES WILL NOT BE ACCEPTED AND SHALL BE RETURNED TO THE DEVELOPER'S ENGINEER. THE "CERTIFICATE OF ACCEPTANCE" WILL NOT BE ISSUED UNTIL CORRECT RECORD DRAWINGS HAVE BEEN SUBMITTED.
11. COPIES OF ALL TESTING RESULTS AND SYSTEM CLEARANCE DOCUMENTATION FROM REGULATORY AGENCIES SHALL ALSO BE SUBMITTED TO THE CITY PRIOR TO THE ISSUANCE OF THE "CERTIFICATION OF ACCEPTANCE."
12. THE FOLLOWING STATEMENT SHALL APPEAR ON EACH SHEET OF RECORD:

"RECORD DRAWINGS CONTAIN INFORMATION FURNISHED BY OTHERS. THE INFORMATION PROVIDED HAS BEEN REVIEWED BY ME OR BY INDIVIDUALS UNDER MY DIRECT SUPERVISION AND FOUND TO BE CORRECT AND ACCURATE, CONSISTENT WITH THE PERMIT AND THE APPROVED DRAWINGS AND SPECIFICATIONS. ANY ADJUSTMENTS AND MINOR DEVIATIONS, WHICH ARE EXPECTED, WERE MADE WITH PRIOR APPROVALS AND IN MY JUDGEMENT DO NOT ALTER THE MAIN INTENT OF THE DESIGN, THE SAFETY OR THE STRUCTURAL INTEGRITY OF THE CONSTRUCTED WORK AND WILL NOT PREVENT THE PROJECT FROM F

GENERAL SITE DATA:

GENERAL:

ZONING	MUD
PROPOSED UNITS:	
CHC Apopka Family Clinic Addition and Renovation	-
TOTAL GROSS ACRES	1.45 Ac.
TOTAL PHASE 1 WETLAND ACRES	0.00 Ac.
PHASE 1 IMPACTED WETLAND ACRES	0.00 Ac.
PHASE 1 PRESERVED WETLAND ACRES	0.00 Ac.
TOTAL PHASE 1 EXISTING SURFACE WATER ACRES	0.00 Ac.
PHASE 1 IMPACTED SURFACE WATER ACRES	0.00 Ac.
PHASE 1 PRESERVED SURFACE WATER ACRES	0.00 Ac.
TOTAL PHASE 1 DEVELOPABLE ACRES	1.45 Ac.

DEVELOPMENT PLAN CHART

PARCEL ID NUMBERS	2.82109E+14	
FUTURE LAND USE	Office (OFF)	
ZONING	Mixed-Use District (MUD)	
ADJACENT FUTURE LAND USE	NORTH (CITY): RESIDENTIAL LOW	
	EAST (CITY): RESIDENTIAL MEDIUM, RESIDENTIAL LOW, INDUSTRIAL	
	SOUTH (CITY): MIXED-USE	
	WEST (CITY AND COUNTY): RESIDENTIAL LOW, COUNTY ROAD, MIXED USE	
ADJACENT ZONING	NORTH (CITY): OFF, MUD, Existing Land Use: Church	
	EAST (CITY): RLS, MUD, Existing Land Use: Residential	
	SOUTH (CITY): IND/OFF, MUD, Exisitng Land Use: Medical Office	
	WEST (CITY): COMM, MUD, Exisitng Land Use: Medical Office	
ACREAGE/SQUARE FOOTAGE	1.45	
WAIVER REQUEST	YES:	NO: X
VARIANCE REQUEST	YES:	NO: X

NOTES:
(1) None.

PHASING:

THIS PROJECT WILL BE DEVELOPED IN ONE (1) PHASE.

MISCELLANEOUS:

POTABLE WATER SERVICE:	CITY OF APOPKA
WASTEWATER, RECLAIMED SERVICE:	CITY OF APOPKA
ELECTRIC SERVICE:	DUKE ENERGY
FIRE PROTECTION:	CITY OF APOPKA
AVERAGE DAILY TRAFFIC PER ITE 210 (10TH EDITION), PER MDP:	N/A

SIGNAGE:

NO COMMUNITY ENTRANCE SIGNAGE IS PROPOSED WITHIN THIS SUBMITTAL

LIGHTING:

EXTERIOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 5.6 OF THE CITY OF APOPKA LAND DEVELOPMENT CODE.

FIRE:

1. FIRE HYDRANTS SHALL BE INSTALLED SO THAT THE DESIGN AND CALCULATIONS MEET THE REQUIREMENTS IN THE CITY OF APOPKA CODE OF ORDINANCES AND THE FLORIDA FIRE PREVENTION CODE 5th EDITION (2012).
2. FIRE ACCESS SHALL BE FROM THE FRONT OF THE PROPOSED DEVELOPMENT. ACCESS SHALL BE IN ACCORDANCE WITH CHAPTER 18 NFPA 1 & 101, 2012 EDITION, FFPC 5TH EDITION (2012).
3. ANY COMMERCIAL STRUCTURE OR RESIDENTIAL BUILDING OF THREE OR MORE STORIES MAY BE REQUIRED TO HAVE AN AUTOMATIC FIRE SPRINKLER PROTECTION DEPENDING UPON THE BUILDING CONSTRUCTION TYPE, OCCUPANCY CLASSIFICATION, AND ADDITIONAL BUILDING OR FIRE CODE REQUIREMENTS.

LANDSCAPE:

1. LANDSCAPING AND BUFFER STANDARDS SHALL BE IN ACCORDANCE WITH TABLE 5.2.5.B.3.D-1: BUFFERYARD APPLICATION OF THE CITY OF APOPKA LAND DEVELOPMENT CODE.

OWNERSHIP/MAINTENANCE:

DRAINAGE EASEMENTS	N/A	
UTILITY EASEMENTS	N/A	
SANITARY SEWER, RECLAIMED WATER & POTABLE WATER SYSTEM	PRIVATE:	TO BE OWNED AND MAINTAINED BY COMMUNITY HEALTH CENTERS, INC.
STORM SEWER SYSTEM	PRIVATE:	TO BE OWNED AND MAINTAINED BY COMMUNITY HEALTH CENTERS, INC.
PARK TRACTS	PUBLIC:	TO BE OWNED AND MAINTAINED BY THE COMMUNITY DEVELOPMENT DISTRICT
OPEN SPACE/LANDSCAPE TRACTS	PUBLIC:	TO BE OWNED AND MAINTAINED BY THE COMMUNITY DEVELOPMENT DISTRICT

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architecture + engineering + interiors
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aac000564 | CA Lic No: 629

project title & owner's name

community health centers

CHC APOPKA FAMILY CLINIC ADDITION AND RENOVATION

CONSTRUCTION DOCUMENTS

consultant

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Number FL #3932

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date
10-05-2023
job number
64337.00
drawn by
PTM
checked by
JFK
revisions

No.	Description	Date

sheet title/contents
Site Data

drawing number
C01-02

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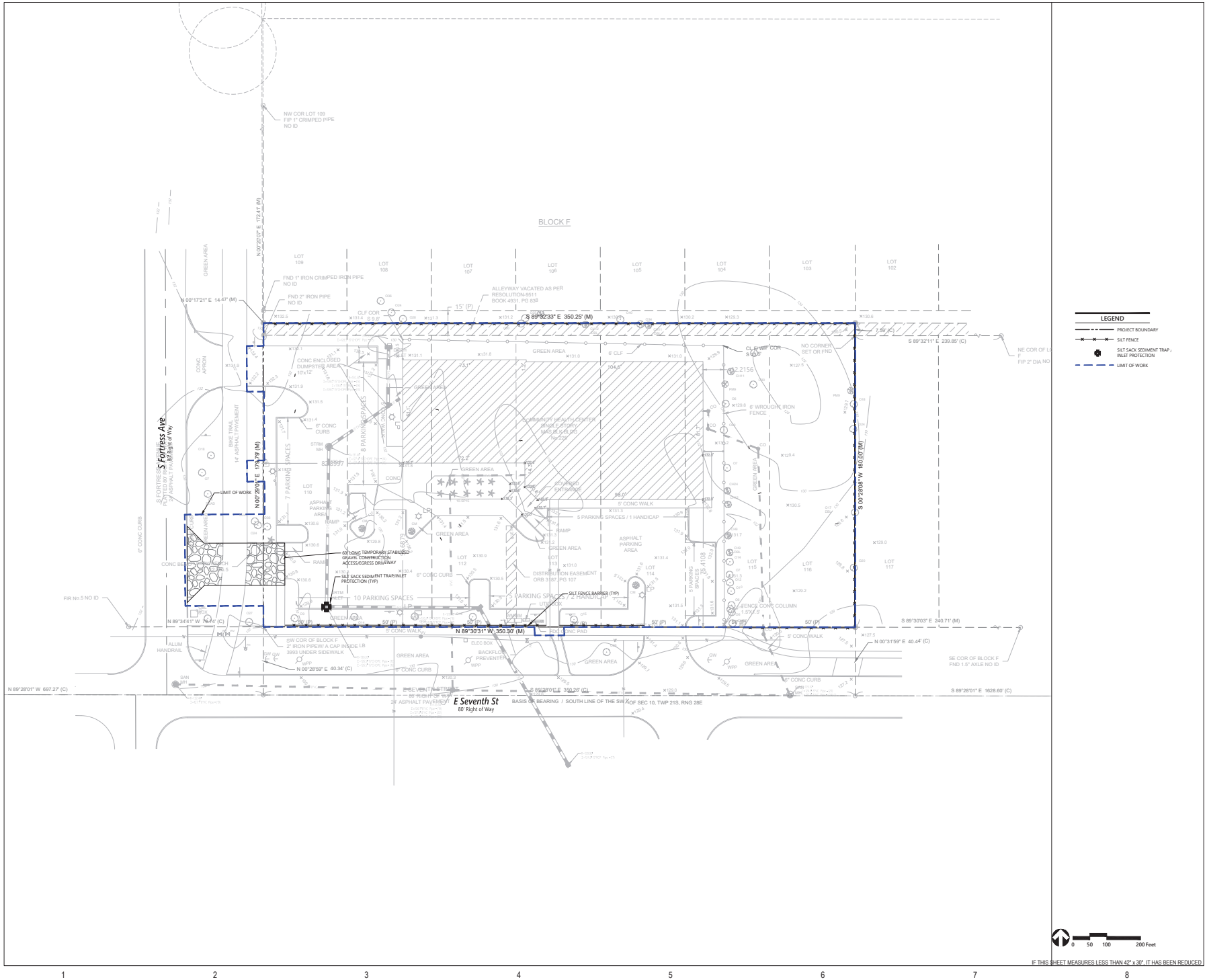

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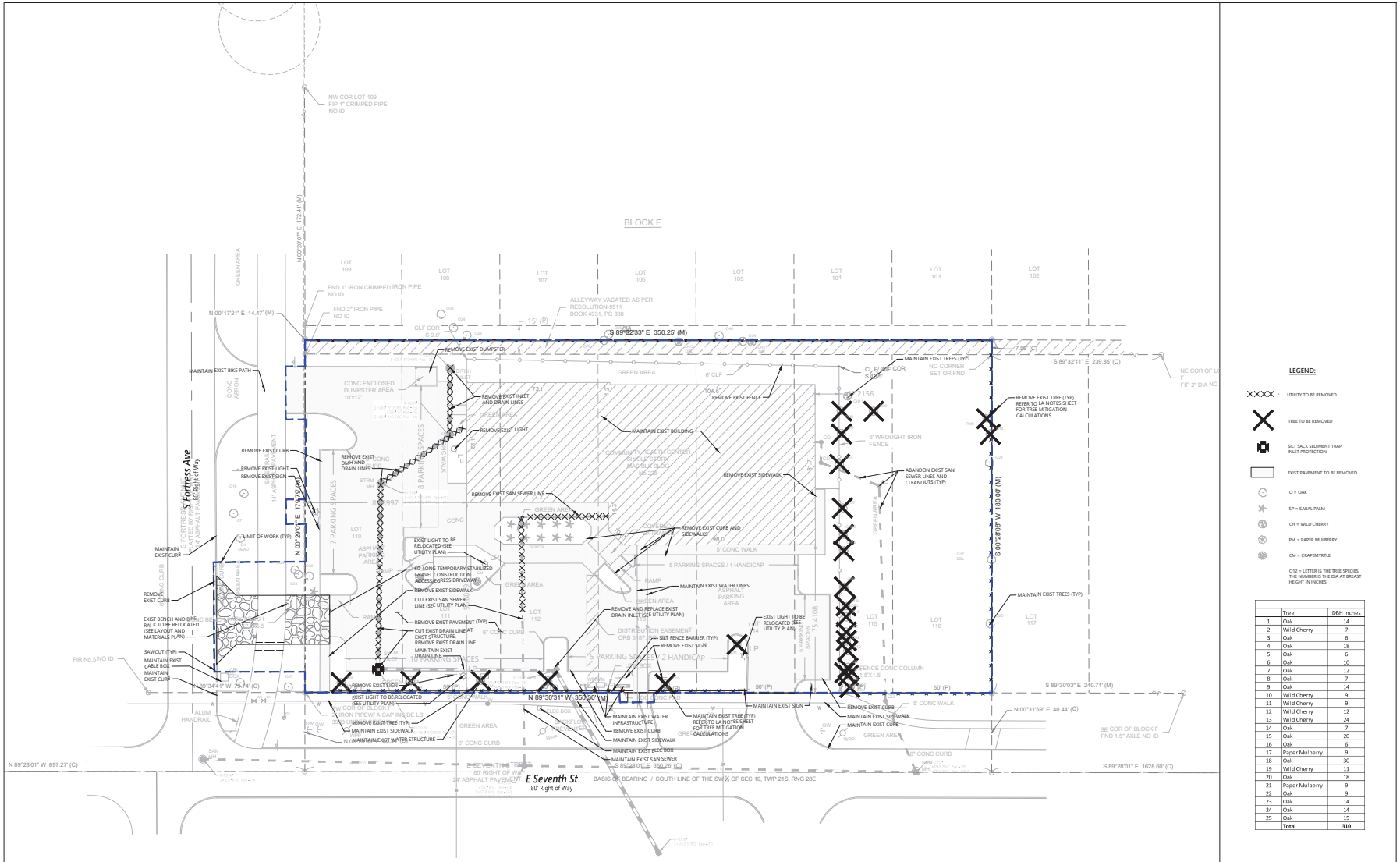
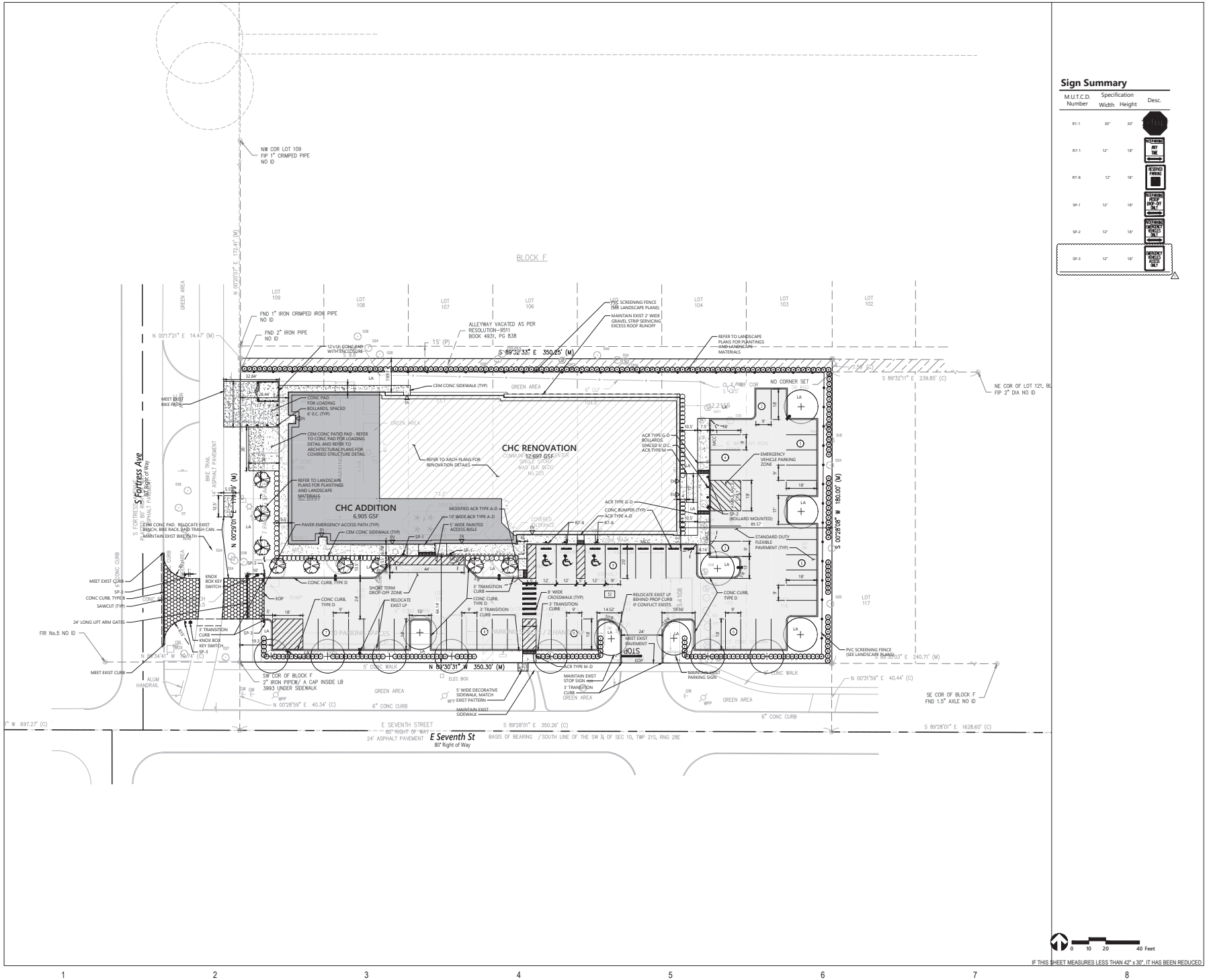
sheet title/contents

Existing Conditions and Erosion Control Plan

drawing number

C02-01


BLOCK F
S Fortress Ave
80' Right of Way
E Seventh St
80' Right of Way
BASIS OF BEARING / SOUTH LINE OF THE SW ¼ OF SEC 10, TWP 21S, RNG 28E
S 89°32'33" E 350.25' (M)
N 89°30'31" W 350.30' (M)
S 89°32'11" E 239.85' (C)
S 89°30'03" E 240.71' (M)
S 89°28'01" E 1628.60' (C)
N 89°28'01" W 697.27' (C)
S 00°28'08" W 180.00' (M)
N 00°20'00" E 172.41' (M)
N 00°17'21" E 14.47' (M)
N 00°31'59" E 40.44' (C)
NW COR LOT 109 FIP 1" CRIMPED PIPE NO ID
FND 1" IRON CRIMPED IRON PIPE NO ID
FND 2" IRON PIPE NO ID
ALLEYWAY VACATED AS PER RESOLUTION 0511 BOOK 4931, PG 838
NO CORNER SET OR FND
NE COR OF LOT F FIP 2" DIA NO ID
SE COR OF BLOCK F FND 1.5" AXLE NO ID
FIR No.5 NO ID
CLF COR S 0.9' E
CONC ENCLOSED DUMPSTER AREA 10'x12'
8 PARKING SPACES
7 PARKING SPACES
5 PARKING SPACES / 1 HANDICAP
2 PARKING SPACES / 2 HANDICAP
5 PARKING SPACES / 1 HANDICAP
5' CONC WALK
6' WROUGHT IRON FENCE
6' CONC CURB
GREEN AREA
COMMUNITY HEALTH CENTERS SUBDIVISION MAP BK 0000 PG 0000
DISTRIBUTION EASEMENT ORB 3167
POTENTIAL PARKING AREA
REMOVE EXIST DUMPSTER
REMOVE EXIST INLET AND DRAIN LINES
REMOVE EXIST LIGHT
REMOVE EXIST FENCE
MAINTAIN EXIST BUILDING
REMOVE EXIST SIDEWALK
REMOVE EXIST TREE (TYP) REFER TO LA NOTES SHEET FOR TREE MITIGATION CALCULATIONS
MAINTAIN EXIST TREES (TYP)
ABANDON EXIST SAN SEWER LINES AND CLEANOUTS (TYP)
MAINTAIN EXIST BIKE PATH
REMOVE EXIST CURB
REMOVE EXIST DMP AND DRAIN LINES
REMOVE EXIST SIGN
REMOVE EXIST SAN SEWER LINE
REMOVE EXIST CURB AND SIDEWALK
LIMIT OF WORK (TYP)
MAINTAIN EXIST CURB
EXIST LIGHT TO BE RELOCATED (SEE UTILITY PLAN)
60' LONG TEMPORARY STABILIZED GRAVEL CONSTRUCTION ACCESS/EGRESS DRIVEWAY
REMOVE EXIST SIDEWALK
CUT EXIST SAN SEWER LINE (SEE UTILITY PLAN)
REMOVE EXIST PAVEMENT (TYP)
CUT EXIST DRAIN LINE AT EXIST STRUCTURE
REMOVE EXIST DRAIN LINE
MAINTAIN EXIST DRAIN LINE
REMOVE AND REPLACE EXIST DRAIN INLET (SEE UTILITY PLAN)
SILT FENCE BARRIER (TYP)
REMOVE EXIST SIGN
EXIST BENCH AND BIKE RACK TO BE RELOCATED (SEE LAYOUT AND MATERIALS PLAN)
SAWCUT (TYP)
MAINTAIN EXIST CABLE BOX
REMOVE EXIST TREE (TYP)
MAINTAIN EXIST SIDEWALK
MAINTAIN EXIST WATER STRUCTURE
MAINTAIN EXIST WATER INFRASTRUCTURE
REMOVE EXIST CURB
MAINTAIN EXIST SIDEWALK
MAINTAIN EXIST ELEC BOX
MAINTAIN EXIST SAN SEWER
MAINTAIN EXIST WATER LINES
MAINTAIN EXIST SIGN
MAINTAIN EXIST CURB
MAINTAIN EXIST TREES (TYP)
ALUM HANDRAIL
CONC ARRON
SAN MH
W WTP
GW
FH
DW
DW SW
W
SAN
SAN MH
CONC
ASPHALT PARKING AREA
CONC CURB
CONC WALK
RAMP
BRL
ESMT
ORB 3997
PG 0000
PB 0000
PG 000
ORB 0000
PG 000
ORB 0000
PG 000
OR



Sign Summary

M.U.T.C.D. Number	Specification Width	Specification Height	Desc.
R1-1	30"	30"	STOP
R7-1	12"	18"	NO PARKING ANY TIME
R7-8	12"	18"	RESERVED PARKING
SP-1	12"	18"	NO PARKING EXCEPT DROP-OFF ONLY
SP-2	12"	18"	NO PARKING EMERGENCY VEHICLES ONLY
SP-3	12"	18"	EMERGENCY VEHICLES ACCESS ONLY

0 10 20 40 Feet

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job number
64337.00

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PTM

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JFK

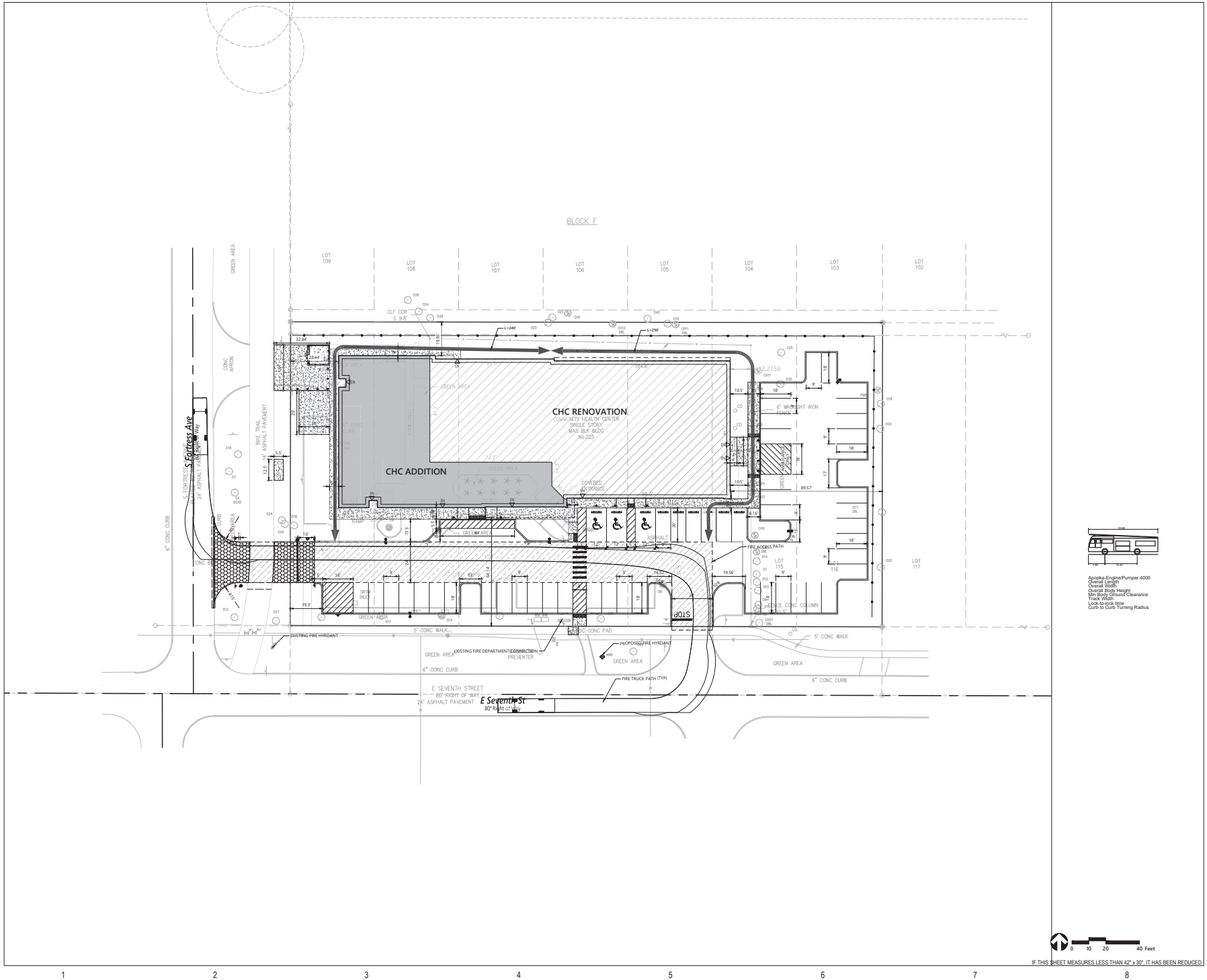
revisions

No.	Description	Date

sheet title/contents
Layout and Materials Plan

drawing number
C03-01

\\vhb.com\gbl\proj\Orlando\64337.00 RLF-CHC Apopka Med Ofc\cad\id\Planset\Civil CD\6433700-FIRE.dwg



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JOSEPH F. KELLS, JR. LICENSE NO. 41964 STATE OF FLORIDA PROFESSIONAL ENGINEER

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job number
64337.00

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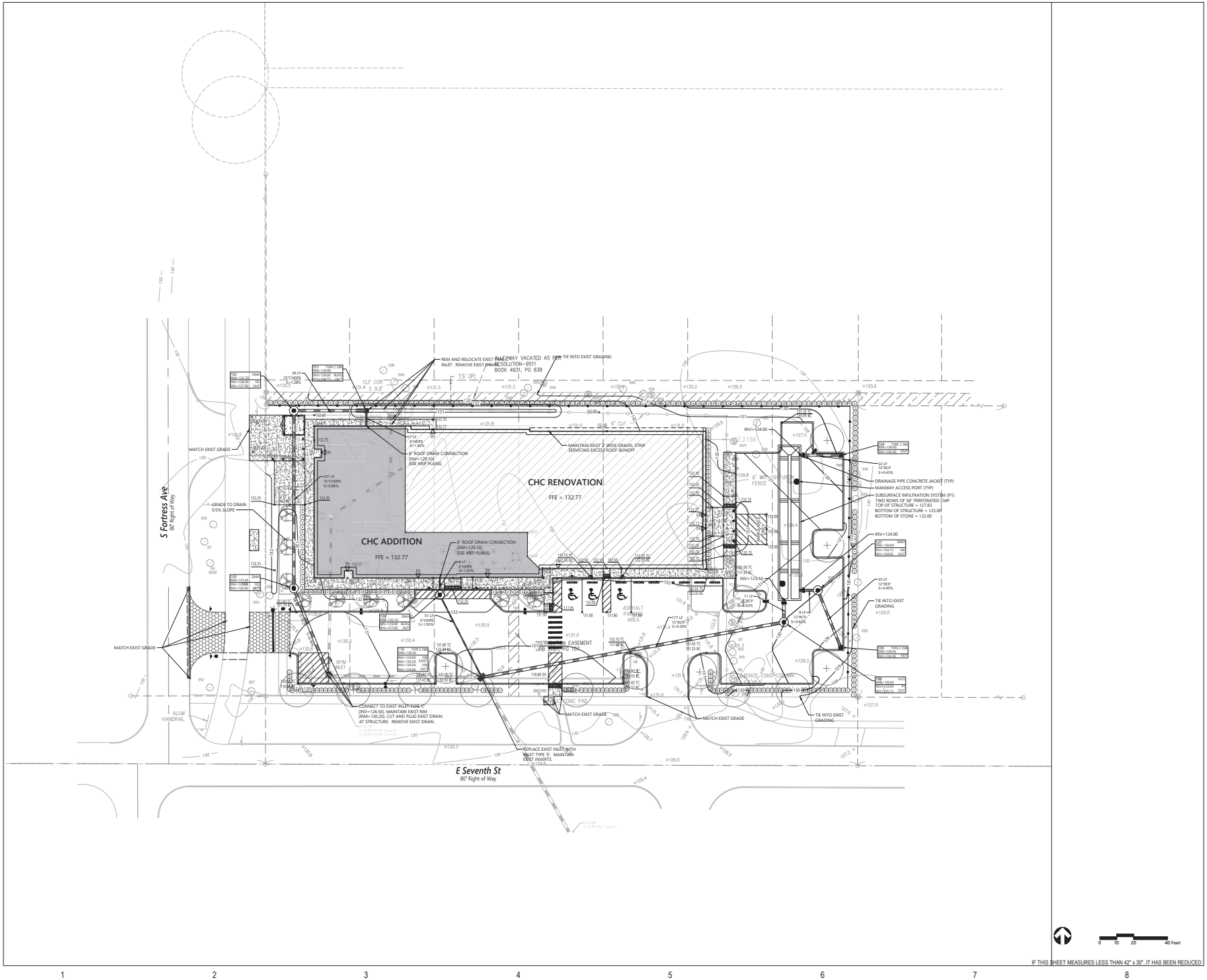
No.	Description	Date

sheet title/contents

Fire Access Plan

drawing number

C03-02



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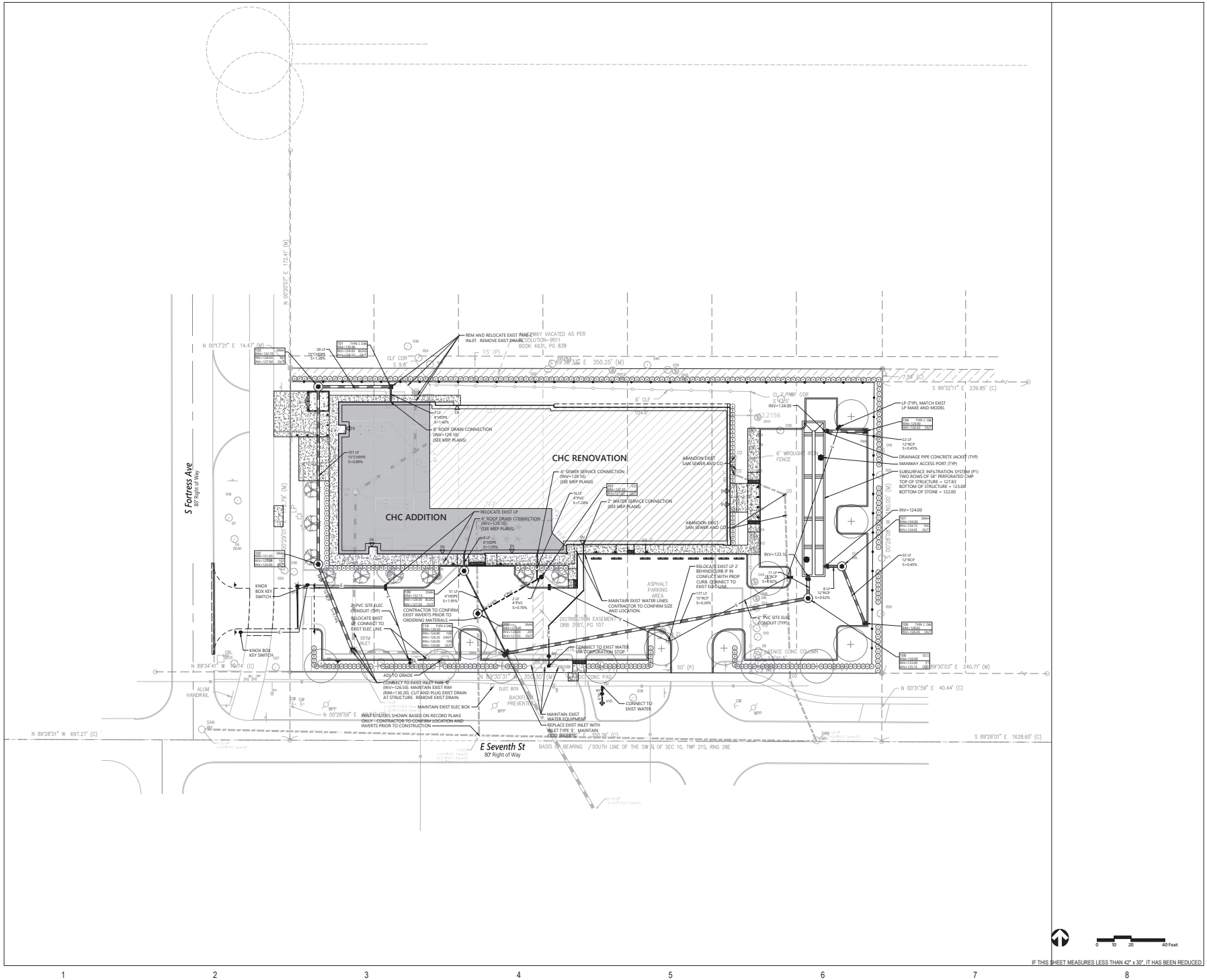
No.	Description	Date

sheet title/contents
Grading and Drainage Plan

drawing number
C04-00



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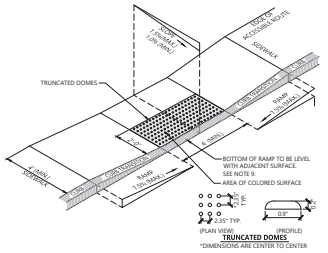
No.	Description	Date

sheet title/contents
Utility Plan

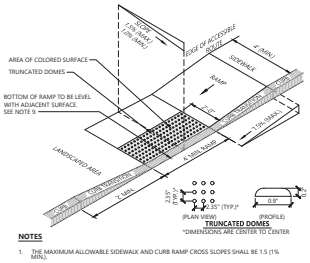
drawing number
C05-00



NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'A-D' 12/20
N.T.S. Source: VHB LD_500



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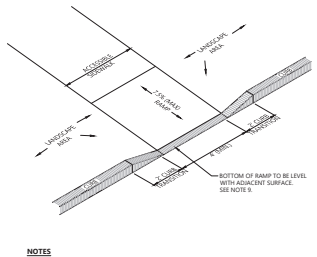
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

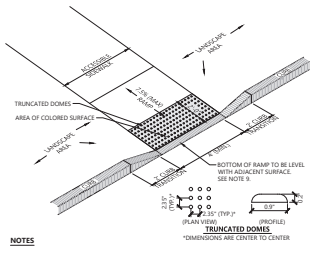
Accessible Curb Ramp (ACR) Type 'G-D' 12/20
N.T.S. Source: VHB LD_506



NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAYS.

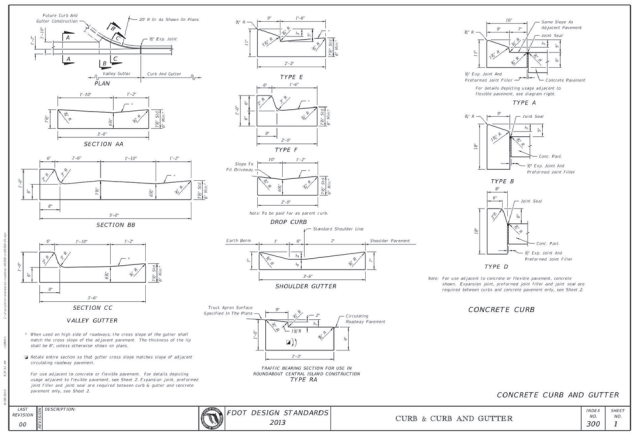
Accessible Curb Ramp (ACR) Type 'M' 12/20
N.T.S. Source: VHB LD_512

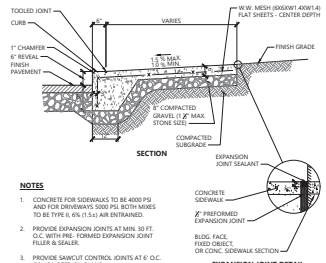


NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAYS.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'M-D' 12/20
N.T.S. Source: VHB LD_512

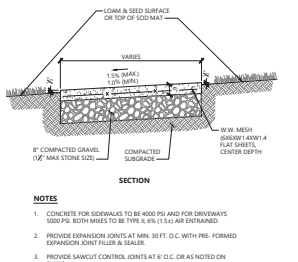




NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

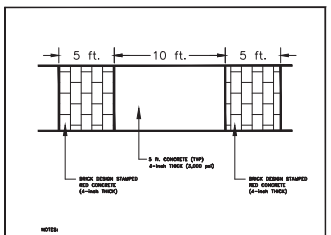
Monolithic Concrete Curb (MCC) & Sidewalk 3/20
N.T.S. Source: VHB LD_421

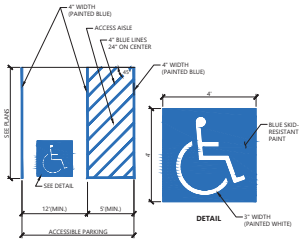


NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE MEDIUM BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

Concrete Sidewalk in Landscape Area 3/21
N.T.S. Source: VHB LD_426

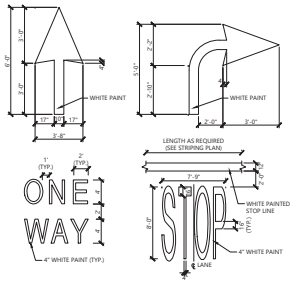




NOTES

1. ALL DIMENSIONS TO CENTER OF 4" PAVEMENT STRIPING.
2. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

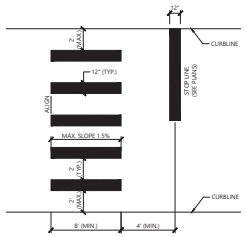
Accessible Parking Space 12/19
N.T.S. Source: VHB LD_552A



NOTES

1. PAVEMENT MARKINGS TO BE INSTALLED FOR ON SITE WORK IN LOCATIONS SHOWN.

Painted Pavement Markings - On Site 1/16
N.T.S. Source: VHB LD_554



NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION. NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
3. ALL LONGITUDINAL CROSSWALK LINES SHALL BE THE SAME LENGTH AND PROPERLY ALIGNED.
4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

Crosswalk 12/19
N.T.S. Source: VHB LD_553A

IF THIS SHEET MEASURES LESS THAN 42" x 30", IT HAS BEEN REDUCED

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aac000564 | CA Lic No: 629

project title & owner's name

community health centers

CHC APOPKA FAMILY CLINIC ADDITION AND RENOVATION

CONSTRUCTION DOCUMENTS

consultant

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Orlando, FL 32801
407.839.4006
Certificate of Authorization
Number FL #3932

seal/signature

This document has been electronically signed and sealed by Joseph F. Kolb, Jr., P.E. on the date shown hereon using a digital signature.

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date
10-05-2023

job number
64337.00

drawn by
PTM

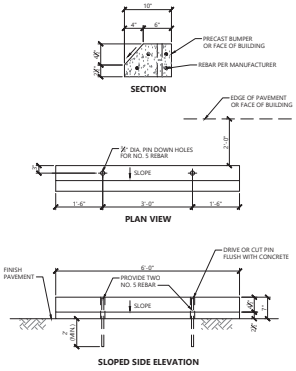
checked by
JFK

revisions

No.	Description	Date

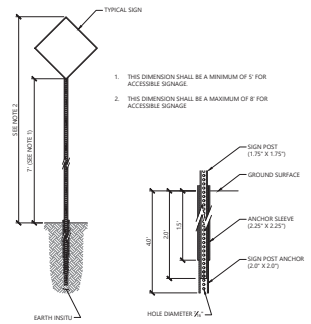
sheet title/contents
Site Details

drawing number
C06-01



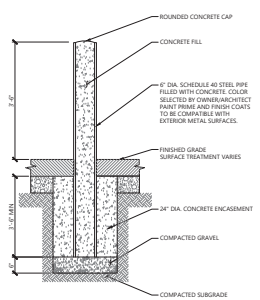
Concrete Bumper

N.T.S. | Source: VHB | 1/16 | LD_417



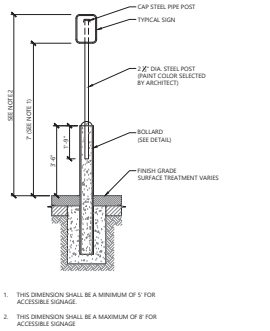
Sign Post - Type 'B'

N.T.S. | Source: VHB | 3/19 | LD_702



Bollard

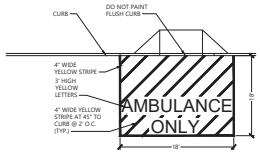
N.T.S. | Source: VHB | 12/19 | LD_700



Bollard Mounted Sign

N.T.S. | Source: VHB | 2/20 | LD_703

△

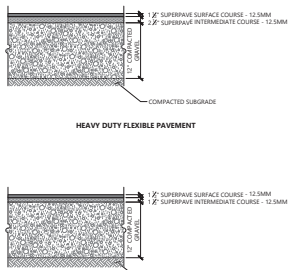


NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION. NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
2. THE WORDS "AMBULANCE ONLY" SHALL BE PAINTED ON THE PAVEMENT IN 3' HIGH LETTERS ADJACENT TO THE DRIVE AISLE.

Emergency Vehicle Parking Zone

N.T.S. | Source: VHB | 7/23 | LD_430

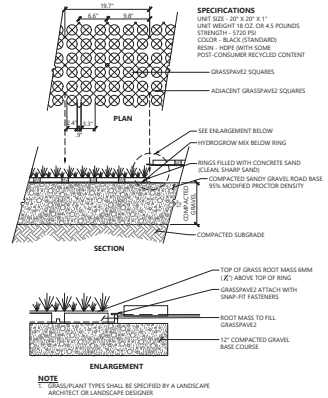


NOTES

PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Bituminous Concrete Pavement Sections

N.T.S. | Source: VHB | 7/22 | LD_430

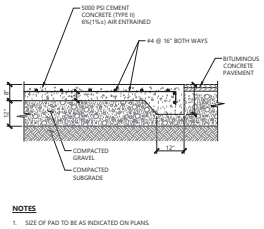


NOTE

1. GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER

Grass Paver Detail for Emergency Access Path

N.T.S. | Source: VHB | 1/16 | LD_843

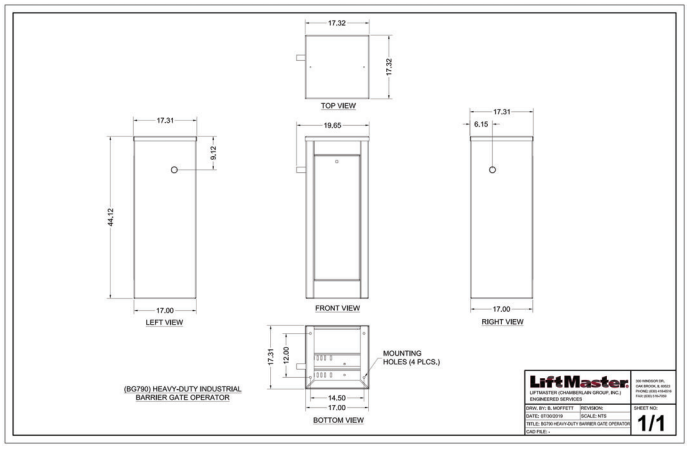


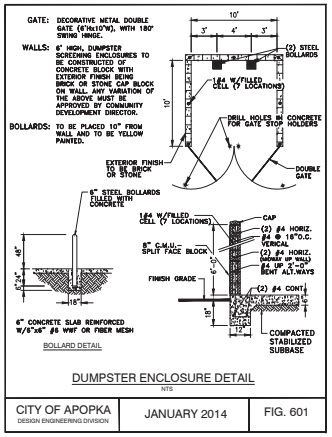
NOTES

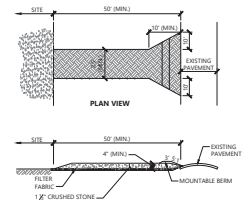
1. SIZE OF PAD TO BE AS INDICATED ON PLANS
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.

Loading Dock Pad / Compactor Pad

N.T.S. | Source: VHB | 1/20 | LD_711







NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit

N.T.S. | Source: VHB | 1/16 | LD_682

IF THIS SHEET MEASURES LESS THAN 42" x 30", IT HAS BEEN REDUCED

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project title & owner's name

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CHC APOPKA FAMILY CLINIC ADDITION AND RENOVATION

CONSTRUCTION DOCUMENTS

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Number FL #3932

seal/signature

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date: 10-05-2023
job number: 64337.00
drawn by: PTM
checked by: JFK

revisions

No.	Description	Date

sheet title/contents: Site Details

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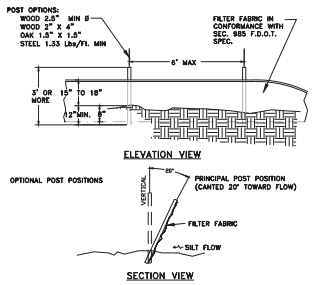
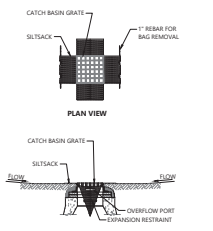


SILT FENCE INSTALLATION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 602

NOTES

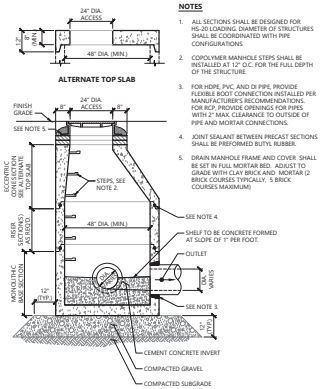
1. SILT FENCE BARRIERS ARE NOT TO BE USED WHERE CONCENTRATED FLOWS OF WATER ARE ANTICIPATED SUCH AS IN DRAINAGE DITCHES, AROUND INLETS, OR ABOVE/BELOW WHERE CULVERTS DISCHARGE
2. WHEN INSTALLED PROPERLY, SILT FENCE BARRIERS CAN CREATE TYPE-2 SEDIMENT CONTAINMENT SYSTEMS TO ALLOW FOR DEPOSITION OF SUSPENDED PARTICLES, ESPECIALLY ON VERTICAL/BIG BOX CONSTRUCTION SITES
3. SILT FENCE BARRIERS DO NOT FILTER SMALL-SUSPENDED PARTICLES IN RUNOFF WATERS
4. USING WIRE BACKING FOR SUPPORT IS DISCOURAGED DUE TO DISPOSAL PROBLEMS
5. COMPACTING TRENCH FILL MATERIAL IS VERY CRITICAL
6. THE LIFE OF THE PRODUCT IS DETERMEND AT THE POINT IN WHICH IT IS NO LONGER EFFECTIVE OR NEEDED TO DO THE JOB FOR WHICH IT IS DESIGNED (APPROXIMATELY ONE YEAR)



NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

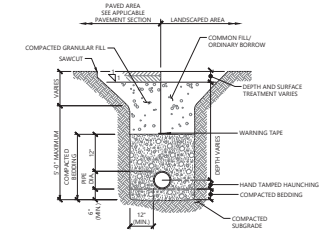
Siltsack Sediment Trap 1/20
N.T.S. Source: VHB LD_674



NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

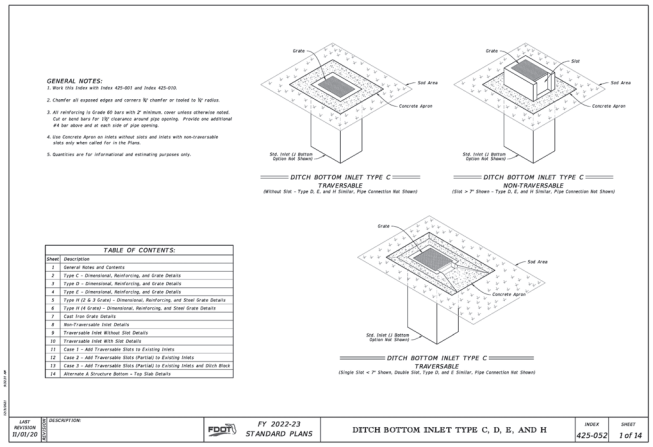
Drain Manhole (DMH) 11/19
N.T.S. Source: VHB LD_115

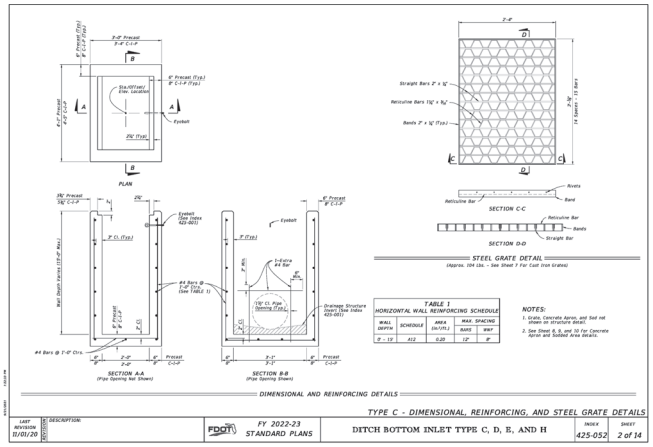


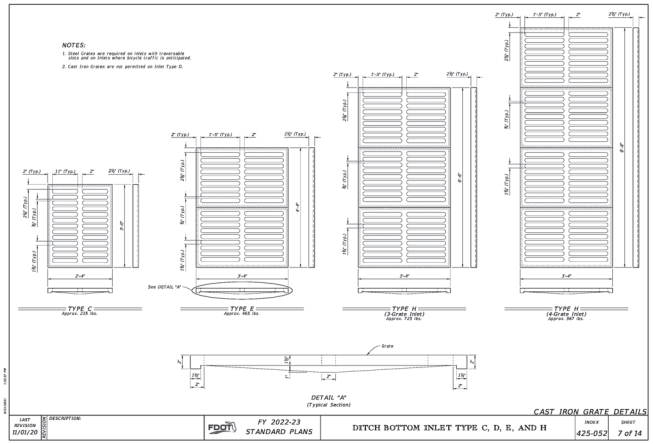
NOTES

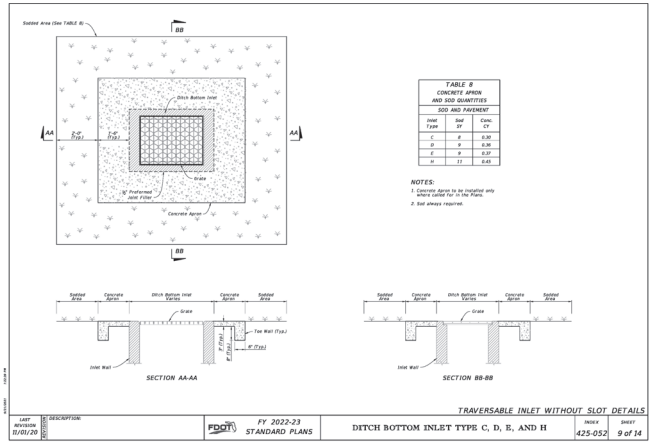
1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY ENGINEER.

Utility Trench 11/19
N.T.S. Source: VHB LD_300









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aac000564 | CA Lic No: 629

project title & owner's name

community health centers

CHC APOPKA FAMILY CLINIC ADDITION AND RENOVATION

CONSTRUCTION DOCUMENTS

consultant

vhb
225 E. Robinson Street
Suite 300
Orlando, FL 32801
407.839.4006
Certificate of Authorization
Number FL #3932

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date
10-05-2023

job number
64337.00

drawn by
PTM

checked by
JFK

revisions

No.	Description	Date

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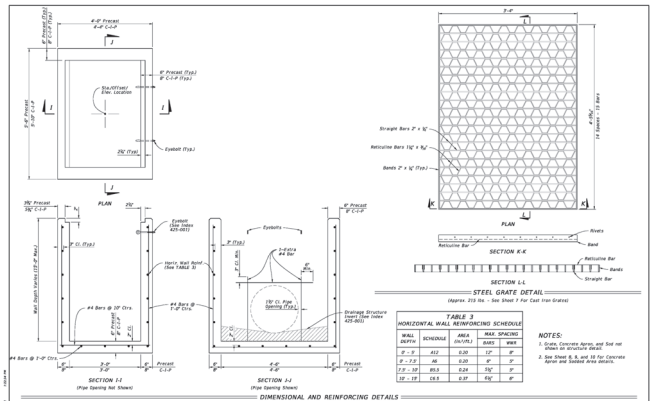
Site Details

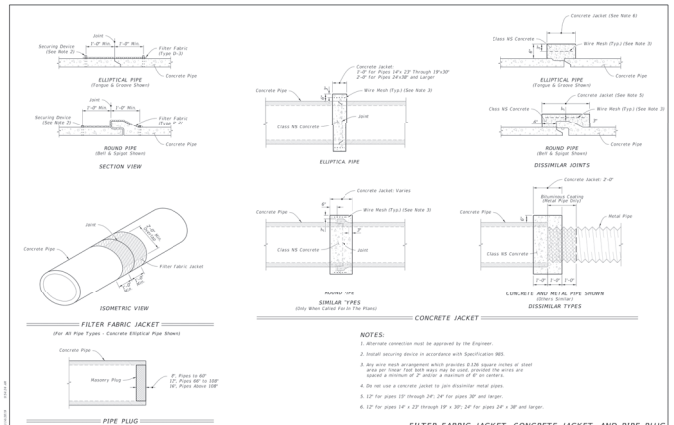
drawing number
C06-03



TYPE E - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION	DESCRIPTION:				
11/01/20		FDOT	FY 2022-23 STANDARD PLANS	INDEX 425-052	SHEET 4 of 14

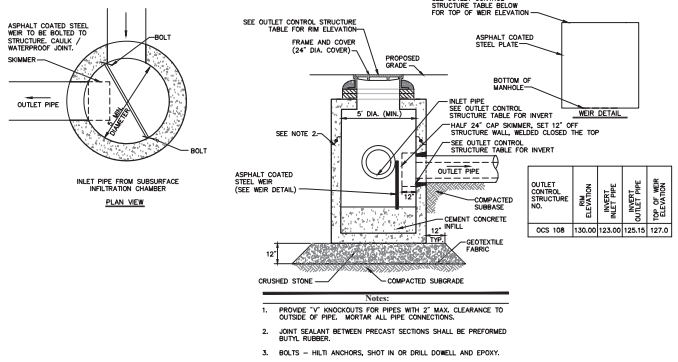
DITCH BOTTOM INLET TYPE C, D, E, AND H



FILTER FABRIC JACKET, CONCRETE JACKET, AND PIPE PLUG

LAST REVISION	DESCRIPTION:				
11/01/19		FDOT	FY 2020-21 STANDARD PLANS	INDEX 430-001	SHEET 3 of 6

MISCELLANEOUS DRAINAGE DETAILS

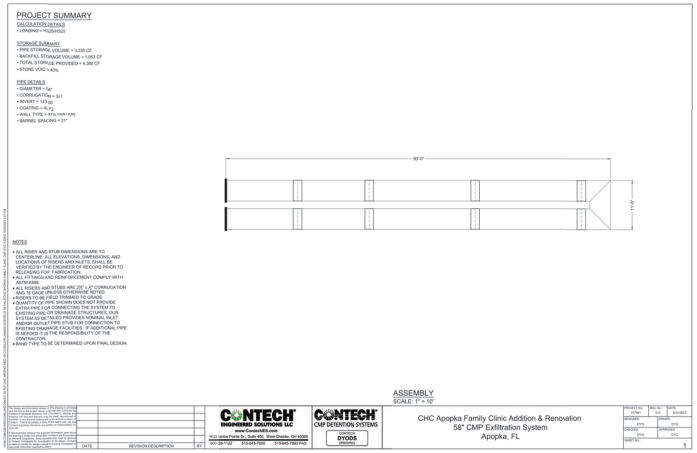


OUTLET CONTROL STRUCTURE NO.	RIM ELEVATION	INVERT INLET PIPE	INVERT OUTLET PIPE	WEIR CREST ELEVATION
OCS 108	130.00	123.00	125.15	127.0

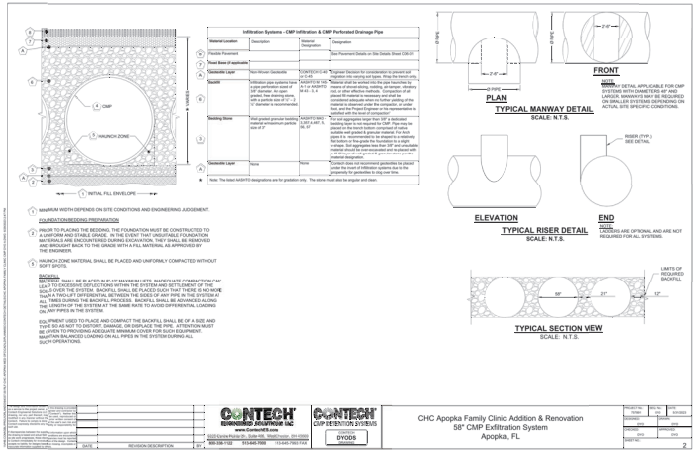
Notes:
1. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
3. BOLTS – HILTI ANCHORS, SHOT IN OR DRILL DOWELL AND EPOXY.

Outlet Control Structure (OCS)
N.T.S. Source: VHB 6/23 REV_LD_163

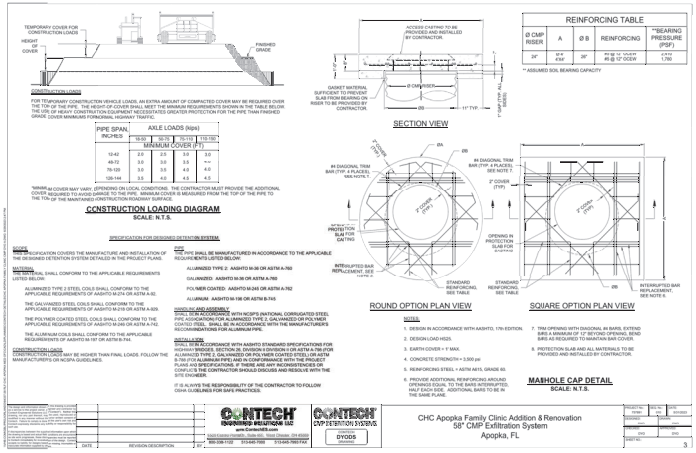
PROJECT SUMMARY



CHC Apopka Family Clinic Addition & Renovation
58" CMP Exfiltration System
Apopka, FL



CHC Apopka Family Clinic Addition & Renovation
58" CMP Exfiltration System
Apopka, FL



CHC Apopka Family Clinic Addition & Renovation
58" CMP Exfiltration System
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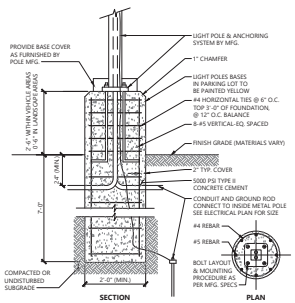
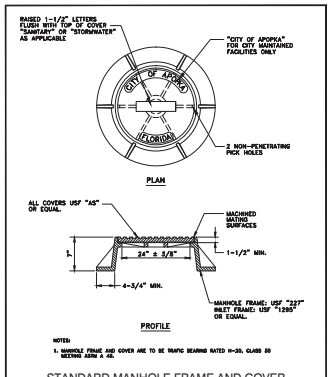


NOTES

LIGHT POLE FOUNDATION DESIGN IS SUBJECT TO CHANGE BASED ON FINAL POLE AND FIXTURE SELECTION AND GEOTECHNICAL SITE INVESTIGATION.

Light Pole Foundation Detail (Up to 40' Pole) 5/23

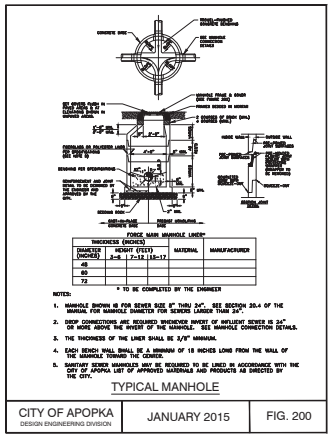
N.T.S. Source: VHB LD_310



NOTES:
1. MANHOLE FRAME AND COVER ARE TO BE TRAFFIC BEARING RATED H-20, CLASS 30 MINIMUM ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

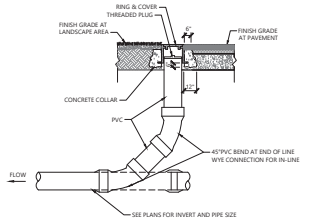
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

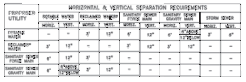
TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200



Cleanout (CO) 12/19

N.T.S. Source: VHB LD_303

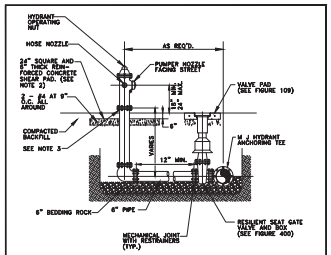


GENERAL NOTES:

1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS STIPULATED IN F.A.C., RULES OF THE FLORIDA DEPARTMENT OF HEALTH (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED POTABLE WATER LINES AND EXISTING OR PROPOSED UTILITY LINES.
2. FOR THE PURPOSE OF THIS TABLE RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. OTHERWISE PIPE-TO-PIPE CRUTCH CLEARANCE SHALL BE USED.
   O/O – (DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
   O/O – (DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. ACCEPTABLE VARIANCES:
   A. WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-C-900 DIR-14 OR DUCTILE ENCASEMENT MUST BE USED FOR THE SHORTER OF EITHER 10 FEET OR THE CROSSING. PVC-C-900 DIR-14 OR DUCTILE ENCASEMENT MUST BE USED WHERE MINIMUM CLEARANCE IS ACHIEVED.
   B. WHERE 12 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-C-900 DIR-14 PIPE POSITION SUCH THAT THE POTABLE WATER JOINTS ARE AS FAR FROM THE CENTER OF CROSSING AS POSSIBLE.
   C. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
   D. CONCRETE ENCASEMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

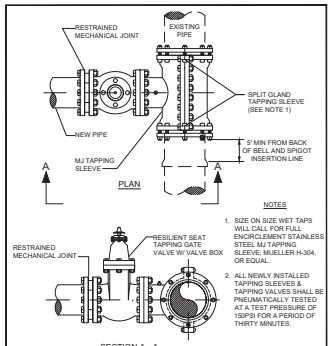
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 104



NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

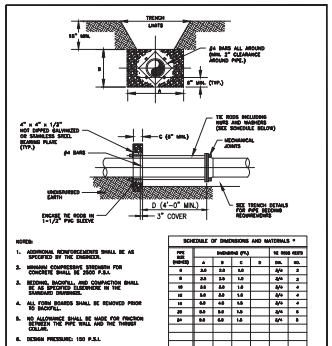


NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406



NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 P.S.I.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 P.S.I.

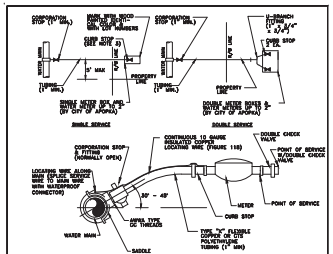
SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS (IN.) A	B	C	D	TIE RODS NUTS No.	DIA.
4	8.0	8.0	6.0	3/4	4	
6	8.0	8.0	6.0	3/4	6	
8	8.0	8.0	6.0	3/4	6	
10	8.0	8.0	6.0	3/4	8	
12	8.0	8.0	6.0	3/4	8	
14	8.0	8.0	6.0	3/4	8	
16	8.0	8.0	6.0	3/4	8	
18	8.0	8.0	6.0	3/4	8	
20	8.0	8.0	6.0	3/4	8	
24	8.0	8.0	6.0	3/4	8	

* TO BE COMPLETED BY ENGINEER.

WATER MAIN THRUST COLLAR DETAIL

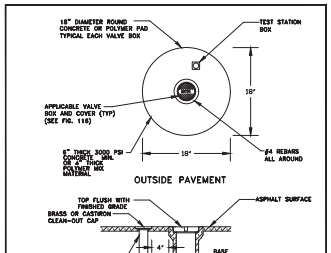
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 107



NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/FLARE JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED. EACH CURB STOP SHALL BE EQUIPPED WITH A CURB STOP MARKER MADE OF A 2" x 2" x 18" BOARD WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

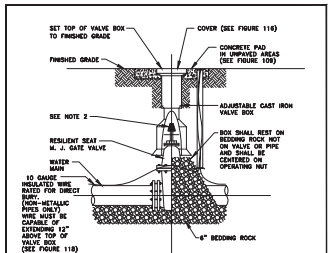
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2016	FIG. 405



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

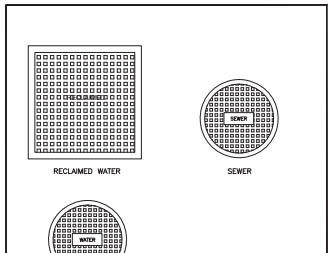
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109



NOTES:
1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 5 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116

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FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER PHASE 1 - INFRASTRUCTURE IMPROVEMENTS

CITY OF APOPKA, FLORIDA

PREPARED FOR

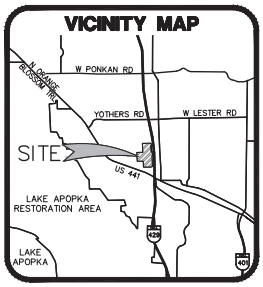
FLORIDIAN APOPKA PHASE 1 OWNER, LLC

60 14th STREET SOUTH, SUITE 104
BIRMINGHAM, AL 35233
Ph: 205.503.4435

Digitally signed by John T Townsend
Date: 2024.01.31 14:46:10 -05'00'

FLORIDIAN TOWN CENTER

VICINITY MAP



OWNER/APPLICANT:

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BIRMINGHAM, AL 35233
PH: 205.503.4435

ENGINEER/SURVEYOR:

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WINTER PARK, FLORIDA 32789
PH: 407.644.4068
CONTACT PERSON: JOHN T. TOWNSEND, PE

PLANNERS/LANDSCAPE ARCHITECTS:

GAI CONSULTANTS, INC.
618 E. SOUTH STREET, SUITE 700
ORLANDO, FLORIDA 32801
PH: 321.319.3069

GEOTECHNICAL SERVICES

DEVO ENGINEERING
5500 ALHAMBRA DRIVE
ORLANDO, FLORIDA 32808
PH: 407.290.2371

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C611	SANITARY WASTEWATER AND RECLAIMED WATER DETAILS
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C812	OFFSITE IMPROVEMENTS – CONNECTOR RD GRADING PLAN

REVISED JANUARY 16, 2024
MAY 6, 2022

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2200 PARK AVENUE NORTH, WINTER PARK, FL 32789 407.644.4068

SECTION 36, TOWNSHIP 20 S, RANGE 27 E, SECTION 31, TOWNSHIP 20 S, RANGE 28 E
PROPERTY APPRAISER PARCEL ID #
06-21-28-7172-06-002, 06-21-28-7172-12-020, 06-21-28-7172-12-030, 06-21-28-7172-12-040, 06-21-28-7172-12-050, 06-21-28-7172-12-061, 06-21-28-7172-12-060, 06-21-28-7172-12-070, 36-20-27-0000-00-047, 36-20-27-0000-00-048, 36-20-27-0000-00-052, 36-20-27-0000-00-056, 36-20-27-0000-00-066, 36-20-27-0000-00-074, 36-20-27-0000-00-075, 36-20-27-0000-00-083, 36-20-27-0000-00-085, 36-20-27-0000-00-086

THE ROAD DESIGN HAS BEEN DONE IN REASONABLE CONFORMANCE WITH THE FDOT "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS".

CONSTRUCTION PLANS WERE PREPARED IN ACCORDANCE WITH THE CITY OF APOPKA REGULATIONS AND SPECIFICATIONS.

ALL UTILITIES (WATER, SEWER AND RECLAIM) HAVE BEEN DESIGNED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITY REGULATIONS AND SPECIFICATIONS.

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FLORIDIAN TOWN CENTER – PHASE 1 – INFRASTRUCTURE IMPROVEMENTS – 18161 – 5/6/22 – REVISED 01/16/24

DONALD W. McINTOSH ASSOCIATES, INC. RESERVES THE EXCLUSIVE COPYRIGHT AND PROPERTY RIGHTS TO THIS DRAWING WHICH MAY NOT BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER, NOR CAN IT BE ASSIGNED TO ANY PARTY WITHOUT DONALD W. McINTOSH ASSOCIATES, INC.'S WRITTEN CONSENT

HORIZONTAL GEOMETRY NOTES:

1. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE ROAD CENTERLINE GEOMETRY, PLAT AND COORDINATES PROVIDED IN THESE PLANS. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THAT THE PLANS AND PLAT ARE CURRENT PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.
2. THE FEATURES AND LINEWORK SHOWN HEREON ARE RELATIVE TO FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, 1983 NORTH AMERICAN DATUM, 2011 ADJUSTMENT, AVERAGE COMBINED FACTOR 0.99997263 (1.00002707?), AS ESTABLISHED FROM NATIONAL GEODETIC SURVEY CONTROL POINT AA9864, GPS FIELD DATE AUGUST 2, 2019. ALL DISTANCES ARE GRID DISTANCES.

VERTICAL DATUM AND BENCHMARKS:

1. BOUNDARY/HORIZONTAL CONTROL BASED ON THE FOLLOWING:
   SURVEYOR: DONALD W. McINTOSH ASSOCIATES, INC.
   DRAWING NO(S): CS@9-113(11)
   DATE : 8/25/20 REVISION DATE:
2. EXISTING TOPOGRAPHY AND CONTOURS BASED ON THE FOLLOWING:
   SURVEYOR: DONALD W. McINTOSH ASSOCIATES, INC.
   DRAWING NO(S): CS@9-113(11)
   DATE : 8/25/20 REVISION DATE:
3. SURVEYOR'S REFERENCE BENCHMARK:
   DESCRIPTION: ORANGE COUNTY BENCHMARK S197000S (3" ALUMINUM DISK)
   LOCATION: NORTHEAST CORNER PLYMOUTH POST OFFICE IN CONCRETE BASE OF FLAG POLE
   ELEVATION: 122.654 (NAVD88)
4. SITE BENCHMARK: DMMA CONTROL POINT No: 5001
   DESCRIPTION: 4"x4" CONCRETE MONUMENT STAMPED "TRAV PT. L5001"
   LOCATION: AS SHOWN ON DONALD W. McINTOSH ASSOCIATES, INC DRAWING CS@ 19-113(11)
   ELEVATION: 137.62 (NAVD88)
5. SITE BENCHMARK: DMMA CONTROL POINT No: 5001
   DESCRIPTION: NAIL AND DISK STAMPED "TRAV PT. L5005"
   LOCATION: AS SHOWN ON DONALD W. McINTOSH ASSOCIATES, INC DRAWING CS@ 19-113(11)
   ELEVATION: 132.75 (NAVD88)
6. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

GENERAL SITE NOTES:

1. GEOTECHNICAL SERVICES HAVE BEEN PROVIDED AS REFERENCED BELOW. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF DONALD W. McINTOSH ASSOCIATES, INC. DONALD W. McINTOSH ASSOCIATES, INC. HAS RELIED ON THE REFERENCED GEOTECHNICAL REPORT(S) IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT(S) AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER. DONALD W. McINTOSH ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS OR ACCURACY OF GEOTECHNICAL INFORMATION.
2. GEOTECHNICAL ENGINEER:[NAME OF ENGINEERING REPORT NOS(S).:19-9665.1 DATE:8-14-2014
3. 100-YEAR FLOOD ELEVATIONS SHOWN HEREON ARE DERIVED FROM (FEMA/FLOOD INSURANCE RATE MAP # _____ COMMUNITY PANEL # _____ DATED _____)
4. ALL FDOT STANDARD PLANS AND DESIGN INDICES ARE HEREBY INCORPORATED AS PLAN REFERENCES HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF ALL APPLICABLE INDEX DRAWINGS AND CONSTRUCTING ALL WORKS IN CONFORMANCE WITH THE FDOT DESIGN STANDARDS, LATEST EDITION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS. WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, THE CONTRACTOR SHALL HAVE THE PLAN PREPARED BY AN FDOT CERTIFIED DESIGNER AND SUBMIT THE PLAN FOR APPROVAL.
6. CONTRACTOR SHALL COMPLY WITH OSHA SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, STANDARDS 29 C.F.R., 1926, SUBPART P, EXCAVATION, AND ALL SUBSEQUENT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.62, FLORIDA STATUTES.
7. NO EXISTING MATERIAL SHALL BE REMOVED FROM THE SITE UNLESS SHOWN ON PLANS AND APPROVED BY THE OWNER AND BY THE ENGINEER DURING THE SHOP DRAWING APPROVAL PROCESS.
8. PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE DONALD W. McINTOSH ASSOCIATES, INC. WITH THE CONTRACTOR'S PROPOSED SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROJECT SITE DURING CONSTRUCTION, TO PREVENT TRESPASSING OF UNAUTHORIZED PERSONNEL AND/OR VEHICLES IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS. TO POST SIGNS, CONSTRUCT BARRICADES OR IMPLEMENT OTHER METHODS NECESSARY TO PROTECT THE PUBLIC. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE CONDITION OF THE CONSTRUCTION SITE OR DAMAGES TO ANY WORK RELATED THERETO.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING SURVEY MONUMENTATION. ANY MONUMENTATION DISTURBED SHALL BE RESTORED BY A FLORIDA-LICENSED LAND SURVEYOR SELECTED BY THE OWNER AT CONTRACTOR'S EXPENSE.
11. ANY OFFSITE SITE CONDITIONS FROM THOSE WHICH ARE REPRESENTED HEREIN, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING PRIOR TO INITIATING ANY CONSTRUCTION. ANY CONSTRUCTION AND RELATED CHANGE FOR CONDITIONS NOT SO INSURED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
12. CONTRACTOR SHALL INSTRUCT THE GEOTECHNICAL TESTING LABORATORY PROVIDING CONSTRUCTION TESTING SERVICES TO COORDINATE WITH DONALD W. McINTOSH ASSOCIATES, INC. WITH COPIES OF ALL SITE-WORK TEST REPORTS AS THEY ARE GENERATED. CONTRACTOR SHALL MAINTAIN THE RESPONSIBILITY OF CONSTRUCTING THE PROJECT IN STRICT ACCORDANCE WITH THE PROJECT PLANS, SPECIFICATIONS AND REQUIREMENTS. RECEIPT OF COPIES OF GEOTECHNICAL REPORTS BY DONALD W. McINTOSH ASSOCIATES, INC. IN NO WAY OBLIGATES DONALD W. McINTOSH ASSOCIATES, INC. TO ANY REVIEW, COMMENTS OR ACTIONS REGARDING THE WORK.
13. DURING CONSTRUCTION, THE GEOTECHNICAL ENGINEER PROVIDING PROJECT TESTING SHALL MONITOR CONSTRUCTION CONDITIONS AND PROVIDE RECOMMENDATIONS FOR ROADWAY UNDERDRAINAGE AS MAY BE NEEDED IN ADDITION TO ANY SHOWN IN THE PLANS. ENGINEER SHALL BE NOTIFIED OF ANY SUCH RECOMMENDATIONS.
14. CONTRACTOR SHALL BE EXTREMELY CAREFUL WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD. CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL TREE PROTECTION/PRESERVATION PROVISIONS OF THE CONTRACT DOCUMENTS AND LOCAL GOVERNMENT.
15. ALL WORK SHALL BE OPEN TO INSPECTION BY DULY AUTHORIZED PERSONNEL OF THE CITY, COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES.
16. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN THE OWNER'S SHALL BE REPORTED TO PROJECT ENGINEER AND OWNER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY PROJECT ENGINEER AND OWNER.

PERMITS:

1. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO ARE:
   - WATER MANAGEMENT DISTRICT WATER USE PERMIT FOR CONSTRUCTION DEWATERING
   - WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT (ERP)
   - FDEP WATER DISTRIBUTION
   - FDEP WASTEWATER COLLECTION AND TRANSMISSION
   - LOCAL RIGHT OF WAY USE
   - LOCAL UNDERGROUND UTILITIES
   - FDOT DRIVEWAY CONNECTIONS
   - FDEP NPDES STORMWATER DISCHARGE
   - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
2. IF THE CONTRACTOR PROPOSES TO DISCHARGE DEWATERING EFFLUENT OFF-SITE, HE SHALL COMPLY WITH THE FDEP'S GENERIC PERMIT STATED IN FDEP'S LATEST EDITION FOR DISCHARGES FROM ANY NON-CONTAMINATED SITE ACTIVITY. PERMIT REQUIREMENTS CAN BE OBTAINED FROM FDEP AT (407) 893-3880 OR THROUGH THE FDEP BUSINESS PORTAL AT WWW.FDEPPORTAL.COM. THIS PERMIT IS INDEPENDENT OF AND IN ADDITION TO WATER MANAGEMENT DISTRICT PERMITS FOR SURFACE WATER DISCHARGE.
3. CONTRACTOR SHALL REVIEW ALL PERMITS PRIOR TO CONSTRUCTION FOR ANY CHANGES TO WORK DESIGN INCLUDED THEREIN. NOTIFY PROJECT ENGINEER AND OWNER OF ANY REQUIRED CHANGES PRIOR TO CONSTRUCTION.

UTILITIES NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH MAY BE NECESSARY TO AVOID CONFLICTS WITH THE PROPOSED CONSTRUCTION. NO SEPARATE PAYMENT OR EXTENSION OF CONTRACT TIME FOR THE CONSTRUCTION RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
2. FLORIDA STATUTE 556 MANDATES THAT NOT LESS THAN TWO FULL BUSINESS DAYS BEFORE BEGINNING ANY EXCAVATION OR DEMOLITION THAT IS NOT BONE-IN ENTIRELY OF THE STATE, AND NOT LESS THAN 10 FULL BUSINESS DAYS BEFORE BEGINNING EXCAVATION OR DEMOLITION THAT IS BEGAN WITHIN 50 FEET OF THE STATE, AN EXCAVATOR SHALL NOTIFY SUNSHINE STATE ONE CALL OF FLORIDA, INC. (811) OF PLANNED EXCAVATION OR DEMOLITION ACTIVITIES.
3. IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS. ALL SUCH CONFLICTS SHALL BE REPORTED TO THE PROJECT ENGINEER AND OWNER IMMEDIATELY UPON DISCOVERY.
4. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF THE PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS, INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS AND CABLE TV COMPANIES.

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PROTECT THE SITE AND ALL ADJACENT PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.
2. CONTRACTOR SHALL PROVIDE A SOIL TRACKING PREVENTION DEVICE CONFORMING TO THE FLORIDA EROSION AND SEDIMENT CONTROL MANUAL AT ALL PROJECT CONNECTIONS TO PUBLIC OR PRIVATE ROADWAYS THAT SHALL NOT BE USED BY CONSTRUCTION TRAFFIC.
3. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD STAKE AND ROPE OFF CONSERVATION AREA LINES. OWNER RESERVES THE RIGHT TO CHECK THE STAKING AND ROPING AND REQUIRE IT TO BE RELOCATED IF NECESSARY. IT SHALL REMAIN IN PLACE UNTIL ADJACENT CONSTRUCTION IS COMPLETE.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTING, OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEM AND ADJACENT WATER BODIES AND WETLANDS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES. METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, SILT BARRIERS, SEDIMENT BASINS, SEDIMENT TRAPS, SEDIMENT BASKETS AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, OR SILT SCREENS. ANY MEASURES SHOWN OR DETAILED IN THESE DRAWINGS SHALL BE CONSIDERED MINIMUMS AND SHALL NOT RELIEVE CONTRACTOR OF THE RESPONSIBILITY TO IMPLEMENT ANY MEASURES NECESSARY TO PROVIDE PROTECTION.
5. CONTRACTOR SHALL STABILIZE AND PROTECT ALL STRUCTURES, END WALL MITERED END SECTION, FLARED END SECTION, ETC. STRUCTURES THROUGHOUT THE PROJECT UNTIL THE BANK SLOPES OF THE RECEIVING WATER BODY ARE STABILIZED AND ACCEPTED BY OWNER.
6. CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO THE CITY ENGINEER WITH COPY TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING.
7. THE SILT FENCE LOCATION DEPICTED IN THE PLANS IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND INSTALLATION OF SILT FENCE AS REQUIRED BY THE CONSTRUCTION SEQUENCE AND IN ACCORDANCE WITH FDEP/NPDES REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF EROSION/SILTATION CONTROL FACILITIES TO PROTECT ADJACENT PROPERTIES AND ENVIRONMENTAL AREAS, AND ACCOMMODATE FINAL GRADING AS SHOWN IN THE PLANS. SEE SECTIONS SHEET C012 FOR TYPICAL SILT FENCE LOCATIONS.

NPDES NOTES:

1. THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY HAS AUTHORIZED THE STATE OF FLORIDA TO ADMINISTER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). CONTRACTOR IS ADVISED THAT OPERATORS ARE REQUIRED TO FILE WITH FDEP A NOTICE OF INTENT TO USE THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SUBMIT THE NOTICE OF INTENT (NOI) TO FDEP WITH A COPY TO THE OWNER, THE PROJECT ENGINEER AND THE CITY AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
2. AS REQUIRED BY THE GENERIC PERMIT, CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PURSUANT TO ALL REQUIREMENTS OF THE GENERIC PERMIT.
3. PURSUANT TO THE NPDES, CONTRACTOR SHALL MAINTAIN RECORDS OF DATES WHEN MAJOR GRADING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE AND SHALL INITIATE STABILIZATION MEASURES WITHIN 7 DAYS AFTER THE TEMPORARY OR PERMANENT CESSATION OF CONSTRUCTION ACTIVITY. STABILIZATION REQUIREMENTS (SODDING WHERE SHOWN ON PLANS) FOR GRADING AND MAINTENANCE OF AREAS THAT HAVE BEEN DISTURBED BY CONSTRUCTION, ON-SITE AND OFF-SITE.
4. CONTRACTOR SHALL PROVIDE INSPECTIONS OF DISTURBED PERSONNEL, OF ALL POINTS OF OFF-SITE DISCHARGE, DISTURBED AREAS NOT YET FINALLY STABILIZED, STORAGE AREAS EXPOSED TO RAINFALL, AND STRUCTURAL CONTROLS TO VERIFY THAT THEY ARE OPERATING. INSPECTIONS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT THAT IS 0.5 INCHES OR GREATER IN 24 HOURS.
5. CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP AT THE SITE OR THE LOCATION DESIGNATED TO BE NOTICED FROM THE BEGINNING OF CONSTRUCTION TO THE DATE OF FINAL STABILIZATION.
6. CONTRACTOR SHALL AMEND THE SWPPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT MAY HAVE A SIGNIFICANT EFFECT ON THE POTENTIAL FOR OFF-SITE DISCHARGE OF POLLUTANTS, INCLUDING THE ADDITION OF OR CHANGE IN LOCATION OF DISCHARGE POINTS AND REVISION TO CONTROLS WHICH MAY HAVE PROVED TO BE INEFFECTIVE.
7. CONTRACTOR SHALL REMAIN RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION PROTECTION MEASURES UNTIL CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT PLANS, CERTIFIED AS SUCH BY THE ENGINEER AND ACCEPTED BY THE CITY, WHETHER OR NOT CONTRACTOR HAS SUBMITTED A NOTICE OF TERMINATION (NOT) TO FDEP.

AS-BUILT/RECORD DRAWINGS NOTES:

1. CONTRACTOR SHALL MAINTAIN SITE WORK ACCURATE RECORD DRAWINGS SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTED COPY OF THE RECORD DRAWINGS SHALL NOT BE RETURNED. THE RECORD DRAWINGS SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED FROM THE ORIGINAL PLANS SHALL BE CLEARLY INDICATED AS SUCH.
2. AS-BUILT DRAWINGS AND/OR RECORD DRAWINGS, AS REQUIRED BY THESE NOTES, SHALL SHOW LOCATIONS AND DIMENSIONS BY DIMENSIONS AND/OR ACCURATE COORDINATES. THESE SHALL ALSO PROVIDE LOCATIONS OF ALL UTILITIES BY DIMENSIONS OR COORDINATES, UTILITIES WHICH ARE NOT OTHERWISE POSITION BY FIVE (5) FEET OR MORE SHALL BE REDRAWN IN AS-CONSTRUCTED LOCATIONS.
3. CONTRACTOR SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER SYSTEM AREAS IMMEDIATELY AFTER FINAL GRADING AND SEEDING OF THE GRASSING OF THE SLOPES. AT A MINIMUM, CONTRACTOR SHALL PROVIDE TWO TYPICAL CROSS SECTIONS THROUGH EACH POND, ONE EACH POND. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL PRIOR TO GRASSING. IF ANY MODIFICATIONS ARE NEEDED, ADDITIONAL AS-BUILTS SHALL BE FURNISHED.
4. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF WATER MAINS, FITTINGS AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE.
5. CONTRACTOR SHALL CERTIFY VIA THE RECORD DRAWINGS THAT CONSTRUCTION CONFORMS WITH THE FOLLOWING CRITERIA:
   - STORMWATER MANAGEMENT AREAS, MAINTENANCE BERMS, BERM BACK SLOPES AND OUTFALL CONVEYANCE ARE CONSTRUCTED WITHIN DESIGNATED TRACT OR EASEMENT.
   - ELEVATIONS ARE WITHIN THE FOLLOWING SPECIFIED TOLERANCES OF DESIGN ELEVATIONS:

TOP OF BERM, TOE OF SLOPE, POND BOTTOM:	+/- 0.50 FT.
ALL OTHER STRUCTURE ELEVATIONS:	+/- 0.20 FT.
PIPE INVERTS, GUTTER AND ROAD CENTERLINE AT SAG INLETS:	+/- 0.20 FT.

PAVING, GRADING & DRAINAGE NOTES:

1. SITE GRADING, PAVING AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND TO CITY OF APOPKA STANDARD SPECIFICATIONS, LATEST EDITION, AND TO ANY SPECIFICATIONS SHOWN HEREIN. FOR SOIL CEMENT BASE, MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS, 2000 EDITION. WHERE SUCH SPECIFICATIONS DIFFER, THE MORE STRINGENT SHALL NORMALLY APPLY, SUBJECT TO THE DETERMINATION OF THE PROJECT ENGINEER.
2. DRAINAGE MANHOLES AND INLETS (NOT INCLUDING CONTROL STRUCTURES) IN THE PLANS ARE IDENTIFIED BY TOP TYPE ONLY. CONTRACTOR SHALL PROVIDE GRATE/CURB OPENING BOTTOM INLET, J OR P STRUCTURE BOTTOMS, SIZED AS REQUIRED TO ACCOMMODATE PIPE SIZES AND ORIENTATIONS SHOWN. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL WHICH CLEARLY REPRESENT SUCH DATA.
3. THE CONTRACTOR IS RESPONSIBLE FOR SETTING ALL INLET GRATES IN PAVEMENT AREAS AND SIDEWALKS TO FLUSH GRADE. DRIVES SHALL BE FREE OF NOISE AND RATTLE WHEN SUBJECT TO VEHICULAR TRAFFIC.
4. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL INLETS IN PAVEMENT AREAS ARE PROPERLY ALIGNED WITH THE PAVEMENT FLOW LINES/CENTERLINES (AS APPLICABLE) AND SET TO THE CORRECT GRADE FOR THE APPROVED PLANS. AREAS OF PONDING AROUND INLETS ARE NOT ACCEPTABLE.
5. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF END-WALLS AND/OR MITERED END SECTIONS. BIDDERS SHALL ADJUST FOR PIPE LENGTHS WHEN BEGINS MITERED END SECTIONS.
6. SEE DETAIL ON SHEET C531 FOR REQUIREMENTS AT CROSSINGS OF STORM DRAINS AND UTILITY PIPE.
7. ALL PIPES SHALL BE CONNECTED TO EXISTING PIPES AT AN EXISTING FACTORY MADE JOINT. REMOVE PARTIAL PIPES 9' AND AS NEEDED.
8. FINISHED FLOOR ELEVATIONS ARE MINIMUM ELEVATIONS REQUIRED TO SATISFY DRAINAGE AND/OR 100-YEAR FLOODPLAIN REQUIREMENTS AND ARE TYPICALLY 8 INCHES ABOVE DESIGN FINISHED GRADE AT OUTSIDE PERIMETER OF BUILDINGS EXCEPT AT ENTRIES AND WHERE OTHERWISE SHOWN.
9. ELEVATIONS OF GRASSED AREAS ARE GIVEN AT FINISHED GRADE (TOP OF SOD OR SEEDED SURFACE).
10. RETAINING WALL (WHEN REQUIRED) ARE DESIGNED BY PROJECT STRUCTURAL ENGINEER. SEE ENGINEERS CERTIFICATION NOTES # _____.
11. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND DISPOSING OF ALL WASTE MATERIALS CONSISTENT WITH ALL RULES AND REGULATIONS APPLICABLE TO THE SPECIFIC MATERIAL FOUND.
12. CONTRACTOR SHALL REMOVE ALL MUCK DEPOSITS IN CONSTRUCTION AREAS AND AREAS TO BE FILLED. SEE GEOTECHNICAL REPORT.
13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PAVEMENTS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF POOR DRAINAGE BE OBSERVED, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION MAY BE MADE.
14. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN DRAINAGE EASEMENTS UNTIL ALL DRAINAGE FACILITIES ARE COMPLETED. SHOULD IT SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO OWNER'S LANDSCAPE ARCHITECT.
15. OVER-EXCAVATION OF RETENTION BASINS SHALL NOT BE ALLOWED UNLESS SPECIFICALLY AUTHORIZED BY PROJECT ENGINEER AND OWNER. SHOULD UNAUTHORIZED OVER-EXCAVATION OCCUR, IT SHALL BE BACKFILLED, REGRADED, RESODDED AND/OR RESEEDED TO OWNER'S SPECIFICATIONS AT CONTRACTOR'S EXPENSE.
16. ROAD GRADING AND CONSTRUCTION SHALL INCLUDE BRINGING ANY UTILITY EASEMENTS, AS SHOWN OR NOTED ON PLAT OR CONSTRUCTION DRAWINGS, ADJACENT TO THE RIGHT-OF-WAY LIMIT TO WITHIN 6 INCHES OF FINISH GRADE.
17. CONTRACTOR SHALL PROVIDE FOR POSITIVE DRAINAGE OF ROADWAY FROM SUBGRADE THROUGH FINAL LIFT OF ASPHALT. STRUCTURE BASES SHALL BE FABRICATED IN ACCORDANCE WITH FDOT STANDARD INDEX 425-001. TEMPORARY DRAINS FOR SUBGRADE AND BASE, AS NOTED IN THE INDEX TABLE OF ALL APPURTENANCES WILL BE CONSIDERED INCIDENTAL TO THE PRICE OF THE STRUCTURE.
18. PAVEMENT GRADES OVER HANDICAPPED PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION.
19. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION, OR BETTER.
20. ALL DISTURBED FDOT, CITY AND COUNTY RIGHTS OF WAY SHALL BE RESTORED. SOD SHALL BE PLACED FROM EDGE OF PAVEMENT TO THE LIMITS OF CONSTRUCTION AND ALL AREAS SHALL MATCH OR EXCEED PRE-CONSTRUCTION CONDITIONS.
21. ENGINEER RESERVES THE RIGHT TO WITHHOLD RECOMMENDATION FOR PAVEMENT FOR ANY ROADWORK WHICH HAS NOT BEEN TESTED BY A FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
22. CONTRACTOR SHALL COORDINATE WITH PROJECT ENGINEER FOR PRE-POUR OBSERVATION PRIOR TO ANY SIDEWALK AND/OR CURB RAMP POURS.

MATERIAL SPECIFICATIONS (PAVING AND DRAINAGE):

1. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.
2. WHERE ADVANCED DRAINAGE SYSTEMS (ADS) HIGH DENSITY POLYPROPYLENE (HP) PIPE MAY BE SUBSTITUTED FOR RCP, IT SHALL BE ADS N-12 WITH ADS "SURE-LOK" OR "N-12 WITH WATERTIGHT GO BOLT" SHALL HAVE A SMOOTH INTERIOR AND CORRUGATED EXTERIOR CONFORMING TO ASTM F2881 AND SHALL MEET ASTM F2881 OR AASHTO M330. PIPES SHALL BE JOINED USING A BELL AND SPIGOT JOINT, WITH PERFORMANCE WATERTIGHT GASKETS CONTINUOUS TO THE INTERIOR CORRUGATIONS. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. GASKETS SHALL BE INSTALLED PER ADS'S INSTALLATION INSTRUCTIONS. THE GASKET SHALL BE PLACED AT THE END OF A MANUFACTURER'S PIPE PRIOR TO JOINING. A JOINT LUBRICANT AVAILABLE FROM THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY. EXTERIOR BELL WRAPS SHALL BE INSTALLED BY THE MANUFACTURER. ALL HP PIPES SHALL BE INSTALLED, LASER PROFILED AND VIDEOED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS.
3. UNDERDRAIN (IF SPECIFIED ON PLANS) SHALL BE HEAVY-DUTY CORRUGATED POLYETHYLENE PIPE WITH STANDARD INSTALLED TO FLOW RATES AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS), OR APPROVED EQUAL.
4. UNDERDRAIN DISCHARGE PIPE SHALL BE PVC PER ASTM D3034 SDR 35 WITH ELASTOMERIC JOINTS, NON-PERFORATED.
5. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE 4 FOOT DIAMETER.
6. ALL CONCRETE CURBS, SIDEWALKS, INLET TOPS, ETC. SHALL BE 3000 PSI MINIMUM, UNLESS OTHERWISE SPECIFIED.
7. YARD DRAINS (IF SPECIFIED ON PLANS) SHALL BE NYLOPLAST INLINE DRAINS AND DRAIN BASINS AS AVAILABLE WITH CAST IRON GRATES AND WATERTIGHT ADAPTER CONNECTIONS (OR APPROVED EQUAL).
8. YARD DRAIN PIPING: PVC CONFORMING TO ASTM D3034, SDR35 SHALL BE USED FOR ALL PIPE RUNS IN WHICH ANY PART OF PIPE IS UNDER PAVED AREAS. SAME PVC OR HEAVY DUTY CORRUGATED POLYETHYLENE MAY BE USED FOR ALL OTHER RUNS. MATERIAL SELECTION SHALL BE CONSISTENT THROUGHOUT THE PROJECT.
9. EXFILTRATION AGGREGATE (IF SPECIFIED ON PLANS) SHALL BE A NATURALLY OCCURRING NON-LIMESTONE BASED MATERIAL. CRUSHED CONCRETE OR RECYCLED CONCRETE IS NOT PERMITTED FOR USE IN THE EXFILTRATION TRENCH.

SIGNING AND MARKING NOTES:

1. ALL SIGNAGE, PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE I

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FINAL DEVELOPMENT PLANS

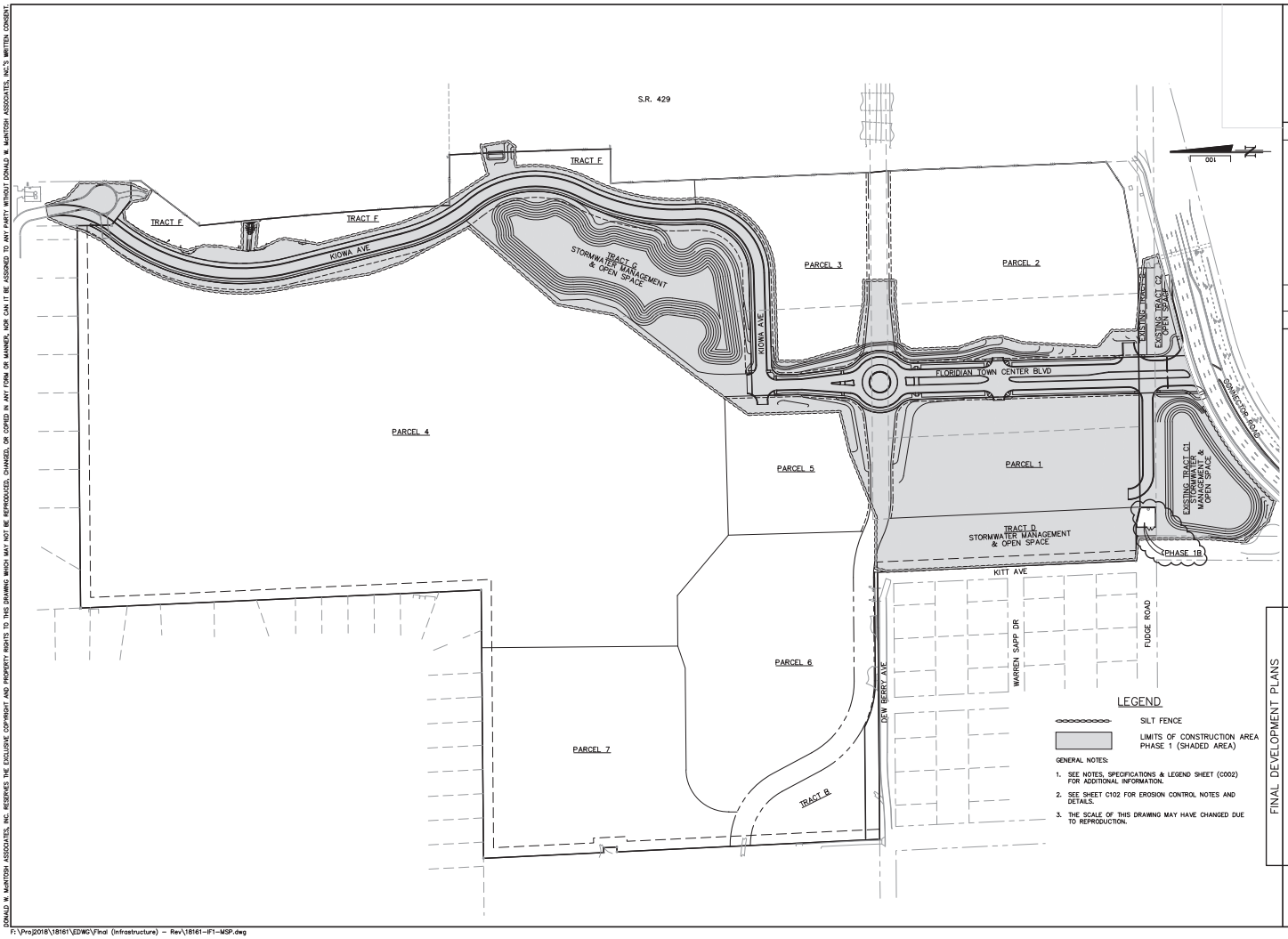
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
AERIAL

SHEET C015 3 OF 39

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407.644.4068

DRAWN BY: MSB | DESIGNED BY: MSB | CHECKED BY: JJT | DATE: 2/9/22 | SCALE: 1"=150' | JOB NUMBER: 18161

NO.	DATE	REVISIONS	BY	CHK.
1	1/19/24	SPLIT TO PHASE 1 AND 1B	JJT	



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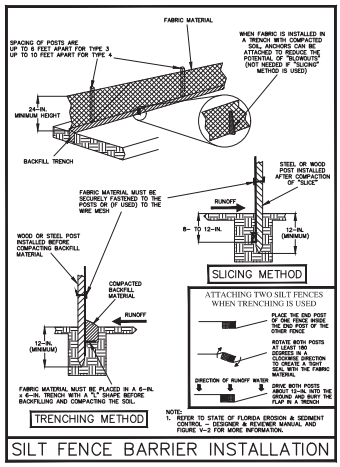


SILT FENCE BARRIER INSTALLATION

TREE PROTECTION NOTES

1. PROTECT EXISTING TREES AND UNDERGROWTH TO REMAIN ASSURED.
2. NO EQUIPMENT OR VEHICLES ON OR DUMPING OF ROOTS AND LIMBS
3. DAMAGED AND BRUISING OF BARK.
4. SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION OR EXCAVATION MATERIAL WITHIN DRIP-LINE
5. PLACING SOLVENTS NEAR TREES
6. PARKING VEHICLES WITHIN DRIP-LINE.

2. DIRECT TEMPORARY CONSTRUCTION FENCING BEFORE COMMENCEMENT OF ANY SITE CLEARING OR GRADING. FENCE SHALL BE A MINIMUM HEIGHT OF 4 FT., WITH STEEL POSTS SET EIGHT (8) FEET APART ON THE GROUND TO BE STABLE WITHOUT ADDITIONAL SUPPORT. ALL FENCING SHALL BE SET BEYOND THE DRIP LINE OF TREES WHERE POSSIBLE. THE FENCE SHALL BE CONSTRUCTED AT THE DRIP LINE OF ANY TREES OR UNDERGROWTH SCHEDULED TO REMAIN. NOTHING SHALL BE PLACED INSIDE OF THE FENCE, INCLUDING BUT NOT LIMITED TO, CONSTRUCTION MATERIALS, EQUIPMENT, TEMPORARY SOIL DEPOSITS, OR DEBRIS OF ANY KIND. WHERE THE DRIP LINE IS LESS THAN 10' WIDE, THE FENCE SHALL BE NO CLOSER THAN 10' FROM THE TRUNK. WHERE GRADING, EXCAVATION, OR CHARACTER MUST BE DONE WITHIN THE FENCE, THE FENCE SHALL BE MOVED TO THE OUTSIDE OF THE AREA TO BE WORKED ON THE DAY OF THE WORK, AND REPLACED THE SAME DAY BY THE CONTRACTOR TO INSURE THAT NO CHANGE TO THE TREE AND UNDERGROWTH OCCURS.

3. PROVIDE WATER TO TREES AND UNDERGROWTH AS REQUIRED TO MAINTAIN THEIR HEALTH DURING CONSTRUCTION.

4. FOR GRADE CUTS WITHIN THE DRIP LINES, ROOTS SHALL NOT BE TRACTOR CLEARED. LIMIT OF CONSTRUCTION SHALL BE DETERMINED, FENCE PLACED, AND ROOTS CUT CLEAN WITH A POWER SAW. CLEAN CUTS WILL AVOID "SCARRING" OF ROOTS. CUTTEN EXPOSED ROOTS WITH MOIST MULCH TO PREVENT DRYING. BACKFILL AS SOON AS POSSIBLE.

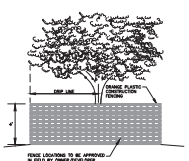
5. NO CLEARING OF UNDERGROWTH SHALL TAKE PLACE WITHOUT PRIOR APPROVAL OF THE OWNER OR HIS REPRESENTATIVE. ALL CLEARING SHALL BE DONE BY HAND WITHIN THE DRIP LINE OF TREES. ALL CLEARING SHALL BE DONE BY HAND WITHIN THE DRIP LINE OF TREES TO BE REMOVED. ALL CLEARING SHALL BE DONE BY HAND PERSONNEL, EQUIPMENT SHALL BE USED ONLY UNDER THE DIRECTION OF THE OWNER OR THEIR REPRESENTATIVE. MULCH SHALL BE IMMEDIATELY PLACED OVER ANY CLEARED UNDERGROWTH AREA TO PROTECT EXPOSED ROOTS OF TREES.

6. NO GRADE CHANGES ARE TO BE MADE WITHIN THE FENCE WITHOUT PRIOR APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE.

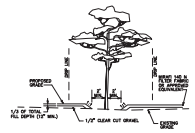
7. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF THE OWNER OR HIS REPRESENTATIVE BY A QUALIFIED TREE SURGEON.

8. THE CONTRACTOR SHALL REPAIR OR REPLACE TREES INDICATED TO REMAIN, WHICH ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER ACCEPTABLE TO THE OWNER. CONTRACTOR SHALL EMPLOY A QUALIFIED TREE SURGEON, TO REPAIR DAMAGE TO TREES AND SHRUBS PROMPTLY, TO PREVENT PROGRESSIVE DETERIORATION CAUSED BY THE DAMAGE. CONTRACTOR SHALL PROVIDE ADDITIONAL WATER AND OTHER MAINTENANCE AS DIRECTED BY REPRESENTATIVE OF REPAIRS OR RECONDITIONING FROM TIME TO TIME AS SCHEDULED.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR TREES DAMAGED BEYOND REPAIR. TREES SHALL BE REPLACED BY AN EQUIVALENT NUMBER OF TREES OF SIMILAR OR GREATER SIZE AND SPECIES EQUALING THE OVERALL CALIPER OF THE TREE REMOVED. IF A 24" CALIPER TREE IS REMOVED, FOUR 6" CALIPER TREES MUST BE PLANTED. IF A 12" CALIPER TREE IS REMOVED, TWO 6" CALIPER TREES MUST BE PLANTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOSS OF, PROTECTION TO, NEGLIGENCE, THE CONTRACTOR SHALL BEAR THE BURDEN OF COST OF REPAIR OR REPLACEMENT.

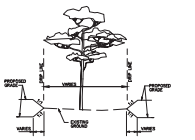


TREE PROTECTION DETAIL



NOTES:
1. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING AROUND TREES.
2. ALL UTILITY WORK SHALL BE DONE BY HAND WITHIN TREE ROOT IMPACT ZONE.
3. ALL EARTHWORK WITHIN A 10 FOOT RADIUS ZONE AROUND SAVED TREES SHALL BE NON-COMPACTED.
4. GRADING AND FILTER FABRIC SHALL BE INSTALLED AROUND SAVED TREES IN FILL AREAS A MINIMUM OF 10 FEET FROM EDGE OF TREE TRUNK AND TERMINATE AT PROPOSED GRADE. NO FILL SHALL BE PLACED AGAINST TREE TRUNK. INSTALLATION SHALL BE FIELD DIRECTED TO DETERMINE LIMITS.

TREE SAVE GRADING DETAIL



NOTES:
1. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING AROUND TREES.
2. NO WORK SHALL BE DONE EXCEPT BY HAND WITHIN TREE ROOT IMPACT ZONE.

TREE SAVE GRADING DETAIL
NO FILL WITHIN DRIP LINE

TURBIDITY MONITORING REQUIRED:

DESCRIPTION: TURBIDITY EXPRESSED IN NEPHELOMETRIC TURBIDITY UNITS (NTU).

LOCATION: BACKGROUND—SAMPLES SHALL BE TAKEN 300 FEET UPSTREAM OF ANY CONSTRUCTION ACTIVITY WITHIN SURFACE WATERS OF THE STATE.

COMPLIANCE: SAMPLES SHALL BE TAKEN 200 FEET DOWNSTREAM OF THE CONSTRUCTION ACTIVITIES ADJACENT TO OR WITHIN WATERS OF THE STATE.

FREQUENCY: TWICE DAILY, WITH AT LEAST A FOUR HOUR INTERVAL, DURING ALL WORK AUTHORIZED BY THIS PERMIT.

DURATION: MONITORING SHALL BEGIN ON THE FIRST DAY OF CONSTRUCTION FOR ALL ACTIVITIES AND MAY BE DISCONTINUED UPON PERMANENT STABILIZATION OF ALL DISTURBED SOILS.

STANDARDS & REPORTING: THE MONITORING DATA MUST DEMONSTRATE THAT TURBIDITY AT THE COMPLIANCE SITE IS LESS THAN OR EQUAL TO 29 NTU'S ABOVE NATURAL BACKGROUND FOR A PERIOD OF 7 CONSECUTIVE DAYS AFTER COMPLETION OF CONSTRUCTION. ALL MONITORING DATA SHALL BE READ AND RECORDED DAILY, AND SUBMITTED TO THE OWNERS AUTHORIZED REPRESENTATIVE (O.A.R.) BY 5:00 P.M. EACH FRIDAY. IF AT ANY TIME THE TURBIDITY EXCEEDS BACKGROUND BY MORE THAN 29 NTU'S, ALL CONSTRUCTION ACTIVITIES SHALL BE HALTED. A WRITTEN REPORT FAXED TO THE FDEP POST PERMIT COMPLIANCE DEPARTMENT IN ORLANDO.

MONITORING REPORTS SHALL ALSO INCLUDE THE FOLLOWING INFORMATION FOR EACH SAMPLE THAT IS TAKEN:
1. TIME OF DAY SAMPLES WERE TAKEN
2. DATE OF SAMPLES
3. DEPTH OF SAMPLES
4. ANTECEDENT WEATHER CONDITIONS, AND;
5. WIND DIRECTION AND VELOCITY
6. SAMPLE LOCATION MAP

CORRECTIVE ACTIONS: REMEDIAL MEASURES SHALL BE TAKEN IMMEDIATELY TO CORRECT THE PROBLEM. ACTIVITIES SHALL RESUME DAILY WITH THE CONFIRMATION FROM DISTRICT STAFF THAT THE SITUATION HAS BEEN RESOLVED.

TURBIDITY MONITORING: CONTRACTOR IS RESPONSIBLE FOR TURBIDITY MONITORING & REPORTING.

SEQUENCE OF CONSTRUCTION

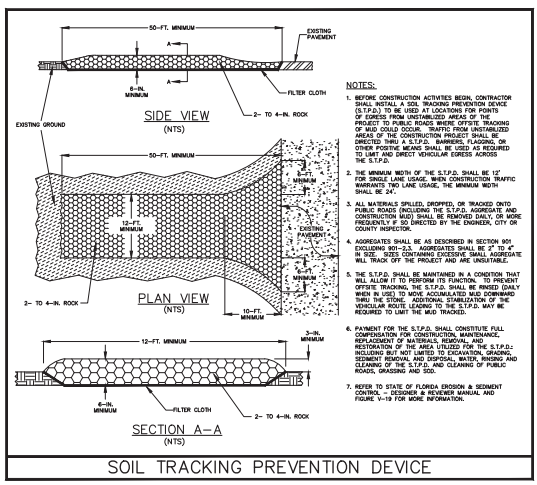
1.0 INSTALL SILT FENCES AROUND PROJECT PERIMETER INCLUDING FLOATING TURBIDITY SCREENS.
2.0 EXCAVATE TEMPORARY SEDIMENT BASINS.
3.0 CONSTRUCT IMPROVEMENTS
4.0 VEGETATE DISTURBED AREAS.
5.0 CONTINUOUS TURBIDITY MONITORING AND ALUM TREATMENT OF POND 1 & POND 3 AS NECESSARY.

EPA STORMWATER MENU OF BEST MANAGEMENT PRACTICES (BMPs)

1.0 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES) STORMWATER MENU CAN BE FOUND ONLINE AT CFLRIVERS.ORG/DOCS/DOCS_MENU.SHTML. BELOW IS A LIST OF BMPs AVAILABLE TO THE CONTRACTOR TO CONTROL EROSION, SEDIMENTATION AND TURBIDITY DURING CONSTRUCTION.
2.0 CONSTRUCTION SITE SEQUENCING.
3.0 CONSTRUCTION SITE OPERATOR BMP INSPECTION AND MAINTENANCE PROGRAM. FOR MORE INFORMATION SEE FLORIDA STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTOR TRAINING AND CERTIFICATION PROGRAM.
4.0 LAND GRADING TECHNIQUES
5.0 SILT FENCES
6.0 STORM DRAIN INLET PROTECTION
7.0 TURBIDITY SCREENS
8.0 SEDIMENT BASINS
9.0 ALUM TREATMENT SYSTEM
10.0 TEMPORARY SLOPE DRAINS
11.0 CHEMICAL STABILIZATION
12.0 GRASS LINED CHANNELS
13.0 ESTABLISHMENT OF VEGETATION (GRASS) ON DISTURBED AREAS INCLUDING SEED, MULCH AND SOD.
14.0 DUST CONTROL
15.0 WIND AND SAND FENCES
16.0 CONSTRUCTION ENTRANCES

EROSION AND SEDIMENT CONTROL NOTES

1. BECAUSE OF THE PROJECT'S PROXIMITY TO ADJACENT LAKES AND WETLANDS, CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE EROSION TO POTABLE WATERS WHICH TRANSVERSE OR RESULT FROM ONSITE CONSTRUCTION ACTIVITIES. TO PREVENT SEDIMENTATION AND STORMWATER PROTECT ONSITE WETLANDS WHICH ARE TO BE RETAINED. THE BASIC PRINCIPLES DESCRIBED HEREIN ARE INTENDED TO DEFINE THE DEVELOPER'S INTENT AND REQUIRE THE CONTRACTOR TO SATISFY THE SPECIFIC REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
2. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO FINAL DIMENSION BY THE CONTRACTOR WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE CITY ENGINEER AND REPRESENTATIVES OF THE CITY OF APOPKA ENCOMPASSING THE CONTRACTOR'S EROSION PLAN FOR IMPLEMENTING THE PROVISIONS OF THE REQUIREMENTS DESCRIBED HEREIN. NO CONSTRUCTION CAN BEGIN UNTIL SAID PLAN HAS BEEN APPROVED BY CITY OF APOPKA.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE THAT NO SEDIMENT IS DISCHARGED ON OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE ADJACENT WATER BODIES IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
5. EROSION CONTROL METHODS SHALL INCLUDE TEMPORARY CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS AND BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
6. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED BY CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
7. THROUGHOUT THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL DAILY INSPECT PROTECTIVE INSTALLATIONS FOR FAILURES OR SIGNS OF FAILURE OR MALFUNCTION AND EFFECT REPAIRS OR REPLACEMENT IMMEDIATELY UPON DISCOVERY.
8. THE RECOMMENDED GENERAL SEQUENCE OF CONSTRUCTION FOR ALL BASINS IS AS FOLLOWS:
   A. INSTALL SILT FENCES AROUND PROJECT PERIMETER INCLUDING FLOATING TURBIDITY SCREENS, (IF NECESSARY, ETC.)
   B. AROUND ONSITE LAKES, AT POINTS OF OFFSITE DISCHARGE, AND AROUND WORK AREAS.
   C. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEVELOPMENT AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY CONSTRUCTION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION HAS BEEN ESTABLISHED.
   D. USE EXISTING ONSITE LAKES AS SEDIMENT BASINS IF SUITABLE FOR FILL OR UNSUITABLE, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPPINGS FOR THIS PURPOSE MAY BE ACCEPTABLE. BERM RECREATION. CONSTRUCT TEMPORARY OUTLETS FROM CONTAINMENT AREAS WITH SCREENS, SYNTHETIC HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORTATION.
   E. SELECT/DESIGNATE ACCESS ROUTING FOR CONSTRUCTION EQUIPMENT AND VEHICLES AND PROVIDE PROTECTIVE MEASURES. MEASURES WHERE EXISTING TERRAIN WILL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.
   F. IF REQUIRED, CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR CONSTRUCTION AREA RUNOFF. PROVIDE SCREENS, SYNTHETIC HAY BALES, ETC., TO FILTER DISCHARGE FROM THESE AREAS.
   G. SEEDING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF DISTURBED AREAS WITHIN PROJECT AREA.
   H. IN ANY EVENT, CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING ANY AND ALL MEASURES ARE TAKEN TO COMPLY WITH LOCAL, STATE, FEDERAL AND OWNER REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.
9. RAHIA SOD REQUIRED AROUND ALL STORM INLETS IN UNPAVED AREAS.
10. THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY HAS AUTHORIZED THE STATE OF FLORIDA TO ADMINISTER THE NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.). CONTRACTOR IS ADVISED THAT OPERATORS ARE REQUIRED TO FILE WITH F.D.E.P. A NOTICE OF INTENT TO USE THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SUBMIT THE NOTICE OF INTENT (N.O.I.) TO F.D.E.P. WITH A COPY TO THE OWNER, THE ENGINEER AND THE CITY AT LEAST 48 HOURS BEFORE INITIATING CONSTRUCTION.
11. CONTRACTOR SHALL CONFORM TO REQUIREMENTS OF THE FDEP NPDES GENERIC PERMIT INCLUDING PREPARATION AND EXECUTION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPP). THIS SHEET SHALL NOT BE SUBSTITUTED FOR THAT PURPOSE.
12. PURSUANT TO THE N.P.D.E.S., CONTRACTOR SHALL MAINTAIN RECORDS OF DATES WHEN MAJOR GRADING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE AND SHALL INITIATE STABILIZATION MEASURES WITHIN 7 DAYS AFTER SUCH TEMPORARY OR PERMANENT CESSATION OF CONSTRUCTION ACTIVITY. STABILIZATION MEASURES (SODDING WHERE SHOWN ON THE PLANS, SEEDING AND MULCHING ELSEWHERE) APPLY TO ALL AREAS DISTURBED BY CONSTRUCTION, ON-SITE AND OFF-SITE.
13. CONTRACTOR SHALL PROVIDE INSPECTIONS BY QUALIFIED PERSONNEL OF ALL POINTS OF DISCHARGE, DISTURBED AREAS NOT YET FINALLY STABILIZED, STORAGE AREAS EXPOSED TO RAINFALL, STRUCTURAL CONTROLS AND VEHICULAR ACCESS LOCATIONS. INSPECTIONS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER.
14. CONTRACTOR SHALL MAINTAIN A COPY OF THE S.W.P.P.P. AT THE LOCATION IDENTIFIED IN THE NOI OF PROJECT ROTATION TO THE DATE OF FINAL STABILIZATION.
15. CONTRACTOR SHALL AMEND THE S.W.P.P.P. WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR OFF-SITE DISCHARGE OF POLLUTANTS, INCLUDING THE ADDITION OF OR CHANGE IN LOCATION OF DISCHARGE POINTS AND REVISION TO CONTROLS WHICH MAY HAVE PROVED TO BE INEFFECTIVE.
16. CONTRACTOR SHALL REMAIN RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION PROTECTION MEASURES UNTIL CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT PLANS, CERTIFIED AS SUCH BY THE ENGINEER AND ACCEPTED BY THE CITY, WHETHER OR NOT CONTRACTOR HAS SUBMITTED A NOTICE OF TERMINATION (N.O.T.) TO F.D.E.P.
17. IF CONTRACTOR PROPOSES TO DISCHARGE DEWATERING EFFLUENT OFF-SITE, HE SHALL COMPLY WITH FDEP'S "GENERIC PERMIT FOR DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY". PERMIT REQUIREMENTS CAN BE OBTAINED FROM FDEP AT (407)894-7555 EXT. 3000. THIS PERMIT IS INDEPENDENT OF AND IN ADDITION TO WATER MANAGEMENT DISTRICTS' PERMITS FOR CONSTRUCTION DEWATERING.
18. AT ANY PROJECT CONNECTION TO PUBLIC OR PRIVATE ROADWAYS THAT ARE TO BE USED BY CONSTRUCTION TRAFFIC, CONTRACTOR SHALL PROVIDE A SOIL TRACKING PREVENTION DEVICE PER DETAIL.



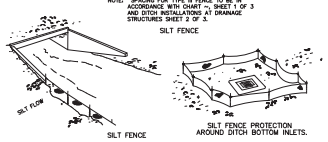
NOTES:
1. BEFORE CONSTRUCTION ACTIVITIES BEGIN, CONTRACTOR SHALL INSTALL A SOIL TRACKING PREVENTION DEVICE (S.T.P.D.) TO BE USED AT LOCATIONS FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THRU A S.T.P.D. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT ANY DIRECT VEHICULAR ACCESS ACROSS THE S.T.P.D.
2. THE MINIMUM WIDTH OF THE S.T.P.D. SHALL BE 12' FOR SINGLE LANE USAGE. WHEN CONSTRUCTION TRAFFIC WARRANTS TWO LANE USAGE, THE MINIMUM WIDTH SHALL BE 24'.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE S.T.P.D. AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF DIRECTED BY THE ENGINEER, CITY OR COUNTY INSPECTOR.
4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE 3" TO 4" IN SIZE. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
5. THE S.T.P.D. SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE S.T.P.D. SHALL BE RINSED (DAILY WHEN IN USE) TO PREVENT ACCUMULATION AND DOWNWARD WASH OF MUD. TOP DRESSING OF AGGREGATE ALONG THE VEHICULAR ROUTE LEADING TO THE S.T.P.D. MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
6. PAYMENT FOR THE S.T.P.D. SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL, AND RESTORATION OF THE AREA UTILIZED FOR THE S.T.P.D.: INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE S.T.P.D. AND CLEANING OF PUBLIC ROADS, GRASSING AND SOD.
7. REFER TO STATE OF FLORIDA EROSION & SEDIMENT CONTROL – DESIGNER & REVIEWER MANUAL AND FIGURE V–19 FOR MORE INFORMATION.

SOIL TRACKING PREVENTION DEVICE

GENERAL NOTES
1. FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, LF.
2. STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, LF.

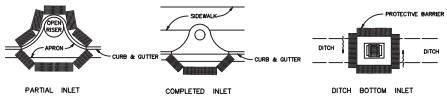
NOTE: SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART 1, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3.

SILT FENCE



DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

GENERAL NOTES:
1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.

ENGINEERS
PLANNERS
SURVEYORS

JOB NUMBER 1816.1

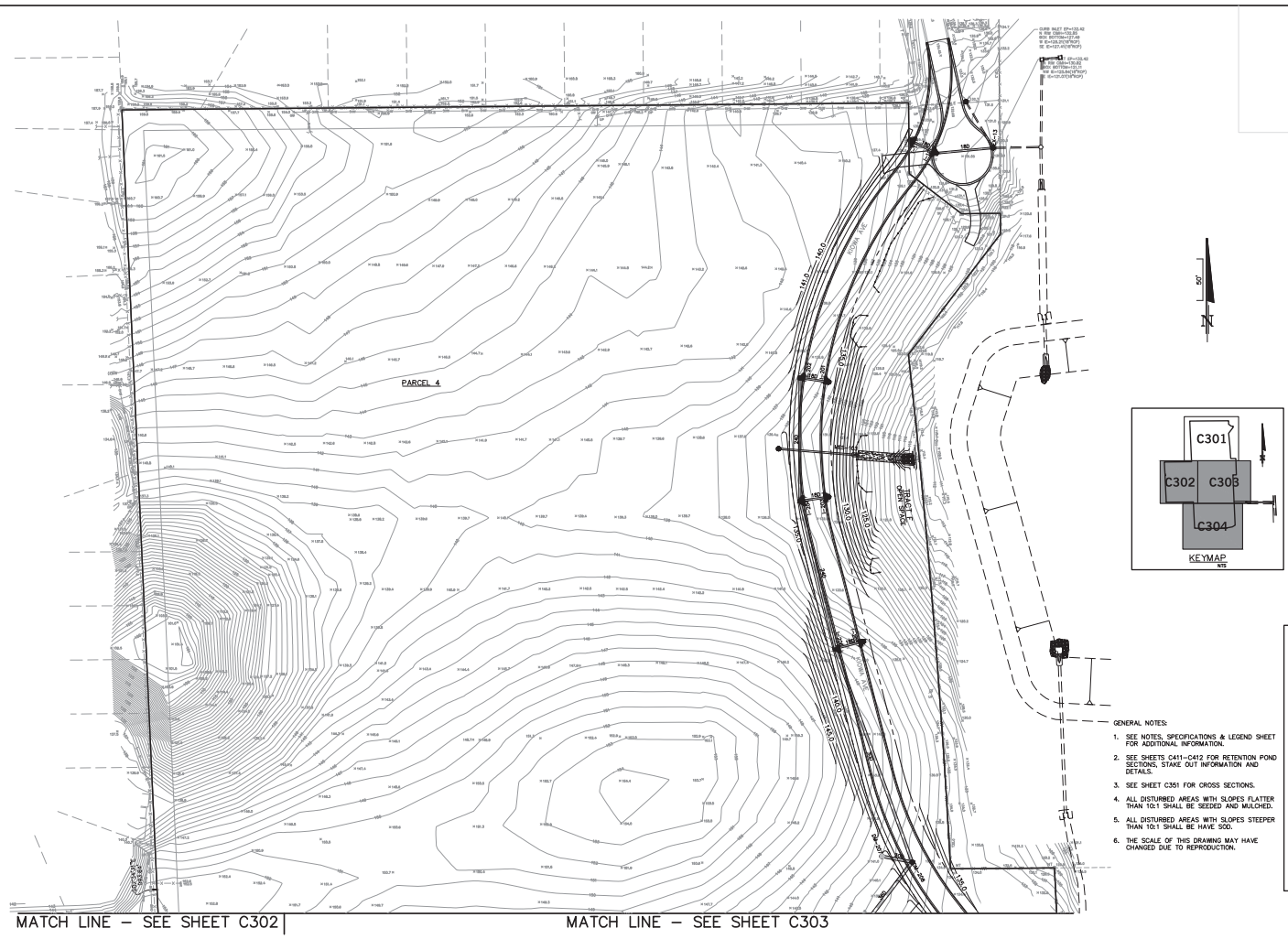
DONALD W. McINTOSH ASSOCIATES, INC.
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407-644-4068

SCALE: N/S
DATE: 5/9/22
CHECKED BY: JFT
DESIGNED BY: MAB
DRAWN BY: MAB

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
EROSION CONTROL AND TREE PRESERVATION DETAILS

SHEET C102
5 OF 39

F:\Pro2018\18161\CDWG\Final (Infrastructure) – Rev\18161-IF1-ErosDt.dwg



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ENGINEERS
PLANNERS
SURVEYORS

DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MSB	MSB	JIT	7/6/22	1"=50'	18161

NO.	DATE	REVISIONS	CHK.
1	9/19/22	REVISED PER CITY COMMENTS AND CLIENT DIRECTION	JIT

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
GRADING AND DRAINAGE PLAN

SHEET
C301
6 OF 39

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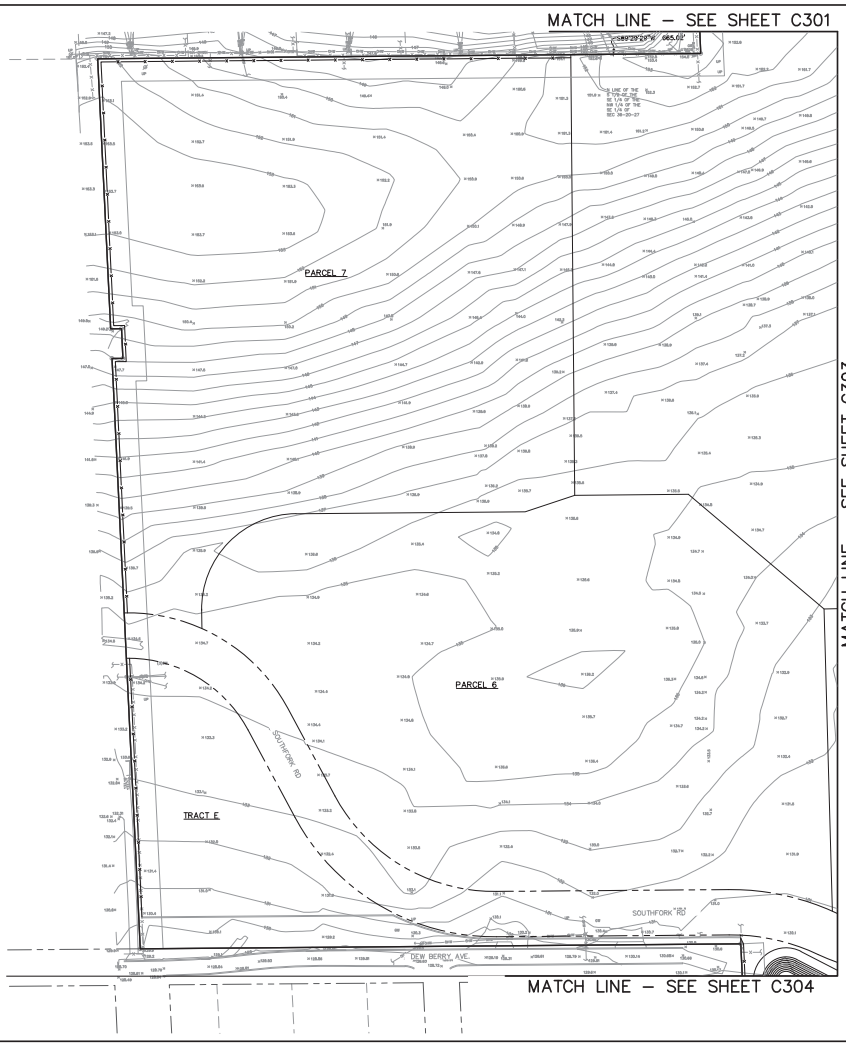

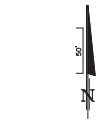

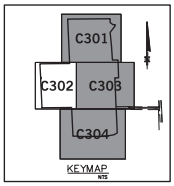

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. SEE SHEETS C411–C412 FOR RETENTION POND SECTIONS, STAKE OUT INFORMATION AND DETAILS.
3. SEE SHEET C351 FOR CROSS SECTIONS.
4. ALL DISTURBED AREAS WITH SLOPES FLATTER THAN 10:1 SHALL BE SEEDED AND MULCHED.
5. ALL DISTURBED AREAS WITH SLOPES STEEPER THAN 10:1 SHALL BE HAVE SOD.
6. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
1	5/10/22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JJT

ENGINEERS
PLANNERS
SURVEYORS

DONALD W. McINTOSH ASSOCIATES, INC.
2602 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

JOB NUMBER	SCALE	DATE	CHECKED BY	DESIGNED BY	DRAWN BY
18161	1"=50'	3/9/22	JJT	MVB	MVB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS

CITY OF APOPKA, FLORIDA

GRADING AND DRAINAGE PLAN

SHEET
C302
7 OF 39

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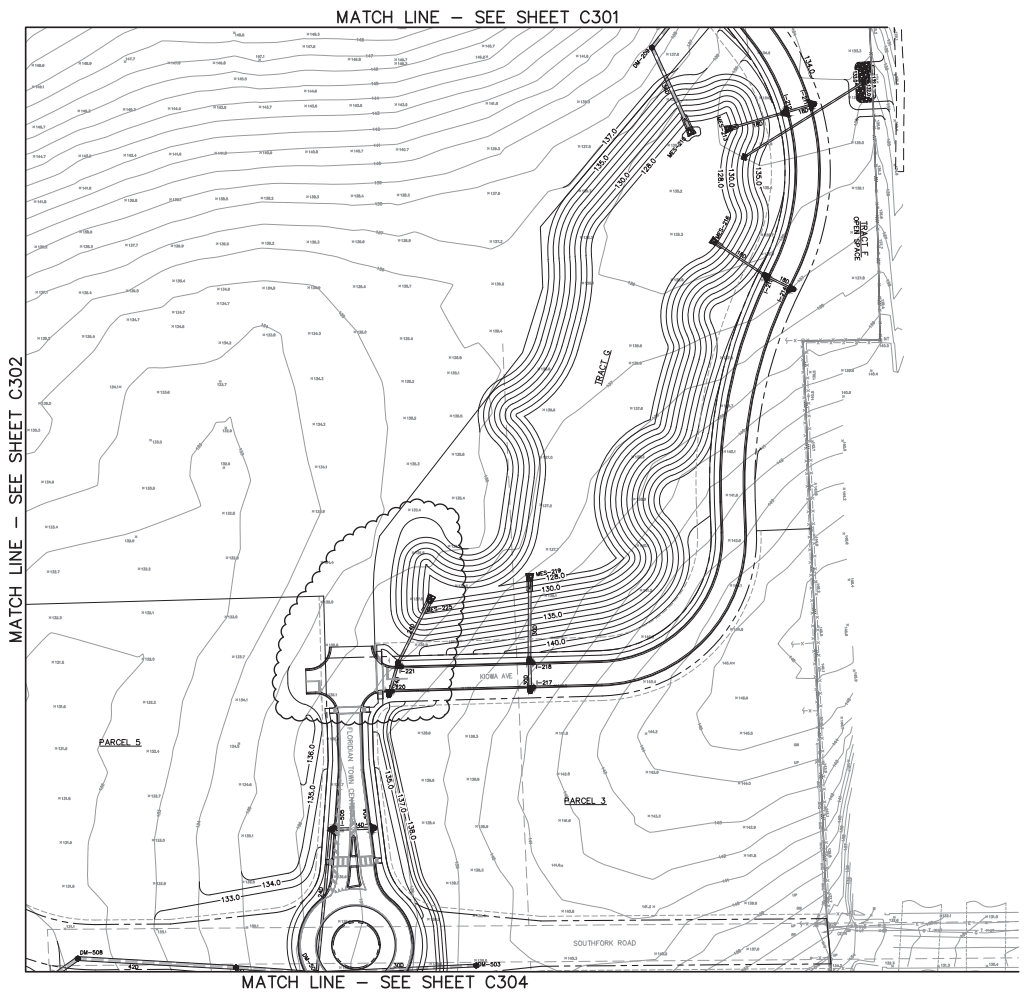

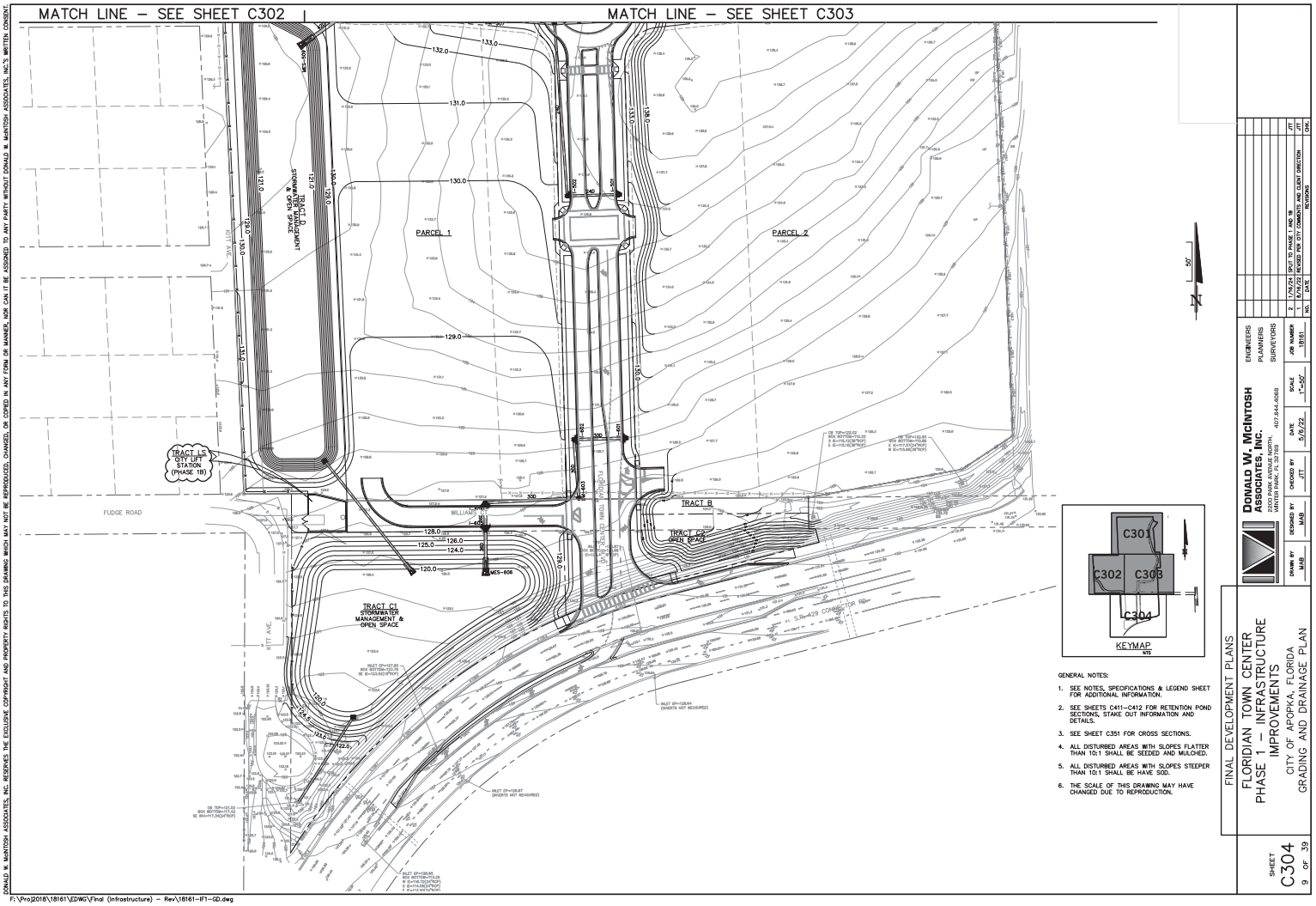

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. SEE SHEETS C411–C412 FOR RETENTION POND SECTIONS, STAKE OUT INFORMATION AND DETAILS.
3. SEE SHEET C351 FOR CROSS SECTIONS.
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5. ALL DISTURBED AREAS WITH SLOPES STEEPER THAN 10:1 SHALL BE HAVE SOD.
6. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
2	7/19/22	SPLIT TO PHASE 1 AND 1B	JTT
1	6/15/22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 EAST LIVINGSTON STREET, ORLANDO, FLORIDA 32803 407.644.4068

JOB NUMBER 18161 | SCALE 1"=50' | DATE 7/5/22 | CHECKED BY JTT | DESIGNED BY MSB | DRAWN BY MSB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS

CITY OF APOPKA, FLORIDA

GRADING AND DRAINAGE PLAN

SHEET C304
9 OF 39

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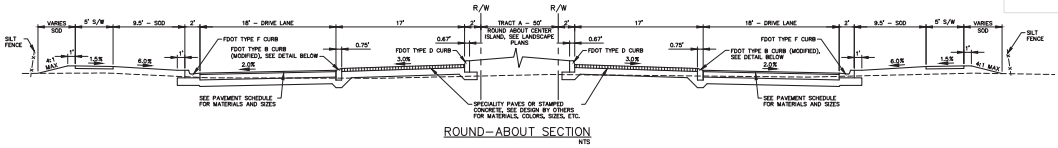
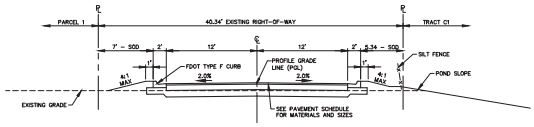
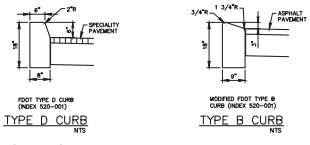


ROUND-ABOUT SECTION
NTS

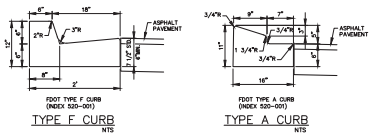


WILLIAMS COURT
NTS



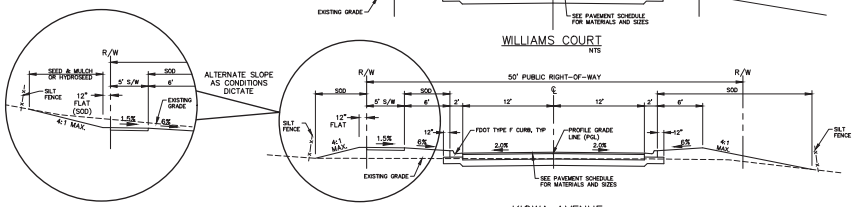
TYPE D CURB
NTS

TYPE B CURB
NTS

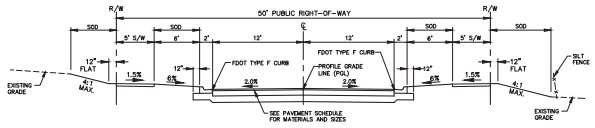


TYPE F CURB
NTS

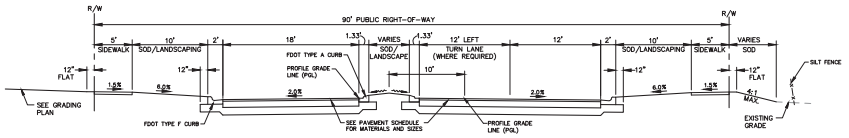
TYPE A CURB
NTS



KIOWA AVENUE
NTS



FLORIDIAN TOWN CENTER BLVD
NORTH OF ROUND-ABOUT
NTS



FLORIDIAN TOWN CENTER BLVD
SOUTH OF ROUND-ABOUT
NTS

STANDARD PAVEMENT MATERIALS SCHEDULE			
	MATERIALS	THICKNESS	SPECIFICATIONS
	ASPHALT (2nd LIFT)	1"	TYPE SP-9.5 STRUCTURAL COURSE
	ASPHALT (1st LIFT)	1"	TYPE SP-9.5 STRUCTURAL COURSE
	BASE	6"	LIMEROCK BASE, LBR 100, COMPACTED TO 98% AASHTO T-180 MODIFIED PROCTOR MAX. DRY DENSITY (SEE ALTERNATIVE BASE MATERIAL)
	SUB-GRADE	12"	STABILIZED SUB-GRADE, LBR 40, COMPACTED TO 95% AASHTO T-180 MODIFIED PROCTOR MAX. DRY DENSITY

HEAVY DUTY PAVEMENT MATERIALS SCHEDULE			
	MATERIALS	THICKNESS	SPECIFICATIONS
	ASPHALT (2nd LIFT)	1"	TYPE SP-9.5 STRUCTURAL COURSE
	ASPHALT (1st LIFT)	1.5"	TYPE SP-12.5 STRUCTURAL COURSE
	BASE	8"	LIMEROCK BASE, LBR 100, COMPACTED TO 98% AASHTO T-180 MODIFIED PROCTOR MAX. DRY DENSITY (6" MAX. LIFTS) (SEE ALTERNATIVE BASE MATERIAL)
	SUB-GRADE	12"	STABILIZED SUB-GRADE, TYPE B, LBR 40, COMPACTED TO 95% AASHTO T-180 MODIFIED PROCTOR MAX. DRY DENSITY

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
1	5/15/23	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JJT

ENGINEERS
PLANNERS
SURVEYORS

JOB NUMBER 18161

SCALE AS SHOWN

DATE 5/5/22

CHECKED BY JJT

DESIGNED BY MWB

DRAWN BY MWB

DONALD W. McINTOSH ASSOCIATES, INC.
2602 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
CROSS SECTIONS

SHEET C351
10 OF 39

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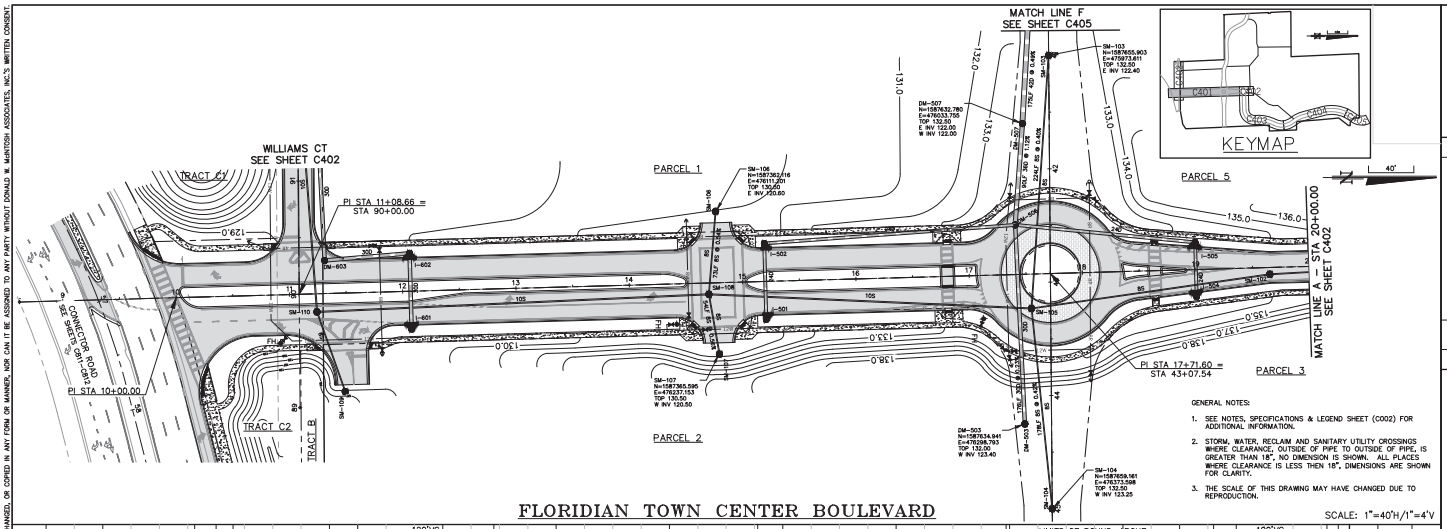

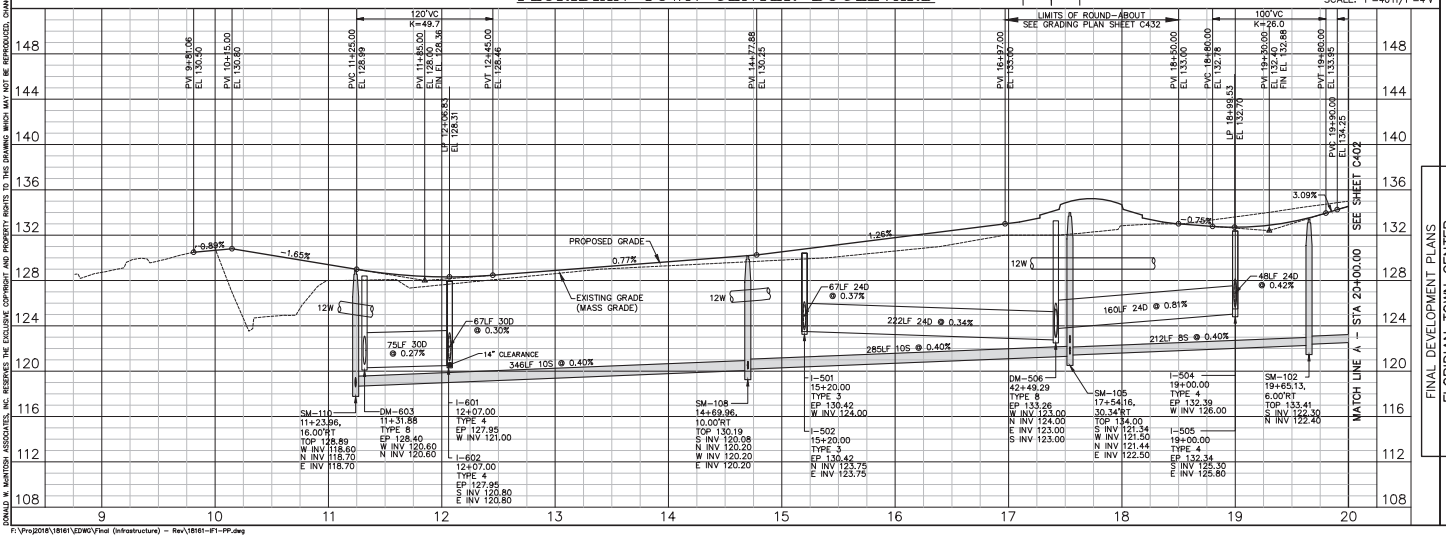

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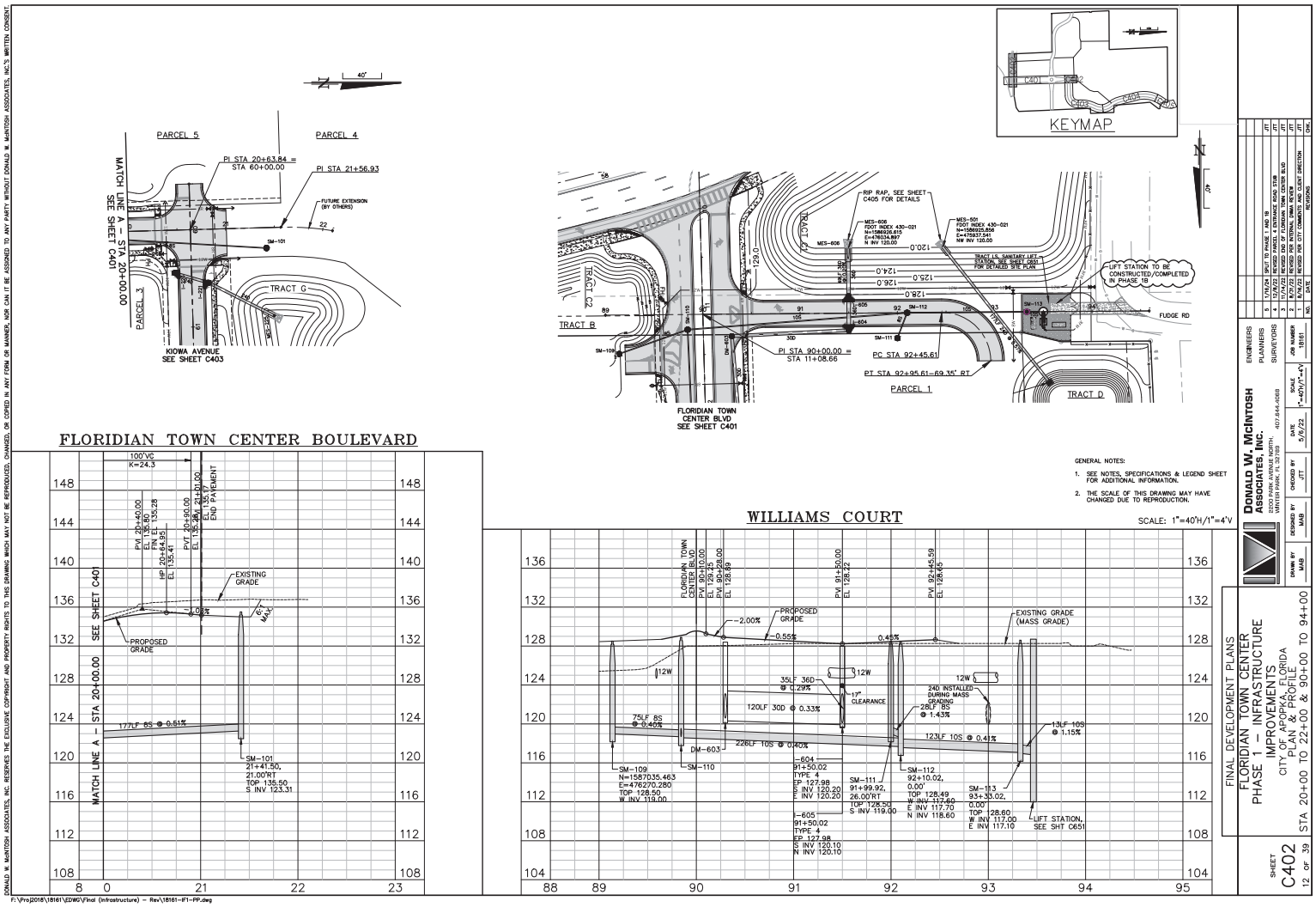
NO.	DATE	REVISIONS	BY	CHK.
2	8.22.22	REVISED PER INTERNAL QA/QC REVIEW	JTT	
1	8.04.22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JTT	

ENGINEERS
PLANNERS
SURVEYORS
DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407.644.4068

JOB NUMBER 18161
SCALE 1"=40'H/1"=4'V
DATE 6.16.22
CHECKED BY JTT
DESIGNED BY MAB
DRAWN BY MAB

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
PLAN & PROFILE
STA 10+00.00 TO 20+00.00

SHEET C401
11 OF 39



KEYMAP
PARCEL 5
PARCEL 4
PI STA 20+63.84 = STA 60+00.00
PI STA 21+56.93
FUTURE EXTENSION (BY OTHERS)
MATCH LINE A – STA 20+00.00 SEE SHEET C401
PARCEL 3
TRACT G
KIOWA AVENUE SEE SHEET C403
RIP RAP, SEE SHEET C405 FOR DETAILS
TRACT C1
TRACT C2
TRACT B
TRACT D
PARCEL 1
LIFT STATION TO BE CONSTRUCTED/COMPLETED IN PHASE 1B
FUDGE RD
PI STA 90+00.00 = STA 11+08.66
PC STA 92+45.61
PT STA 92+95.61–69.35' RT
FLORIDIAN TOWN CENTER BLVD SEE SHEET C401
FLORIDIAN TOWN CENTER BOULEVARD
100'VC K=24.3
PVI 20+40.00 EL 135.80 FIN EL 135.28
HP 20+64.95 EL 135.41
PVT 20+90.00 EL 135.28
PVI 21+01.00 EL 135.17 END PAVEMENT
EXISTING GRADE
PROPOSED GRADE
6:1 MAX
177LF 8S @ 0.51%
SM-101 21+41.50, 21.00'RT TOP 135.50 S INV 123.31
MATCH LINE A – STA 20+00.00 SEE SHEET C401
WILLIAMS COURT
FLORIDIAN TOWN CENTER BLVD PVI 90+10.00 EL 129.25
PVI 90+28.00 EL 128.89
PVI 91+50.00 EL 128.22
PVI 92+45.59 EL 128.65
PROPOSED GRADE
EXISTING GRADE (MASS GRADE)
-2.00%
-0.55%
0.45%
12W
35LF 36D @ 0.29%
120LF 30D @ 0.33%
17" CLEARANCE
24D INSTALLED DURING MASS GRADING
28LF 8S @ 1.43%
75LF 8S @ 0.40%
DM-603
226LF 10S @ 0.40%
123LF 10S @ 0.41%
13LF 10S @ 1.15%
SM-109 N=1587035.463 E=476270.280 TOP 128.50 W INV 119.00
SM-110
I-604 91+50.02 TYPE 4 EP 127.98 S INV 120.20 E INV 120.20
I-605 91+50.02 TYPE 4 EP 127.98 S INV 120.10 N INV 120.10
SM-111 91+99.92, 26.00'RT TOP 128.50 S INV 119.00
SM-112 92+10.02, 0.00' TOP 128.49 W INV 117.60 E INV 117.70 N INV 118.60
SM-113 93+33.02, 0.00' TOP 128.60 W INV 117.00 E INV 117.10
LIFT STATION, SEE SHT C651
GENERAL NOTES:
1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.
SCALE: 1"=40'H/1"=4'V
DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068
ENGINEERS PLANNERS SURVEYORS
DRAWN BY MAB
DESIGNED BY MAB
CHECKED BY JTT
DATE 5/6/22
SCALE 1"=40'H/1"=4'V
JOB NUMBER 18161
FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
PLAN & PROFILE
STA 20+00 TO 22+00 & 90+00 TO 94+00
SHEET C402
12 OF 39
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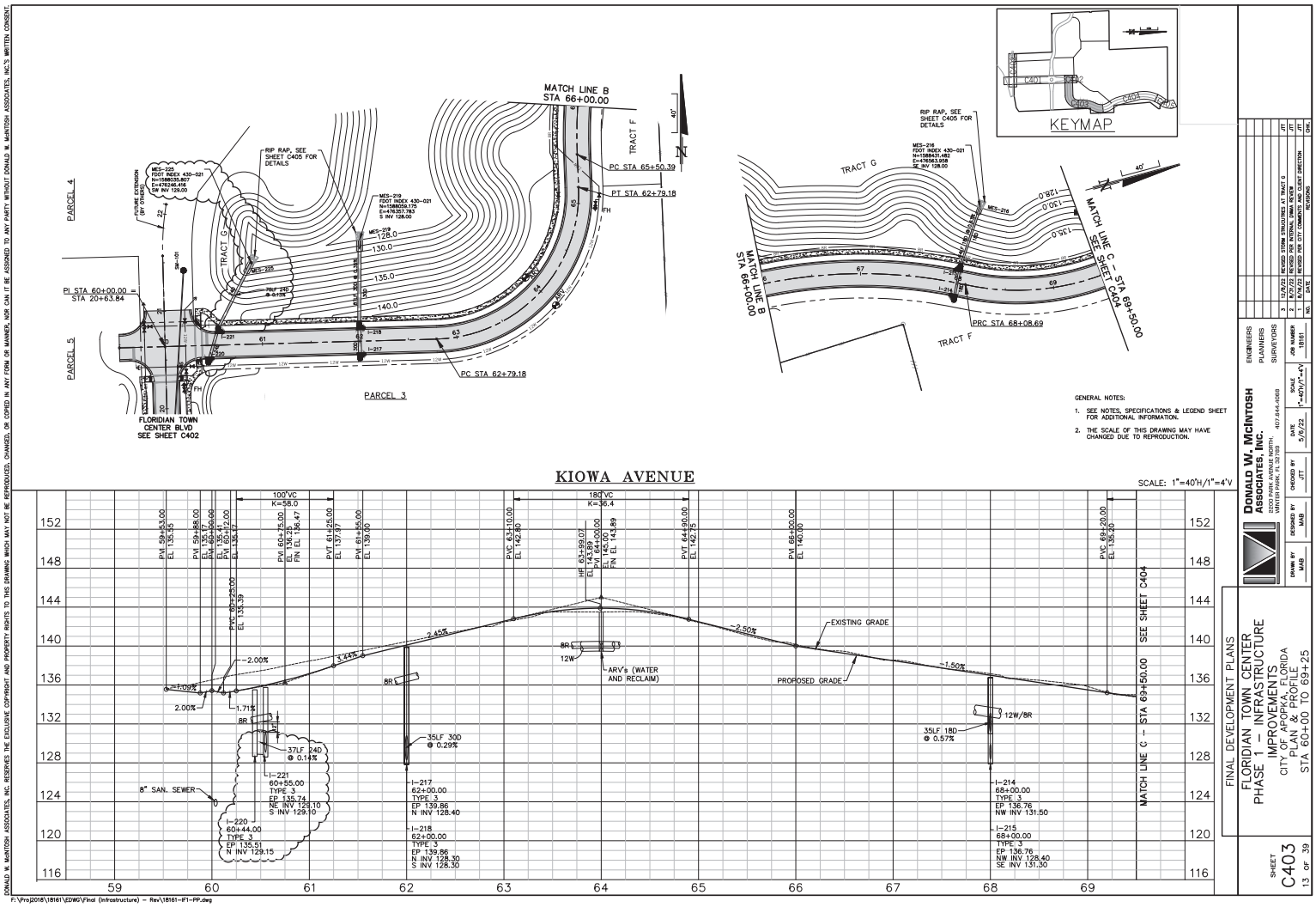

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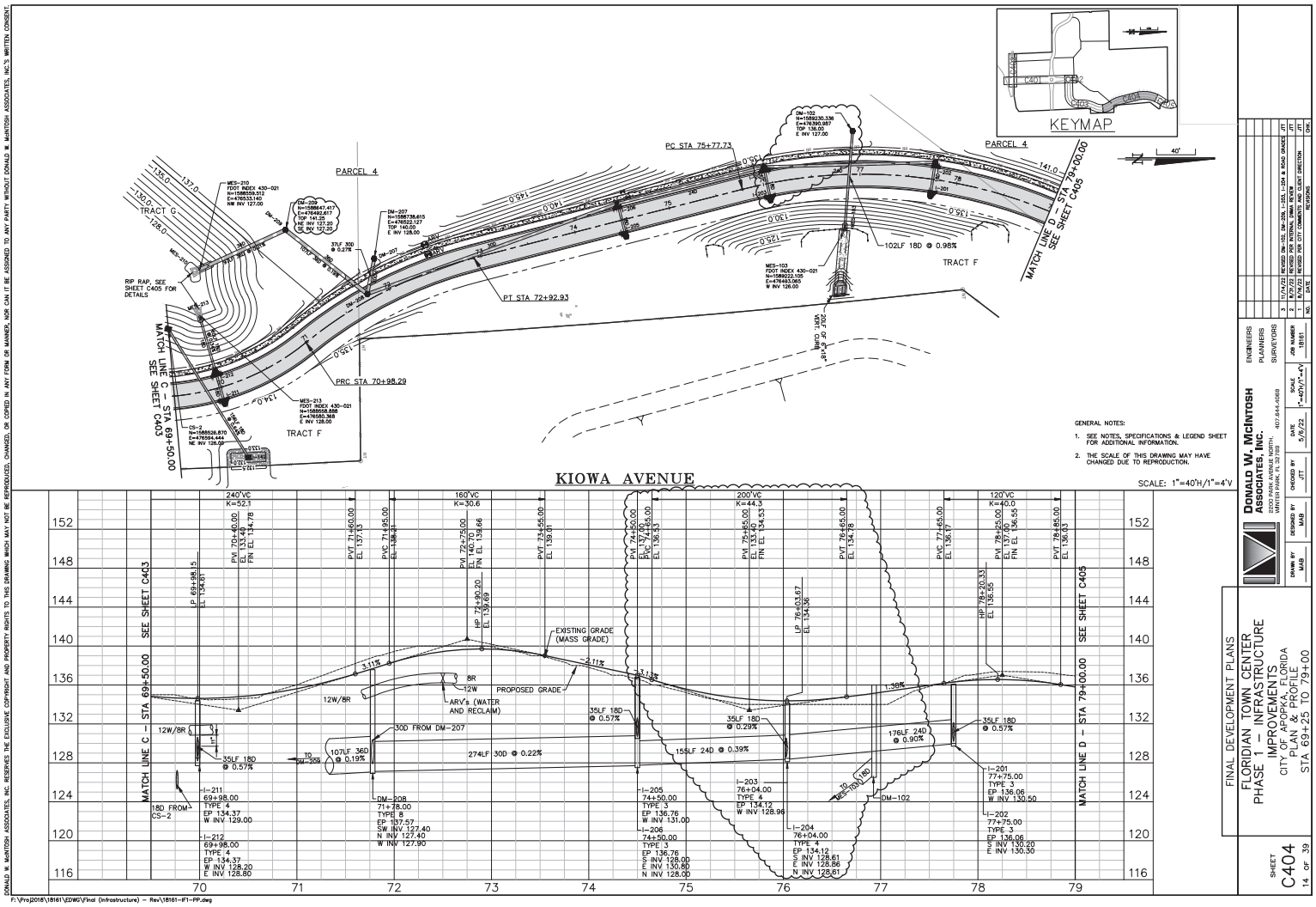
KEYMAP
PARCEL 4
PC STA 75+77.73
PT STA 72+92.93
PRC STA 70+98.29
TRACT G
TRACT F
RIP RAP, SEE SHEET C405 FOR DETAILS
MATCH LINE C – STA 69+50.00 SEE SHEET C403
MATCH LINE D – STA 79+00.00 SEE SHEET C405
102LF 18D @ 0.98%
KIOWA AVENUE
SCALE: 1"=40'H/1"=4'V
GENERAL NOTES:
1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.
240'VC K=52.1
160'VC K=30.6
200'VC K=44.3
120'VC K=40.0
EXISTING GRADE (MASS GRADE)
PROPOSED GRADE
ARV's (WATER AND RECLAIM)
30D FROM DM-207
274LF 30D @ 0.22%
155LF 24D @ 0.39%
176LF 24D @ 0.90%
35LF 18D @ 0.57%
107LF 36D @ 0.19%
18D FROM CS-2
DM-208 71+78.00 TYPE 8 EP 137.57 SW INV 127.40 N INV 127.40 W INV 127.90
I-211 69+98.00 TYPE 4 EP 134.37 W INV 129.00
I-212 69+98.00 TYPE 4 EP 134.37 W INV 128.20 E INV 128.80
I-205 74+50.00 TYPE 3 EP 136.76 W INV 131.00
I-206 74+50.00 TYPE 3 EP 136.76 S INV 128.00 E INV 130.80 N INV 128.00
I-203 76+04.00 TYPE 4 EP 134.12 W INV 128.96
I-204 76+04.00 TYPE 4 EP 134.12 S INV 128.61 E INV 128.86 N INV 128.61
I-201 77+75.00 TYPE 3 EP 136.06 W INV 130.50
I-202 77+75.00 TYPE 3 EP 136.06 S INV 130.20 E INV 130.30
DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068
ENGINEERS PLANNERS SURVEYORS
FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
PLAN & PROFILE
STA 69+25 TO 79+00
SHEET C404
14 OF 39
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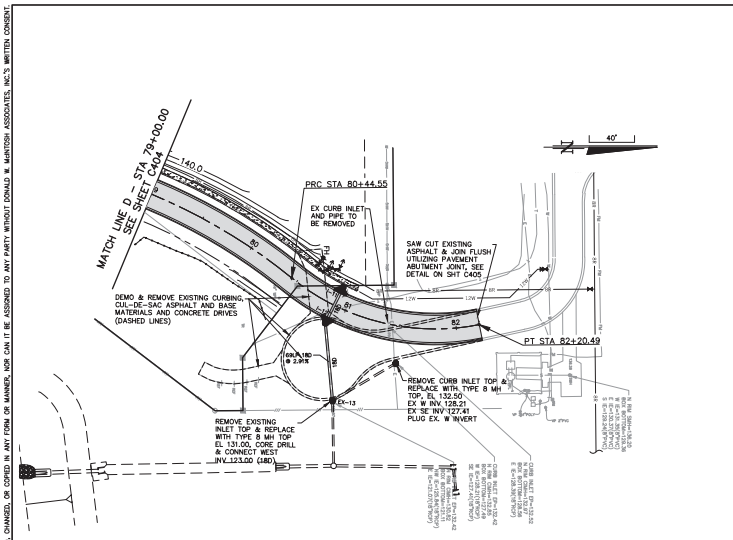

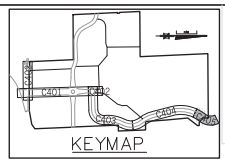

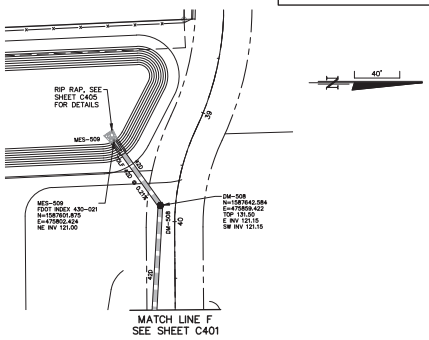

KIOWA AVENUE

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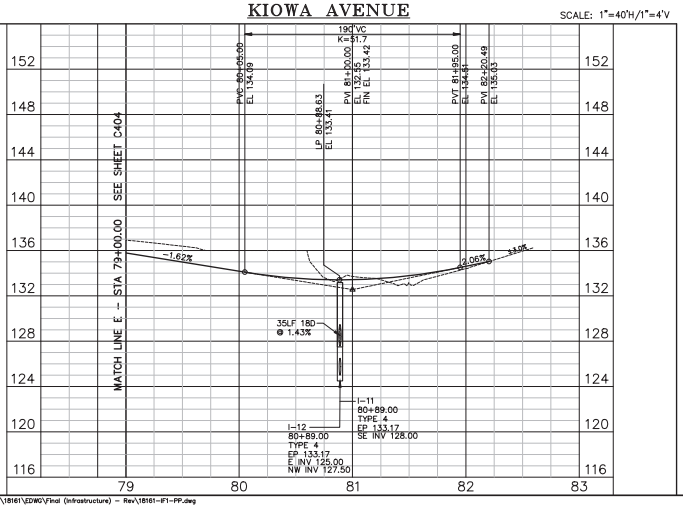
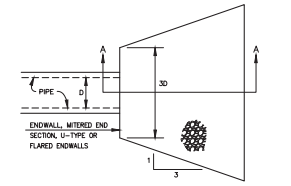
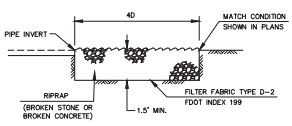




PLAN

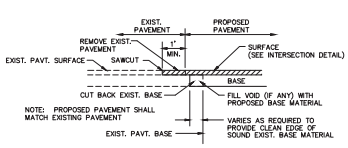


SECTION A–A

RIPRAP SHALL MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 530-2.2.2.

RIPRAP APRON

NTS



NOTE: PROVIDE ABUTMENT JOINT AT ALL LOCATIONS WHERE NEW ASPHALT MEETS EXISTING ASPHALT.

PAVEMENT ABUTMENT DETAIL

NTS

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	BY	CHK.
2	9/27/22	REVISED PER INTERNAL QA/QC REVIEW	JTT	
1	8/24/22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JTT	

ENGINEERS
PLANNERS
SURVEYORS

DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

JOB NUMBER 18161
SHEET
SCALE 1"=40'H/1"=4'V
DATE 5/6/22
CHECKED BY JTT
DESIGNED BY MAB
DRAWN BY MAB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
PLAN & PROFILE
STA 79+00 TO 82+00

SHEET
C405
15 OF 39

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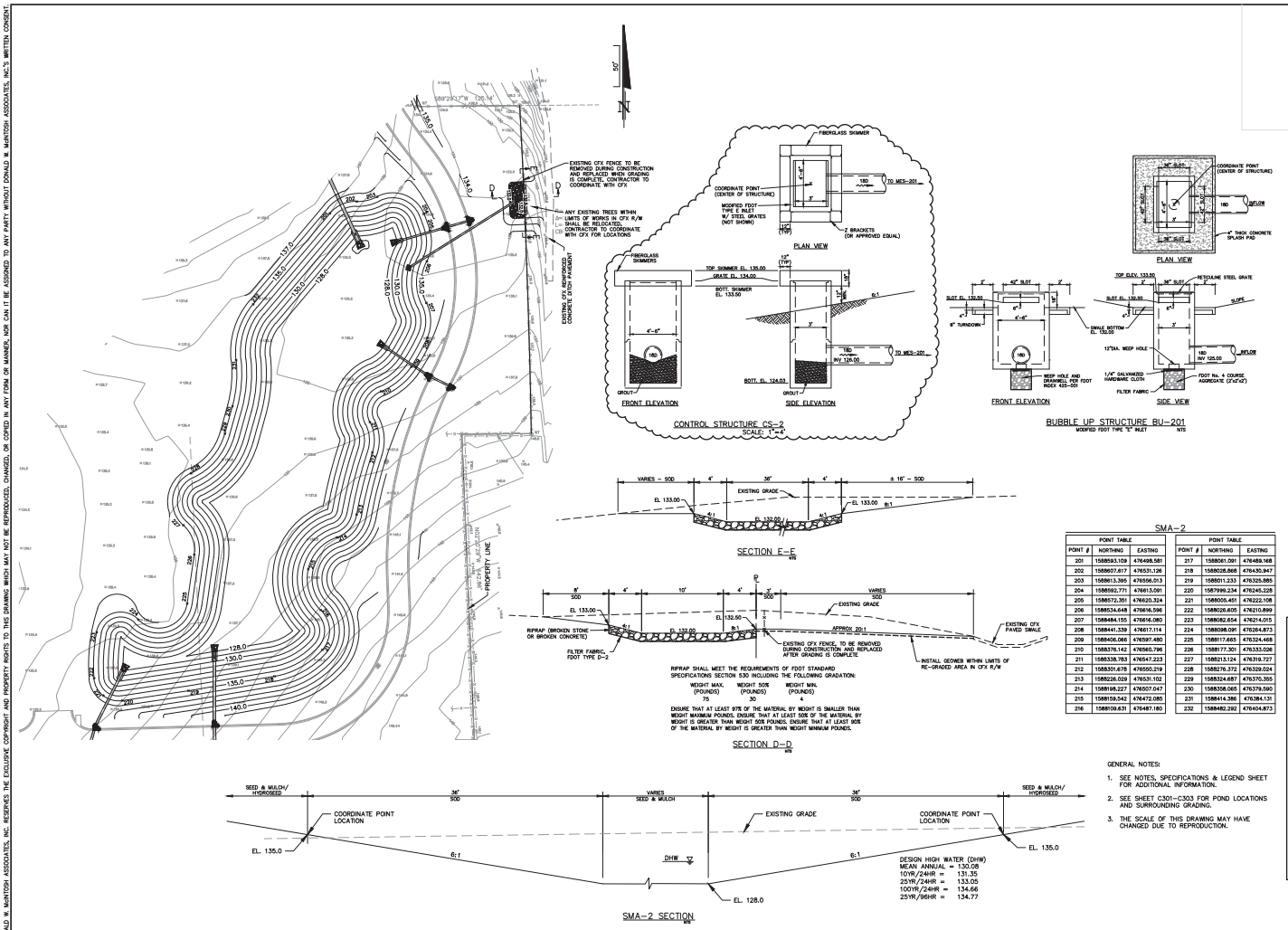

POINT TABLE		
POINT #	NORTHING	EASTING
201	1588593.109	476498.581
202	1588607.417	476531.126
203	1588613.395	476556.013
204	1588592.771	476613.091
205	1588572.351	476620.324
206	1588534.648	476616.596
207	1588484.155	476616.080
208	1588441.339	476617.114
209	1588406.066	476597.480
210	1588376.142	476560.796
211	1588338.783	476547.223
212	1588301.678	476550.219
213	1588226.029	476531.102
214	1588198.227	476507.047
215	1588159.542	476472.085
216	1588109.631	476487.180

POINT TABLE		
POINT #	NORTHING	EASTING
217	1588061.091	476489.168
218	1588026.868	476430.947
219	1588011.233	476325.885
220	1587999.234	476245.228
221	1588005.451	476222.108
222	1588026.605	476210.899
223	1588062.654	476214.015
224	1588098.091	476264.873
225	1588117.663	476324.468
226	1588177.301	476333.026
227	1588213.124	476319.727
228	1588276.372	476328.024
229	1588324.687	476370.355
230	1588358.065	476379.590
231	1588414.386	476384.131
232	1588482.292	476404.873

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. SEE SHEET C301-C303 FOR POND LOCATIONS AND SURROUNDING GRADING.
3. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
4	4/4/23	REVISED CS-2	JTT
3	12/6/22	REDUCED WESTERN END OF RETENTION POND	JTT
2	9/16/22	REVISED PER CITY COMMENTS AND CLIENT DIRECTION	JTT
1	8/15/22	REVISED PER CITY COMMENTS AND CLIENT DIRECTION	JTT

ENGINEERS
PLANNERS
SURVEYORS

JOB NUMBER 18161

SCALE AS SHOWN

DATE 7/5/22

CHECKED BY JTT

DESIGNED BY MKB

DRAWN BY MKB

DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 - INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA

TYPICAL POND SECTIONS AND DETAILS

SHEET C411
16 OF 39

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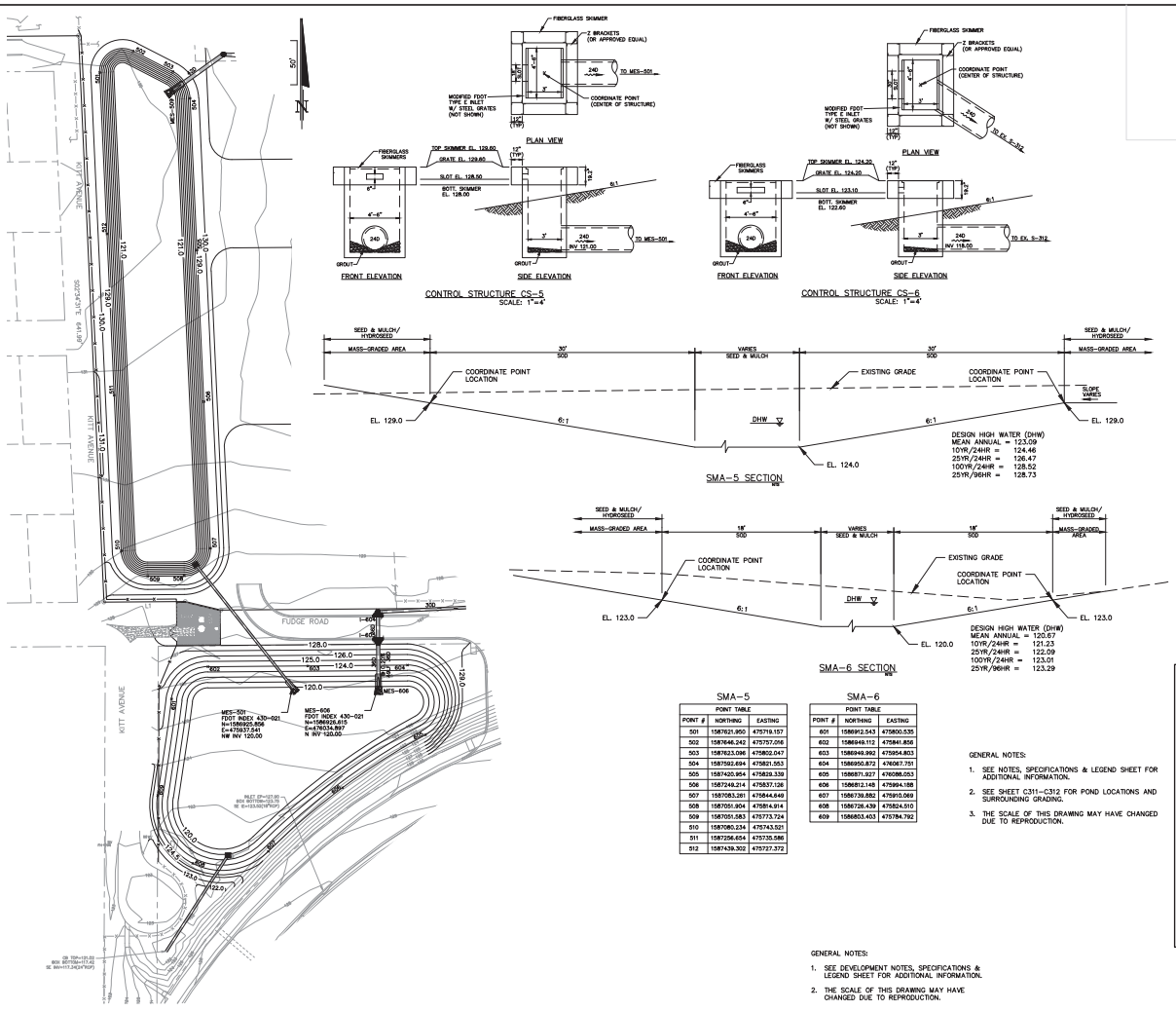

SMA-5

POINT TABLE		
POINT #	NORTHING	EASTING
501	1587621.950	475719.157
502	1587646.242	475757.056
503	1587623.086	475802.047
504	1587592.694	475821.553
505	1587420.854	475839.339
506	1587248.214	475837.126
507	1587083.261	475844.649
508	1587051.904	475814.914
509	1587051.583	475773.724
510	1587080.234	475743.521
511	1587256.654	475735.586
512	1587439.302	475727.372

SMA-6

POINT TABLE		
POINT #	NORTHING	EASTING
601	1586912.543	475800.535
602	1586949.112	475841.856
603	1586949.992	475954.803
604	1586950.872	476067.751
605	1586871.927	476086.053
606	1586812.148	475994.188
607	1586739.882	475910.069
608	1586726.439	475824.510
609	1586803.403	475784.792

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. SEE SHEET C311-C312 FOR POND LOCATIONS AND SURROUNDING GRADING.
3. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

GENERAL NOTES:

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2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
1	5/19/22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407.644.4068

JOB NUMBER 18161 | SCALE AS SHOWN | DATE 3/9/22 | CHECKED BY JTT | DESIGNED BY MSB | DRAWN BY MSB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA

TYPICAL POND SECTIONS AND DETAILS

SHEET C412
17 OF 39

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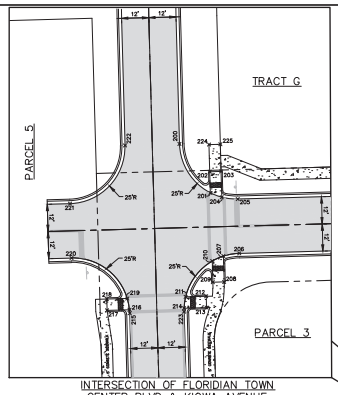


INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & KIOWA AVENUE

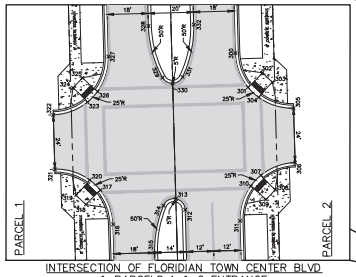
POINT TABLE		
POINT #	NORTHING	EASTING
200	1587986.907	476168.972
201	1587965.343	476182.573
202	1587974.650	476182.316
203	1587974.788	476187.314
204	1587963.414	476187.628
205	1587962.607	476194.653
206	1587938.616	476195.316
207	1587937.423	476188.346
208	1587926.049	476188.660
209	1587925.011	476183.662
210	1587935.218	476183.405
211	1587919.449	476171.693
212	1587919.699	476180.768
213	1587914.701	476180.906
214	1587914.428	476171.019
215	1587912.273	476147.024
216	1587913.763	476146.939
217	1587913.490	476137.052
218	1587918.488	476136.914
219	1587918.739	476145.988
220	1587936.573	476121.344
221	1587960.564	476120.681
222	1587986.245	476144.981
223	1587912.936	476171.015
224	1587986.643	476181.984
225	1587986.783	476186.982

POINT TABLE		
POINT #	NORTHING	EASTING
100	1587851.250	476172.719
101	1587752.918	476185.278
102	1587753.168	476194.319
103	1587748.170	476194.457
104	1587747.934	476185.914
105	1587735.981	476187.441
106	1587706.286	476204.249
107	1587657.976	476228.065
108	1587611.457	476207.621
109	1587584.516	476196.093
110	1587580.095	476198.216
111	1587580.381	476208.556
112	1587570.546	476196.478
113	1587570.795	476205.475
114	1587564.797	476205.641
115	1587564.549	476196.644
116	1587555.607	476198.892
117	1587555.883	476208.888
118	1587553.951	476138.915
119	1587553.674	476128.919
120	1587563.002	476140.666
121	1587562.754	476131.669
122	1587568.752	476131.503
123	1587569.000	476140.500
124	1587578.437	476139.191
125	1587578.160	476128.171
126	1587582.119	476140.137
127	1587609.234	476127.116
128	1587656.960	476104.069
129	1587705.735	476127.149
130	1587735.188	476140.428
131	1587746.700	476141.256
132	1587746.464	476132.714
133	1587751.462	476132.576
134	1587751.712	476141.617

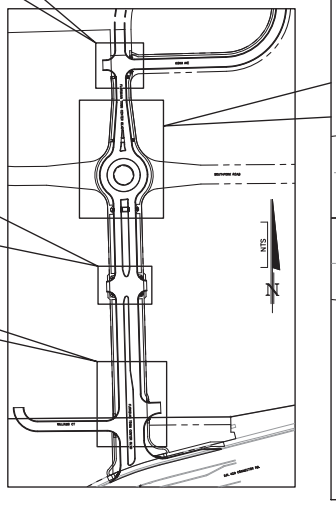
POINT TABLE		
POINT #	NORTHING	EASTING
135	1587850.587	476148.728
136	1587778.054	476163.396
137	1587778.245	476165.410
138	1587756.867	476167.258
139	1587754.868	476165.314
140	1587754.779	476162.088
141	1587756.921	476160.038
142	1587776.197	476161.424
143	1587744.898	476166.542
144	1587743.089	476168.588
145	1587737.636	476169.091
146	1587724.772	476171.453
147	1587722.203	476169.903
148	1587721.512	476164.466
149	1587720.351	476159.110
150	1587722.706	476156.661
151	1587733.390	476158.346
152	1587742.886	476159.029
153	1587744.744	476160.968
154	1587594.542	476176.072
155	1587592.339	476178.525
156	1587584.019	476178.100
157	1587574.046	476178.375
158	1587571.993	476176.431
159	1587571.551	476160.437
160	1587573.496	476158.383
161	1587590.725	476157.907
162	1587592.780	476159.944
163	1587593.144	476168.065
164	1587559.501	476158.769
165	1587561.555	476160.713
166	1587561.997	476176.707
167	1587560.053	476178.761
168	1587557.471	476166.067

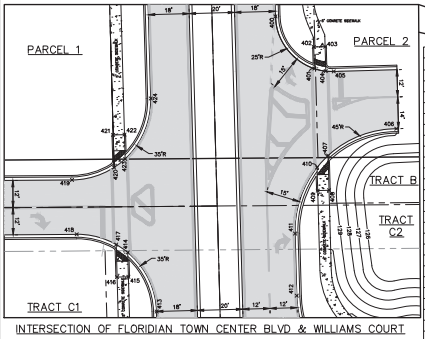
POINT TABLE		
POINT #	NORTHING	EASTING
300	1587401.615	476201.145
301	1587386.542	476206.730
302	1587392.858	476213.094
303	1587388.764	476217.452
304	1587382.060	476211.468
305	1587377.314	476226.825
306	1587353.334	476227.488
307	1587347.738	476212.416
308	1587341.374	476218.761
309	1587337.016	476214.637
310	1587343.001	476207.933
311	1587327.643	476203.188
312	1587332.525	476179.044
313	1587337.302	476174.964
314	1587334.322	476169.435
315	1587313.599	476165.561
316	1587326.097	476147.209

POINT TABLE		
POINT #	NORTHING	EASTING
317	1587341.169	476141.623
318	1587334.824	476135.260
319	1587338.947	476130.901
320	1587345.652	476136.886
321	1587350.397	476121.528
322	1587374.388	476120.866
323	1587379.974	476135.538
324	1587386.337	476129.593
325	1587390.695	476133.716
326	1587384.711	476140.421
327	1587400.068	476145.166
328	1587413.560	476162.800
329	1587390.816	476168.956
330	1587388.231	476173.504
331	1587391.062	476177.871
332	1587414.113	476182.792



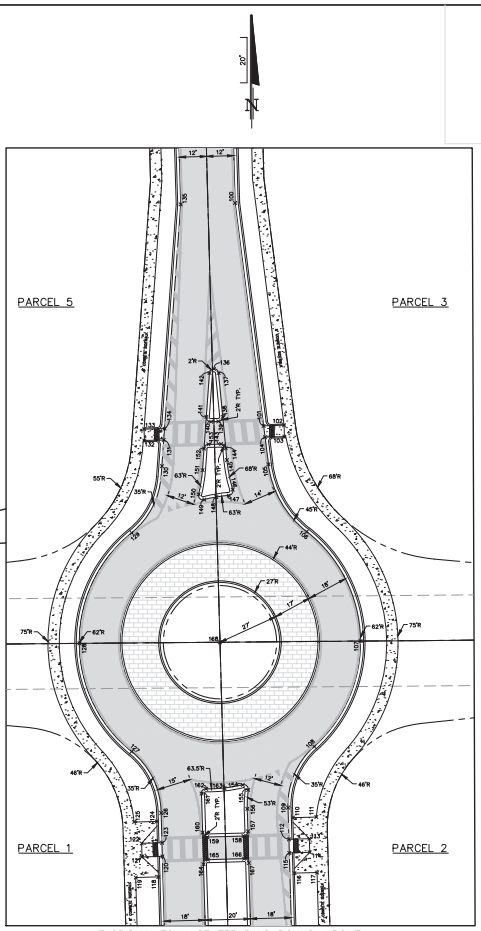
INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & PARCELS 1 & 2 ENTRANCE





INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & WILLIAMS COURT

POINT TABLE		
POINT #	NORTHING	EASTING
400	1587078.424	476210.071
401	1587055.378	476227.214
402	1587064.939	476235.950
403	1587065.077	476231.948
404	1587054.274	476232.247
405	1587054.124	476235.752
406	1587028.597	476263.351
407	1587017.049	476233.277
408	1587001.742	476233.698
409	1587001.604	476228.699
410	1587011.824	476228.420
411	1586982.655	476218.719
412	1586955.234	476219.476
413	1586948.265	476157.645
414	1586974.306	476144.921
415	1586983.578	476145.218
416	1586963.440	476140.219
417	1586977.801	476139.823
418	1586982.298	476122.386
419	1587006.283	476120.335
420	1587001.774	476138.884
421	1587026.135	476138.488
422	1587026.273	476143.486
423	1587015.545	476143.782
424	1587042.248	476155.049



FLORIDIAN TOWN CENTER BLVD ROUND-ABOUT

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
INTERSECTION STAKE-OUT

SHEET C431 18 OF 39

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407.644.4068

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MSB	MSB	JFT	2/22/22	1"=50'	18161

NO.	DATE	REVISIONS	CHK.

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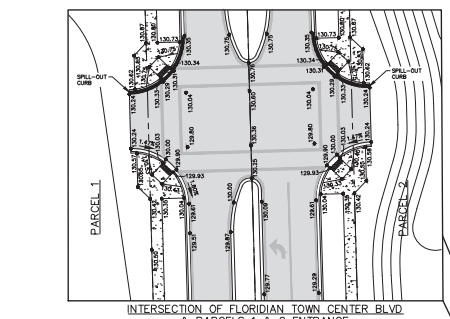
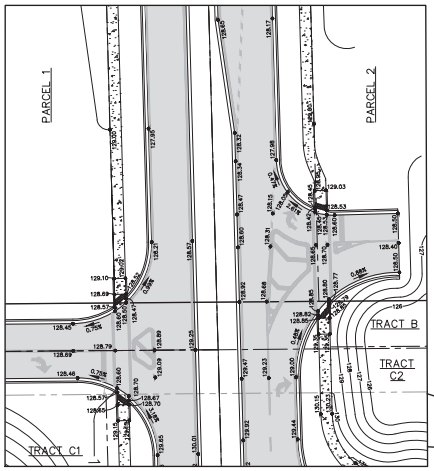
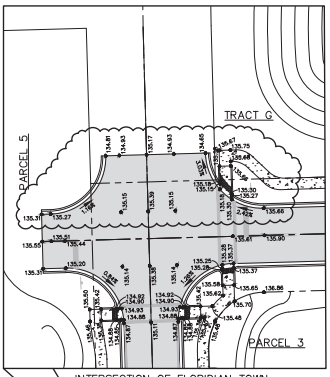


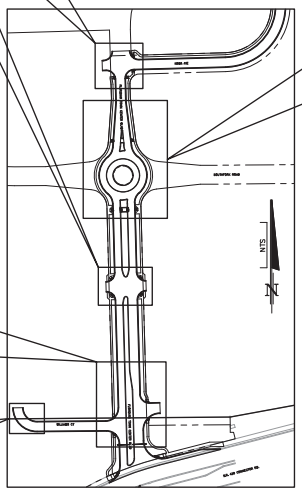
INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & PARCELS 1 & 2 ENTRANCE

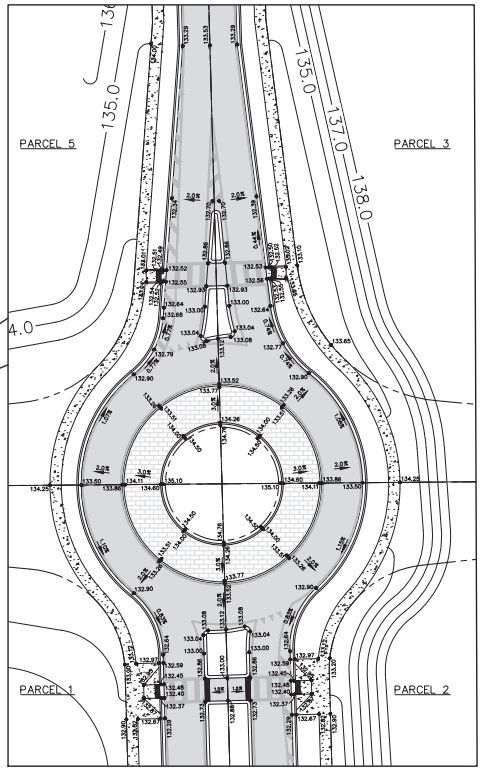


INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & WILLIAMS COURT

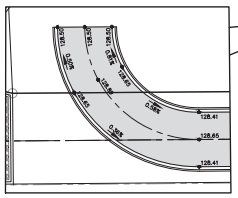


INTERSECTION OF FLORIDIAN TOWN CENTER BLVD & KIOWA AVENUE





FLORIDIAN TOWN CENTER BLVD ROUND-ABOUT



GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
2	12/8/22	REVISED ROAD SLUB TO THE NORTH AND GRADED.	JTT
1	6/5/22	REVISED FOR INTERNAL DRWG REVIEW	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068
ENGINEERS PLANNERS SURVEYORS

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JTT	3/30/22	1"=20'	18161

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
INTERSECTION GRADING

SHEET C432
19 OF 39

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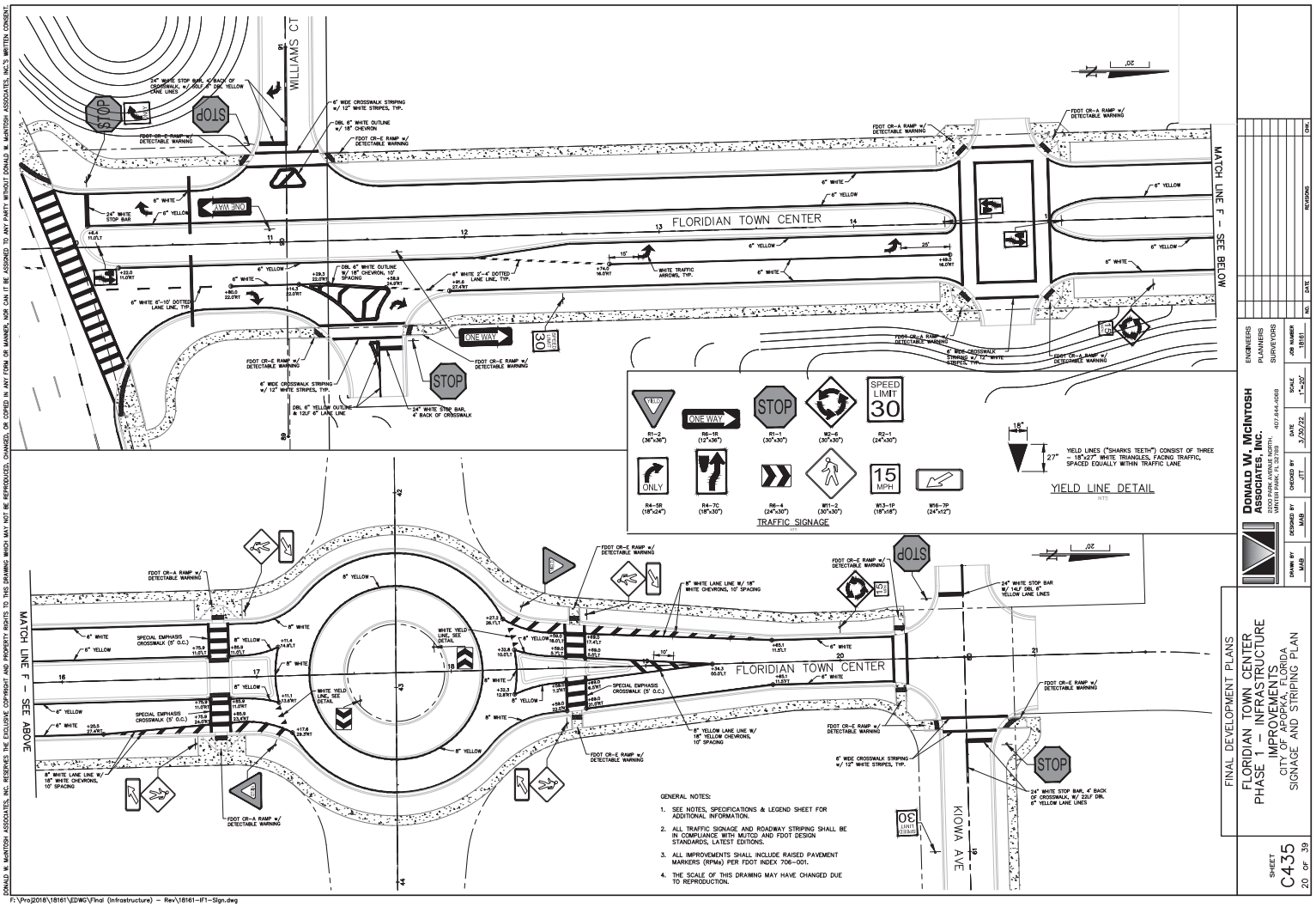

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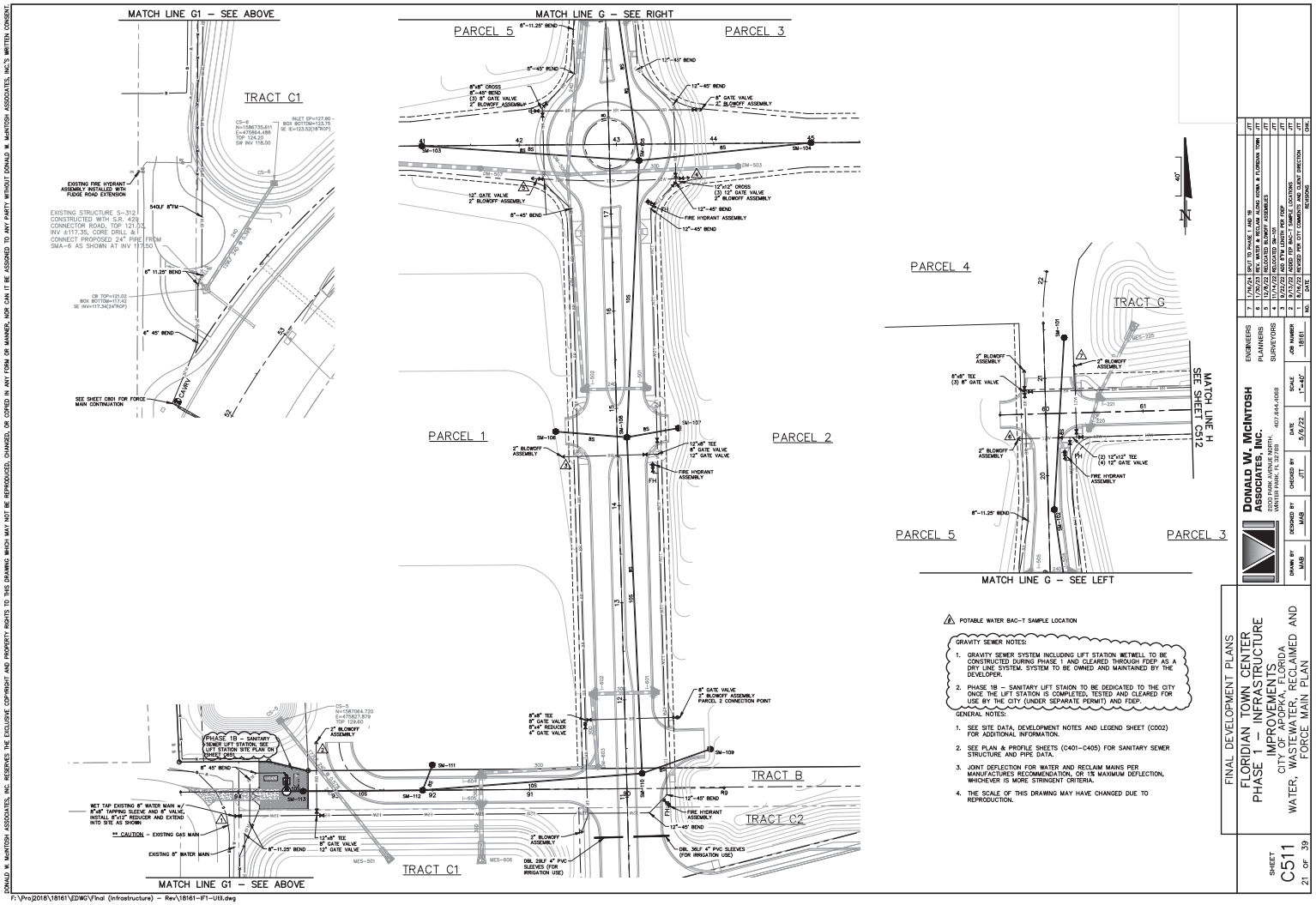

POTABLE WATER BAC-T SAMPLE LOCATION

GRAVITY SEWER NOTES:

1. GRAVITY SEWER SYSTEM INCLUDING LIFT STATION WETWELL TO BE CONSTRUCTED DURING PHASE 1 AND CLEARED THROUGH FDEP AS A DRY LINE SYSTEM. SYSTEM TO BE OWNED AND MAINTAINED BY THE DEVELOPER.
2. PHASE 1B – SANITARY LIFT STAION TO BE DEDICATED TO THE CITY ONCE THE LIFT STATION IS COMPLETED, TESTED AND CLEARED FOR USE BY THE CITY (UNDER SEPARATE PERMIT) AND FDEP.

GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES AND LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. SEE PLAN & PROFILE SHEETS (C401–C405) FOR SANITARY SEWER STRUCTURE AND PIPE DATA.
3. JOINT DEFLECTION FOR WATER AND RECLAIM MAINS PER MANUFACTURES RECOMMENDATION, OR 1% MAXIMUM DEFLECTION, WHICHEVER IS MORE STRINGENT CRITERIA.
4. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
7	1/16/24	SPLIT TO PHASE 1 AND 1B	JTT
6	1/30/23	REV. WATER & RECLAIM ALONG KIOWA & FLORIDIAN TOWN	JTT
5	12/8/22	RELOCATED BLOWOFF ASSEMBLIES	JTT
4	11/14/22	RELOCATED SM-107	JTT
3	9/22/22	ADD 8"x4 LENGTH PER FDEP	JTT
2	9/13/22	ADDED FDEP BAC-T SAMPLE LOCATIONS	JTT
1	8/16/22	REVISED FOR CITY COMMENTS AND CLIENT DIRECTION	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
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FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
WATER, WASTEWATER, RECLAIMED AND FORCE MAIN PLAN

SHEET C511
21 OF 39

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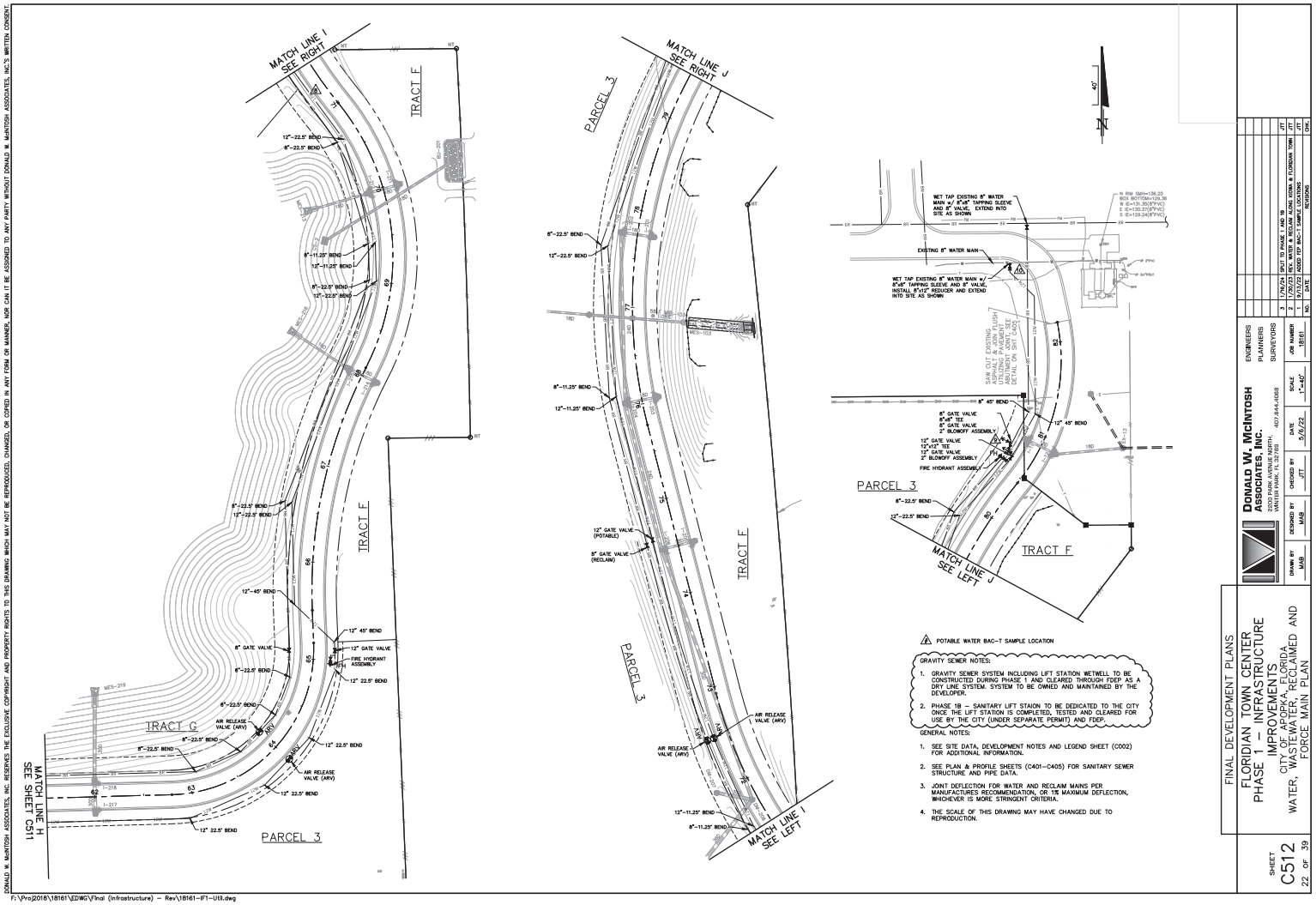

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NO.	DATE	REVISIONS	CHK.
3	1/16/24	SPLIT TO PHASE 1 AND 1B	JTT
2	10/6/23	ADDED 8" GATE VALVE AT STA 6+ & FORCEMAIN TERM.	JTT
1	9/13/23	ADDED PDF BAC-T SAMPLE LOCATIONS	JTT

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PLANNERS
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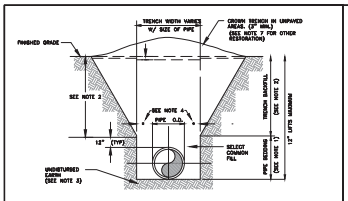
2309 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789 407.644.4068

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JTT	3/9/22	1"=40'	18161

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
WATER, WASTEWATER, RECLAIMED AND FORCE MAIN PLAN

SHEET
C512
22 OF 39

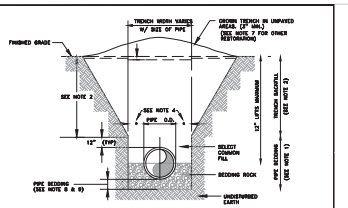


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IS ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. 12" LIFTS MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100

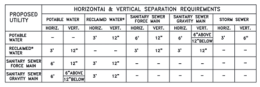


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. 12" LIFTS MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 18" AND LARGER.
8. DEPTH FOR BEDDING OF UNDESTABLE MATERIAL SHALL ADVERN DEPTH OF BEDDING ROCK BELOW PIPE. THE DEPTH OF UNDESTABLE MATERIAL IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.
10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101



PROPOSED UTILITY	HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS									
	POTABLE WATER		RECLAIMED WATER*		SANITARY SEWER FORCE MAIN		SANITARY SEWER GRAVITY MAIN		STORM SEWER	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	--	--	3'	12"	6'	12"	6'	6" ABOVE 12" BELOW	3'	6"
RECLAIMED WATER*	3'	12"	--	--	3'	12"	3'	12"	--	--
SANITARY SEWER FORCE MAIN	6'	12"	3'	12"	--	--	--	--	--	--
SANITARY SEWER GRAVITY MAIN	6'	6" ABOVE 12" BELOW	3'	12"	--	--	--	--	--	--

GENERAL NOTES:

1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEW/ PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
2. FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

   O/O = DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

   C/C = DENOTES CENTER OF PIPE TO CENTER OF PIPE.
4. ACCEPTABLE VARIANCES:
   A. WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-C-900 SDR-14 OR CONCRETE ENCASEMENT MUST BE USED FOR THE SANITARY SEWER LINE FOR AT LEAST ONE OF THE PIPES. PVC-C-900 SDR-14 OR CONCRETE ENCASEMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS REQUIRED.
   B. WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-C-900 SDR-14 FOR SANITARY SEWERS OR ENCASED PIPE CENTERED AT THE POINT OF CROSSING SPECIAL SUPPORT MAY BE REQUIRED.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITAR OR STORM WATER MANHOLE OR STRUCTURE.
6. CONCRETE ENCASEMENT IHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 104

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60						
45° BEND	14	18	22	25						
22-1/2° BEND	7	9	11	12						
11-1/4° BEND	4	5	6	6						
TEE**	1	7	24	44						
REDUCER (ONE SIZE SMALLER)		41	39	40						
DEAD END	74	96	115	136						

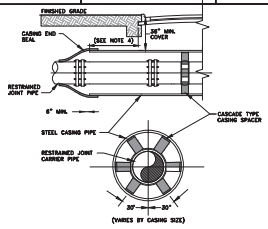
* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** ** FW = 100 P.S.I. / WW OR RWW = 150 P.S.I.
   SOIL DESIGNATION: NATIVE SILT
   LAYING CONDITIONS: C
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105



(VARIES BY CASING SIZE)

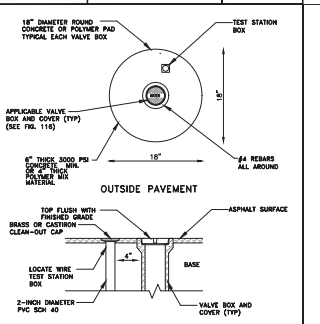
CARRIER PIPE NOMINAL DIAMETER	4	6	8	10	12	16	20	24	30	36	42
MINIMUM CASING OUTSIDE DIAMETER (INCHES)	16	16	18	20	24	30	36	42	48	54	60
MINIMUM CASING WALL THICKNESS (INCHES)	.250"	.250"	.250"	.250"	.250"	.312"	.375"	.500"	.500"	.500"	.500"

NOTES:

1. WHEN CONSTRUCTION IS WITHIN FDOT OR RAILROAD JURISDICTION, ADDITIONAL REQUIREMENTS SHALL BE MET.
2. DISTANCE BETWEEN SPACERS TO BE PER MANUFACTURER'S SPECIFICATIONS.
3. NO FLOWABLE FILL BETWEEN THE ANNULAR SPACE OF THE CASING OR CARRIER PIPE.
4. WHERE PRACTICAL, CASING SHALL EXTEND 10 FEET BEYOND EDGE OF PAVEMENT AND SHALL NOT BE LESS THAN 5 FEET BEYOND EDGE OF PAVEMENT IN ANY CASE. THE CITY MAY REQUIRE LONGER CASING FOR DEEPER BORES.

BORING AND JACKING DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 108



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

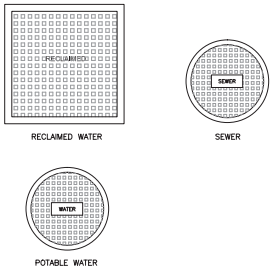
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109

MINIMUM PRESSURE RATING									
PSI	DI FITTINGS		PIPE MATERIAL*			GATE VALVE**		FORCEMAIN*	
	≤24"	>24"	PVC	DI	HDPE	≤12"	>12"	PVC	HDPE
100								●	●
150			●	●			●		
200						●			
250		●		●					
350	●								

* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 18 AND HDPE SHALL BE MAX DR11. FORCEMAIN: PVC SHALL BE MAX DR18 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17.
** BUTTERFLY VALVES SHALL BE CLASS 150B

PIPE AND APPURTENANCES PRESSURE RATING

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JAUARY 2014	FIG. 110



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
POTABLE WATER DETAILS

SHEET C531 23 OF 39

DRAWN BY: MAB | DESIGNED BY: MAB | CHECKED BY: JFT | DATE: 3/9/22 | SCALE: N/S | JOB NUMBER: 18161

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 EAST LIVINGSTON STREET, ORLANDO, FLORIDA 32803 407-844-4068

NO.	DATE	REVISIONS	CHK.

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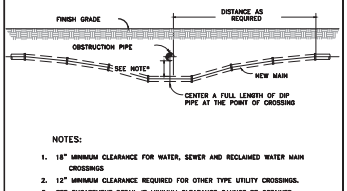


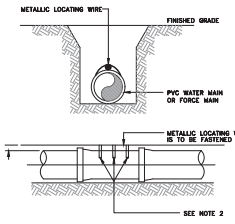
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

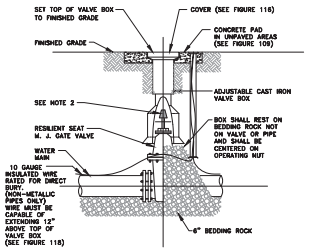


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 106.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118

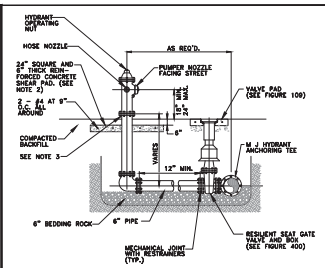


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400

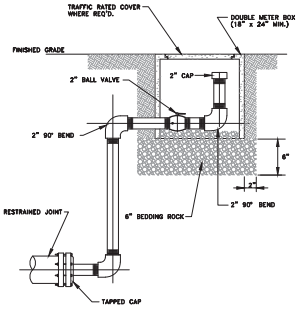


NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

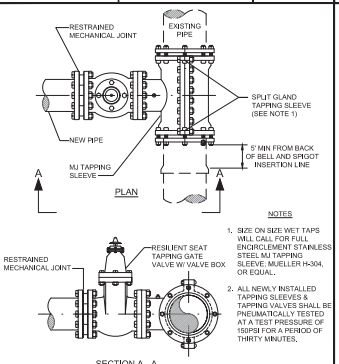


NOTES:

1. ALL 2 INCH PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS. USE TEFLON TAPE ON JOINTS.
2. COLOR SHALL BE APPROPRIATE FOR USE.

BLOWOFF VALVE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 403

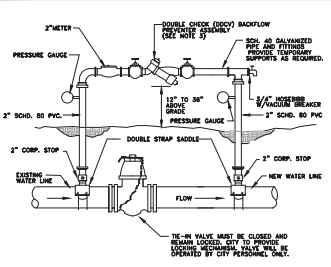


NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE: MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS
WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406



NOTE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.
2. SEE FIGURE 504C FOR PROCEDURES.
3. DDCV IS MINIMUM PROTECTION REQUIRED. A RPZ DEVICE MAY BE REQUIRED DEPENDING ON PROJECT. PROVIDE COPY OF LATEST CERTIFICATION TEST RESULTS.

TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 A

TEMPORARY JUMPER CONNECTION NOTES:

1. A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
2. Figures 504 C and 504 D to be used for flushing any new water main of any size from the point of connection to the existing water main up to 8 inches in diameter (5.8 FPS minimum velocity) and for putting backup/looped systems from any new water main of any size. The jumper connection shall be maintained until either flushing, flushing curing and disinfection of the new main has been successfully completed and cleared for use, or the connection to the new main has been successfully completed and cleared for use and have been resolved. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new mains after disinfection and until the FDEP clearance letter is received. Valved bleeding and/or removable shall be provided temporarily as necessary to flush the jumper connection and new water main. The jumper pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per section 5 of AWWA C651-05.
3. Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very restricted conditions. The following procedure shall be followed:
   A. The tie-in valve shall be operated and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tight shall be replaced with a new valve installed immediately adjacent to the existing valve.
   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new mains as required by the FDEP permit.
   * Flushing shall not be attempted during peak demand hours of the existing water mains.
   * All downstream valves in the system must be open prior to opening the tie-in valve.
   * Provide for and monitor the pressure in the tie-in point. The pressure in the existing main must not drop below 20 psi.
   * The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.
   C. The tie-in valve shall be locked closed by the City personnel until flushing begins.
   D. The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.
   E. After flushing, the tie-in valve shall be closed and locked in the closed position by the City personnel.
4. The contractor shall provide documentation corresponding that the double check backflow prevention device has been tested and is in good working order at the time of installation.
5. Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearances for use from FDEP and all other pertinent agencies, the contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2 inch brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR
TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 C

GENERAL NOTES:

1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.

ENGINEERS
PLANNERS
SURVEYORS
DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407-644-4068

JOB NUMBER 1816.1
SCALE N/S
DATE 5/9/22
CHECKED BY JFT
DESIGNED BY MAB
DRAWN BY MAB

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
POTABLE WATER DETAILS

SHEET C532 24 OF 39

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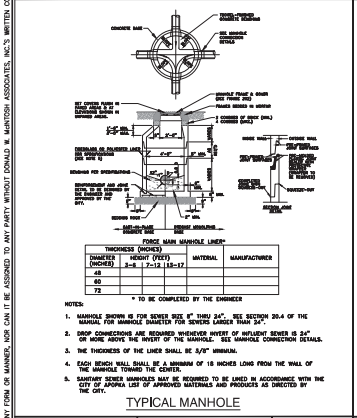
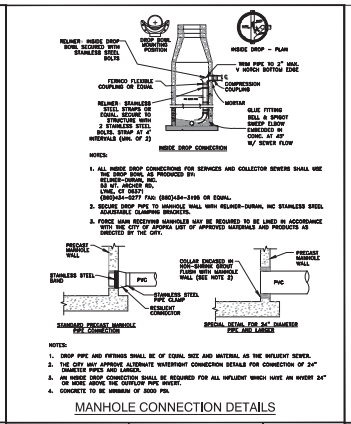


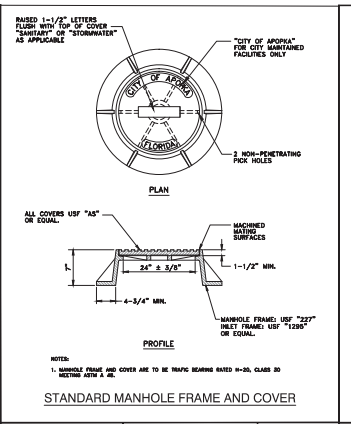
TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200



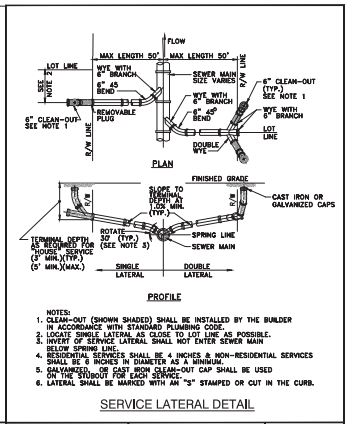
MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 201



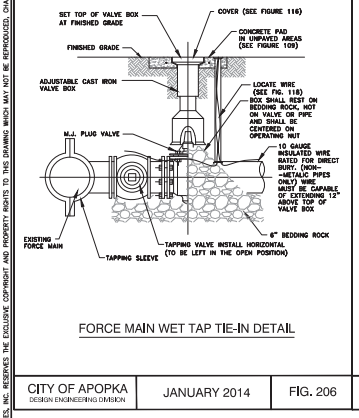
STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



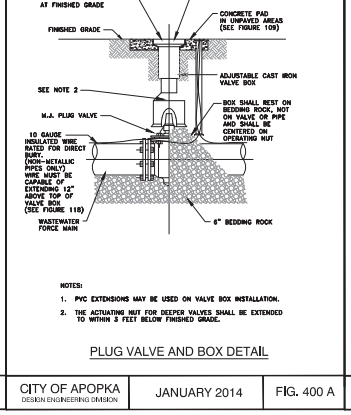
SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



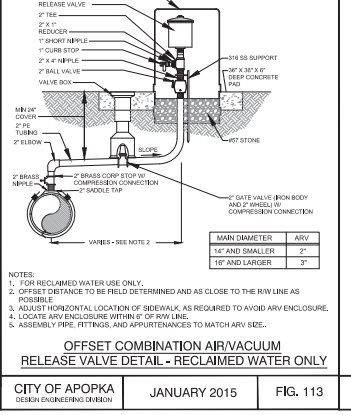
FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206



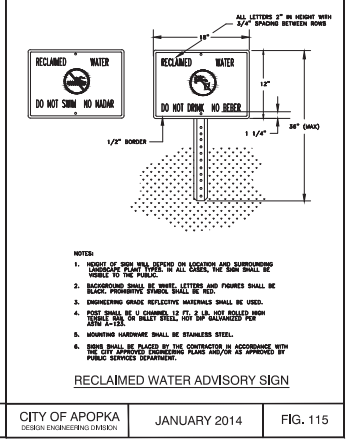
PLUG VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400 A



OFFSET COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - RECLAIMED WATER ONLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 113



RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115

GENERAL NOTES:

1. SEE DEVELOPMENT NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
SANITARY WASTEWATER AND
RECLAIMED WATER DETAILS

SHEET C611
25 OF 39

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407-644-4068

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JFT	5/9/22	NTS	1816

NO.	DATE	REVISIONS	CHK.

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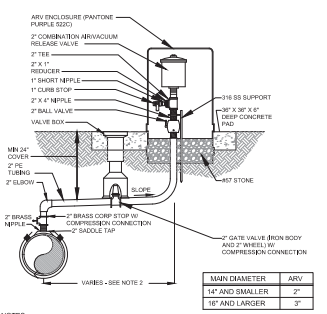
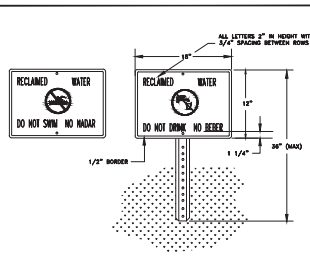


MAIN DIAMETER	ARV
14" AND SMALLER	2"
16" AND LARGER	3"

NOTES:
1. FOR RECLAIMED WATER USE ONLY.
2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE R/W LINE AS POSSIBLE
3. ADJUST HORIZONTAL LOCATION OF SIDEWALK, AS REQUIRED TO AVOID ARV ENCLOSURE.
4. LOCATE ARV ENCLOSURE WITHIN 6" OF R/W LINE.
5. ASSEMBLY PIPE, FITTINGS, AND APPURTENANCES TO MATCH ARV SIZE..

OFFSET COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - RECLAIMED WATER ONLY

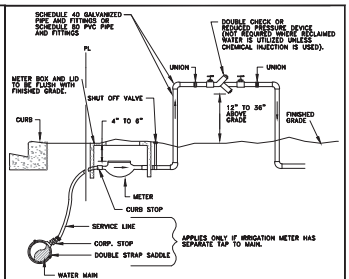
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 113



NOTES:
1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
2. BACKGROUND SHALL BE WHITE, LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
4. POST SHALL BE 4" CHANNEL, 12 FT, 2 LB. HOT ROLLED HIGH TENSILE RQ-T-S4 BILLET STEEL HOT DIP GALVANIZED PER ASTM A-123.
5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115



NOTES:
1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS BEING ADDED ON SITE.
4. A POP SERVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 502

GENERAL NOTES:
1. SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
RECLAIMED WATER DETAILS

DRAWING NUM.-FF-ANGST
SHEET C6621
29 OF 42

DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2200 PARK AVENUE NORTH, WINTER PARK, FL 32789 407-644-4068

DRAWN BY: MSD | DESIGNED BY: MSD | CHECKED BY: JTT | DATE: 3/29/21 | SCALE: 1:1 | JOB NUMBER: 18161

JOHN T. TOWNSEND FLORIDA P.E. No. 52127 DATE:

NO.	DATE	REVISIONS	CHK.

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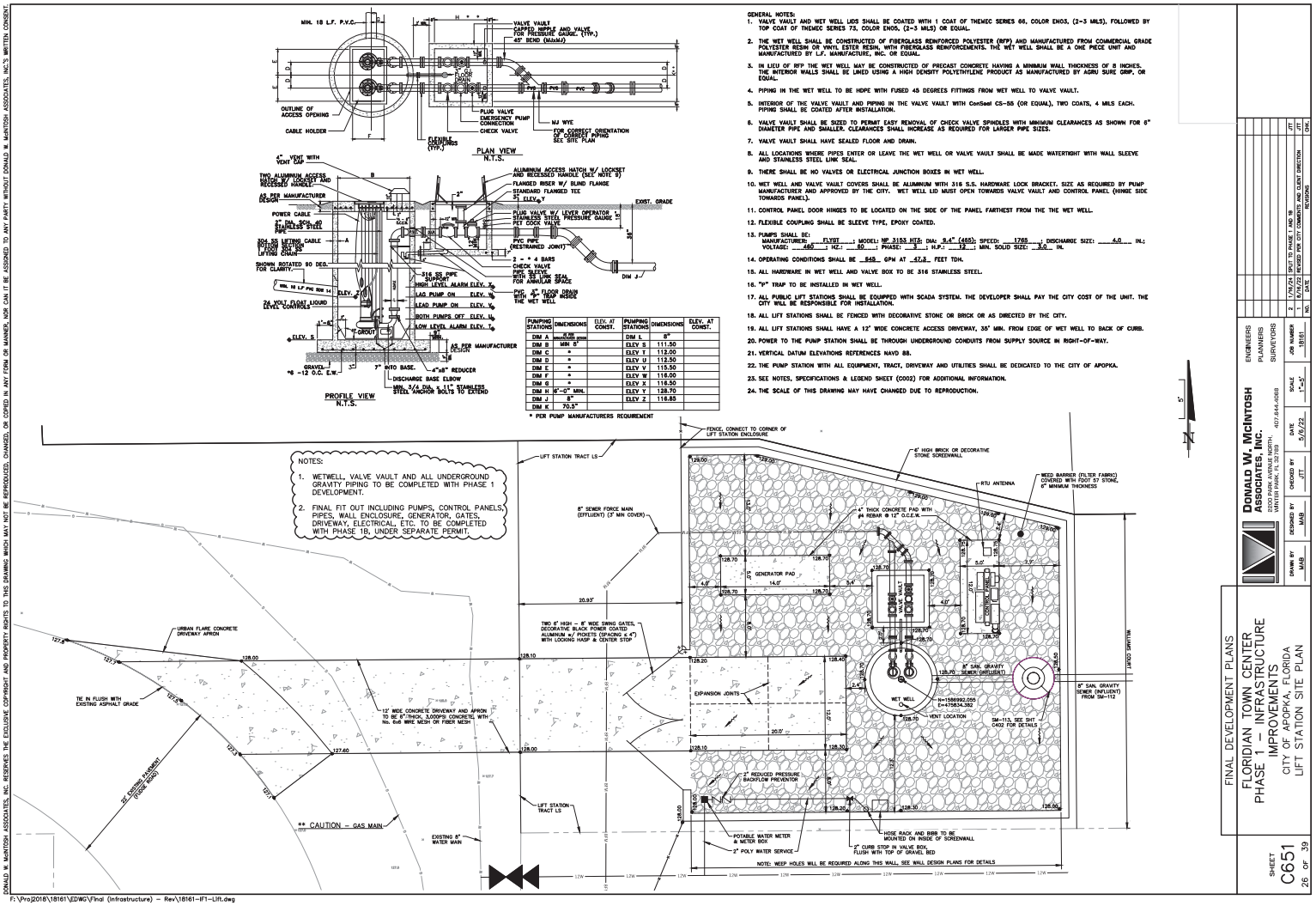
PLAN VIEW
N.T.S.
PROFILE VIEW
N.T.S.
GENERAL NOTES:
1. VALVE VAULT AND WET WELL LIDS SHALL BE COATED WITH 1 COAT OF THEMEC SERIES 66, COLOR EN03, (2-3 MILS), FOLLOWED BY TOP COAT OF THEMEC SERIES 73, COLOR EN05, (2-3 MILS) OR EQUAL.
2. THE WET WELL SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER (RFP) AND MANUFACTURED FROM COMMERCIAL GRADE POLYESTER RESIN OR VINYL ESTER RESIN, WITH FIBERGLASS REINFORCEMENTS. THE WET WELL SHALL BE A ONE PIECE UNIT AND MANUFACTURED BY L.F. MANUFACTURE, INC. OR EQUAL.
3. IN LIEU OF RFP THE WET WELL MAY BE CONSTRUCTED OF PRECAST CONCRETE HAVING A MINIMUM WALL THICKNESS OF 8 INCHES. THE INTERIOR WALLS SHALL BE LINED USING A HIGH DENSITY POLYETHYLENE PRODUCT AS MANUFACTURED BY AGRU SURE GRIP, OR EQUAL.
4. PIPING IN THE WET WELL TO BE HDPE WITH FUSED 45 DEGREES FITTINGS FROM WET WELL TO VALVE VAULT.
5. INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH ConSeal CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH. PIPING SHALL BE COATED AFTER INSTALLATION.
6. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 8" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
7. VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
8. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE AND STAINLESS STEEL LINK SEAL.
9. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
10. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE CITY. WET WELL LID MUST OPEN TOWARDS VALVE VAULT AND CONTROL PANEL (HINGE SIDE TOWARDS PANEL).
11. CONTROL PANEL DOOR HINGES TO BE LOCATED ON THE SIDE OF THE PANEL FARTHEST FROM THE THE WET WELL.
12. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE, EPOXY COATED.
13. PUMPS SHALL BE:
MANUFACTURER: FLYGT ; MODEL: NP 3153 HT3; DIA: 9.4" (488); SPEED: 1765 ; DISCHARGE SIZE: 4.0 IN.;
VOLTAGE: 460 ; HZ: 60 ; PHASE: 3 ; H.P.: 12 ; MIN. SOLID SIZE: 3.0 IN.
14. OPERATING CONDITIONS SHALL BE 845 GPM AT 47.5 FEET TDH.
15. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
16. "P" TRAP TO BE INSTALLED IN WET WELL.
17. ALL PUBLIC LIFT STATIONS SHALL BE EQUIPPED WITH SCADA SYSTEM. THE DEVELOPER SHALL PAY THE CITY COST OF THE UNIT. THE CITY WILL BE RESPONSIBLE FOR INSTALLATION.
18. ALL LIFT STATIONS SHALL BE FENCED WITH DECORATIVE STONE OR BRICK OR AS DIRECTED BY THE CITY.
19. ALL LIFT STATIONS SHALL HAVE A 12' WIDE CONCRETE ACCESS DRIVEWAY, 35' MIN. FROM EDGE OF WET WELL TO BACK OF CURB.
20. POWER TO THE PUMP STATION SHALL BE THROUGH UNDERGROUND CONDUITS FROM SUPPLY SOURCE IN RIGHT-OF-WAY.
21. VERTICAL DATUM ELEVATIONS REFERENCES NAVD 88.
22. THE PUMP STATION WITH ALL EQUIPMENT, TRACT, DRIVEWAY AND UTILITIES SHALL BE DEDICATED TO THE CITY OF APOPKA.
23. SEE NOTES, SPECIFICATIONS & LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
24. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.
NOTES:
1. WETWELL, VALVE VAULT AND ALL UNDERGROUND GRAVITY PIPING TO BE COMPLETED WITH PHASE 1 DEVELOPMENT.
2. FINAL FIT OUT INCLUDING PUMPS, CONTROL PANELS, PIPES, WALL ENCLOSURE, GENERATOR, GATES, DRIVEWAY, ELECTRICAL, ETC. TO BE COMPLETED WITH PHASE 1B, UNDER SEPARATE PERMIT.
** CAUTION – GAS MAIN
NOTE: WEEP HOLES WILL BE REQUIRED ALONG THIS WALL. SEE WALL DESIGN PLANS FOR DETAILS
FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
LIFT STATION SITE PLAN
SHEET C651
26 OF 39
DONALD W. McINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2602 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 407-644-4068
DRAWN BY MSB
DESIGNED BY MSB
CHECKED BY JFT
DATE 3/9/22
SCALE 1"=5'
JOB NUMBER 18161
NO. 1 2 DATE 6/15/22 7/06/22
REVISED PER CITY COMMENTS AND CLIENT DIRECTION
PUT TO PHASE 1 AND 1B
BY JFT JFT
CHK.
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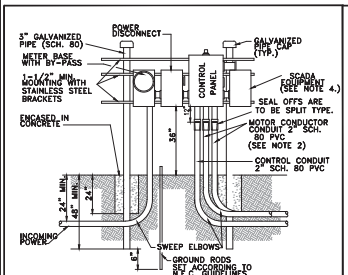
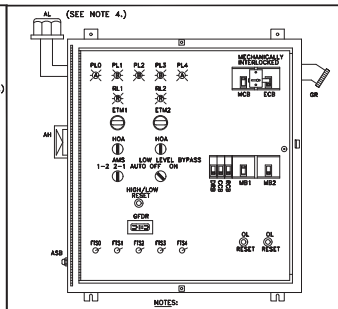


NOTES:
1. DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
2. WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO THREE (3) INCH.
3. POWER SUPPLY SHALL BE UNDERGROUND TO THE PUMP STATION AND SHALL BE THREE (3) PHASE FROM A THREE (3) PHASE SOURCE ONLY.
4. STUB OUT UNISTRUT LONG ENOUGH TO ACCOMODATE A 24"x24" SCADA EQUIPMENT CABINET. CITY TO INSTALL SCADA EQUIPMENT CABINET.

DUPLEX PUMP STATION CONTROL PANEL INSTALLATION DETAIL

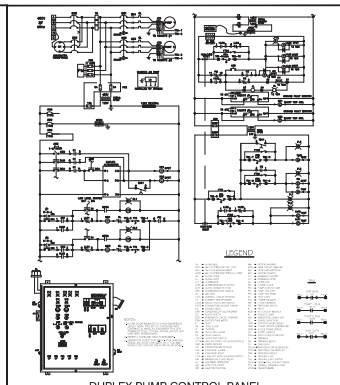
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 302



NOTES:
1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 3R 304 S.S. ENCL. WITH CONTINUOUS HINGE ALL HARDWARE STAINLESS STEEL TYPICAL. ACTUAL LAYOUT MAY VARY WITH HORSEPOWER
2. SERIES 3 (0-FRAME) CIRCUIT BREAKERS
3. GENERATOR OUTLET FOR 230V – PYLE NATIONAL MODEL JRE4100/460V – CROUSE HINDS MODEL AR 2042.
4. THE HEIGHT OF THE ALARM LIGHT WILL NEED TO BE MADE VISIBLE FROM OUTSIDE THE LIFT STATION.

DUPLEX PUMP STATION CONTROL PANEL FRONT LAYOUT

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 303



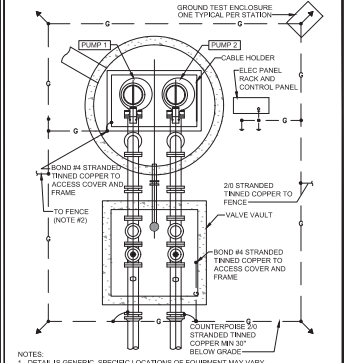
DUPLEX PUMP CONTROL PANEL GENERAL LAYOUT & SCHEMATIC
(460V-3PH) WITH GENERATOR RECEPTACLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 305 C

AB – ALARM BELL
ACH – AIR COMPRESSOR FAIL LIGHT
ACMS – AIR COMPRESSOR RESET
ACP – AIR COMPRESSOR TERMINAL STRIP
AH – ALARM HORN
AL – ALARM LIGHT
ALT – ALTERNATOR
AMS – ALTERNATOR MODE SWITCH
ATM – ALTERNATOR TEST METER
ATS – ALTERNATOR TEST SWITCH
AV – ALTERNATOR
CB – CONTROL CIRCUIT BREAKER
CT – CURRENT TRANSFORMER
CVLS – CHECK VALVE LIMIT SWITCH
DPDT – DOUBLE POLE, DOUBLE-THROW
DR – DOUBLE RELAY
GFCB – GROUND FAULT RECEPTACLE BREAKER
DS – DOOR SWITCH
ECB – ENGINE CIRCUIT BREAKER
ECM – ELECTRONIC CIRCUIT BREAKER
ETM – ELAPSED TIME METER
F – FUSE
FB – FUSE BLOCK
FR – FUSE RELAY
GR – GLOW REGULATOR
GS – GLOW SWITCH
GTS – GLOW TEST SWITCH
GFCR – GROUND FAULT, DUPLEX RECEPTACLE
GND – GROUND
GRC – GROUNDING RECEPTACLE
HLA – HIGH LEVEL ALARM
HLR – HIGH LEVEL RESET
HOA – HAND-OFF-AUTO SELECTOR SWITCH
IR – INTERPOSING RELAY
ISA – INTRINSICALLY SAFE RELAY
LA – LIGHTNING ARRESTOR
LLA – LOW LEVEL ALARM
LTB – LAMP TEST BUTTON
MB – MOTOR BREAKER
MCB – MAIN CIRCUIT BREAKER
MDS – MOISTURE DETECTOR
MM – MOISTURE METER
MS – MOISTURE SENSED
NOC – NORMALLY OPEN
OL – OVERLOAD
PB – POWER BLOCK
PCU – PUMP CONTROL UNIT
PFL – PUMP FAIL LIGHT
PRT – PUMP RUN TIMER
PSL – PILOT LIGHT
PWR – POWER ON LIGHT
PM – PHASE MONITOR
PS – PRESSURE SWITCH
R – RELAY
RCB – RECEPTACLE BREAKER
RL – RUNNING LIGHT
RTU – REMOTE TELEMETRY UNIT
SC – SURGE CAPACITOR
SDC – STATION DISABLE RELAY
SMC – SMART MOTOR CONTROLLER
SPM – SINGLE PHASE MODULE
SPP – SINGLE PHASE PREVENTER
SSOL – SOLID – STATE OVERLOAD
T – TERMINAL
TB – TERMINAL BLOCK
TD – TIME DELAY
TDCOE – TIME DELAY ON DE-ENERGIZE
TDOE – TIME DELAY ON ENERGIZE
TDR – TIME DELAY RELAY
TL – TROUBLE LIGHT
TLS – TROUBLE LIGHT SWITCH
TPDT – TRIPLE-POLE, DOUBLE-THROW
TTS – THERMAL TERMINAL STRIP
XFMR – TRANSFORMER

COMPONENT LEGEND

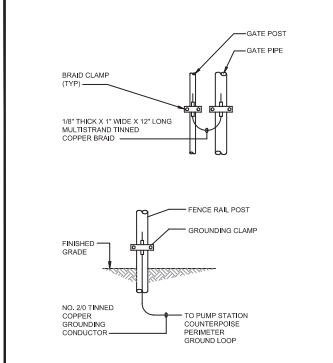
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 306



NOTES:
1. DETAIL IS GENERIC. SPECIFIC LOCATIONS OF EQUIPMENT MAY VARY.
2. TIE TO FENCE, MINIMUM 2 LOCATIONS, NOT REQUIRED WHERE PVC COATED OR BLOCK FENCE IS INSTALLED.
3. PROVIDE EXOTHERMIC WELDS UNLESS NOTED OTHERWISE.

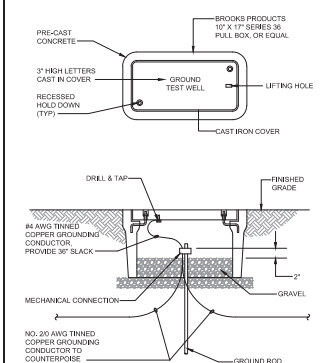
PUMP STATION GROUNDING (TYPICAL)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307



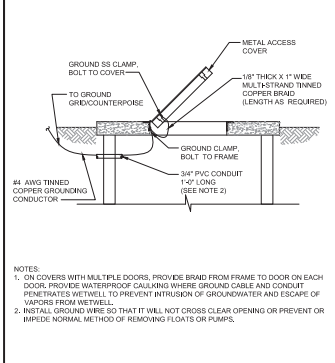
FENCE POST GROUNDING (TYPICAL)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 A



GROUND TEST WELL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 B



NOTES:
1. ON COVERS WITH MULTIPLE DOORS, PROVIDE BRAID FROM FRAME TO DOOR ON EACH DOOR. PROVIDE WATERPROOF CAULKING WHERE GROUND CABLE AND CONDUIT PENETRATES WETWELL TO PREVENT INTRUSION OF GROUNDWATER AND ESCAPE OF VAPORS FROM WETWELL.
2. INSTALL GROUND WIRE SO THAT IT WILL NOT CROSS CLEAR OPENING OR PREVENT OR IMPEDE NORMAL METHOD OF REMOVING FLOATS OR PUMPS.

COVER AND DOOR GROUNDING

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 307 C

TO BE COMPLETED DURING PHASE 1B CONSTRUCTION

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FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
LIFT STATION DETAILS

SHEET C652
27 OF 39

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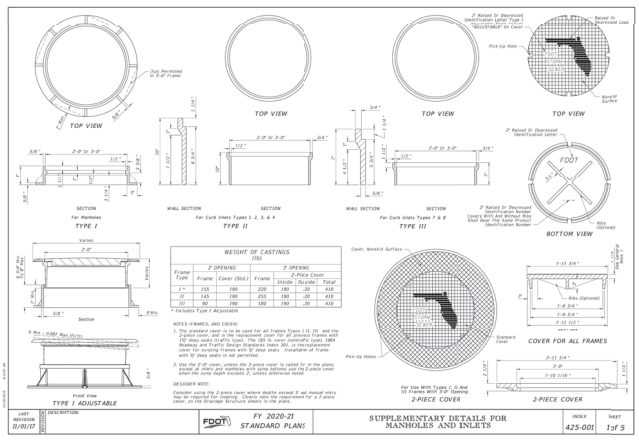
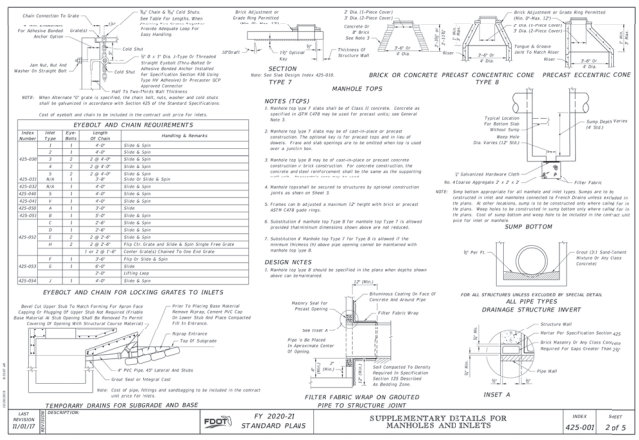
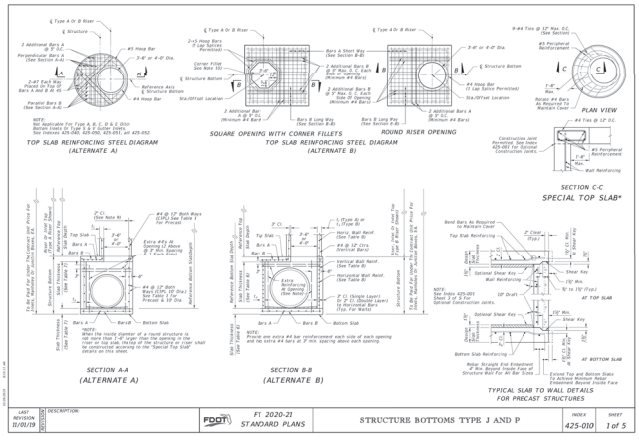


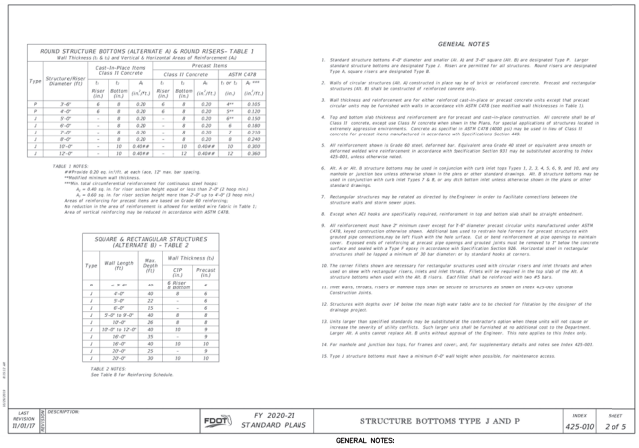
LAST REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX 425-001	SHEET 1of 5
11/01/17	2					



LAST REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX 425-001	SHEET 2of 5
11/01/17	2					



LAST REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX 425-010	SHEET 1 of 5
11/01/19	3					



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FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
DRAINAGE DETAILS

SHEET C751 28 OF 39

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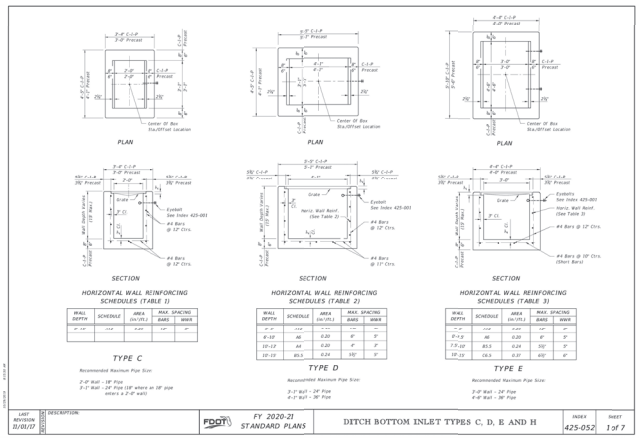

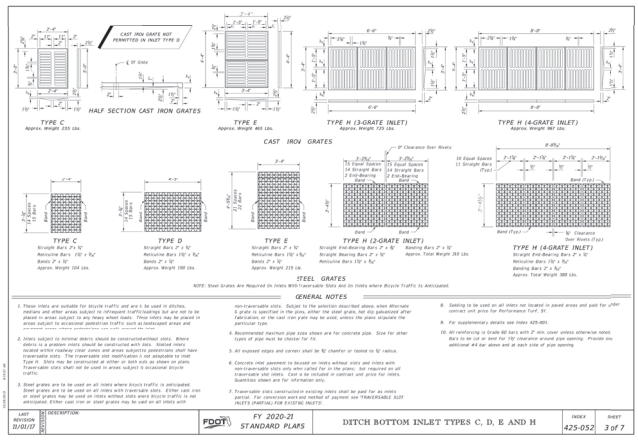

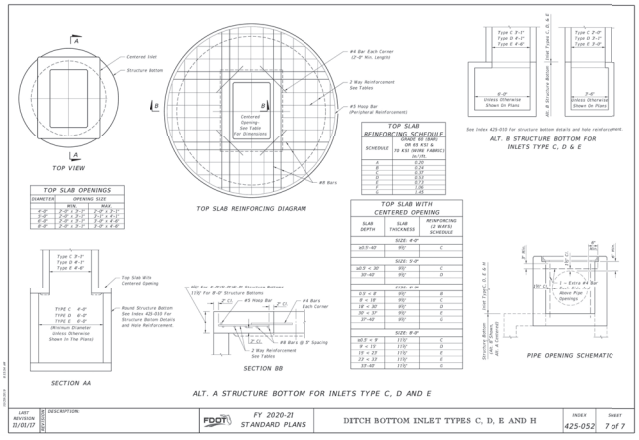

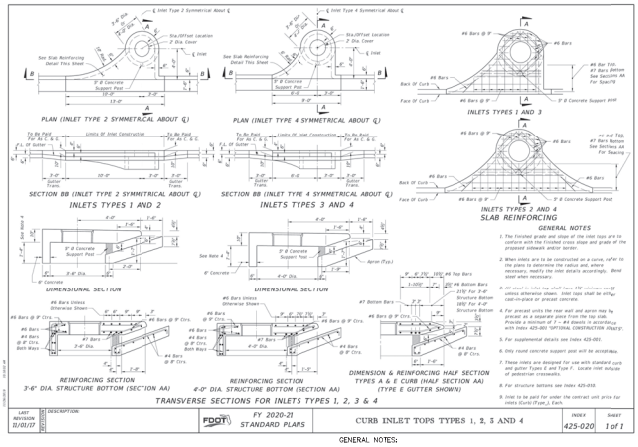

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FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
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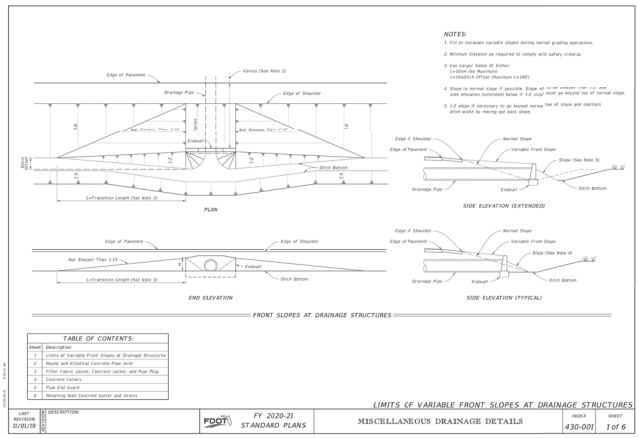


FRONT SLOPES AT DRAINAGE STRUCTURES

TABLE OF CONTENTS:

Sheet	Description
1	Limits of Variable Front Slopes at Drainage Structures
2	Round and Elliptical Concrete Pipe Joint
3	Filter Fabric Jacket, Concrete Jacket, and Pipe Plug
4	Concrete Collars
5	Pipe End Guard
6	Retaining Wall Concrete Gutter and Drains

LIMITS OF VARIABLE FRONT SLOPES AT DRAINAGE STRUCTURES

LAST REVISION 11/01/19	DESCRIPTION:	FY 2020-21 STANDARD PLANS	MISCELLANEOUS DRAINAGE DETAILS	INDEX 430-001	SHEET 1 of 6

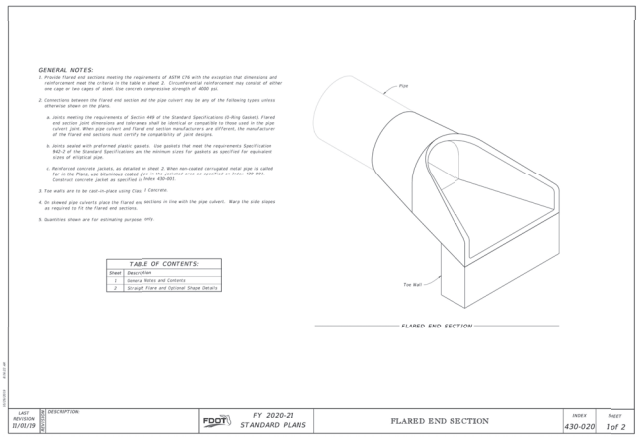


TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Grunge Flare and Optional Shape Details

FLARED END SECTION

LAST REVISION 11/01/19	DESCRIPTION:	FY 2020-21 STANDARD PLANS	FLARED END SECTION	INDEX 430-020	SHEET 1of 2

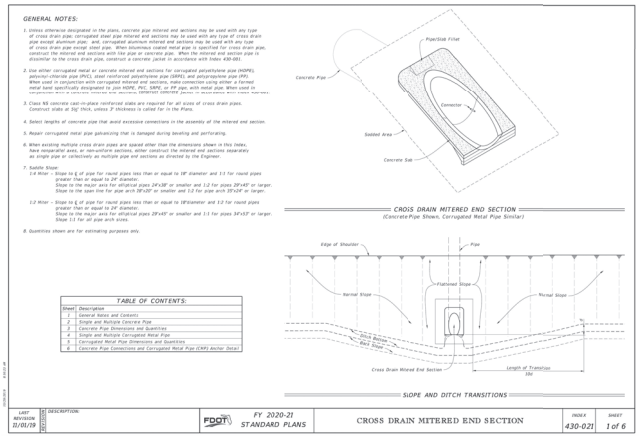


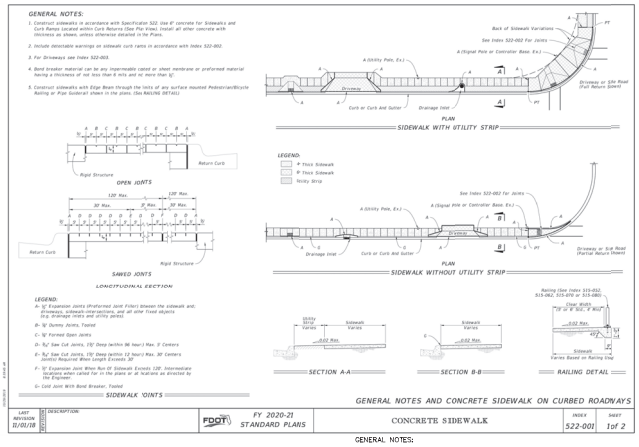
TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Single and Multiple Concrete Pipe
3	Concrete Pipe Dimensions and Quantities
4	Single and Multiple Corrugated Metal Pipe
5	Corrugated Metal Pipe Dimensions and Quantities
6	Concrete Pipe Connections and Corrugated Metal Pipe (CMP) Anchor Detail

CROIS DRAIN MITERED END SECTION
(Concrete Pipe Shown, Corrugated Metal Pipe Similar)

SLOPE AND DITCH TRANSITIONS

LAST REVISION 11/01/19	DESCRIPTION:	FY 2020-21 STANDARD PLANS	CROSS DRAIN MITERED END SECTION	INDEX 430-021	SHEET 1 of 6



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PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
DRAINAGE DETAILS

SHEET C7533 30 OF 39

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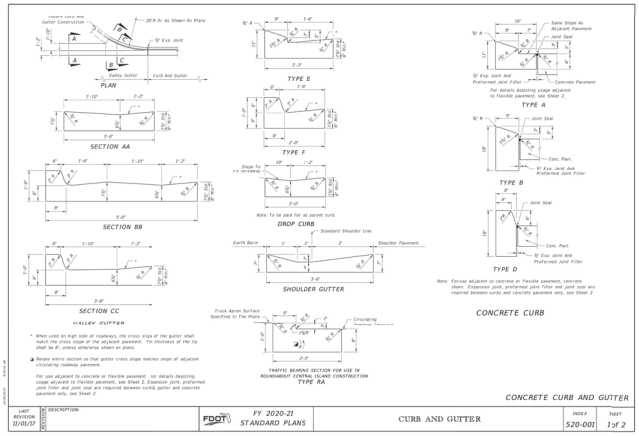

LAST REVISION	DESCRIPTION:	FY 2020-21 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
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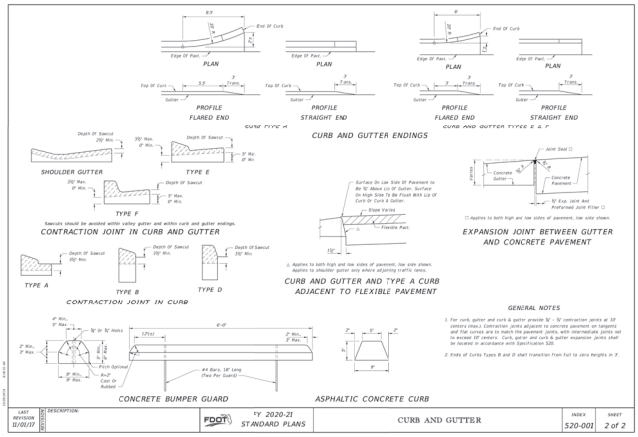
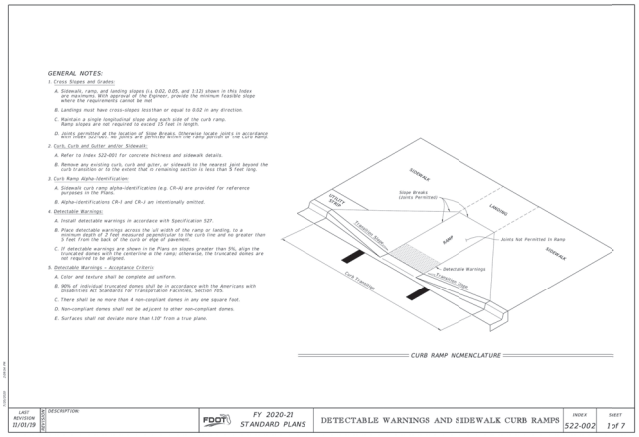
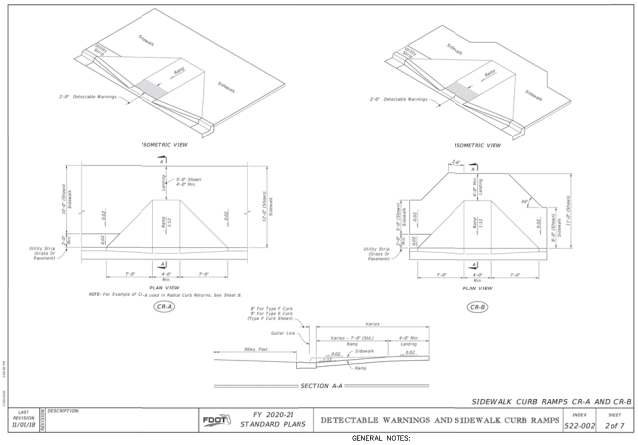


LAST REVISION	DESCRIPTION:	FY 2020-21 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/17				520-001	2 of 2



LAST REVISION	DESCRIPTION:	FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX	SHEET
11/01/18				522-002	1 of 7



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11/01/18				522-002	2 of 7

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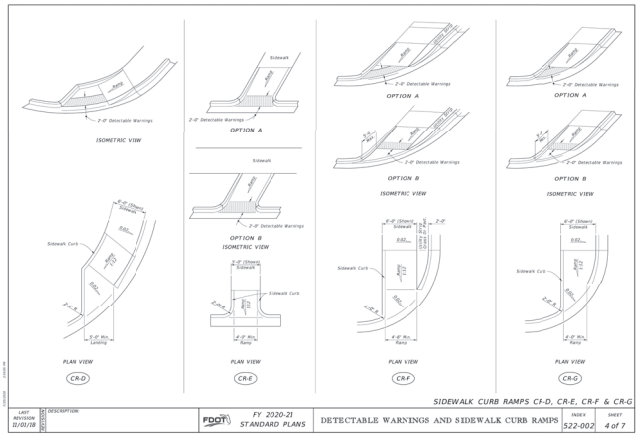
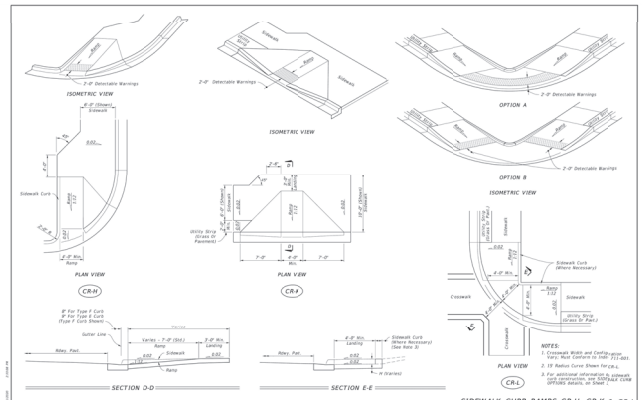


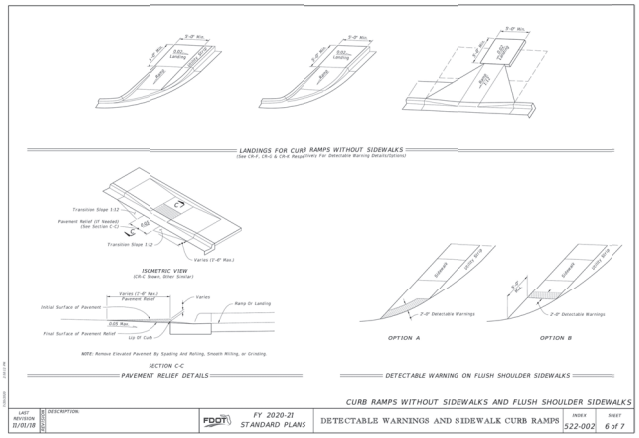
SIDEWALK CURB RAMPS CF-D, CR-E, CR-F & CR-G

LAST REVISION	DESCRIPTION				
11/01/18		FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 4 of 7



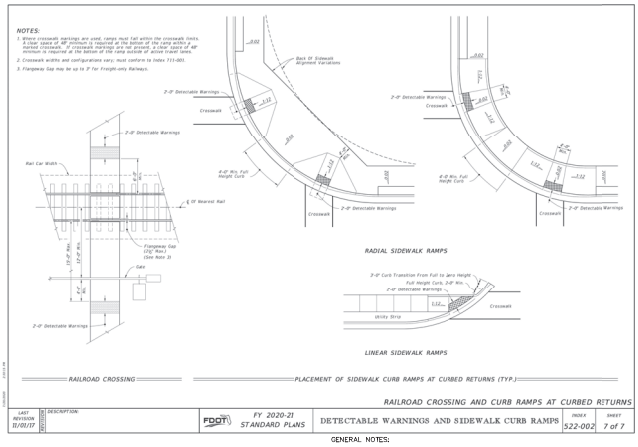
SIDEWALK CURB RAMPS CR-H, CR-K & CR-L

LAST REVISION	DESCRIPTION				
11/01/18		FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 5 of 7



CURB RAMPS WITHOUT SIDEWALKS AND FLUSH SHOULDER SIDEWALKS

LAST REVISION	DESCRIPTION				
11/01/18		FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 6 of 7



RAILROAD CROSSING AND CURB RAMPS AT CURBED RETURNS

LAST REVISION	DESCRIPTION				
11/01/17		FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 7 of 7

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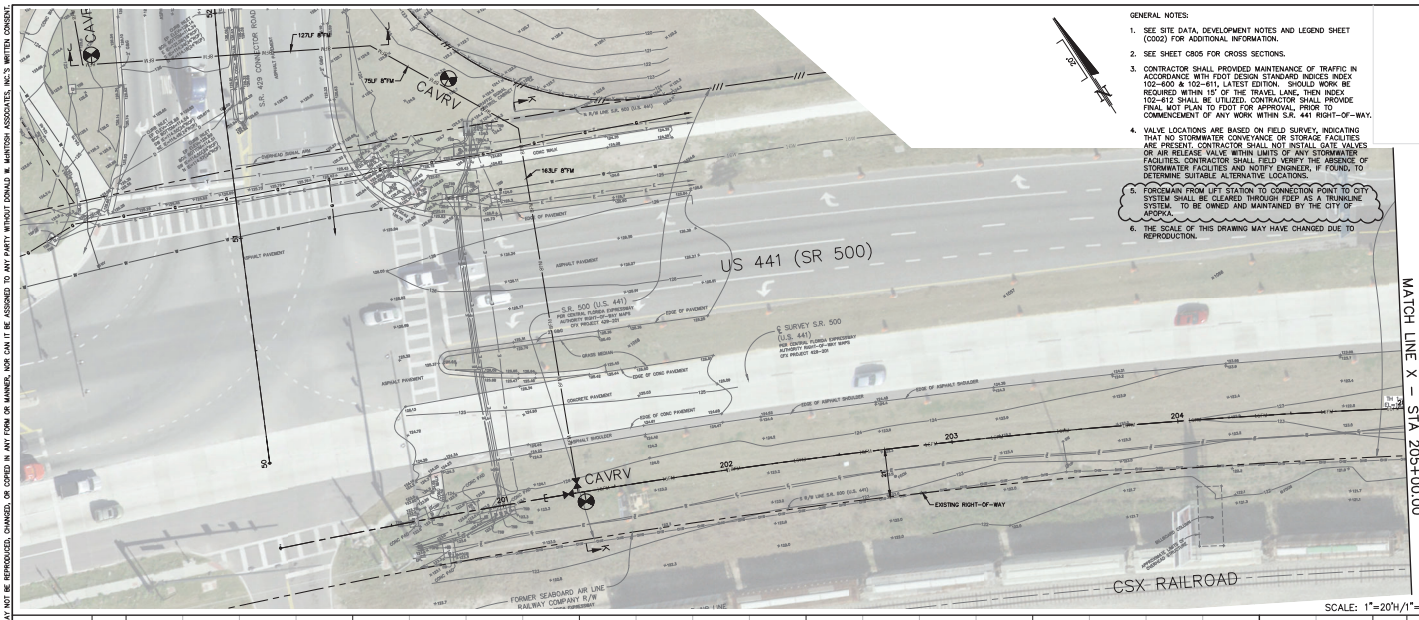
DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068

ENGINEERS
PLANNERS
SURVEYORS

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JTT	5/6/22	NTS	18161

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
DRAINAGE DETAILS

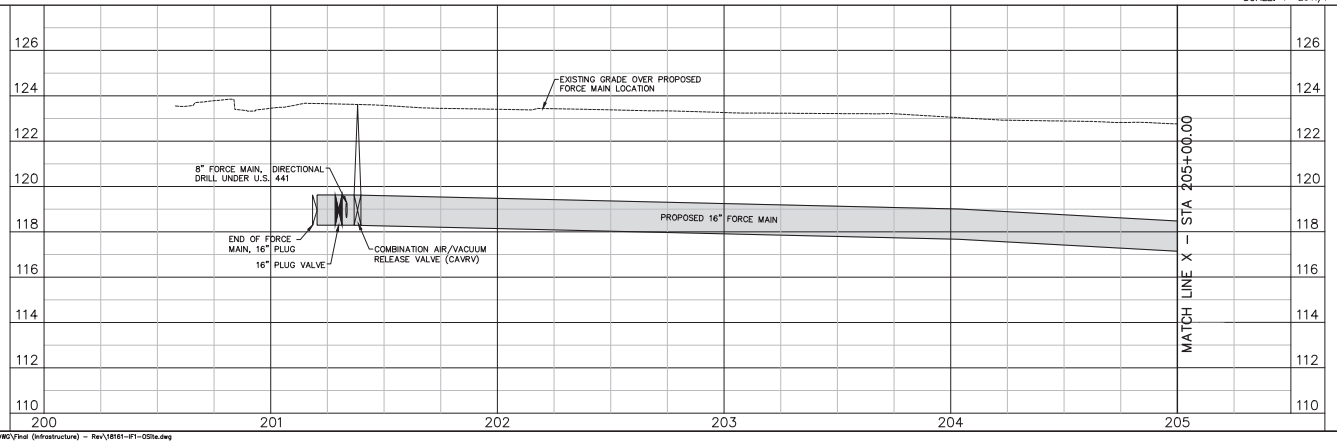
SHEET C755
32 OF 39



GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES AND LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. SEE SHEET C805 FOR CROSS SECTIONS.
3. CONTRACTOR SHALL PROVIDED MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT DESIGN STANDARD INDICES INDEX 102-600 & 102-611, LATEST EDITION. SHOULD WORK BE REQUIRED WITHIN 15' OF THE TRAVEL LANE, THEN INDEX 102-612 SHALL BE UTILIZED. CONTRACTOR SHALL PROVIDE FINAL MOT PLAN TO FDOT FOR APPROVAL, PRIOR TO COMMENCEMENT OF ANY WORK WITHIN S.R. 441 RIGHT-OF-WAY.
4. VALVE LOCATIONS ARE BASED ON FIELD SURVEY, INDICATING THAT NO STORMWATER CONVEYANCE OR STORAGE FACILITIES ARE PRESENT. CONTRACTOR SHALL NOT INSTALL GATE VALVES OR AIR RELEASE VALVE WITHIN LIMITS OF ANY STORMWATER FACILITIES. CONTRACTOR SHALL FIELD VERIFY THE ABSENCE OF STORMWATER FACILITIES AND NOTIFY ENGINEER, IF FOUND, TO DETERMINE SUITABLE ALTERNATIVE LOCATIONS.
5. FORCEMAIN FROM LIFT STATION TO CONNECTION POINT TO CITY SYSTEM SHALL BE CLEARED THROUGH FDEP AS A TRUNKLINE SYSTEM. TO BE OWNED AND MAINTAINED BY THE CITY OF APOPKA.
6. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

SCALE: 1"=20'H/1"=2'V



NO.	DATE	REVISIONS	CHK.
4	1/16/24	SPLIT TO PHASE 1 AND 1B	JTT
3	11/21/22	ADDED NOTE 4 FOR VALVE LOCATIONS	JTT
2	9/22/22	ADD 8"FM LENGTH PER FDEP	JTT
1	9/9/22	REVISED PER FDOT COMMENTS	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068

ENGINEERS
PLANNERS
SURVEYORS

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JTT	5/6/22	1"=20'H/1"=2'V	18161

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE FORCE MAIN IMPROVEMENTS
STA 200+00 TO STA 205+00

SHEET C801
33 OF 39

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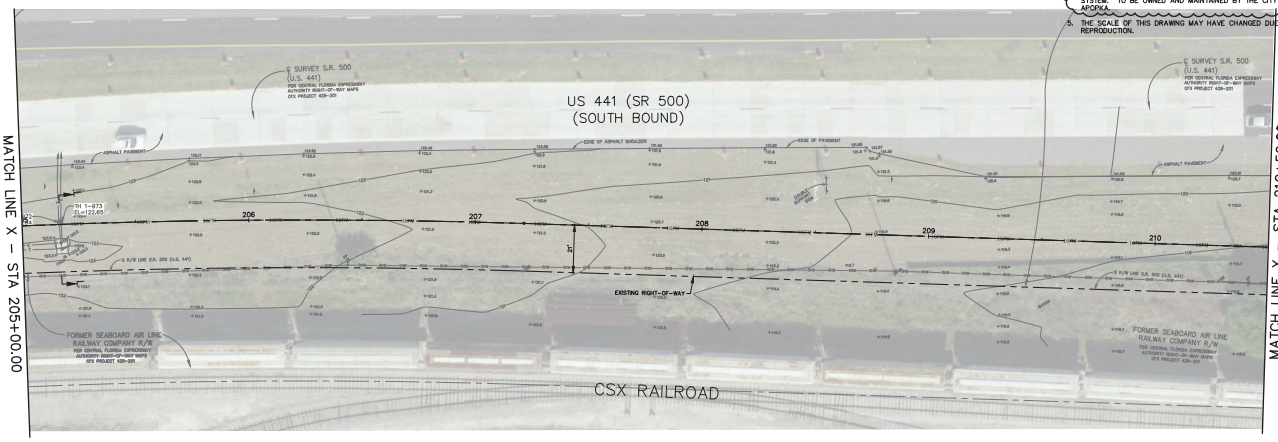
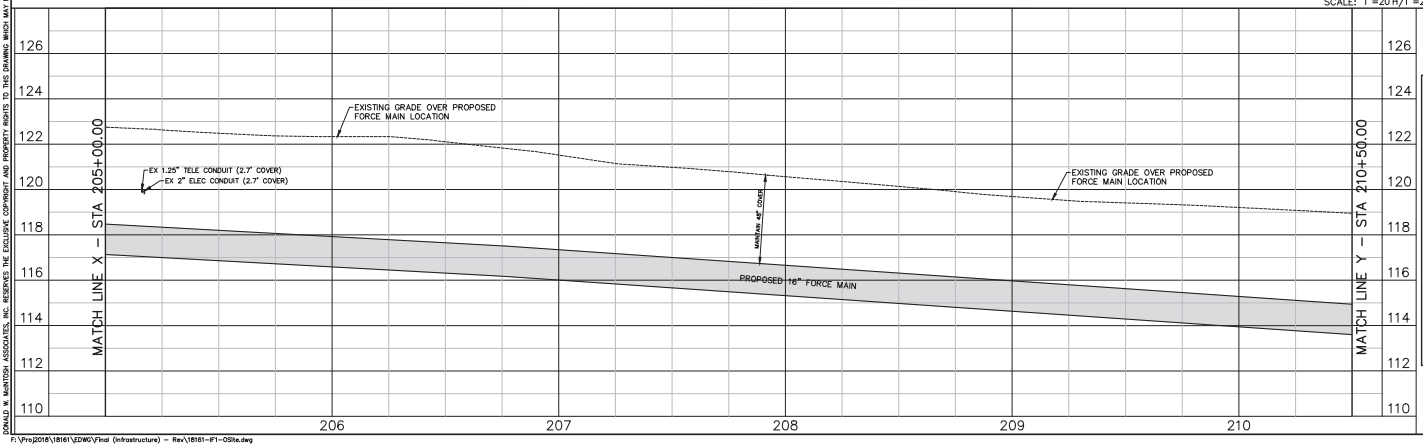
GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES AND LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. SEE SHEET C805 FOR CROSS SECTIONS.
3. CONTRACTOR SHALL PROVIDED MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT DESIGN STANDARD INDICES INDEX 102-600 & 102-611, LATEST EDITION. SHOULD WORK BE REQUIRED WITHIN 15' OF THE TRAVEL LANE, THEN INDEX 102-612 SHALL BE UTILIZED. CONTRACTOR SHALL PROVIDE FINAL MOT PLAN TO FDOT FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY WORK WITHIN S.R. 441 RIGHT-OF-WAY.
4. FORCEMAIN FROM LIFT STATION TO CONNECTION POINT TO CITY SYSTEM SHALL BE CLEARED THROUGH FDEP AS A TRUNKLINE SYSTEM. TO BE OWNED AND MAINTAINED BY THE CITY OF APOPKA.
5. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.



SCALE: 1"=20'H/1"=2'V



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NO.	DATE	REVISIONS	CHK.
2	1/06/22	PER TI PHASE 1 MID SI	JTT
1	3/8/22	REVISED FOR FDOT COMMENTS	JTT

ENGINEERS
PLANNERS
SURVEYORS

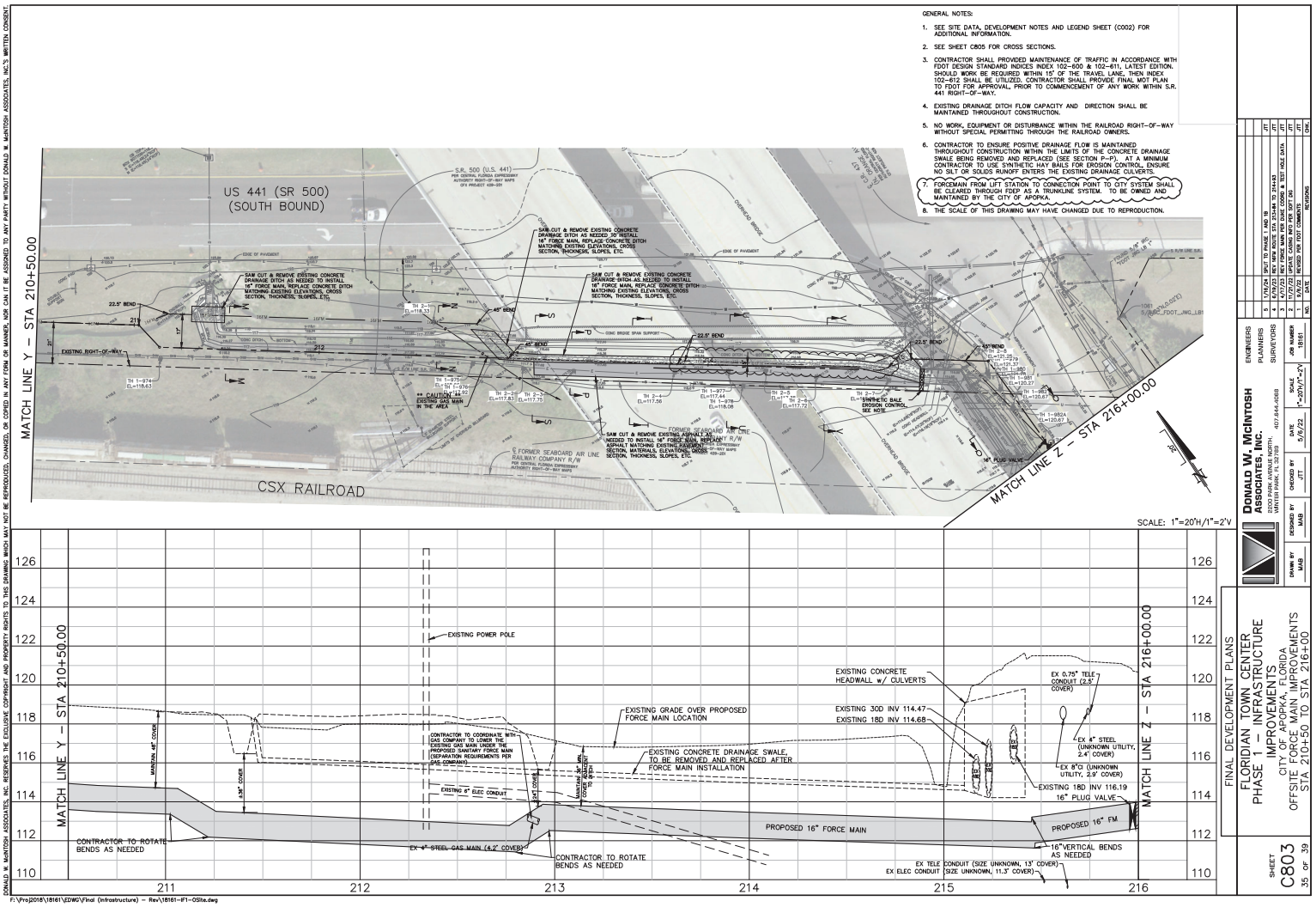
DONALD W. McINTOSH ASSOCIATES, INC.
2200 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789 407.644.4068

JOB NUMBER 16161
SCALE 1"=20'H/1"=2'V
DATE 5/6/22
CHECKED BY JTT
DESIGNED BY MAB
DRAWN BY MAB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE FORCE MAIN IMPROVEMENTS
STA 205+00 TO STA 210+50

SHEET
C802
34 OF 39



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NO.	DATE	REVISIONS	CHK.
5	1/16/24	SPLIT TO PHASE 1 AND 1B	JTT
4	2/19/23	REV MEP, ROUTE, ETC. (C3-441 TO 24+50)	JTT
3	1/17/23	REV FORCE MAIN PER EDAC COMM & TEST HOLE DATA	JTT
2	7/15/22	REVISED PER FDOT COMMENTS	JTT
1	1/6/22	REVISED PER FDOT COMMENTS	JTT

ENGINEERS
PLANNERS
SURVEYORS

DONALD W. McINTOSH ASSOCIATES, INC.
2602 EAST LIVINGSTON STREET, ORLANDO, FLORIDA 32803
2301 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789
407.644.4068

JOB NUMBER: 18161
SCALE: 1"=20'H/1"=2'V
DATE: 1/6/22
CHECKED BY: JTT
DESIGNED BY: MAB
DRAWN BY: MAB

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE FORCE MAIN IMPROVEMENTS
STA 210+50 TO STA 216+00

SHEET C803
35 OF 39

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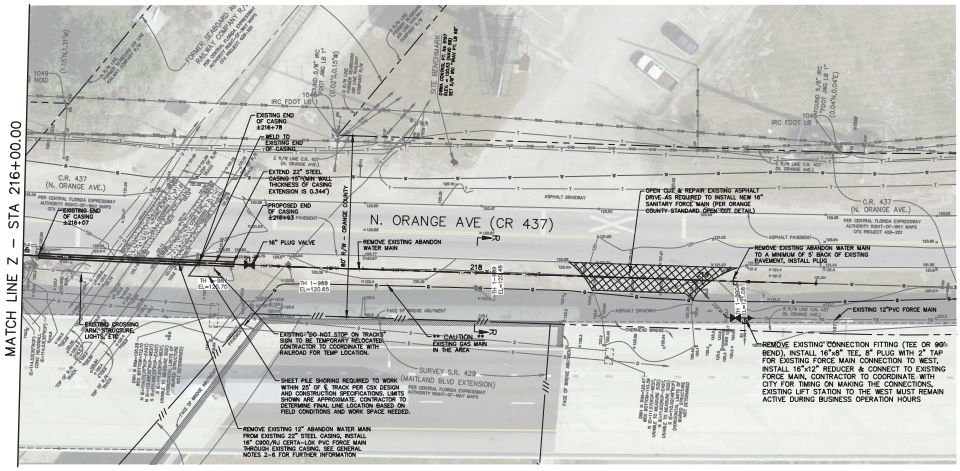
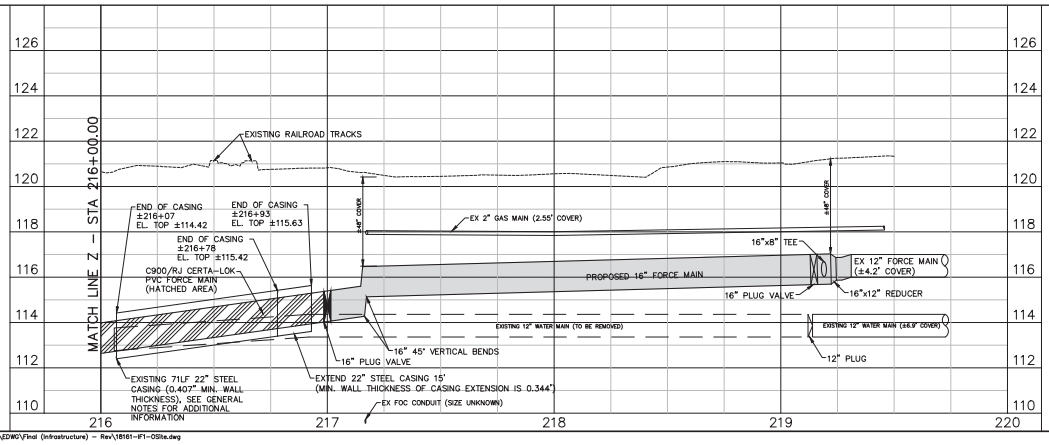


STANDARD ROADWAY OPENCUT DETAIL

FIGURE A124

SCALE: 1"=20'H/1"=2'V



GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES AND LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. SEE SHEET C805 FOR CROSS SECTIONS.
3. CONTRACTOR SHALL PROVIDE ORANGE COUNTY WITH MAINTENANCE OF TRAFFIC PLAN FOR APPROVAL BY ORANGE COUNTY PRIOR TO COMMENCEMENT OF ANY WORK WITHIN ORANGE AVENUE RIGHT-OF-WAY.
4. THE PROPOSED 16" FORCE MAIN RUNNING THROUGH THE EXISTING 22" STEEL CASING SHALL BE C900/RJ CERTA-LOK PVC, AND EXTEND A MINIMUM OF 5' PAST EACH END OF THE CASING. CASING TO BE SEALED WATER TIGHT AFTER INSTALLATION.
5. EXISTING RAILROAD CROSSING ARMS, LIGHTS, ETC. SHALL BE PROTECTED, OPERATIONAL AND NOT BLOCKED FROM VIEW AT ALL TIMES DURING CONSTRUCTION.
6. CONTRACTOR TO COORDINATE ALL WORK NEAR THE RAILROAD TRACK RIGHT-OF-WAY WITH RAILROAD PERSONNEL.
7. NO WORK, EQUIPMENT OR DISTURBANCE WITHIN THE RAILROAD RIGHT-OF-WAY WITHOUT SPECIAL PERMITTING THROUGH THE RAILROAD OWNERS.
8. FORCEMAIN FROM LIFT STATION TO CONNECTION POINT TO CITY SYSTEM SHALL BE CLEARED THROUGH FDEP AS A TRUNKLINE SYSTEM. TO BE OWNED AND MAINTAINED BY THE CITY OF APOPKA.
9. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	DRN.
4	1/10/24	SPLIT TO PHASE 1 AND 1B	JTT
3	2/15/23	REVISED CASING PER CSX REQUIREMENTS	JTT
2	1/10/23	REVISED PER FDOT COMMENTS	JTT
1	1/6/22	REVISED PER FDOT COMMENTS	JTT

ENGINEERS PLANNERS SURVEYORS

DONALD W. McINTOSH ASSOCIATES, INC.
2602 EAST LIVINGSTON STREET, ORLANDO, FLORIDA 32803 407-644-4068

JOB NUMBER 18161
SCALE 1"=20'H/1"=2'V
DATE 1/6/22
CHECKED BY JTT
DESIGNED BY MAB
DRAWN BY MAB

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE FORCE MAIN IMPROVEMENTS
STA 216+00 TO STA 220+00

SHEET C804
36 OF 39

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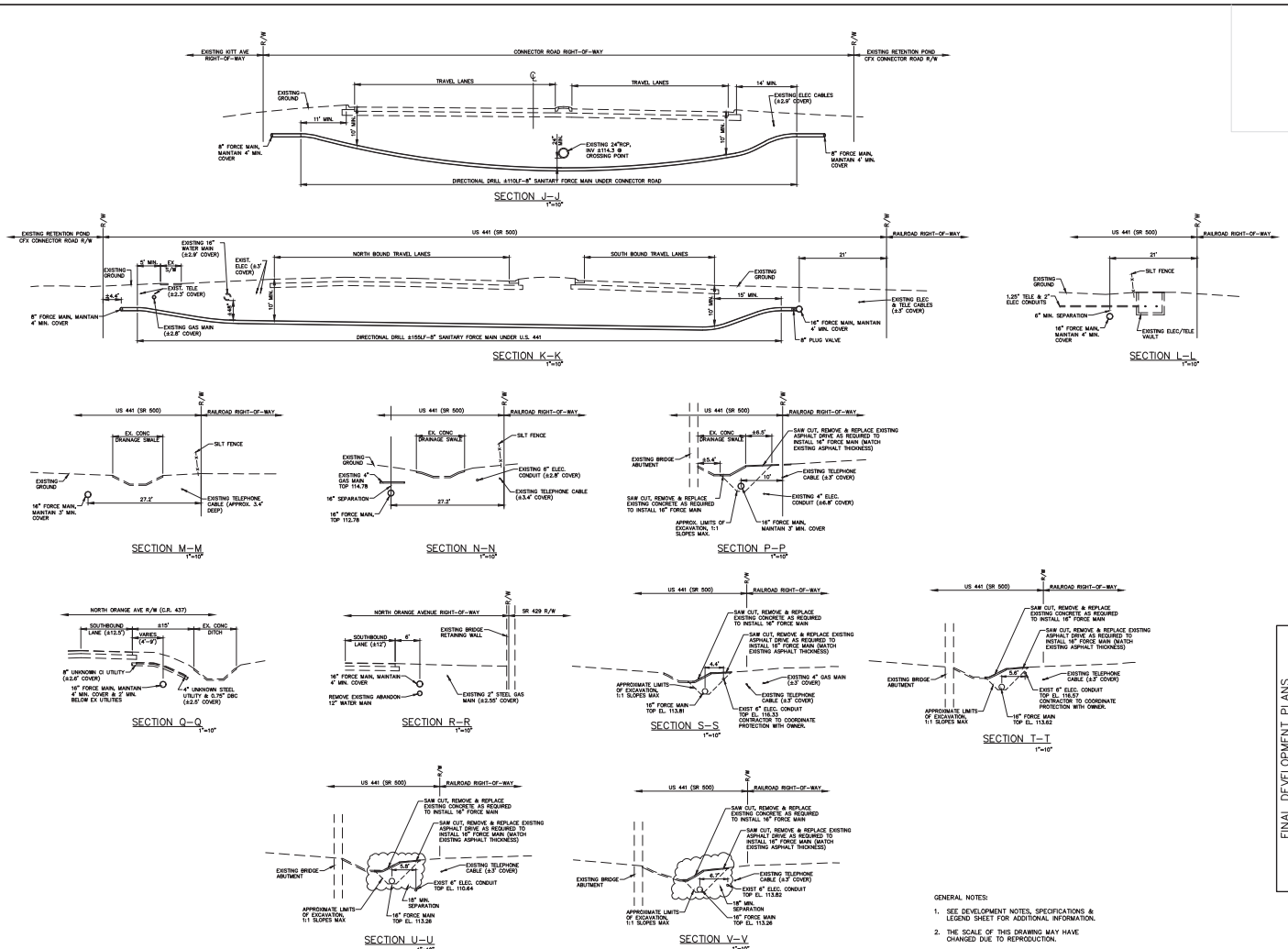

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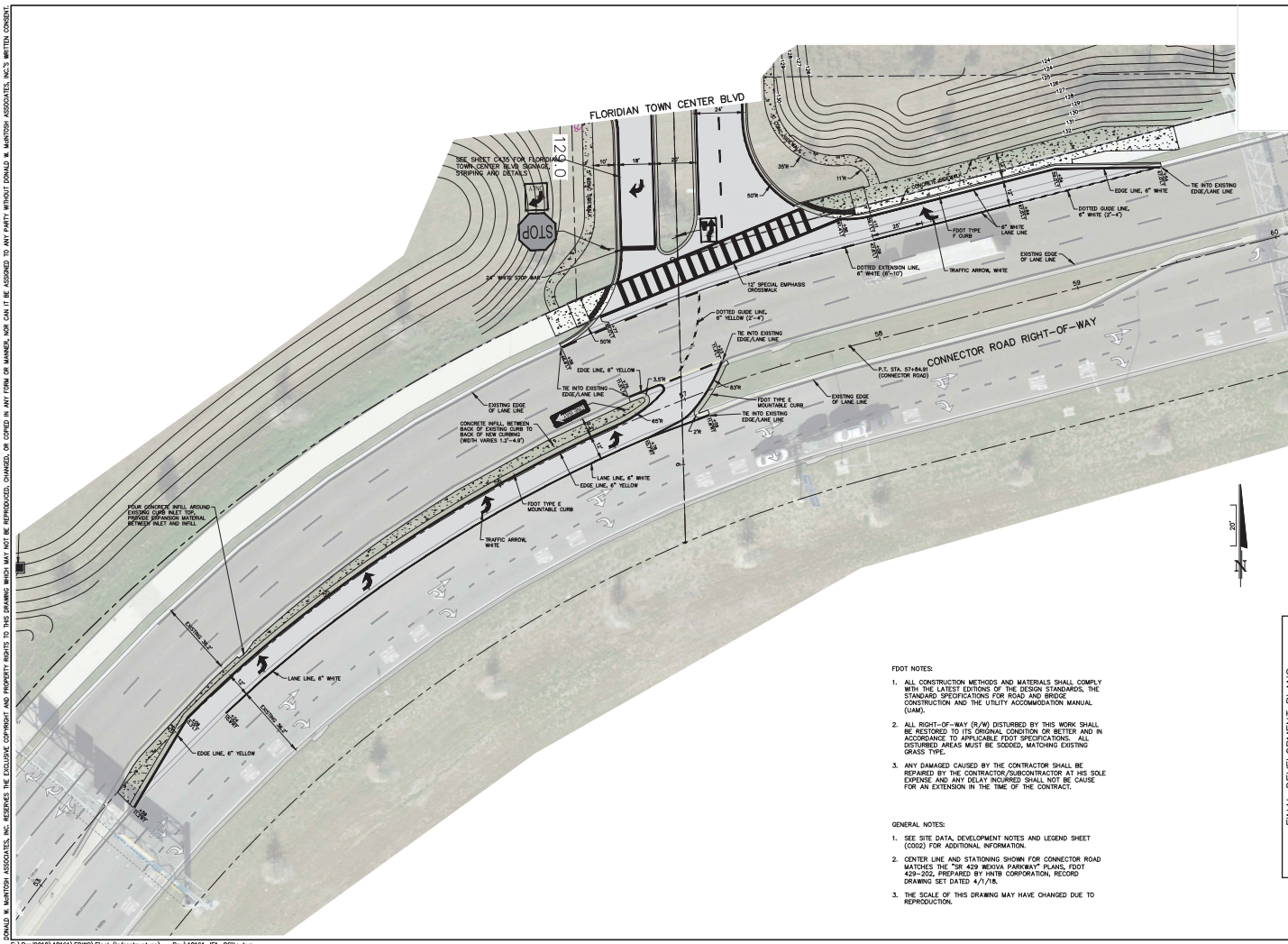

FDOT NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH THE LATEST EDITIONS OF THE DESIGN STANDARDS, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE UTILITY ACCOMMODATION MANUAL (UAM).
2. ALL RIGHT-OF-WAY (R/W) DISTURBED BY THIS WORK SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER AND IN ACCORDANCE TO APPLICABLE FDOT SPECIFICATIONS. ALL DISTURBED AREAS MUST BE SODDED, MATCHING EXISTING GRASS TYPE.
3. ANY DAMAGED CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR/SUBCONTRACTOR AT HIS SOLE EXPENSE AND ANY DELAY INCURRED SHALL NOT BE CAUSE FOR AN EXTENSION IN THE TIME OF THE CONTRACT.

GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES AND LEGEND SHEET (C002) FOR ADDITIONAL INFORMATION.
2. CENTER LINE AND STATIONING SHOWN FOR CONNECTOR ROAD MATCHES THE "SR 429 WEKIVA PARKWAY" PLANS, FDOT 429-202, PREPARED BY HNTB CORPORATION, RECORD DRAWING SET DATED 4/1/18.
3. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

NO.	DATE	REVISIONS	CHK.
1	9/6/22	REVISED PER FDOT COMMENTS	JTT

DONALD W. McINTOSH ASSOCIATES, INC.
2500 PARK AVENUE NORTH, WINTER PARK, FL 32789
407.644.4068
ENGINEERS PLANNERS SURVEYORS

DRAWN BY	DESIGNED BY	CHECKED BY	DATE	SCALE	JOB NUMBER
MAB	MAB	JTT	5/6/22	1"=50'	18161

FINAL DEVELOPMENT PLANS
FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE IMPROVEMENTS – CONNECTOR RD GEOMETRY PLAN

SHEET C811
38 OF 39

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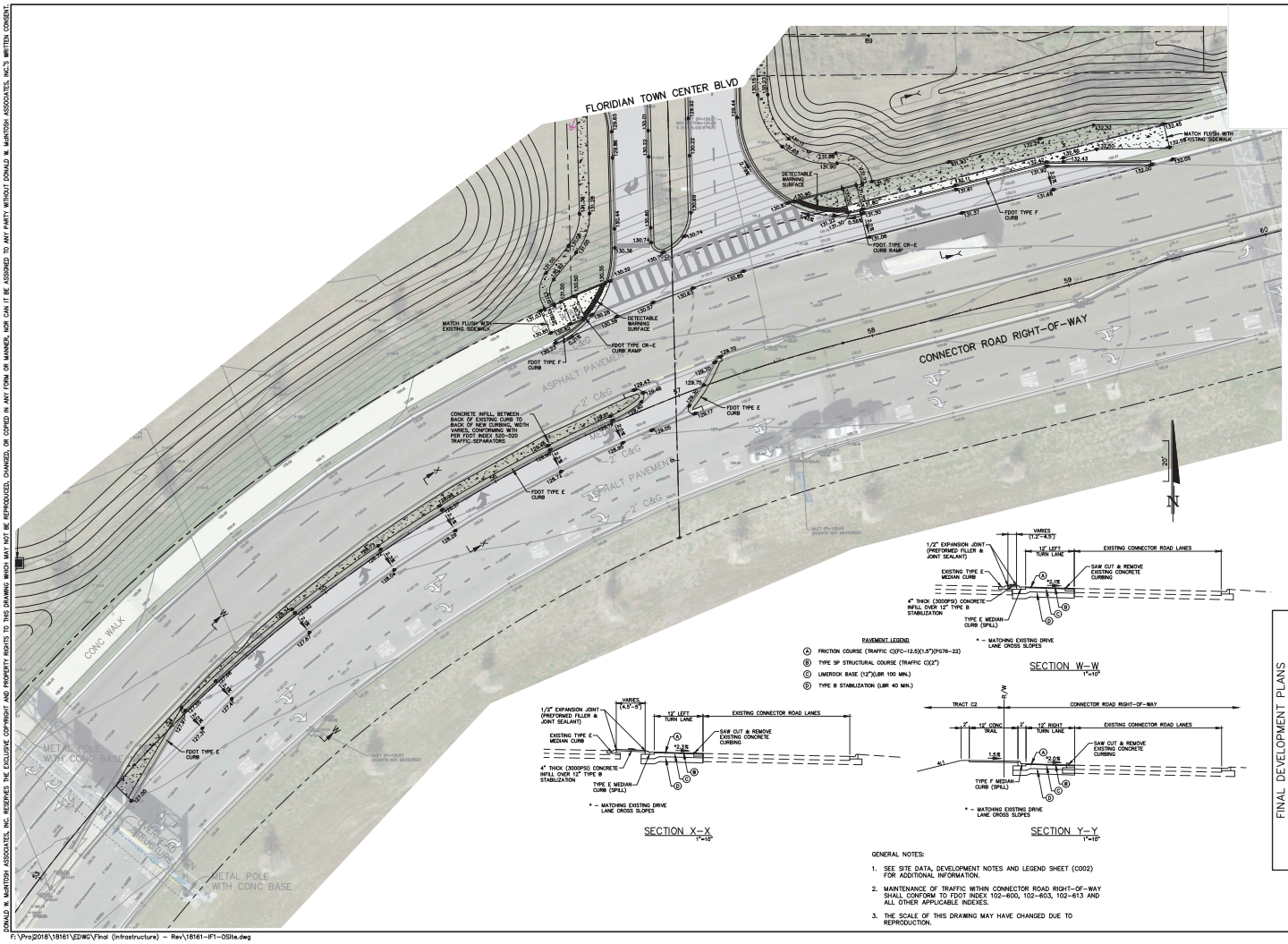

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ENGINEERS
PLANNERS
SURVEYORS

NO.	DATE	REVISIONS	BY	CHK.
2	9.9.22	REVISED PER FDOT COMMENTS	JTT	
1	8.25.22	REVISED PER INTERNAL DRAFT REVIEW	JTT	

JOB NUMBER 18161
SCALE 1"=50'
DATE 7.6.22
CHECKED BY JTT
DESIGNED BY MWB
DRAWN BY MWB

DONALD W. McINTOSH ASSOCIATES, INC.
2602 PARK AVENUE NORTH
WINTER PARK, FLORIDA 32789
407.644.4068

FINAL DEVELOPMENT PLANS

FLORIDIAN TOWN CENTER
PHASE 1 – INFRASTRUCTURE
IMPROVEMENTS
CITY OF APOPKA, FLORIDA
OFFSITE IMPROVEMENTS – CONNECTOR RD GRADING PLAN

SHEET
C812
39 OF 39

Construction Site Plan

West Apopka MEDICAL OFFICES

Plymouth-Sorrento Road, Apopka, Florida 32703

VICINITY MAP

SCALE 1"=200'

SEC. 30 TWP. 20 S RGE. 28 E

North

W E

S

Fire Department notes:

1. All roadways and fire hydrants shall be in place before building construction may begin.
2. The number and placement of required fire hydrants shall be in accordance with chapter 18 of NFPA (FFPC)
3. Fire hydrants shall be marked with a blue road reflector.
4. Follow current NFPA and Florida Fire Prevention Code 7th edition concerning fire and life safety.
5. Building will be required to have automatic Fire Sprinkler System.
6. Building must be monitored by an automatic Fire Alarm System.
7. We will require a remote FDC for the Fire Sprinkler system, less than 20 feet from a hydrant.
8. Provide fire lanes at each FDC location and hydrant.
9. The lock box AFD will provide important safety information.

LDC Section 5.11.4. Green Building Stds.

Development on previously used or developed land that is not contaminated (site re-use)	
Use of only solar or tank-less water heating systems throughout the structure	0.50
Orient at least 50 percent of nonresidential buildings within 20 percent of east-west axis for maximum solar exposure	.50
Provide rain gardens or other appropriate storm water infiltration system(s) that accommodate a minimum of 25 percent of the runoff	1.00
	0.50
TOTAL POINTS	3.50

INFORMATION

PARCEL ID NUMBERS	30-20-28-0484-00-090
FUTURE LAND USE	COMMERCIAL
ZONING – EXISTING	C-C
ACREAGE – GROSS AREA	1.78 AC
ACREAGE – NET AREA	1.78 AC
BUILDING HEIGHT – MAXIMUM	35 FT
FLOOR AREA RATIO – MAXIMUM	0.25 MAXIMUM (14,244 S) ACTUAL 11,097 SF
BUILDING SETBACKS	PROPOSED: F=70', S=20', R=10'
OPEN SPACE – MIN. 20%	ACTURAL 22.1% SEE SHT. 2 FOR SHADED OPEN SPACE
PARKING SPACES – MINIMUM	PROFESIONAL OFFICES: 3/1,000 SF 11,000 SF OFFICE: 11 x 3 = 33 SPACES REQUIRED PARKING: 33 SPACES PROVIDED PARKING: 70 SPACES
WAIVER/VARIANCE REQUESTS	NONE

INTENDED UTILITY PROVIDERS:

SANITARY SEWER:	CITY OF APOPKA (407) 688-5000
WATER DISTRIBUTION:	CITY OF APOPKA (407) 688-5000
ELECTRICAL POWER:	FLORIDA POWER AND LIGHT (386) 325-9061
NATRUAL GAS:	FLORIDA PUBLIC UTIITIES (386) 668-2600
FIRE/POLICE:	CITY OF APOPKA (407) 665-5070
GARBAGE:	WASTE PRO (407) 774-0800

LEGAL DESCRIPTION

LOTS 14 AND 17, BAILEY'S ADDITION TO PLYMOUTH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK B, PAGE 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA LESS RIGHT OF WAY FOR ROADS.

ADDED NOTES:

1. THE PLAT FOR THIS DEVELOPMENT HAS BEEN RECORDED ON April 21, 2022.
2. All ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
3. FIRE HYDRANTS SHALL BE MARKED WITH A BLUE ROAD REFLECTOR LOCATED MID-LANE ACROSS FROM THE FIRE HYDRANT.

DEVELOPMENT SUMMARY

CONSTRUCT A TWO (2) LOT COMMERCIAL SUBDIVISION AS FOLLOWS:
LOT 1 (SELF-STORAGE FACILITY)
LOT 2 (OUT-PARCEL FOR MEDICAL OFFICE USE)

INFORMATION

10/12/23	fifth edition
09/12/23	fourth edition
05/18/22	third edition
04/08/22	second edition
02/08/22	first edition
DATE	REVISIONS

CONSTRUCTION REVISION

PROJECT DIRECTORY

1.	DEVELOPER/OWNER	DAFFLYN 2 PROPERTY, LLC 351 VISTA OAK DRIVE LONGWOOD, FL 32779 (407) 595-2552
2.	CIVIL ENGINEER	AMERICAN CIVIL ENGINEERING CO. 207 N. MOSS ROAD, SUITE 211 WINTER SPRINGS, FL 32708 (407) 327-7700 OFFICE (407) 327-0227 FAX
3.	LAND SURVEYOR	IRELAND & ASSOCIATES SURVEYING, INC. 1301 S. INTERNATIONAL PARKWAY, SUITE 2001 LAKE MARY, FLORIDA 32746 (407) 678-3366 OFFICE (407) 320-8165 FAX
4.	SOILS ENGINEER	UNIVERSAL ENGINEERING SCIENCES 3532 MAGGIE BLVD. ORLANDO, FL 32811 (407) 423-0504 OFFICE (407) 869-9337 FAX
5.	LANDSCAPE ARCHITECT	ENVIRONMENTAL DESIGN ANDY KESSELRING, LANDSCAPE ARCHITECT PO BOX 5121 OCALA, FLORIDA 34478 (352) 622-8899 STATE OF FLORIDA #858

INDEX OF SHEETS

		DESCRIPTION
1		COVER SHEET
2		OVER-ALL MASTER SITE PLAN
3		DETAILED SITE PLAN
4		GRADING & PAVING SITE PLAN
5		GRADING TYPICAL SECTIONS
5.1		UTILITY PLAN
5.2		UTILITY PLAN
6		PLYMOUTH SORRENTO ROAD IMPROVEMENTS (south)
6.1		PLYMOUTH SORRENTO ROAD IMPROVEMENTS (north)
7		SITE PLAN DETAILS
8		GENERAL NOTES
9		EROSION CONTROL
10		SWPPP NOTES & SPECIFICATIONS
11		EXISTING CONDITIONS PLAN
12		UTILITY CONSTRUCTION DETAILS
13		FIRE TRUCK TURNING INFORMATION
14	L001	LANDSCAPE PLAN
15	L002	IRRGATION PLAN
16	L003	LANDSCAPE DETAILS
17	L004	IRRGATION DETAILS
18	P-1	PLAT SHEET 1
19	P-2	PLAT SHEET 2

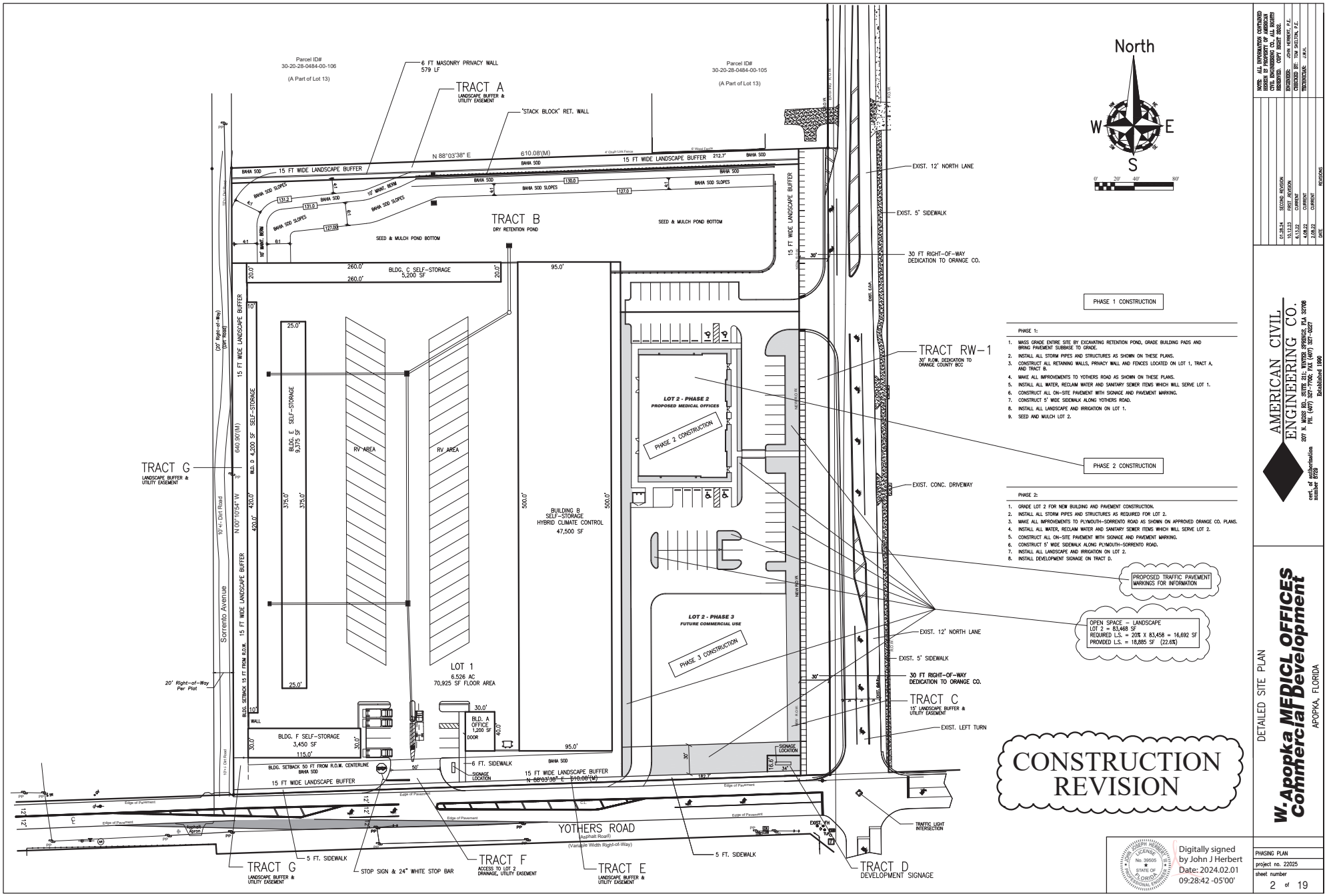
Construction Site Plan

West Apopka MEDICAL OFFICES

Plymouth Sorrento Road, Apopka, Florida 32703

Digitally signed by John J Herbert
Date: 2024.02.01 09:26:24 -05'00'

Cover Sheet
project no. 22025
sheet number 1 of 19



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DATE	REVISIONS	ENGINEER: JOHN HERBERT, P.E.
01.26.24	SECOND REVISION	CHECKED BY: TOM SHELTON, P.E.
10.12.23	FIRST REVISION	TECHNICIAN: J.WIL.
8.13.22	CURRENT	
4.08.22	CURRENT	
1.19.22	CURRENT	

AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD. SUITE 211 WINTER SPRINGS, FLA 32708
PH. (407) 327-7700 FAX (407) 327-0227
Established 1990
cert. of authorization number 8729

DETAILED SITE PLAN

W-Apopka MEDICAL OFFICES Commercial Development

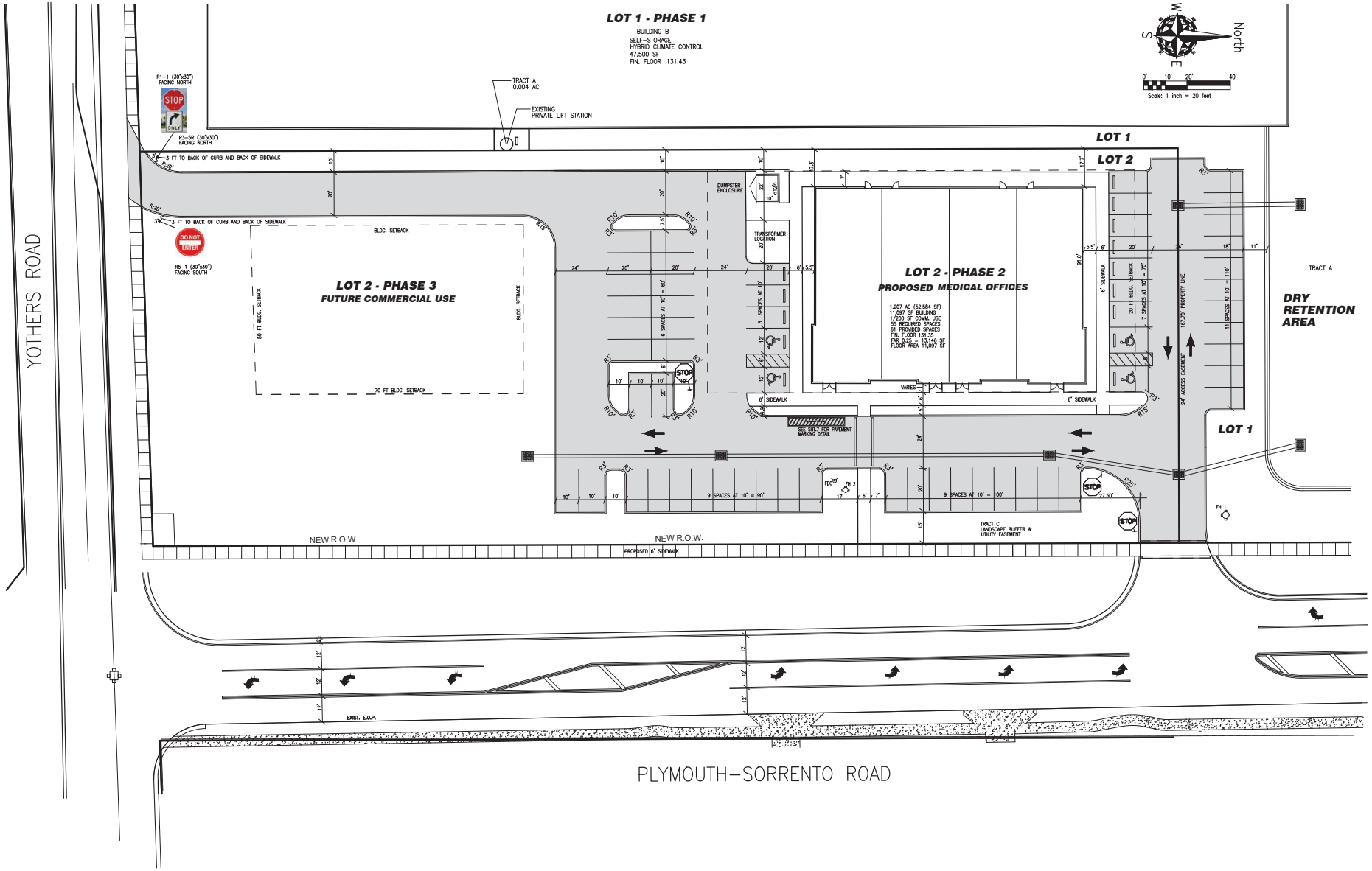
APOPKA, FLORIDA

PHASING PLAN

project no. 22025

sheet number 2 of 19

Digitally signed by John J Herbert
Date: 2024.02.01 09:28:42 -05'00'



CONSTRUCTION REVISION

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Date: 2024.02.01 09:29:01 -05'00'

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: JWH.

DATE	REVISIONS
01.28.24	SECOND REVISION
1.17.24	CURRENT
10.12.23	CURRENT
6.19.23	THIRD REVISION
4.12.23	SECOND REVISION
1.14.23	FIRST REVIEW

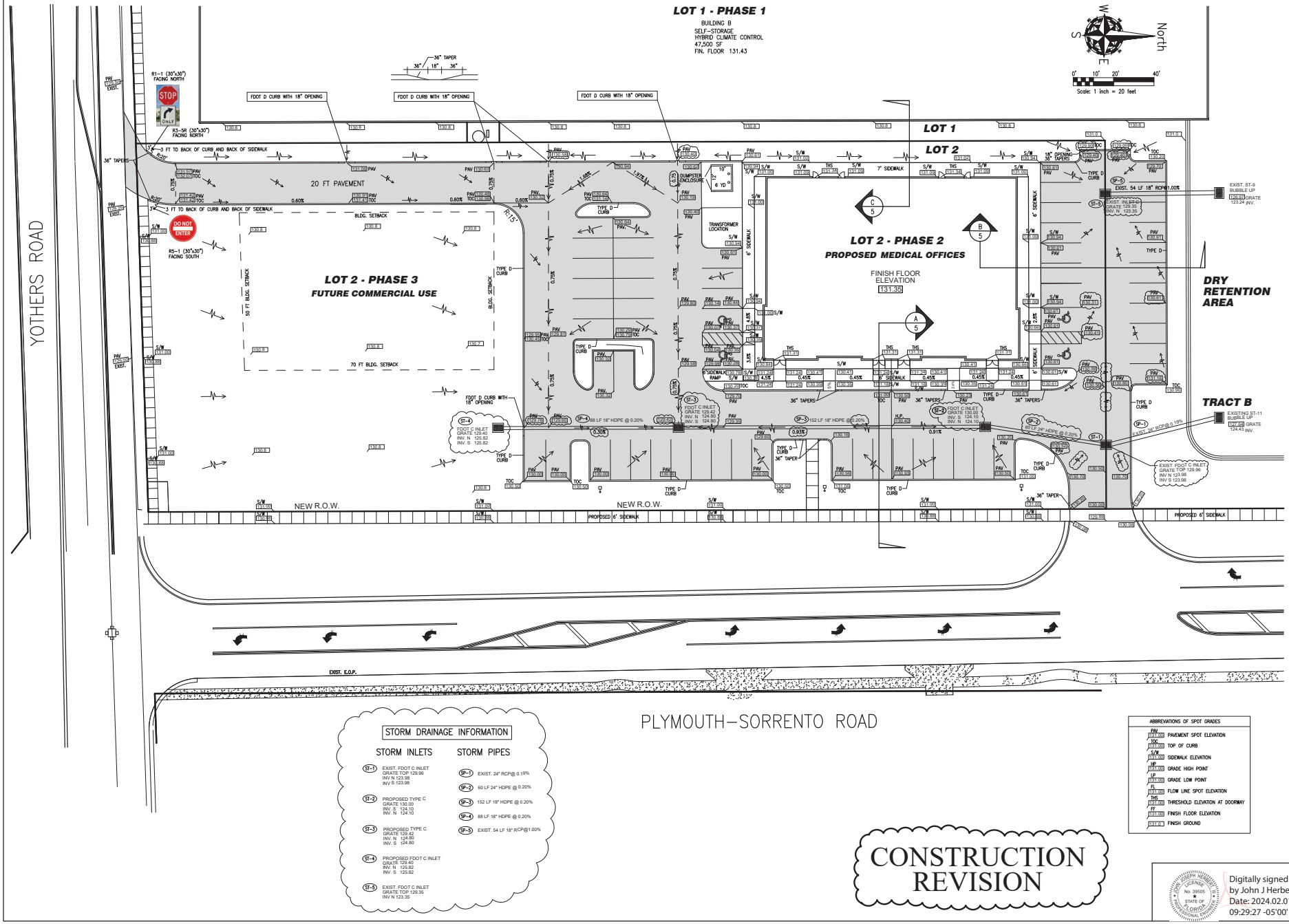
AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD., SUITE 211; WINTER SPRINGS, FLA 32708
PH. (407) 327-7700; FAX (407) 327-0227
Established 1990
cert. of authorization number 8729

MEDICAL OFFICES DEVELOPMENT PLAN

W. Apopka MEDICL OFFICES Commercial Development

APOPKA, FLORIDA

DEVELOPMENT PLAN
project no. 22025
sheet number
3 of 19



STORM DRAINAGE INFORMATION

STORM INLETS		STORM PIPES	
ST-1	EXIST. FDOT C INLET GRATE TOP 129.96 INV N 123.98 INV S 123.98	SP-1	EXIST. 24" RCP@ 0.19%
ST-2	PROPOSED TYPE C GRATE 130.00 INV. S 124.10 INV. N 124.10	SP-2	60 LF 24" HDPE @ 0.20%
ST-3	PROPOSED TYPE C GRATE 129.42 INV. N 124.80 INV. S 124.80	SP-3	152 LF 18" HDPE @ 0.20%
ST-4	PROPOSED FDOT C INLET GRATE 129.40 INV. N 125.82 INV. S 125.82	SP-4	88 LF 18" HDPE @ 0.20%
ST-5	EXIST. FDOT C INLET GRATE TOP 129.35 INV N 123.35	SP-5	EXIST. 54 LF 18" RCP@1.00%

ABBREVIATIONS OF SPOT GRADES	
PAV 131.00	PAVEMENT SPOT ELEVATION
TOC 131.00	TOP OF CURB
S/W 131.00	SIDEWALK ELEVATION
HP 131.00	GRADE HIGH POINT
LP 131.00	GRADE LOW POINT
FL 131.00	FLOW LINE SPOT ELEVATION
THS 131.00	THRESHOLD ELEVATION AT DOORWAY
FF 131.00	FINISH FLOOR ELEVATION
131.0	FINISH GROUND

CONSTRUCTION REVISION

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
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DATE	REVISIONS
1.28.24	CURRENT
1.17.24	CURRENT
8.12.23	FOURTH REVISION
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4.12.23	SECOND REVISION
1.31.23	FIRST REVISION

AMERICAN CIVIL ENGINEERING CO.
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PHASE 2 GRADING AND PAVING SITE PLAN

W.Apopka MEDICAL OFFICES Commercial Development

APOPKA, FLORIDA

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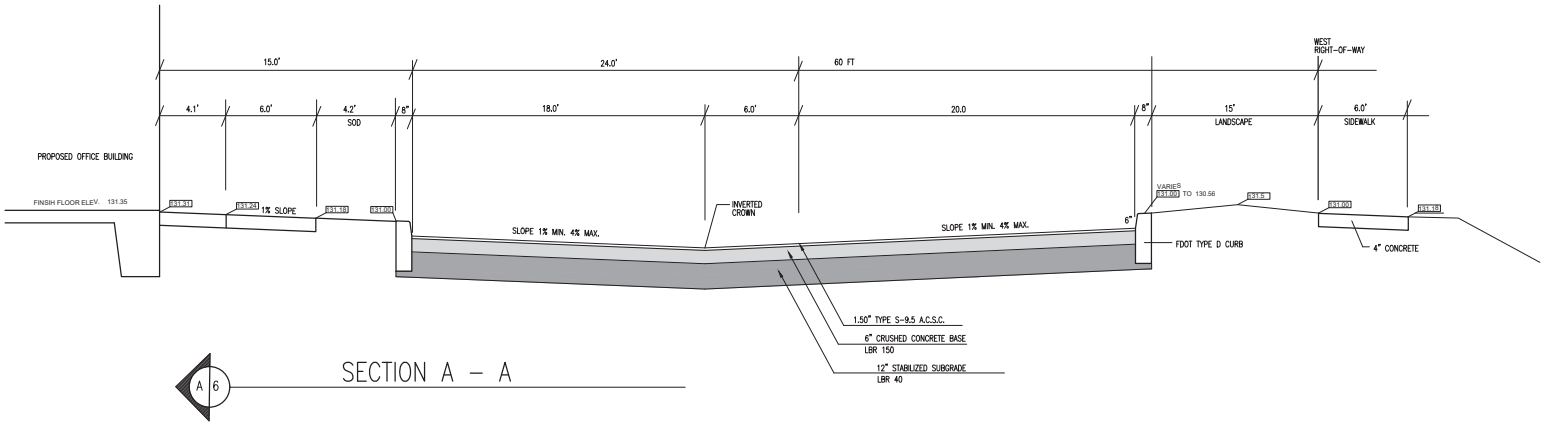
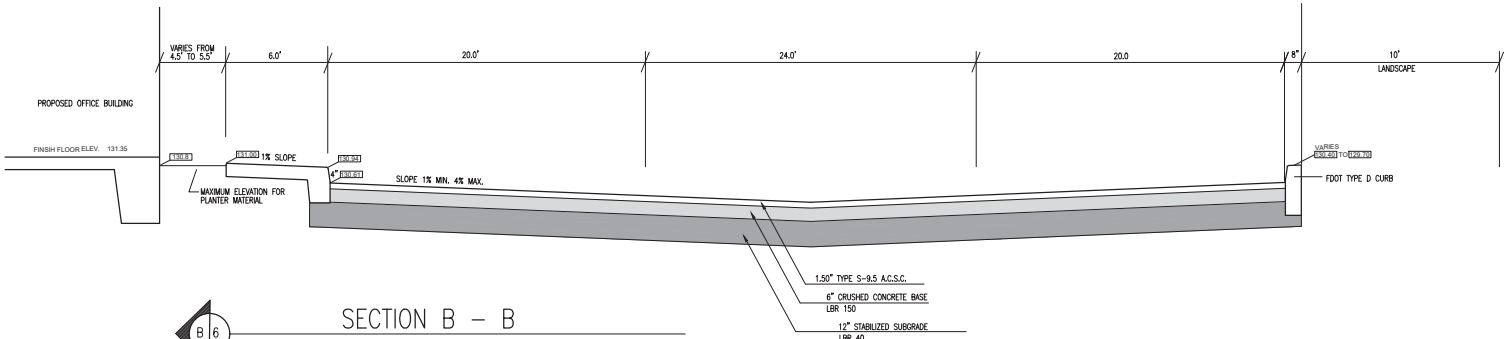
Date: 2024.02.01 09:29:27 -05'00'

Site Plan
project no. 22025
sheet number 4 of 19



A 6 SECTION A – A



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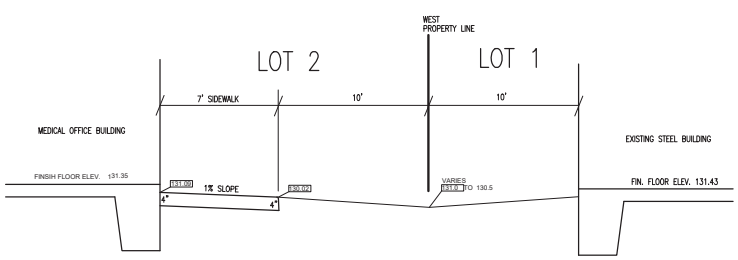

C 6 SECTION C – C

PAVING SPECIFICATIONS – ASPHALT SURFACE/CONC. FINES BASE:

SPECIFICATIONS FOR THE PARKING AREA AND DRIVES ARE AS FOLLOWS:

SUB-BASE REQUIREMENTS: FOR CRUSHED CONCRETE FINES BASE

A). 12" STABILIZED SUBGRADE TO HAVE A MIN. LBR=40 AND BE COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) VALUE.

BASE REQUIREMENTS:

A). 6" PLACED RECYCLED CRUSHED CONCRETE FINES COMPACTED TO A MINIMUM DENSITY OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AND SHALL HAVE A LBR 150.

SURFACE COURSE:

A). 1.50" FDOT ASPHALT CONCRETE TYPE 9.5, COMPACTED TO A MIN. OF 95% OF THE MARSHALL DESIGN DENSITY. AFTER PLACEMENT AND FIELD COMPACTION, THE WEARING SURFACE SHOULD BE CORED TO EVALUATE MATERIAL THICKNESS AND TO PERFORM LABORATORY DENSITIES. CORES SHOULD BE TAKEN AT A FREQUENCY OF ONE (1) CORE PER 10,000 SF OF PLACED PAVEMENT.

PAVING SPECIFICATIONS –CONCRETE (ALTERNATE PAVEMENT)

SPECIFICATIONS FOR THE PARKING AREA AND DRIVES ARE AS FOLLOWS:

SUB-BASE REQUIREMENTS FOR: CONCRETE PAVEMENT

A). COMPACT TO 95% OF THE MODIFIED PROCTOR MAX. DENSITY ACCORDING TO ASTM D-1557 TO A DEPTH OF 12" BELOW THE SLAB. REPAIR ALL RUTS

BASE REQUIREMENTS: (NONE)

PAVEMENT:

5.00" OF 4000 PSI CONCRETE WITH 6-6X10-10 WWF (AUTOMOTIVE AREAS) (LIGHT BROOM FINISH & SAW CUT 3/4" CONTROL JOINTS AT 10' GRIDS) PORTLAND CEMENT TYPE I

NOTE: ALL MATERIALS AND CONSTRUCTION METHODS TO MEET CURRENT FDOT STANDARDS AND SPECIFICATIONS.

CONSTRUCTION REVISION

JOSEPH HERBERT LICENSE No. 39505 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John J Herbert
Date: 2024.02.01 09:29:57 -05'00'

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.W.H.

DATE	REVISIONS
1.17.24	CURRENT
10.12.23	CURRENT
9.12.23	CURRENT
4.08.22	CURRENT
2.08.22	CURRENT

AMERICAN CIVIL ENGINEERING CO.
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PH. (407) 327-7700; FAX (407) 327-0227
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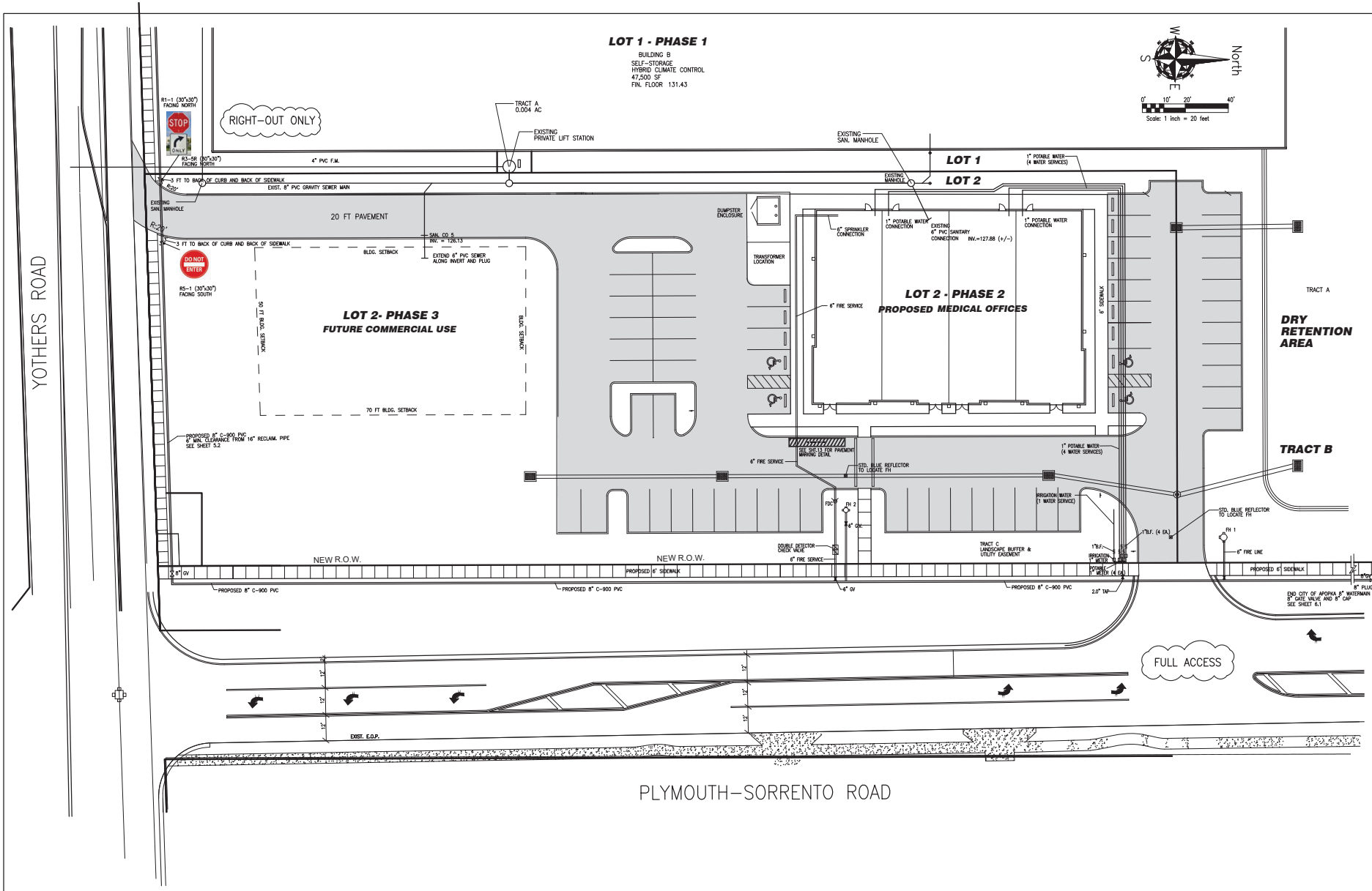
PHASE 2 GRADING SECTIONS

W. Apopka MEDICL OFFICES Commercial Development

APOPKA, FLORIDA

GRADING SECTIONS
project no. 22025
sheet number
5 of 19



CONSTRUCTION
REVISION

Digitally signed
by John J Herbert
Date: 2024.02.01
09:30:57 -05'00'

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6.19.23	THIRD REVISION
4.12.23	SECOND REVISION
1.13.23	FIRST REVISION

ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SHELTON, P.E.
TECHNICIAN: J.M.H.

AMERICAN CIVIL ENGINEERING CO.
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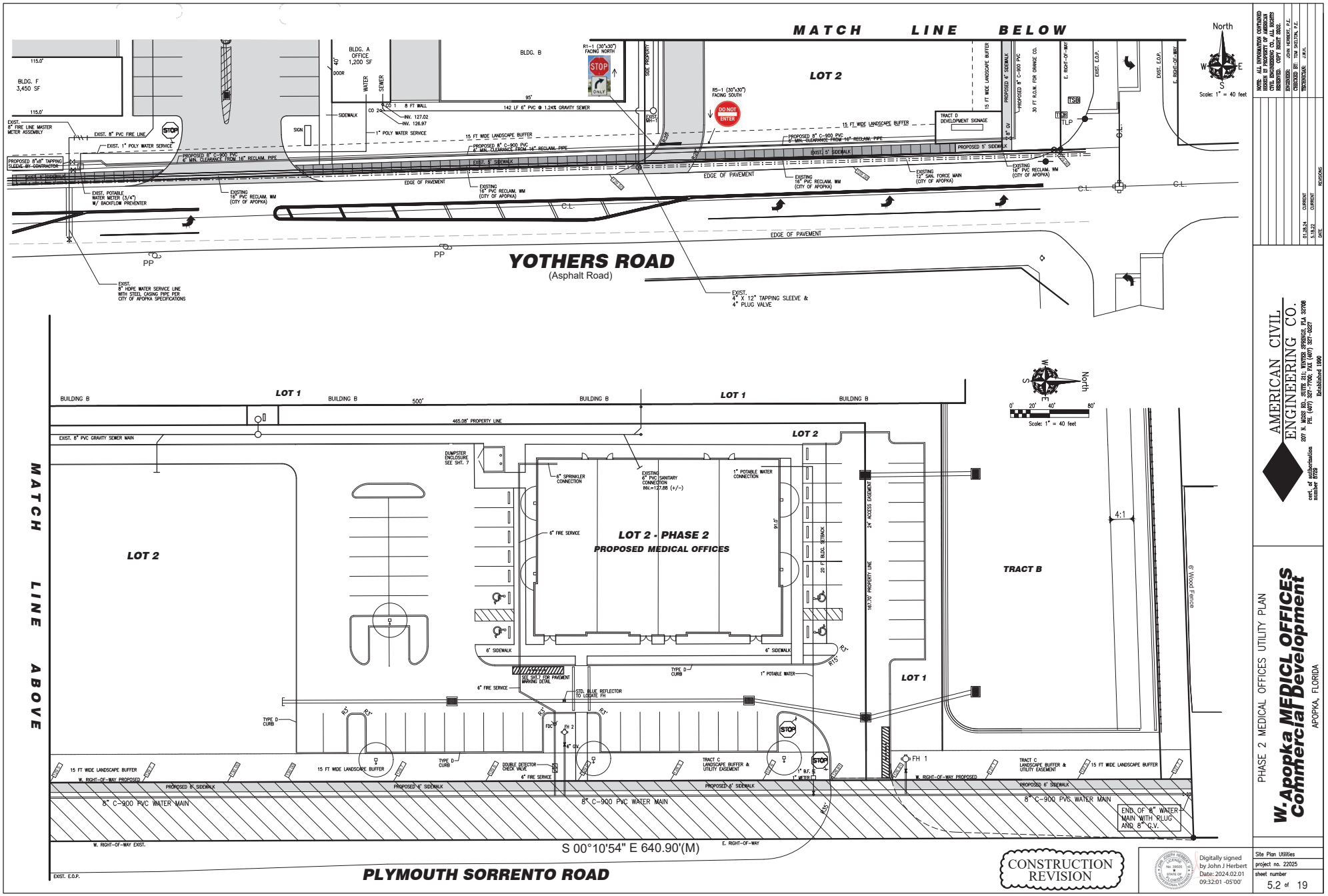
PH. (407) 327-7700 FAX (407) 327-0227
cert. of authorization number 8739
Established 1990

PHASE 2 MEDICAL OFFICES UTILITY PLAN

W. Apopka MEDICL OFFICES
Commercial Development

APOPKA, FLORIDA

Site Plan Utilities
project no. 22025
sheet number
5.1 of 19



CONSTRUCTION REVISION

Digitally signed by John J Herbert
Date: 2024.02.01 09:32:01 -05'00'

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PH. (407) 327-7700; FAX (407) 327-0227
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cert. of authorization number 27753

PHASE 2 MEDICAL OFFICES UTILITY PLAN

W. Apopka MEDICAL OFFICES
Commercial Development

APOPKA, FLORIDA

Site Plan Utilities
project no. 22025
sheet number 5.2 of 19

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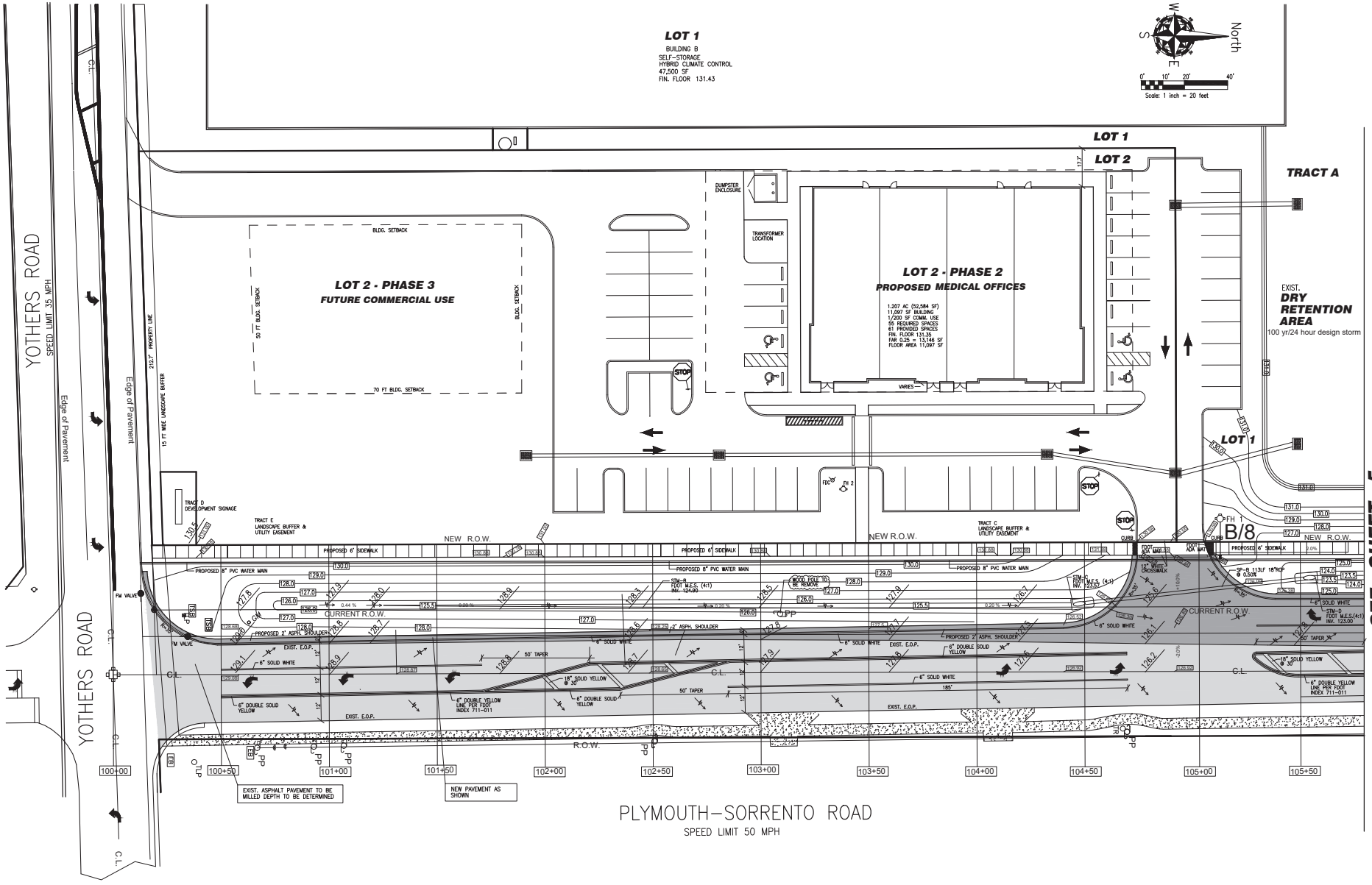
DRAWN BY: JOHN HERBERT, P.E.
CHECKED BY: TOM SHELTON, P.E.
TECHNICIAN: J.W.H.

NO.	DATE	REVISIONS
1	01.26.24	CURRENT



48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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DATE	REVISIONS
6.19.23	THIRD REVISION
4.12.23	SECOND REVISION
1.13.23	FIRST REVISION

ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SHELTON, P.E.
TECHNICIAN: J.M.H.

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207 N. MOON RD. SUITE 211 W.PALM SPRINGS, FLA. 33406
PH. (407) 327-7700 FAX (407) 327-0227
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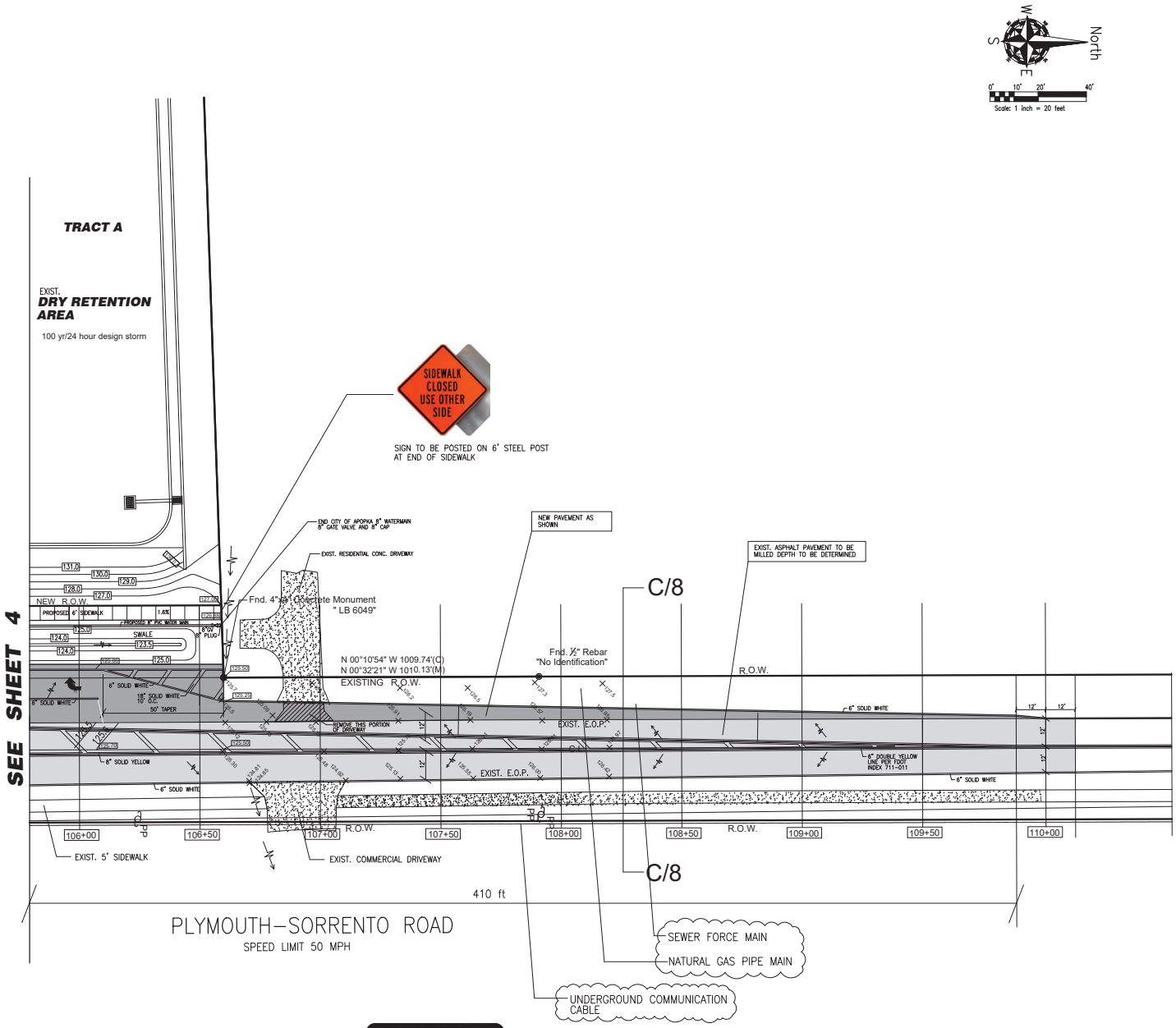
cert. of authorization number 6729

PROPOSED ROAD IMPROVEMENTS
PLYMOUTH-SORRENTO ROAD
ROAD IMPROVEMENTS TO PROVIDE ACCESS TO NEW MEDICAL OFFICE DEVELOPMENT

Digitally signed by John J Herbert
Date: 2024.02.01 09:32:32 -05'00'

Site Plan
project no. 22025
sheet number 6 of 19



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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.W.H.

DATE	REVISIONS
6.19.23	THIRD REVISION
4.12.23	SECOND REVISION
1.14.23	FIRST REVIEW

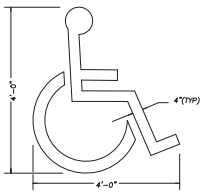
AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD., SUITE 211; WINTER SPRINGS, FLA 32708
PH. (407) 327-7700; FAX (407) 327-0227
cert. of authorization number 8729
Established 1990

PROPOSED ROAD IMPROVEMENTS
PLYMOUTH-SORRENTO ROAD
ROAD IMPROVEMENTS TO PROVIDE ACCESS TO NEW MEDICAL OFFICE DEVELOPMENT

JOHN JOSEPH HERBERT III LICENSE No. 39505 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John J Herbert
Date: 2024.02.01 09:32:58 -05'00'

site plan
project no. 22025
sheet number
6.1 of 19

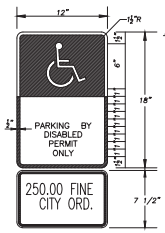


NOTE:

THIS SYMBOL TO BE WHITE D.O.T. THERMOPLASTIC

TYPICAL PAVEMENT SYMBOL FOR HANDICAPPED PARKING

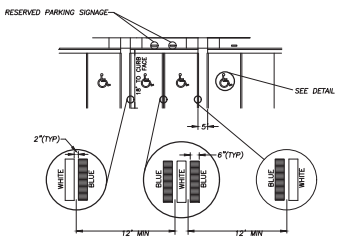
N.T.S.



NOTE: (HANDICAP SIGN ONLY)

1. ALL LETTERS SHALL BE BLACK AND 1" IN HEIGHT. LETTERS ARE TO BE SERIES "B" OR "C", PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK BORDER.
4. ONE SIGN REQUIRED FOR EACH PARKING SPACE.
5. HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

TYPICAL RESERVED PARKING SIGNAGE

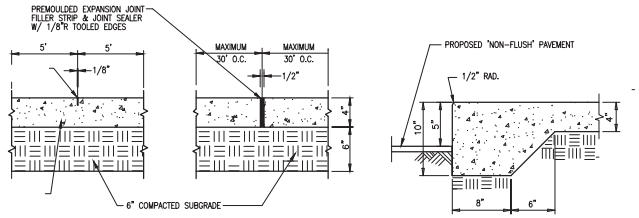


NOTES:

1. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY, OR THE CAPTION "PARKING BY DISABLED PERMIT ONLY," OR BEARING BOTH SUCH SYMBOL AND CAPTION. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAPPED PARKING SPACES MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION.
2. FL DOT RECOMMENDS MEASURING PARKING SPACE WIDTH FROM CENTER TO CENTER BETWEEN BLUE AND WHITE STRIPES.

HANDICAP PARKING STRIPING FOR MULTIPLE SPACES

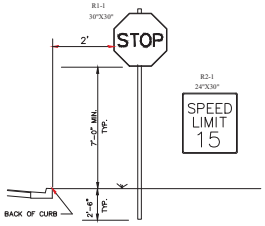
N.T.S.



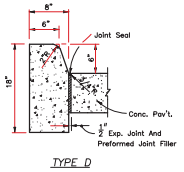
NOTES:

1. A THICKENED EDGE SHALL BE PROVIDED BETWEEN SIDEWALK AND DRIVEWAYS OR PARKING LOT.
2. SLOPE CONC. SIDEWALKS AWAY FROM BUILDINGS TO PROVIDE POSITIVE DRAINAGE.
3. PROVIDE 1% CROSS SLOPE ON CONC. WALKS TYP.
4. PROVIDE CONTROL JOINTS @ INTERVALS EQUAL TO SIDEWALK WIDTH (W).
5. PROVIDE PREMOLDED EXPANSION JOINT WHERE CONC. WALK ABUTS BLDG., POLES, AND OTHER CONC. WALKS.
6. REINFORCED CONCRETE WITH FIBERMESH OR 6-6X10X10 WWF

CONCRETE SIDEWALK DETAIL



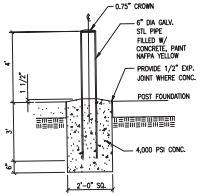
TRAFFIC SIGN DETAILS



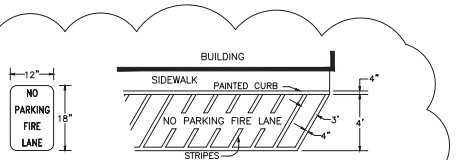
TYPE D

CURB DETAILS

FDOT INDEX 300



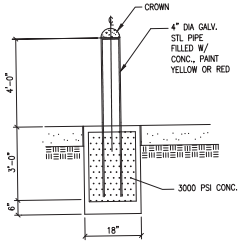
BOLLARD POST



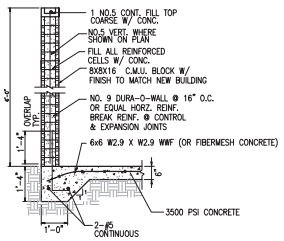
FIRE VEHICLE ACCESS ROUTES MARKING

1. SIGNS SHALL BE TWELVE (12) INCHES WIDE BY EIGHTEEN (18) INCHES IN HEIGHT, WHITE WITH THREE-INCH HIGH RED LETTERS NOT LESS THAN ONE-HALF INCH WIDE TO READ "NO PARKING FIRE LANE".
2. SIGNS SHALL BE DOUBLE FACED, SPACED NOT GREATER THAN ONE HUNDRED (100) FEET APART.
3. SIGNS SHALL BE MOUNTED ON METAL POSTS, NOT LESS THAN TWO (2) INCHES IN SIZE WITH BOTTOM OF SIGN NOT LESS THAN SEVEN (7) FEET FROM GRADE TO BOTTOM OF SIGN.
4. WHERE A CURB IS PROVIDED, FOUR (4) OF CURB TOP AND FACE TO BE TRAFFIC YELLOW (F.D.O.T. TRAFFIC RATED PAVEMENT PAINT). STRIPES FOUR (4) INCHES WIDE EXTENDING OUTWARD TO A WIDTH OF FOUR (4) FEET FROM CURB WITH THREE (3) FEET BETWEEN EACH STRIPE. STRIPING TO BE YELLOW THERMOPLASTIC OR EQUIVALENT.
5. LETTERS NOT LESS THAN FOUR (4) INCHES IN HEIGHT AND NOT LESS THAN TWO (2) INCHES IN WIDTH WITHIN THE STRIPING (BETWEEN THE POSTED SIGNS) TO READ "NO PARKING FIRE LANE". LETTERING TO BE TRAFFIC YELLOW F.D.O.T. TRAFFIC RATED PAVEMENT PAINT.
6. SIGNS AND PAINTING ARE TO BE MAINTAINED BY THE RESPONSIBLE PARTY OF THE PROPERTY.

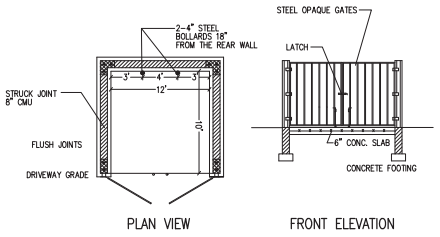
TYPICAL FIRE LANE REQUIREMENTS (ACCESS ROUTE MARKINGS & SIGN POSTING)



BOLLARD POST DETAIL



DUMPSTER ENCLOSURE WALL



DUMPSTER ENCLOSURE

NTS

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DRAWN BY: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.M.L.

DATE	REVISIONS
4.08.22	CURRENT
1.31.23	CURRENT

AMERICAN CIVIL ENGINEERING CO.
207 N. WOOD RD., SUITE 211 WINTER SPRINGS, FLA. 32708
PH.: (407) 327-7700; FAX (407) 327-0227
Established 1990
cert. of authorization number 6729

SITE PLAN DETAILS

W. Apopka MEDICL OFFICES
Commercial Development
APOPKA, FLORIDA

Digitally signed by John J Herbert
Date: 2024.02.01 09:33:27 -05'00'

SITE DETAILS
project no. 22025
sheet number 7 of 19

SEC. A GENERAL CONSTRUCTION NOTES:

1. THE FOLLOWING GENERAL NOTES APPLY TO ALL CONSTRUCTION AS DEPICTED ON THE SITE CONSTRUCTION PLANS.
2. ALL PROPOSED SITE CONSTRUCTION SHALL BE PURSUANT TO INFORMATION SHOWN ON THESE PLANS AS APPROVED BY THE GOVERNING AUTHORITIES.
3. ALL CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE STATE, FEDERAL AND LOCAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT THEIR EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER. IT WILL BE THE RESPONSIBILITY OF OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THERE IN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE PRIOR TO BIDDING AND ACCEPTING THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEMOLITION OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED WITH THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE PROJECT ENGINEER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.
5. ANY PROPOSED FIELD CHANGES WHICH SUBSTANTIALLY DEVIATE FROM THIS PLAN SHALL BE APPROVED BY THE GOVERNING AUTHORITIES AND THE ENGINEER PRIOR TO THE CHANGE TO MADE IN THE FIELD.
6. ALL WORK AND MATERIALS FURNISHED SHALL BE IN REASONABLE CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT, PLANS OR SPECIFICATIONS.
7. ANY DISCREPANCY BETWEEN THE CONSTRUCTION INFORMATION SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION. FAILURE TO DO SO AND TO CONTINUE CONSTRUCTION WITHOUT WRITTEN NOTIFICATION SHALL MAKE THE CONTRACTOR COMPLETELY LIABLE FOR WHATEVER ACTIONS AND/OR ERRORS THAT MAY SUBSEQUENTLY ARISE.
8. ALL IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH INFORMATION SHOWN ON THESE PLANS. ANY CONFLICTS WHICH RESULT IN CHANGES TO THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING PRIOR FOR REVIEW AND APPROVAL PRIOR TO FIELD CHANGES. MINOR ADJUSTMENTS CAUSED BY VARYING FIELD CONDITIONS, INCLUDING CHANGES AND DEPTHS OF CONFLICTING AND SWALES MAY BE MADE WITH THE APPROVAL OF THE ENGINEER IF THE BASIC DESIGN INTENT IS MET.
9. THE INTENT AND/OR INTERPRETATION OF THESE CONSTRUCTION PLANS IF REQUIRED, SHALL BE MADE BY THE ENGINEER OF RECORD. ANY NEED BY THE CONTRACTOR FOR FOR INTERPRETATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER UPON DISCOVERY. NO A.D.A. TRAVEL ROUTES SHALL EXCEED A 5% SLOPE. NO A.D.A. PARKING SPACE SHALL EXCEED A 2% SLOPE IN ANY DIRECTION. DRIVEWAYS CONNECTING TO EXISTING ROADS/STREETS TO EXCEED THE SITE PAVING AREAS SHALL NOT EXCEED A 8% SLOPE. VERTICAL CURVES SHALL HAVE A LENGTH OF 20 FT. MIN. AT CREST AND SAG LOCATIONS.
10. ALL HORIZONTAL LAYOUT FOR SITE CONSTRUCTION SHALL BE BASED ON THE APPROVED PLAN AND/OR PLAT, AND PERFORMED BY QUALIFIED PERSONNEL.
11. ALL ELEVATIONS REFER TO THE DATUM AS INDICATED ON THE SURVEY (BY OTHERS).
12. THE CONTRACTOR SHALL TAKE CARE DURING THE CONSTRUCTION TO AVOID DISTURBING ANY EXISTING SURVEY MONUMENTS. ANY MONUMENT DISTURBED BY THE CONTRACTOR SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY THE PROJECT SURVEYOR.
13. THE CONTRACTOR SHALL HIRE A PROFESSIONAL TESTING LABORATORY AS NECESSARY TO PERFORM ALL TESTS REQUIRED BY THIS CONTRACT.
14. THE CONTRACTOR SHALL NOTIFY AMERICAN CIVIL ENGINEERING COMPANY 24 HOURS IN ADVANCE PRIOR TO ANY TESTING AND SUPPLY THE ENGINEER WITH REQUIRED TEST RESULTS.
15. THE DESIGN AND ENGINEERING OF THIS PROJECT IS BASED ON INFORMATION SUPPLIED BY OTHERS. EASEMENTS OR OTHER ENCUMBRANCES, WHICH MAY EXIST AND NOT SHOW ON THE SURVEY ARE NOT THE RESPONSIBILITY OF THE ENGINEER.
16. EXISTING SOILS CONDITIONS WHICH DIFFER FROM THE SOILS REPORT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AT TIME OF DISCOVERY.
17. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. SPECIAL ATTENTION SHALL BE PAID TO:
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFER AND RETENTION AND DETENTION FACILITIES UNTIL THEY HAVE BEEN ACCEPTED BY THE OWNER. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
19. ANY FUEL STORAGE AREAS SHALL HAVE PRIOR OWNERS APPROVAL AND APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE PROTECTION OF GROUNDWATER AND SOIL RESOURCES.
20. SITE WORK PERFORMED ON THIS PROJECT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHEN AND WHERE NECESSARY WITH UTILITY COMPANIES AND OTHERS.
21. THE INFORMATION ON THESE CONSTRUCTION PLANS ARE SUBJECT TO APPROVAL BY THE CITY, COUNTY, STATE AND FEDERAL AGENCIES. ALL WORK SHALL BE PURSUANT TO APPROVED PLANS AND ISSUED PERMITS.
22. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
23. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED AND AND SHALL BE INVESTIGATED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO INSTALLATION OF UNDERGROUND PIPES, FOOTERS OR EXCAVATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY OF LOCATION OF EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE UTILITIES AND TO MAKE ALL NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THESE UTILITIES WITH THE OWNER OF THE UTILITY.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COST WHICH MAY OCCUR DUE TO TO ANY DAMAGES CAUSED BY THE CONTRACTOR TO EXISTING UTILITY STRUCTURES OR PROPERTY. THE CONTRACTOR SHALL COVER THE ENTIRE COSTS OF ALL REPAIRS AND/OR REPLACEMENT.
25. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF KNOWN UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS AFFECTED UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING "SUNSHINE" AT 1-800-432-4770 OR 811. THE CONTRACTOR'S RESPONSIBILITY IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT INCLUDED IN THE "SUNSHINE" PROGRAM.
26. CHAPTER 77-453 OF THE FLORIDA STATUTES REQUIRES THAT ANY PERSON EXCAVATING GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. MAPS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS AND DO NOT SHOW SERVICE LINES. THE ONLY SAFE AND CORRECT WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE THE RESPECTIVE GAS COMPANY PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO CONTACT THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE BEGINNING EXCAVATION AREA.
27. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF THE PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, ELECTRIC POWER, TELEPHONE, GAS AND CABLE TELEVISION. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL UNDERGROUND CONDUITS (INCLUDING IRRIGATION) PRIOR TO SUB-BASE CONSTRUCTION.
28. UPON NOTICE FROM THE CONTRACTOR THAT CONSTRUCTION IS COMPLETE AND READY FOR ACCEPTANCE, THE ENGINEER SHALL MAKE FINAL INSPECTION AND NOTIFY THE CONTRACTOR AND OWNER OF ANY INCOMPLETE AND/OR DEFECTIVE WORK. THE CONTRACTOR SHALL CORRECT ALL SUCH ITEMS TO THE SATISFACTION OF THE ENGINEER AND OWNER. ALL REGULATORY AND GOVERNMENTAL AGENCIES WHICH REQUIRE FINAL INSPECTIONS SHALL HAVE BEEN CONTACTED BY THE CONTRACTOR AND HAVE INSPECTED AND APPROVED THE PROJECT PRIOR TO ACCEPTANCE BY THE OWNER.
29. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE. THE PLANS SHALL BE KEPT IN GOOD ORDER
30. THE CONTRACTOR SHALL PROVIDE COMPLETE "AS-BUILT" INFORMATION TO THE ENGINEER RELATIVE TO THE LOCATION OF ALL WATER LINES, WATER SERVICES, VALVES, SEWER LINES, SEWER SERVICES, STORM LINES, INVERTS OF STRUCTURES, FINAL RETENTION AREAS, FINISH PAVEMENT GRADES AND CONSTRUCTION BENCH MARKS FOR VERIFICATION. THE "AS-BUILT" RECORDS SHALL BE KEPT AT THE JOB SITE AND UPDATED AS THE PROJECT PROGRESSES. ONE (1) SET OF AS-BUILT PLANS ARE TO BE PROVIDED TO THE ENGINEER.
31. ENGINEER TO PROVIDE RECORD DRAWINGS AND CERTIFICATIONS TO THE ISSUED PERMITS.

48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

CURB INLET TYPE P-4
P-5 INLET
STORM JUNCTION BOX
CONCRETE MITERED END
CONTROL STRUCTURE
WINGED CONCRETE ENDWALL
CONCRETE FLUME W/ RUBBLE RIP RAP

SEC. B EARTHWORK:

1. EXISTING TOPOGRAPHY AND CONTOURS ARE BASED ON THE SURVEY (BY OTHERS).
2. A GEOTECHNICAL SOILS REPORT HAS BEEN PREPARED FOR THIS PROJECT. CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE CONSTRUCTION PLANS SHALL BE REPORTED TO THE ENGINEER UPON DISCOVERY. THE CONTRACTOR SHALL REVIEW THE SOILS REPORT PRIOR TO BIDDING.
3. THE CONTRACTOR SHALL READ AND ADHERE TO ALL RECOMMENDATIONS CONTAINED IN THE SOILS REPORT.
4. EXISTING TREES, PLANTS AND SHRUBS WHICH ARE MARKED OR DESIGNATED AS PART OF THE LANDSCAPING SHALL BE CAREFULLY PROTECTED DURING CONSTRUCTION. WHERE TREES, PLANTS OR SHRUBS ARE ADJACENT TO THE CONSTRUCTION CARE SHALL BE TAKEN TO PROTECT AND RESTORE THE ORIGINAL CONDITIONS OF THE VEGETATION.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES, AS NECESSARY.
6. ALL SITE CLEARING AND GRUBBING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 110 OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
7. ALL EXCAVATION AND EMBANKMENT SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 120 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
8. ALL FILL AREAS GREATER THAN 12 INCHES IN HEIGHT SHALL BE COMPACTED IN 12 INCH LIFTS (MEASURE PRIOR TO COMPACTION) TO 98% MAXIMUM DENSITY PER A.A.S.H.T.O. T-180.
9. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED UNLESS OTHERWISE NOTED ON THESE PLANS. ALL GRASSING SHALL BE PERFORMED IN ACCOR-DANCE WITH SECTION 570 OF FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
10. ALL DESIGNATED AREAS TO BE SODDED PER THE PLANS, SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 575 OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
11. THE CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN LANDSCAPE ISLANDS OR MEDIANS.
12. FINISH FLOOR ELEVATIONS ARE TYPICALLY 6 INCHES ABOVE DESIGN FINISHED GRADE AT OUTSIDE PERIMETER OF BUILDINGS EXCEPT AT ENTRIES AND WHERE OTHERWISE SHOWN ON THE GRADING PLAN.
13. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL DUST, MUD AND EROSION DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ANY PROPERTIES AND RIGHTS-OF-WAY FROM DAMAGE BY DEBRIS, SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED DUST.
14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXISTING SITE AND SOIL CONDITIONS AND DETERMINE IF ANY OFF-SITE MATERIALS WILL NEED TO BE IMPORTED TO ACHIEVE THE GRADES SPECIFIED ON THE PLANS.
15. ALL EXCESS FILL MATERIAL ON SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNER'S REPRESENTATIVE AND THE ENGINEER.
16. ALL AREAS INDICATED SHALL BE COMPLETELY CLEAR OF ALL TIMBER, BRUSH, STUMPS ROOTS, GRASS, WEEDS, RUBBISH, AND ALL OTHER DEBRIS AND OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE GROUND.
17. PRIOR TO BID PREPARATION, ALL CONTRACTORS SHALL BECOME FAMILIAR WITH THE OVERALL SITE CONDITIONS AND PERFORM ADDITIONAL INVESTIGATIONS AS DETERMINED NECESSARY BY THEM TO UNDERSTAND THE LIMIT AND DEPTH OF EXPECTED ORGANIC SILT PEAT AREAS, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFF-SITE AND MATERIALS TO BE DISPOSED OF OFF-SITE, ALL OF WHICH WILL AFFECT PRICING. ANY DELAY, INCONVENIENCE OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE CONTRACTOR'S RISK TO CORRECT, WITH NO EXTRA COMPENSATION WILL BE ALLOWED. THE MATERIALS ANTICIPATED TO BE ENCOUNTERED DURING CONSTRUCTION MAY BE DESCRIBED IN THE SOILS REPORT, BUT THE CONTRACTOR MAY HAVE TO IMPORT MATERIALS, AT NO EXTRA COST, FROM OFF-SITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL.

SEC. C DRAINAGE:

1. ALL DRAINAGE RELATED CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT ISSUED FOR THIS PROJECT.
2. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
3. THE ABOVE F.D.O.T. CONSTRUCTION DETAILS ARE HEREBY INCORPORATED THESE PLANS BY REFERENCE.
4. PIPE LENGTHS SHOWN REPRESENT SCALED DIMENSIONS BETWEEN CENTER-LINES OF DRAINAGE STRUCTURES AND FROM END OF HEADWALLS AND MITERED END SECTIONS. BIDDERS SHALL ADJUST FOR PIPE LENGTHS WHEN BIDDING MITERED END SECTIONS.
5. ALL STORMWATER DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE (ASTM C-76, CLASS III) UNLESS NOTED OTHERWISE.

SEC. D PAVING:

1. ALL PAVEMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH F.D.O.T. CURRENT CONSTRUCTION SPECIFICATIONS.
2. ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW LINE ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE AND NO UNUSUALLY STEEP OR FLAT LONGITUDINAL CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE ADJUSTED IN THE FIELD TO INSURE SMOOTH, SAFE AND FUNCTIONAL CONNECTIONS, IN SUCH AREAS, IT MAY ALSO BECOME ADVISABLE TO MAKE MINOR FIELD ADJUSTMENTS IN PAVEMENT GRADES TO ELIMINATE TRANSITION PROBLEMS.
3. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. THE CONTRACTOR IS TO COORDINATE WITH THE ENGINEER PRIOR TO ANY ELEVATION CHANGES.
4. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE ENGINEER FOR APPROVAL.
5. THE CONTRACTOR IS TO PROVIDE A 1/2" BITUMINOUS EXPANSION JOINT MATERIAL AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
6. ALL ON-SITE PAVEMENT MARKINGS SHALL BE MADE WITH NON-THERMOPLASTIC PAINT TO FDOT STANDARD SPECIFICATIONS. PARKING STALL STRIPING TO BE 4" WIDE.
7. THE CONTRACTOR IS TO INSTALL EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT ELEVATIONS AND THE TOP OF THE PIPE OR BELL IS LESS THAN 12 INCHES. SEE "EXTRA BASE FOR CROSS CULVERTS UNDER FLEXIBLE PAVEMENT DETAIL"
8. CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "I" CONCRETE WITH A 28-DAY COMPRESSION STRENGTH OF 3000 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.
9. PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 14 DAY PAVEMENT CURING PERIOD SHALL BE PROVIDED PRIOR TO THE APPLICATION OF PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.
10. A MINIMUM OF 2 WAY TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

SEC. E EROSION CONTROL:

1. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING, EXCAVATION, FILLING OR OTHER LAND DISTURBING ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES OR UNDERGROUND UTILITIES INSTALLATIONS.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEM AND ADJACENT WATER BODIES AND WETLANDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT CONDITIONS RELATED TO SUCH MEASURES. METHODS MAY INCLUDE BUT ARE NOT LIMITED TO, FLOATING SILT BARRIERS, SEDIMENTATION BASINS, SEDIMENT CHECK DAMS, SILT FENCES, SYNTHETIC BALS. THE MEASURES SHOWN ON THESE PLANS SHALL BE CONSIDERED MINIMUM AND SHALL NOT ABSOLVE THE CONTRACTOR FROM THE RESPONSIBILITY TO IMPLEMENT ANY MEASURES NECESSARY TO PROVIDE PROTECTION, EROSION, SEDIMENTATION AND TURBIDITY.
3. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE F.D.O.T. MANUAL FOR EROSION CONTROL (LATEST ED.)
4. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND NEEDED REPAIRS OR MAINTENANCE SHALL BE COMPLETED BEFORE WORK STOPS FOR THE DAY.
5. TEMPORARY SEDIMENT TRAPS ARE ACCEPTABLE IF THE INLET IS PROPERLY SCREENED WITH SYNTHETIC BALES AND LOW ENOUGH IN ELEVATION FOR FOR RUNOFF TO ENTER THE STRUCTURE.
6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONTINUOUSLY MAINTAINED BY THE CONTRACTOR DURING THE CONSTRUCTION PHASE OF THIS PROJECT UNTIL ACCEPTED BY THE OWNER.
7. FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES COULD RESULT IN CONSTRUCTION BEING SUSPENDED BY THE ENGINEER.
8. SEDIMENT BARRIERS SHALL MEET D.O.T STANDARDS.
9. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION BY THE ENGINEER OF RECORD.
10. ALL SEEDING FOR TEMPORARY STABILIZATION SHALL BE DONE AS EACH AREA IS MADE READY. CONSTRUCTION SEQUENCE TO MINIMIZE EROSION AND SEDIMENTATION AT STORM-WATER DISCHARGE POINTS:
   A. CONTRACTOR TO INSTALL FDOT TYPE III SILT FENCES AT SITE DISCHARGE POINTS.
   B. CONTRACTOR TO CONSTRUCT POND AND CONNECTING DRAINAGE AND OUTFALL PIPES AT INITIAL STAGES OF CONSTRUCTION.
   C. ALL GRADING OPERATIONS SHALL BE PERFORMED WITHOUT DELAY, PAUSE OR SUSPENDED (CONTINUOUS OPERATION) UNTIL PROPOSED GRADES ARE MET. ALL EXPOSED EARTH SHALL BE SEEDED AND MULCHED OR SODDED SOON AFTER AFTER GRADING IS COMPLETED.
11. EROSION CONTROL PLAN – ANY MODIFICATIONS TO THIS PLAN MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REPRESENTING THE CONTRACTOR. THE MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD AND IF SIGNIFICANT, THE PERMITTING AGENCY. NO CONTRACT DELAYS WILL BE ALLOWED FOR SUCH MODIFICATIONS OR APPROVALS.
12. OUTFALL PROTECTION – PROJECT PIPE OR DITCH DISCHARGES INTO OFF-SITE OUTFALLS SHALL BE INSPECTED DAILY FOR POSSIBLE SEDIMENT BUILDUP OR EROSION. OUTFALLS SHALL BE PROTECTED THROUGH USE OF ENVIRONMENTAL CONTROL FEATURES AS NECESSARY TO CONTAIN AND PREVENT FLOODING THE IMMEDIATE AREA OF THE PROJECT. ANY SEDIMENT BUILDUP OR TRANSPORT OFF-SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMEDY. THE CONTRACTOR SHALL USE APPROPRIATE MEASURES AS DIRECTED BY THE PROJECT ENGINEER FOR OUTFALL PROTECTION.
13. SLOPE PROTECTION – ANY DISTURBED OR REWORKED SLOPES 3:1 OR GREATER IN SLOPE SHALL BE ADEQUATELY PROTECTED FROM EROSION THROUGH THE USE OF TEMPORARY SODDING UNTIL PERMANENT VEGETATION IS STABILIZED. SUCH SLOPES SHALL NOT BE LEFT UNPROTECTED MORE THAN 24 HOURS OR PRIOR TO ANTICIPATED RAINFALL EVENTS.
14. SYNTHETIC HAY BALES – SHALL BE PLACED AT THE BASE OF ANY SLOPE WHERE A RAINFALL EVENT COULD ERODE A SLOPE AND TRANSPORT SEDIMENTS OFF SITE. BALES SHALL BE DOUBLE STAKED IN ACCORDANCE WITH FDOT STANDARDS. IF EROSION DEPOSITS REACH THE NEAR THE TOP OF EXISTING BALES THEN SEDIMENTS SHOULD BE REMOVED. ANY DAMAGED OR INEFFECTIVE BALES ARE TO BE REPLACED. THE EXACT LOCATION OF BALE INSTALLATIONS SHALL BE AS DIRECTED BY THE CONSTRUCTION SUPERINTENDENT.
15. A. BACK OF SIDEWALK OR CURB INLETS – THESE SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL PROJECT IS COMPLETE. ELEVATION OF GROUND OUTSIDE INLET TOP SHALL NOT BE HIGHER THAN INLET TOP. SOCK PIPE SHALL BE INSTALLED AROUND INLET TOP. A SECOND ROW OF SOCK PIPE SHALL BE PLACED AROUND INLET APPROXIMATELY 4' OUTSIDE FIRST ROW. BETWEEN ROWS THERE SHALL BE A DEPRESSIONS TO ACT AS A SEDIMENT BASIN. COMPLETED INLETS IN PAVED AREAS SHALL ALSO BE PROTECTED WITH A SINGLE LINE OF SOCK PIPE TO PREVENT SEDIMENT INTAKE FROM OTHER AREAS.

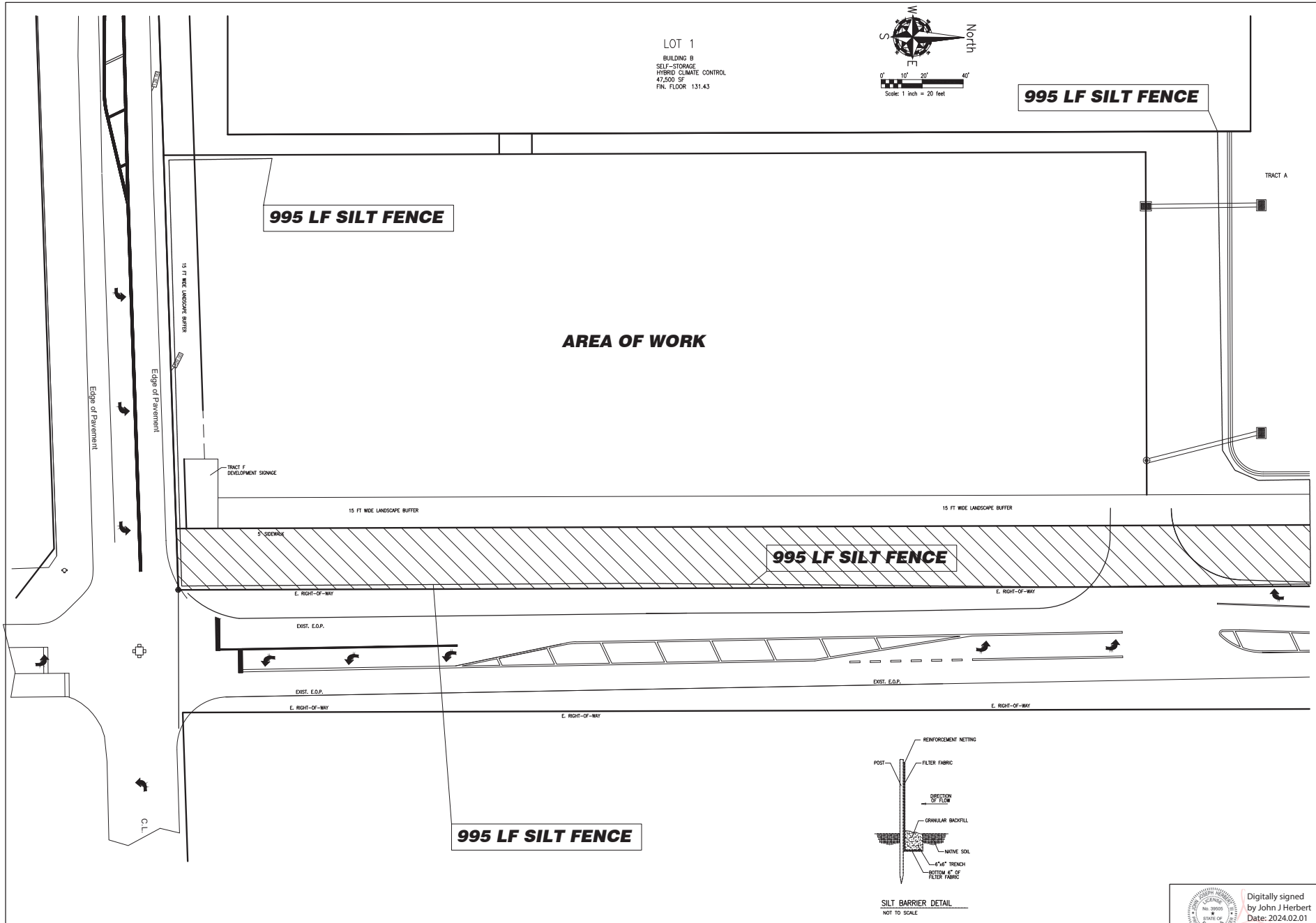
   B. CURB INTAKES – THESE INLETS SHALL BE PROTECTED FROM SEDIMENT INTAKE UNTIL THE PROJECT IS COMPLETE. A SILT FENCE (TYPE III) SHALL BE PLACED AROUND THE TOP OF THE BACK INLET IMMEDIATELY ADJACENT TO THE EDGE OF THE THE INLET. ALL EXPOSED SLOPED MATERIAL ADJACENT TO THE INLET SHALL BE COVERED WITH EROSION CONTROL SOD TO MINIMIZE SEDIMENT ENTERING THE NEW INLET.
16. STOCKPILED MATERIALS SHALL NOT BE LEFT IN EROSION PRONE AREAS TO NEXT TO A KNOWN WETLANDS.
17. DAILY INSPECTION OF ALL EROSION CONTROL MEASURES AND CONDITIONS OF ADJACENT PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR. ANY AREAS OF CONCERN SHALL BE REPORTED TO THE ENGINEER. ANY EROSION AREAS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.

SEC. F DRY POND & SWALE RETENTION AREAS:

1. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL SYSTEMS FOR CONFORMANCE WITH THE SITE CONSTRUCTIONS PLANS AND FIELD CHANGES. BANKS AND SLOPES OF DRY RETENTION AREAS SHALL ALSO BE CHECKED AFTER RAINFALL EVENTS FOR EROSION PROBLEMS.
2. THE CONTRACTOR SHALL REPAIR ALL EROSION AND SEDIMENT CONTROL SYSTEMS AS REQUIRED FOR CONTINUED FUNCTION. RE-GRADE IF REQUIRED, TO MAINTAIN DESIGN CONFIGURATION. ADD SOD AND SILT FENCES AS REQUIRED TO PREVENT SOIL AND SILT FROM EXITING THE SITE.
3. MOW RETENTION AREAS REGULARLY TO MAINTAIN WEED OVERGROWTH AND PROMOTE TURF GROWTH.
4. INSPECT RETENTION AREAS PERIODICALLY FOR ACCUMULATION OF DEBRIS AND TRASH. PROPERLY DISPOSE OF ALL DEBRIS AND TRASH IN RETENTION AREAS AND CONVEYANCE SWALES.
5. INSPECT RETENTION AREA BOTTOMS FOR DEPOSITS OF SAND AND/OR SILT AND REMOVE.
6. PERCOLATION PERFORMANCE SHALL BE EVALUATED YEARLY FOR EACH DRY RETENTION AREA. THE RETENTION AREAS SHALL PERCOLATE THE DESIGN WATER QUALITY VOLUME WITHIN 72 HOURS OF THE END OF RAINFALL EVENT. BOTTOM MAINTENANCE SHALL BE PERFORMED AS REQUIRED BY EXERCISING THE FOLLOWING PROCEDURE:
   A. REMOVE 4 TO 6 INCHES OF RETENTION AREA BOTTOM MATERIAL AND SCARIFY.
   B. REPLACE EXCAVATED MATERIAL WITH CLEAN SAND MATERIAL TO DESIGN GRADE AND SEED AND MULCH OR COVER WITH NON-MUCK GROWN SOD.

SEC. G WORKS IN PUBLIC RIGHT-OF-WAY:

1. ALL LOCAL, STATE AND FEDERAL ORDINANCES, POLICIES AND/OR OTHER REGULATIONS REGARDING TRAFFIC AND PEDESTRIAN TEMPORARY BARRICADES, LIGHTS, SIGNALS, SIGNAGE ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SAFE AND CONVENIENT MEANS OF ACCESS AND EGRESS TO ALL PARTS OF THE PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR.
2. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC IN REASONABLE CONFORMITY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS OR AS DIRECTED BY F.D.O.T. AND LOCAL TRAFFIC ENGINEER SUCH AS TO EFFECTIVELY GIVE NOTICE TO ALL PLACES WHERE THE WORK CAUSES OBSTRUCTIONS TO THE NORMAL TRAFFIC OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC.
3. THE CONTRACTOR SHALL CONTROL HIS OPERATIONS AND THOSE OF HIS SUBCONTRACTORS AND ALL SUPPLIERS TO ASSURE THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC. THE CONTRACTOR SHALL MAINTAIN FREE AND UNOBSTRUCTED MOVEMENT OF VEHICULAR TRAFFIC AND SHALL LIMIT HIS OPERATIONS FOR THE SAFETY AND CONVENIENCE OF THE TRAVELING PU



SILT BARRIER DETAIL
NOT TO SCALE

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SHELTON, P.E.
TECHNICIAN: J.M.H.

DATE	REVISIONS
9.12.23	CURRENT
4.08.22	CURRENT
2.08.22	CURRENT

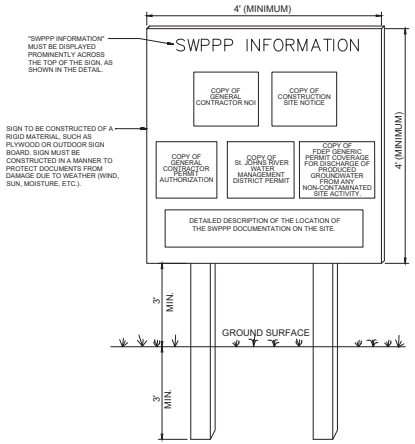
AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD. SUITE 211 WINTER SPRINGS, FLA 32708
PH. (407) 327-7002, FAX (407) 327-0227
Established 1990
cert. of authorization number 6729

PHASE 2 EROSION CONTROL PLAN
W. Apopka MEDICL OFFICES
Commercial Development
APOPKA, FLORIDA

JOHN J. HERBERT LICENSE No. 39505 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John J Herbert
Date: 2024.02.01 09:34:16 -05'00'

EROSION CONTROL PLAN
project no. 22025
sheet number 9 of 19



NOTES:
1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN
NTS

SWPPP NOTES:

1. SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:
CONSTRUCTION OF A MEDICAL OFFICES AND SITE WORK CONSISTING OF CLEARING, GRADING, UNDERGROUND UTILITIES, AND LANDSCAPING PER APPROVED SITE PLANS.

1.B. SEQUENCE OF SOIL DISTURBANCE:
1. PREPARE SITE AND INSTALL STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL PERIMETER SEDIMENT AND EROSION CONTROLS INCLUDING SILT FENCE AS SHOWN ON THE SWPPP PLAN.
3. INSTALL CONCRETE SLAB, FRAME STRUCTURE, AND FINISH BUILDING.
4. INSTALL STORM SEWER AND UTILITIES.
5. STABILIZE SITE.

1.C. AREA ESTIMATE:
TOTAL SITE AREA: 2.0 ACRES
DISTURBED SITE AREA: 1.6 ACRES

1.D. SOILS:
THE SOILS AS REPORTED IN THE USDA NRCS SOIL SURVEY REPORT FOR ORANGE COUNTY ARE:
37 ST. JOHNS FINE SAND

THE ESTIMATED SEASONAL HIGH GROUNDWATER TABLE IS 6 FEET BELOW EXISTING GRADE OR APPROXIMATELY EL. 124.0 NAVD88. THE SITE HAS SINCE BEEN GRADED TO EL. 130.0.

1.E. DRAINAGE AREA FOR EXISTING DISCHARGE POINT: 1.6 ACRES
DRAINAGE AREA FOR PROPOSED DISCHARGE POINT: N/A, RETENTION POND IS TO HOLD 100 Y/24H.

1.F. LATITUDE AND LONGITUDE OF EXISTING DISCHARGE POINT:
DISCHARGE POINT LAT: 28°29'23.05"N
DISCHARGE POINT LONG: 81°26'21.05"W

1.G. LATITUDE AND LONGITUDE OF PROPOSED DISCHARGE POINT:
DISCHARGE POINT LAT: 28°29'23.05"N
DISCHARGE POINT LONG: 81°26'21.05"W

2. CONTROLS

2.A. EROSION AND SEDIMENT CONTROLS:

2.A.1 STABILIZATION PRACTICES:
1. TEMPORARY SEEDING SHALL BE RYE GRASS APPLIED AT MANUFACTURER'S RECOMMENDATIONS TO ANY DISTURBED AREAS THAT ARE INACTIVE FOR MORE THAN 7 DAYS.
2) MULCHING PRACTICES AND SOD SHALL BE APPLIED TO PARKING LOT ISLANDS.
3) FILTER FABRIC SHALL BE PLACED UNDER THE ROCK ENTRANCE/EXIT.

2.A.2 STRUCTURAL PRACTICES:
1. PRIOR TO CLEARING, A SILT FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE SITE.
2. DURING THE CLEARING, GRUBBING, AND SITE GRADING STAGES, AREAS TO BE DISTURBED MORE THAN 21 DAYS SHALL BE STABILIZED WITH RYE GRASS APPLIED PER THE MANUFACTURE'S SPECIFICATIONS. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 4,000 POUNDS OF STRAW PER ACRE. A ROCK CONSTRUCTION ACCESS ROAD SHALL BE CONSTRUCTED TO MINIMIZE THE EFFECTS OF TRUCK TRAFFIC AND SEDIMENTATION TRACKING BOTH ON AND OFF THE SITE. ONLY ONE CONSTRUCTION ENTRANCE IS PROPOSED. TEMPORARY BARRICADES SHALL BE INSTALLED AT THE EXISTING CURB CUT ALONG EAST GATE DRIVE TO PREVENT TRAFFIC FLOW.
3. AFTER ALL INITIAL SITE GRADING WORK, ALL PROPOSED INLETS/OUTFALLS, ONCE INSTALLED, SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNOFF BY THE USE OF THE INLET PROTECTION DESIGNATED ON THE SITE MAP. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED SHALL BE STABILIZED WITH SEED OR SOD AS INDICATED ON THE SITE MAP NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. SEEDING SHALL BE THE SAME AS IN TEMPORARY SEEDING.
4. ALL INSTALLATION SHALL BE COMMENCED AS DEPICTED ON THE SITE MAPS AND EROSION CONTROL DETAIL SHEET.

2.B. PERMANENT STORMWATER MANAGEMENT CONTROLS:
1. EXISTING PERMANENT STORMWATER DETENTION POND HAS BEEN DESIGNED TO TREAT AND ATTENUATE THE REQUIRED VOLUME GENERATED BY THE SITE LAYOUT.
2. CATCH BASINS AND STORM SEWER SYSTEM TO BE INSTALLED ON-SITE TO PROVIDE POSITIVE DRAINAGE OF THE ENTIRE SITE TO THE STORMWATER POND.

2.C. CONTROLS FOR OTHER POLLUTANTS
1. WASTE DISPOSAL: ALL WASTE WILL BE DISPOSED OF IN AN APPROPRIATE LEGAL MANOR, AND COMPLY WITH THE CITY OF ORLANDO ORDINANCES FOR WASTE DISPOSAL AND COMMERCIAL SITE DEVELOPMENT.

2. VEHICLE TRACKING: OFF SITE VEHICLE TRACKING OF SEDIMENTS AND DUST GENERATION WILL BE MINIMIZED VIA A ROCK CONSTRUCTION ENTRANCE, DAILY SWEEPING AND THE USE OF WATER TO KEEP DUST DOWN.

3. FERTILIZERS, HERBICIDES, AND PESTICIDES: FERTILIZERS AND PESTICIDES WILL BE USED AT A MINIMUM AND IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTED APPLICATION RATES. THE FERTILIZERS AND PESTICIDES SHALL BE STORED IN A COVERED SHED.

4. TOXIC SUBSTANCES: ALL PAINTS AND OTHER CHEMICALS WILL BE STORED IN A LOCKED COVERED SHED.

5. OTHER: PORT-O-LETS WILL BE PLACED AWAY FROM THE STORM SEWER SYSTEMS AND STORM INLETS. NO VEHICLE MAINTENANCE SHALL BE CONDUCTED ON-SITE. A WASHDOWN AREA SHALL BE DESIGNATED AT ALL TIMES AND WILL NOT BE LOCATED IN ANY AREA THAT WILL ALLOW FOR THE DISCHARGE OF POLLUTED RUNOFF. A SMALL VEGETATED BERM SHALL BE PLACED AROUND THE WASHDOWN AREA.

3. MAINTENANCE:
1. SILT FENCE SHALL BE INSPECTED AT LEAST WEEKLY. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
2. MAINTENANCE SHALL BE PERFORMED ON THE ROCK ENTRANCE WHEN ANY VOID SPACES ARE FULL OF SEDIMENT.
3. INLETS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAIN EVENT AND ANY REPAIRS SHALL BE PERFORMED IMMEDIATELY.
4. BARE AREAS OF THE SITE THAT WERE PREVIOUSLY SEEDED SHALL BE RE-SEEDED PER MANUFACTURES' INSTRUCTIONS.
5. MULCH AND SOD THAT HAS BEEN WASHED OUT SHALL BE REPLACED IMMEDIATELY.

ALL MEASURES ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. CONTROLS ARE TO BE REPLACED OR REPAIRED IF IN A SUBSTANDARD CONDITION. ALL MAINTENANCE MODIFICATIONS ARE TO BE NOTED, ON PLANS, AS THEY OCCUR.

4. INSPECTIONS:
A QUALIFIED INSPECTOR SHALL INSPECT ALL POINTS OF DISCHARGE INTO SURFACE WATERS OF THE STATE OR AND MS4; DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED; AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; STRUCTURAL CONTROLS; AND, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AT LEAST ONCE EVERY CALENDAR DAY AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION SHALL BE MADE AND RETAINED IN THE CONSTRUCTION TRAILER AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN.

5. NON-STORMWATER DISCHARGES:
IT IS ANTICIPATED THAT THE FOLLOWING NON-STORMWATER DISCHARGES MAY OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

1. WATER FROM LINE FLUSHINGS
2. PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED)
3. SITE WATERING, TO ALLEVIATE FUGAITVE DUST
4. ROUTINE EXTERNAL BUILDING WASHDOWN WHICH DOES NOT USE DETERGENTS
5. IRRIGATION DRAINAGE

IF SAID DISCHARGES DO OCCUR, THEY WILL BE DIRECTED TO THE TEMPORARY SEDIMENT BASIN PRIOR TO DISCHARGE.

6. CONTRACTOR/SUBCONTRACTOR CERTIFICATION:

ALL CONTRACTOR(S) AND SUBCONTRACTOR(S) IDENTIFIED ABOVE MUST SIGN THE FOLLOWING CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

EROSION CONTROL NOTES:

1. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
2. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 14 DAYS OF FINAL GRADING.
3. SHOULD CONSTRUCTION STOP FOR LONGER THAN 7 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
4. MAINTENANCE OF EROSION CONTROL MEASURES SHALL OCCUR AFTER EACH RAIN AND AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER.
5. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
6. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTION.
8. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY COVERNING AUTHORITIES.
9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE END SHALL BE COVERED WITH FILTER FABRIC.
10. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

JOSEPH HERBERT LICENSE No. 39505 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John J Herbert
Date: 2024.02.01 09:34:54 -05'00'

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.M.H.

DATE	
4.08.22	CURRENT
1.31.23	CURRENT

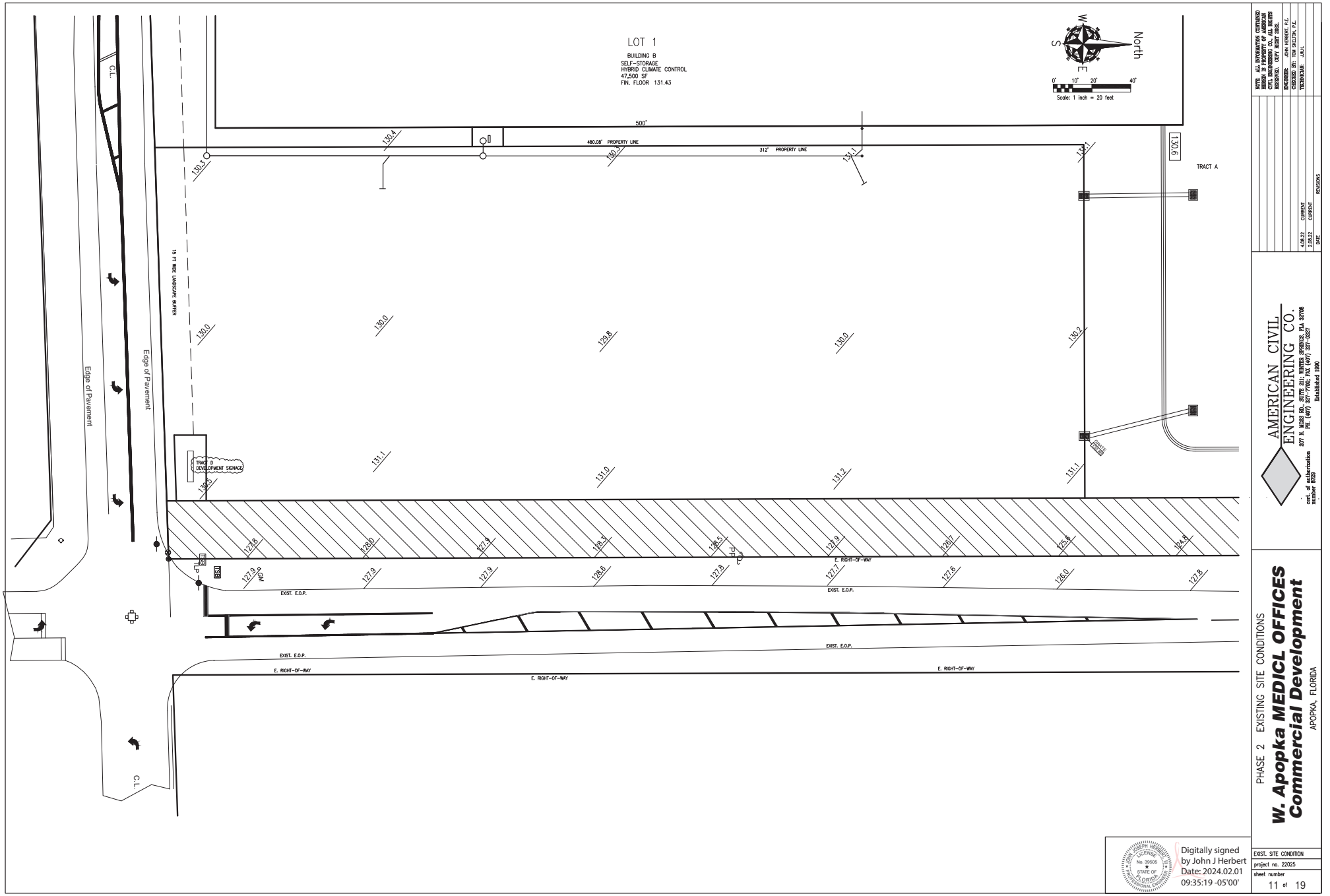
AMERICAN CIVIL ENGINEERING CO.
207 N. MAGNOLIA AVE., SUITE 211 ORLANDO, FLA. 32801
PH.: (407) 307-7700; FAX: (407) 307-7727
cert. of authorization number 8729
Established 1990

PHASE 2 EROSION CONTROL PLAN

W. Apopka MEDICAL OFFICES
Commercial Development

APOPKA, FLORIDA

EROSION CONTROL PLAN
project no. 22025
sheet number 10 of 19



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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.W.H.

DATE	REVISIONS
4.08.22	CURRENT
2.08.22	CURRENT

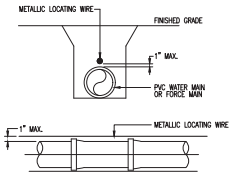
AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD., SUITE 211; WINTER SPRINGS, FLA 32708
PH. (407) 327-7700; FAX (407) 327-0227
Established 1990
cert. of authorization number 5729

PHASE 2 EXISTING SITE CONDITIONS

W. Apopka MEDICL OFFICES
Commercial Development
APOPKA, FLORIDA

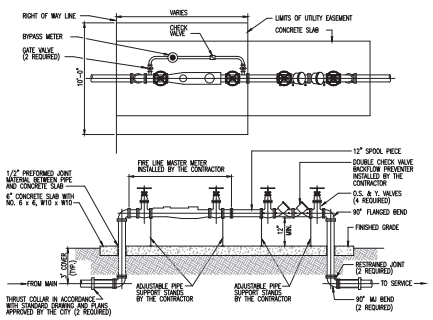
Digitally signed by John J Herbert
Date: 2024.02.01 09:35:19 -05'00'

EXIST. SITE CONDITION
project no. 22025
sheet number
11 of 19



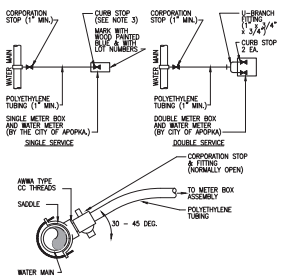
NOTES:
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR
2. AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX
3. AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.

PVC PIPE LOCATING WIRE DETAIL
(FIG. 108)



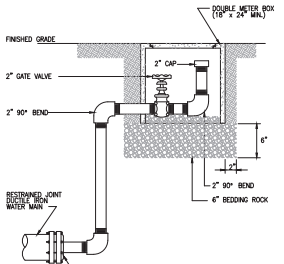
NOTES:
1. ALL ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.
2. FIRELINE METER MUST MEET AWWA STANDARD C703
3. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701
4. BOTH METERS MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH SENSUS TECHNOLOGIES SOFTWARE

FIRE LINE MASTER METER ASSEMBLY
(FIG. 102)



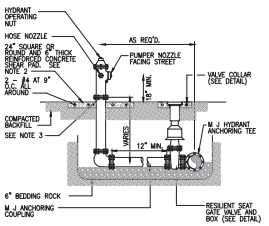
NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.

WATER SERVICE CONNECTION DETAILS
(FIG. 405)



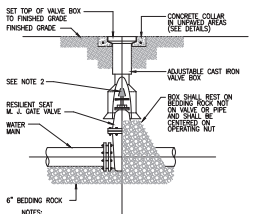
NOTES:
1. ALL 2" PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS.

BLOWOFF VALVE DETAIL
(FIG. 403)



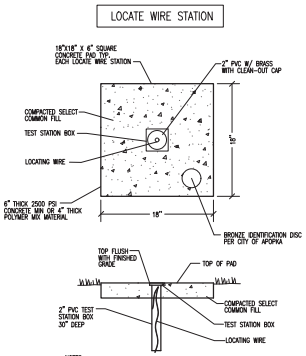
NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE DEVELOPER MAY INSTALL THE SHEAR PAD RECESSED UP TO 4 INCHES BELOW FINISHED GRADE AND SOD THE RECESSED SECTION.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A 6" MINIMUM.

FIRE HYDRANT ASSEMBLY DETAIL
(FIG. 402)

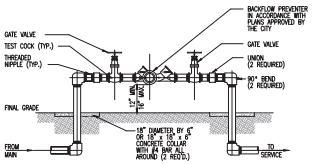


NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO A FOOT DEPTH BELOW FINISHED GRADE.
3. APPLY TWO COATS OF EXTERIOR ENAMEL PAINT TO VALVE COVER
PURPLE – RECLAIMED WATER
GREEN – SEWER
BLUE – POTABLE WATER

GATE VALVE, COVER AND BOX DETAIL
(FIG. 406)



NOTES:
1. IDENTIFICATION DISC SHALL BE PROVIDED BY CITY OF APOPKA.
2. LABEL TYPE AS WATER, SEWER OR RECLAIMED WATER.
3. 10 GAUGE SOLID COPPER DESIGNED FOR DIRECT BURIAL.
4. LOCATE WIRE SHALL EXTEND 12" ABOVE TOP OF COLLAR.



NOTES:
1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, BRASS OR SCHEDULE 80 PVC.

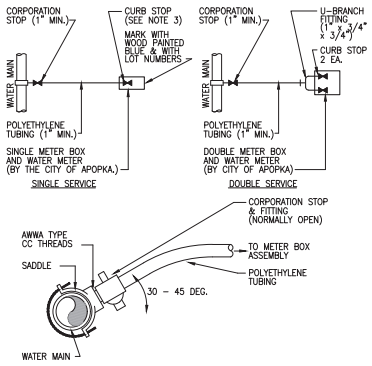
REDUCED PRESSURE BACKFLOW PREVENTER
(FIG. 601)

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *

	PIPE SIZE							
	6"	8"	10"	12"	16"	18"	20"	24"	30"
90° BEND	36	36	36	54	54	72	72	90	
45° BEND	18	18	18	18	36	36	36	36	
22-1/2° BEND	18	18	18	18	18	18	18	18	
11-1/4° BEND	18	18	18	18	18	18	18	18	
PLUG OR BRANCH OF TEE	18	36	36	54	90	108	108	144	

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
WORKING PRESSURE: 150 P.S.I.*
SOIL DESIGNATION: SAND / SILT *
LAYING CONDITIONS: TYPE "4" BEDDING *
6. FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
* TO BE COMPLETED BY THE ENGINEER.

RECLAIMED AND POTABLE WATER MAIN RESTRAINED PIPE TABLE.
(FIG. 104)



NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.

WATER SERVICE CONNECTION DETAILS
(FIG. 405)

NOTES AS PER AWWA C-651-92:

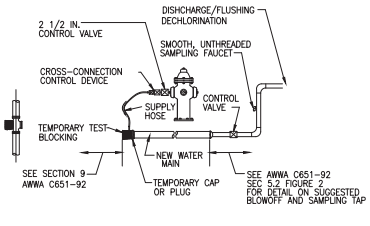
SEC. 3 BASIC DISINFECTION PROCEDURE
THE BASIC DISINFECTION PROCEDURE CONSISTS OF
1. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.
2. REMOVING, BY FLUSHING OF OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.
3. CHLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CHLORINATED WATER FROM THE MAIN.
4. PROTECTING THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE TESTING, DISINFECTION PROCEDURES.
5. CONFIRMING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
6. FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM.

SEC. 4.8 BACKFLOW PROTECTION (OPTIONAL)*
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE NEW WATER MAIN SHALL BE KEPT ISOLATED FROM THE ACTIVE DISTRIBUTION SYSTEM BY PHYSICAL SEPERATION (SEE FIGURE 1) UNTIL SATISFACTORY BACTERIOLOGICAL TESTING HAS BEEN COMPLETED AND THE DISINFECTANT WATER FLUSHED OUT. WATER REQUIRED TO FILL THE NEW MAIN FOR HYDROSTATIC PRESSURE TESTING, DISINFECTION, AND FLUSHING SHALL BE SUPPLIED THROUGH A TEMPORARY CONNECTION BETWEEN THE DISTRIBUTION SYSTEM AND THE NEW MAIN. THE TEMPORARY CONNECTION SHALL INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE CONSISTENT WITH THE DEGREE OF HAZZARD, AND SHALL BE DISCONNECTED (PHYSICALLY SEPERATED) FROM THE NEW MAIN DURING THE HYDROSTATIC PRESSURE TEST. IT WILL BE NECESSARY TO REESTABLISH THE TEMPORARY CONNECTION AFTER COMPLETION OF THE HYDROSTATIC PRESSURE TEST TO FLUSH OUT THE DISINFECTANT WATER PRIOR TO FINAL CONNECTION OF THE NEW MAIN TO THE DISTRIBUTION SYSTEM.

SEC. 9 FINAL CONNECTIONS TO EXISTING MAINS (OPTIONAL)*
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), WATER MAINS AND APPURTENANCES MUST BE COMPLETELY INSTALLED, FLUSHED, DISINFECTED, AND SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS RECEIVED PRIOR TO PERMANENT CONNECTIONS BEING MADE TO THE ACTIVE DISTRIBUTION SYSTEM. SANITARY CONSTRUCTION PRACTICES MUST BE FOLLOWED DURING INSTALLATION OF THE FINAL CONNECTION, SO THAT THERE IS NO CONTAMINATION OF THE NEW OR EXISTING WATER MAIN WITH FOREIGN MATERIAL OR GROUNDWATER.

SEC. 9.1 CONNECTIONS EQUAL TO OR LESS THAN ONE PIPE LENGTH (<18 FT. [5.5mm])
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE NEW PIPE, FITTINGS, AND VALVE(S) REQUIRED FOR THE CONNECTION MAY BE SPRAY-DISINFECTED OR SWABBED WITH A MINIMUM (1) PERCENT SOLUTION OF CHLORINE JUST PRIOR TO BEING INSTALLED, IF THE TOTAL LENGTH OF CONNECTION FROM THE END OF A NEW MAIN TO THE EXISTING MAIN IS EQUAL TO OR LESS THAN 18 FT. (5.5mm)

SEC. 9.2 CONNECTIONS GREATER THAN ONE PIPE LENGTH (>18 FT. [5.5mm])
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE PIPE REQUIRED FOR THE CONNECTION MUST BE SET UP ABOVEGROUND, DISINFECTED AND BACTERIOLOGICAL SAMPLES TAKEN, AS DESCRIBED IN SEC. 5 THROUGH SEC. 8, IF THE TOTAL LENGTH OF CONNECTION FROM THE END OF A NEW MAIN TO THE EXISTING MAIN IS GREATER THAN 18 FT. (5.5mm). AFTER SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS HAVE BEEN RECEIVED FOR THIS "PREDISINFECTED" PIPE, THE PIPE CAN BE USED IN CONNECTING THE NEW MAIN TO THE ACTIVE DISTRIBUTION SYSTEM. BETWEEN THE TIME THAT SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE RECEIVED AND THE TIME THAT THE CONNECTION PIPING IS INSTALLED , THE ENDS OF THIS PIPING MUST BE SEALED WITH PLASTIC WRAPS OR WATERTIGHT PLUGS OR CAPS.



TEMPORARY JUMPER CONNECTION

* CLEAN POTABLE-WATER HOSE ONLY. SIZE AND NUMBER OF TAPS PER AWWA C-651-92 SECTION 5.2.2 TABLE 3. THIS HOSE MUST BE REMOVED DURING THE HYDROSTATIC PRESSURE TEST.
NOTE: FIGURE APPLIES TO PIPE WITH DIAMETERS 4 IN.(100mm) THROUGH 12 IN.(300mm). ALL LARGER SIZES MUST BE HANDLED ON A CASE-BY-CASE BASIS.

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	DRAWN/BY:	JOHN HERBERT, P.E.
	CHECKED BY:	TOM SHELTON, P.E.
	TECHNICIAN:	J.M.H.
4.08.22	CURRENT	
1.08.23	CORRECT	
DATE		

AMERICAN CIVIL ENGINEERING CO.
2071 W. HOOD RD. SUITE 211 W. PALM SPRINGS, FLA. 32168
PH.: (407) 327-7700 FAX: (407) 327-0227
Established 1990
cert. of authorization number 0729

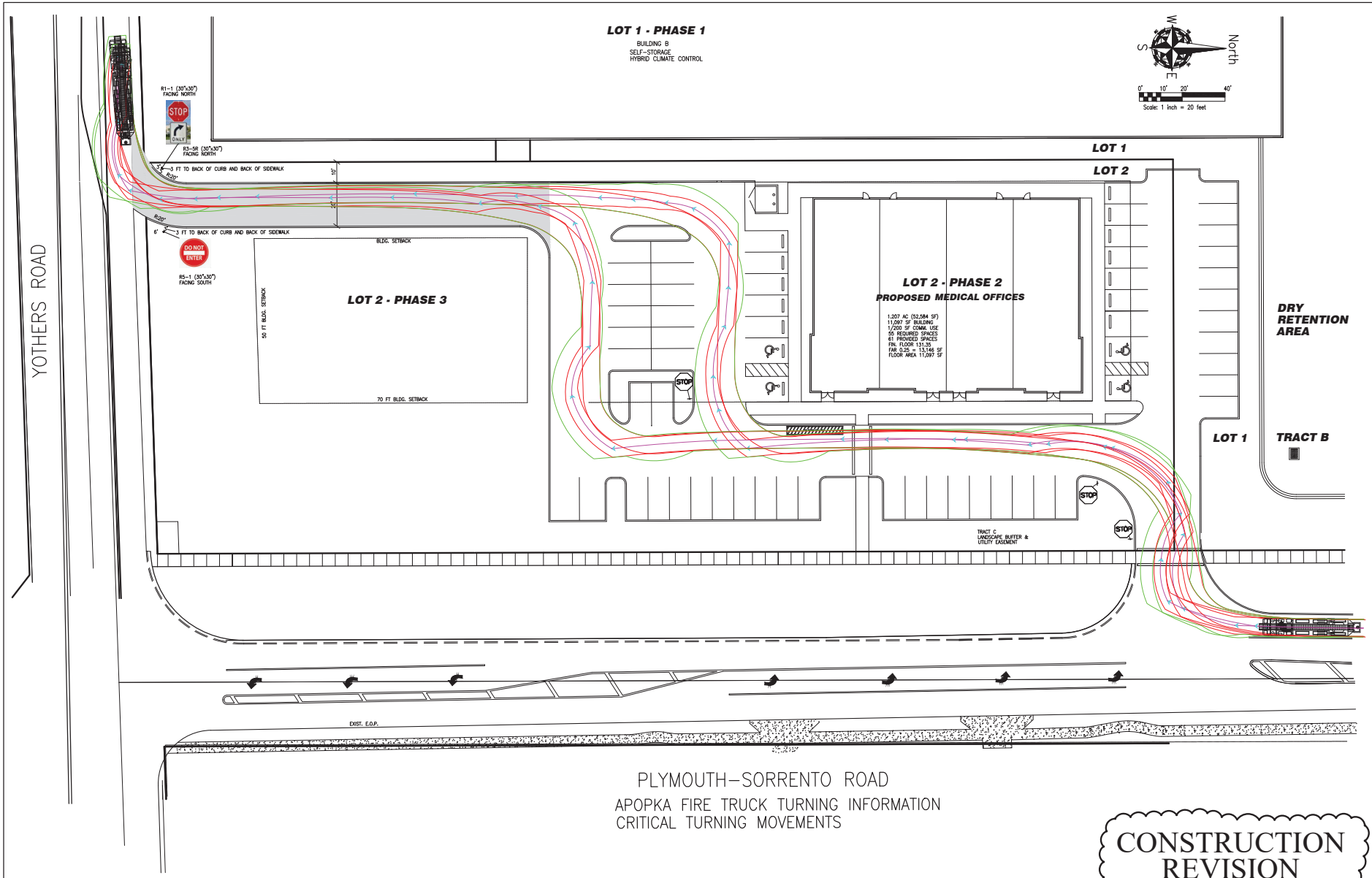
UTILITY CONSTRUCTION DETAILS

W. Apopka MEDICL OFFICES
Commercial Development

APOPKA, FLORIDA

Digitally signed by John J Herbert
Date: 2024.02.01 09:35:48 -05'00'

UTILITY DETAILS	
project no.	22025
sheet number	12 of 19



APOPKA FIRE TRUCK TURNING INFORMATION
CRITICAL TURNING MOVEMENTS

CONSTRUCTION REVISION

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ENGINEER: JOHN HERBERT, P.E.
CHECKED BY: TOM SKELTON, P.E.
TECHNICIAN: J.W.H.

DATE	REVISIONS
01.28.24	CURRENT
10.12.23	CURRENT
6.19.23	THIRD REVISION
4.12.23	SECOND REVISION
1.14.23	FIRST REVIEW

AMERICAN CIVIL ENGINEERING CO.
207 N. MOSS RD., SUITE 211; WINTER SPRINGS, FLA 32708
PH. (407) 327-7700; FAX (407) 327-0227
Established 1990
cert. of authorization number 8729

APOPKA FIRE TRUCK TURNING INFORMATION

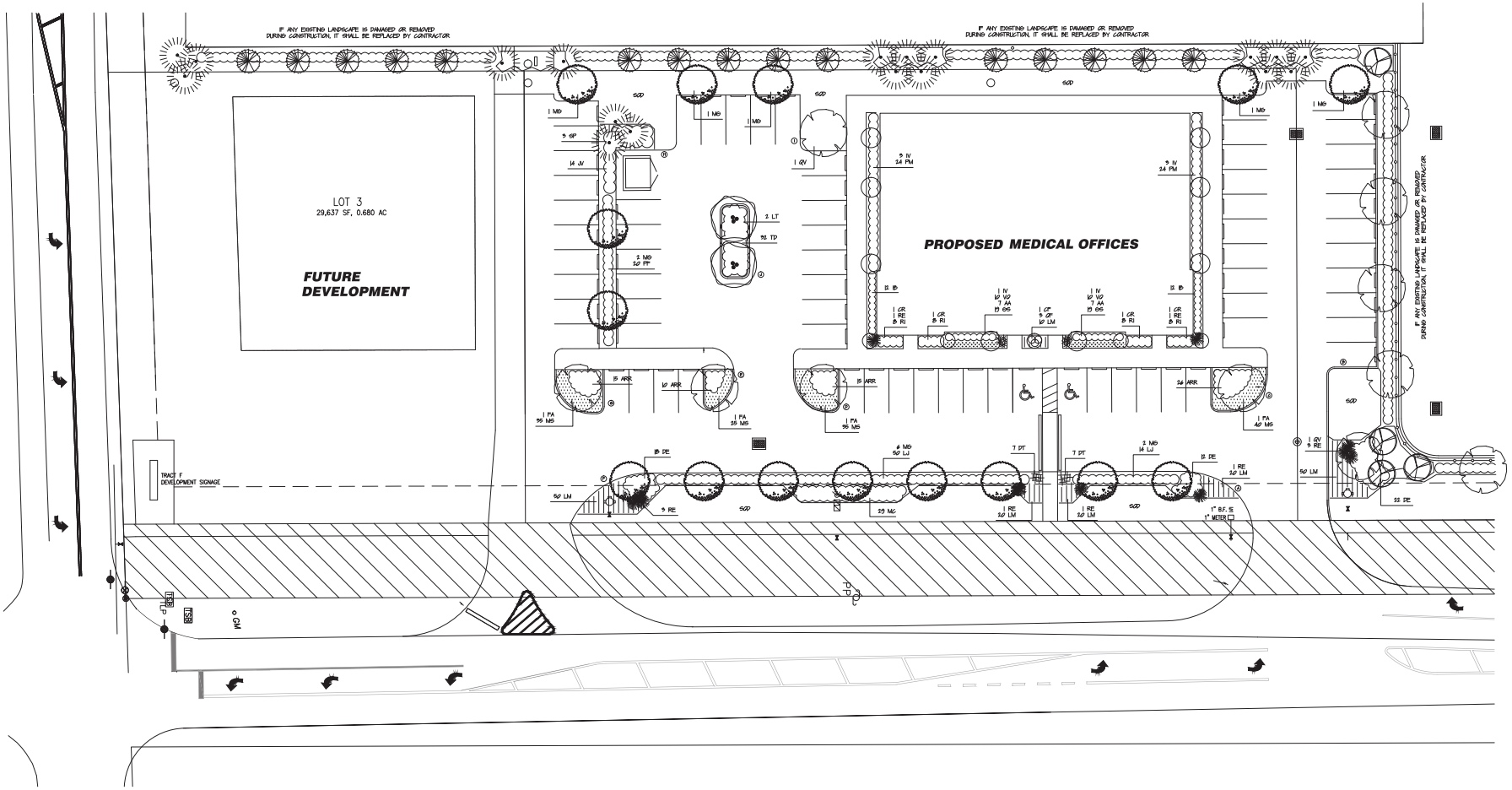
W. Apopka MEDICL OFFICES Commercial Development

APOPKA, FLORIDA

JOHN JOSEPH HERBERT LICENSE No. 39505 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John J Herbert
Date: 2024.02.01 09:36:18 -05'00'

FIRETRUCK
project no. 22025
sheet number
13 of 19



LANDSCAPE MATERIAL LIST

4	FA	PRUNUS AMERICANA	AMERICAN ASH	45 GAL, 3" DBH, 10' TALL, SINGLE LEADER, 5' CT, FULL CANOPY
2	LT	LIRIODENDRON TULIPIFERA	TULIP TREE	45 GAL, 3" DBH, 10' TALL, SINGLE LEADER, 5' CT, FULL CANOPY
15	MG	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	45 GAL, 3" DBH, 10' TALL, SINGLE LEADER, 5' CT, FULL CANOPY
2	QV	QUERCUS VIRGINIANA	LIVE OAK	45 GAL, 3" DBH, 10' TALL, SINGLE LEADER, 5' CT, FULL CANOPY
5	CR	CALLISTEMON RIGIDUS	BOTTLEBRUSH TREE	25 GAL, 1" CAL., 7 TALL, SINGLE LEADER, FULL CANOPY
8	IV	ILEX VOMITORIA	WEEPING HOLLY	25 GAL, 1" CAL., 7 TALL, SINGLE LEADER, FULL CANOPY
9	SP	SABEL PALM	FLORIDA PALM	5 & 15, MIN 10' CT, VARIED HEIGHTS, FULL BUD
66	ARR	AZALEA RED-RUFFLE	DWARF AZALEA	3 GAL, 15" - 18", FULL
92	DE	DURANTA ERECTUS	GOLDEN DEWDROP	3 GAL, 15" - 18", FULL
24	B	ILEX BURFORDII	BURFORD HOLLY	3 GAL, 18" - 24", FULL, SET 2.5' o.c.
14	JV	JUNIPERUS VIRGINIANA	RED CEDAR	3 GAL, 24" - 30", FULL, SET 4' o.c.
64	LJ	LIGUSTRUM JAPONICA	PRIVET	3 GAL, 18" - 24", FULL, SET 3' o.c.
23	MC	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	3 GAL, 18" - 24", FULL
5	OF	OSMANTHUS FRAGRANS	TEA OLIVE	3 GAL, 18" - 24", FULL
20	PF	PHOTINIA FRASERI	RED-TIP PHOTINIA	3 GAL, 24" - 30", FULL, SET 3' o.c.
18	PV	PODOCARPUS MACROPHYLLUM	FLORIDA YEW	3 GAL, 24" - 30", FULL, SET 2.5' o.c.
11	RE	RAPHIS EXCELSA	LADY PALM	10 GAL, 24" - 30", FULL, SPECIMEN
28	RI	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	3 GAL, 15" - 18", FULL
92	TD	TRIPSACUM DACTYLOIDES	FAKAHATCHEE GRASS	3 GAL, 24" - 30", FULL
20	VO	VIBURNUM ODORATUM	WALTER'S VIBURNUM	3 GAL, 18" - 24", FULL, SET 2.5' o.c.
14	AA	ANAPHTHUS AFRICANS	BLUE NILE IRIS	1 GAL, MIN 5 - 7 PIPS, FULL, SET 15" o.c.
14	DT	DIANELLA TASMANICA	FLAX LILY	1 GAL, MIN 5 - 7 PIPS, FULL, SET 24" o.c.
789	DS	EVANGELISPS SPP.	BURR DAISY	1 GAL, FULL, SET 18" o.c.
150	LM	LIRIOPE MUSCARI	BORDER GRASS	1 GAL, MIN 7 - 5 PIPS, FULL, SET 18" o.c.
139	MS	MIMOSA STRIGILLOSA	SUNSHINE MIMOSA	1 GAL, MIN 9 RUNNERS, FULL, SET 24" o.c.

PROJECT SITE DATA

OVERALL SITE AREA	=	74,200 SF (1.70 AC)
LESS: FUTURE ROW	=	0 SF
TOTAL PROJECT AREA	=	69,200 SF (1.46 AC)
OPEN SPACE REQUIRED	=	11,760 SF (20%)
OPEN SPACE PROVIDED	=	23,384 SF (34%)

TREE REPLACEMENT

*THERE ARE NO EXISTING TREES TO BE REMOVED FROM THE PROJECT SITE DURING THIS PHASE

MINIMUM TREE REQUIREMENTS

TOTAL PROJECT AREA	=	69,200 SF
CANOPY TREES REQUIRED	=	12 (1 / 5000 SF)
CANOPY TREES PROVIDED	=	25

FOUNDATION PLANTINGS

PUBLIC BUILDING FRONTAGE	=	328 LF
ORNAMENTAL TREES REQUIRED	=	44 (1 / 30 LF)
ORNAMENTAL TREES PROVIDED	=	7 (9 MS, 2 M)

OFF-STREET VEHICULAR PARKING AREA PLANTINGS

VUA FRONTAGE	=	328 LF (356 - 92 - 22)
CANOPY TREES REQUIRED	=	24 (1 / 30 LF)
CANOPY TREES PROVIDED	=	9 (8 MG, 1 QV)
SHRUBS REQUIRED	=	845 (10 / 35 LF)
SHRUBS PROVIDED	=	149 (93 RE, 64 LJ, 23 MC)

LANDSCAPE ISLANDS

TOTAL VUA	=	24,924 SF
LANDSCAPE ISLANDS REQUIRED	=	2,492 SF (10%)
LANDSCAPE ISLANDS PROVIDED	=	3,693 SF (2,126)
MATURE CANOPY COVERAGE REQUIRED	=	7,968 SF (30%)
MATURE CANOPY COVERAGE PROVIDED	=	15,384 SF (38.6%)

*30% OF PARKING SPACES ARE WITHIN 80' OF A CANOPY SHADE TREE

A	=	340 SF	F	=	302 SF
B	=	320 SF	G	=	188 SF
C	=	912 SF	H	=	332 SF
D	=	378 SF	I	=	334 SF
E	=	149 SF	J	=	380 SF

SCALE 1" = 20'

RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT, STATE OF FLORIDA #858

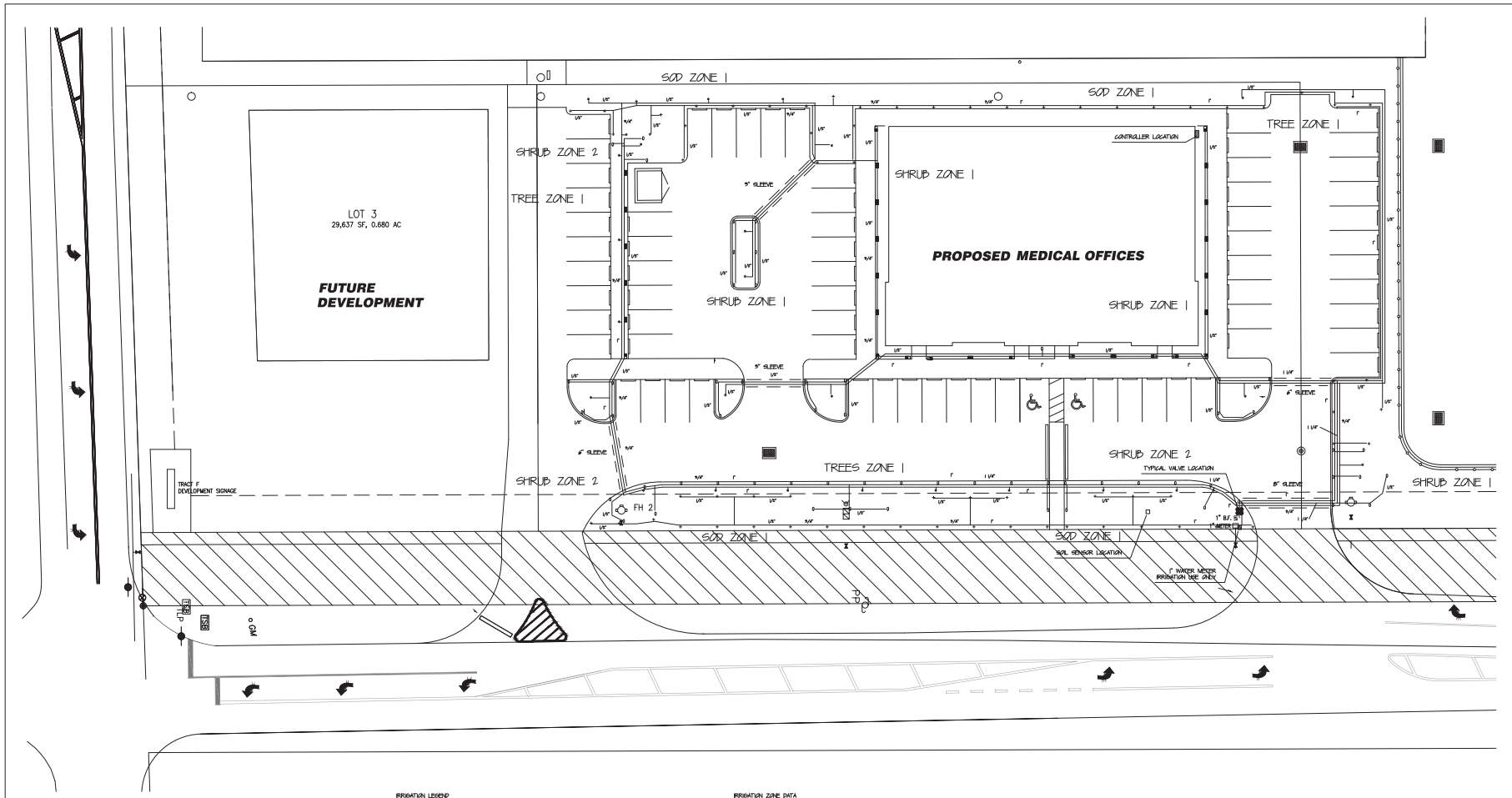
NO.	DATE	DESCRIPTION	BY

DRAWN BY: RAK
SCALE: 1" = 20'
JOB NO.:
DATE: 3 / 22
DRAWING NO.:
NEW NAME:
PG.

ENVIRONMENTAL DESIGN
ANDY KESSELRING, LANDSCAPE ARCHITECT
1920 SE 8th STREET
OCALA, FLORIDA 34478
P.O. BOX 5121
(352) 622-8899
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

LANDSCAPE PLAN
WEST APOPKA STORAGE - PHASE 2
CITY OF APOPKA FLORIDA

SHEET L001 of ____



IRRIGATION LEGEND

- HUNTER MP 1000 SERIES POP-UP SPRAY HEADS
- HUNTER MP 1000 SERIES POP-UP SIDE-SPRAY HEADS
- HUNTER MP 1000 SERIES POP-UP SPRAY HEADS FOR SOD
- HUNTER PCB SERIES BUBBLER HEADS FOR TREES
- SOIL SENSOR LOCATION
- 1" WATER METER - IRRIGATION USE ONLY
- HUNTER X-CORE (4 STATION) CONTROLLER
- 2" NELSON VALVES IN WATER-RESISTENT BOXES
- SLEEVING - SCH. 40 P.V.C.

IRRIGATION ZONE DATA

TREE ZONE 1 = 260 GPM
SHRUB ZONE 1 = 184 GPM
SHRUB ZONE 2 = 160 GPM
SOD ZONE 1 = 268 GPM

872 GPM x 15 = 1908 GPR x 2 = 2616 GPW / 7 = 574 GPD

GPM = GALLONS PER MINUTE
GPR = GALLONS PER RUN
GPW = GALLONS PER WEEK
GPD = GALLONS PER DAY

SCALE 1" = 20'

RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT , STATE OF FLORIDA #858

NO.	DATE	DESCRIPTION	BY

DRAWN BY: RAK
DATE: 3 / 22
SCALE: 1" = 20'
DRAWING NO.:
VIEW NAME:
JOB NO.:
FB.
PG.

ENVIRONMENTAL DESIGN
ANDY KESSELRING, LANDSCAPE ARCHITECT
1920 SE. 8th STREET P.O. BOX 5121
OCALA, FLORIDA 34478 (352) 622-8899
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

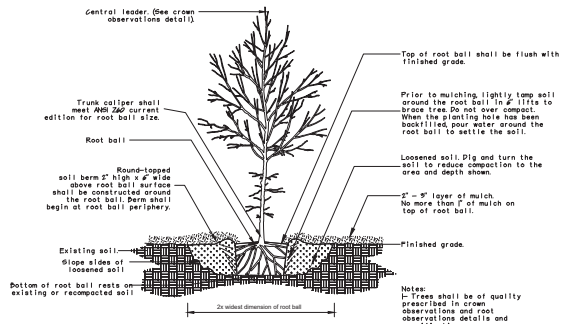
EDK

IRRIGATION PLAN
WEST APOPKA STORAGE - PHASE 2
CITY OF APOPKA FLORIDA

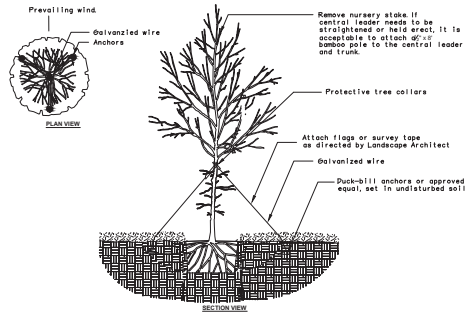
SHEET L002 of ___

LANDSCAPE NOTES

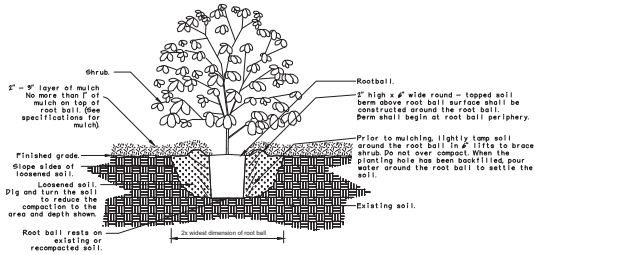
1. ALL MATERIAL SHALL BE FLORIDA #1 GRADE OR BETTER
2. ALL LANDSCAPED AREAS SHALL BE MULCHED WITH 2" – 3" OF PINE BARK MULCH
3. MULCH SHALL NOT BE INSTALLED ON TOP OF THE ROOT BALLS OF ANY SHADE OR ORNAMENTAL TREES
4. ALL MATERIAL INSTALLED SHALL MEET THE 2018 GRADES AND STANDARDS FOR LANDSCAPE INSTALLATION
5. CERTIFICATION IS REQUIRED FROM THE NURSERY AND/OR THE LANDSCAPE CONTRACTOR THAT THE TREE ROOT BALL HAS BEEN GRADED PER GRADES AND STANDARDS
6. ALL TREES MUST BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ACCEPTANCE
7. ALL NEW TREES MUST BE GUYED OR STAKED AS DETAILED
8. EXISTING TREES THAT ARE TO REMAIN MUST BE PROTECTED THROUGHOUT CONSTRUCTION
9. THE LANDSCAPE ARCHITECT SHALL REVIEW WITH THE CONTRACTOR ALL LANDSCAPING THAT IS TO BE DONE AND SHALL IDENTIFY THE LIMIT OF WORK
10. PLACEMENT OF ALL LANDSCAPE MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT
11. ALL LANDSCAPE MATERIAL MUST BE INSTALLED WITH NATIVE PEAT AND SLOW-RELEASE NITROGEN FERTILIZER
12. ALL PALMS SHALL HAVE STRAIGHT, UNBLEMISHED TRUNKS AS APPROVED BY LANDSCAPE ARCHITECT
13. PALMS MAY BE "HURRICANE" CUT BUT MUST MAINTAIN A FULL, HEALTHY BUD
14. DURING INSTALLATION OF ALL PALMS "DEHARD" PALM TRANSPLANT SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATIONS AND CONTRACTOR MUST VERIFY THIS TO THE LANDSCAPE ARCHITECT
15. ALL MATERIAL SHALL BE GUARANTEED FOR 30 DAYS FROM THE DATE OF ACCEPTANCE
16. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING IN ALL TREES & PALMS AND REMOVING AIR-POCKETS
17. DURING THE ESTABLISHMENT PERIOD (FIRST 90 DAYS) THE LANDSCAPE CONTRACTOR SHALL APPLY A MINIMUM OF 40 – 80 GPD TO ALL NEW TREES AND PALMS
18. LANDSCAPE CONTRACTOR MUST LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY INSTALLATION
19. NO PLANTINGS OR OTHER OBSTRUCTIONS MAY BE WITHIN THE 2' VEHICULAR OVERHANG AREA
20. NEW SOD SHALL BE INSTALLED BETWEEN NEW AND EXISTING PLANTINGS AS SHOWN
21. ALL SOD SHALL BE ARGENTINE-BAHIA AND SHALL BE INSTALLED WITH NO GAPS OR OVERLAPS
22. PLANTING SOIL USED FOR THE BUILDING PLANTERS AND BACKFILLING OF THE LANDSCAPE ISLANDS, ETC. MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION. ALL SOIL SHALL BE WEED-FREE, CONTAIN NO STICKS, ROCKS, OR OTHER FOREIGN OBJECTS, AND SHALL BE A MIXTURE OF 40% SAND, 60% LOAM, AND 10% TOP-SOIL
23. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL PLANT MATERIAL, ROOTS, SOIL, AND OTHER LANDSCAPE ITEMS REMOVED FROM THIS SITE
24. THE LANDSCAPE CONTRACTOR MUST PROVIDE AN AS-BUILT OF THE IRRIGATION SYSTEM TO THE LANDSCAPE ARCHITECT PRIOR TO REQUESTING ANY INSPECTIONS AND/OR APPROVALS
25. THE CONTRACTOR SHALL KEEP THE SITE CLEAN OF ALL DEBRIS, SEDIMENT, DIRT, ETC., AND ENSURE THAT THAT DRAINAGE SYSTEM REMAINS CLEAR AND THAT PEDESTRIAN WAYS ARE NOT BLOCKED
26. DO NOT PLANT NEW TREES TOO DEEP. UNCOVER THE TRUNK FLARE AND SET THIS AT OR ABOVE THE SURROUNDING SOIL LEVEL
27. REMOVE ANY TREE WRAP FROM AROUND THE TRUNK OF NEW TREES TO BE INSTALLED
28. ALL NEW TREES AND SHRUBS MUST MEET THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1)
29. LANDSCAPE ARCHITECT MAY REQUIRE PRUNING OF NEW TREES AFTER INSTALLATION IF IT IS DETERMINED THAT THE TREES NEED A SINGLE DOMINANT LEADER ESTABLISHED OR CLUSTER BRANCHES REMOVED
30. ALL PLANT MATERIAL MUST MEET ALL OF THE SIZE SPECIFICATIONS, NOT JUST THE CONTAINER SIZE
31. HAVING THE LANDSCAPE ARCHITECT APPROVAL OF PLANT PLACEMENT IS ESSENTIAL FOR ACCEPTANCE
32. ALL SIZE SPECIFICATIONS SHOWN ON THE MATERIAL LIST ARE FOR THE HEIGHT OF THE MATERIAL UNLESS OTHERWISE NOTED. MEASUREMENT SHALL BE AS PER THE CURRENT INDUSTRY GRADES AND STANDARDS



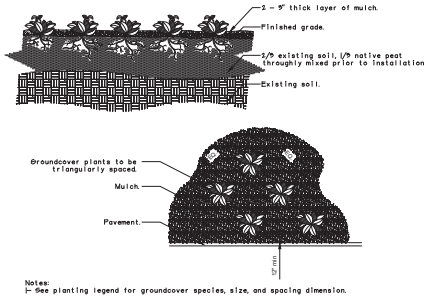
TREE INSTALLATION



TREE STAKING – TREES < 2" CALIPER



SHRUB INSTALLATION



GROUNDCOVER INSTALLATION

RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT , STATE OF FLORIDA #858

NO.	DATE	DESCRIPTION	BY

DRAWN BY: RAK
SCALE: 1" = 20'
JOB NO.:
DATE: 3 / 22
DRAWING NO.:
NEW NAME:
FB. PG.

ENVIRONMENTAL DESIGN
1400 KESSELRING, LANDSCAPE ARCHITECT
1400 SE 52nd STREET, P.O. BOX 5121
OCALA, FLORIDA 34478 (352) 622-8899
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

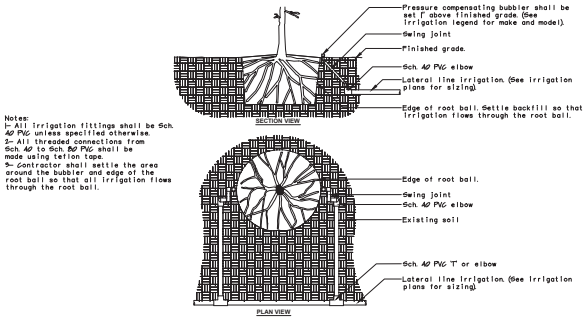
EDK

LANDSCAPE NOTES & DETAILS
WEST APOPKA STORAGE – PHASE 2
CITY OF APOPKA FLORIDA

SHEET L003 of ____

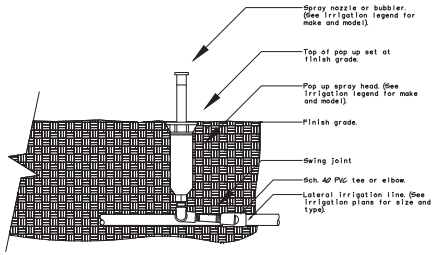
IRRIGATION NOTES

1. MINOR CHANGES MAY BE MADE IN THIS LAYOUT WITH APPROVAL BY THE LANDSCAPE ARCHITECT
2. ALL HEAD LOCATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
3. HEADS SHALL BE 1/4, 1/3, OR FULL CIRCLE AS EACH LOCATION REQUIRES
4. SPRAYS PATTERNS SHALL BE SET TO MINIMIZE SPRAY ONTO ADJACENT WALKS, DRIVES, AND BUILDINGS
5. WATER SOURCE SHALL BE A NEW 1" WATER METER FOR IRRIGATION USE ONLY
6. PRIOR TO ANY INSTALLATION, THE IRRIGATION CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS AND PROVIDE ANY QUESTIONS TO THE LANDSCAPE ARCHITECT IN WRITING. CONTRACTOR MUST KEEP EXISTING IRRIGATION OPERATIONAL THROUGHOUT CONSTRUCTION. ANY MODIFICATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
7. THE CONTROLLER SHALL BE LOCATED IN THE GENERAL AREA SHOWN AND SHALL BE MOUNTED AS APPROVED BY THE LANDSCAPE ARCHITECT IN A LOCKABLE CASE.
8. THE OWNER WILL PROVIDE AN ELECTRICAL OUTLET IN THE CONTROLLER AREA
9. ALL VALVES SHALL BE INSTALLED IN WATER-RESISTENT BOXES
10. ALL SLEEVING MUST BE INSTALLED PRIOR TO THE LIMEROCKING OF THE PAVED AREAS
11. ALL SLEEVING SHALL BE SCH. 40 P.V.C. AND INSTALLED A MINIMUM OF 18" DEEP
12. ALL FEEDER LINES SHALL BE INSTALLED A MINIMUM OF 12" DEEP
13. RAINBIRD 'RAINCHECK' DEVICE SHALL BE INSTALLED TO MINIMIZE IRRIGATION DURING SUFFICIENT RAINFALL (RSD SERIES). IN ADDITION, AN ACCLIMA TDT SENSOR WITH SCX CONTROL MONITOR MUST BE INSTALLED AS LOCATED BY THE LANDSCAPE ARCHITECT FOR PROPER IRRIGATION AMOUNTS
14. THE ENTIRE SYSTEM MUST BE OPERATIONAL, REVIEWED, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
15. THE CONTRACTOR SHALL RETURN WITHIN THE FIRST 30 DAYS TO ADJUST THE SYSTEM AS NECESSARY AND DIRECTED BY THE LANDSCAPE ARCHITECT
16. ALL LABOR AND MATERIALS SHALL BE GUARANTEED FOR 1 YEAR FOR FINAL ACCEPTANCE
17. THE CONTRACTOR MUST PROVIDE AN AS-BUILT DRAWING TO THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
18. BACKFLOW PREVENTION DEVICE MUST BE INSTALLED AT THE METER LOCATION PER APPLICABLE CODES
19. SLEEVES MUST BE INSTALLED IN ALL AREAS WHERE IRRIGATION PIPING IS INSTALLED UNDER PAVEMENT
20. ZONES ARE DESIGNED TO FUNCTION AT 95 GPM AND 40 PSI AT THE VALVE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AT ALL HEADS TO INSURE PROPER PRESSURE AND WATER QUANITY FOR THE DESIGNED COVERAGE
21. CONTRACTOR SHALL CONSULT WITH BOTH OWNER AND THE LANDSCAPE ARCHITECT FOR THE TIMING OF THE SYSTEM, BASED ON CURRENT WATER RESTRICTIONS
22. SYSTEM DOES NOT PROVIDE 100% COVERAGE OF THE ENTIRE PROJECT SITE. CONTRACTOR MUST ADJUST HEADS TO COVER NEW PLANT INSTALLATION AND SOD AREAS AS DIRECTED BY THE LANDSCAPE ARCHITECT
23. ALL LINE LOCATIONS MUST BE ADJUSTED ON-SITE TO INSURE THAT THEY DO NOT IMPACT THE MAJOR ROOT SYSTEMS OF THE TREES TO BE PRESERVED
24. ALL IRRIGATION HEADS SHALL BE LOW-VOLUME, MICRO-IRRIGATION TO MINIMIZE WATER CONSUMPTION
25. SET RUN TIMES FOR THE SYSTEM PER RECOMMENDATIONS BY IFAS @ EDIS/FAQ/FLEP01/IR310
26. ON HEADS LOCATED BELOW THE VALVE LOCATIONS, INSURE CHECK VALVES ARE INSTALLED AT THE HEAD
27. POP-UP HEIGHTS WITHIN SOD AREAS SHALL BE SET AT 6"
28. ALL VALVES SHALL HAVE A FACTORY-INSTALLED 'FILTER SENTRY' AND VERIFIED BY CONTRACTOR
29. VERIFY CONTROLLER SET-UP WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
30. ALL IRRIGATION INSTALLATION SHALL MEET 2015 GRADES AND STANDARDS
31. NO IRRIGATION HEADS SHALL BE INSTALLED ON RISERS UNLESS SPECIFICALLY NOTED AND DETAILED
32. ALL AS-BUILTS, VERIFICATIONS, ETC., MUST BE SUBMITTED PRIOR TO FINAL INSPECTION AND ACCEPTANCE
33. BUBBLERS AT ALL TREES AND PALMS SHALL BE STAKED AT THEIR PROPER LOCATIONS



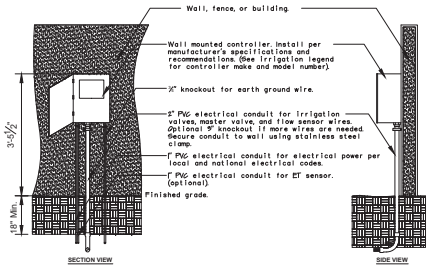
Notes:
1- All irrigation fittings shall be Sch. 40 PVC unless specified otherwise.
2- All threaded connections from Sch. 40 to Sch. 80 PVC shall be made using teflon tape.
3- Contractor shall settle the area around the bubbler, and edge of the root ball so that all irrigation flows through the root ball.

TREE BUBBLER LAYOUT



Notes:
1- 4" pop ups shall be used in turf areas.
2- Contractor shall settle soil around the pop up after installation.
3- All pop up spray heads shall have check valves.
4- All Sch. 40 PVC to Sch. 80 PVC connections shall be made using teflon tape.

POP UP-SPRAY HEAD



Notes:
1- Common and controller wire to be bundled using electrical tape at 10'-0" on center.
2- Grounding rods shall be located between 5'-0" to 15' away from the controller. Grounding rods shall be 8' in length. Connect the grounding rod to the controller using a gauge bare copper wire per manufacturer's specifications.
3- Rain sensor device shall be installed within 30' of the controller, a minimum of 8' high, and out from any overhead obstructions such as building overhangs, trees, or utilities.

WALL MOUNTED CONTROLLER

RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT , STATE OF FLORIDA #858

NO.	DATE	DESCRIPTION	BY

DRAWN BY: RAK
DATE: 3 / 22
SCALE: 1" = 20'
DRAWING NO:
JOB NO:
NEW NAME:
PG.

ENVIRONMENTAL DESIGN
ANDY KESSELRING, LANDSCAPE ARCHITECT
OCALA, FLORIDA 34478
(352) 622-3899
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

IRRIGATION NOTES & DETAILS
WEST APOPKA STORAGE - PHASE 2
CITY OF APOPKA FLORIDA

SHEET L-09A of ___

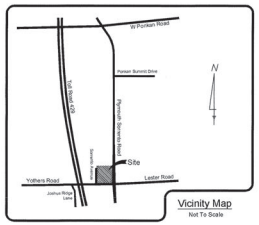
PLAT BOOK: 108 PAGE: 78

WEST APOPKA STORAGE AND RETAIL CENTER

A REPLAT OF LOTS 14 AND 17, BAILEY'S ADDITION TO PLYMOUTH, PLAT BOOK B, PAGE 145
OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

LYING IN

SECTION 30, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



SETBACKS:

LOT 1 – 50.00' Front Setback From Centerline
100.00' Rear Setback
15.00' Side Setback From Adjacent Right-of-Way
10.00' Side Setback From Adjacent Lots

LOT 2 – 65.00' Front Setback
15.00' Side Setback
10.00' Rear Setback

TRACT TABLE		
DESIGNATION	PURPOSE	DEDICATED TO:
TRACT A	Landscape Buffer & Utility Easement	Owner of Lot 1
TRACT B	Dry Retention Pond	Owner of Lot 1
TRACT C	Landscape Buffer & Utility Easement	Property Owners Assoction - P.O.A
TRACT D	Development Signage	Property Owners Assoction - P.O.A
TRACT E	Landscape Buffer & Utility Easement	Property Owners Assoction - P.O.A
TRACT F	Access to Lot 1 & Utility Easement	Owner of Lot 1
TRACT G	Landscape Buffer & Utility Easement	Owner of Lot 1
TRACT H	Private Lift Station	Property Owners Assoction - P.O.A
TRACT RW-1	30' R.o.W. Dedication	Orange County BCC

LEGAL DESCRIPTION:

LOTS 14 AND 17, BAILEY'S ADDITION TO PLYMOUTH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK B, PAGE 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LESS THE EAST 5.00 FEET FOR RIGHT-OF-WAY PER DEED BOOK 402, PAGE 128 ;BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 30 TOWNSHIP 20 SOUTH, RANGE 28 EAST ALSO BEING THE POINT OF INTERSECTION OF CENTERLINE OF YOTHERS ROAD AND SORRENTO AVENUE; THENCE ALONG THE CENTERLINE OF YOTHERS ROAD, SAID CENTERLINE BEING THE SOUTH LINE OF SECTION 30, RUN NORTH 88°10'31" EAST, A DISTANCE OF 20.67 FEET TO A POINT ON SAID SOUTH LINE; THENCE DEPARTING SAID SOUTH LINE RUN NORTH 01°49'29" WEST, A DISTANCE OF 20.00 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF AFORESAID YOTHERS ROAD, SAID POINT ALSO BEING THE POINT OF INTERSECTION OF SAID NORTH RIGHT-OF-WAY AND THE EAST RIGHT-OF-WAY LINE OF SORRENTO AVENUE, BEING THE POINT OF BEGINNING;

THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE AND ALONG SAID EAST RIGHT-OF-WAY LINE RUN NORTH 00°06'22" EAST, A DISTANCE OF 640.00 FEET TO THE SOUTHWEST CORNER OF LOT 13, BAILEY'S ADDITION TO PLYMOUTH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK B, PAGE 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 88°10'31" EAST ALONG THE SOUTH LINE OF SAID LOT 13, A DISTANCE OF 610.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF PLYMOUTH SORRENTO ROAD (PLATTED AS MAGNOLIA AVENUE), BAILEY'S ADDITION TO PLYMOUTH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK B, PAGE 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING AFORESAID SOUTH LINE OF LOT 13 AND ALONG SAID WEST RIGHT-OF-WAY LINE RUN SOUTH 00°05'50" WEST, A DISTANCE OF 640.00 FEET TO A POINT, SAID POINT BEING THE POINT OF INTERSECTION OF SAID WEST RIGHT-OF-WAY LINE OF PLYMOUTH SORRENTO ROAD (PLATTED AS MAGNOLIA AVENUE) AND THE AFORESAID NORTH RIGHT-OF-WAY OF YOTHERS ROAD; THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE AND ALONG SAID NORTH RIGHT-OF-WAY LINE RUN SOUTH 88°10'31" WEST, A DISTANCE OF 610.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 371,586.120 SQ FT MORE OR LESS; 8.530 ACRES MORE OR LESS

Ireland & Associates
Surveying, Inc.
Patrick K. Ireland, PSM 6637/LB 7623
800 Currency Circle, Suite 1020
Lake Mary, Florida 32746
www.irelandsurveying.com
Office-407.678.3366
Fax-407.320.8165

NOTES:

1. ALL LOT CORNERS SHOWN HEREON ARE TO BE SET IN ACCORDANCE WITH CHAPTER 177.091(9) FLORIDA STATUTES.
2. BEARINGS SHOWN HEREON ARE BASED UPON THE EAST LINE OF TRACT RW-1, TO BE THE WEST RIGHT-OF-WAY LINE OF PLYMOUTH-SORRENTO ROAD, BEING SOUTH 00°05'50" WEST, BASED UPON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 DATUM.
3. ALL PLATTED UTILITY EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL NOT INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES. THIS SECTION SHALL NOT APPLY TO THOSE PRIVATE EASEMENTS GRANTED TO OR OBTAINED BY A PARTICULAR ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION, SHALL COMPLY WITH THE NATIONAL ELECTRICAL SAFETY CODE AS ADOPTED BY THE FLORIDA PUBLIC SERVICE COMMISSION.

WEST APOPKA STORAGE AND RETAIL CENTER

DEDICATION

KNOWN ALL MEN BY THESE PRESENTS, THAT

DAFFLYN PROPERTY 2 LLC

being the owner in fee simple of the lands described in the foregoing caption to this plat, hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates the Drainage Easement and Access & Utility Easement shown hereon to the perpetual use of the lot owners shown on this plat. The owner does hereby grant to the City of Apopka the non-exclusive and perpetual right of ingress egress over and across all of the cross access easements shown and does hereby grant to delivery, pickup and fire protection services, police, authorities of the United States postal service mail carriers, representatives of utilities authorized by the owner, holders of mortgage liens on such lands, and invitees of the lot owners, the non-exclusive and perpetual right of ingress egress over and across said easements. Regardless of the preceding provisions, the lawful owner reserves the unrestricted and absolute right to deny the right of ingress to any person who, in the opinion of the lawful owner may create or participate in a disturbance or nuisance on any part of the land shown on this plat.

Tract RW-1 (Additional Right-of-Way) is dedicated in fee simple to Orange County without any restriction whatsoever upon Orange County. County ownership of Tract RW-1 and any improvements thereon vests upon approval of this plat by the City of Apopka Commissioners. Recording of this Plat shall act as conveyance to the County and no further Instrument shall be necessary to vest fee simple title in the County as aforementioned.

IN WITNESS WHEREOF,

HAS CAUSED THESE PRESENTS TO BE SIGNED, SEALED, AND ATTESTED TO, BY THE PERSONS NAMED BELOW:

IN WITNESS THEREOF, has caused these presents to be signed and attested to or witnessed this 1st day of April, 2022.

By: Robert Bliss (Printed Name) Robert Bliss

Attest: Savannah Eversen (Printed Name) Savannah Eversen

Signed in the presence of:

By: Claire Grandy (Printed Name) Claire N. Grandy

By: Charles Brownyard (Printed Name) Charles Brownyard

STATE OF Florida COUNTY OF Seminole THIS IS TO CERTIFY, That on 4/11/22 before me, an officer duly authorized to take acknowledgements in the State and County aforesaid, personally appeared Robert Bliss and _____ respectively owner and _____ of the above named Corporation incorporated under the laws of Florida who is/are personally known to me or have produced the following identification Drivers License and _____ respectively and who executed the foregoing dedication and severally acknowledged the execution thereof to be their free act and deed as such officers thereto duly authorized and that said dedication is the act and deed of said Corporation.

IN WITNESS WHEREOF, I have hereto set my hand and seal.

NOTARY PUBLIC Kathy Ann
My Commission Expires 11/17/25

CERTIFICATE OF APPROVAL BY CITY ENGINEER

THIS IS TO CERTIFY THAT ON April 15, 2022, THE FOREGOING PLAT WAS EXAMINED AND APPROVED BY

RICHARD EARP, CITY ENGINEER

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

THIS IS TO CERTIFY THAT ON _____, THE FOREGOING PLAT WAS APPROVED BY THE APOPKA PLANNING COMMISSION OF THE CITY OF APOPKA.

CHAIRMAN _____ DATE 4/19/22

CERTIFICATE OF APPROVAL BY REVIEWING SURVEYOR

PURSUANT TO SECTION 177.081 FLORIDA STATUES, I HAVE REVIEWED THIS PLAT FOR CONFORMITY TO CHAPTER 177 PART 1 OF THE FLORIDA STATUES AND THAT SAID PLAT COMPLIES WITH THE TECHNICAL REQUIREMENTS OF THAT CHAPTER; PROVIDED HOWEVER THAT MY REVIEW DOES NOT INCLUDE FIELD VERIFICATION OF ANY OF THE COORDINATES, POINTS, OR MEASUREMENTS SHOWN ON THIS PLAT.

Surveyor's Signature _____ Date 4-12-2022

ANDREW PERRY (Surveyor's Name) 6124 (Registration No.)

NOTICE:
THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY THAT ON _____ THE CITY COUNCIL OF THE CITY OF APOPKA APPROVED THE FOREGOING PLAT

BRYAN NELSON, MAYOR _____ CITY CLERK _____

CERTIFICATE OF APPROVAL BY COUNTY COMPTROLLER

I HEREBY CERTIFY THAT THE FOLLOWING PLAT WAS RECORDED IN THE ORANGE COUNTY OFFICAL RECORDS ON 04/21/2022

AS FILE No. 20220259195

COUNTY COMPTROLLER IN AND FOR ORANGE COUNTY, FLORIDA BY Rebecca Rae

COUNTY COMPTROLLER SEAL ORANGE COUNTY FLORIDA

QUALIFICATION AND STATEMENT OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A PROFESSIONAL SURVEYOR AND MAPPER CERTIFIES THAT I HAVE PREPARED THE FOREGOING PLAT AND IT WAS MADE UNDER MY DIRECTION AND SUPERVISION AND THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, PART 1, PLATTING, FLORIDA STATUTES; AND THAT SAID LAND IS LOCATED IN THE CITY OF APOPKA, ORANGE COUNTY, FLORIDA.

Surveyor's Signature _____ Date 3/31/2022

Ireland & Associates Surveying
800 Currency Circle, Suite 1020
Lake Mary, Florida 32746

Patrick K. Ireland ; PSM
Florida Registration Number 6637
Licensed Business No. 7623

IS-84390_Plat

PLAT BOOK: 108 PAGE: 79

SHEET 2 OF 2

WEST APOPKA STORAGE AND RETAIL CENTER

A REPLAT OF LOTS 14 AND 17 LESS THE EAST 5.00 FEET THEREOF, BAILEY'S ADDITION TO PLYMOUTH, PLAT BOOK B, PAGE 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

LYING IN

SECTION 30, TOWNSHIP 20 SOUTH, RANGE 28 EAST
ORANGE COUNTY, FLORIDA

Line Table		
Line #	Direction	Length
L1	S00° 06' 22"W	15.01'
L2	S00° 06' 22"W	82.32'
L3	N89° 47' 56"E	387.18'
L4	S00° 57' 16"W	12.32'
L5	S89° 48' 09"E	177.60'
L6	S00° 05' 50"W	165.90'
L7	S88° 10' 31"W	564.93'
L8	N88° 10' 31"E	15.00'
L9	S88° 10' 31"W	30.00'
L36	S88° 10' 31"W	333.72'
L37	S01° 49' 29"E	6.56'
L38	N88° 10' 31"E	51.92'
L39	N88° 10' 31"E	143.51'
L40	S00° 06' 57"W	527.24'
L42	N89° 49' 16"W	15.00'
L43	S00° 06' 22"W	542.67'
L44	N88° 10' 31"E	144.06'
L45	S88° 10' 31"W	79.28'
L46	S88° 10' 31"W	356.68'
L49	N00° 14' 46"W	10.44'

Line Table		
Line #	Direction	Length
L50	N89° 53' 07"W	34.00'
L51	N00° 06' 53"E	3.42'
L52	N00° 06' 53"W	6.58'
L53	S00° 06' 53"W	10.00'
L55	S89° 54' 10"E	10.00'
L56	S00° 05' 50"W	16.00'
L57	N00° 05' 50"E	16.00'
L58	N89° 54' 10"W	10.00'
L59	N88° 10' 31"E	30.00'
L60	S89° 53' 07"E	19.00'
L61	S89° 53' 07"E	34.00'
L62	N88° 10' 31"E	148.73'
L63	N88° 10' 31"E	185.00'

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	36.96'	30.00'	070°35'27"	N28° 15' 03"E	34.67'
C2	21.59'	30.00'	041°13'39"	N42° 55' 57"E	21.12'
C3	2.97'	3.00'	056°41'03"	S26° 31' 02"W	2.85'
C4	24.81'	25.00'	056°51'38"	S30° 15' 18"E	23.80'
C5	15.37'	30.00'	029°21'48"	N07° 38' 14"E	15.21'
C6	5.99'	25.00'	013°43'47"	S08° 41' 23"E	5.98'
C7	18.82'	25.00'	043°07'51"	S37° 07' 12"E	18.38'

-Legend-

SEC. - Section
FND. - Found
SQ FT - Square Foot
℄ - Centerline
N.R. - Non-Radial
P.I. - Point of Intersection
R/W - Right-of-Way
R.P. - Radius Point
PC - Point of Curvature
C - Chord Information
C.M. - Concrete Monument

- Section Corner
- Set Iron Rod & Cap LB# 7623
- Set Nail & Disk LB# 7623
- Set 4"x4" Concrete Monument With Disk Stamped (P.R.M. - LB# 7623)
- Fnd. Concrete Monument as Denoted on Face of Plat

CCR - Certified Corner Record
P.R.M. - Permanent Reference Monument
R - Radius
Δ - Delta
L - Length
D.U.A.E. - Drainage, Utility, & Access Easement

Ireland & Associates Surveying, Inc.
Patrick K. Ireland, PSM 6637/LB 7623
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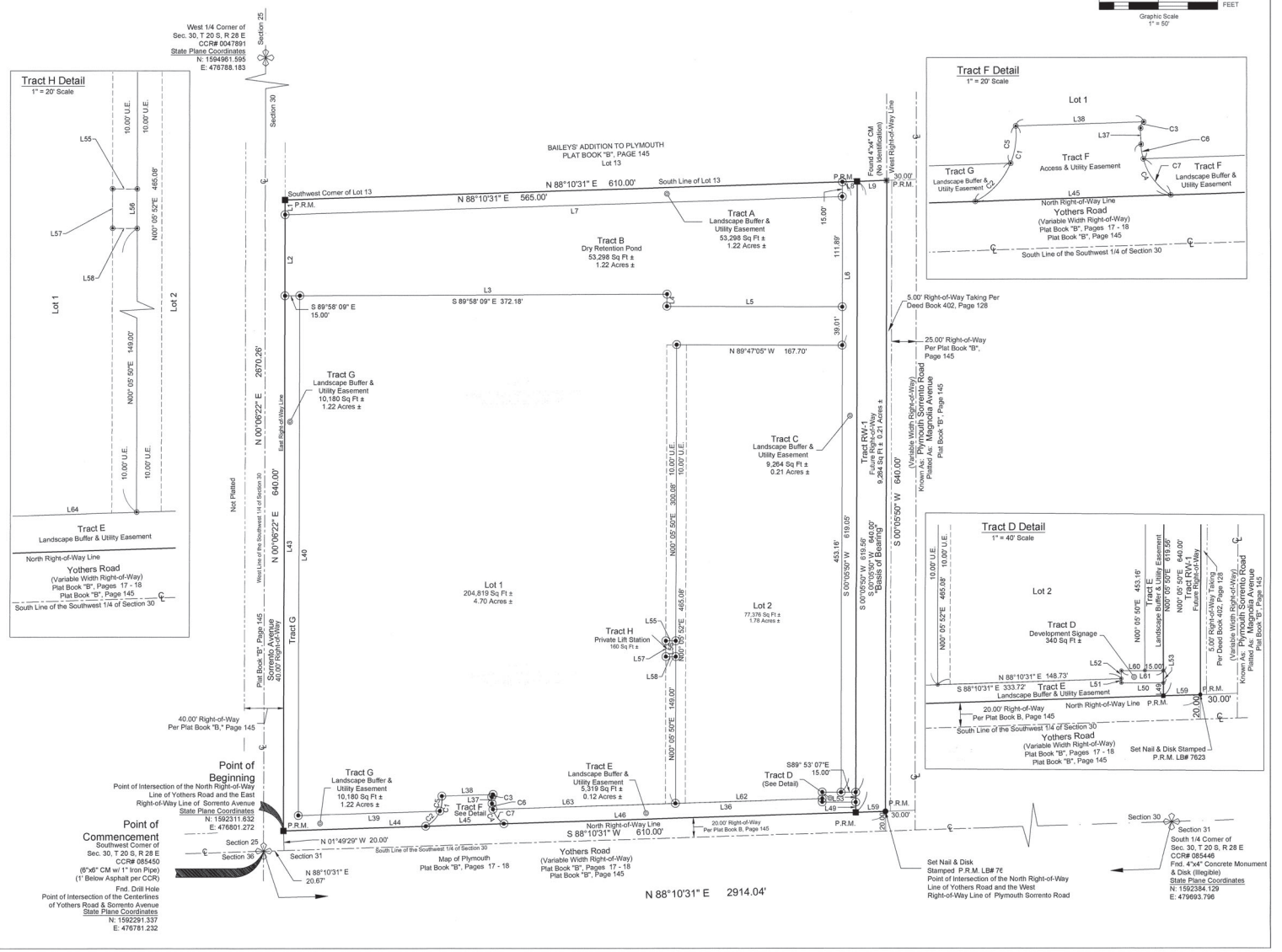

LO FAMILY TRUST WAREHOUSE

CONSTRUCTION SITE PLAN

3838 HOGSHEAD ROAD
APOPKA, FL 32703

DATE: 02/01/2024

PARCEL #: 01-21-27-0000-00-16

BRIAN P. FORSTER LICENSE NO. 62461 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed by Brian P. Forster, P.E. on: 2024.02.01 16:43:42-05'00' using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on electronic copies.

SHEET INDEX

CIVIL ENGINEERING

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C1.01	EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN
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C1.03	EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN
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LANDSCAPE ARCHITECTURE

L0.01	GENERAL NOTES ABBREVIATIONS & SYMBOLS
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L2.00	LANDSCAPE PLANTING SCHEDULE & DETAILS
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VICINITY MAP

PROJECT TEAM

OWNER/DEVELOPER
LO FAMILY TRUST, INC.
261 LIVERPOOL COVE
LONGWOOD, FL 32779
407.496.5366
CONTACT NAME: MARY C. LO

OWNER'S REPRESENTATIVE
JOHN HOUSE, LLC
1804 CRANBERRY ISLES WAY
APOPKA, FL 32712
407.421.1445
CONTACT NAME: JOHN HOUSE

CIVIL ENGINEER
LANDDESIGN
100 SOUTH ORANGE AVE., SUITE 700
ORLANDO, FL 32801
407.270.7800
CONTACT NAME: BRIAN FORSTER

LANDSCAPE ARCHITECT
LANDDESIGN
100 SOUTH ORANGE AVE., SUITE 700
ORLANDO, FL 32801
407.270.7800
CONTACT NAME: KRISTEN SWEATLAND

SURVEYOR
FREELAND-CLINKSCALES & ASSOCIATES, INC.
814 EAST ALFRED STREET
TAVARES, FL 32778
352.609.2830
CONTACT NAME: SCOTT LEE

ARCHITECT
KAD DESIGNS, INC.
6900 TAVISTOCK LAKES BLVD., SUITE 400
ORLANDO, FL 32827
407.460.0243
CONTACT NAME: INTIAZ KARIM

GEOTECHNICAL ENGINEER
TERRACON CONSULTANT, INC
1675 LEE RD WINTER PARK, FL 32789
407.740.6110
CONTACT NAME: LIMING XUE

ENVIRONMENTAL
BIO-TECH CONSULTING
3025 EAST SOUTH STREET
ORLANDO, FL 32803
CONTACT NAME: SPENCER CLARK

UTILITY CONTACT INFORMATION:

ELECTRIC PROVIDER
DUKE ENERGY
CUSTOMER SERVICE (407)629-1010

WATER / SANITARY
CITY OF APOPKA PUBLIC SERVICE DEPARTMENT
748 EAST CLEVELAND STREET, APOPKA, FL 32703
(407)703-1731

FIRE PREVENTION
CITY OF APOPKA FIRE DEPARTMENT
175 E. 5TH STREET, APOPKA, FL 32703
(407)703-1756

NATURAL GAS PROVIDER
LAKE APOPKA NATURAL DISTRICT
38 N. PARK AVENUE, APOPKA, FL
(407)656-2734

LEGAL DESCRIPTION:

The East Half of the Southwest Quarter of the Northwest Quarter (Less the North 30 feet), Section 1, Township 21 South, Range 27 East, lying and being in Orange County, Florida.

PROJECT DESCRIPTION:

The purpose of this project is to construct a new 64,000 sf light industrial warehouse/office, parking lot and new driveway access.The proposed warehouse will support online retail operations of plant related merchandise (air plants, bonsai, cactus, succulents, etc.) that will be stored within the building and distributed from it. There will be minimal customer traffic and the onsite parking will be to support staff who will work in the office.

LandDesign.

2/1/2024 11:21:08 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-COVER.DWG

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH CITY OF APOPKA ENGINEERING STANDARDS AND FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION).

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.

3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE THE NECESSARY RIGHT-OF-WAY UTILIZATION PERMIT(S) AND PROVIDE FOR THE SAFETY OF LOCAL TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN EXISTING RIGHT-OF-WAY WITH THE CITY OF APOPKA TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.

7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.

8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL AND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.

11. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.

12. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.

14. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS. WHICHEVER IS MOST RESTRICTIVE OF THE TWO.

2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.

3. TRAFFIC CONTROL ON ALL FDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.

5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.

6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.

7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.

8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.

9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.

10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.

11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.

12. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO FDOT STANDARDS, IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

13. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.

14. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

16. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.

17. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.

18. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE ENVIRONMENTAL RESOURCE PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY WATER MANAGEMENT DISTRICT REPRESENTATIVES.

19. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.

20. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

SIGNAGE AND PAVEMENT MARKINGS

1. ALL FINAL PAVEMENT MARKINGS SHALL BE ALKYD THERMOPLASTIC, ACCORDING TO FDOT STANDARDS UNLESS NOTED OTHERWISE IN PLANS. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE PAINT, ACCORDING TO FDOT STANDARDS. REFER TO FDOT TECHNICAL SPECIFICATIONS FOR ADDITIONAL DETAILS.

2. CONTRACTOR TO RELOCATE EXISTING AND INSTALL NEW SIGNAGE WHERE INDICATED ON THE DRAWINGS.

3. SIGNING AND PAVEMENT MARKINGS ARE TO BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE FDOT DESIGN STANDARDS AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

4. PAVEMENT MARKINGS AT ALL EXISTING/PROPOSED INTERFACE LOCATIONS ARE TO MATCH IN TERMS OF ALIGNMENT AND COLOR.

5. CAUTION SHOULD BE EXERCISED IN THE INSTALLATION OF POST MOUNTED SIGNS IN ORDER TO PREVENT POSSIBLE DAMAGE TO BURIED UTILITIES. GROUND PENETRATING RADAR (GPR) IS ACCEPTABLE AND RECOMMENDED.

WATER AND SEWER UTILITY NOTES

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, SEWER FORCE MAINS, MANHOLES, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.

3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.

4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.

5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING, AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.

7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

8. UNDERGROUND LINES SHALL BE SURVEYED BY A PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING.

9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.

10. ALL POTABLE WATER FACILITIES FROM THE BACKFLOW PREVENTER DOWNSTREAM AND ALL WASTEWATER FACILITIES ON PRIVATE PROPERTY SHALL BE PRIVATELY OWNED AND MAINTAINED. ALL POTABLE WATER FACILITIES FROM THE TIE INTO EXISTING TO THE BACKFLOW PREVENTER AND ALL WASTEWATER FACILITIES WITHIN PUBLIC RIGHT-OF-WAY SHALL BE CITY OWNED AND MAINTAINED.

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THIS EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.

5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.

14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS. REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS FOR SEEDING AND MAINTENANCE REQUIREMENTS.

15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.

21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

22. SEDIMENTATION CONTROLS/BMPS SHALL PREVENT STORMWATER RUNOFF WITH TURBIDITY GREATER THAN 29 NTUS FROM LEAVING THE CONSTRUCTION SITE.

23. INSPECTIONS BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS SHALL BE CONDUCTED DAILY AND WITHIN 24 HOURS AFTER EACH 0.50 INCH OR GREATER RAINFALL EVENT. ANY NECESSARY REMEDIES SHALL BE PERFORMED IMMEDIATELY.

24. ALL EXCESS FILL TO BE HAULED OFF-SITE.

25. DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF WATER WITH TURBIDITY GREATER THAN 29 NTUS FROM THE SITE. IF ANALYTICAL RESULTS FROM GROUNDWATER SAMPLES DETERMINE THAT SITE IS CONTAMINATED, A CITY WASTEWATER INDUSTRIAL WASTE PRE-TREATMENT GROUNDWATER PERMIT MUST BE OBTAINED FOR PROPER DISPOSAL INTO CITY SANITARY SYSTEM.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.

2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.

3. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.

MAINTENANCE

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS.

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 55 CUBIC YARDS / ACRE.

7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

SAFETY

1. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

2. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL PROVIDE FOR THE SAFETY AND CONTROL OF LOCAL TRAFFIC DURING CONSTRUCTION. ADDITIONAL INFORMATION MAY BE REQUIRED IF LANE CLOSURE DURATIONS ARE LONGER THAN DAYTIME OPERATIONS.

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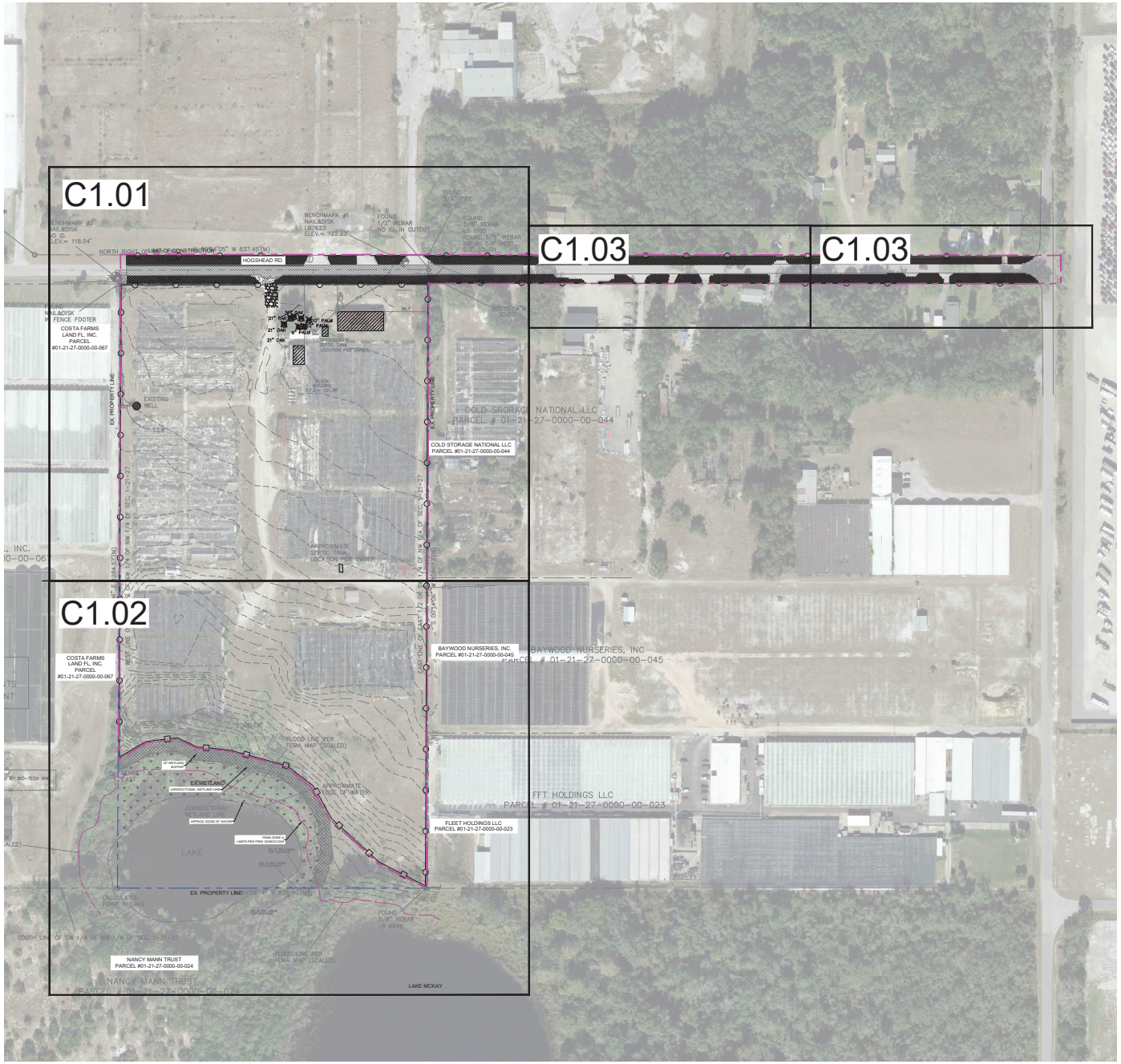

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KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

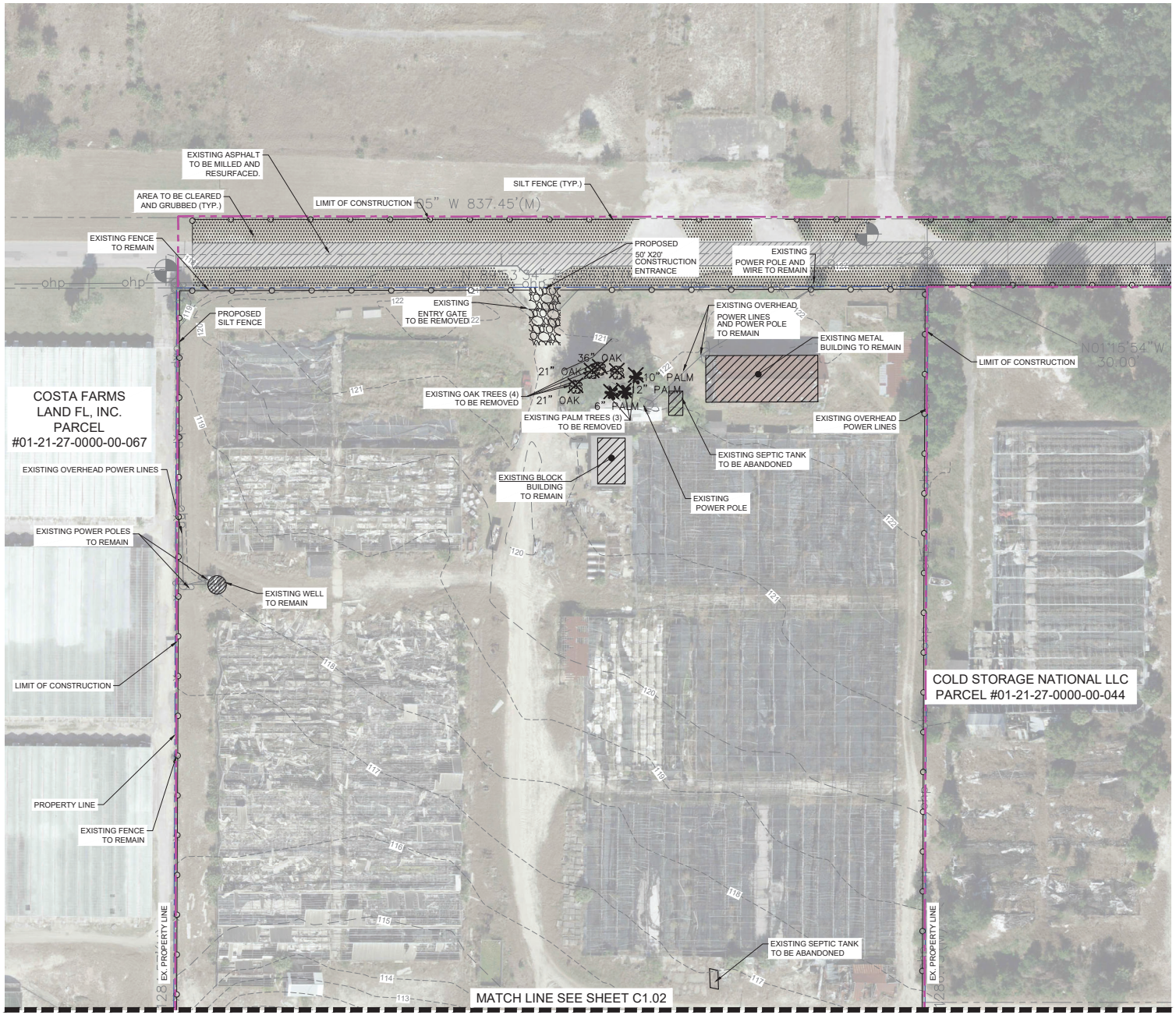
SCALE
VERT: N/A
HORZ: 1" = 100'
0 50 100 200
ORIGINAL SHEET SIZE: 24" X 36"

NORTH

SHEET TITLE
OVERALL EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN

SHEET NUMBER
C1.00

2/1/2024 11:23 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\OR\1_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-PLN-EXISTING CONDITIONS.DWG



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- PROPOSED DOUBLE ROW OF SILT FENCE
- PROPOSED SINGLE ROW OF SILT FENCE
- EXISTING SPOT ELEVATION
- EXISTING CONTOUR LINE
- EXISTING WETLAND LIMIT
- EXISTING FLOOD LINE
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING PAD TO BE DEMOLISHED
- PROPOSED CONSTRUCTION ENTRANCE
- PAVEMENT MILLING
- CLEARING AND GRUBBING
- EXISTING WELL

NOTES:

1. SEE LANDSCAPE PLANS FOR TREE REMOVAL, PROTECTION AND MITIGATION INFORMATION.
2. CONTRACTOR TO PROVIDE ANY REQUIRED PERMITTING TO ACCOMMODATE THE REMOVAL OF EXISTING SEPTIC SYSTEMS.
3. ANY REMNANTS OF THE PREVIOUS LAND USE NOT STATED TO BE PROTECTED OR TO REMAIN IS TO BE REMOVED FROM THE SITE.
4. EXISTING CONDITION SURVEY IS BASED ON INFORMATION RECEIVED FROM FREELAND -CLINKSCALES & ASSOCIATES, INC. DATED DEC. 11, 2020.
5. DATUM NOTE:

   ALL ELEVATIONS SHOWN ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

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KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.# 8121044

REVISION / ISSUANCE

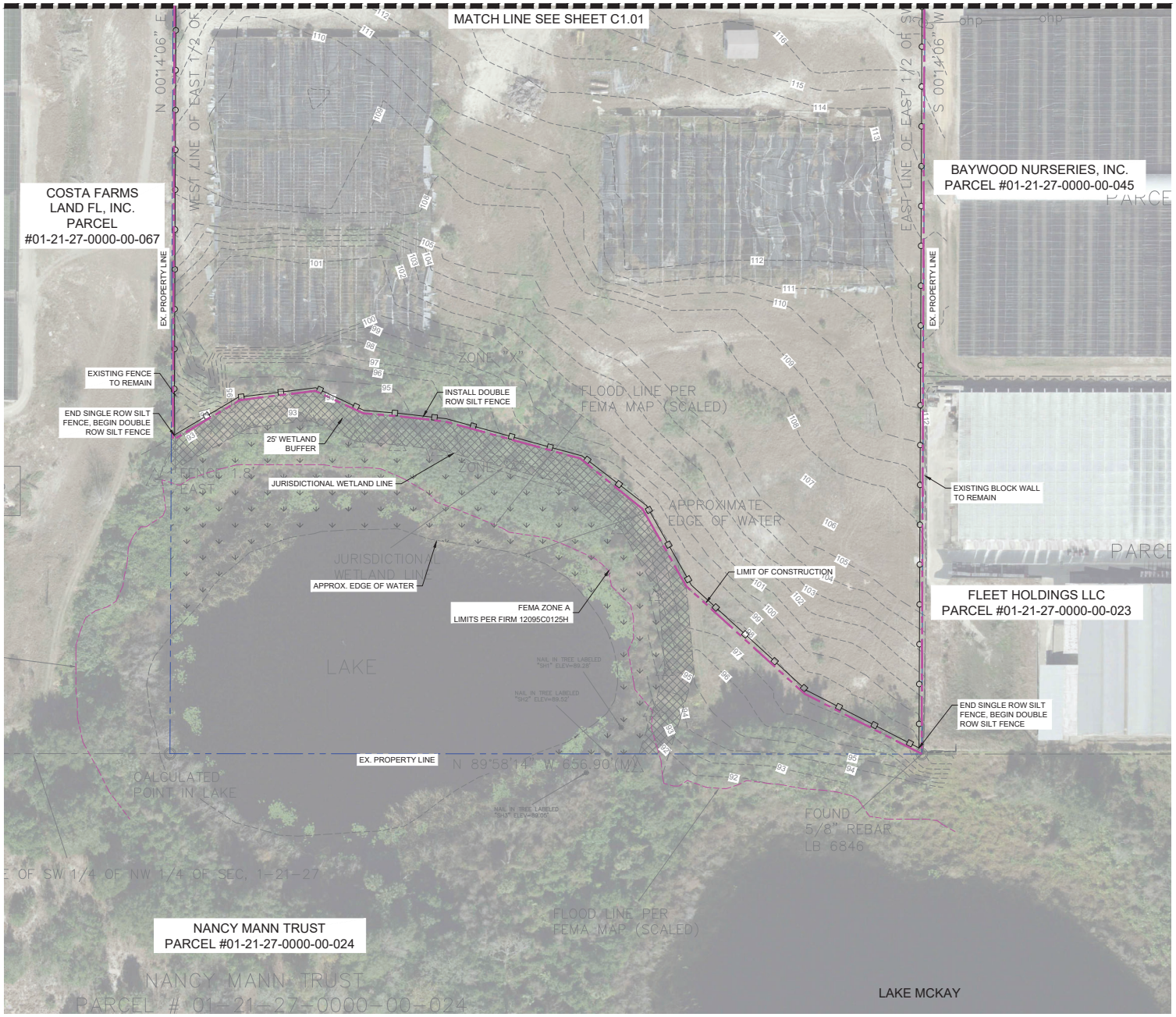
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE: VERT: N/A HORZ: 1" = 40'
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE: EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN

SHEET NUMBER: C1.01



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- PROPOSED DOUBLE ROW OF SILT FENCE
- PROPOSED SINGLE ROW OF SILT FENCE
- EXISTING SPOT ELEVATION
- EXISTING CONTOUR LINE
- EXISTING WETLAND LIMIT
- EXISTING FLOOD LINE
- WETLAND BUFFER

NOTES:

1. SEE LANDSCAPE PLANS FOR TREE REMOVAL, PROTECTION AND MITIGATION INFORMATION.
2. CONTRACTOR TO PROVIDE ANY REQUIRED PERMITTING TO ACCOMMODATE THE REMOVAL OF EXISTING SEPTIC SYSTEMS.
3. ANY REMNANTS OF THE PREVIOUS LAND USE NOT STATED TO BE PROTECTED OR TO REMAIN IS TO BE REMOVED FROM THE SITE.
4. EXISTING CONDITION SURVEY IS BASED ON INFORMATION RECEIVED FROM FREELAND -CLINKSCALES & ASSOCIATES, INC. DATED DEC. 11, 2020.
5. DATUM NOTE:

   ALL ELEVATIONS SHOWN ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
6. HORIZONTAL INFORMATION IS RELATIVE TO NORTH AMERICAN DATUM OF 1983 (NAD83), 2011 ADJUSTMENT, STATE PLAN COORDINATE SYSTEM, FLORIDA EAST ZONE.

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HORZ: 1" = 40'

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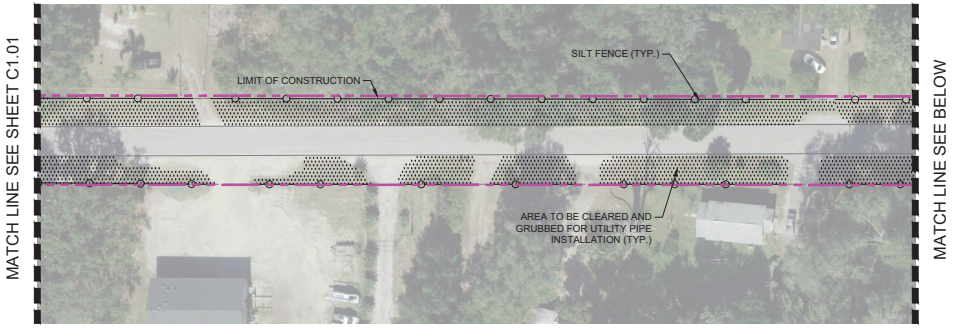
ORIGINAL SHEET SIZE: 24" X 36"

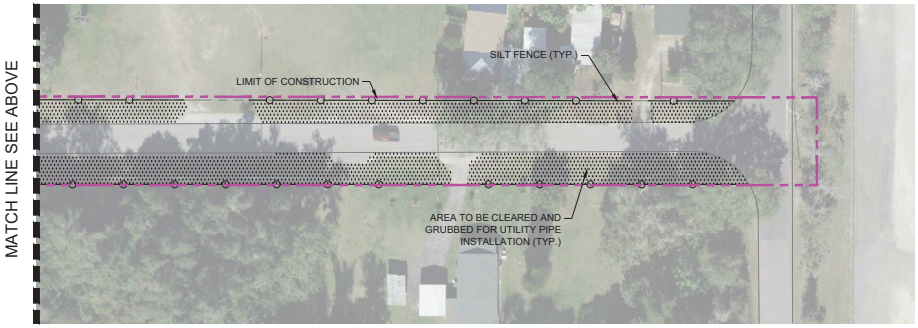
SHEET TITLE

EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN

SHEET NUMBER

C1.02





LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- PROPOSED DOUBLE ROW OF SILT FENCE
- PROPOSED SINGLE ROW OF SILT FENCE
- 122 EXISTING SPOT ELEVATION
- 122 EXISTING CONTOUR LINE
- EXISTING WETLAND LIMIT
- EXISTING FLOOD LINE
- CLEARING AND GRUBBING

NOTES:

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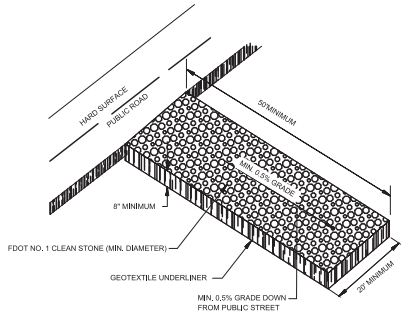
SHEET TITLE
EXISTING CONDITIONS, DEMO AND EROSION CONTROL PLAN

SHEET NUMBER
C1.03

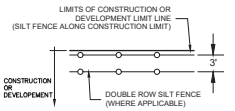
2/1/2024 11:24 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\ CIVIL\1044-PLN-EXISTING CONDITIONS.DWG

GENERAL EROSION CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM THE SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION: ON-SITE EROSION CONTROL MEASURES IN ADDITION TO THE ABOVE MUST BE PROVIDED TO PREVENT SILT FROM LEAVING THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. THE SILT FENCE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES, AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
5. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. DAILY INSPECTIONS SHALL BE MADE BY THE LANDOWNER OR ITS DESIGNEE TO DETERMINE THE EFFECTIVENESS OF SEDIMENT AND EROSION CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED WITHOUT DELAY. ALL SEDIMENT, EROSION, AND TURBIDITY CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKDAY.
6. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIERS DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER. IT IS THE RESPONSIBILITY OF THE LANDOWNER OR ITS DESIGNEE TO DEVELOP CONTINGENCY PLANS FOR DEALING WITH ALL WEATHER CONDITIONS, INCLUDING THE SEVERE RAIN EVENTS (MORE THAN TWO (2) INCHES IN FOUR (4) HOURS) WHICH MAY OCCUR REPEATEDLY DURING THE SUMMER MONTHS.
8. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS AND SPECIFICATIONS.
9. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL, REFER TO THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
10. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED AS INDICATED ON THE PLANS.
11. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
12. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
13. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
14. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS PERMIT CONDITIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE FLORIDA STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTORS HANDBOOK.
15. IN THE EVENT THAT EROSION PREVENTION AND CONTROL DEVICES SHOWN IN THE EROSION CONTROL PLAN PROVE NOT TO BE EFFECTIVE, ALTERNATE METHODS FOR MAINTAINING STATE WATER QUALITY STANDARDS FOR DISCHARGE FROM THE CONSTRUCTION SITE WILL BE REQUIRED.
16. DURING CONSTRUCTION THE CONTRACTOR WILL PROVIDE TEMPORARY SEEDING AND MULCHING FOR AREAS THAT HAVE BEEN CLEARED AND NOT REWORKED WITHIN 7 CALENDAR DAYS DURING THE WET SEASON (APRIL THROUGH SEPTEMBER) AND 14 CALENDAR DAYS DURING THE DRY SEASON (OCTOBER THROUGH MARCH). ALSO, ALL SIDES SLOPES SHALL BE SODDED OR SEEDED OR MULCHED WITHIN 7 DAYS DURING THE WET SEASON AND 14 DAYS DURING THE DRY SEASON.
17. ALL SURFACES WATER DISCHARGE FROM THIS SITE, INCLUDING DEWATERING DISCHARGE SHALL MEET STATE WATER QUALITY STANDARDS (LESS THAN 29 NTU ABOVE BACKGROUND) PRIOR TO REACHING ANY WATERS OF THE STATE, INCLUDING WETLANDS.

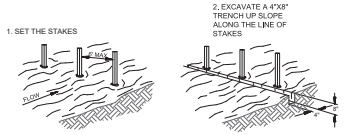


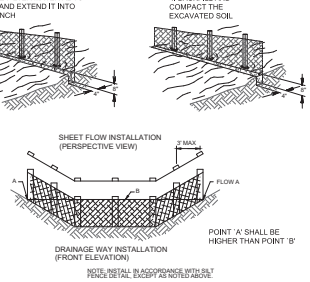
CONSTRUCTION ACCESS ENTRANCE DETAIL
NOT TO SCALE



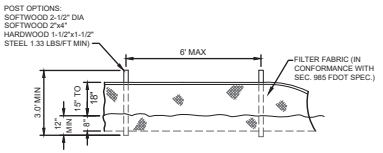
NOTES:
1. CONSTRUCT A STAKED SINGLE OR DOUBLE ROW OF SILT FENCE ALONG THE LIMITS OF CONSTRUCTION WHERE APPLICABLE.
2. SILT FENCE NEED TO BE TRENCHED IN AT ALL TIMES.
3. COORDINATE ANY CONSTRUCTION ACTIVITIES WITHIN 5 FEET OF LIMITS OF CONSTRUCTION WITH CONSTRUCTION MANAGER.

SILT FENCE DETAILS
NOT TO SCALE

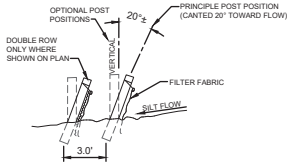




NOTE: INSTALL IN ACCORDANCE WITH SILT FENCE DETAIL EXCEPT AS NOTED ABOVE.



ELEVATION



SECTION

NOTES:
1. PRIOR TO ANY DISTURBANCE OF PROPERTY, THE ENTIRE SILT FENCE MUST BE IN PLACE.
2. THE EROSION CONTROL PROVISIONS DELINEATED ON THE PLANS ARE THE MINIMUM REQUIRED. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE NEEDED DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.
3. ENSURE THAT POSTS AT CONNECTIONS ARE ROLLED AND WRAPPED PER FDOT STANDARDS.

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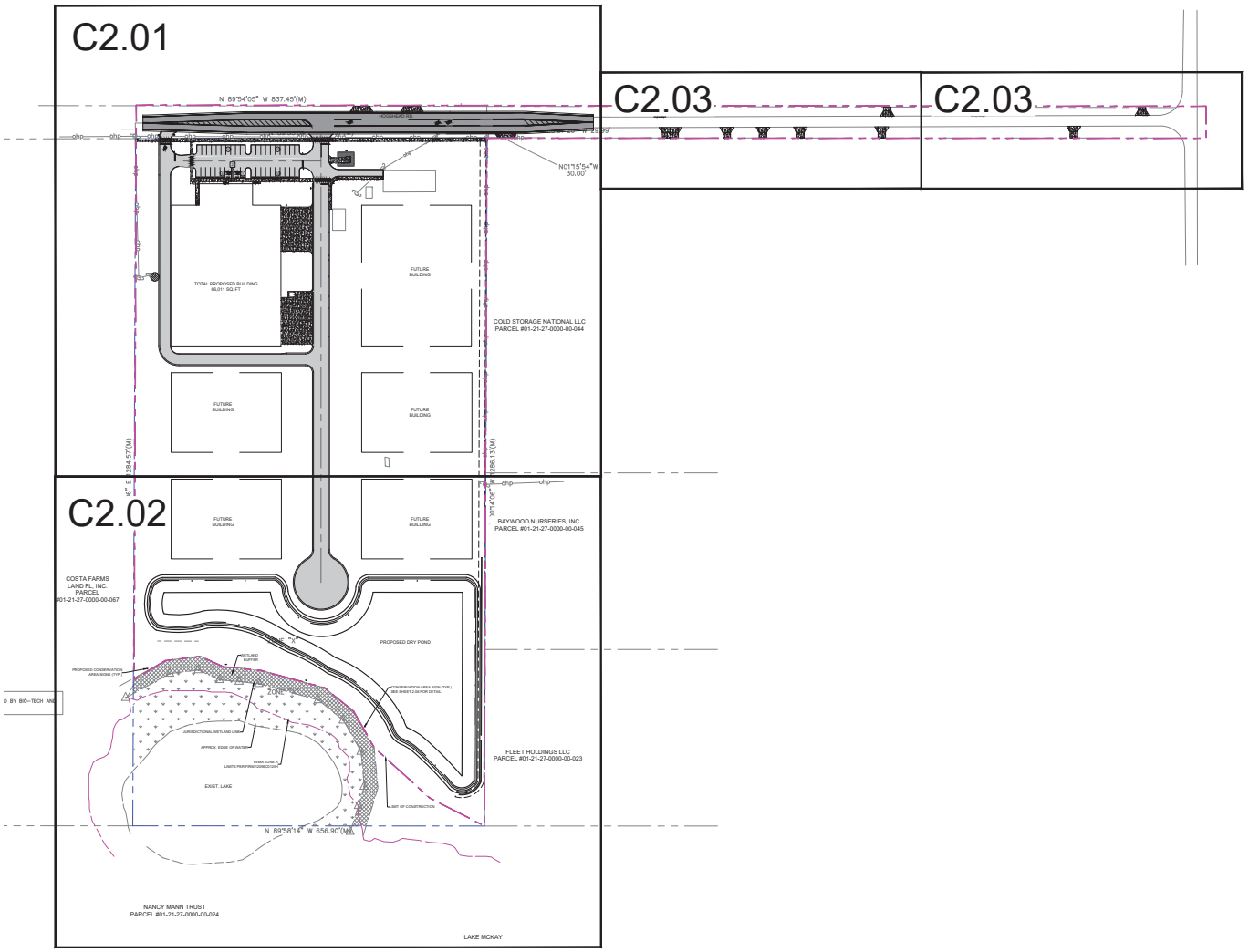
SCALE
NORTH
VERT: N/A
HORZ: ########
##
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
EROSION CONTROL DETAILS

SHEET NUMBER
C1.04



SITE DATA:

PARCEL ID: 01-21-27-0000-00-016

ZONE: I-L (LIGHT INDUSTRIAL)

ADJACENT FUTURE LAND USE AND ZONING

LOCATION	PARCEL ID	LAND USE	ZONING
NORTH	01-21-27-000-00-069	INDUSTRIAL	I-L
EAST	01-21-27-000-00-044	INDUSTRIAL	I-L
EAST	01-21-27-000-00-023	INDUSTRIAL	I-L
SOUTH	01-21-27-000-00-024	INDUSTRIAL	RSF-1A
WEST	01-21-27-000-00-067	INDUSTRIAL	I-L

ADDRESS:
3838 HOGSHEAD RD, APOPKA , FLORIDA 32703

PROPERTY DESCRIPTION:
E1/2 OF SW1/4 OF NW1/4 OF SEC (LESS N 30 FT FOR RD R/W) 01-21-27

FLOODPLAIN:
ZONE X (AREA OF MINIMAL FLOOD HAZARD) AND ZONE A (WITHOUT BASE FLOOD ELEVATION (BPE)) BASED ON MAP NUMBER 12095C0125F REVISED 9/25/2009

SITE AREA:

TOTAL SITE:	19.43 AC
TOTAL ON-SITE WETLAND AREA	0.98 AC
TOTAL ON-SITE UPLAND BUFFER/PRESERVE	0.37 AC
TOTAL EXISTING IMPERVIOUS	0.11 AC
TOTAL IMPERVIOUS AREA PROPOSED	3.16 AC
TOTAL IMPERVIOUS AREA FUTURE	5.46 AC
TOTAL IMPERVIOUS AREA PROP + FUTURE	8.62 AC
OFF SITE IMPROVEMENT AREA:	2.86 AC

SETBACKS**

FRONT YARD	10 FT
SIDE YARD	10 FT
CORNER YARD	15 FT
REAR YARD	10 FT
BUILDING HEIGHT, MAX.	35 FT
FLOOR AREA RATIO (FAR), MAX	0.40

**PER CITY OF APOPKA LAND DEVELOPMENT CODE ARTICLE 3: 3.5.3.C

TOTAL BUILDING AREA:

1ST FLOOR WAREHOUSE & 1ST FLOOR OFFICE =	66,011 SF
2ND FLOOR OFFICE =	4,067 SF
EXISTING BLDG TO REMAIN =	4,948 SF

NUMBER OF BERTHS

REQUIRED NUMBER OF BERTHS	
AT LEAST 2,000 SF BUT LESS THAN 10,000 SF	1
(66,011 SF-10,000 SF)/10,000* =	6
TOTAL REQUIRED	7

*EACH ADDITIONAL 10,000SF IS ON ADDITIONAL BERTH REQUIRED PER LDC TABLE 5.1.12.A

PROPOSED NUMBER OF BERTHS = 12

PARKING:
REQUIRED

2 SPACES/1,000 SF OFFICE***	
(7,807 SF/1,000 SF)X2 =	15 SPACES

PROVIDED

STANDARD SPACES	37 SPACES
ADA SPACES	2 SPACES
TOTAL PROVIDED	39 SPACES

***PER CITY OF APOPKA LAND DEVELOPMENT CODE ARTICLE 5, TABLE 5.1.6.A

BIKING SPACES:

REQUIRED	NO MINIMUM
PROVIDED	8 SPACES

OPEN SPACE:
REQUIRED

5% OF DEVELOPMENT AREA (19.43AC X 0.05)**** =	0.97 AC

****PER LDC, TABLE 5.4.4

PROVIDED

EXISTING WETLAND =	1.39 AC
PROPOSED POND =	1.37 AC
TOTAL PROVIDED =	2.35 AC

NOTES:

1. LIGHTING REQUIREMENTS MUST MEET ALL CITY OF APOPKA AND THE ELECTRIC PROVIDER'S REGULATIONS AT THE TIME OF ANY CONSTRUCTION PLAN SUBMITTAL AND ANY SUBSEQUENT APPROVALS.
2. **GREEN BUILDING 4 POINTS DEMONSTRATION**

POINT	EXPLANATION
1.0	PROPOSED DRY POND DESIGNED TO CAPTURE AND INFILTRATES 100% RUNOFF. (REFER TO STORM WATER REPORT).
2.5	8 ADDITIONAL BICYCLE PARKING SPACES.
0.5	BUILDING USE CENTRAL A/C THAT ARE ENERGY-STAR QUALIFIED (REFER TO M.E.P. STATEMENT)
0.5	BUILDING USE OF TANKLESS WATER HEATING SYSTEM (REFER TO M.E.P. STATEMENT)

REQUIRED FIRE FLOW:

PROPOSED BUILDING	CONSTRUCTION TYPE	AREA (SQ FT)	REQUIRED FIRE FLOW* (GPM)	ADJUSTED FIRE FLOW ** (GPM)	# OF FH REQUIRED (UNIT)
WAREHOUSE OFFICE	FBC: TYPE II B NFPA: II (000)	70,078	5,500	1,375	2

*REQUIRED FIRE FLOW DETERMINED FROM 2024 NFPA 1 TABLE 8.4.4.2.1
** PER SECTION 18.4.4.3.2 OF 2024 NFPA 1. REQUIRED FIRE FLOW MAY BE REDUCED BY 75% WHEN THE BUILDING IS PROTECTED THROUGHOUT BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM.

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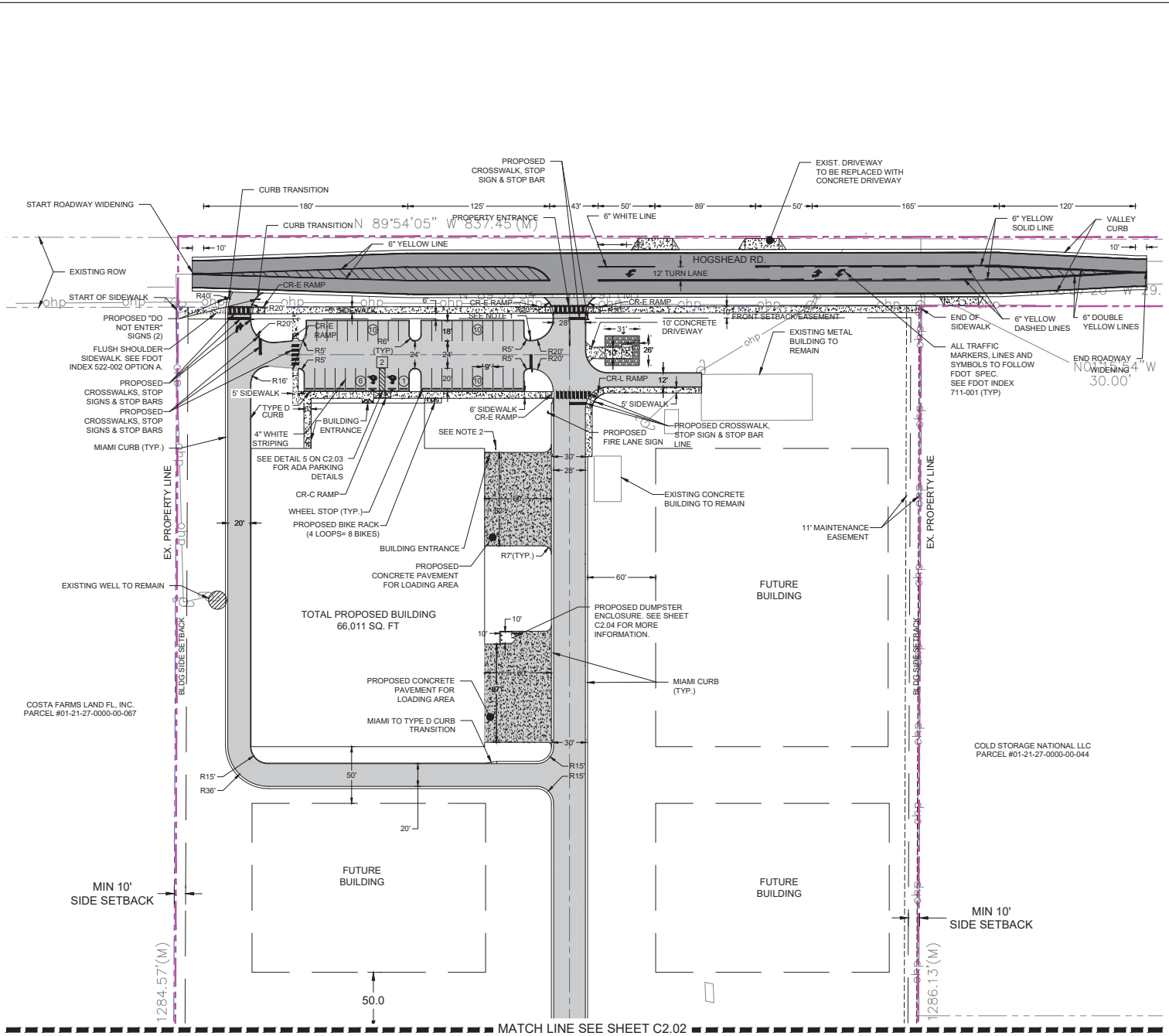
OVERALL SITE PLAN

SHEET NUMBER
C2.00



LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPERTY LINE
- FEMA ZONE A
- PROPOSED SIDEWALK
- PROPOSED CONCRETE PAVEMENT

NOTES:

1) PROPOSED SIGN "NO TRUCKS ALLOWED" .
2) PROPOSED SIGN "OVERNIGHT PARKING OF COMMERCIAL VEHICLES, TRACTOR TRAILERS, BOATS, RECREATIONAL VEHICLES, CAMPERS OR MOTOR HOMES SHALL BE PROHIBITED WITHIN PARKING LOTS NOT SPECIFICALLY DESIGNED FOR THAT PURPOSE."
3) TRUCKS AND SEMI-TRAILERS SHALL NOT BE PARKED OR STORED WITHIN PUBLIC VIEW OVERNIGHT UNLESS IT IS TEMPORARY PARKING NOT TO EXCEED FORTY-EIGHT (48) HOURS FOR DELIVERY PURPOSES.
4) CONCRETE SIDEWALK RAMPS SHALL BE CONSTRUCTED W/MAX 1:14 SLOPE & INSTALLED ACCORDING TO FDOT STANDARD PLANS INDEX 522-02.
5) ALL SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM CONTROL DEVICES (LATEST EDITION)
6) CONTRACTOR TO OBTAIN CAD FILES FROM OWNER FOR LAYOUT, GEOMETRY AND CONSTRUCTION STAKING FOR ALL PROPOSED IMPROVEMENTS.
7) ALL STRIPING TO BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

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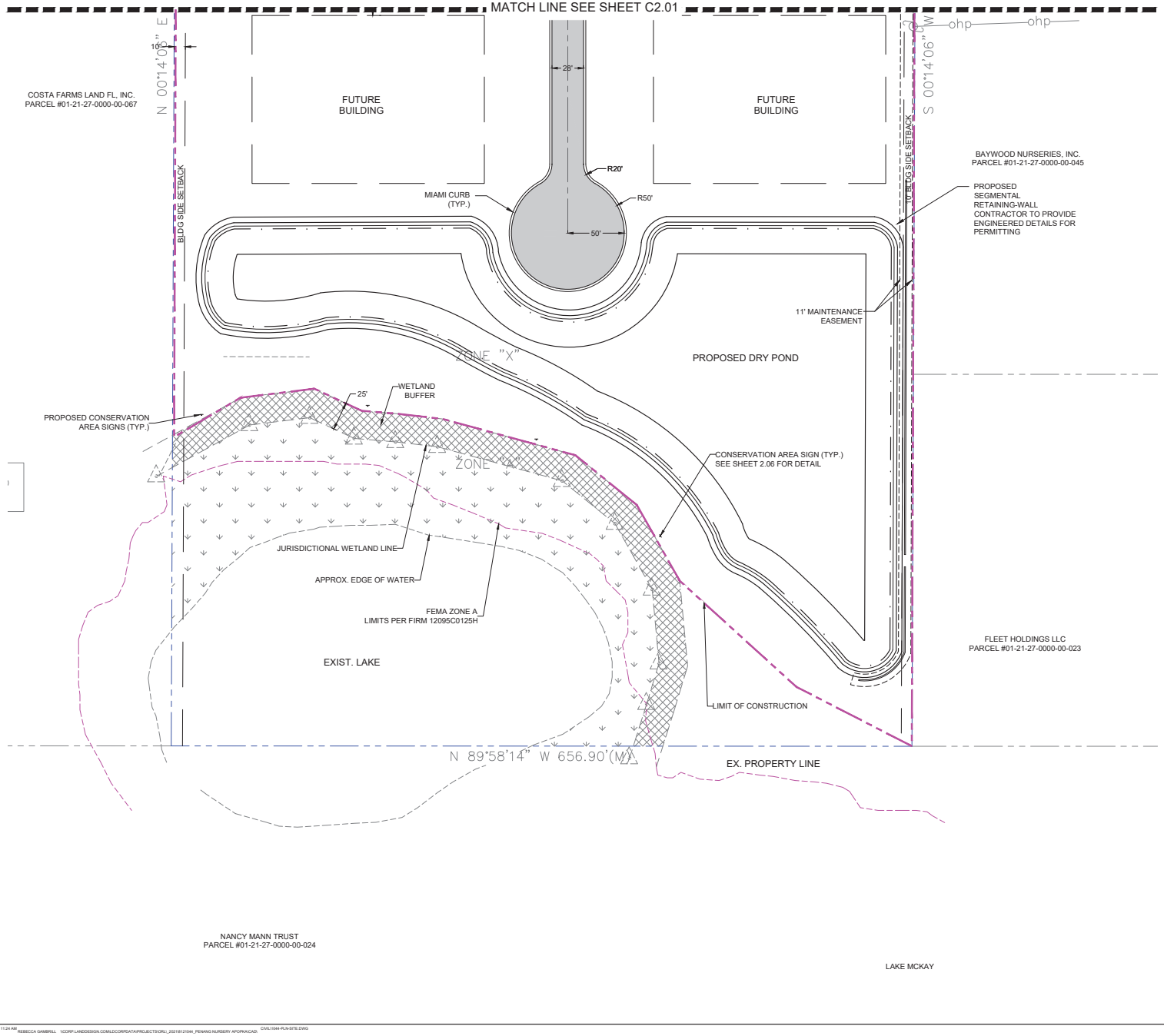
SITE PLAN

SHEET NUMBER

C2.01



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- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPERTY LINE
- FEMA ZONE A
- PROPOSED SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- EXISTING WETLAND
- WETLAND BUFFER

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HORZ: 1" = 40'

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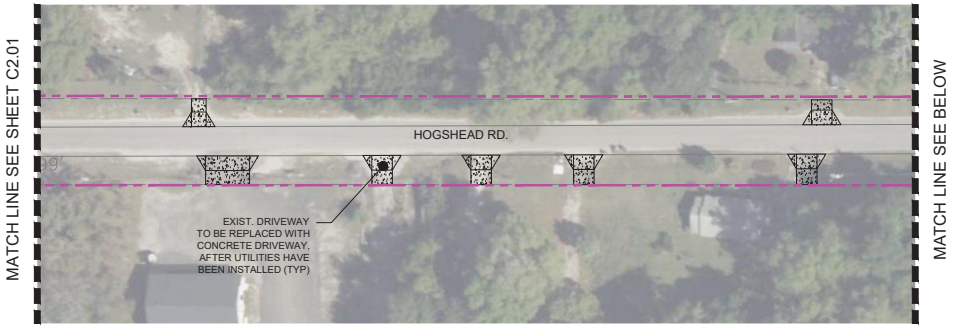
SHEET TITLE

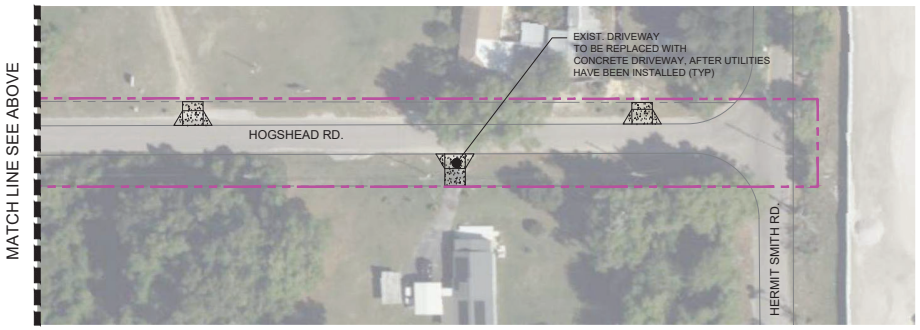
SITE PLAN

SHEET NUMBER

C2.02

2/1/2024 11:24 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\ CIVIL\1044-PLN-SITE.DWG





LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPERTY LINE
- FEMA ZONE A
- PROPOSED SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- EXISTING WETLAND
- WETLAND BUFFER

NOTES:

1) PROPOSED SIGN "NO TRUCKS ALLOWED" .
2) OVERNIGHT PARKING OF COMMERCIAL VEHICLES, TRACTOR TRAILERS, BOATS, RECREATIONAL VEHICLES, CAMPERS OR MOTOR HOMES SHALL BE PROHIBITED WITHIN PARKING LOTS NOT SPECIFICALLY DESIGNED FOR THAT PURPOSE.
3) TRUCKS AND SEMI-TRAILERS SHALL NOT BE PARKED OR STORED WITHIN PUBLIC VIEW OVERNIGHT UNLESS IT IS TEMPORARY PARKING NOT TO EXCEED FORTY-EIGHT (48) HOURS FOR DELIVERY PURPOSES.

LandDesign
100 S. ORANGE AVE., SUITE 200
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407.270.7800
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KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

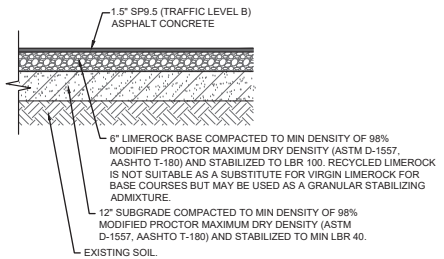
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
NORTH
VERT: N/A
HORZ: ########
ORIGINAL SHEET SIZE: 24" X 36"

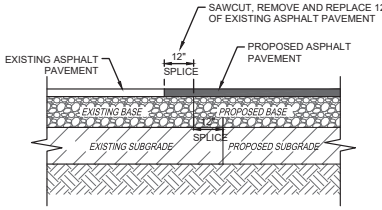
SHEET TITLE
SITE PLAN

SHEET NUMBER
C2.03

2/1/2024 11:24 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-PLN-SITE.DWG

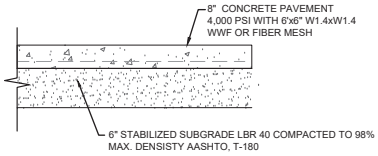


1 ASPHALT PAVEMENT SECTION
NTS

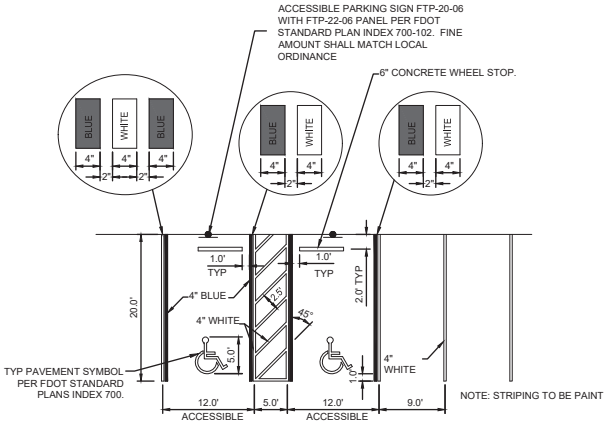


NOTES:
1. PROVIDE ASPHALT SPLICE AT ALL TRANSITIONS BETWEEN NEW AND EXISTING PAVEMENT SECTIONS.
2. 12-INCH MINIMUM ASPHALT REMOVAL, MAY VARY AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE. (MAY BE MORE BUT NOT LESS THAN 12 INCHES)
3. RESTORE EXISTING BASE TO ORIGINAL CONDITION OR BETTER.

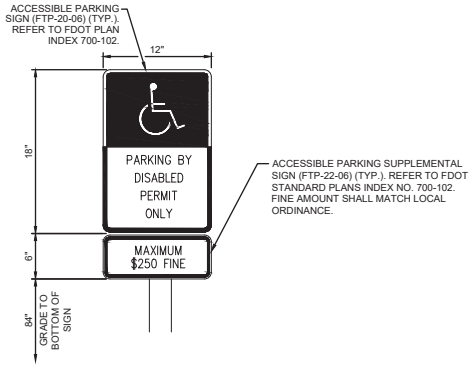
2 ASPHALT PAVEMENT SPLICE DETAIL
NTS



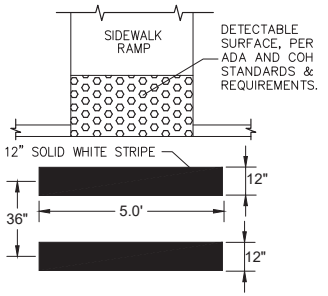
3 HEAVY DUTY CONC DRIVEWAY
NTS



4 PARKING STRIPING AND SIGNAGE DETAIL
NTS

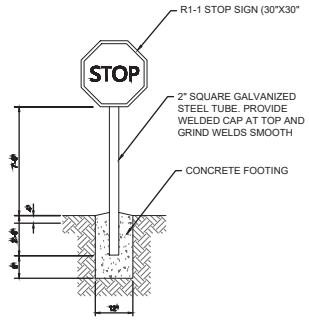


ACCESSIBLE PARKING STALL SIGN DETAIL



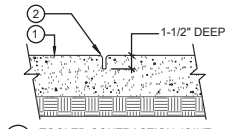
NOTE:
ADA CROSSWALK STRIPING SHALL BE IN ACCORDANCE WITH COH STANDARDS AND REQUIREMENTS.

5 CROSSWALK DETAIL
NTS

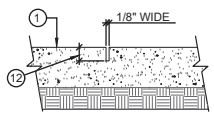


NOTE:
SIGN SHALL BE LOCATED 3' FROM THE EDGE OF THE PAVEMENT UNLESS SUCH PLACEMENT WOULD OBSTRUCT THE SIDEWALK.

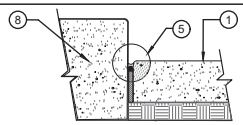
6 STOP SIGN DETAIL
NTS



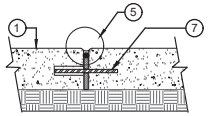
A TOOLED CONTRACTION JOINT @ 20' O.C. MAX.



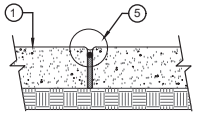
B SAWCUT CONTRACTION JOINT @ 20' O.C. MAX.



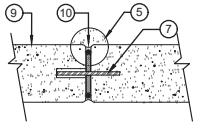
C CONC. PAVING AT VERT. PLANE



D DOWELED ISOLATION JOINT (VEHICULAR CONCRETE, 5 1/2" IN. MIN. THICK)



E ISOLATION JOINT (NON-VEHICULAR CONCRETE)

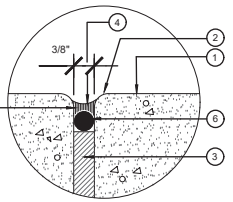


F ISOLATION JOINT IN WALL PLAN VIEW @ 40' O.C. MAX.

LEGEND

1. FINISH SURFACE
2. 1/4" TOOLED RADIUS EDGE, TYPICAL
3. PRE-MOLDED EXPANSION JOINT FILLER
4. MASTIC SEALANT, COLOR TO SELECTED BY OWNER. FOR PAVEMENT THAT IS THEMED CONCRETE AS DIRT, CRUSH COLORED CONCRETE INTO GRANULES AND APPLY ON TOP OF WET CAULK.
5. SEALED JOINT, SEE DETAIL ENLARGEMENT
6. FOAM BACKER ROD
7. STEEL PLATE SLIP DOWELS
8. CONCRETE CURB, PLANTER WALL, BLDG. WALL, ETC.
9. CONCRETE WALL SECTION
10. VERTICAL EXPANSION JOINT AT 20' O.C. MAX., ALIGN WITH ADJACENT HORIZONTAL EXPANSION JOINTS WHERE POSSIBLE.
11. CURB OR WALL FACE WHERE EDGE CONDITION EXISTS
12. DEPTH OF CUT TO BE 1/4 THE DEPTH OF SLAB PLUS 1/4". * MAKE ALL SAW CUTS WITHIN 12 HR. OF CONCRETE POUR.

ENLARGEMENT OF TYPICAL SEALED JOINT



NOTE:
WIDTH TO DEPTH RATIO OF MASTIC TO BE PER MFG'S. RECOMMENDATIONS.

7 TYPICAL JOINT DETAILS FOR CONCRETE PAVING
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KEY MAP

SEAL

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LO FAMILY TRUST WAREHOUSE
APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

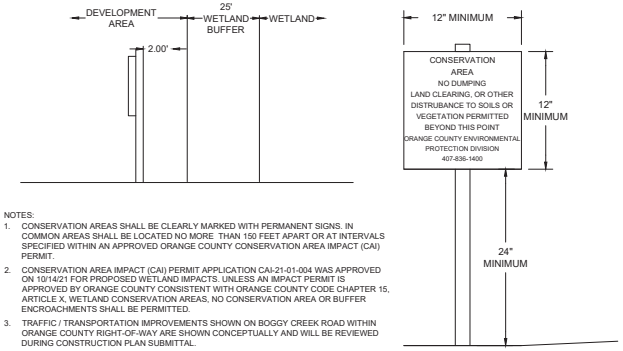
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
VERT: N/A
HORZ: NTS
(NOT TO SCALE)
ORIGINAL SHEET SIZE: 22" X 36"

SHEET TITLE
SITE DETAILS

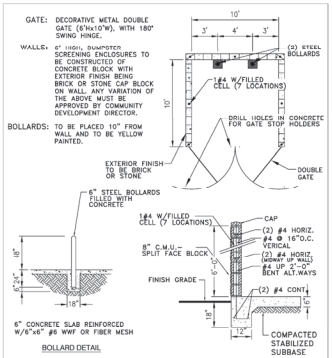
SHEET NUMBER
C2.04



NOTES:

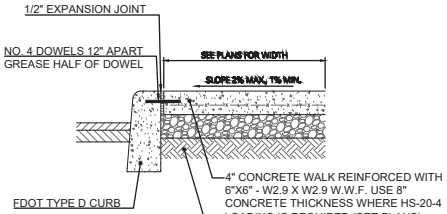
1. CONSERVATION AREAS SHALL BE CLEARLY MARKED WITH PERMANENT SIGNS. IN COMMON AREAS SHALL BE LOCATED NO MORE THAN 150 FEET APART OR AT INTERVALS SPECIFIED WITHIN AN APPROVED ORANGE COUNTY CONSERVATION AREA IMPACT (CAI) PERMIT.
2. CONSERVATION AREA IMPACT (CAI) PERMIT APPLICATION CAI-21-01-004 WAS APPROVED ON 10/14/21 FOR PROPOSED WETLAND IMPACTS. UNLESS AN IMPACT PERMIT IS APPROVED BY ORANGE COUNTY CONSISTENT WITH ORANGE COUNTY CODE CHAPTER 15, ARTICLE X, WETLAND CONSERVATION AREAS, NO CONSERVATION AREA OR BUFFER ENCROACHMENTS SHALL BE PERMITTED.
3. TRAFFIC / TRANSPORTATION IMPROVEMENTS SHOWN ON BOGGY CREEK ROAD WITHIN ORANGE COUNTY RIGHT-OF-WAY ARE SHOWN CONCEPTUALLY AND WILL BE REVIEWED DURING CONSTRUCTION PLAN SUBMITTAL.
4. THE TRAFFIC SIGNAL DESIGN AT THE INTERSECTION OF BETH ROAD, ROAD D AND BOGGY CREEK ROAD SHALL BE APPROVED BY THE OCPW TRAFFIC ENGINEERING DIVISION.

1 CONSERVATION AREA SIGN DETAIL
NTS



DUMPSTER ENCLOSURE DETAIL
NTS

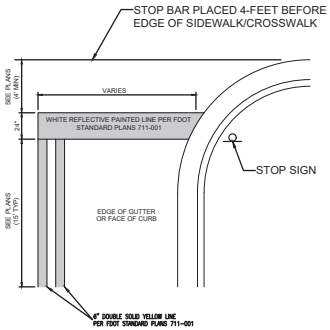
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 601



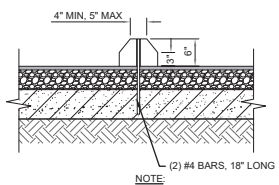
NOTES:

1. USE 3500 PSI CONCRETE AND ASTM GRADE 60 STEEL.
2. PROVIDE CONTROL JOINTS 5' APART AND EXPANSION JOINTS 25' APART AND WHERE SIDEWALK ABUTS RIGID MATERIAL.

4 SIDEWALK AT CURB DETAIL
NTS

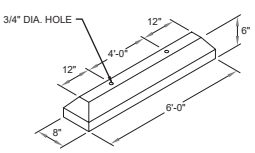


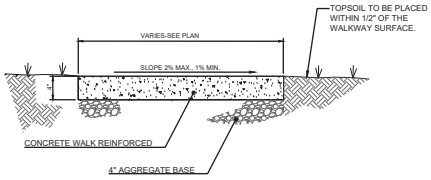
5 PAINTED STOP BAR DETAIL
NTS



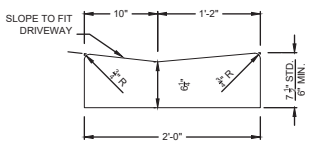
NOTE:
CONCRETE SHALL BE MIN. 3000 PSI 28 DAY STRENGTH

7 CONCRETE WHEEL STOP DETAIL
NTS



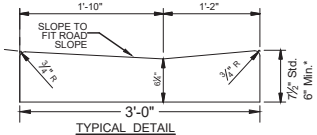


8 CONCRETE SIDEWALK IN TURF DETAIL
NTS



NOTE: TO BE PAID FOR AS PARENT CURB

9 MIAMI CURB
SCALE: NTS



TYPICAL DETAIL

* When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The thickness of the lip shall be 6", unless otherwise shown on plans.

10 VALLEY GUTTER CURB DETAIL
NTS

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KEY MAP

SEAL

PROJECT
LO FAMILY TRUST WAREHOUSE
APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
NORTH
VERT: N/A
HORZ: NTS
(NOT TO SCALE)
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
SITE DETAILS

SHEET NUMBER
C2.05

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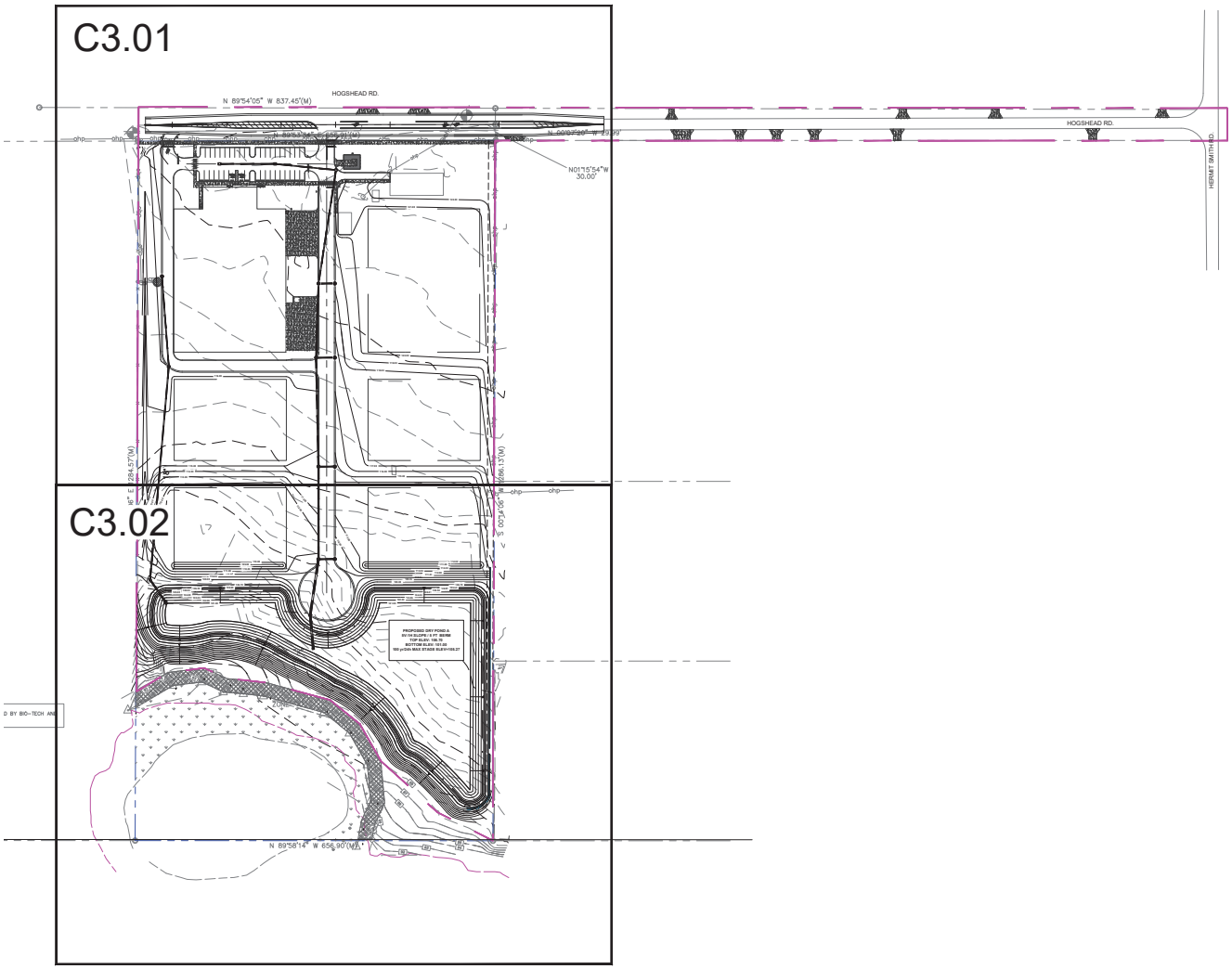

LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- 122.00 PROPOSED SPOT ELEVATION
- 122 EXISTING SPOT ELEVATION
- PROPOSED STORM PIPES
- 1% PROPOSED GRADING SLOPE
- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE
- FLOW DIRECTION

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DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

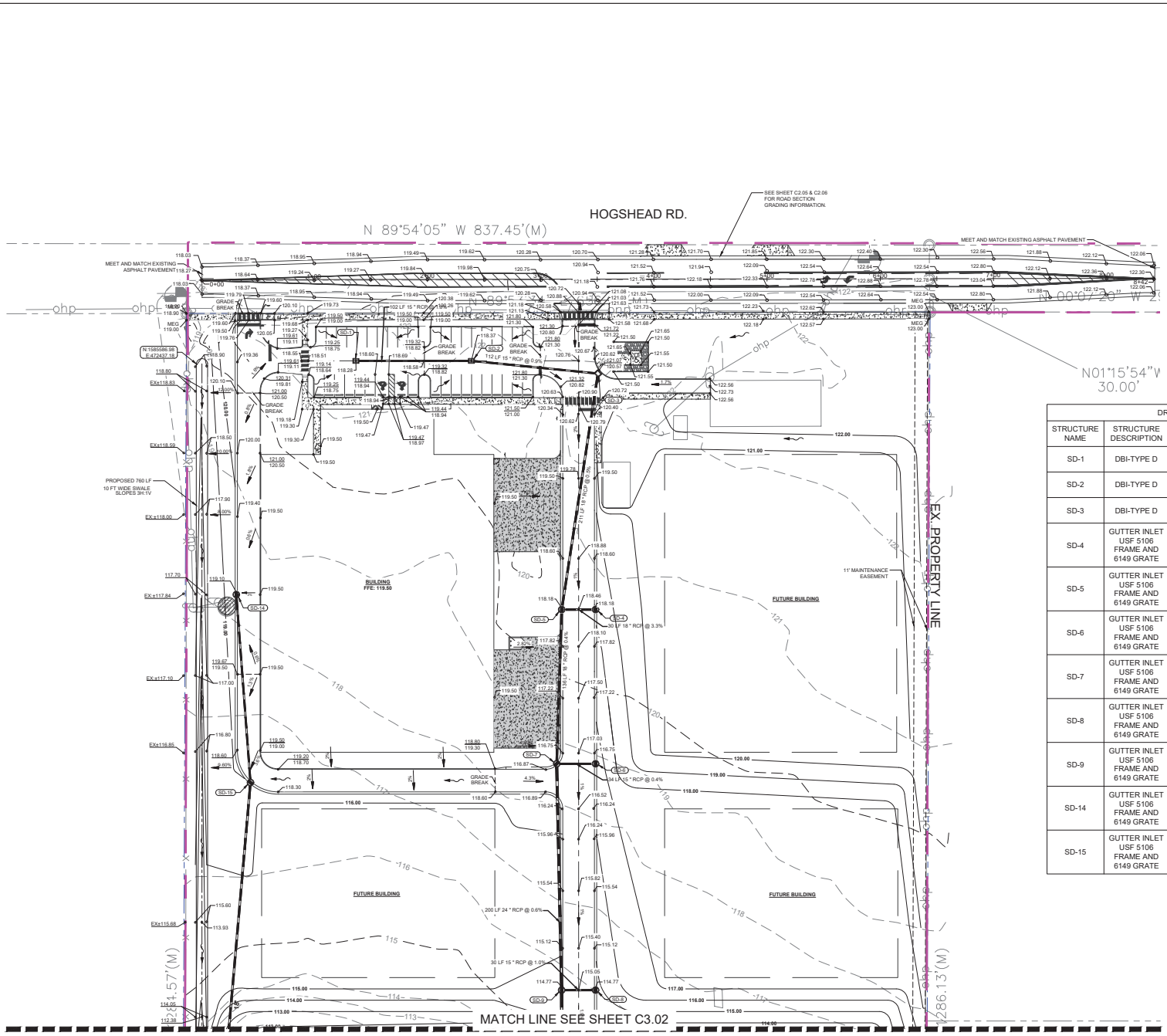
SCALE
VERT: N/A
HORZ: 1" = 100'
0 50 100 200
ORIGINAL SHEET SIZE: 24" X 36"

NORTH

SHEET TITLE
OVERALL GRADING & DRAINAGE PLAN

SHEET NUMBER
C3.00

2/1/2024 11:43 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-PLN-DRAIN.DWG



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED STORM PIPES
- PROPOSED GRADING SLOPE
- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE
- FLOW DIRECTION

DRAINAGE STRUCTURE TABLE

STRUCTURE NAME	STRUCTURE DESCRIPTION	NORTHING EASTING	RIM/GRATE ELEVATION	PIPE INVERT
SD-1	DBI-TYPE D	N:1585589.56 E:472578.17	118.28	INV OUT=114.00 E 15" 15"
SD-2	DBI-TYPE D	N:1585589.56 E:472680.21	118.37	INV IN=113.00 W 15" 15" INV OUT=113.00 E 15" 15"
SD-3	DBI-TYPE D	N:1585578.35 E:472792.02	121.06	INV IN=112.00 W 15" 15" INV OUT=112.00 S 18" 18"
SD-4	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585369.95 E:472789.89	118.18	INV OUT=112.00 W 18" 18"
SD-5	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585369.95 E:472759.98	118.18	INV IN=111.00 E 18" 18" INV IN=111.00 N 18" 18" INV OUT=111.00 S 18" 18"
SD-6	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585233.73 E:472789.89	116.65	INV OUT=112.65 W 15" 15"
SD-7	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585233.73 E:472755.54	116.65	INV IN=112.50 E 15" 15" INV IN=110.50 N 18" 18" INV OUT=110.21 S 24" 24"
SD-8	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585033.77 E:472789.89	114.77	INV OUT=107.30 W 15" 15"
SD-9	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585033.77 E:472759.91	114.77	INV IN=109.00 N 24" 24" INV IN=107.00 E 15" 15" INV OUT=107.00 S 24" 24"
SD-14	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585383.15 E:472472.53	119.10	INV OUT=106.00 S 15" 15"
SD-15	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1585217.15 E:472485.05	118.00	INV IN=105.00 N 15" 15" INV OUT=105.00 S 18" 18"

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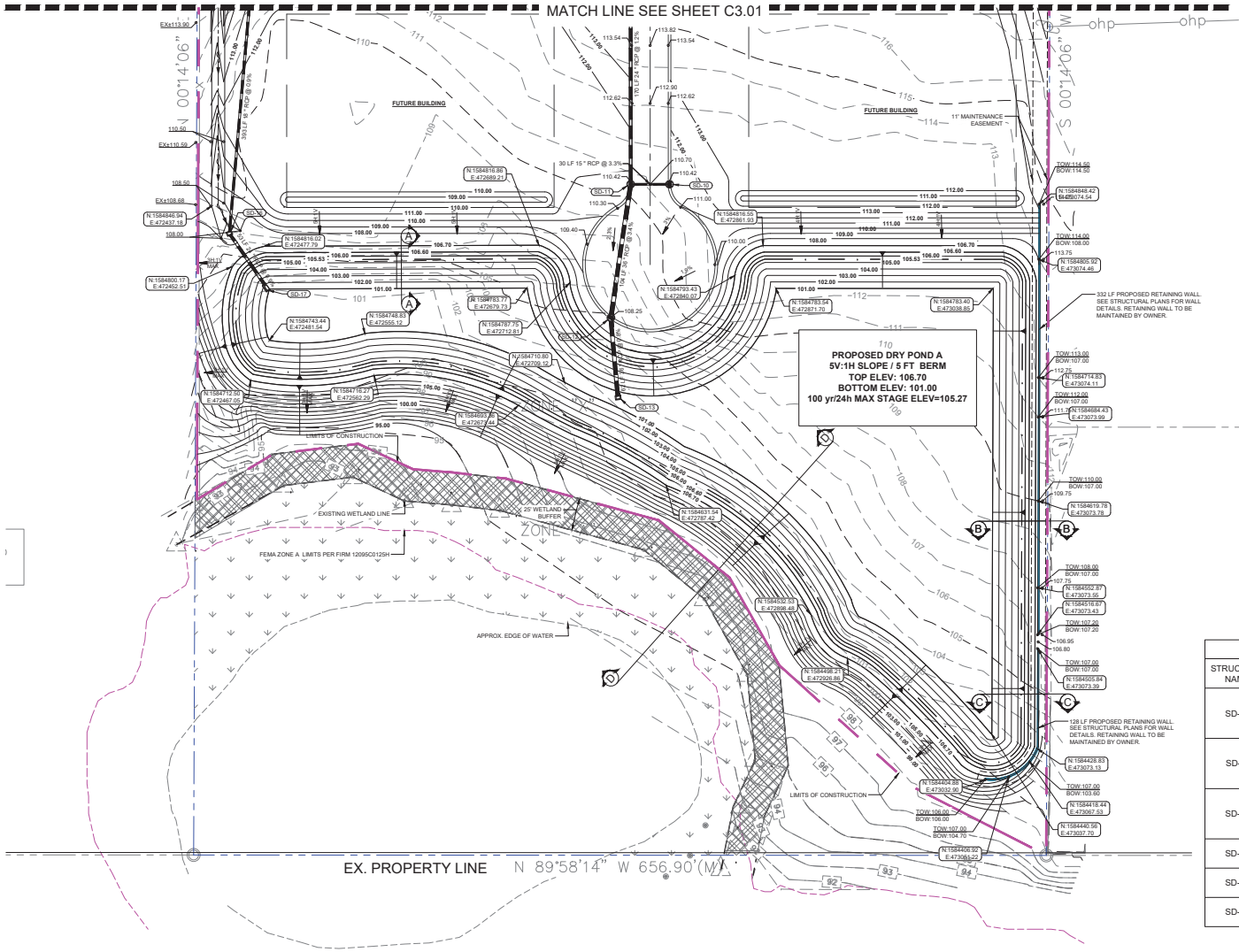
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
VERT: N/A
HORZ: 1" = 40'
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
GRADING & DRAINAGE PLAN

SHEET NUMBER
C3.01



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED STORM PIPES
- PROPOSED GRADING SLOPE
- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE
- FLOW DIRECTION

DRAINAGE STRUCTURE TABLE

STRUCTURE NAME	STRUCTURE DESCRIPTION	NORTHING EASTING	RIM/GRATE ELEVATION	PIPE INVERT
SD-10	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1584863.77 E:472789.89	110.42	INV OUT=106.00 W 15" 15"
SD-11	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1584863.77 E:472759.91	110.42	INV IN=105.00 N 24" 24" INV IN=105.00 E 15" 15" INV OUT=104.50 S 36" 36"
SD-12	GUTTER INLET USF 5106 FRAME AND 6149 GRATE	N:1584760.92 E:472744.70	108.00	INV IN=101.00 N 36" 36" INV OUT=95.50 S 36" 36"
SD-13	DBI-C	N:1584699.39 E:472750.23	101.50	INV IN=95.00 N 36" 36"
SD-16	DBI-C	N:1584825.95 E:472450.77	106.50	INV IN=101.50 N 18" 18" INV OUT=101.50 SE 24" 24"
SD-17	MES-24 2:1	N:1584782.10 E:472480.97	103.75	INV IN=101.00 NW 24" 24"

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KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.# 8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE

VERT: N/A
HORZ: 1" = 40'

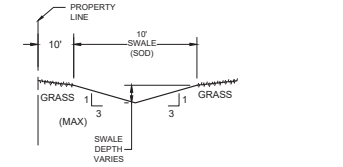
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE

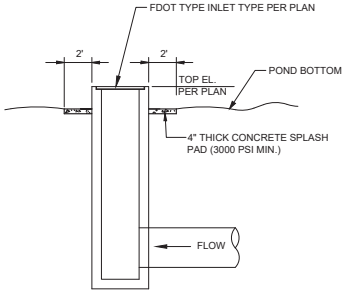
GRADING & DRAINAGE PLAN

SHEET NUMBER

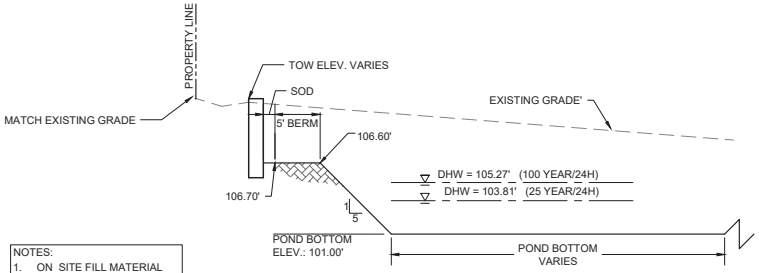
C3.02



1 TYPICAL SWALE
NTS

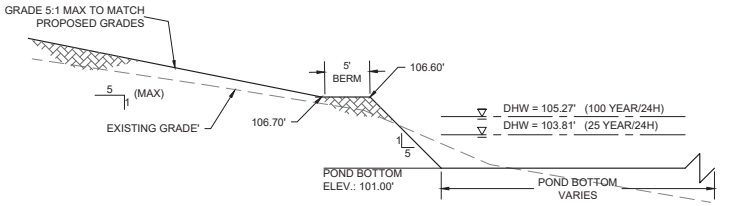


2 TYPICAL BUBBLE-UP STRUCTURE DETAIL
NTS



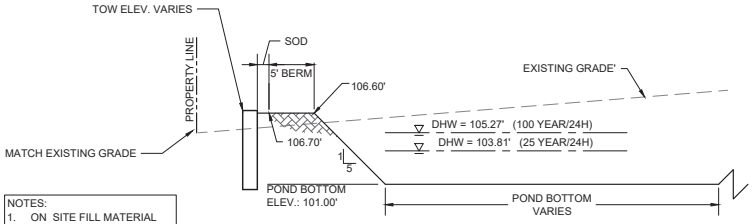
NOTES:
1. ON SITE FILL MATERIAL WILL BE USED TO CONSTRUCT THE PROPOSED POND BERMS.

B DRY POND TYPICAL CROSS SECTION (EAST SIDE WITH RETAINING WALL)
NTS



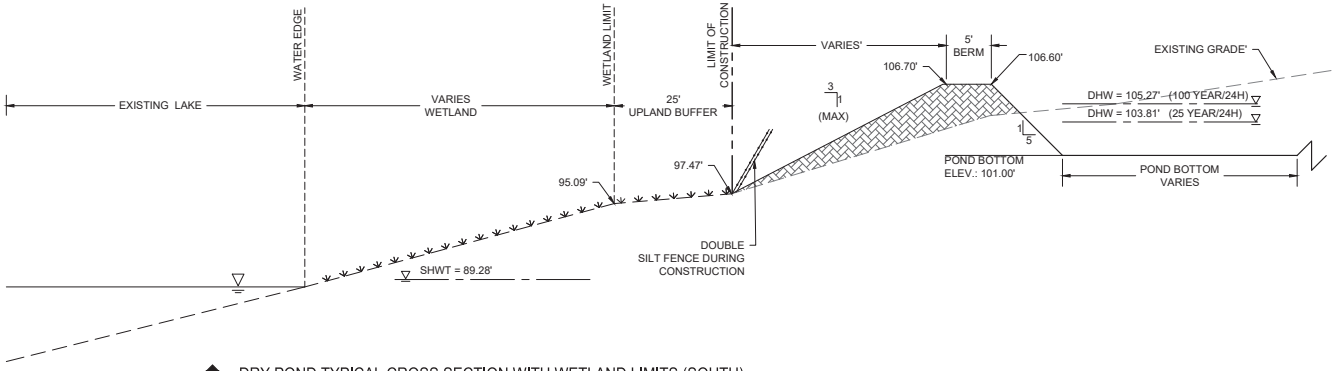
NOTES:
1. ON SITE FILL MATERIAL WILL BE USED TO CONSTRUCT THE PROPOSED POND BERMS.

A DRY POND TYPICAL CROSS SECTION (NORTH)
NTS



NOTES:
1. ON SITE FILL MATERIAL WILL BE USED TO CONSTRUCT THE PROPOSED POND BERMS.

C DRY POND TYPICAL CROSS SECTION (EAST SIDE WITH RETAINING WALL)
NTS



NOTES:
1. ON SITE FILL MATERIAL WILL BE USED TO CONSTRUCT THE PROPOSED POND BERMS.

D DRY POND TYPICAL CROSS SECTION WITH WETLAND LIMITS (SOUTH)
NTS

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KEY MAP

SEAL

PROJECT

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APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

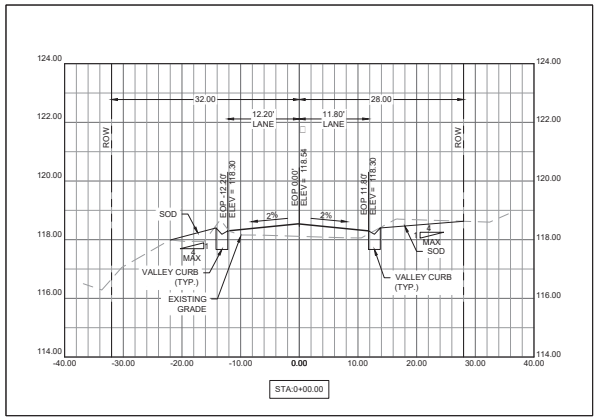
NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

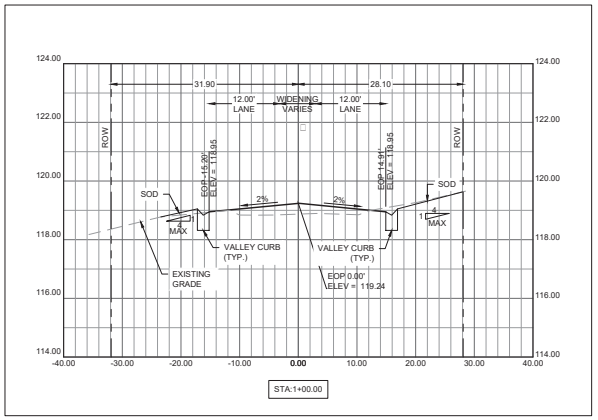
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

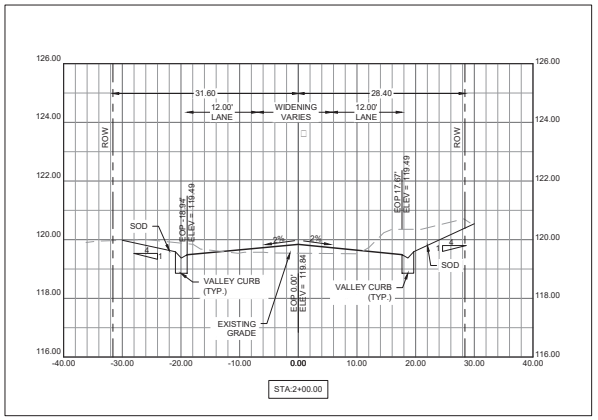
SCALE
VERT: N/A
HORZ: NTS
(NOT TO SCALE)
ORIGINAL SHEET SIZE: 22 X 36"

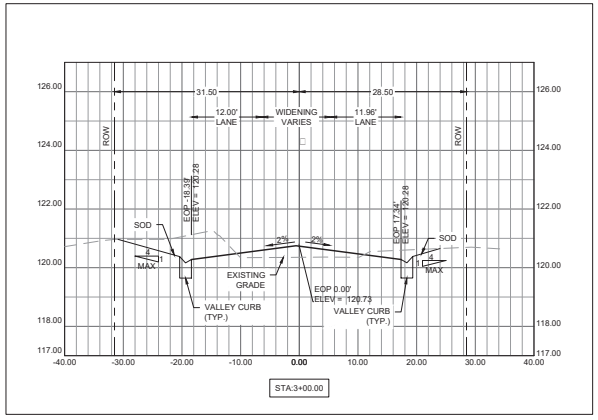
SHEET TITLE
GRADING DETAILS

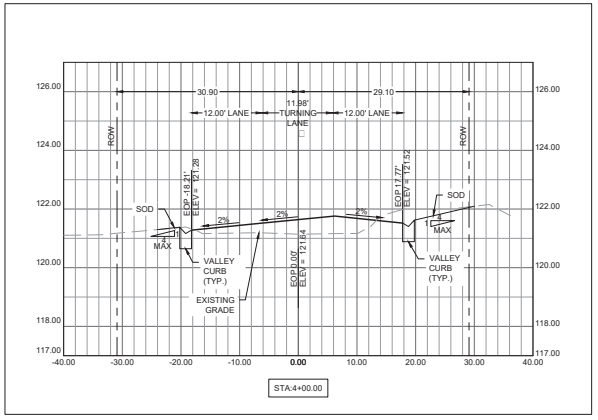
SHEET NUMBER
C3.03

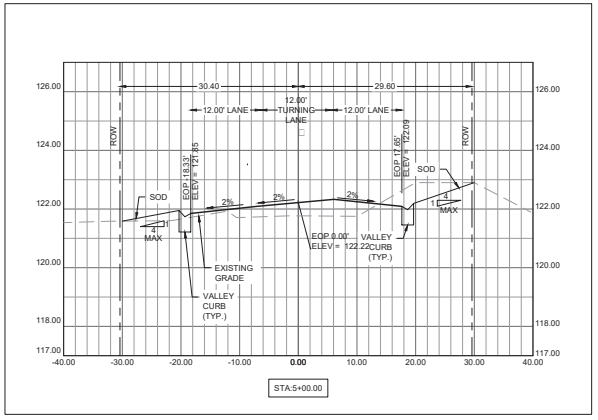


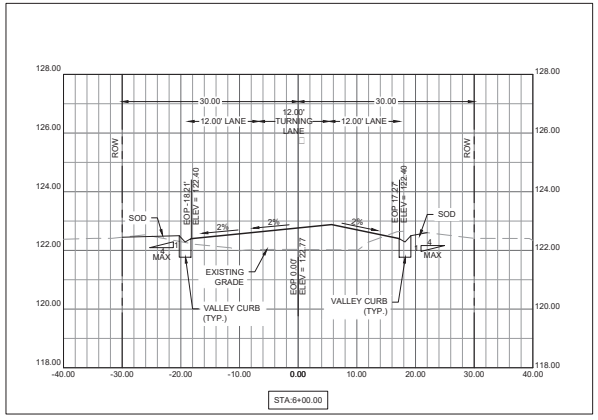


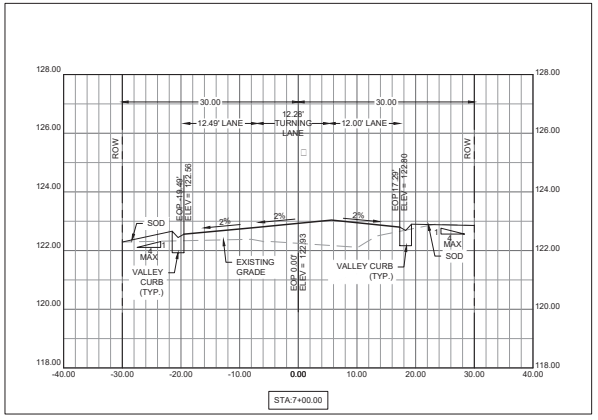


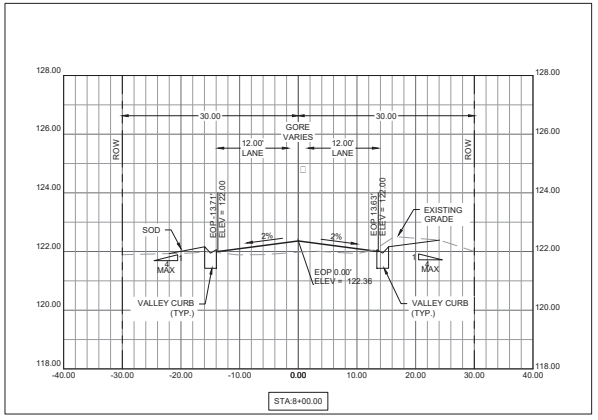












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KEY MAP

SEAL

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LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
VERT: N/A
HORZ: 10'
0 1"= 5' 10' 20'
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
CROSS SECTIONS

SHEET NUMBER
C3.04

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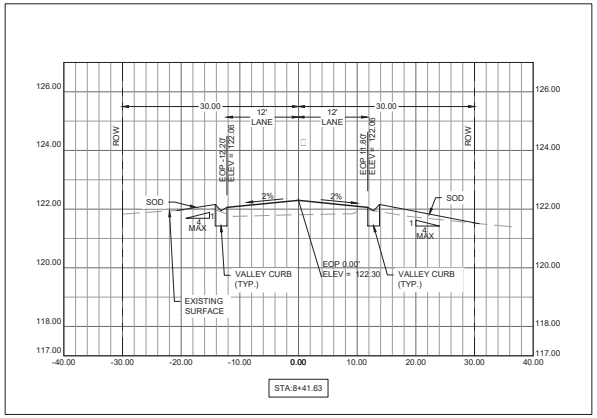

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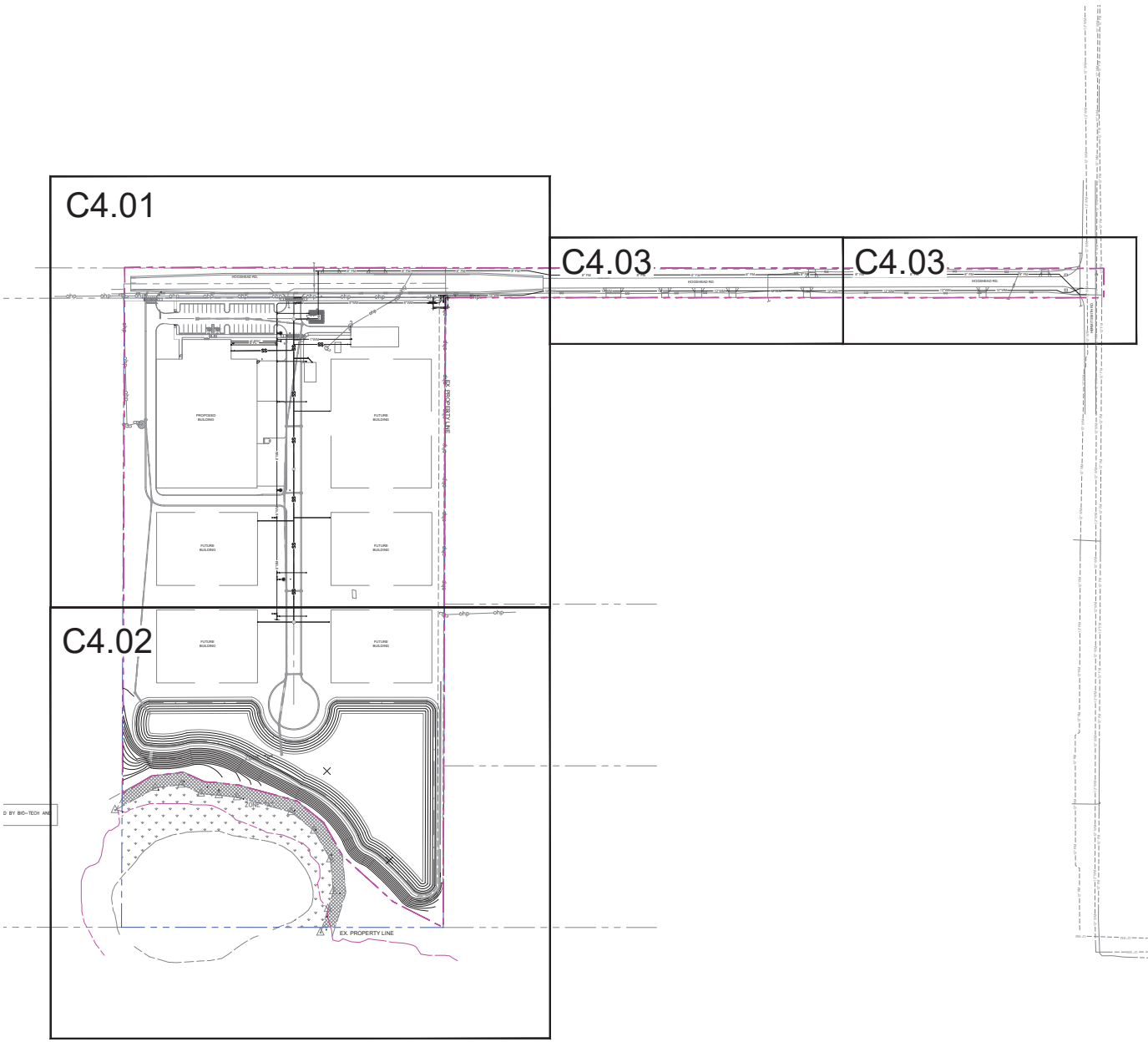
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
VERT: N/A
HORZ: NTS
(NOT TO SCALE)
ORIGINAL SHEET SIZE: 24" x 36"

NORTH

SHEET TITLE
CROSS SECTIONS

SHEET NUMBER
C3.05



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- WM — PROPOSED WATER MAIN
- RE — PROPOSED REUSE WATER MAIN
- SS — PROPOSED SANITARY PIPE
- FM — PROPOSED FORCE MAIN
- GAS — EXISTING GAS PIPE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM PIPE
- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE

NOTES:

1. SEE SHEET C4.04 AND C4.05 FOR DETAILS.
2. CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION COMMENCEMENT.
3. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CLEARANCES/CONFLICTS WITH EXISTING AND PROPOSED PIPES, CONDUITS, AND UTILITIES.
4. ALL ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.

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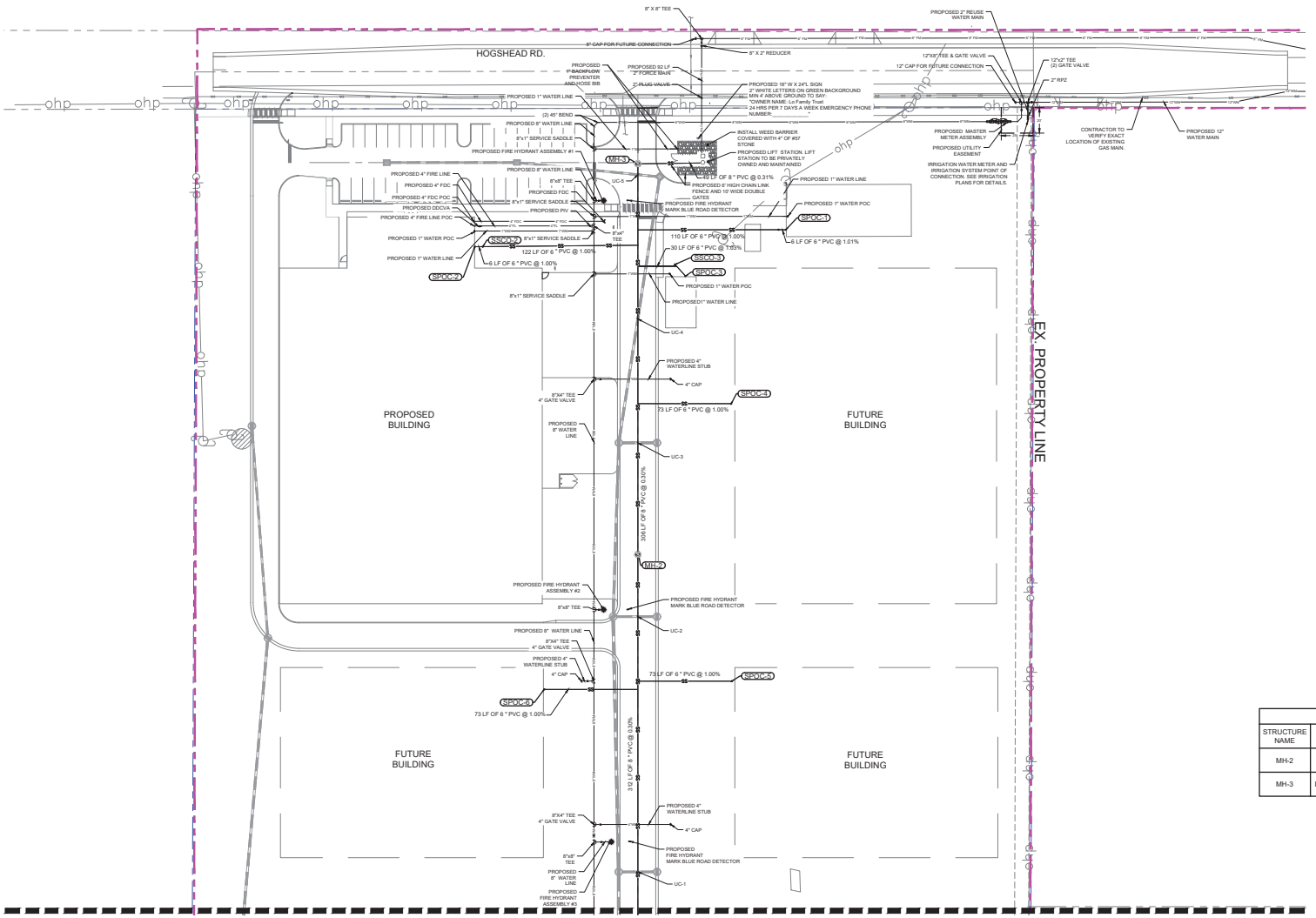
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
NORTH
VERT: N/A
HORZ: 1" = 100'
0 50 100 200
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
OVERALL UTILITY PLAN

SHEET NUMBER
C4.00

2/1/2024 11:44 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-PLN-UTILITY.DWG



MATCH LINE SEE SHEET C4.01

LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- WM — PROPOSED WATER MAIN
- RE — PROPOSED REUSE WATER MAIN
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- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE

NOTES:

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4. ALL ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.

UTILITY CROSSINGS		
UC-3	BTM PROP STORM	111.29'±
	TOP PROP SAN	109.52'±
	CLEARANCE	1.77'±
UC-4	BTM PROP STORM	111.26'±
	TOP PROP SAN	109.23'±
	CLEARANCE	2.03'±
UC-5	BTM PROP STORM	111.90'±
	TOP PROP SAN	108.89±
	CLEARANCE	3.01'±

SANITARY POINT OF CONNECTION			
POINT OF CONNECTION	SIZE	NORTHING EASTING	PIPE INVERT
SPOC-1	6" CLEANOUT	N:1585536.96 E:472890.88	INV=109.51 W
SPOC-2	6" CLEANOUT	N:1585523.62 E:472647.18	INV=109.66 E
SPOC-3	6" CLEANOUT	N:1585500.67 E:472812.24	INV=108.72 NW
SPOC-4	6" CLEANOUT	N:1585400.65 E:472848.00	INV=109.48 W
SPOC-5	6" CLEANOUT	N:1585183.21 E:472848.50	INV=110.24 W
SPOC-6	6" CLEANOUT	N:1585176.74 E:472701.54	INV=110.26 E

SANITARY STRUCTURES				
STRUCTURE NAME	DESCRIPTION	NORTHING EASTING	RIM ELEVATION	PIPE INVERT
MH-2	STD. 4' DIA. SSMH	N:1585282.43 E:472774.91	117.440	INV=109.11 N INV=109.21 S
MH-3	LINED STD. 4' DIA. SSMH	N:1585588.58 E:472774.91	121.580	INV=108.09 E INV=108.19 S

SANITARY CLEANOUTS			
CLEANOUTS	SIZE	NORTHING EASTING	PIPE INVERT
SSCO-2	4"	N:1585523.68 E:472653.43	INV=109.60 E INV=109.60 W
SSCO-3	4"	N:1585509.74 E:472804.00	INV=108.59 SE

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KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#: 8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

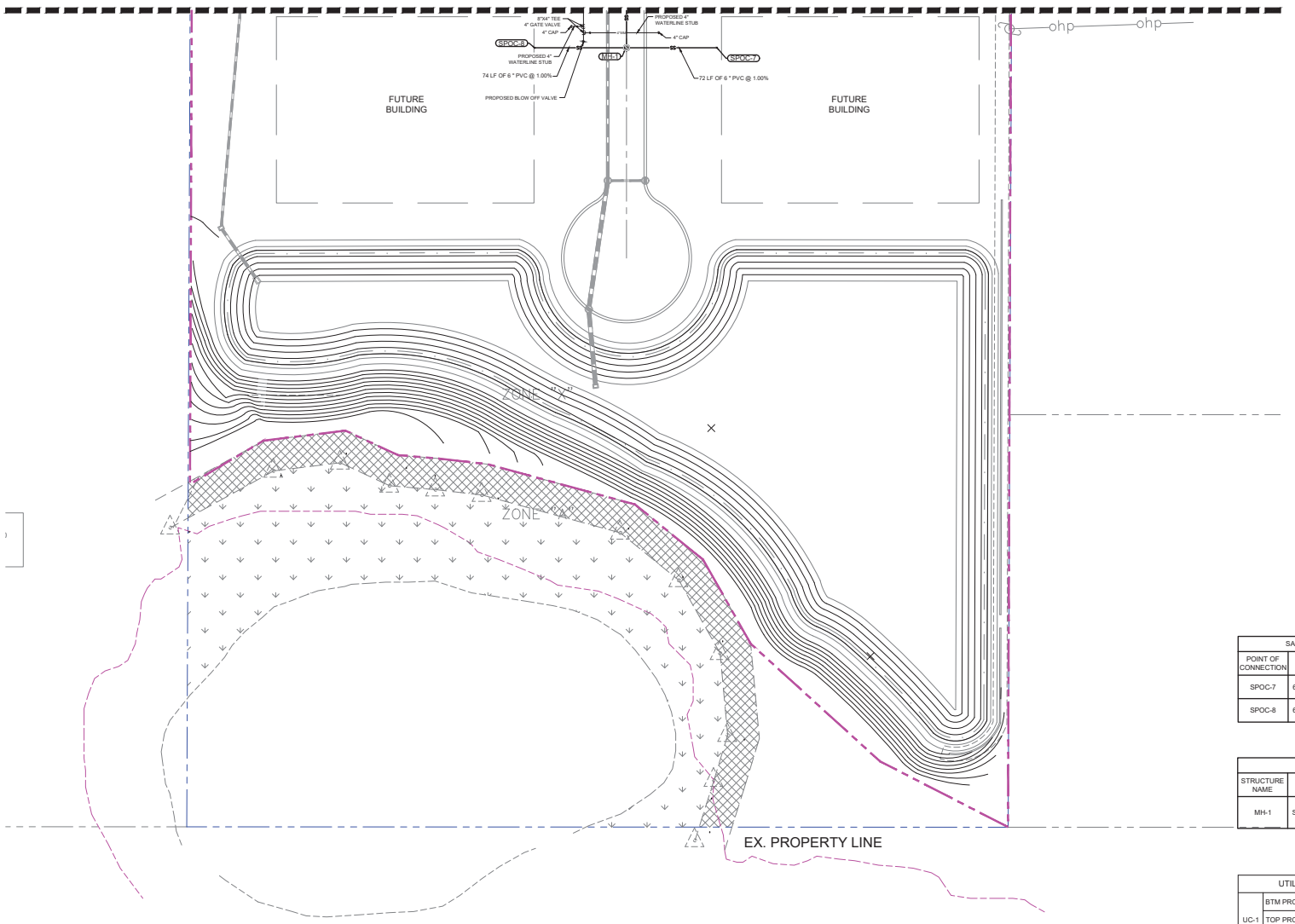
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE: VERT: N/A HORZ: 1" = 40'
NORTH
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE: UTILITY PLAN

SHEET NUMBER: C4.01

2/1/2024 11:44 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CADD\CIVIL\1044-PLN-UTILITY.DWG



LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- WM — PROPOSED WATER MAIN
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- PROPOSED WATER VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM PIPE
- PROPOSED STORM INLET STRUCTURE
- PROPOSED STORM INLET STRUCTURE

NOTES:

1. SEE SHEET C4.04 AND C4.05 FOR DETAILS.
2. CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION COMMENCEMENT.
3. CONTRACTOR TO VERIFY ALL PROPOSED UTILITY CLEARANCES/CONFLICTS WITH EXISTING AND PROPOSED PIPES, CONDUITS, AND UTILITIES.
4. ALL ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.

SANITARY POINT OF CONNECTION

POINT OF CONNECTION	SIZE	NORTHING EASTING	PIPE INVERT
SPOC-7	6" CLEANOUT	N:1584970.06 E:472847.22	INV=110.97 W
SPOC-8	6" CLEANOUT	N:1584970.06 E:472701.41	INV=110.99 E

SANITARY STRUCTURES

STRUCTURE NAME	DESCRIPTION	NORTHING EASTING	RIM ELEVATION	PIPE INVERT
MH-1	STD. 4' DIA. SSMH	N:1584970.07 E:472774.91	113.820	INV=110.15 N INV=110.25 E INV=110.25 W

UTILITY CROSSINGS

UC-1	BTM PROP SAN	109.96'±
	TOP PROP STORM	108.65'±
	CLEARANCE	1.31'±
UC-2	BTM PROP STORM	112.33'±
	TOP PROP SAN	110.03'±
	CLEARANCE	2.30'±

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KEY MAP

SEAL

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LO FAMILY TRUST WAREHOUSE

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DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE

NORTH

VERT: N/A
HORZ: ########

ORIGINAL SHEET SIZE: 24" X 36"

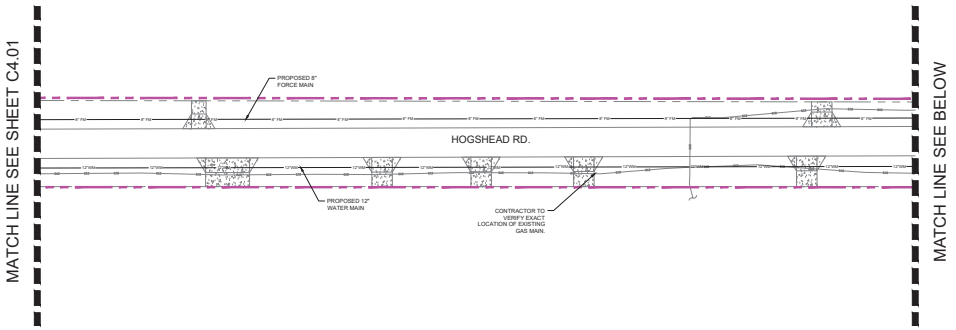
SHEET TITLE

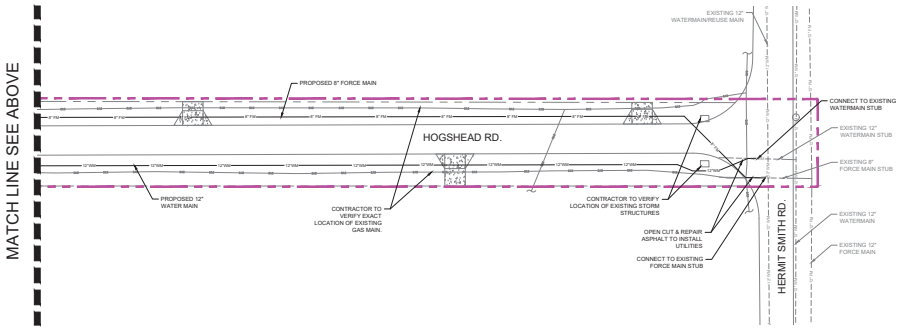
UTILITY PLAN

SHEET NUMBER

C4.02

2/1/2024 11:44 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-PLN-UTILITY.DWG





LEGEND

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NOTES:

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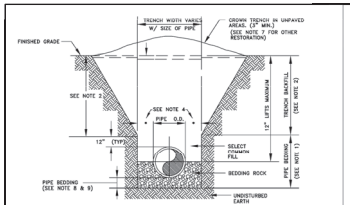
DRAWN BY: YB
CHECKED BY: BF

SCALE
NORTH
VERT: N/A
HORZ: ########
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
UTILITY PLAN

SHEET NUMBER
C4.03

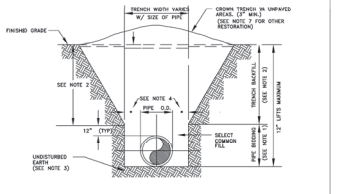


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 15" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.
10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. (*): 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) *										
	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90 BEND	33	43	51	60						
45 BEND	14	18	22	25						
22-1/2" BEND	7	9	11	12						
11-1/4" BEND	4	5	6	6						
TEE**	1	7	24	44						
REDUCER (ONE SIZE SMALLER)		41	39	40						
DEAD END	74	96	115	136						

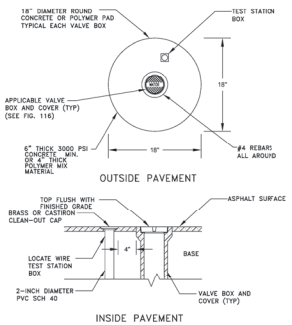
* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** FM = 100 P.S.I / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM/SM2 SILT
   LAYING CONDITIONS: 2
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

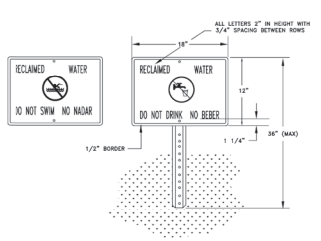
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109

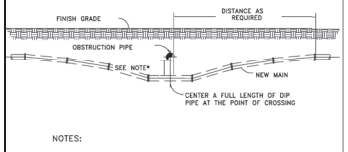


NOTES:

1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
2. BACKGROUND SHALL BE WHITE, LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
4. POST SHALL BE U CHANNEL 12 FT. 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115



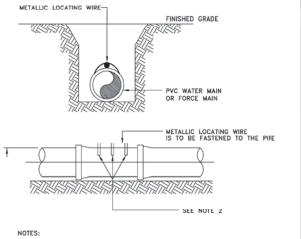
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

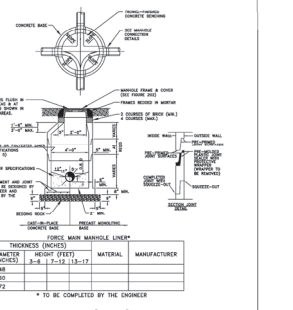


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118



FORCE MAIN MANHOLE LINER*

THICKNESS (INCHES)				
DIAMETER (INCHES)	HEIGHT (FEET) 3-6	7-12	13-17	MATERIAL / MANUFACTURER
48				
60				
72				

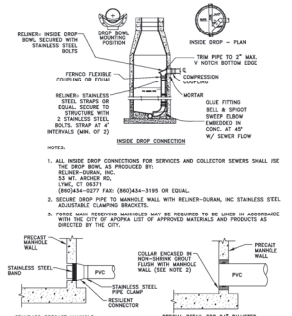
* TO BE COMPLETED BY THE ENGINEER

NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200



NOTES:

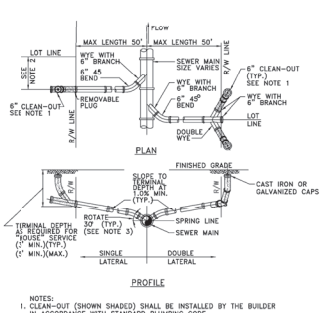
1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY: RELINER-DURAN, INC. 53 MT. ARCHER RD, LAKE ZURICH, IL (866)434-3195 OR EQUAL.
2. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
3. FORCE MAIN MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 201

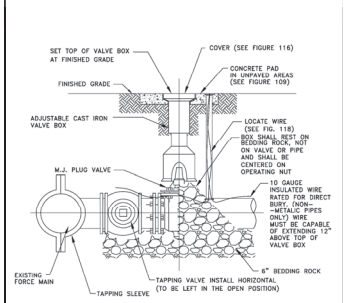


NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON RESIDENTIAL SERVICE SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

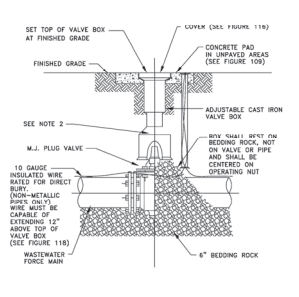
SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206

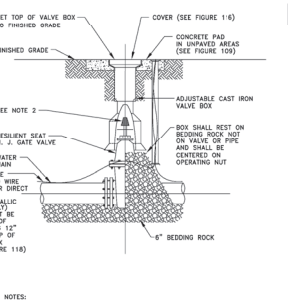


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN 3 FEET BELOW FINISHED GRADE.

PLUG VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400 A

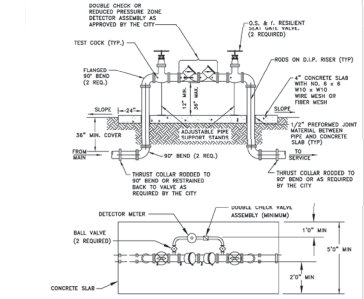


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



NOTES: 1. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
2. METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
3. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE FURNISHED BY THE CONTRACTOR.
4. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS

2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 B

LandDesign
100 S. ORANGE AVE., SUITE 200
ORLANDO, FL 32801
407.270.7800
WWW.LANDDESIGN.COM

KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE NORTH

VERT: N/A
HORZ: AS NOTED

ORIGINAL SHEET SIZE: 24" X 36"

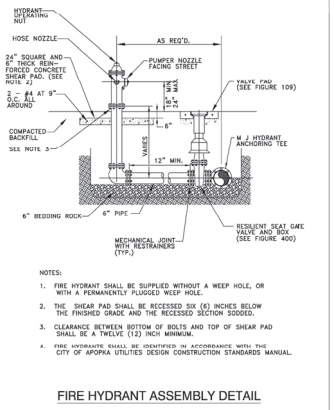
SHEET TITLE

UTILITY DETAILS

SHEET NUMBER

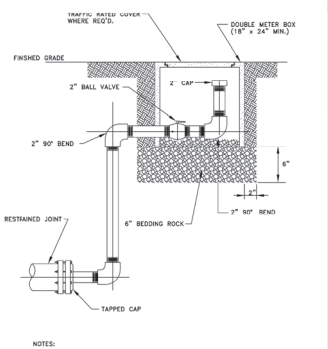
C4.04

2/1/2024 11:45 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORP\DATA\PROJECTS\RCL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-DTL-UTILITY.DWG



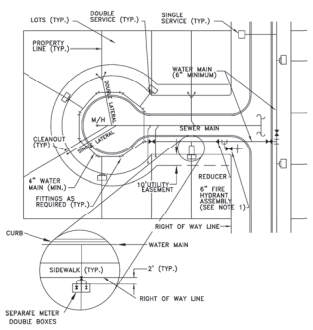
FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA	JANUARY 2014	FIG. 402
DESIGN ENGINEERING DIVISION		



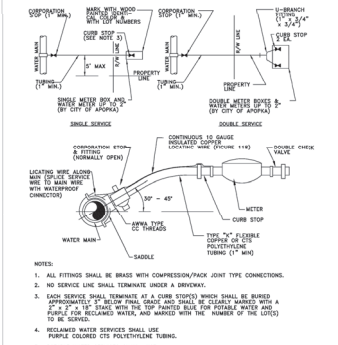
BLOWOFF VALVE DETAIL

CITY OF APOPKA	JANUARY 2014	FIG. 403
DESGN ENGINEERING DIVISION		



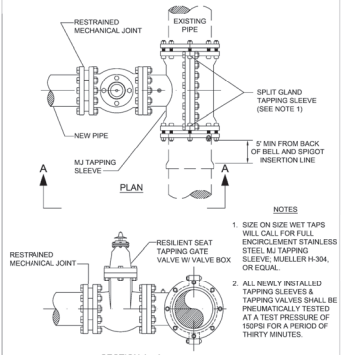
TYPICAL SERVICE LOCATION DETAIL

CITY OF APOPKA	JANUARY 2014	FIG. 404
DESIGN ENGINEERING DIVISION		



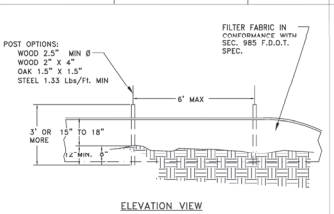
WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA	JANUARY 2014	FIG. 405
DESIGN ENGINEERING DIVISION		



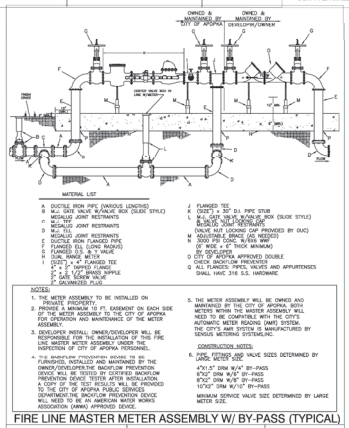
WATER AND RECLAIMED WATER MAINS
WET TAP TIE-IN DETAIL

CITY OF APOPKA	JANUARY 2014	FIG. 406
DESIGN ENGINEERING DIVISION		



SILT FENCE INSTALLATION

CITY OF APOPKA	JANUARY 2014	FIG. 602
DESIGN ENGINEERING DIVISION		



FIRE LINE MASTER METER ASSEMBLY W/ BY-PASS (TYPICAL)

CITY OF APOPKA	MAY 2022	FIG. 500 C
DESIGN ENGINEERING DIVISION		

SCOPE: *Supply one complete LSG2022M Pre-Fab Lift Station, per design. Pumps shall be capable of grinding and pumping domestic & commercial sewage.*

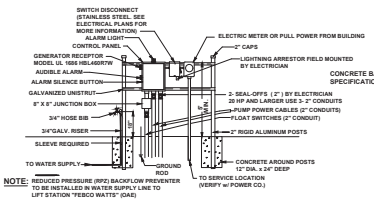
Complete system shall be supplied by:
LIBERTY PUMPS, Inc.
Liberty@LibertyPumps.com (Ph. 800-543-2550)

PRIOR TO BID DATE, ANY PREFAB LIFT STATION SUPPLIER NOT SPECIFIED, BUT WANTING TO BE PRE-APPROVED AS AN ALTERNATE SUPPLIER MUST SUBMIT THE FOLLOWING FOR ENGINEER APPROVAL:
1.– Submit complete data on the alternate system showing that the equipment meets or exceeds the quality and performance of the specified system.
2.– Submit a plotted system head curve on the proposed alternate pump curve utilizing the design criteria (elevations, force main losses, pressures and station losses.
3.– Fiberglass wetwell must be warranted for a minimum of 20 years.
4.– Any fees charged by Engineer to review alternate systems shall be paid by contractor.

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	39 GPM	TOP OF WETWELL	121.90
PRIMARY TDH	49 ft TDH	INLET INVERT	105.60
PUMP MANUFACTURER	LibertyPumps	HIGH LEVEL ALARM (HLA)	105.10
PUMP MODEL #	SEG2022M	1st PUMP ON (LAG)	104.60
R.P.M.	3450	1st PUMP ON (LEAD)	104.10
HORSEPOWER	2.0	PUMPS OFF (OFF)	103.55
ELECTRICAL/ VOLTS / PHASE	230V/1	BOTTOM OF WETWELL	101.10
PUMP DISCHARGE SIZE	2"	WETWELL DIAMETER	36"

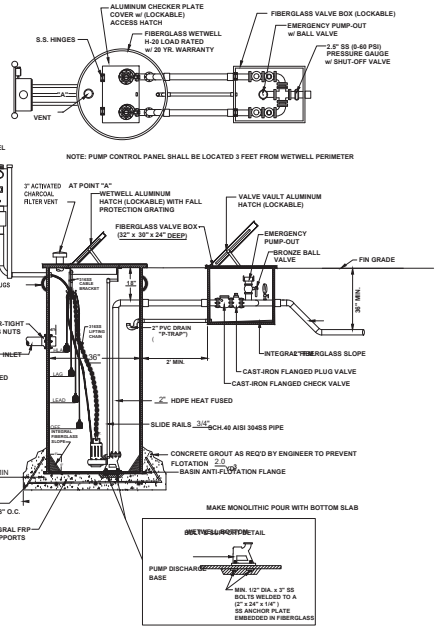
ELECTRICIAN NOTES:

1. DRAWING NOT TO SCALE
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
6. NEUTRAL TO BE SUPPLIED FOR 230V-1 PHASE OR 230V-SINGLE PHASE POWER.



NOTE: REDUCED PRESSURE (RPZ) BACKFLOW PREVENTER TO BE INSTALLED IN WATER SUPPLY LINE TO LIFT STATION "FEBCO WATTS" (OAE)

ELECTRICAL RISER FOR
ILLUSTRATION PURPOSES ONLY



CONTRACTOR TO PROVIDE
SIGNED AND SEALED LIFT STATION
ELECTRICAL WIRING DESIGN

1 GRINDER LIFT STATION DETAIL
NTS

LandDesign
100 S. ORANGE AVE., SUITE 200
ORLANDO, FL 32801
407.270.7800
WWW.LANDDESIGN.COM

KEY MAP

SEAL

PROJECT
LO FAMILY TRUST WAREHOUSE
APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

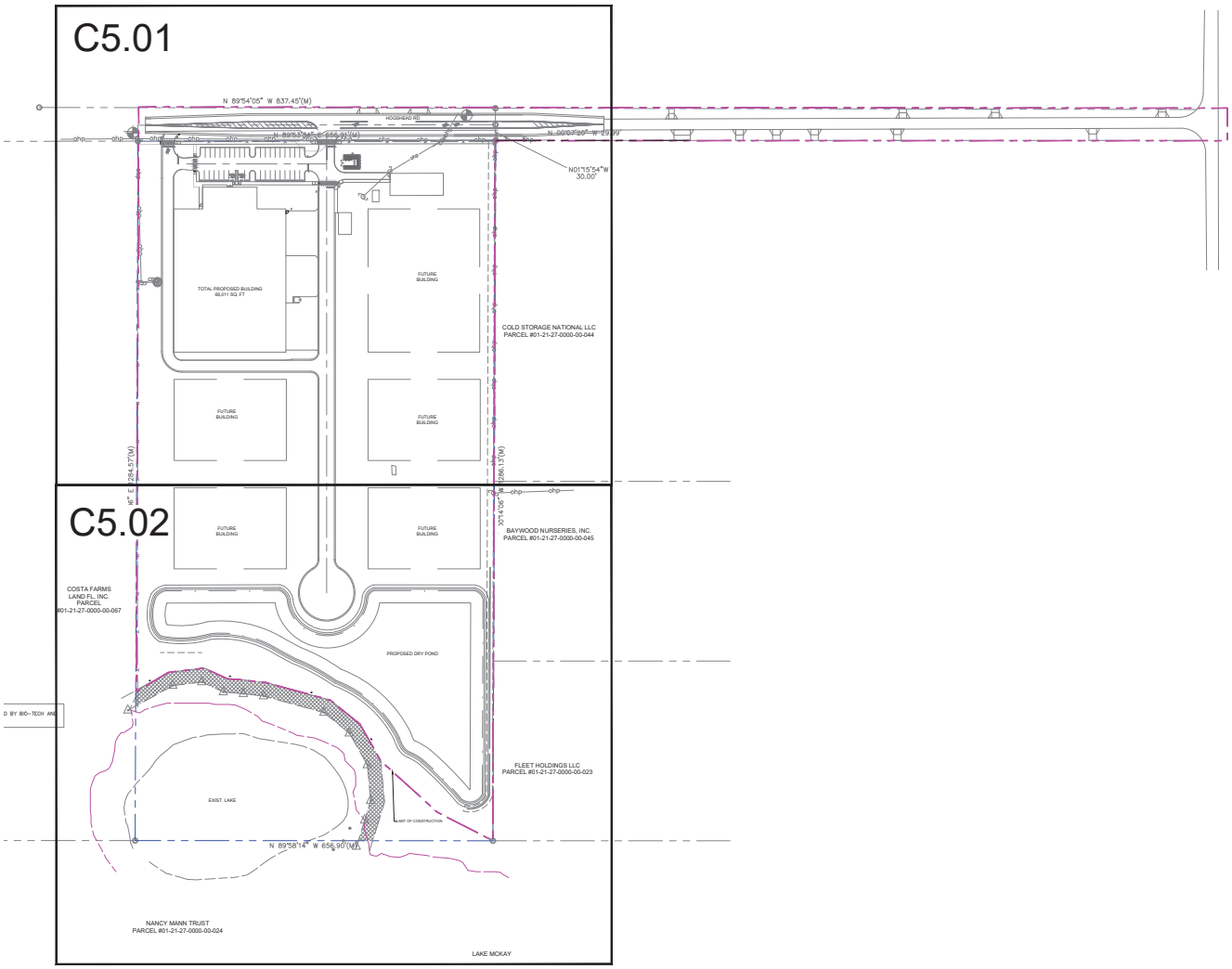
DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE NORTH
VERT: N/A
HORZ: AS NOTED
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
UTILITY DETAILS

SHEET NUMBER
C4.05

2/1/2024 11:46 AM REBECCA GAMBRELL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\OFL_2021\8121044_PENANG NURSERY APOPKA\CAD\CIVIL\1044-DTL-UTILITY.DWG



LEGEND

LIMITS OF CONSTRUCTION

PROPERTY LINE

LandDesign
100 S. ORANGE AVE., SUITE 200
ORLANDO, FL 32801
407.270.7800
WWW.LANDDESIGN.COM

KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#

8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE

NORTH

VERT: N/A
HORZ: 1" = 100'

0 50 100 200
ORIGINAL SHEET SIZE: 24" X 36"

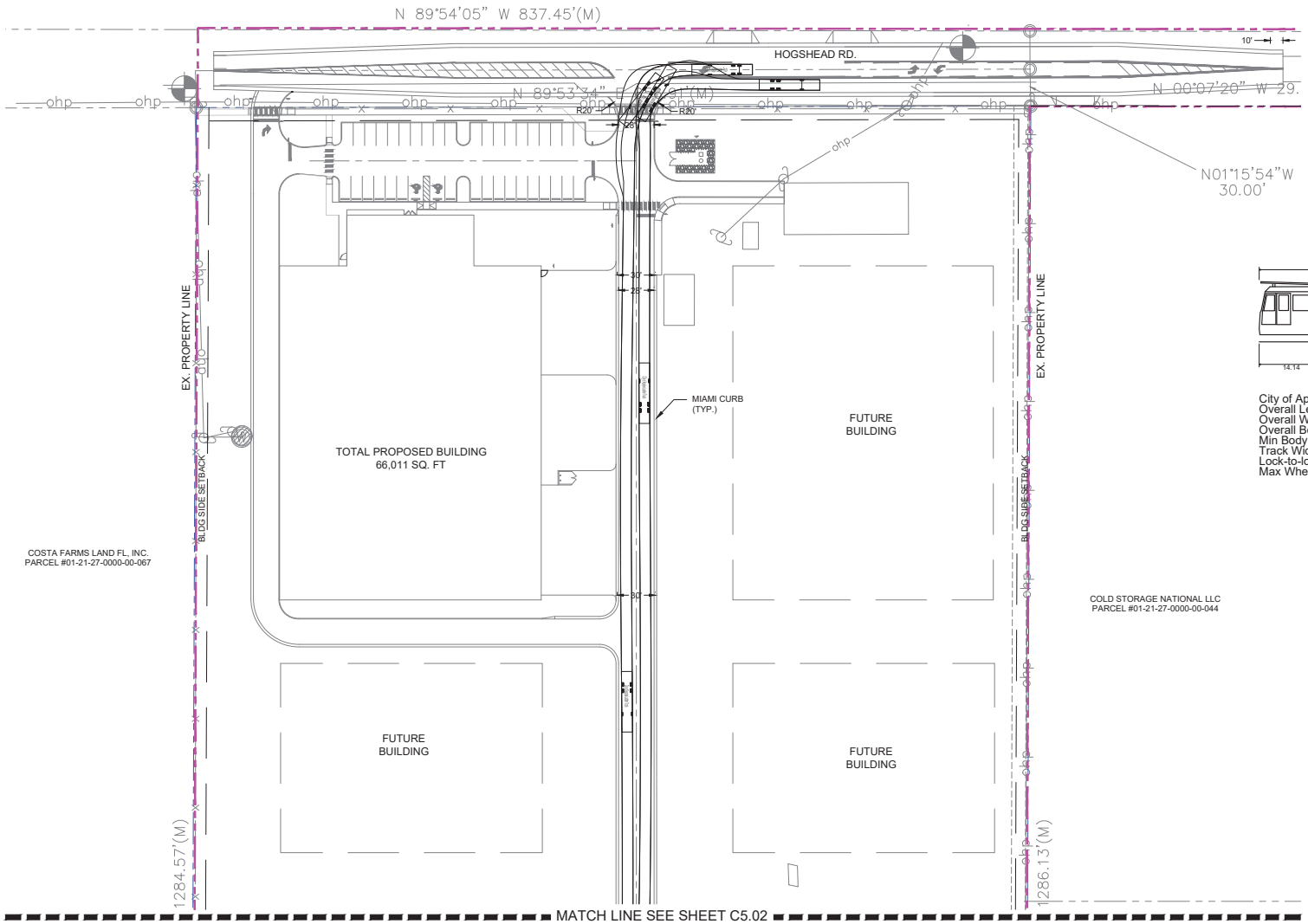
SHEET TITLE

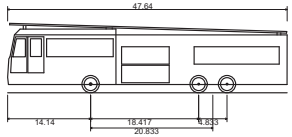
OVERALL TURNING MOVEMENTS

SHEET NUMBER

C5.00

2/1/2024 11:46 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORPDATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CADD\CIVIL\1044-PLN-AUTOTURN.DWG





City of Apopka Ladder Truck

Overall Length	47.640ft
Overall Width	8.410ft
Overall Body Height	11.833ft
Min Body Ground Clearance	1.406ft
Track Width	8.410ft
Lock-to-lock time	6.00s
Max Wheel Angle	46.00°

LEGEND

LIMITS OF CONSTRUCTION

PROPERTY LINE

LandDesign
100 S. ORANGE AVE., SUITE 200
ORLANDO, FL 32801
407.270.7800
WWW.LANDDESIGN.COM

KEY MAP

SEAL

PROJECT

LO FAMILY TRUST WAREHOUSE

APOPKA, FL 32703

LANDDESIGN PROJ.#

8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE

VERT: N/A
HORZ: 1" = 40'

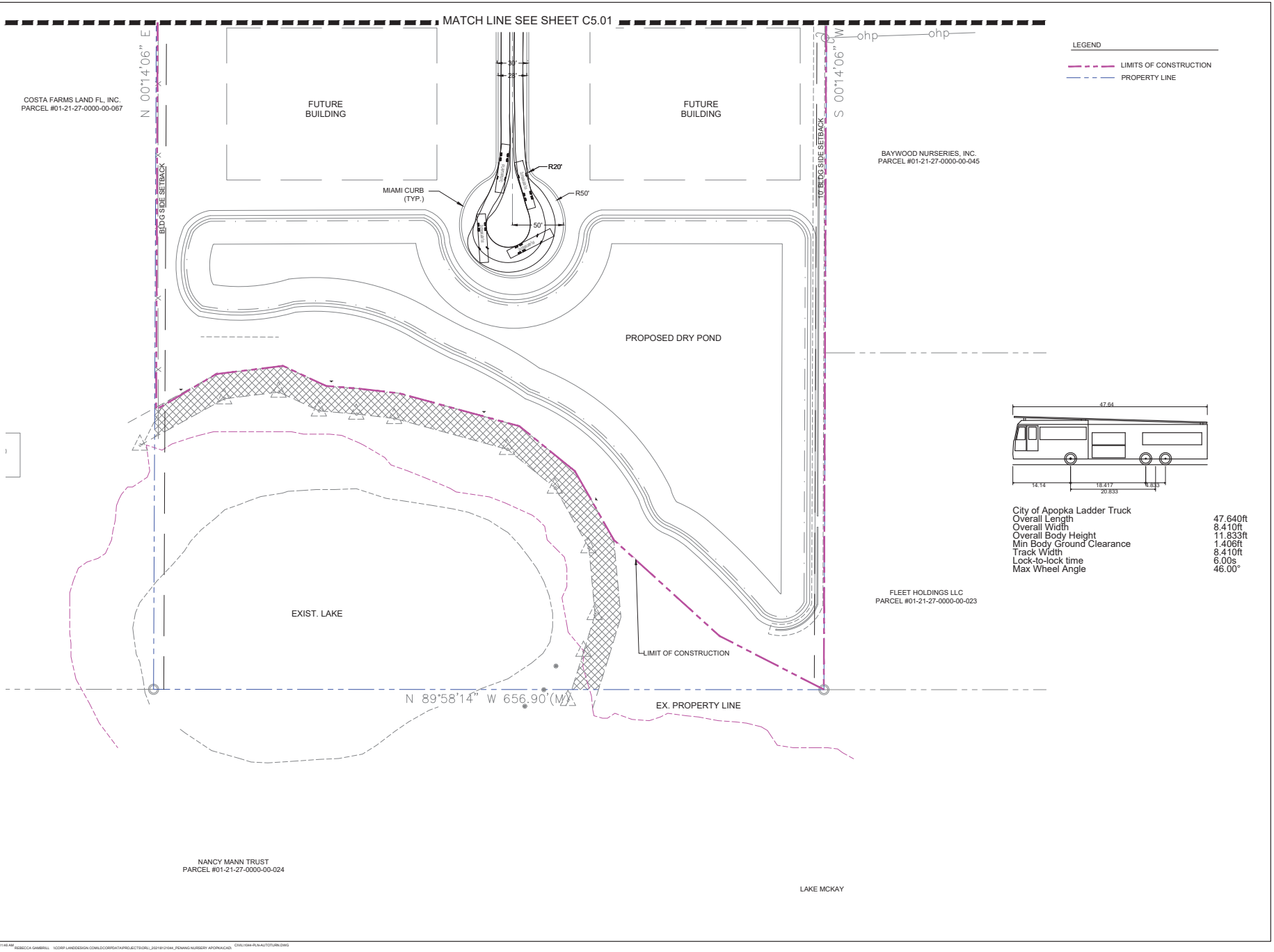
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE

TURNING MOVEMENTS

SHEET NUMBER

C5.01



LandDesign
100 S. ORANGE AVE., SUITE 200
ORLANDO, FL 32801
407.270.7800
WWW.LANDDESIGN.COM

KEY MAP

SEAL

PROJECT
LO FAMILY TRUST WAREHOUSE
APOPKA, FL 32703

LANDDESIGN PROJ.#
8121044

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
-	ISSUE FOR PERMITTING	01/23/2023
1	RESPONSE TO COMMENTS	02/01/2024

DESIGNED BY: YB
DRAWN BY: YB
CHECKED BY: BF

SCALE
VERT: N/A
HORZ: 1" = 40'
0 20 40 80
ORIGINAL SHEET SIZE: 24" X 36"

SHEET TITLE
TURNING MOVEMENTS

SHEET NUMBER
C5.02

2/1/2024 11:46 AM REBECCA GAMBRILL \\CORP.LANDDESIGN.COM\LDCORP\DATA\PROJECTS\ORL_2021\8121044_PENANG NURSERY APOPKA\CAD\ CIVIL\1044-PLN-AUTOTURN.DWG

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

A PORTION OF PARCEL I.D. No. 13-20-27-4300-02-000

OWNER: LIT CADENCE WEST LLC
KELLY PHASE I
617 VIRGINIA DRIVE
ORLANDO, FL 32803-1857

OWNER/ APPLICANT: TODD W. WATSON, MGR.
CADENCE PARTNERS, LLC
617 VIRGINIA DRIVE
ORLANDO, FL 32803-1857
PHONE: (407) 489-0042
EMAIL: todd@cadencepartnersllc.com

GEOTECHNICAL: ROBERT A. TROMPKE, P.E.
PROFESSIONAL SERVICE INDUSTRIES, INC.
1748 33RD STREET
ORLANDO, FL 32839
PHONE: (407) 304-5560
FAX: (407) 304-5561

SURVEYOR: JAMES L. RICKMAN, P.S.M.
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA
PHONE: (407) 654-5355

SITE VICINITY MAP

NOT TO SCALE

PROJECT SCOPE NARRATIVE:

THE PROPOSED PROJECT CONSIST OF PHASE I OF AN INDUSTRIAL PARK WITH SEVEN (7) PLANNED BUILDINGS TOTALING 1,510,524 S.F. TO BE CONSTRUCTED IN THREE PHASES. PHASE I CONSISTS OF BUILDINGS 1 TROUGH 4 TOTALING 427,782 S.F. THE FUTURE PHASES CONSISTS OF BUILDINGS 5 TROUGH 7 TOTALING 1,082,472 S.F.

C-1	COVER SHEET
C-2A	ALTA / NSPS LAND TITLE SURVEY (1 OF 2)
C-2B	ALTA / NSPS LAND TITLE SURVEY (2 OF 2)
C-3	LEGEND, NOTES AND SPECIFICATIONS
C-4A	SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION PLAN
C-4B	SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION NOTES
C-5A	OVERALL SITE AND OCCUPANCY PHASING PLAN
C-5B	PHASE I SITE GEOMETRY NOTES
C-5C	PHASE I SITE GEOMETRY PLAN (1 OF 2)
C-5D	PHASE I SITE GEOMETRY PLAN (2 OF 2)
C-6A	PHASE I SITE PAVING, GRADING, AND DRAINAGE PLAN (1 OF 4)
C-6B	PHASE I SITE PAVING, GRADING, AND DRAINAGE PLAN (2 OF 4)
C-6C	PHASE I SITE PAVING, GRADING, AND DRAINAGE PLAN (3 OF 4)
C-6D	PHASE I SITE PAVING, GRADING, AND DRAINAGE PLAN (4 OF 4)
C-6E	PHASE I SITE PAVING, GRADING, AND DRAINAGE NOTES
C-7A	PHASE I SITE UTILITY PLAN (1 OF 2)
C-7B	PHASE I SITE UTILITY PLAN (2 OF 2)
C-7C	PHASE I SITE UTILITY NOTES AND CONFLICTS
C-7D	LIFT STATION DETAILS
C-8	SITE CONSTRUCTION DETAILS
C-9A	CITY OF APOPKA WATER AND SEWER DETAILS (1 OF 2)
C-9B	CITY OF APOPKA WATER AND SEWER DETAILS (2 OF 2)
C-10A	PHASE I SITE CROSS SECTIONS (1 OF 4)
C-10B	PHASE I SITE CROSS SECTIONS (2 OF 4)
C-10C	PHASE I SITE CROSS SECTIONS (3 OF 4)
C-10D	PHASE I SITE CROSS SECTIONS (4 OF 4)
C-11	PHASE I FIRE TRUCK AND AUTOTURN PLAN
L-1	PHASE I SITE LANDSCAPE PLAN (1 OF 2)
L-2	PHASE I SITE LANDSCAPE PLAN (2 OF 2)
L-3	PHASE I SITE IRRIGATION PLAN (1 OF 2)
L-4	PHASE I SITE IRRIGATION PLAN (2 OF 2)
L-5	PHASE I SITE LANDSCAPE AND IRRIGATION NOTES

UTILITY COMPANIES

WATER:	(407) 703-1731	CITY OF APOPKA
SEWER:	(407) 703-1731	CITY OF APOPKA
ELECTRIC:	(800) 778-9140	DUKE ENERGY
TELEPHONE:	(877) 366-8344 X 3	CENTURYLINK
CABLE:	(407) 832-9626	CENTRAL FLORIDA EXPRESSWAY AUTHORITY
GAS:		LAKE APOPKA NATURAL GAS DISTRICT

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

SAM J. SEBAALI
FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No. 42075
STATE OF FLORIDA
1/24/2024
PROFESSIONAL ENGINEER

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBAALI P.E. ON JANUARY 29, 2024 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.

SAM J. SEBAALI, P.E.
LICENSE NO. 42075

22-032_COVER.DWG

LEGAL DESCRIPTION:

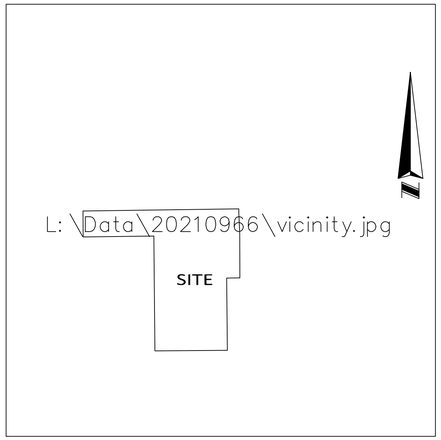
PARCEL 1: (FEE SIMPLE ESTATE)

LOT 2, PLAT OF KELLY PARK CROSSINGS, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 111, PAGES 122 AND 123, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

PARCEL 2: (NON-EXCLUSIVE EASEMENT ESTATE)

TOGETHER WITH: NON-EXCLUSIVE EASEMENT(S) AS SET FORTH AND CREATED BY THAT CERTAIN STORMWATER DRAINAGE EASEMENT AGREEMENT RECORDED ____ IN OFFICIAL RECORDS BOOK ____, PAGE ____, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

CONTAINING 4,548,673 SQUARE FEET OR 104.42 ACRES, MORE OR LESS.



VICINITY MAP NOT TO SCALE

SCHEDULE B-II EXCEPTIONS:

6. INTENTIONALLY DELETED

7. INTENTIONALLY DELETED

8. INTENTIONALLY DELETED

9. INTENTIONALLY DELETED

10. INTENTIONALLY DELETED

11. INTENTIONALLY DELETED

12. INTENTIONALLY DELETED

13. INTENTIONALLY DELETED

14. DISTRIBUTION EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED SEPTEMBER 11, 1984 IN OFFICIAL RECORDS BOOK 3552, PAGE 2524. (AS TO PARCELS 1 AND 3) (AFFECTS SUBJECT PROPERTY AS SHOWN)

15. DISTRIBUTION EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED DECEMBER 10, 1984 IN OFFICIAL RECORDS BOOK 3584, PAGE 2376. (AS TO PARCELS 1 AND 3) (AFFECTS SUBJECT PROPERTY AS SHOWN)

16. INTENTIONALLY DELETED

17. DISTRIBUTION EASEMENT IN FAVOR OF FLORIDA POWER CORPORATION RECORDED MAY 15, 2003 IN OFFICIAL RECORDS BOOK 6913, PAGE 3946. (AS TO PARCEL 1) (AFFECTS SUBJECT PROPERTY AS SHOWN)

18. INTENTIONALLY DELETED

19. INTENTIONALLY DELETED

20. MEMORANDUM OF UNDERSTANDING BY AND AMONG THE ORANGE COUNTY SCHOOL BOARD, A CORPORATE BODY EXISTING UNDER THE CONSTITUTION AND LAWS OF THE STATE OF FLORIDA, AND THE CITY OF APOPKA, A FLORIDA MUNICIPAL CORPORATION, RECORDED OCTOBER 1, 2010 IN OFFICIAL RECORDS BOOK 10113, PAGE 359. (AS TO PARCELS 2 AND 3) (AFFECTS SUBJECT PROPERTY AND IS BLANKET IN NATURE)

21. INTENTIONALLY DELETED

22. INTENTIONALLY DELETED

23. SCHOOL MITIGATION AGREEMENT FOR CAPACITY ENHANCEMENT APK-10-001 BY AND BETWEEN THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA, A BODY CORPORATE AND POLITICAL SUBDIVISION OF THE STATE OF FLORIDA; LINCOLN CORN FARMS I, LLC, A FLORIDA LIMITED LIABILITY COMPANY; PROJECT ORLANDO, LLC, A FLORIDA LIMITED LIABILITY COMPANY; ROCHELLE HOLDINGS XIII, LLC, A FLORIDA LIMITED LIABILITY COMPANY; RICHARD J. RISSER AND SHIRLEY R. RISSER, HUSBAND AND WIFE AND ST II, LLC, A FLORIDA LIMITED LIABILITY COMPANY, RECORDED JANUARY 28, 2013 IN OFFICIAL RECORDS BOOK 10512, PAGE 2705. (AS TO PARCELS 1, 2 AND 3) (AFFECTS SUBJECT PROPERTY, IS BLANKET IN NATURE AND THERE ARE NO PLOTTABLE EASEMENTS)

24. INTENTIONALLY DELETED

25. TAKING OF ALL RIGHTS OF INGRESS, EGRESS, LIGHT, AIR AND VIEW ALONG THE ABUTTING LINES OF PARCEL 197, AS TAKEN IN THAT CERTAIN STIPULATED ORDER OF TAKING RECORDED SEPTEMBER 11, 2014 IN OFFICIAL RECORDS BOOK 10803, PAGE 1152. (AFFECTS SUBJECT PROPERTY AND IS BLANKET IN NATURE)

26. INTENTIONALLY DELETED

27. INTENTIONALLY DELETED

28. INTENTIONALLY DELETED

29. INTENTIONALLY DELETED

30. INTENTIONALLY DELETED

31. INTENTIONALLY DELETED

32. EASEMENTS AND OTHER MATTERS AS CONTAINED ON THE PLAT OF KELLY PARK CROSSINGS, RECORDED IN PLAT BOOK 111, PAGES 122 AND 123, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. (AFFECTS SUBJECT PROPERTY AS SHOWN)

33. DEVELOPMENT AGREEMENT (KELLY PARK CROSSINGS PROPERTY) BETWEEN THE CITY OF APOPKA, FLORIDA, A FLORIDA MUNICIPAL CORPORATION, AND KELLY PARK VB DEVELOPMENT, LLC, A DELAWARE LIMITED LIABILITY COMPANY, RECORDED IN OFFICIAL RECORDS DOC # 20220723788. (AFFECTS SUBJECT PROPERTY, IS BLANKET IN NATURE AND THERE ARE NO PLOTTABLE EASEMENTS)

SURVEYOR'S NOTES:

BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH LINE OF THE SW 1/4 OF SECTION 13-20-27 AS BEING S89°31'40"W. (AN ASSUMED BEARING FOR ANGULAR DESIGNATION ONLY)

THERE MAY BE EASEMENTS AND RESTRICTIONS OF RECORD AND/OR PRIVATE AGREEMENTS NOT FURNISHED TO THIS SURVEYOR OR SHOWN ON THIS BOUNDARY SURVEY THAT MAY AFFECT PROPERTY RIGHTS AND/OR LAND USE RIGHTS OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PERFORMED WITH THE BENEFIT OF AN INSURANCE TITLE COMMITMENT, PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NUMBER 10483544, EFFECTIVE DATE MAY 18, 2023 AT 5:00 PM, REVISION NUMBER 7: 06/01/2023.

THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.

THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

ADJOINING PARCEL OWNER AND RECORDING INFORMATION DELINEATED HEREON WAS OBTAINED FROM THE ORANGE COUNTY PROPERTY APPRAISER'S PUBLIC ACCESS SYSTEM.

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER OR AN ELECTRONIC SIGNATURE THAT IS IN COMPLIANCE WITH FLORIDA ADMINISTRATIVE CODE 5J-17.062.

UNDERGROUND UTILITIES AND IMPROVEMENTS WERE NOT LOCATED, UNLESS SHOWN HEREON.

UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR VISIBLE, UNOBSTRUCTED, ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNDERGROUND IMPROVEMENTS, SUCH AS FOUNDATIONS AND UTILITIES, WERE NOT LOCATED, UNLESS NOTED OTHERWISE.

UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.

SUBJECT PROPERTY SHOWN HEREON IS IN ZONE X, AREA OF MINIMAL FLOOD HAZARD, ACCORDING TO FLOOD INSURANCE RATE MAPS PANEL NUMBER 12095C0125H, MAP REVISED 9/24/2021.
THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.

THE SURVEYED LANDS SHOWN HEREON IS A CITRUS GROVE. THERE A VARIOUS MAINTENANCE ROADS THAT RUN THROUGH THE PROPERTY THAT WERE NOT LOCATED.

WE HEREBY CERTIFY THAT THE LANDS SHOWN HEREON AND THE ADJACENT PARCELS OF LAND, WHERE THEY SHARE A COMMON BOUNDARY LINE, ARE CONTIGUOUS WITH NO GAPS, GORES, HIATUS, OR OVERLAPS.

THERE ARE NO PLATTED SETBACK OR BUILDING RESTRICTION LINES WHICH HAVE BEEN RECORDED IN SUBDIVISION PLATS AND NO RECORD DOCUMENTS HAVE BEEN DELIVERED TO SURVEYOR FOR SAID LINES.

THERE IS NO OBSERVED EVIDENCE OF CEMETERIES AND BURIAL GROUNDS ON THE PROPERTY.

THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORKS, BUILDING CONSTRUCTION, OR ADDITIONS WITHIN RECENT MONTHS.

THERE IS NO OBSERVED EVIDENCE OF CHANGES IN STREET RIGHT-OF-WAY LINES EITHER COMPLETED OR PROPOSED AND RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

THERE IS NO OBSERVABLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

LEGEND:

⊡	FOUND CONCRETE MONUMENT AS NOTED
o	FOUND IRON ROD OR PIPE AS NOTED
TV	CABLE TELEVISION RISER
	GUY WIRE
	METAL LIGHT POLE
ES	ELECTRICAL VAULT
EP	ELECTRICAL PANEL
	WOODEN POWER POLE
FS	FIBER OPTIC VAULT
	FIBER OPTIC MARKER
MB	MAILBOX
	SINGLE STAND SIGN
W	WELL
	NATURAL GAS MARKER
RW	RECLAIMED WATER VALVE
	FIRE HYDRANT
WM	WATER METER
	WATER VALVE
PB	PLAT BOOK
PG(S)	PAGE(S)
— OE —	OVERHEAD ELECTRICAL LINE
R/W	RIGHT OF WAY
●	CHANGE IN DIRECTION

CERTIFIED TO:

LOWNDES, DROSDICK, DOSTER, KANTOR & REED, P.A.
FIDELITY NATIONAL TITLE INSURANCE COMPANY
LIT CADENCE WEST KELLY PHASE I, LLC,
KELLY PARK VB DEVELOPMENT, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6, 8, 11, 13, 16, 17 & 18 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON 8/03/2022.

SIGNATURE_____

JAMES L. RICKMAN, FLORIDA LICENSED SURVEYOR AND MAPPER #5633
FOR THE LICENSED FIRM OF ALLEN & COMPANY, LICENSED BUSINESS #6723

F.E.G. PROJECT NO. 22-032
SHEET NO. C-2A
SHEET 2 OF 32

ALLEN COMPANY
Founded in 1988
SURVEYING • MAPPING
GEOSPATIAL SERVICES
www.allen-company.com
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
(407) 654-5355 LB #6723

ALTA/NSPS LAND TITLE BOUNDARY SURVEY
OF
KELLY PARK CADENCE
SECTION 13, TOWNSHIP 20 SOUTH, RANGE 27 EAST
ORANGE COUNTY, FLORIDA

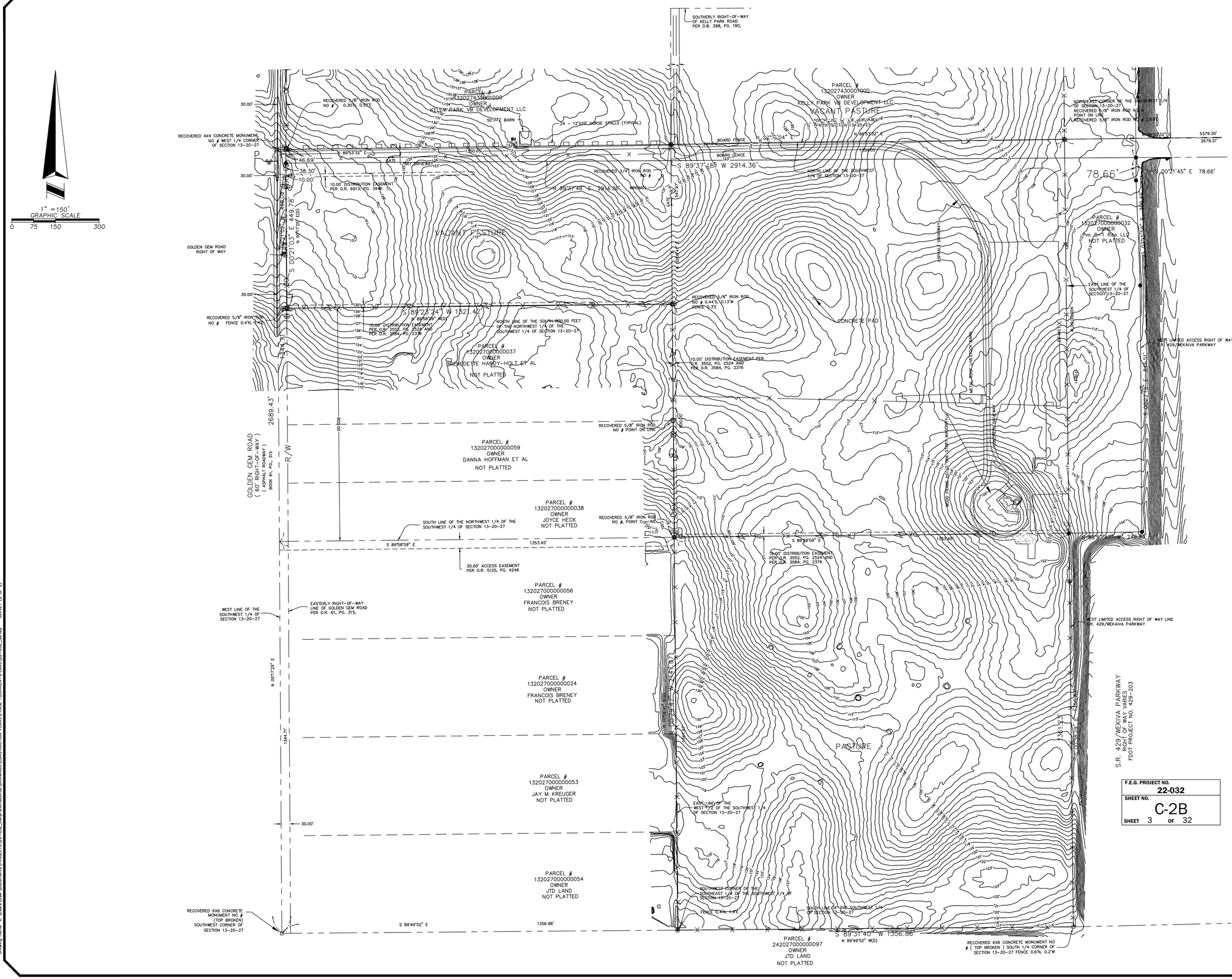
FOR: CADENCE PARTNERS, LLC

DATE	REVISIONS
6/14/23	UPDATED TITLE
6/10/22	UPDATED TITLE

JOB #: 20220310
DATE: 3/29/2022
SCALE: 1" = 150'
CALC BY: JLR
FIELD BY: ADT/ACH
DRAWN BY: DY
CHECKED BY: SEJ

SHEET 1 OF 2

Drawing name: C:\Users\User\Documents\PROJECTS\22-032_Kelly\Parkindustrial\DRAWINGS\CONSTRUCTION PLANS\PHASE I\CURRENT\PLANS\22-032_Survey SURVEY (1 of 2)



Drawing name: C:\Users\User\Documents\PROJECTS\22-032_KellyParkIndustrial\DRAWINGS\CONSTRUCTION PLANS\PHASE 1\CURRENT\PLANS\22-032_Survey SURVEY (2 OF 2)

ALLEN COMPANY
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16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
(407) 654-5355 LB #6723

ALTA/NSPS LAND TITLE BOUNDARY SURVEY

OF

KELLY PARK CADENCE

SECTION 13, TOWNSHIP 20 SOUTH, RANGE 27 EAST

ORANGE COUNTY, FLORIDA

FOR: CADENCE PARTNERS, LLC

DATE	REVISIONS
6/14/23	UPDATED TITLE
5/10/22	UPDATED TITLE

JOB #: 20220310
DATE: 3/29/2022
SCALE: 1" = 150'
CALC BY: JLR
FIELD BY: ADT/ACH
DRAWN BY: DY
CHECKED BY: SEJ

SHEET 2 OF 2

GENERAL NOTES:

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.
2. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN.
3. THE SPECIFICATIONS, NOTES, AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH & INSTALL THE WORK IN ALL DETAILS AND READY FOR OPERATION.
4. ALL EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED, TESTED, AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ALL WORK SHALL BE ACCOMPLISHED TO THE HIGHEST QUALITY CRAFTSMANSHIP STANDARDS AS APPROVED BY THE ENGINEER.
6. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS.
7. APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS ON THE DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
8. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM SITE CLEAN-UP OPERATIONS FOR REMOVAL OF ALL TRASH, DEBRIS, EXCESS MATERIAL, AND EQUIPMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER AT THE TIME OF FINAL ACCEPTANCE.
9. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS, AND SPECIFICATIONS OF CITY OF APOPKA FOR SITE IMPROVEMENT IN THE ABSENCE OF A PARTICULAR REQUIREMENT.
10. FLORIDA LAW (F.S. 556) UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT MANDATES THAT EXCAVATORS/ CONTRACTORS SHALL CONTACT SUNSHINE 811 (FKA: SUNSHINE STATE ONE-CALL OF FLORIDA) BY CALLING 800-432-4470 OR 811 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO BEGINNING ANY EXCAVATION OR DEMOLITION TO ALLOW MEMBER OPERATORS AN OPPORTUNITY TO IDENTIFY AND MARK THEIR UNDERGROUND FACILITIES AND APPROPRIATELY RESPONSE TO THE POSITIVE RESPONSE SYSTEM.
11. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV COMPANIES.
12. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON, OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
13. THE CONTRACTOR SHALL FURNISH OWNER WITH ACCURATE RECORD DRAWINGS PREPARED BY A LICENSED PROFESSIONAL SURVEYOR SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY THE ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN PAVING, GRADING, DRAINAGE, WATER, AND SEWER NOTES.
14. ALL PRIVATE AND PUBLIC PROPERTIES AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. THE COST FOR SUCH RESTORATION SHALL BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
15. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS IN PREPARING THE SITE FOR CONSTRUCTION; THIS INCLUDES REMOVAL OF ANY EXISTING ORGANIC SOILS, DELETERIOUS MATERIAL, VEGETATION, AND/OR DEBRIS FROM WITHIN THE LIMITS OF CONSTRUCTION AS IDENTIFIED BY THE GEOTECHNICAL ENGINEER; PROOFROLLING OF THE NATURAL SOILS WHERE REQUIRED; AND OTHER GENERAL SITE PREPARATION REQUIREMENTS. SPECIFIC PROOFROLLING COMPACTION REQUIREMENTS SHOULD BE CONSISTENT WITH THE APPLICABLE DESIGN DOCUMENTS AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF THERE IS A CONFLICT BETWEEN THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THE DESIGN DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

GEOMETRY NOTES:

1. THESE PLANS ARE BASED ON A SURVEY PREPARED FOR THE OWNER BY ALLEN & COMPANY AND DATED MARCH 29, 2022 WITH LATEST REVISION DATE OF JUNE 14, 2023.
2. REFER TO SHEET C-2B FOR REFERENCED BENCHMARK.
3. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE GEOMETRIC DATA PROVIDED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE & CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL & VERTICAL PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY APPARENT DISCREPANCIES ARE FOUND.
4. ALL DIMENSIONS ARE TO THE FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN WITH THAT IN THE FINAL ARCHITECTURAL DRAWINGS, PRIOR TO STAKE-OUT, & SHALL NOTIFY OWNER & ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

MARKING, STRIPING, & SIGNAGE NOTES:

1. ALL MARKINGS MUST COMPLY WITH THE F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE CITY OF APOPKA LAND DEVELOPMENT CODE. PARKING SPACES MAY BE F.D.O.T. RATED PAINT. ALL OTHER MARKINGS MUST BE THERMOPLASTIC.
2. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND OTHER APPLICABLE STANDARDS. REFER TO F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS INDEX 17355 FOR HANDICAP SYMBOL.
3. HANDICAP SIGN SHALL BE F.D.O.T. SPECIFICATION FTP-20-06.

PAVING, GRADING, & DRAINAGE NOTES:

1. ALL CONSTRUCTION, INCLUDING SIDEWALKS, SHALL BE IN ACCORDANCE WITH CITY OF APOPKA CONSTRUCTION SPECIFICATIONS AND OTHER GENERAL AND SPECIAL SPECIFICATIONS, AND THE 2023-24 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, UNLESS STATED OTHERWISE IN THE SPECIFICATIONS OR ON THE PLANS.
2. SUBSURFACE INFORMATION PROVIDED WITH THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.
3. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
4. ALL FILL MATERIAL IN GENERAL IMPROVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180. SPECIFIC SITE PREPARATION METHODS, TYPE OF FILL TO BE USED FOR PARKING AND BUILDING AREAS, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS (SEE GEOTECHNICAL REPORT PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC; PROJECT NO. 07572823) REFER TO STRUCTURAL, ARCHITECTURAL, AND GEOTECHNICAL DOCUMENTS FOR ANY WORK RELATED TO BUILDINGS AND OTHER VERTICAL ELEMENTS FOR SPECIFIC SITE IMPROVEMENT AND FILL REQUIREMENTS. THIS PLAN ONLY COVERS SITE RELATED IMPROVEMENTS AND INFRASTRUCTURE. REFER TO PAVEMENT SECTION DETAILS FOR MATERIAL AND COMPACTION REQUIREMENTS OF PAVEMENT SUBGRADE.
5. ALL UNDERGROUND UTILITIES INCLUDING CONDUIT FOR ELECTRICAL, CABLE TV, AND TELEPHONE SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
6. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY PROBLEMS REQUIRING DEVIATION FROM THESE PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
8. ALL DISTURBED AREAS MUST BE SODDED UNLESS OTHERWISE NOTED ON THE PLANS. ALL SODDING MUST BE DONE IN ACCORDANCE THE 2023-24 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
9. PROVIDE HANDICAP ACCESS WHERE SIDEWALKS MEET CURBS.

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM WITH CITY OF APOPKA SPECIFICATIONS, SUBJECT TO AUTHORIZED AND APPROVED VARIANCES, WAIVERS AND/OR CONDITIONAL CHANGES.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
3. CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION AND SEDIMENTATION DURING CONSTRUCTION.
4. ALL CLEARED AREAS FOR IMPROVEMENT AND/OR CONSTRUCTION SHALL BE WATERED TO PREVENT WIND EROSION.
5. PRIOR TO LAND CLEARING THE CONTRACTOR SHALL PROVIDE TREE PROTECTION BARRIERS TO MEET THE REQUIREMENTS OF CITY OF APOPKA.
6. THE CONTRACTOR SHALL SELECTIVELY CLEAR ONLY THE AREAS REQUIRED FOR CONSTRUCTION AND STABILIZE ANY POTENTIAL EROSION AREAS IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.

WATER & SEWER UTILITY NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CITY OF APOPKA FOR CONSTRUCTION OF THE WATER AND SEWER SYSTEMS, RESPECTIVELY. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THEIR SPECIFICATIONS AND REQUIREMENTS, AS APPLICABLE AND WILL BE SUBJECT TO THEIR INSPECTION AND ACCEPTANCE.
2. CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER SYSTEM TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE AND PROVIDE FIVE (5) WORKING DAYS NOTICE OF WATER AND SEWER TESTS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
3. ENGINEER RESERVES THE RIGHT TO WITHHOLD APPROVAL FOR ANY PORTION OF THE WATER OR SEWER PIPE WORK WHICH HAS NOT BEEN TESTED (OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
4. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.
5. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.
6. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF WATER MAINS, FITTINGS, AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE.
7. SITE UTILITY WORK SHALL TERMINATE 5 FEET FROM BUILDINGS UNLESS OTHERWISE STATED.
8. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.

F.D.E.P. CONSTRUCTION NOTES:

UTILITY SEPARATION – VERTICAL CLEARANCE:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY -OR VACUUM- TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12" BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.
2. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

UTILITY SEPARATION HORIZONTAL SEPARATION:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
2. THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL NEWLY-INSTALLED WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE CITY OF APOPKA & IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE-IRON PIPE. TESTING SHALL BE IN ACCORDANCE WITH AWWA MANUAL M23 FOR PVC PIPE.
3. THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE F.D.E.P. WATER PERMIT, & RECEIVE APPROVAL THEREOF FROM THE LOCAL WATER UTILITY, ENGINEER OF RECORD, & F.D.E.P., PRIOR TO PLACING IN SERVICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THE F.D.E.P. WATER & SEWER PERMITS FROM THE PERMITS FROM THE OWNER & MAINTAIN THEM ON THE JOB SITE AT ALL TIMES. DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS". SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS".

CONSTRUCTION NOTES:

1. THE PERMITTEE SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION & TESTING BEYOND THE METER TO ASSURE POTABILITY AT THE POINT OF USE.
2. POTABLE WATER PIPES WILL BE DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.
3. POTABLE PIPES WILL BE HYDROSTATICLY TESTED IN ACCORDANCE WITH SPECIFICATION NUMBERS C600 & C605/M23 FOR DUCTILE IRON & PVC PIPES, RESPECTIVELY.
   A. POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING AWWA SPECIFICATIONS:
   B. DUCTILE IRON PIPE (3" TO 64") – AWWA C150/AWWA C151; LINING PER AWWA C104, COATING PER AWWA C116, ENCASEMENT PER AWWA C105, FLANGED PIPE PER AWWA C115, GASKET JOINTS PER AWWA C111 AND FITTINGS PER AWWA C110 OR AWWA C153.
   C. PVC (WITH NATIONAL SANITATION FOUNDATION SEAL)
      1. AWWA C900/ASTM 1784 (4" TO 12") WITH DR25 MINIMUM;
      2. AWWA C905 (14" TO 48")
      3. PRESSURE RATED PIPE (SDR SERIES) SHALL BE ASTM D2241, SCHEDULE 40, 80, & 120 PVC PIPES PER ASTM D1785. THE COMPOUNDS USED FOR EITHER OF THESE TYPES SHALL BE PER ASTM D1784.
   D. POLYETHYLENE PIPE (1/2" – 3") – AWWA C901 WITH VALVES & FITTINGS (AWWA C800);
   E. POLYETHYLENE PIPE (4" – 63") – AWWA C906.
   F. FIRE HYDRANTS & VALVES PER AWWA SERIES C500 THROUGH C560.
   G. METERS PER AWWA SERIES C700 THROUGH C710.
   E. NON-AWWA PVC PIPES (ALLOWED ONLY FOR SIZES LESS THAN 4 INCHES) MUST HAVE A MINIMUM PRESSURE CLASS OF 200 PSI AND MUST BEAR THE NSF MARK ON EACH INSTALLED LENGTH.

CONNECTION TO EXISTING WATER MAINS:

1. IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
   A. PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE D.E.P. CENTRAL DISTRICT OR WILL AFFECT BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.
   B. IN CASES OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

FILLING OF WATERMAINS:

1. FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.

LEGEND

SITE

- POLE SIGN
- SMALL PYLON SIGN
- LARGE PYLON SIGN
- RIGHT TURN DIRECTIONAL ARROW
- STRAIGHT DIRECTIONAL ARROW
- LEFT TURN DIRECTIONAL ARROW
- STRAIGHT AND LEFT TURN DIRECTIONAL ARROW
- STRAIGHT AND RIGHT TURN DIRECTIONAL ARROW
- HANDICAP PARKING SYMBOL
- F.D.O.T. TYPE "D" CURB
- F.D.O.T. TYPE "F" CURB AND GUTTER
- GATE VALVE BOX, WV= WATER, FV=FIRE, IV=IRRIGATION, & SSV=SANITARY SEWER
- CHAINLINK FENCE
- DECORATIVE WOOD OR ALUMINUM FENCE
- BARB WIRE FENCE
- HANDRAIL
- SCREEN/RETAINING WALL, AS NOTED.
- BIKE RACK
- PARKING COUNT SYMBOL PER ROW
- ROAD CENTERLINE SYMBOL

GRADING & DRAINAGE

- F.D.O.T. TYPE "C" DRAINAGE INLET
- F.D.O.T. TYPE "D" DRAINAGE INLET
- F.D.O.T. TYPE "E" DRAINAGE INLET
- F.D.O.T. TYPE "1" DRAINAGE INLET
- F.D.O.T. TYPE "2" DRAINAGE INLET
- F.D.O.T. TYPE "3" DRAINAGE INLET
- F.D.O.T. TYPE "4" DRAINAGE INLET
- F.D.O.T. TYPE "5" DRAINAGE INLET
- F.D.O.T. TYPE "6" DRAINAGE INLET
- STORM DRAINAGE MANHOLE
- MITERED END SECTION
- STORM DRAINAGE PIPE
- DRAINAGE FLOW DIRECTIONAL ARROW
- DRAINAGE STRUCTURE BUBBLE
- GRADE ELEVATION (ELEV. HI / ELEV. LO)
- CONTOUR ELEVATION (90)
- EROSION CONTROL SILT FENCE

UTILITY

- DCDA – DOUBLE CHECK DETECTOR ASSEMBLY
- DCVA – DOUBLE CHECK VALVE ASSEMBLY
- RPZ – REDUCED PRESSURE ZONE DEVICE
- DOMESTIC METER
- IRRIGATION METER
- GATE VALVE
- BLOW-OFF GATE VALVE
- REDUCER
- WET WELL
- 11.25° PIPE BEND
- 22.5° PIPE BEND
- 30° PIPE BEND
- 45° PIPE BEND
- 60° PIPE BEND
- 90° PIPE BEND
- TEE
- CROSS
- FIRE HYDRANT ASSEMBLY W/ UNOBSTRUCTED AREA CLEARANCES AS REQUIRED BY FIRE MARSHALL
- FIRE DEPARTMENT CONNECTION
- CLEAN OUT
- LIFT STATION
- GREASE TRAP
- SITE LIGHTING
- DECORATIVE SITE LIGHTING
- UTILITY POLE

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future
5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.feg-inc.us

LEGEND, NOTES AND SPECIFICATIONS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-3
SHEET 4 OF 32

SAM J. SEBALL, FLORIDA ENGINEERING GROUP, INC., CERTIFICATE No. EB-0000595, No. 81075, STATE OF FLORIDA, PROFESSIONAL ENGINEER, 1/29/2024, NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBALL P.E. ON JANUARY 29, 2024 USING A DIGITAL SIGNATURE.

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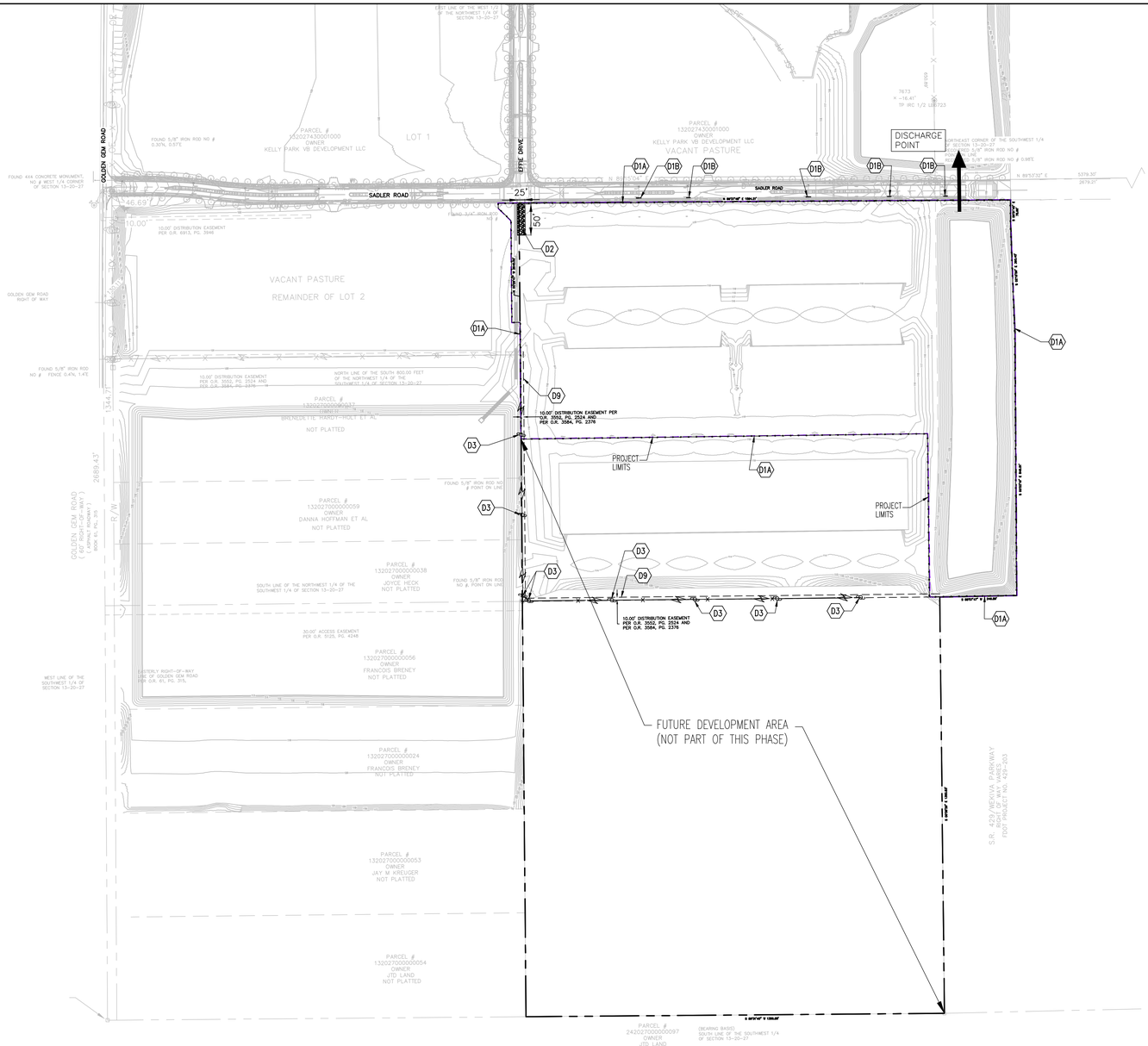
22-032_GeneralNotes.dwg



GRAPHIC SCALE

200' 0 100' 200' 400'

1"=200'

DEMOLITION KEYNOTES

(1/C-4A) D1A. F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER.

(2/C-4A) D1B. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

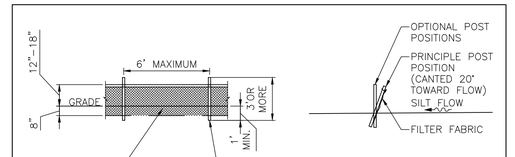
D2. 25'x50' GRAVEL CONSTRUCTION ENTRANCE.

D3. REMOVE EXISTING POWER POLE, LIGHT POLE AND OVERHEAD LINE. COORDINATE NEW SERVICE WITH POWER COMPANY.

D4. EXISTING FLORIDA POWER DISTRIBUTION EASEMENTS TO BE VACATED. OWNER TO COORDINATE WITH DUKE ENERGY/ FLORIDA POWER VACATION OF EASEMENTS & RECORDATION OS NEW EASEMENTS AS REQUIRED FOR THE PROPOSED DEVELOPMENT.

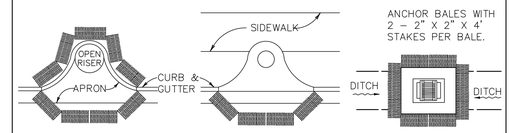
NOTE:

1. THE CONTRACTOR SHALL INSPECT THE SITE PRIOR TO BIDDING AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. ANY VARYING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING.
2. THIS SITE IS COVERED BY A MASS GRADING PLAN FOR WYLD OAKS PREPARED BY KIMLEY HORN. EXISTING CONDITIONS AT TIME OF DEVELOPMENT AFFECTING THE PROPOSED WORK INCLUDING EXISTING GRADES; EXISTING UTILITIES AND UTILITY STUBOUTS; EXISTING DRAINAGE AND DRAINAGE STUBOUTS; EXISTING DRIVEWAY CURB OPENINGS, AND OTHER RELEVANT ITEMS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AS THEY MAY VARY FROM ANTICIPATED CONDITIONS USED FOR DESIGN AND REFLECTED ON THESE PLANS. ANY VARYING CONDITIONS SHALL BE BROUGHT BY THE CONTRACTOR TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION.



(1/C-4A) TYPE III SILT FENCE
SCALE 1" = 5'

EROSION-CONTROL-SILT-DET-ERO-5.dwg



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

(2/C-4A) SYNTHETIC EROSION CONTROL BARRIERS
NOT TO SCALE

EROSION-CONTROL-SYNTHETIC-DET-ERO.dwg

Sunshine State 811 One Call

PLAN LEGEND

SAW CUT & REMOVE EXISTING ASPHALT & CONCRETE IN HATCHED AREAS.

SILT FENCE EROSION CONTROL BARRIER

CONTRACTOR ACKNOWLEGEMENT:

THIS PLAN HAS BEEN PREPARED UNDER _____ DIRECTION AND KNOWLEDGE. I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

_____

_____ DATE:

(NOTE: CONTRACTOR IS REQUIRED TO REVIEW & SIGN THIS PLAN PRIOR TO START CONSTRUCTION)

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
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SITE DOMLITION AND STORMWATER POLLUTION PREVENTION PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=200'
DATE JANUARY 29 2024
SHEET NO. C-4A
SHEET 5 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005595
SAM J. SEBAALI
No 49075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/2024
LICENSED TO SEAL

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBAALI P.E. ON JANUARY 29, 2024 USING A DIGITAL SIGNATURE.

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22-032_Demo.dwg

EROSION CONTROL SITE DESCRIPTION NOTES:

1. THE PROPOSED MASTER PLANNED KELLY INDUSTRIAL PARK CONSTRUCTION ACTIVITY WILL ENTAIL THE CLEARING & GRUBBING OF AN APPROXIMATELY 32 ACRE AREA OF THE 89.40± ACRE SITE AS NEEDED, FOR CONSTRUCTION OF PHASE I CONSISTING OF BUILDINGS 1 THROUGH 4 ALONG WITH THEIR ASSOCIATED PARKING, DRAINAGE & UTILITIES.

2. THE SEQUENCE OF SOILS DISTURBANCE ACTIVITY IS AS FOLLOWS:

   A. ALL EROSION AND SEDIMENT CONTROL BMP'S SHOWN ON THE PLANS SHALL BE INSTALLED AND IMPLEMENTED PRIOR TO ANY SOIL DISTURBANCE. THIS INCLUDES INSTALLATION OF ALL SILT FENCES, INLET PROTECTION, TREE PROTECTION, STABILIZED CONSTRUCTION ENTRANCE, AND OTHER MEASURES AS SHOWN ON THE PLANS OR REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFFSITE AREAS.

   B. VERIFY EXISTING POND AREA(S) AND ROUGH GRADE TEMPORARY SEDIMENTATION BASIN(S) AS NEEDED TO CONTROL RUNOFF AND OFFSITE SEDIMENT TRANSPORT.

   C. CLEAR & GRUB THE AREA AS NEEDED. ENSURE THAT DRAINAGE FROM SITE DURING CONSTRUCTION IS CONVEYED TO THE POND(S) OR TEMPORARY SEDIMENTATION BASIN(S).

   D. PLACE FILL ON-SITE TO BRING THE SITE UP TO THE PROPOSED GRADES.

   E. BEGIN COMPACTION / STABILIZATION PROCESS.

3. THE TOTAL SITE AREA IS 89.40 ACRES & THE AREA TO BE DISTURBED IS APPROXIMATELY 32 ACRES.

4. THE EXISTING SOIL CONSISTS OF CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES AND 5 TO 12 PERCENT SLOPES.

5. THE TOTAL DRAINAGE AREA FOR THE PROJECT IS APPROXIMATELY 41 ACRES.

6. THE LATITUDE & LONGITUDE FOR THE DISCHARGE POINTS IS LAT: 28°44'57.57"N LONG: 81°34'6.57"W. THE SITE DISCHARGES TO SWM1, WHICH IS PART OF A LAND LOCKED MASTER DRAINAGE SYSTEM.

7. WASTE DISPOSAL SHALL BE IMPLEMENTED IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. ALL TRUCKS EXITING THE SITE WILL BE HOSED, ITS LOAD COVERED and THE COVER PROPERLY SECURED. THE STORAGE, APPLICATION, GENERATION & MIGRATION OF ALL FERTILIZERS, HERBICIDES, PESTICIDES & TOXIC MATERIAL SHALL BE IN ACCORDANCE W/ LOCAL, STATE & FEDERAL REGULATIONS.

8. CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) RESPONSIBLE FOR THE WEEKLY & REQUIRED INSPECTIONS. A REPORTING SYSTEM ENTAILING THE ITEMS TO BE INSPECTED & THEIR CONDITION SHOULD BE DOCUMENTED & PLACED IN A DEDICATED FILING SYSTEM THAT WILL REMAIN ON THE PROJECT SITE, ACCESSIBLE TO THE CONSTRUCTION TEAM & TO THE F.D.E.P. INSPECTORS.

9. INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER AFTER EACH RAINFALL GREATER THAN 0.5 INCH. A RAIN GAUGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNT. THE CONTRACTOR SHALL DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED IMMEDIATELY.

10. ALL EXCESS FILL MATERIAL SHALL BE HAULED OFFSITE.

11. SEDIMENTATION CONTROLS AND BMPS SHALL PREVENT STORMWATER RUNOFF WITH TURBIDITY GREATER THAN 29 NTUS FROM LEAVING THE CONSTRUCTION SITE.

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, & LOCAL CODES, ORDINANCES, & REGULATIONS GOVERNING POLLUTION OF THE ENVIRONMENT & SHALL IMPLEMENT ALL MEASURES NEEDED TO ENSURE ADEQUATE EROSION & SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES SHALL CONFORM TO CITY OF APOPKA, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, & FLORIDA DEPARTMENT OF TRANSPORTATION REQUIREMENTS. INSTALLATION OF SILT FENCES & TURBIDITY BARRIERS SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS & STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.

2. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTATION OF SILT & SEDIMENTS OFF THE PROJECT SITE OR INTO ADJACENT WATER BODIES OR WETLANDS.

3. THE CONTRACTOR SHALL PREPARE & IMPLEMENT AN EROSION CONTROL PLAN AS PART OF THE SCOPE OF WORK COVERED BY THESE PLANS. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION & SEDIMENT TRANSPORT DURING CONSTRUCTION. THE FLORIDA DEVELOPMENT MANUAL "A GUIDE TO SOUND LAND & WATER MANAGEMENT" MAY BE USED AS REFERENCE FOR RECOMMENDED BEST MANAGEMENT PRACTICES RELATED TO EROSION & SEDIMENT CONTROL.

4. THE CONTRACTOR SHALL SUBMIT THE EROSION CONTROL PLAN TO THE OWNER FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING.

5. ALL EROSION & SEDIMENT CONTROL MEASURES WHICH ARE NECESSARY TO LIMIT THE TRANSPORT OF SILTS & SEDIMENTS TO OUTSIDE THE LIMITS OF THE WORK AREA OR TO WATER BODIES OR WETLANDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE BEST MANAGEMENT PRACTICES & IMPLEMENT STRUCTURAL MEASURES AS NEEDED TO PREVENT EROSION & SEDIMENT TRANSPORT FROM THE WORK AREAS. THE FOLLOWING ARE MINIMUM RECOMMENDED GUIDELINES TO BE IMPLEMENTED DURING CONSTRUCTION AS PART OF THE EROSION & SEDIMENT CONTROL PLAN:

   A. STOCKPILING OF MATERIAL
   NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

   B. EXPOSED AREA LIMITATION & PROTECTION
   THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF OFF-SITE SEDIMENT TRANSPORT. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING EFFECTIVE EROSION & SEDIMENT CONTROL MEASURES SUCH AS SILT SCREENS, SYNTHETIC BALES, TURBIDITY BARRIERS, SWALES, OR A COMBINATION OF THESE & OTHER MEASURES AS WARRANTED.

   C. INLET PROTECTION
   INLETS & CATCH BASINS SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN STORMWATER RUNOFF BY PROVIDING A COMBINATION OF SILT SCREENS, SYNTHETIC BALES, FILTER FABRIC COVERS OR OTHER MEASURES AS NECESSARY TO CONTROL THE TRANSPORT OF SEDIMENT.

   D. TEMPORARY GRASSING
   AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. THE SEEDED OR SEEDED & MULCHED AREAS SHALL BE ROLLED & WATERED AS NEEDED TO ENSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% OF GOOD GRASS COVER, THE AREAS WILL BE REWORKED & ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER. REWORKED & ADDITIONAL SEED APPLIED

   E. MAINTENANCE
   EROSION & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION & CONTROL MEASURES ON A DAILY BASIS & 24 HOURS FOLLOWING RAINFALL EVENTS (0.5" OR GREATER) & IMMEDIATELY REPAIR ANY OBSERVED DAMAGED CONTROLS. ALL EROSION & SEDIMENT CONTROLS SHALL BE MAINTAINED AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

6. AREAS OF SOILS DISTURBANCE IS LIMITED TO THE AREA WITHIN THE SILT FENCE LIMITS AS SHOWN ON THIS PLAN.

7. ALL DISTURBED PERVIOUS AREAS WILL BE SODDED, UNLESS OTHERWISE NOTED.

8. NO WETLANDS OR SURFACE WATERS EXIST ON THIS PROJECT.

DUST CONTROL & PREVENTION:

THE SURFACE AREA OF OPEN, RAW ERODIBLE SOILS EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF DUST PRODUCTION. IN ADDITION,

1. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING DUST CONTROL CONTROL MEASURES SUCH AS STABLIZING EXPOSED SOILS USING VEGETATION, MULCHING, SPRAY-ON ADHESIVES, CALCIUM CHLORIDE, WET SUPRESSION (WATERING) AND STONE/GRAVEL LAYERING AS APPLICABLE FOR THE PROJECT AND DEEMED NEECESSARY BY THE CONTRACTOR TO CONTROL DUST.

2. ONSITE VEHICLE TRAFFIC SHOULD BE LIMITED TO A MAXIMUM 15 MPH SPEED, AND THE NUMBER AND ACTIVITY OF VEHICLES SHOULD BE CONROLLED AT ANY GIVEN TIME.

3. A MOBLE UNIT SHOULD BE AVAILABLE TO APPLY WATER TO CONTROL DUST WHEN NEEDED.

4. COVERS SHALL BE PROVIDED FOR ALL HAUL TRUCKS TRASPORTING MATERIALS THAT CONTRIBTURE TO DUST.
5. IF CHEMICAL STABILIZATION METHOD IS USED, THE CHEMICALS SHOULD BE APPROVED FOR USE BY THE APPROPRIATE REGULATORY AGENCIES AND SHALL NOT CREATE ANY ADVERSE IMPACTS TO STORMWATER, PLANT LIFE, WATER BODIES, GROUNDWATER, OR FISH AND WILDLIFE.

DEMOLITION NOTES

1. THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF EXISTING UTILITIES & OTHER FEATURES ARE SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF ALL EXISTING UTILITIES & OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY FEG OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROPOSED WORK.

2. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

3. THE CONTRACTOR SHALL, PRIOR TO INITIATION OF ANY SITE CLEARING OR OTHER CONSTRUCTION ACTIVITIES, INSTALL SILT SCREENS DOWNSTREAM OF ALL AREAS WHICH HAVE POTENTIAL OF EROSION OR SEDIMENT TRANSPORT OFFSITE OR TO WATER BODIES. THE CONTRACTOR SHALL IMPLEMENT OTHER STRUCTURAL EROSION CONTROL MEASURES IF REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFF-SITE AREAS & WATER BODIES.

4. ALL TRASH, DEBRIS, & OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS.

5. ANY EXCAVATED TRENCHES ARE TO BE BACKFILLED WITH CLEAN SAND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (AASHTO T-180). REFER TO GEOTECHNICAL REPORT FOR SPECIFIC COMPACTION REQUIREMENTS UNDER BUILDING & OTHER STRUCTURES.

6. ALL EXISTING CONCRETE TO BE REMOVED SHALL BE SAWCUT & REMOVED @ THE FIRST AVAILABLE GOOD JOINT & REPLACED TO MATCH EXISTING.

7. THE CONTRACTOR SHALL CONTACT THE GAS UTILITY FOR LOCATION BEFORE EXCAVATION. CHAPTER 17-153 F.S. REQUIRES THAT AN EXCAVATOR NOTIFIES ALL GAS UTILITIES AT LEAST TWO DAYS PRIOR TO EXCAVATING. ALSO CALL 1-800-432-4770 FOR SUNSHINE LOCATES. F.S. 556.101 THROUGH 111.

8. CONTRACTOR TO PROVIDE TREE PROTECTION AROUND TREES TO REMAIN AS REQUIRED BY THE LOCAL JURISDICTION.

9. NO EXCAVATING MATERIAL SHALL BE STOCKPILED IN A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

SOIL TRACKING PREVENTION

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT THE LOCATION SHOWN ON THE PLANS. TRAFFIC FROM UNSTABILIZED AREAS OF CONSTRUCTION SHALL BE DIRECTED THRU THE STPD BARRIER. FLAGGING OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT & DIRECT VEHICULAR EGRESS ACROSS THE STPD.

2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED & APPROVED BY THE ENGINEER &/OR CITY OF APOPKA PRIOR TO ITS USE.

3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE & CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER &/OR CITY OF APOPKA.

4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT & ARE UNSUITABLE.

5. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.

EROSION CONTROLS FOR NON STORMWATER DISCHARGES:

A) WASTE DISPOSAL:

WASTE MATERIAL:

ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN A METAL DUMPSTER WHICH WILL BE MAINTAINED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN CITY OF APOPKA. THE DUMPSTER WILL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS OFTEN AS NECESSARY TO NOT CAUSE ON-SITE DISPOSAL OF WASTE. THE TRASH WILL BE HAULED TO AN APPROVED CITY OF APOPKA LANDFILL. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

HAZARDOUS WASTE:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR HAZARDOUS WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY LOCAL REGULATION.

B) OFFSITE VEHICLE TRACKING:

A GRAVEL CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

NPDES NOTE

A NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NDPES) IS REQUIRED FOR THE PROJECT. UNLESS OBTAINED BY THE OWNER, THE CONTRACTOR SHALL APPLY AND OBTAIN A NOI NPDES PRIOR TO START OF CONSTRUCTION ACTIVITIES.

CONTRACTOR ACKNOWLEGEMENT:

THIS PLAN HAS BEEN PREPARED UNDER _____ DIRECTION AND KNOWLEDGE. I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

_____ DATE:

(NOTE: CONTRACTOR IS REQUIRED TO REVIEW & SIGN THIS PLAN PRIOR TO START CONSTRUCTION)

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

SITE DOMLITION AND STORMWATER POLLUTION PREVENTION NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-4B
SHEET 6 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005554
SAM J. SEBALL
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/2024
ORIGINAL
License No. 42075

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBALL P.E. ON JANUARY 29, 2024 USING A DIGITAL SIGNATURE.

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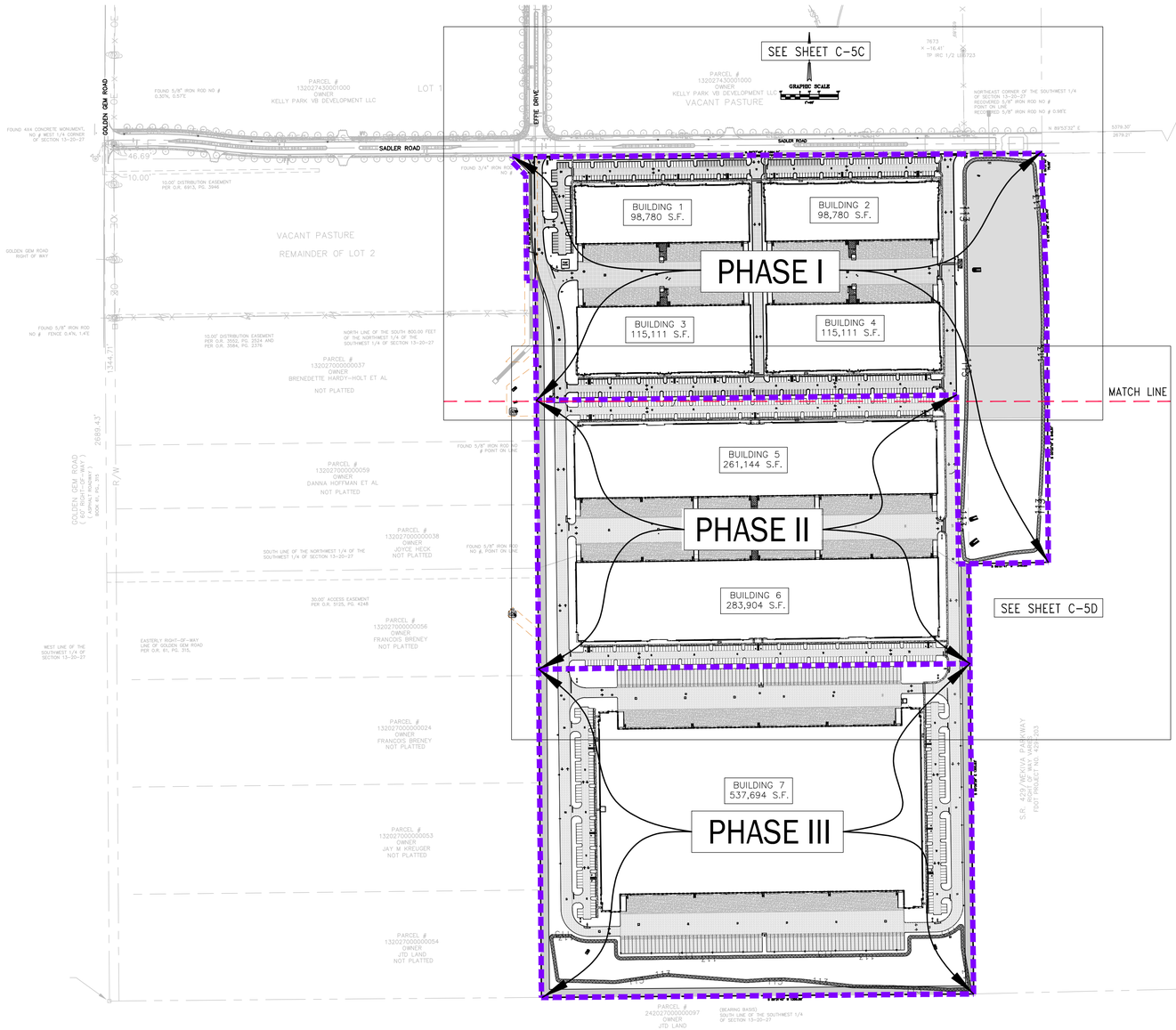
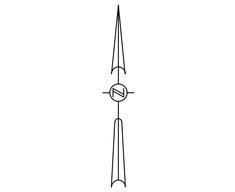




NOTES:

1. EACH PHASE SHALL PROVIDE ALL REQUIRED IMPROVEMENTS SO THAT THE PHASE CAN STAND ON ITS OWN; THIS INCLUDES LANDSCAPING, UTILITIES, ETC.
2. EMERGENCY/FIRE ACCESS SHALL BE PROVIDED FOR ALL WORK AREAS DURING CONSTRUCTION OF ALL PHASES.

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

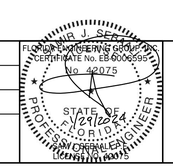
5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

OVERALL SITE AND
OCCUPANCY PHASING PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO.	22-032
SCALE	1"=200'
DATE	JANUARY 29 2024
SHEET NO.	C-5A
SHEET	7 OF 32



FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595

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PARKING

PARKING REQUIRED PHASE I

BUILDING 1

WAREHOUSE	98,780 S.F. (1 SPACE PER 600 S.F. FOR FIRST 3,000 S.F. PLUS 1 SPACE PER ADDTIONAL 3,000 S.F.)	37 SPACES
TOTAL PARKING REQUIRED		37 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP		2 SPACES

BUILDING 2

WAREHOUSE	98,780 S.F. (1 SPACE PER 600 S.F. FOR FIRST 3,000 S.F. PLUS 1 SPACE PER ADDTIONAL 3,000 S.F.)	37 SPACES
TOTAL PARKING REQUIRED		37 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP		2 SPACES

BUILDING 3

WAREHOUSE	115,111 S.F. (1 SPACE PER 600 S.F. FOR FIRST 3,000 S.F. PLUS 1 SPACE PER ADDTIONAL 3,000 S.F.)	43 SPACES
TOTAL PARKING REQUIRED		43 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP		2 SPACES

BUILDING 4

WAREHOUSE	115,111 S.F. (1 SPACE PER 600 S.F. FOR FIRST 3,000 S.F. PLUS 1 SPACE PER ADDTIONAL 3,000 S.F.)	43 SPACES
TOTAL PARKING REQUIRED		43 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP		2 SPACES

TOTAL PARKING REQUIRED FOR PHASE I: 160 SPACES

PARKING PROVIDED PHASE I

BUILDING 1

STANDARD PARKING SPACES	144 SPACES
ACCESSIBLE PARKING	4 SPACES
VAN ACCESSIBLE PARKING	1 SPACES
TOTAL PARKING PROVIDED	149 SPACES

BUILDING 2

STANDARD PARKING SPACES	96 SPACES
ACCESSIBLE PARKING	4 SPACES
VAN ACCESSIBLE PARKING	1 SPACES
TOTAL PARKING PROVIDED	101 SPACES

BUILDING 3

STANDARD PARKING SPACES	99 SPACES
ACCESSIBLE PARKING	4 SPACES
VAN ACCESSIBLE PARKING	1 SPACES
TOTAL PARKING PROVIDED	104 SPACES

BUILDING 4

STANDARD PARKING SPACES	99 SPACES
ACCESSIBLE PARKING	4 SPACES
VAN ACCESSIBLE PARKING	1 SPACES
TOTAL PARKING PROVIDED	104 SPACES

TOTAL PARKING PROVIDED FOR PHASE I 458 SPACES

MIN. 20% OR A MIN. OF 92 PARKING SPACES SHALL BE PERVIOUS CONCRETE PAVEMENT.
TOTAL PERVIOUS CONCRETE PAVEMENT PROVIDED 93 SPACES

SIDEWALK NOTE:

ALL SIDEWALKS SHALL COMPLY WITH SECTION 5.13.6 OF THE CITY OF APOPKA LAND DEVELOPMENT CODE. ADA ACCESSIBLE CURB CUT RAMPS SHALL BE PROVIDED AT ALL STREET AND DRIVEWAY CROSSINGS IN ACCORDANCE WITH CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL AND FDOT SPECIFICATIONS.

GREEN BUILDING STANDARDS

THE FOLLOWING ELEMENTS ARE TO BE PROVIDED WITH THE FINAL DESIGN TO MEET THE MIN. 4.0 POINTS REQUIRED FOR THE GREEN BUILDING STANDARDS PER LDC SECTION 5.11.4:

- PROVIDE COOL ROOFS ON THE BUILDINGS – 1.50 POINTS
- PROVIDE CENTRAL SIR CONDITIONERS THAT ARE ENERGY STAR QUALIFIED – 0.50 POINT.
- PROVIDE STORM WATER INFILTRATION SYSTEM(S)/PONDS THAT CAPTURES A MINIMUM OF 25% OF SITE STORMWATER RUNOFF – 1.00 POINT
- PROVIDE MORE BICYCLE PARKING THAN REQUIRED BY SEC. 5.1.11, BICYCLE PARKING STANDARDS, WHILE ENSURING THAT ALL OTHER BICYCLE PARKING STANDARDS IN SECTION 5.1 – 1.5 POINTS

SITE DATA

PROPERTY LOCATION: S. OF SADLER ROAD AND EAST OF GOLDEN GEM ROAD

PROPERTY FUTURE LAND USE DESIGNATION: MU–KPI
PROPERTY ZONING: KELLY PARK INTERCHANGE MIXED–USE–EMPLOYMENT DISTRICT

EXISTING USE: VACANT / RESIDENTIAL
PROPOSED USE: INDUSTRIAL WAREHOUSING
PROJECT AREA: 89.40

PROPOSED GROSS FLOOR AREA:

BUILDING 1	98,780 S.F.
BUILDING 2	98,780 S.F.
BUILDING 3	115,111 S.F.
BUILDING 4	115,111 S.F.
TOTAL	427,782 S.F.

ALLOWABLE FLOOR AREA, RATIO: MIN. 0.1; MAX. 0.5
PROPOSED FLOOR AREA, RATIO: 0.11

BUILDING SETBACKS (REQUIRED)

FRONT	(NORTH)	10' (MIN.) 20' (MAX.)*
SIDE	(WEST)	20' (MIN.)
SIDE	(EAST)	10' (MIN.)
REAR	(SOUTH)	20'

BUILDING SETBACKS (PROPOSED)

FRONT	(NORTH)	83'
SIDE	(EAST)	324'
SIDE	(WEST)	124'
REAR	(SOUTH)	1,952'

*A VARIANCE TO THE MAXIMUM BUILDING SETBACKS HAS BEEN GRANTED BY CITY COUNCIL ON APRIL 11, 2023 TO ALLOW MAXIMUM SETBACK OF 93 FT. ON SADLER ROAD.

MAXIMUM ALLOWABLE BUILDING HEIGHT
6 STORIES

BUILDING HEIGHT PROPOSED
1 STORY < 50FT.

BUILDING CONSTRUCTION TYPE
II B, SPRINKLERED

BUFFER YARDS

PROPOSED USE		ABUTTING USE	REQUIRED BUFFER TYPE
INDUSTRIAL	FRONT (NORTH)	STREET*	N/A
INDUSTRIAL	SIDE (EAST)	STREET	N/A
INDUSTRIAL	SIDE (WEST)	STREET	N/A
INDUSTRIAL	REAR (SOUTH)	MU–KPI (FUTURE DEVELOPMENT PHASES)	N/A

*MIN. 3FT., MAX. 5FT. TALL URBAN SOUTH STREET WALL REQUIRED PER SECTION M.3 OF THE CITY OF APOPKA KELLY PARK INTERCHANGE FORM–BASED CODE. 3FT. TALL WALL PROPOSED.

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	427,782 S.F.		
SIDEWALK	18,351 S.F.		
PAVING	442,545 S.F.		
IMPERVIOUS AREA	888,678 S.F.	20.40 AC.	22.82 %
PERVIOUS AREA	3,005,792 S.F.	69.00 AC.	77.18 %
TOTAL SITE AREA	3,894,470 S.F.	89.40 AC.	100.00 %

MINIMUM OPEN SPACE REQUIRED			20 %
OPEN SPACE PROVIDED (GREEN AREAS INCLUDES ALL SODDED AREAS & ONLY 46.2% OF AMENITIZED DRY RETENTION POND AREAS)			
SODDED AREAS	2,725,797 S.F.	62.58 AC.	
DRY RETENTION POND AREAS	279,995 S.F.	6.43 AC.	
46.2% OF AMENITIZED DRY RETENTION POND AREA (NORTH PORTION OF POND 3 COUNTED TOWARD OPEN SPACE)	129,358 S.F.	2.97 AC.	
OPEN SPACE PROVIDED (62.58 AC. + 2.97 AC.)	2,855,155 S.F.	65.55 AC.	73 %

FLOOD ZONE

FLOOD ZONE "X" PER FEMA F.I.R.M. PANEL 12095C0125H DATED: SEPTEMBER 24, 2021

SOILS

4–CANDLER FINE SAND, 0 TO 5 PERCENT SLOPES; 5–CANDLER FINE SAND 5 TO 12 PERCENT SLOPES.

WETLAND STATEMENT

THERE ARE NO JURISDICTIONAL WETLANDS WITHIN THE PROJECT SITE.

HAZARDOUS MATERIALS STATEMENT

DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ONTO THE SITE IN SUCH QUANTITIES AS DEEMED HAZARDOUS BY THE FIRE OFFICIAL, ACCESS ROADS & A SUITABLE TEMPORARY SUPPLY OF WATER ACCEPTABLE TO THE FIRE DEPARTMENT SHALL BE PROVIDED & MAINTAINED.

LIGHTING NOTE

LIGHTING SHALL COMPLY WITH CITY OF APOPKA LAND DEVELOPMENT CODE SECTION 5.6.

INDUSTRIAL DESIGN STANDARDS NOTE

THE PROJECT SHALL COMPLY WITH THE INDUSTRIAL DESIGN STANDARDS SET FORTH IN APPENDIX D SECTION 5 AND ARTICLE 5 OF THE CITY APOPKA LAND DEVELOPMENT CODE.

NON–RESIDENTIAL GLAZING REQUIREMENTS

THE BUILDINGS THAT FRONT THE NEW SADLER ROAD, THE AREA OF GLASS BETWEEN 3 FEET AND 8 FEET ABOVE GRADE DIVIDED BY THE AREA OF THE BUILDING FAÇADE ALSO BETWEEN 3 FEET AND 8 FEET ABOVE GRADE SHALL BE NO LESS THAN 30%. (KPI–FBC SECTION K.7.(b)(i)). THE OTHER BUILDINGS IN THE INDUSTRIAL PARK WILL NOT BE REQUIRED TO MEET THIS MINIMUM GLASS REQUIREMENT BUT SHALL PROVIDE GLASS AT THE CORNERS OF THE BUILDINGS FOR ARCHITECTURAL INTEREST.

DUMPSTER NOTE

THE DUMPSTER SHALL HAVE OPAQUE GATING AND THE WALL SHALL HAVE A DECORATIVE CONCRETE CAP. WALL SHALL BE ARCHITECTURALLY COMPATIBLE MATERIAL TO THE PRINCIPLE BUILDING.

SIGNAGE NOTE

SIGNAGE SHALL COMPLY WITH SECTION O OF THE CITY OF APOPKA KPI–FBC.

SITE NOTES

1. ALL CURB RADII ARE TO BE 5.0', TYPICAL, UNLESS NOTED OTHERWISE. EXCEPTION: RADII @ ISLANDS ARE TO FIT ISLAND WIDTHS, UNLESS NOTED OTHERWISE.
2. LANDSCAPE ISLAND NOSE NOT TO EXCEED THE PARKING STALL DEPTH &/OR PROTRUDE INTO DRIVE ISLES, TYPICAL.
3. LOWER CASE TEXT DENOTES SURVEY &/OR EXISTING CONDITION INFORMATION.

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

PHASE I SITE GEOMETRY NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-5B
SHEET 8 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005917
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
1/29/2024
PROFESSIONAL ENGINEER
SAM J. SEBAALI, P.E.
FLORIDA LICENSE NO. 42075

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SITE STRIPING & SIGNAGE KEYNOTES

S1. PROPERTY BOUNDARY.
S2. HANDICAP PARKING STALL, TYPICAL.
S3. HANDICAP SIGN.
S4. 24" THERMOPLASTIC STOP BAR.
S5. R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.
S6. DIRECTIONAL ARROWS PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.
S7. CROSSWALK STRIPING PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.
S8. VAN ACCESSIBLE PARKING STALL, TYPICAL.
S9. VAN ACCESSIBLE SIGN MOUNTED BELOW HANDICAP SIGN.

SITE CONSTRUCTION KEYNOTES

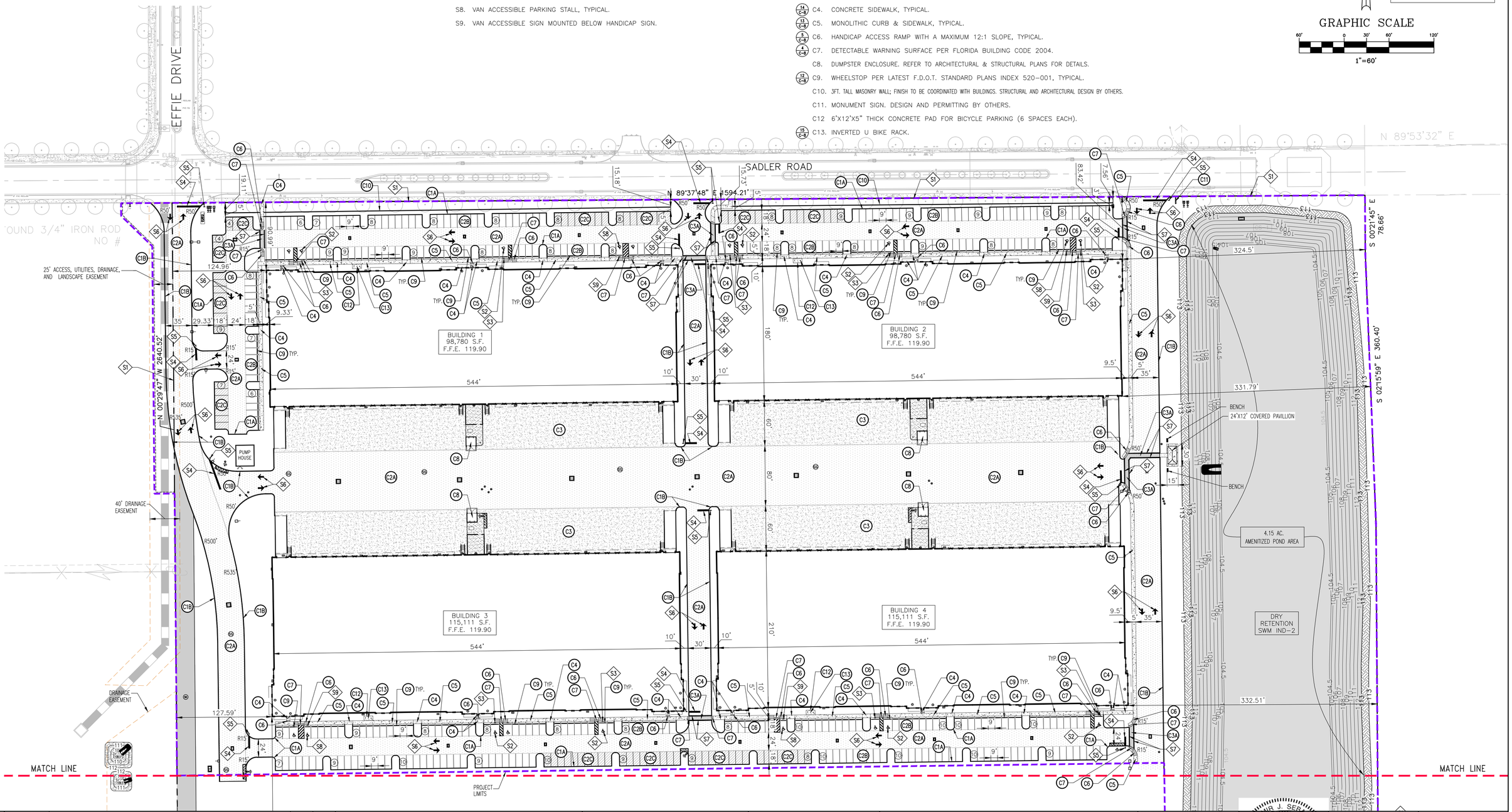
C1A. 6" HEAD CURB, TYPICAL.
C1B. F.D.O.T. TYPE "D" CURB PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.
C2A. ASPHALT PAVEMENT. HEAVY-DUTY IN DRIVE AISLES.
C2B. ASPHALT PAVEMENT. LIGHT-DUTY IN PARKING SPACES.
C2C. PERVIOUS CONCRETE PAVEMENT.
C3. CONCRETE PAVEMENT.
C3A. RED STAMPED ASPHALT CROSSWALK.
C4. CONCRETE SIDEWALK, TYPICAL.
C5. MONOLITHIC CURB & SIDEWALK, TYPICAL.
C6. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
C7. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE 2004.
C8. DUMPSTER ENCLOSURE. REFER TO ARCHITECTURAL & STRUCTURAL PLANS FOR DETAILS.
C9. WHEELSTOP PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.
C10. 3FT. TALL MASONRY WALL; FINISH TO BE COORDINATED WITH BUILDINGS. STRUCTURAL AND ARCHITECTURAL DESIGN BY OTHERS.
C11. MONUMENT SIGN. DESIGN AND PERMITTING BY OTHERS.
C12 6'X12'X5" THICK CONCRETE PAD FOR BICYCLE PARKING (6 SPACES EACH).
C13. INVERTED U BIKE RACK.

SITE LEGEND

CONCRETE PAVEMENT
HEAVY DUTY ASPHALT PAVEMENT
OPEN SPACE AREA
PROPERTY LINE
EXISTING TREE BY OTHERS

KEY MAP

GRAPHIC SCALE
1"=60'



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
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www.feg-inc.us

PHASE I SITE GEOMETRY PLAN
(1 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. C-5C
SHEET 9 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42075

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SITE LEGEND

- CONCRETE PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- OPEN SPACE AREA
- PROPERTY LINE
- EXISTING TREE BY OTHERS

SITE STRIPING & SIGNAGE KEYNOTES

S1. PROPERTY BOUNDARY.

S2. HANDICAP PARKING STALL, TYPICAL.

S3. HANDICAP SIGN.

S4. 24" THERMOPLASTIC STOP BAR.

S5. R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.

S6. DIRECTIONAL ARROWS PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.

S7. CROSSWALK STRIPING PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.

S8. VAN ACCESSIBLE PARKING STALL, TYPICAL.

S9. VAN ACCESSIBLE SIGN MOUNTED BELOW HANDICAP SIGN.

SITE CONSTRUCTION KEYNOTES

C1A. 6" HEAD CURB, TYPICAL.

C1B. F.D.O.T. TYPE "D" CURB PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.

C2A. ASPHALT PAVEMENT. HEAVY-DUTY IN DRIVE AISLES.

C2B. ASPHALT PAVEMENT. LIGHT-DUTY IN PARKING SPACES.

C2C. PERVIOUS CONCRETE PAVEMENT.

C3. CONCRETE PAVEMENT.

C3A. RED STAMPED ASPHALT CROSSWALK.

C4. CONCRETE SIDEWALK, TYPICAL.

C5. MONOLITHIC CURB & SIDEWALK, TYPICAL.

C6. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.

C7. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE 2004.

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C9. WHEELSTOP PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.

C10. 3FT. TALL MASONRY WALL; FINISH TO BE COORDINATED WITH BUILDINGS. STRUCTURAL AND ARCHITECTURAL DESIGN BY OTHERS.

C11. MONUMENT SIGN. DESIGN AND PERMITTING BY OTHERS.

C12 6'X12'X5" THICK CONCRETE PAD FOR BICYCLE PARKING (6 SPACES EACH).

C13. INVERTED U BIKE RACK.

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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PHASE I SITE GEOMETRY PLAN
(2 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. C-5D
SHEET 10 OF 32

SAM J. SEBALL
FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005595
No. 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/24
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

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22-032_Geometry.dwg

SITE DRAINAGE KEYNOTES

- 17 C-8 D1A. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.
- 18 C-8 D1B. F.D.O.T. TYPE "D" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.
- 19 C-8 D1C. F.D.O.T. TYPE "F" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.
- 20 C-8 D1D. F.D.O.T. TYPE "G" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.
- 16 C-8 D2. F.D.O.T. MITERED END SECTION PER LATEST F.D.O.T. STANDARD PLANS INDEX 430-021, TYPICAL.
- D3. F.D.O.T. STORM DRAINAGE MANHOLE PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-001, TYPICAL.
- D4. STORM CLEAN OUT.
- 1 C-6E D5. OUTFALL STRUCTURE.

GRADING KEYNOTES

- 1 C-4B G1. F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.
- 2 C-4B G2. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

INLET NOTE:
REFER TO DRAINAGE STRUCTURE FOR ALL INLET BOTTOM TYPES AND SIZES.

EROSION CONTROL NOTE:
PROVIDE AND MAINTAIN SYNTHETIC SEDIMENT BARRIERS AT ALL INLETS DURING CONSTRUCTION. THIS IS REQUIRED IN ADDITION TO THE REQUIREMENTS SHOWN ON THE SWPPP.

ACCESSIBILITY NOTE:
ACCESSIBLE RAMPS WITH DETECTABLE WARNING SHALL BE PROVIDED AT ALL SIDEWALKS CROSSING ROADWAYS OR DRIVEWAYS. A MINIMUM OF 1% AND A MAXIMUM OF 2% CROSS SLOPE SHALL BE PROVIDED FOR ALL CROSSWALKS.

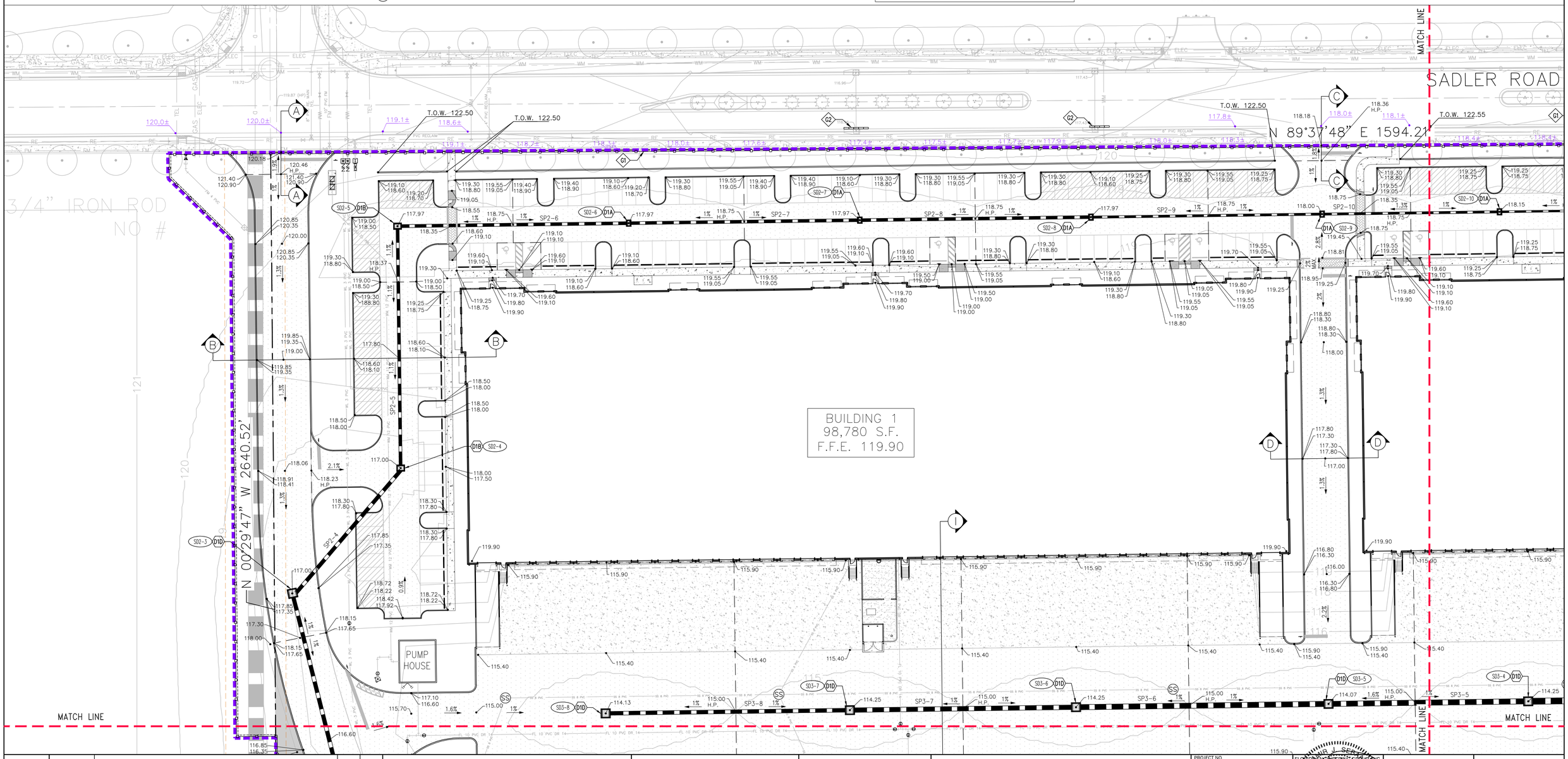
PLAN LEGEND
- SYNTHETIC EROSION CONTROL BARRIER
- SILT FENCE EROSION CONTROL BARRIER

GRAPHIC SCALE

30' 0 15' 30' 60'

1"=30'

KEY MAP



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
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Orlando, FL 32809
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www.feg-inc.us

PHASE I SITE PAVING GRADING AND DRAINAGE PLAN (1 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=30'
DATE JANUARY 29 2024
SHEET NO. C-6A
SHEET 11 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
No. 42075
STATE OF FLORIDA
1/29/2024
PROFESSIONAL ENGINEER
LICENSE NO. 42075

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SITE DRAINAGE KEYNOTES

(17 C-6) D1A. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.

(18 C-6) D1B. F.D.O.T. TYPE "D" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.

(19 C-6) D1C. F.D.O.T. TYPE "F" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.

(20 C-6) D1D. F.D.O.T. TYPE "G" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.

(15 C-6) D2. F.D.O.T. MITERED END SECTION PER LATEST F.D.O.T. STANDARD PLANS INDEX 430-021, TYPICAL.

D3. F.D.O.T. STORM DRAINAGE MANHOLE PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-001, TYPICAL.

D4. STORM CLEAN OUT.

(1 C-6E) D5. OUTFALL STRUCTURE.

GRADING KEYNOTES

(1 C-6B) G1. F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.

(2 C-6B) G2. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

INLET NOTE:
REFER TO DRAINAGE STRUCTURE FOR ALL INLET BOTTOM TYPES AND SIZES.

EROSION CONTROL NOTE:
PROVIDE AND MAINTAIN SYNTHETIC SEDIMENT BARRIERS AT ALL INLETS DURING CONSTRUCTION. THIS IS REQUIRED IN ADDITION TO THE REQUIREMENTS SHOWN ON THE SWPPP.

ACCESSIBILITY NOTE:
ACCESSIBLE RAMPS WITH DETECTABLE WARNING SHALL BE PROVIDED AT ALL SIDEWALKS CROSSING ROADWAYS OR DRIVEWAYS. A MINIMUM OF 1% AND A MAXIMUM OF 2% CROSS SLOPE SHALL BE PROVIDED FOR ALL CROSSWALKS.

PLAN LEGEND
SYNTHETIC EROSION CONTROL BARRIER
SILT FENCE EROSION CONTROL BARRIER

GRAPHIC SCALE
30' 0 15' 30' 60'
1"=30'

KEY MAP

MATCH LINE
SADLER ROAD
N 89°37'48" E 1594.21
T.O.W. 122.50
T.O.W. 122.55
T.O.W. 121.00
BUILDING 2
98,780 S.F.
F.F.E. 119.90
DRY RETENTION SWM IND-2
NORTHEAST CORNER OF THE SOUTHWES
OF SECTION 13-20-27
RECOVERED 5/8" IRON ROD NO #
POINT OF LINE
RECOVERED 5/8" IRON ROD NO # 0.98
N 89°5
S 00°21'45" E 78.66'
S 02°15'59" E 360.40'
EXISTING PIPE INVERT, SIZE AND LOCATION SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
F.F.E. 114.75
MATCH LINE

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FLORIDA ENGINEERING GROUP
Engineering the Future

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Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

PHASE I SITE PAVING GRADING AND DRAINAGE PLAN (2 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=30'
DATE JANUARY 29 2024
SHEET NO. C-6B
SHEET 12 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
SAM J. SEBALL
No. 72075
STATE OF FLORIDA
1/29/2024
PROFESSIONAL ENGINEER

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SITE DRAINAGE KEYNOTES

17 C-5 D1A. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.

18 C-5 D1B. F.D.O.T. TYPE "D" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.

19 C-5 D1C. F.D.O.T. TYPE "F" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.

20 C-5 D1D. F.D.O.T. TYPE "G" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.

16 C-5 D2. F.D.O.T. MITERED END SECTION PER LATEST F.D.O.T. STANDARD PLANS INDEX 430-021, TYPICAL.

D3. F.D.O.T. STORM DRAINAGE MANHOLE PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-001, TYPICAL.

D4. STORM CLEAN OUT.

1 C-6E D5. OUTFALL STRUCTURE.

GRADING KEYNOTES

1 C-4B G1. F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.

2 C-4B G2. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

INLET NOTE:
REFER TO DRAINAGE STRUCTURE FOR ALL INLET BOTTOM TYPES AND SIZES.

EROSION CONTROL NOTE:
PROVIDE AND MAINTAIN SYNTHETIC SEDIMENT BARRIERS AT ALL INLETS DURING CONSTRUCTION. THIS IS REQUIRED IN ADDITION TO THE REQUIREMENTS SHOWN ON THE SWPPP.

ACCESSIBILITY NOTE:
ACCESSIBLE RAMPS WITH DETECTABLE WARNING SHALL BE PROVIDED AT ALL SIDEWALKS CROSSING ROADWAYS OR DRIVEWAYS. A MINIMUM OF 1% AND A MAXIMUM OF 2% CROSS SLOPE SHALL BE PROVIDED FOR ALL CROSSWALKS.

PLAN LEGEND
SYNTHETIC EROSION CONTROL BARRIER

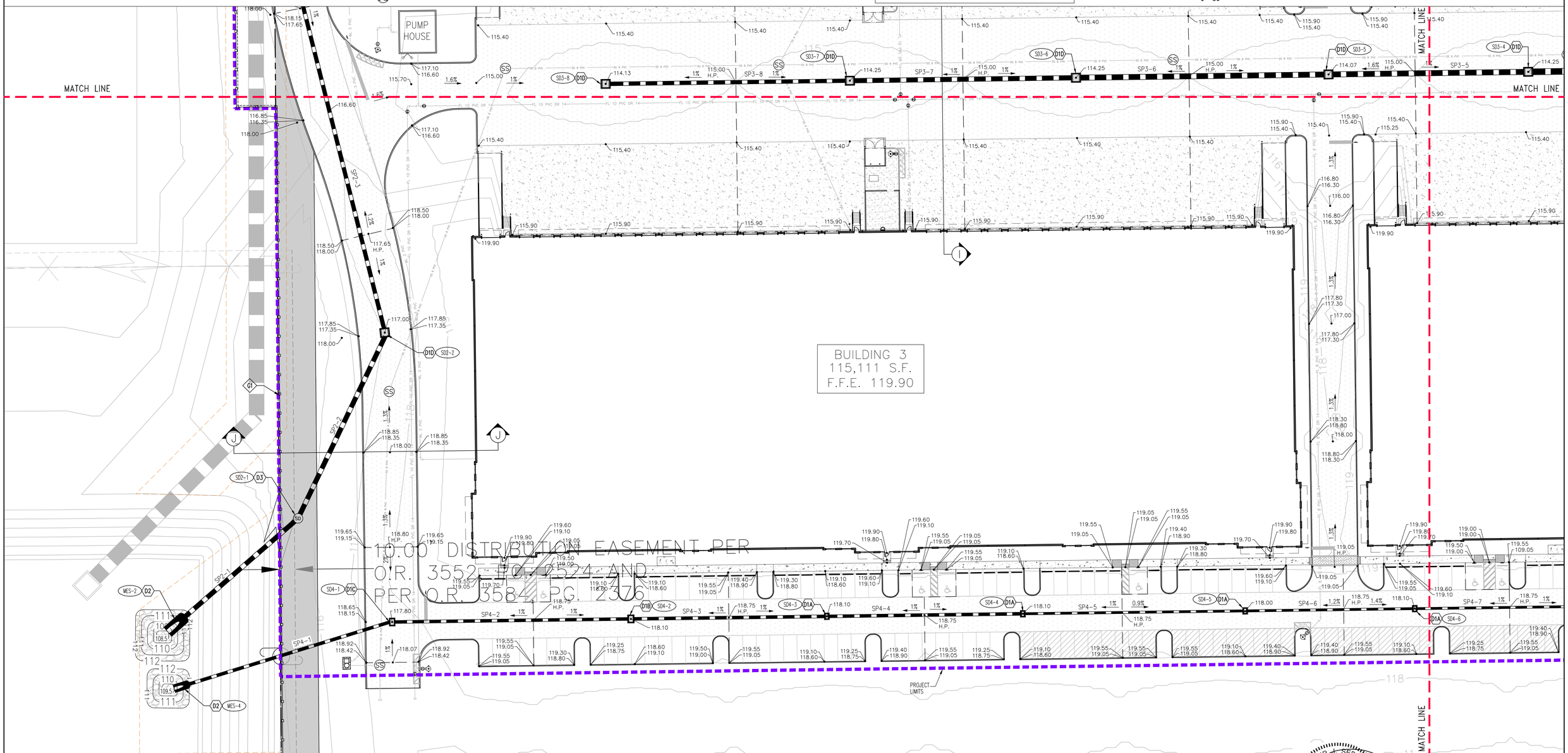
SILT FENCE EROSION CONTROL BARRIER

GRAPHIC SCALE

30' 0 15' 30' 60'

1"=30'

KEY MAP



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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PHASE I SITE PAVING GRADING AND DRAINAGE PLAN (3 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=30'
DATE JANUARY 29 2024
SHEET NO. C-6C
SHEET 13 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No. 43275
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/2024

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SITE DRAINAGE KEYNOTES

(17 C-5) D1A. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL. SEE INLET NOTE ON THIS SHEET.

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(20 C-5) D1D. F.D.O.T. TYPE "G" DITCH BOTTOM INLET PER LATEST F.D.O.T. STANDARD PLANS INDEX 425-053, TYPICAL. SEE INLET NOTE ON THIS SHEET.

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D4. STORM CLEAN OUT.

(1 C-6E) D5. OUTFALL STRUCTURE.

GRADING KEYNOTES

(1 C-4B) G1. F.D.O.T. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.

(2 C-4B) G2. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

INLET NOTE:
REFER TO DRAINAGE STRUCTURE FOR ALL INLET BOTTOM TYPES AND SIZES.

EROSION CONTROL NOTE:
PROVIDE AND MAINTAIN SYNTHETIC SEDIMENT BARRIERS AT ALL INLETS DURING CONSTRUCTION. THIS IS REQUIRED IN ADDITION TO THE REQUIREMENTS SHOWN ON THE SWPPP.

ACCESSIBILITY NOTE:
ACCESSIBLE RAMPS WITH DETECTABLE WARNING SHALL BE PROVIDED AT ALL SIDEWALKS CROSSING ROADWAYS OR DRIVEWAYS. A MINIMUM OF 1% AND A MAXIMUM OF 2% CROSS SLOPE SHALL BE PROVIDED FOR ALL CROSSWALKS.

PLAN LEGEND
SYNTHETIC EROSION CONTROL BARRIER

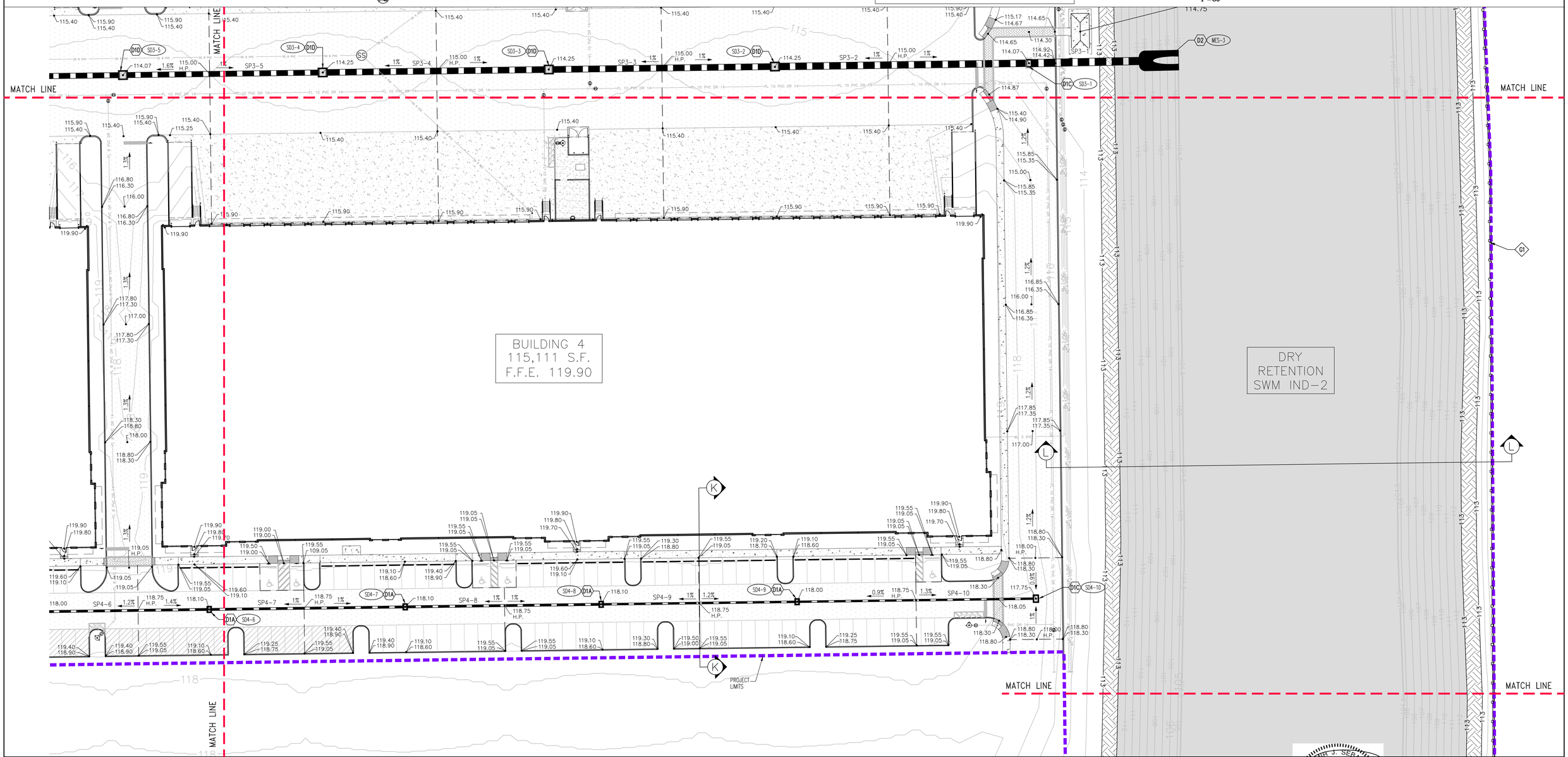
SILT FENCE EROSION CONTROL BARRIER

GRAPHIC SCALE

30' 0 15' 30' 60'

1"=30'

KEY MAP



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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Engineering the Future

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Orlando, FL 32809
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PHASE I SITE PAVING GRADING AND DRAINAGE PLAN (4 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=30'
DATE JANUARY 29 2024
SHEET NO. C-6D
SHEET 14 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0000595
No. 92075
STATE OF FLORIDA
SAMUEL J. SEBALL
1/29/2024
PROFESSIONAL ENGINEER
LICENSE NUMBER 92075

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBALL P.E. ON JANUARY 29, 2024 USING A DIGITAL SIGNATURE.

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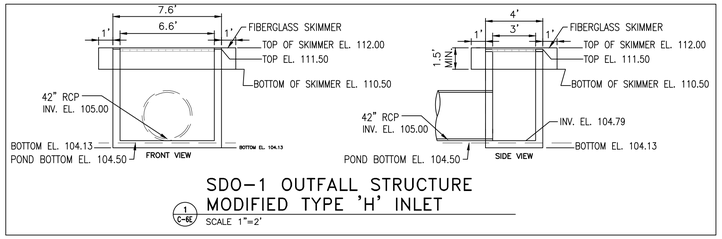
22-032_Grading.dwg

CONCRETE CONSTRUCTION NOTES

1. CONCRETE PRE-CONSTRUCTION MEETING
   - A. THE CONCRETE CONTRACTOR ALONG WITH THE CONCRETE PRODUCER MAY REQUEST THROUGH THE GENERAL CONTRACTOR FOR A PRE-CONSTRUCTION MEETING PRIOR TO CONCRETE PLACEMENT.
   - B. ATTENDEE: CONCRETE CONTRACTOR, CONCRETE PRODUCER, GENERAL CONTRACTOR, OWNER OR OWNER'S REPRESENTATIVE(S), ENGINEER OF RECORD, ARCHITECT, SITE CONTRACTOR, GEOTECHNICAL REPRESENTATIVE(S), ETC.
   - C. AGENDA: INCLUDE BUT NOT LIMITED TO THE FOLLOWINGS; (CONTRACTOR MAY CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION FOR PRE-CONSTRUCTION MEETING CHECK LISTS)
      - i. MIXTURE(S) APPROVAL
      - ii. CONCRETE TESTING: TYPE, LOCATION OF SAMPLINGS, ETC.
      - iii. CONCRETE DELIVERY: QUANTITY/HR, PUMP, CONVEYOR, ETC.
      - iv. PLACEMENT: METHOD, QUANTITY/DAY, STAGING & CLEAN OUT LOCATION, ETC.
      - v. FINISHING: CURING, JOINTING, ETC.

2. JOINTS FOR CONCRETE SLABS
   - A. GENERAL – A JOINTING PLAN FOR THE ENTIRE PAVING AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE ENGINEER OF RECORD (EOR) 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. THE CONTRACTOR MAY ALSO CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION (FC&PA) FOR TECHNICAL RESOURCES AND ASSISTANT.
      - i. A SQUARE JOINTING PATTERN IS REQUIRED WHERE POSSIBLE. IF NECESSARY, RECTANGULAR PANELS CAN BE USED IF THE LONG DIMENSION IS NO MORE THAN 1.5 TIMES THE SHORT (e.g. 8' x 12'). JOINT SPACING SHALL NOT EXCEED THE FOLLOWING: 10 FEET IN A 4" THICK SLAB, 12 FEET IN A 5" THICK SLAB OR 15 FEET IN SLAB WITH THICKNESS OF 6" OR GREATER.
      - ii. BOX OUT AREA AROUND MANHOLES, CATCH BASINS, DRAINAGE STRUCTURES & OTHER BUILT-IN STRUCTURES WITHIN THE PAVING AREA SHALL BE CIRCULAR WHERE POSSIBLE. A MINIMUM OFFSET OF 12" FROM ANY EDGE OF THE STRUCTURE. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE. CONSTRUCTION & CONTROL JOINTS SHALL BE CONTINUOUS THROUGH ADJACENT LANES & EXTEND THROUGH INTEGRAL CURB. JOINTS CAN BE TERMINATED & OFFSET AT ISOLATION JOINTS. WHERE JOINTS INTERFACE ANY RADIUS OR CURVATURE, OFFSET A MINIMUM OF 12" FROM EDGE OF PAVEMENT AND FORM JOINT 90 DEGREE TO EDGE OF PAVEMENT TO AVOID ACUTE ANGLE OR SMALL WEDGES OF CONCRETE AT CURVATURES. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE.
   - B. CONSTRUCTION JOINTS – A CONSTRUCTION JOINT SEPARATES ONE DAY PLACEMENT TO THE NEXT DAY PLACEMENT. A CONSTRUCTION JOINT SHALL BE A MINIMUM OF 5 FEET FROM ANY ADJACENT CONTROL JOINT. NEXT DAY PLACEMENT SHALL BUTT UP TO THE EXISTING PAVEMENT AS A COLD JOINT. THE CONSTRUCTION JOINT MAY BE HAND-TOOLED WITH MAXIMUM 0.25" RADIUS AT THE EDGE OF THE JOINT.CONTROL JOINTS FROM BOTH PLACEMENT AREAS SHALL MATCH AND BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT.
   - C. CONTROL/CONTRACTION JOINTS – CONTROL JOINTS ARE JOINTS WITHIN THE PAVING AREA FORMED THROUGH TOOLING OR SAW CUTTING. CONTROL JOINTS ESTABLISH WEAK PLANES TO RELIEVE STRESSES DUE TO SHRINKAGE OR TEMPERATURE CHANGE. INSTALL CONTROL JOINTS WITHIN 12 HRS FROM THE TIME THE CONCRETE HITS THE GROUND OR OBTAIN IN WRITING APPROVAL FROM THE EOR BEYOND THE 12-HR TIME LIMIT.
      - i. EARLY-ENTRY SAW CUTTING METHOD: CUT JOINT TO A MINIMUM OF 1" DEEP FOR PAVEMENT THICKNESS UP TO 8". CUTTING OF JOINT SHALL NOT CAUSE RAVELING TO THE EDGES OR DEFORMATION OF THE SURFACE DUE TO EQUIPMENT OR WORKER.
      - ii. OTHER METHODS: INSTALL JOINT TO A MINIMUM OF 1/3 OF PAVEMENT DEPTH. FINISH EDGES WITH 0.25" RADIUS. OPERATION SHALL NOT CAUSE ANY DEFORMATION OF THE SURFACE.
   - D. ISOLATION JOINTS – THESE JOINTS USE ISOLATION MATERIALS TO PREVENT FRESH CONCRETE FROM BONDING TO HARDENED CONCRETE SUCH AS, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, SIDEWALKS, DRAINAGE STRUCTURES, LIGHTING & SIGNAGE BASES, RETAINING WALLS, CURBS, ETC. THE ISOLATION MATERIAL SHALL EXTEND THE FULL-DEPTH OF THE FRESH CONCRETE THICKNESS. FROM ONE DAY PLACEMENT TO THE NEXT, WHERE JOINTS ARE MATCHED, ISOLATION MATERIAL IS NOT NECESSARY. (E.G. ONE LANE PAVING TO THE NEXT, INTEGRAL CURBS)
   - E. ISOLATION JOINTS BETWEEN SLABS AT SOME GRADE SHALL BE FORMED WITH 0.25 INCH THICK NEOPRENE OR 0.50 INCH THICK ASPHALT IMPREGNATED FIBER FILLER WITH HYDORCARBON RESISTANT ELASTOMERIC FILL MATERIAL AS SEALER. ALL EDGES TO BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
   - F. A SATISFACTORY ISOLATION JOINT CAN BE FORMED AT METAL BUILDING CURBS BY PLACING A STRIP OF CURING PAPER AGAINST THE METAL FORM & THEN PLACING THE FRESH CONCRETE AGAINST THE PAPER. THE EDGES OF THE SLAB SHALL BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.

3. JOINTS SEALANT – A JOINT SEALING PLAN FOR THE AFFECTED AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE EOR, ALONG WITH THE JOINTING PLAN, 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. NOT ALL JOINT WILL BE REQUIRED SEALING, THE CONCRETE CONTRACTOR IS TO RECOMMEND THE NECESSARY LOCATION AND TO PROVIDE SUPPORTING DOCUMENTATION FOR NON-SEALING AREAS. USE A POLYURETHANE SEALANT (TREMCO THC-900/THC-901 MULTI-COMPOUND)COMPOUND OR EQUIVALENT. THE CONCRETE CONTRACTOR IS TO SUBMIT SEALANT TYPE AND MANUFACTURER INFORMATION TO THE EOR FOR APPROVAL WHEN "EQUIVALENT" IS USE. JOINTS SHALL BE PREPARED BY FOLLOWING MANUFACTURER'S RECOMMENDATIONS PRIOR TO SEALING.



SDO-1 OUTFALL STRUCTURE
MODIFIED TYPE 'H' INLET
1 / C-6E
SCALE 1"=2'

DRAINAGE STRUCTURE LEGEND

MES-0 — EXISTING 4:1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021 INV. ELEV. 102.00

SDO-1 — MODIFIED TYPE "H" OUTFALL STRUCTURE INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 111.50 INV. ELEV. 105.00 N (CONNECT TO EXISTING 42" PIPE)* * THE INVERT, SIZE AND LOCATION OF THE EXISTING OUTFALL PIPE SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO APPROVAL OF SHOP DRAWINGS OR CONSTRUCTION OF THIS STRUCTURE.

MES-1 — 4:1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021 INV. ELEV. 104.50

SD1-1 — TYPE "F" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 115.85 INV. ELEV. 105.01 SE

MES-2 — 4:1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021 INV. ELEV. 108.50

SD2-1 — MANHOLE F.D.O.T. TYPE "8" TOP PER F.D.O.T. STANDARD PLANS INDEX 425-001 TOP ELEV. 118.50 INV. ELEV. 108.84 SW INV. ELEV. 108.84 NE

SD2-2 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 117.00 INV. ELEV. 109.24 SW INV. ELEV. 109.24 NW

SD2-3 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 117.00 INV. ELEV. 109.99 SE INV. ELEV. 109.99 NE

SD2-4 — TYPE "D" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 117.00 INV. ELEV. 110.31 SW INV. ELEV. 110.31 N

SD2-5 — TYPE "D" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 117.97 INV. ELEV. 110.78 S INV. ELEV. 110.78 E

SD2-6 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 117.97 INV. ELEV. 111.23 W INV. ELEV. 111.23 E

SD2-7 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 117.97 INV. ELEV. 111.69 W INV. ELEV. 111.69 E

SD2-8 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 117.97 INV. ELEV. 112.15 W INV. ELEV. 112.15 E

SD2-9 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.00 INV. ELEV. 112.61 W INV. ELEV. 112.61 E

SD2-10 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.15 INV. ELEV. 112.96 W INV. ELEV. 112.96 E

SD2-11 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.15 INV. ELEV. 113.54 W INV. ELEV. 113.54 E

SD2-12 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.15 INV. ELEV. 114.12 W INV. ELEV. 114.12 E

SD2-13 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.15 INV. ELEV. 114.70 W

MES-3 — 4:1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021 INV. ELEV. 104.50

SD3-1 — TYPE "F" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 W/6.5'x2.5' TYPE "J" BOTTOM PER F.D.O.T. STANDARD PLANS INDEX 425-010 TOP ELEV. 114.07 INV. ELEV. 104.69 E INV. ELEV. 104.69 W

SD3-2 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 W/6'x2.5' TYPE "J" BOTTOM PER F.D.O.T. STANDARD PLANS INDEX 425-010 TOP ELEV. 114.25 INV. ELEV. 105.02 E INV. ELEV. 105.02 W

SD3-3 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 W/5.33'x2.5' TYPE "J" BOTTOM PER F.D.O.T. STANDARD PLANS INDEX 425-010 TOP ELEV. 114.25 INV. ELEV. 105.31 E INV. ELEV. 105.31 W

SD3-4 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 W/5.33'x4.33' TYPE "J" BOTTOM PER F.D.O.T. STANDARD PLANS INDEX 425-010 TOP ELEV. 114.25 INV. ELEV. 105.60 E INV. ELEV. 105.60 W

SD3-5 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 114.07 INV. ELEV. 105.86 E INV. ELEV. 105.86 W

SD3-6 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 114.25 INV. ELEV. 106.18 E INV. ELEV. 106.18 W

SD3-7 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 114.25 INV. ELEV. 106.62 E INV. ELEV. 106.62 W

SD3-8 — TYPE "G" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 114.13 INV. ELEV. 107.09 E

MES-4 — 4:1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021 INV. ELEV. 109.50

SD4-1 — TYPE "F" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 117.80 INV. ELEV. 109.95 SW INV. ELEV. 110.26 E

SD4-2 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 110.73 W INV. ELEV. 110.73 E

SD4-3 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 111.11 W INV. ELEV. 111.11 E

SD4-4 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 111.49 W INV. ELEV. 111.49 E

SD4-5 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 111.93 W INV. ELEV. 111.93 E

SD4-6 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 112.26 W INV. ELEV. 112.26 E

SD4-7 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 112.64 W INV. ELEV. 112.64 E

SD4-8 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.10 INV. ELEV. 113.02 W INV. ELEV. 113.02 E

SD4-9 — TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052 TOP ELEV. 118.00 INV. ELEV. 113.66 W INV. ELEV. 113.66 E

SD4-10 — TYPE "F" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-053 TOP ELEV. 117.75 INV. ELEV. 114.44 W INV. ELEV. 114.44 E

STORM DRAINAGE PIPE CHART

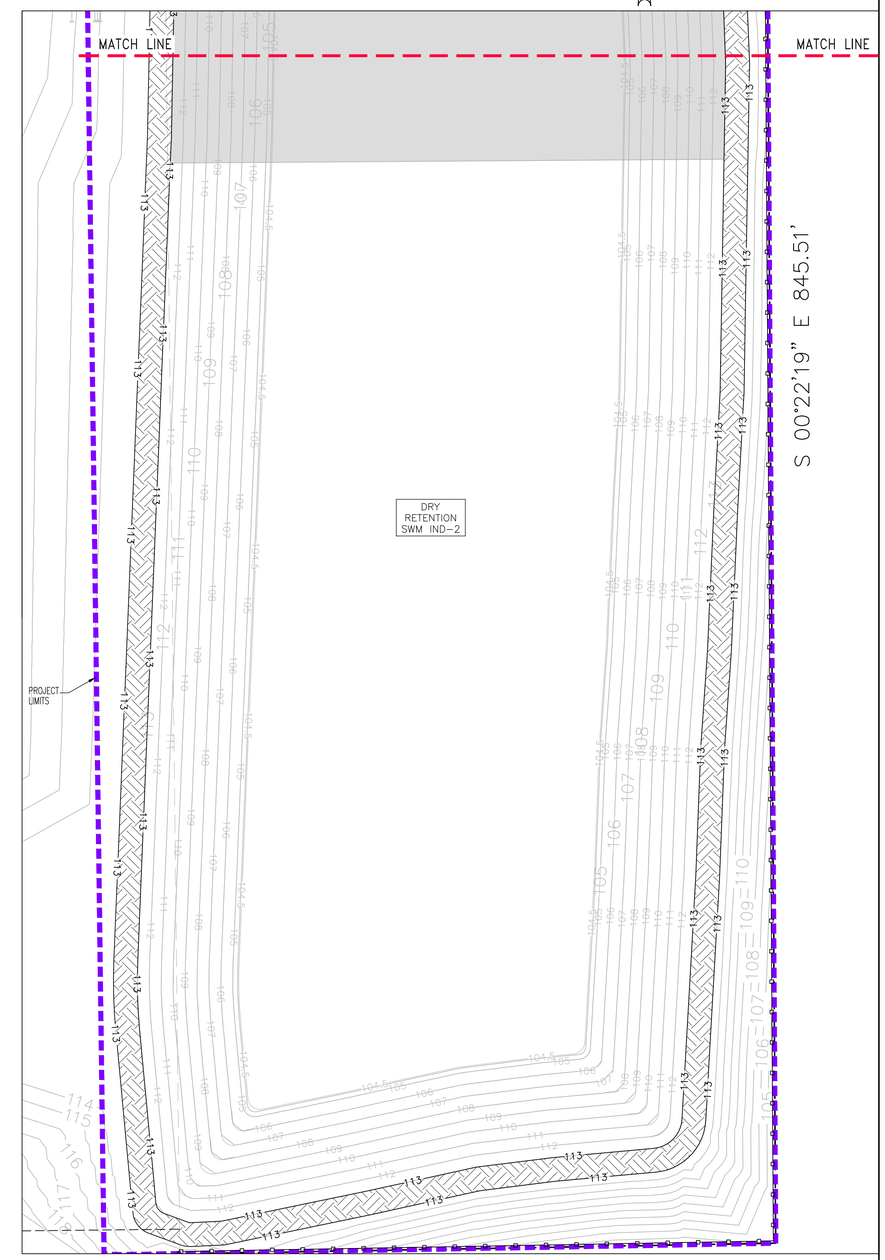
DESIGNATION	PIPE LENGTH (LINEAR FEET)	PIPE SIZE & TYPE*	PIPE SLOPE	FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER
SP0-EX	134	42"R.C.P.	1.84 %	MES-0	SP0-1
SP0-1	29	42"R.C.P.	1.84 %	SP0-EX	SD0-1
SP1-1	102	15" R.C.P.	0.5 %	MES-1	SD1-1
SP2-1	112	36" R.C.P.	0.3 %	MES-2	SD2-1
SP2-2	132	36" R.C.P.	0.3 %	SD2-1	SD2-2
SP2-3	249	30" R.C.P.	0.3 %	SD2-2	SD2-3
SP2-4	107	30" R.C.P.	0.3 %	SD2-3	SD2-4
SP2-5	158	24" R.C.P.	0.3 %	SD2-4	SD2-5
SP2-6	151	24" R.C.P.	0.3 %	SD2-5	SD2-6
SP2-7	152	24" R.C.P.	0.3 %	SD2-6	SD2-7
SP2-8	152	24" R.C.P.	0.3 %	SD2-7	SD2-8
SP2-9	152	18" R.C.P.	0.3 %	SD2-8	SD2-9
SP2-10	116	18" R.C.P.	0.3 %	SD2-9	SD2-10
SP2-11	116	15" R.C.P.	0.5 %	SD2-10	SD2-11
SP2-12	116	15" R.C.P.	0.5 %	SD2-11	SD2-12
SP2-13	116	15" R.C.P.	0.5 %	SD2-12	SD2-13
SP3-1	93	60" R.C.P.	0.2 %	MES-3	SD3-1
SP3-2	166	54" R.C.P.	0.2 %	SD3-1	SD3-2
SP3-3	147	48" R.C.P.	0.2 %	SD3-2	SD3-3
SP3-4	146	48" R.C.P.	0.2 %	SD3-3	SD3-4
SP3-5	128	42" R.C.P.	0.2 %	SD3-4	SD3-5
SP3-6	163	42" R.C.P.	0.2 %	SD3-5	SD3-6
SP3-7	145	36" R.C.P.	0.3 %	SD3-6	SD3-7
SP3-8	158	30" R.C.P.	0.3 %	SD3-7	SD3-8
SP4-1	150	24" R.C.P.	0.3 %	MES-4	SD4-1
SP4-2	156	24" R.C.P.	0.3 %	SD4-1	SD4-2
SP4-3	128	24" R.C.P.	0.3 %	SD4-2	SD4-3
SP4-4	128	24" R.C.P.	0.3 %	SD4-3	SD4-4
SP4-5	146	18" R.C.P.	0.3 %	SD4-4	SD4-5
SP4-6	111	18" R.C.P.	0.3 %	SD4-5	SD4-6
SP4-7	128	18" R.C.P.	0.3 %	SD4-6	SD4-7
SP4-8	128	18" R.C.P.	0.3 %	SD4-7	SD4-8
SP4-9	128	15" R.C.P.	0.5 %	SD4-8	SD4-9
SP4-10	156	15" R.C.P.	0.5 %	SD4-9	SD4-10

*NOTE: HP PIPES MAY BE USED IN LIEU OF RCP ON ALTERNATE SUBJECT TO AN ALTERNATE BID AND APPROVAL IF USE BY OWNER AND ENGINEER.

*NOTE: HP PIPES MAY BE USED IN LIEU OF RCP ON ALTERNATE SUBJECT TO AN ALTERNATE BID AND APPROVAL IF USE BY OWNER AND ENGINEER.

GRAPHIC SCALE
30' 0 15' 30' 60'
1"=30'

KEY MAP



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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PHASE I SITE PAVING GRADING AND DRAINAGE NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. C-6E
SHEET 15 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005954
No. 92075
STATE OF FLORIDA
SAM J. SEBAALI, P.E.
PROFESSIONAL ENGINEER
ON ORIGINAL
Date: 01/29/2024

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22-032_Grading.dwg

WATER UTILITY KEYNOTES

W1A. CONNECT TO WATER MAIN STUB-OUT TO BE PROVIDED BY MASTER DEVELOPMENT CONTRACTOR SHALL CONFIRM THE LOCATION AND SIZE OF THE STUB-OUT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY. THE CONTRACTOR SHALL COORDINATE THE CONNECTION AS NEEDED WITH THE SADLER ROAD PROJECT, WHICH IS CURRENTLY UNDER CONSTRUCTION BY THE MASTER DEVELOPER.

W1B. CONNECT TO RECLAIMED STUB-OUT TO BE PROVIDED BY MASTER DEVELOPMENT CONTRACTOR SHALL CONFIRM THE LOCATION AND SIZE OF THE STUB-OUT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY. THE CONTRACTOR SHALL COORDINATE THE CONNECTION AS NEEDED WITH THE SADLER ROAD PROJECT, WHICH IS CURRENTLY UNDER CONSTRUCTION BY THE MASTER DEVELOPER.

W2A. 12" DOUBLE CHECK DETECTOR ASSEMBLY (DDCA) WITH CHECK VALVE AND MONITORING METER FOR FIRE SERVICE. RPDA SHALL BE MONITORED IN ACCORDANCE WITH NFPA 72.

W2B. DOMESTIC WATER METER. SEE PLAN FOR SIZE.

W2C. DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER. SEE PLAN FOR SIZE.

W3A. 12" PVC C-900 DR-18 WATER MAIN. SEE PLAN FOR LENGTH.

W3B. 3" SCH 80 PVC IN BLUE COLOR. SEE PLAN FOR LENGTH.

W3C. 4" SCH 80 PVC IN BLUE COLOR. SEE PLAN FOR LENGTH.

W3D. 6" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3E. 8" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3F. 10" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3G. 6" PVC C-900 DR-18 WATER MAIN. SEE PLAN FOR LENGTH.

W4. BEND WITH RESTRAINED JOINTS TYPICAL, SEE PLAN FOR ANGLE.

W5. TEE, TYPICAL. SEE PLAN FOR SIZE.

W6. REDUCER.

W7. PUMP HOUSE. REFER TO FIRE PROTECTION PLANS.

W8. FIRE DEPARTMENT CONNECTION (FDC). REFER TO FIRE PROTECTION PLANS.

W9. FIRE HYDRANT ASSEMBLY.

W10. 3" RECLAIMED IRRIGATION METER.

W11. 3" IRRIGATION SERVICE REDUCED PRESSURE BACKFLOW PREVENTER.

W12. 4" RECLAIMED IRRIGATION SERVICE LINE. SEE PLAN FOR LENGTH.

W13. GATE VALVE. SEE PLAN FOR SIZE.

W14. PIPE CAP.

SANITARY SEWER UTILITY KEYNOTES

S1. CONNECT TO EXISTING SANITARY FORCE MAIN STUBOUT.

S2. PLUG VALVE TO BE INSTALLED AT THE R.O.W. LINE. THE PLUG VALVE SHALL BE INSTALLED WITH THE VALVE STEM IN VERTICAL POSITION.

S3. 4" PVC SDR 18 FORCE MAIN, CLASS 150, GREEN IN COLOR, MINIMUM 3 FT. OF COVER.

S4. PRIVATE SANITARY SEWER LIFT STATION.

S5. SANITARY SEWER MANHOLE.

S6. SANITARY CLEAN-OUT. SEE PLAN FOR INVERT.

S7A. 8" SDR 26 PVC SANITARY SEWER LINE. SEE PLAN FOR LENGTH AND SLOPE.

S7B. 6" SDR 26 PVC SANITARY SEWER LINE. SEE PLAN FOR LENGTH AND SLOPE.

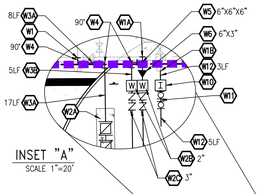
S8. BEND, SEE PLAN FOR ANGLE.

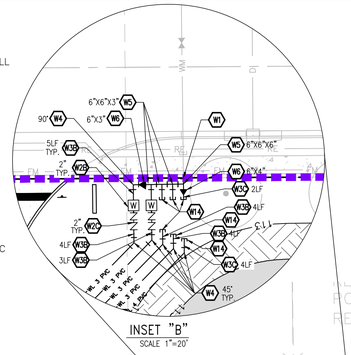
S9. PVC PLUG (SHALL BE SECURELY SEALED TO WITHSTAND THE INTERNAL PRESSURE OF LEAKAGE OR AIR PRESSURE TESTING) WITH A 4"X4"X3" PLASTIC STAKE PAINTED GREEN INSTALLED AT THE END OF THE CONNECTION.

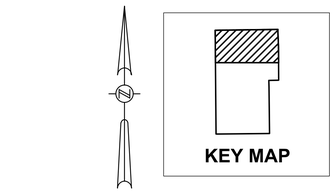
S10. AIR RELEASE VALVE TO BE INSTALLED AT HIGH POINT.

UTILITY KEYNOTES

U1. UTILITY CROSSING TO BE DENOTED BY LETTER AND SHOWN DETAILS ON SHEET C-7C.

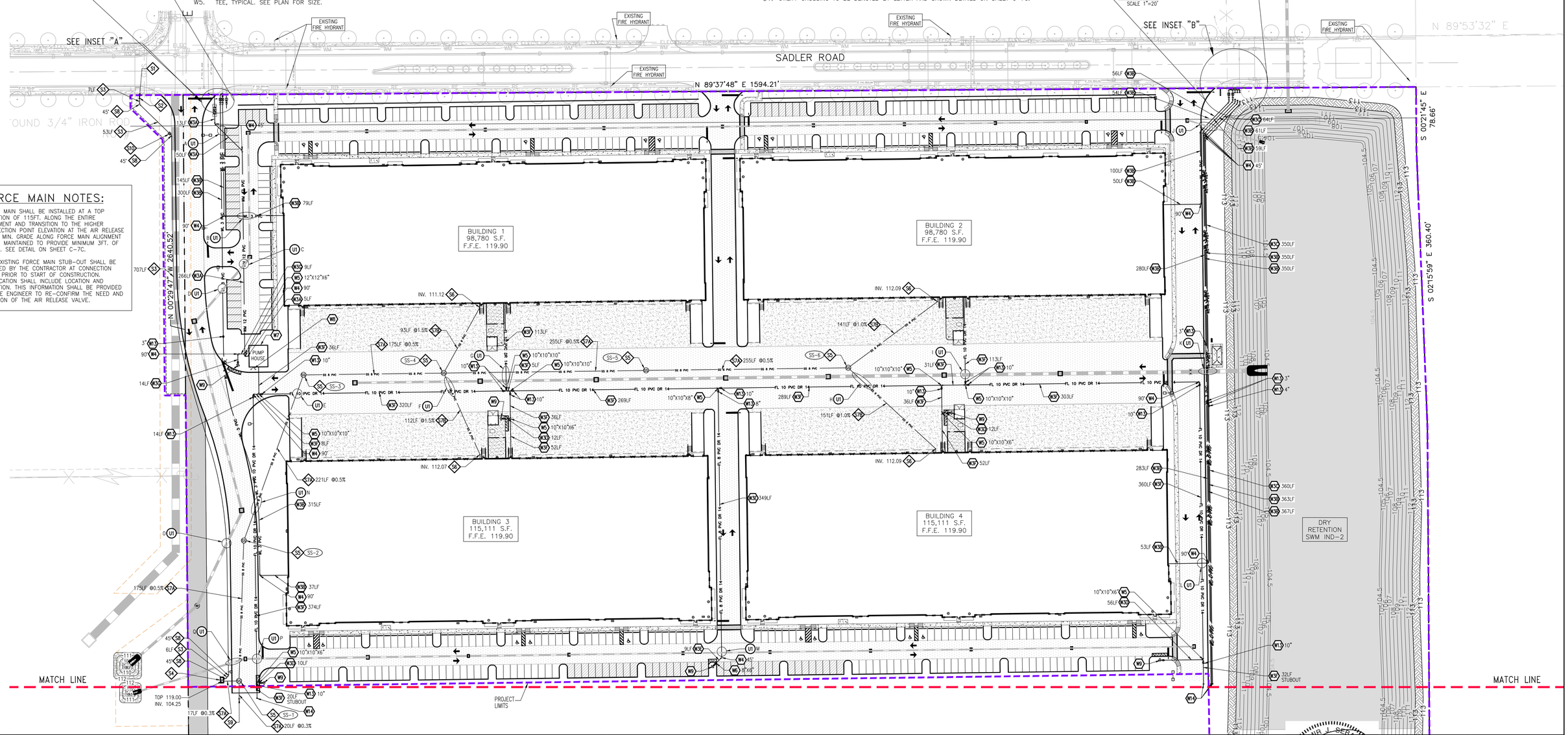






FORCE MAIN NOTES:

1. FORCE MAIN SHALL BE INSTALLED AT A TOP ELEVATION OF 115FT. ALONG THE ENTIRE ALIGNMENT AND TRANSITION TO THE HIGHER CONNECTION POINT ELEVATION AT THE AIR RELEASE VALVE. MIN. GRADE ALONG FORCE MAIN ALIGNMENT TO BE MAINTAINED TO PROVIDE MINIMUM 3FT. OF COVER. SEE DETAIL ON SHEET C-7C.
2. THE EXISTING FORCE MAIN STUB-OUT SHALL BE VERIFIED BY THE CONTRACTOR AT CONNECTION POINT PRIOR TO START OF CONSTRUCTION. VERIFICATION SHALL INCLUDE LOCATION AND ELEVATION. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER TO RE-CONFIRM THE NEED AND LOCATION OF THE AIR RELEASE VALVE.



DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

PHASE I SITE UTILITY PLAN (1 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. C-7A
SHEET 16 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No. 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SAM J. SEBAALI
1/29/2024

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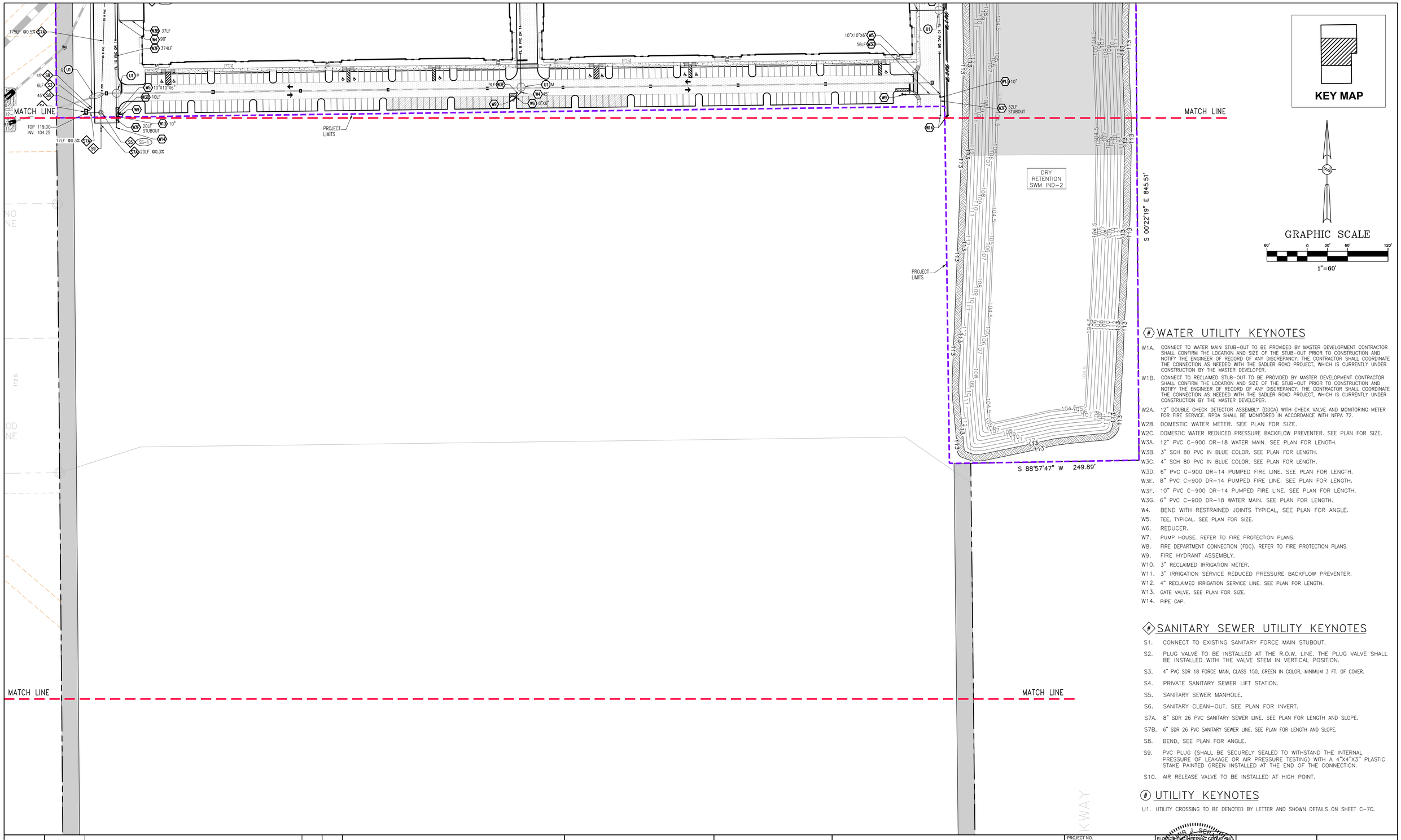
22-032_Utility.dwg



KEY MAP

GRAPHIC SCALE

60' 0 30' 60' 120'

1"=60'

WATER UTILITY KEYNOTES

W1A. CONNECT TO WATER MAIN STUB-OUT TO BE PROVIDED BY MASTER DEVELOPMENT CONTRACTOR SHALL CONFIRM THE LOCATION AND SIZE OF THE STUB-OUT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY. THE CONTRACTOR SHALL COORDINATE THE CONNECTION AS NEEDED WITH THE SADLER ROAD PROJECT, WHICH IS CURRENTLY UNDER CONSTRUCTION BY THE MASTER DEVELOPER.

W1B. CONNECT TO RECLAIMED STUB-OUT TO BE PROVIDED BY MASTER DEVELOPMENT CONTRACTOR SHALL CONFIRM THE LOCATION AND SIZE OF THE STUB-OUT PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY. THE CONTRACTOR SHALL COORDINATE THE CONNECTION AS NEEDED WITH THE SADLER ROAD PROJECT, WHICH IS CURRENTLY UNDER CONSTRUCTION BY THE MASTER DEVELOPER.

W2A. 12" DOUBLE CHECK DETECTOR ASSEMBLY (DDCA) WITH CHECK VALVE AND MONITORING METER FOR FIRE SERVICE. RPDA SHALL BE MONITORED IN ACCORDANCE WITH NFPA 72.

W2B. DOMESTIC WATER METER. SEE PLAN FOR SIZE.

W2C. DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTER. SEE PLAN FOR SIZE.

W3A. 12" PVC C-900 DR-18 WATER MAIN. SEE PLAN FOR LENGTH.

W3B. 3" SCH 80 PVC IN BLUE COLOR. SEE PLAN FOR LENGTH.

W3C. 4" SCH 80 PVC IN BLUE COLOR. SEE PLAN FOR LENGTH.

W3D. 6" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3E. 8" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3F. 10" PVC C-900 DR-14 PUMPED FIRE LINE. SEE PLAN FOR LENGTH.

W3G. 6" PVC C-900 DR-18 WATER MAIN. SEE PLAN FOR LENGTH.

W4. BEND WITH RESTRAINED JOINTS TYPICAL, SEE PLAN FOR ANGLE.

W5. TEE, TYPICAL. SEE PLAN FOR SIZE.

W6. REDUCER.

W7. PUMP HOUSE. REFER TO FIRE PROTECTION PLANS.

W8. FIRE DEPARTMENT CONNECTION (FDC). REFER TO FIRE PROTECTION PLANS.

W9. FIRE HYDRANT ASSEMBLY.

W10. 3" RECLAIMED IRRIGATION METER.

W11. 3" IRRIGATION SERVICE REDUCED PRESSURE BACKFLOW PREVENTER.

W12. 4" RECLAIMED IRRIGATION SERVICE LINE. SEE PLAN FOR LENGTH.

W13. GATE VALVE. SEE PLAN FOR SIZE.

W14. PIPE CAP.

SANITARY SEWER UTILITY KEYNOTES

S1. CONNECT TO EXISTING SANITARY FORCE MAIN STUBOUT.

S2. PLUG VALVE TO BE INSTALLED AT THE R.O.W. LINE. THE PLUG VALVE SHALL BE INSTALLED WITH THE VALVE STEM IN VERTICAL POSITION.

S3. 4" PVC SDR 18 FORCE MAIN, CLASS 150, GREEN IN COLOR, MINIMUM 3 FT. OF COVER.

S4. PRIVATE SANITARY SEWER LIFT STATION.

S5. SANITARY SEWER MANHOLE.

S6. SANITARY CLEAN-OUT. SEE PLAN FOR INVERT.

S7A. 8" SDR 26 PVC SANITARY SEWER LINE. SEE PLAN FOR LENGTH AND SLOPE.

S7B. 6" SDR 26 PVC SANITARY SEWER LINE. SEE PLAN FOR LENGTH AND SLOPE.

S8. BEND, SEE PLAN FOR ANGLE.

S9. PVC PLUG (SHALL BE SECURELY SEALED TO WITHSTAND THE INTERNAL PRESSURE OF LEAKAGE OR AIR PRESSURE TESTING) WITH A 4"X4"X3" PLASTIC STAKE PAINTED GREEN INSTALLED AT THE END OF THE CONNECTION.

S10. AIR RELEASE VALVE TO BE INSTALLED AT HIGH POINT.

UTILITY KEYNOTES

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PHASE I SITE UTILITY PLAN (2 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. C-7B
SHEET 17 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005995
No. 49075
STATE OF FLORIDA
SAM J. SEBAALY
PROFESSIONAL ENGINEER
1/29/2024

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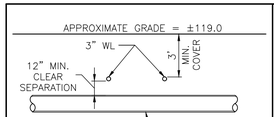
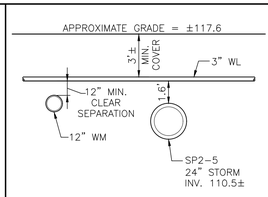


CROSSING "A"

SCALE: 1"=5'



CROSSING "B"

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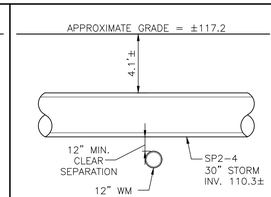
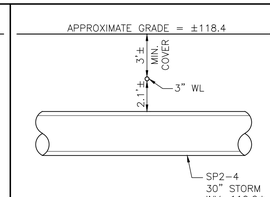


CROSSING "C"

SCALE: 1"=5'



CROSSING "D"

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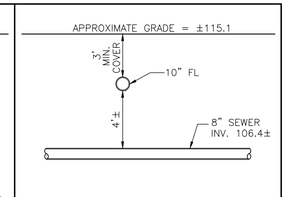

CROSSING "E"

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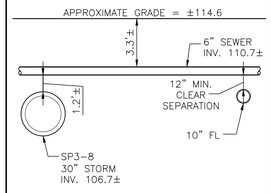

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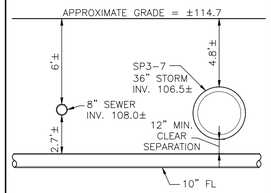

CROSSING "G"

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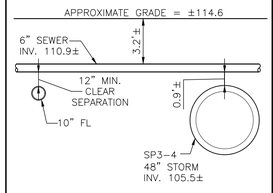

CROSSING "H"

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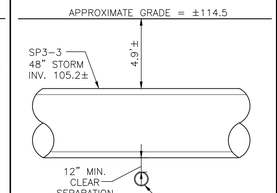
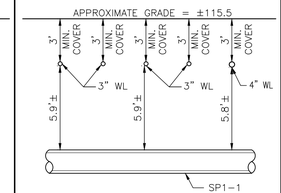


CROSSING "I"

SCALE: 1"=5'



CROSSING "J"

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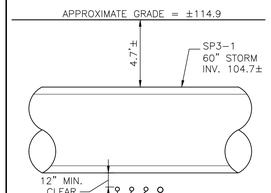
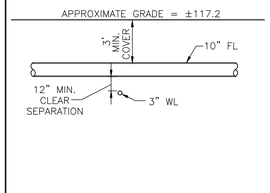


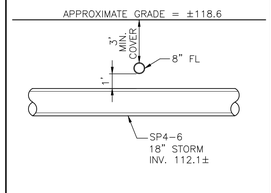
CROSSING "K"

SCALE: 1"=5'



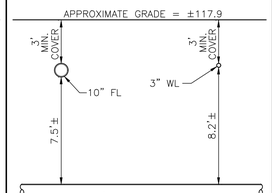
CROSSING "L"

SCALE: 1"=5'



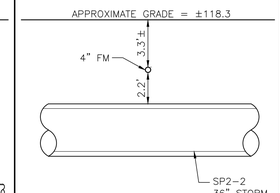
CROSSING "M"

SCALE: 1"=5'



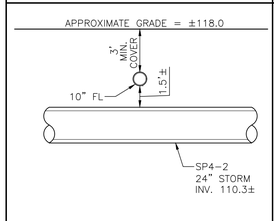
CROSSING "N"

SCALE: 1"=5'



CROSSING "O"

SCALE: 1"=5'



CROSSING "P"

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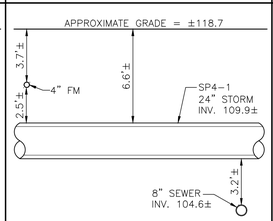
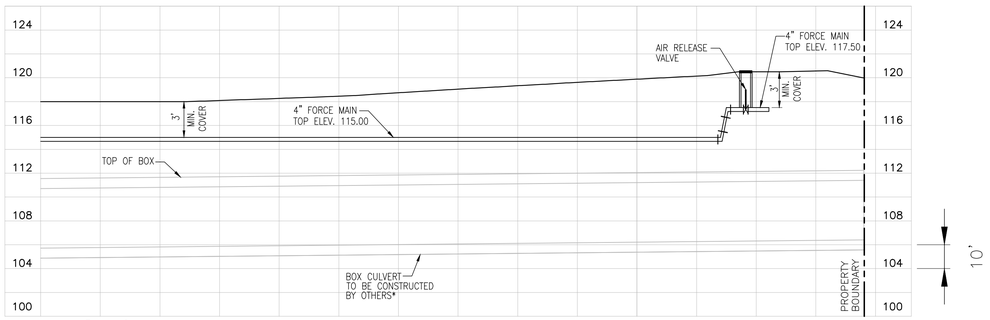


CROSSING "Q"

SCALE: 1"=5'



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

FORCE MAIN AND CULVERT BOX CONFLICT

* BOX CULVERT SHOWN TO BE CONSTRUCTED BY OTHERS TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

UTILITY NOTES

1. REFER TO CITY OF APOPKA STANDARD DETAILS AND MATERIAL SPECIFICATIONS FOR ALL UTILITY INFORMATION. ALL WATER & SANITARY SEWER UTILITY CONSTRUCTION TO BE PER CITY OF APOPKA REQUIREMENTS.
2. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES @ CONNECTION POINTS AND IDENTIFY ANY CONFLICTS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER OF RECORD. THE ENGINEER SHALL COORDINATE ANY DESIGN CHANGES W/ CITY OF APOPKA.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3' COVER OVER ALL PROPOSED UTILITIES, UNLESS SHOWN OTHERWISE ON PLANS.
4. CONTRACTOR SHALL NOTIFY THE CITY OF APOPKA PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION PH. # 407-703-1731.
5. THE CONSTRUCTION OF ALL UTILITIES PROPOSED FOR CONNECTION TO THE UTILITY SYSTEM SHALL BE IN CONFORMANCE WITH THE CITY OF APOPKA STANDARDS & CONSTRUCTION SPECIFICATIONS.
6. SEWER, WATER, AND FIRE SERVICES SHALL BE EXTENDED BY THE SITE CONTRACTOR TO MIN. 5FT. OUTSIDE OF THE BUILDING AND ARE TO BE COORDINATED BETWEEN SITE AND BUILDING/ PLUMBING/ FIRE CONTRACTOR AS TO SIZE, LOCATION AND DEPTH PRIOR CONSTRUCTION.

SANITARY SEWER SERVICE NOTES

1. CONSTRUCTION OF THE SANITARY SEWER SERVICE SYSTEM SHALL MEET CITY OF APOPKA & FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
2. ALL PLUMBING WORK SHALL EXTEND TO CLEAN OUT LOCATION ADJACENT TO BUILDING AND IS TO BE COORDINATED BETWEEN SITE AND BUILDING/ PLUMBING CONTRACTOR AS TO SIZE, LOCATION, AND ELEVATION PRIOR TO ANY SEWER SYSTEM OR MAJOR INFRASTRUCTURE WORK.

CLEAN-OUT NOTE

CLEAN-OUT TOPS SHALL MATCH SIDEWALK FINISHED GRADES OR DIRT GRADES AS APPLICABLE. ALL CLEAN-OUTS IN PAVED OR WALKWAY AREAS SHALL HAVE BRASS RING & PLUG TOPS. REFER TO CITY OF APOPKA DETAILS FOR CLEAN-OUTS IN TRAFFIC BEARING AREAS. ALL SANITARY CLEAN-OUT TOPS SHALL HAVE COVERS WHICH ARE IDENTIFIED AS "SANITARY".

WATER SERVICE NOTES

1. CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL MEET CITY OF APOPKA & FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.

CITY OF APOPKA (C.O.A.) UTILITY NOTES:

1. THE DEVELOPER'S CONTRACTOR SHALL ACCOMPLISH ALL WATER MAIN & SERVICE WORK THROUGH THE POINT OF CONNECTION/FIRE SERVICE CONTROL VALVE & WATER METERS. C.O.A. WILL OWN & OPERATE UP TO & INCLUDING THE POINT OF CONNECTION/FIRE SERVICE CONTROL VALVE & METERS ONLY. THE REQUIRED WORK SHALL BE PERFORMED PER CURRENT C.O.A. MATERIAL SPECIFICATION & WATER DETAIL SHEET UNDER C.O.A. INSPECTION. TO SCHEDULE C.O.A. INSPECTION, CALL 407-703-1718.
2. THE DEVELOPER/CONTRACTOR SHALL FIELD VERIFY THE VERTICAL & HORIZONTAL LOCATION OF EXISTING C.O.A. WATER FACILITIES BEFORE COMMENCEMENT OF CONSTRUCTION.
3. THE DEVELOPER/CUSTOMER IS RESPONSIBLE FOR ALL REQUIRED PERMITS.

SANITARY SEWER STRUCTURE LEGEND

SS-1
PRIVATE SANITARY MANHOLE
TOP ELEV. = 118.25
INV. ELEV. = 104.15 S
INV. ELEV. = 104.40 N
INV. ELEV. = 104.05 W

SS-2
PRIVATE SANITARY MANHOLE
TOP ELEV. = 117.50
INV. ELEV. = 105.38 NE
INV. ELEV. = 105.28 S

SS-3
PRIVATE SANITARY MANHOLE
TOP ELEV. = 114.90
INV. ELEV. = 106.59 E
INV. ELEV. = 106.49 SW

SS-4
PRIVATE SANITARY MANHOLE
TOP ELEV. = 114.75
INV. ELEV. = 110.39 SE
INV. ELEV. = 109.73 NE
INV. ELEV. = 107.57 E
INV. ELEV. = 107.47 W

SS-5
PRIVATE SANITARY MANHOLE
TOP ELEV. = 115.00
INV. ELEV. = 108.95 E
INV. ELEV. = 108.85 W

SS-6
PRIVATE SANITARY MANHOLE
TOP ELEV. = 114.60
INV. ELEV. = 110.68 NE
INV. ELEV. = 110.58 SE
INV. ELEV. = 110.23 W

FIRE FLOW CALCULATIONS:

FIRE AREA CONSIDERED:	WAREHOUSE
TYPE OF CONSTRUCTION:	II-B NFPA TYPE II (000)
AUTOMATIC SPRINKLERS BUILDING:	YES
TOTAL LARGEST FLOOR AREA:	537,694 S.F.
NUMBER OF STORIES:	1
FIRE FLOW REQUIRED: (NFPA CHAPTER 1, TABLE 18.4.5.2.1)	8,000 G.P.M. (BUILDING WITHOUT FIRE SPRINKLER PROTECTION)
AUTOMATIC FIRE SPRINKLER CREDIT:	6,000 G.P.M. (75%)
FIRE FLOW NEEDED	2,000 G.P.M. (MINIMUM 2,000 G.P.M. FOR AN INDUSTRIAL PROJECT)

FIRE HYDRANTS REQUIRED: TWO (2) HYDRANTS (NFPA CHAPTER 1, TABLE 18.5.4.3)
FIRE HYDRANTS PROVIDED: MORE THAN TWO (2) HYDRANTS ARE PROVIDED WITHIN 450 FT TRAVEL DISTANCE FROM ALL BUILDINGS.

FIRE NOTES

ROADWAYS ACCEPTABLE TO THE FIRE OFFICIAL AND ADEQUATE FIRE WATER SUPPLY AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.

THE NUMBER AND PLACEMENT OF REQUIRED FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH CHAPTER 18 OF NFPA (FFPC). FIRE HYDRANTS SHALL BE LOCATED WITHIN 250 FEET OF ALL BUILDINGS.

FIRE HYDRANTS SHALL BE MARKED WITH A BLUE ROAD REFLECTOR.

4. PROJECT SHALL MEET CURRENT NFPA AND FLORIDA FIRE PREVENTION CODE 7TH EDITION CONCERNING FIRE AND LIFE SAFETY.
5. BUILDINGS WILL BE REQUIRED TO HAVE AUTOMATIC FIRE SPRINKLER SYSTEM.
6. BUILDINGS MUST BE MONITORED BY AN AUTOMATIC FIRE ALARM SYSTEM.
7. A REMOTE FDC FOR THE FIRE SPRINKLER SYSTEM, LESS THAN 25 FEET FROM A HYDRANT.
8. FIRE LANES ARE TO BE PROVIDED AT EACH FDC LOCATION AND HYDRANT.
9. A KNOX BOX MUST BE PROVIDED FOR EACH BUILDING.
10. IF RACKS ARE INSTALLED, ANY STORAGE OVER 10FT WILL REQUIRE A ESFR SPRINKLER SYSTEM OR HEADS WILL NEED TO BE INSTALLED IN THE RACKS.
11. A STABILIZED ROADWAY SHOULD BE PROVIDED THROUGHOUT THE PROPERTY. AN ACCEPTABLE ACCESS DRIVEWAY SHALL CONSIST OF A STABILIZED SURFACE THAT INCLUDES FULL-DEPTH SUBGRADE, BASE, AND AT LEAST ONE, 1"LIFT OF ASPHALT IN THE CONFIGURATION SHOWN ON THE APPROVED CONSTRUCTION SITE PLAN. AN ALTERNATIVE STABILIZED SURFACE ACCESS DRIVEWAY CAPABLE OF SUPPORTING 49,000 LBS. MAY BE REQUESTED IN A DETAILED, SIGNED, AND SEALED LETTER WITH SIGNED AND SEALED DESIGN PLANS THAT DEPICT THE CONFIGURATION OF THE PROPOSED ALTERNATIVE TO DRC FOR CONSIDERATION/APPROVAL. THE PLAN SHALL CONSIST OF AT LEAST A 30' WIDE ACCESS DRIVEWAY THAT IS CLEARLY MARKED AT LEAST EVERY 20' ALONG THE ALIGNMENT AND THAT WILL NOT BE DISTURBED OR USED FOR PARKING VEHICLES OR EQUIPMENT AT ANY TIME DURING CONSTRUCTION. THE PROPOSED ACCESS PLAN SHALL DEPICT THE ALIGNMENT OF THE SEMI-PERMANENT ACCESS DRIVEWAY AND CLARIFY WHEN AND HOW THE SEMI-PERMANENT DRIVEWAY WILL BE REPLACED WITH A PERMANENT DRIVING SURFACE. AT LEAST ONE ACTIVE FIRE HYDRANT SHALL BE LOCATED WITHIN 250' OF A COMMERCIAL STRUCTURE AND WITHIN 500' OF A RESIDENTIAL STRUCTURE. WHEN THE ENGINEER OF RECORD BELIEVES THESE CONDITIONS ARE MET, A SIGNED LETTER SHALL BE PROVIDED TO THE ENGINEERING AND FIRE DEPARTMENTS THAT CONFIRMS THESE CONDITIONS ARE MET AND INCLUDES A REQUEST FOR THE ACCESS TO BE INSPECTED. THE ENGINEER OF RECORD SHALL SCHEDULE AN INSPECTION WITH THE FIRE AND ENGINEERING DEPARTMENTS. ONCE THE INSPECTION IS DEEMED ACCEPTABLE, FIRE AND ENGINEERING DEPARTMENTS WILL SUPPORT ISSUANCE OF BUILDING PERMITS OR FOUNDATION-ONLY PERMIT.

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

PHASE I SITE UTILITY NOTES AND CONFLICTS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-7C
SHEET 18 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006598
SAM I. SEBAALI No 72075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/2024

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM I. SEBAALI P.E. ON JANUARY 29, 2024 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.

22-032_Utility.dwg

RILEY & Company, Inc. (H-20 LP)

w/ BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS

SCOPE: Supply one complete H-20 GP Pre-Fab Lift Station, per design.
Pumps shall be capable of grinding and pumping domestic & commercial sewage.
Complete system shall be supplied by:
RILEY & Company, Inc.
Sanford, FL 32773 (Ph. 407-265-9963)

NO SUBSTITUTIONS - NO ALTERNATES

PUMPS AND ELECTRICAL CONTROL PANEL MUST BE WARRANTED FOR A MINIMUM OF 3 YEARS.

FIBERGLASS WETWELL MUST BE WARRANTED FOR A MINIMUM OF 20 YEARS.

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes A Written 20 Yr. Warranty

Certification of the wetwell H-20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida.

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible.

PUMPS: (3 YEAR WARRANTY)
Submersible grinder pumps shall be HOMA model OC4X2-150/13T/C . The pumps shall be installed in the H-20 LP FRP wetwell utilizing a dual slide rail system. The grinder unit shall be capable of macerating materials normally found in domestic and commercial sewage into a fine slurry which will pass through the pump and the Sch.80 PVC discharge piping.

Stator winding shall be open type with Class F insulation and shall be heat-shrink fitted into the stator housing. The use of pins, bolts, or other fastening devices is not acceptable.
A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with the magnetic contactor coil in the control panel to stop motor if winding temperature exceeds 140 C., but shall automatically reset when the winding temperature returns to normal.
Two heat sensor thermostats shall be used on three phase motors.

The pump motor grinder shaft shall be AISI 430F SS threaded to take the pump impeller and the grinder impeller.
Upper & lower mechanical seals shall be Silicon Carbide vs Silicon Carbide.

DUPLEX CONTROL PANEL: (3 YEAR WARRANTY)
To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minuimum of 5 years history in the manufacturing of electrical control panels.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with pad lockable draw latches.

The enclosure shall have external mounting feet to allow for wall mounting.

The following components shall be mounted through the enclosure:
1- ea. Red Alarm Beacon (Light)
1- ea. Alarm Horn
1- ea. Generator Receptacle w/ weatherproof cover
1- ea. Alarm Silence Pushbutton

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:
2- ea. Motor Contactors
1- ea. Volt Monitor (Single Phase) Phase Monitor (Three Phase)
1- ea. Control Transformer (480 Volt Only)
1- ea. Silence Relay
1- ea. Duplex Alternator
1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger
20- ea. Terminals For Field Connections
6- ea. Terminals For Motor Connections (Single Phase Only)
3- ea. Grounding Lugs

The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano hinge.
The following components shall be mounted through the inner door:
1- ea. Main Circuit Breaker
1- ea. Emergency Circuit Breaker
1- ea. Mechanical Interlock For Emergency And Main Breakers
2- ea. Short Circuit Protectors
1- ea. Control Circuit Breaker
2- ea. Seal Failure Indicator Lights
1- ea. Hand-Off-Auto Selector Switches
2- ea. Pump Run Pilot Lights
1- ea. Power On Pilot Light
2- ea. Elapse Time Meters (Non-Resetable)
1- ea. GFI Duplex Convenience Outlet

COMPONENT SPECIFICATIONS:
All circuit breakers shall be molded thermal magnetic.
The mechanical interlock shall prevent the normal and emergency main breakers being energized at the same time.
An emergency generator receptacle shall be supplied in accordance with DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions.

NEUTRAL TO BE SUPPLIED FOR BOTH 460V 3PHASE OR 460V THREE PHASE POWER

All motor short circuit protection devices must provide for under voltage release and class 10 overload protection on all three phases. Visible trip indication, test, and reset capability must be provided without opening inner door.
Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements.
Contactors shall provide for safe touch power and control terminals.
Lightning Arrestor shall meet or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.
A voltage monitor shall be supplied for single phase service.
A phase monitor shall be supplied for (3) phase service.
A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run.
Each pump shall have an Elapse Time Meter to record the accumulated run time. The ETM shall be 2" diameter, non-resettable, six digit, totally encapsulated unit.
A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.
Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT.
Twenty (20) terminals shall be supplied for field connections. The terminals shall be rated 25 amps minimum.
Each motors over-temperature contact shall be connected to the terminal strip and shall open a contact to de-energize the appropriate motor upon a high temperature within the motor.
A 15 Amp GFI duplex receptacle shall be supplied and mounted on the innerdoor.
Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.
Nameplates for the inner door and back panel shall be of a graphic design, specifically depicting the intent for each device.

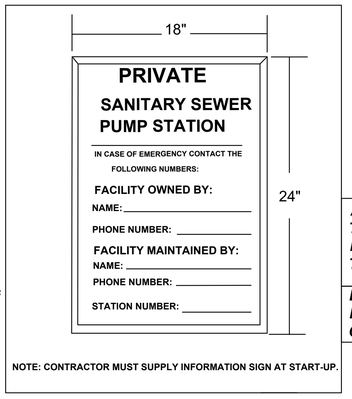
MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap.
Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.
The control panel shall be assembled by a TUV (UL508A Certified) manufacturing facility.

FASTENERS & APPURTANCES: All fasteners, lifting cables, float cable bracket, hinges, and appurtenances shall be made of AISI 304SS.
A 304SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box.
Slide rails shall be made of SCH.40 AISI 304SS pipe.
Pump lifting cables shall be made of AISI 304 SS.
Pump lifting bales shall be made of AISI 304 SS.

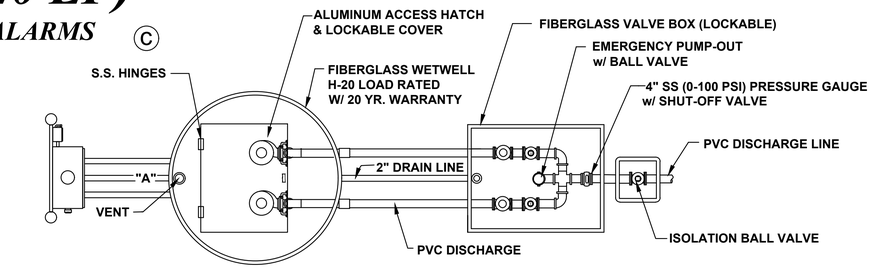
H-20 LOAD RATED WETWELL WITH LIFTING LUGS:
The fiberglass wetwell must be H-20 load rated with integral lifting lugs, fiberglass slope in bottom of wetwell and valve box.
Certification of the H-20 load rating must be supplied at the time of submittals to Engineer.
The wetwell shall be manufactured of fiberglass reinforced polyester (FRP) of depth and diameter as shown on the lift station elevation detail. The wall thickness shall be adequate for the depth of the wetwell to maintain the H-20 LOAD RATING.

EXECUTION:
Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of complete system.
Megger the motors. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the pump motor/cable is intact.
The pump controls and pumps shall be checked for mechanical reliability and proper operation.

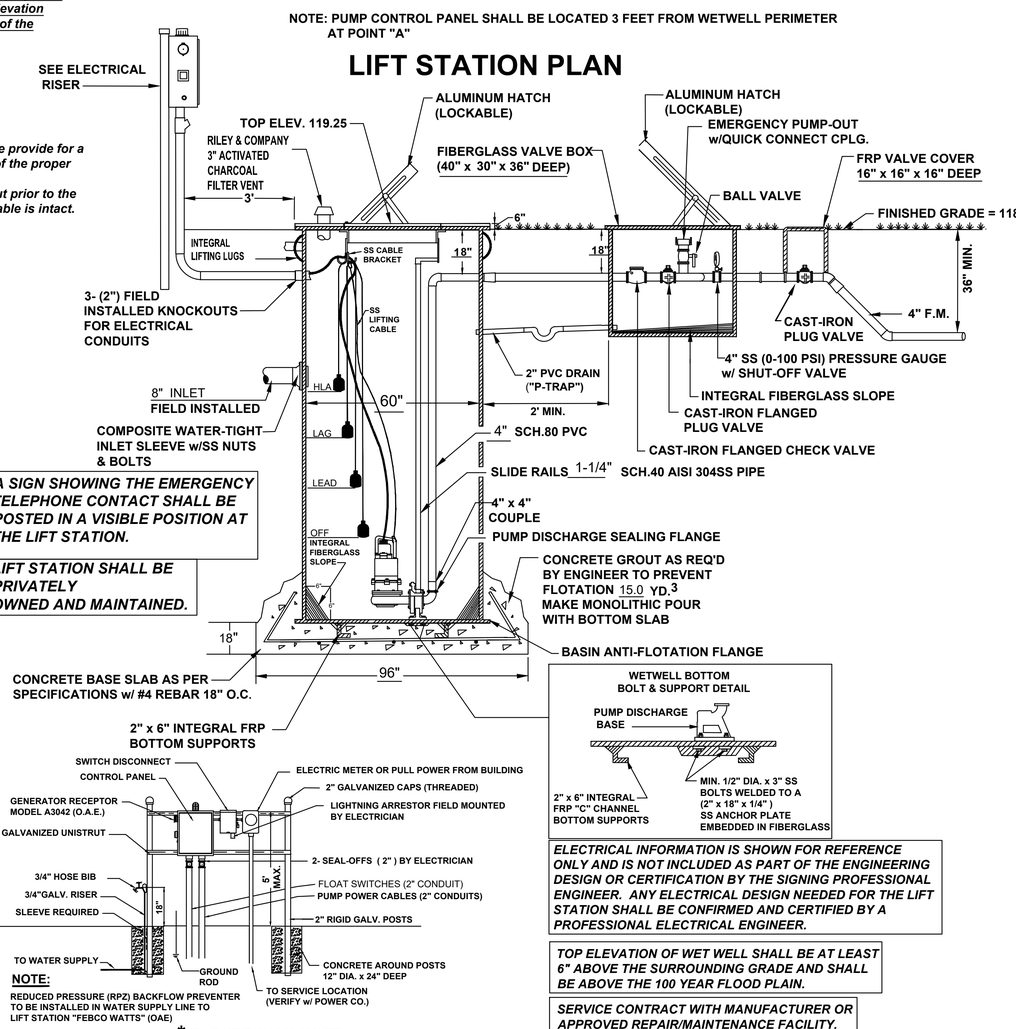


NOTE: CONTRACTOR MUST SUPPLY INFORMATION SIGN AT START-UP.



NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET FROM WETWELL PERIMETER AT POINT "A"

LIFT STATION PLAN



A SIGN SHOWING THE EMERGENCY TELEPHONE CONTACT SHALL BE POSTED IN A VISIBLE POSITION AT THE LIFT STATION.

LIFT STATION SHALL BE PRIVATELY OWNED AND MAINTAINED.

NOTE:
REDUCED PRESSURE (RPZ) BACKFLOW PREVENTER TO BE INSTALLED IN WATER SUPPLY LINE TO LIFT STATION "FEBCO WATTS" (OAE)

ELECTRICAL INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS NOT INCLUDED AS PART OF THE ENGINEERING DESIGN OR CERTIFICATION BY THE SIGNING PROFESSIONAL ENGINEER. ANY ELECTRICAL DESIGN NEEDED FOR THE LIFT STATION SHALL BE CONFIRMED AND CERTIFIED BY A PROFESSIONAL ELECTRICAL ENGINEER.

TOP ELEVATION OF WET WELL SHALL BE AT LEAST 6" ABOVE THE SURROUNDING GRADE AND SHALL BE ABOVE THE 100 YEAR FLOOD PLAIN.

SERVICE CONTRACT WITH MANUFACTURER OR APPROVED REPAIR/MAINTENANCE FACILITY.

LIFT STATION MUST HAVE - EMERGENCY PUMP-OUT, AUDIBLE ALARM, VISIBLE SIGN WITH RESPONSIBLE PARTY AND OWNER CONTACT INFORMATION AND AN AUTO-DIALER PROGRAMMED WITH THE RESPONSIBLE PARTY'S 24-HR/DAY PHONE NUMBER.

PUMP DATA		ELEVATIONS	
	CONDITION #1		
PRIMARY PUMP CAPACITY	222 GPM	TOP OF WETWELL	119.25
PRIMARY TDH	94.7 TDH	INLET INVERT	104.00
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM (HLA)	103.50
PUMP MODEL #	OC4X2-150/13T/C	2nd PUMP ON (LAG)	102.50
R.P.M.	3450	1st PUMP ON (LEAD)	102.00
HORSEPOWER	10.6	PUMPS OFF (OFF)	100.00
ELECTRICAL/ VOLTS / PHASE	230V/3	BOTTOM OF WETWELL	97.00
PUMP DISCHARGE SIZE	4"	WETWELL DIAMETER	60"
IMPELLER SIZE	5-7/8"		

NOTES:

1. Water service with hose bibb and reduced pressure backflow preventer to be installed near lift station. (See Electrical Riser Illustration)
2. System shall be operated and maintained to provide uninterrupted service as required by DEP Chapter 62-604.500.
3. Approved Operation & Maintenance Manual(O&M) shall be kept available for operation and maintenance personnel
4. A weather resistant emergency contact sign shall be installed at the lift station and made visible to the public (Lettering shall be min. 2" in height.
5. Inspection & Testing: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance for the complete system.

RILEY & CO. / H-20 GP 01/15/24

* ELECTRICIAN NOTES:

* 1. DRAWING NOT TO SCALE
* 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
* 3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
* 4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
* 5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
* 6. NEUTRAL TO BE SUPPLIED FOR 230V-3 PHASE OR 230V-SINGLE PHASE POWER.

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.feg-inc.us

LIFT STATION DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-7D
SHEET 19 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0000595
No. 89075
STATE OF FLORIDA
SAM J. SEBAALI
1/29/2024
PROFESSIONAL ENGINEER
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER
License No. 89075

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBAALI, P.E. ON JANUARY 29, 2024 USING A DIGITAL SIGNATURE.

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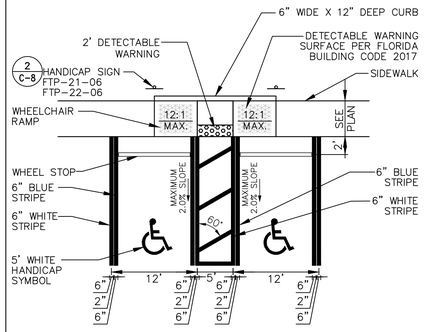
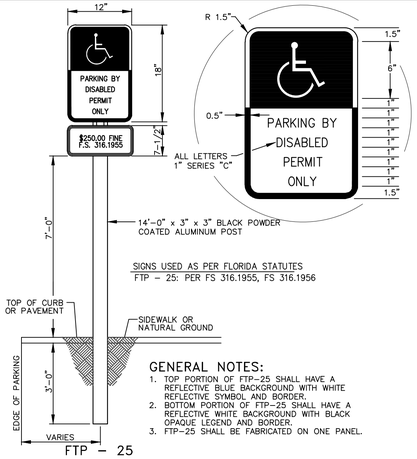
22-032_LiftStationDetail.dwg



MAX. 2.0% SLOPE IN ANY DIRECTION

1 C-8 HANDICAP PARKING DETAIL

SCALE 1" = 10'



GENERAL NOTES:

1. TOP PORTION OF FTP-25 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER.
2. BOTTOM PORTION OF FTP-25 SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP-25 SHALL BE FABRICATED ON ONE PANEL.

2 C-8 HANDICAP SIGN DETAIL

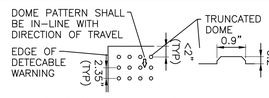
SCALE 1" = 1'

30" HIGH INTENSITY REFLECTORIZED MATERIAL REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION

3 C-8 R1-1 STOP SIGN DETAIL

NOT TO SCALE

SIGN-STOP-DET.dwg

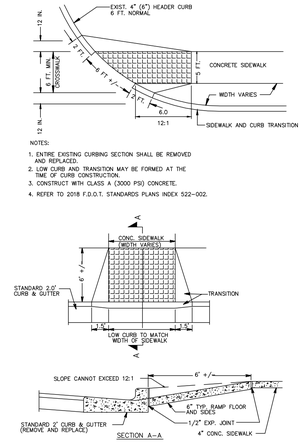


NOTES:

1. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB. COLOR RED.
2. CURB RAMP DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP & IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING A TRUNCATED DOME PATTERN IN CONFORMANCE W/ U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBILITY DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.

4 C-8 CURB RAMP DETECTABLE WARNING DETAIL

NOT TO SCALE



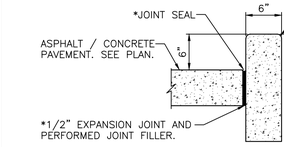
NOTES:

1. ENTIRE EXISTING CURBING SECTION SHALL BE REMOVED AND REPLACED.
2. LOW CURB AND TRANSITION MAY BE FORMED AT THE TIME OF CURB CONSTRUCTION.
3. CONSTRUCT WITH CLASS A (3000 PSI) CONCRETE.
4. REFER TO 2018 F.D.O.T. STANDARDS PLANS INDEX 522-002.

5 C-8 WHEELCHAIR RAMP-STRAIGHT

N.T.S.

SW-HC-RAMP-FDOT-DET.dwg

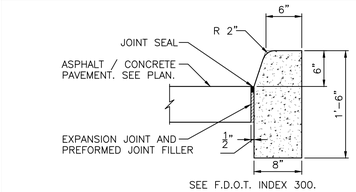


1. PROVIDE 1/8" CONTROL JOINTS @ 10' O.C.
2. * PROVIDE EXPANSION JOINT WHERE CONCRETE CURB ABUTS CONCRETE PAVEMENT, CURB AND ANY FIXED STRUCTURE.

6 C-8 HEAD CURB

SCALE 1" = 1'

CURB-HEAD-DET.dwg

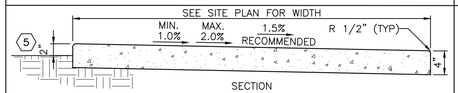


SEE F.D.O.T. INDEX 300.

7 C-8 F.D.O.T. TYPE "D" CURB

SCALE 1" = 1'

CURB-TYPE-D-DET.dwg



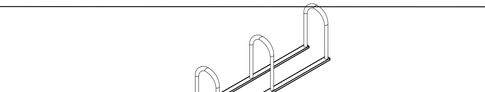
#KEYNOTES

1. 2" MINIMUM, TYPE SP-12.5 ASPHALTIC CONCRETE WEARING SURFACE (MIN. PG 67-22) COMPACTED TO 95% OF THE DESIGN MIX.
2. 8" CRUSHED CONCRETE BASE COURSE WITH MINIMUM LBR OF 150, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557, AASHTO T-180) AND GRADATION TO MEET F.D.O.T. STANDARD SPECIFICATIONS OF ROAD & BRIDGE CONSTRUCTION.
3. 12" STABILIZED SUBGRADE TO A MINIMUM LBR 40, ENTIRE 12" DEPTH TO BE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

NOTE:
THE ASPHALTIC CONCRETE SHALL BE PLACED WITHIN THE ALLAWABLE LIFT THICKNESS FOR LIME TYPE SP MIXES PER THE LATEST EDITION OF F.D.O.T. STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

8 C-8 ASPHALT PAVING HEAVY DUTY SECTION

NOT TO SCALE



#KEYNOTES

1. 1-1/2" MINIMUM, TYPE SP-9.5 ASPHALTIC CONCRETE WEARING SURFACE (MIN. PG 67-22) COMPACTED TO 95% OF THE DESIGN MIX.
2. 8" CRUSHED CONCRETE BASE COURSE WITH MINIMUM LBR OF 150, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557, AASHTO T-180) AND GRADATION TO MEET F.D.O.T. STANDARD SPECIFICATIONS OF ROAD & BRIDGE CONSTRUCTION.
3. 12" STABILIZED SUBGRADE TO A MINIMUM LBR 40, ENTIRE 12" DEPTH TO BE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

NOTE:
THE ASPHALTIC CONCRETE SHALL BE PLACED WITHIN THE ALLAWABLE LIFT THICKNESS FOR LIME TYPE SP MIXES PER THE LATEST EDITION OF F.D.O.T. STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

9 C-8 ASPHALT PAVING LIGHT DUTY SECTION

NOT TO SCALE

#KEYNOTES:

1. 7" PORTLAND CEMENT CONCRETE, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 P.S.I. AIR ENTRAINED CONCRETE WITH FIBER MESH. (TYP.), 4" SLUMP MAXIMUM.
2. 12" COMPACTED SUBGRADE TO 98% MAXIMUM DENSITY (AASHTO T-180) AND STABILIZED TO MIN. FBV 75 PSI.
3. SAW CUT JOINT 1/4 OF PAVEMENT THICKNESS.
4. 12" X 12" X D4.7 X D4.7 WWM.
5. 3/4" X 2'-0" LONG SMOOTH DOWEL @ 12" O.C.
6. 3/4" X 2'-0" LONG SMOOTH DOWEL @ 12" O.C.
7. METAL EXPANSION CAP. LUBRICATE AND CAP AT THIS END OF DOWEL
8. JOINT FILLER HOLD DOWN 1 1/4" FROM SURFACE
9. GEOTEXTILE FILTER FABRIC 18" WIDE MINIMUM.

NOTES:

1. PROVIDE 1/2" RADIUS ON ALL EXPOSED EDGES.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINT WHERE CONCRETE PAVEMENT ABUTS OTHER CONCRETE PAVEMENT STRUCTURES, LIGHT POLES, ETC.

10 C-8 CONCRETE PAVEMENT DETAIL

SCALE 1" = 1'

#KEYNOTES

1. 5" PERVIOUS CONCRETE (15% VOID RATIO).
2. 6" #57 STONE (40% VOID RATIO). COMPACTED TO AT LEAST 92% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).
3. 12" COMPACTED SUBGRADE TO AT LEAST 92% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

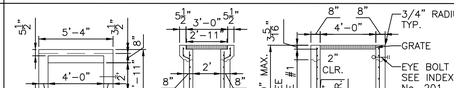
11 C-8 PERVIOUS CONCRETE PAVING SECTION

NOT TO SCALE

12 C-8 WHEEL STOP DETAIL

SCALE 1" = 1'

WHL-STOP-DET.dwg



#KEYNOTES

1. MINIMUM HEIGHT OF CURB ABOVE PAVEMENT SHALL BE 6". REFER TO GRADING PLANS FOR ELEVATIONS.
2. PAVEMENT WEARING SURFACE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
3. PAVEMENT BASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
4. PAVEMENT SUBBASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
5. 3000 PSI CONCRETE WITH FIBER MESH, TYPICAL.
6. 6" COMPACTED SUB-GRADE TO @ LEAST 95% OF THE MODIFIED PROTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

13 C-8 SIDEWALK WITH MONOLITHIC CURB

SCALE 1" = 1'

SW-MONO-CURB-CONC-PG.dwg

#KEYNOTES

1. 1" DEEP 1/8"R TOOLED JOINT.
2. PREMOLDED EXPANSION JOINT FILLER STRIP & JOINT SEALER W/1/8"R TOOLED EDGES.
3. 6" COMPACTED SUBGRADE
4. 3000 P.S.I. CONC. W/FIBER MESH(TYP)
5. FINISHED GRADE (TYP.)

14 C-8 CONCRETE SIDEWALK

SCALE 1" = 1'

SW-CONC-PS-PLAN.DWG

NOTES:

1. BICYCLE RACKS SHALL HAVE A MINIMUM TUBE DIAMETER OF 1.9 INCHES AND BE POWDER COATED OR COATED WITH ANOTHER WEATHER PROOF SURFACE AS MAY BE APPROVED BY THE ZONING MANAGER.
2. BICYCLE RACKS SHALL BE A MAXIMUM HEIGHT OF 36 INCHES, A MINIMUM OF 30 INCHES AN CENTER BETWEEN HORIZONTAL ROWS, AND A MINIMUM OF 24 INCHES FROM ANY BUILDING WALL.

15 C-8 INVERTED U BIKE RACK

NOTES

1. LETTERS REFER TO 2018 F.D.O.T. STANDARDS PLANS "DIMENSIONS AND QUANTITIES CHART" INDEX 430-021.
2. REFER TO 2018 F.D.O.T. STANDARD PLANS INDEX 430-021 FOR ALL DESIGN CRITERIA, TYPICAL.
3. PLACEMENT OF ENTRANCE BARRIERS SHALL BE ACCORDING TO 2018 F.D.O.T. STANDARD PLANS.

16 C-8 F.D.O.T. MITERED END SECTION

NOT TO SCALE

MES-DET-PGD.dwg

17 C-8 F.D.O.T. TYPE "C" INLET DETAIL

SCALE 1" = 5'

INLET-TYPE-C-DET.dwg

NOTES:

1. CONSTRUCTION PERMITTED BETWEEN THESE LIMITS - SEE INDEX 201 FOR MIN. DIMENSIONS.
2. SEE INDEX 233 FOR ALL DESIGN CRITERIA

19 C-8 F.D.O.T. TYPE "F" INLET DETAIL

SCALE 1" = 5'

INLET-TYPE-F-DET.dwg

18 C-8 F.D.O.T. TYPE "D" INLET DETAIL

SCALE 1" = 5'

INLET-TYPE-D-DET.dwg

NOTES:

1. CONSTRUCTION PERMITTED BETWEEN THESE LIMITS - SEE INDEX 201 FOR MIN. DIMENSIONS.
2. SEE INDEX 233 FOR ALL DESIGN CRITERIA

20 C-8 F.D.O.T. TYPE "G" INLET DETAIL

SCALE 1" = 5'

INLET-TYPE-G-DET.dwg

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

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SITE CONSTRUCTION DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

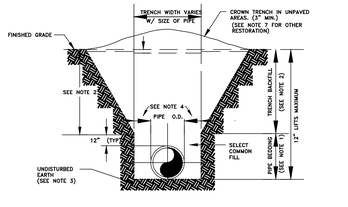
PROJECT NO.	22-032
SCALE	NOTED
DATE	JANUARY 29 2024
SHEET NO.	C-8
SHEET	20 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No. 82075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SAM J. SEBAALI
1/29/2024

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SAM J. SEBAALI P.E. ON JANUARY 29, 2024 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.

22-032_Details.dwg

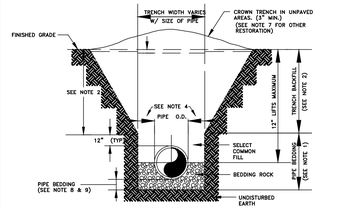


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (+)- 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (+)- 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *											
	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TAIBLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM(SAND, SILT)
   LAYING CONDITIONS: 3
6. FOR PIPE ENCASED IN POLYETHYLEME INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *											
	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND					61	67	73	84	100	114	
45° BEND					26	28	31	35	42	48	
22-1/2° BEND					13	14	15	17	20	23	
11-1/4° BEND					6	7	8	9	10	12	
TEE**					52	62	74	95	124	152	
REDUCER (ONE SIZE SMALLER)					48	25	25	47	66	66	
DEAD END					111	123	135	157	188	218	

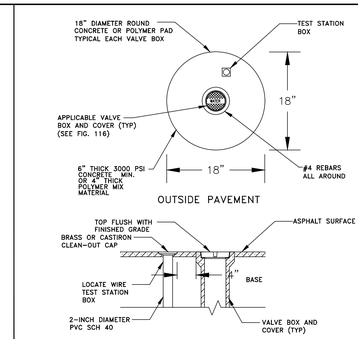
* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM(SAND, SILT)
   LAYING CONDITIONS: 3
6. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (DI)

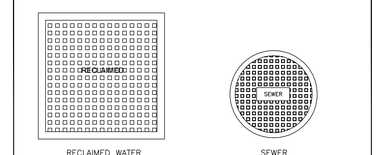
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JAUARY 2014	FIG. 106



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

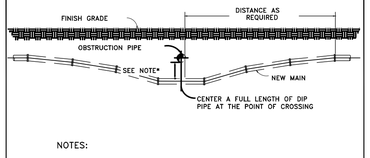
VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116



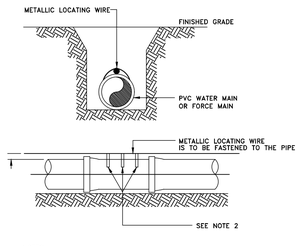
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

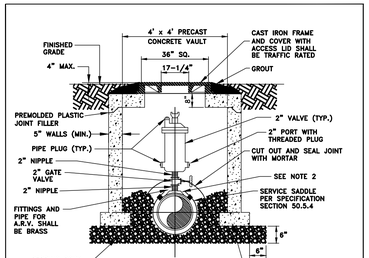


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118

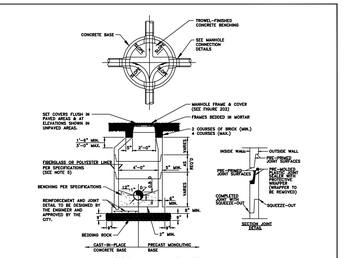


NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETER-MINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
3. ALL STRUCTURES TO BE TRAFFIC BEARING RATED.

AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 119

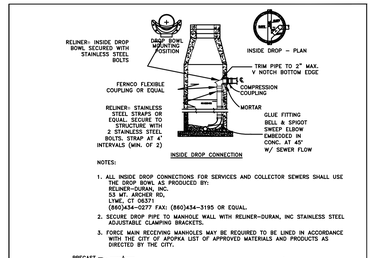


NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200

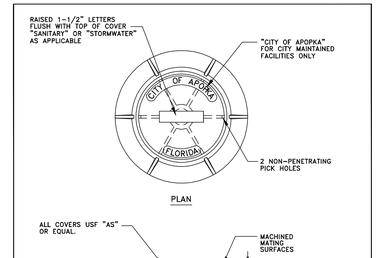


NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 201

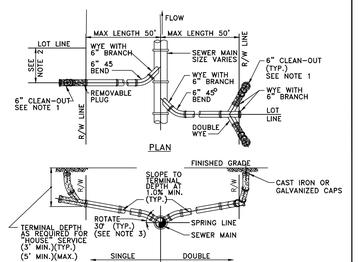


NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202

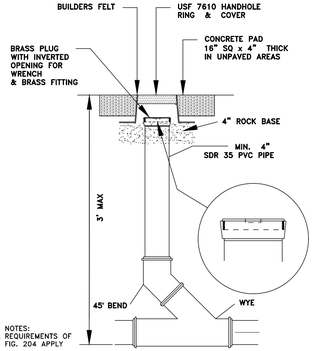


NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204

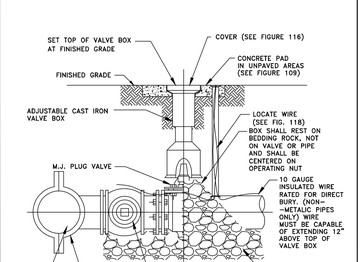


NOTES:
1. REQUIREMENTS OF FIG. 204 APPLY

SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

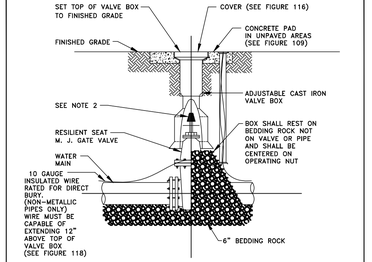
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 205



FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206

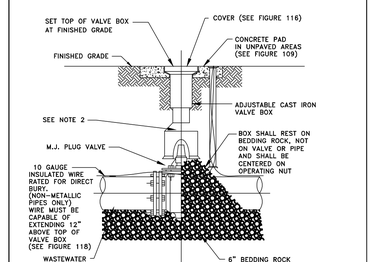


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

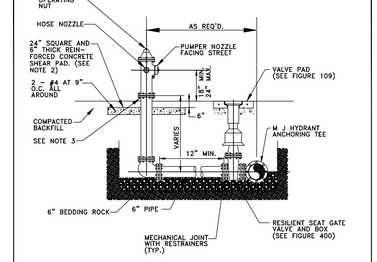
GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



PLUG VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400 A



NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
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CITY OF APOPKA WATER AND SEWER DETAILS (1 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-9A
SHEET 21 OF 32

FLORIDA ENGINEERING GROUP, INC. CERTIFICATE No. EB-0006595

SAM J. SEBALLI — No. 72675 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 01/29/2024

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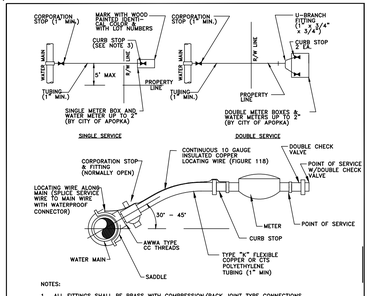
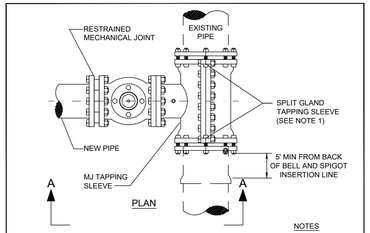


NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 6" BELOW GRADE AND SHALL BE CLEARLY MARKED WITH A 2" x 2" x 18" STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2016	FIG. 405

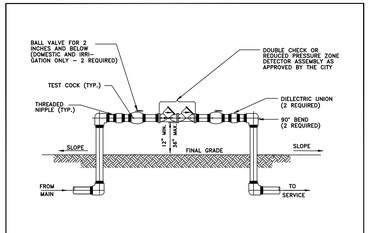


NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE: MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406



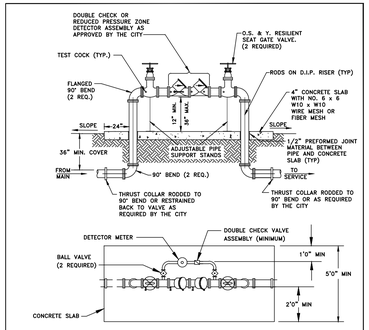
NOTES:

1. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY

2 INCH AND BELOW ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 A

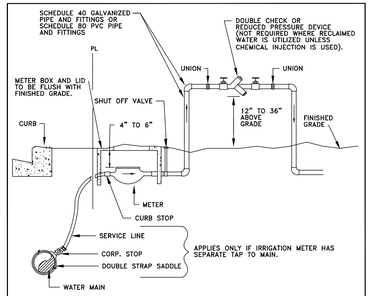


NOTES: 1. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
2. METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
3. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
4. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS

2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 B



NOTES:

1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS OR A WELL ON SITE.
4. A PVB DEVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 502

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

CITY OF APOPKA WATER AND SEWER DETAILS (2 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-9B
SHEET 22 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0000575
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1-29-2024

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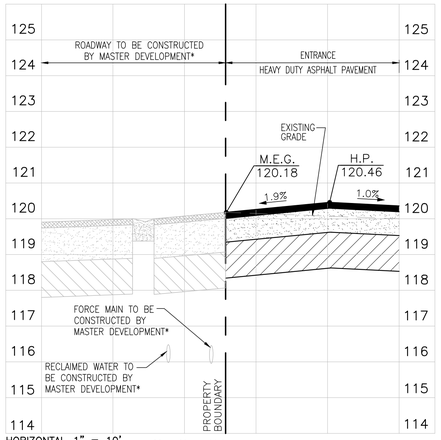
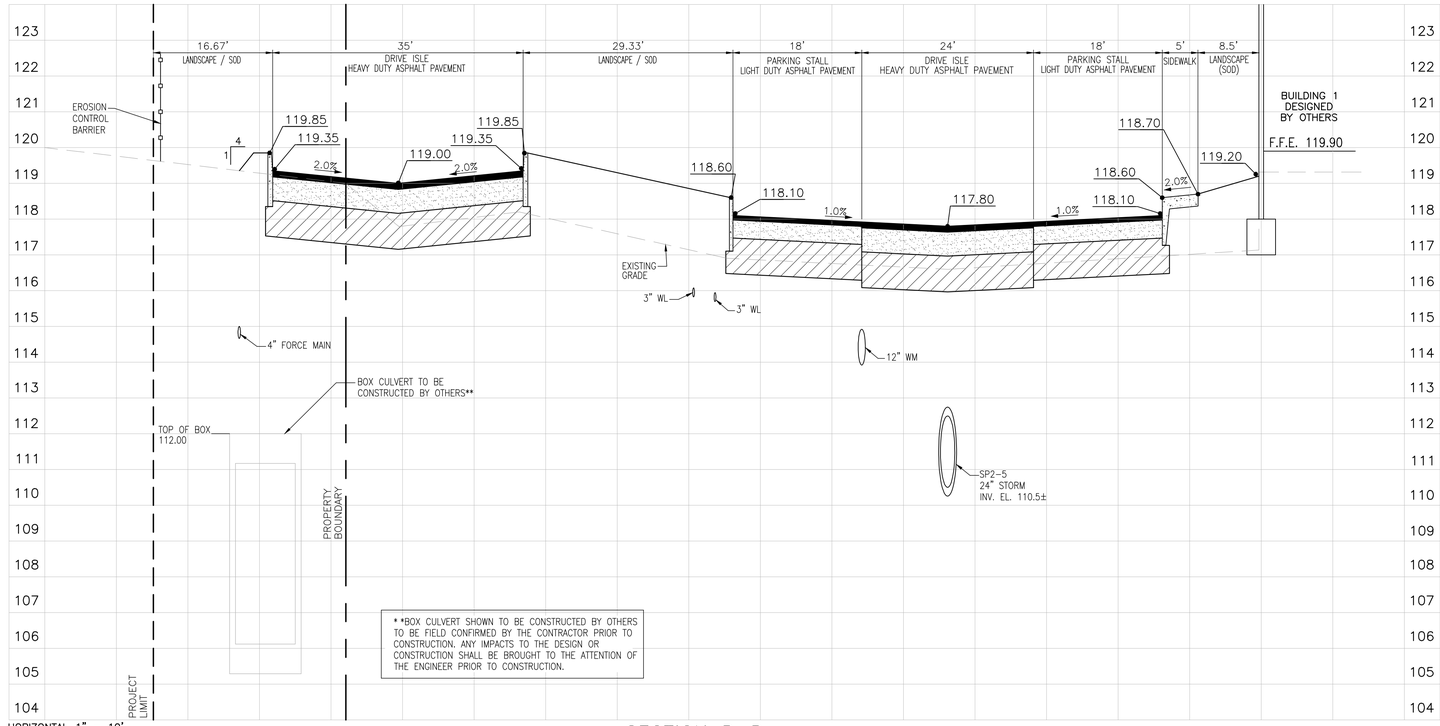
22-032_CityDetails.dwg



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

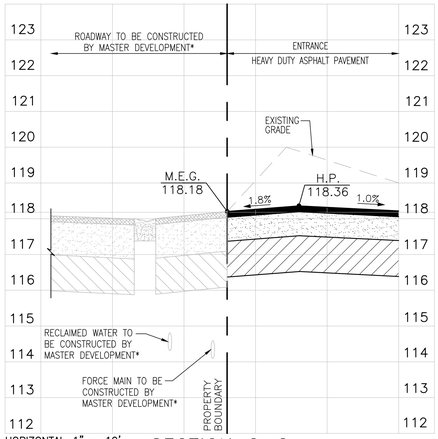
SECTION A–A



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

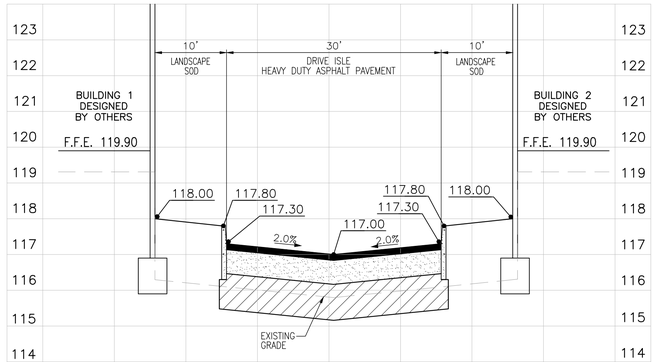
SECTION B–B

** BOX CULVERT SHOWN TO BE CONSTRUCTED BY OTHERS TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.



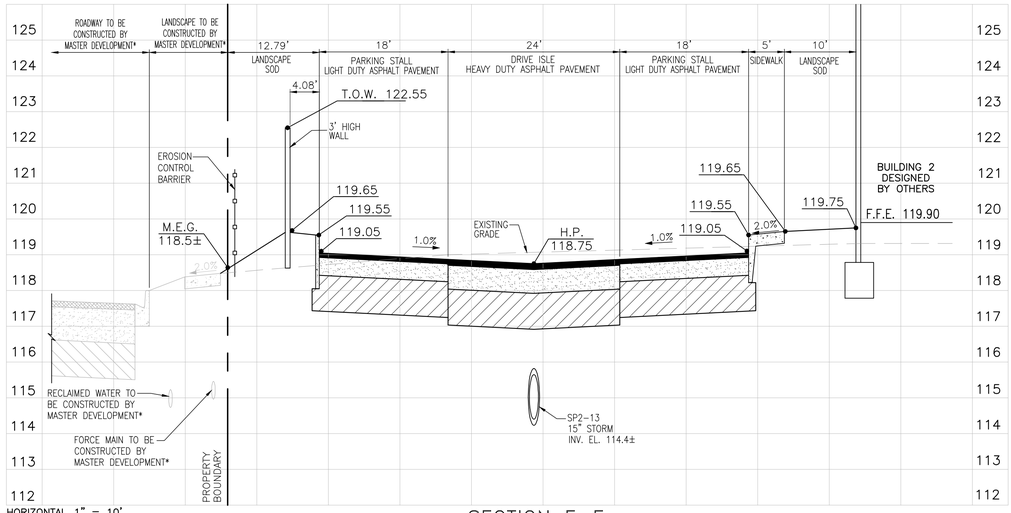
HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION C–C



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION D–D



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION E–E

* ALL IMPROVEMENTS SHOWN TO BE CONSTRUCTED BY THE MASTER DEVELOPER, WHICH AFFECT THE PROPOSED WORK OR ARE POTENTIALLY IMPACTED BY THE PROPOSED WORK ARE TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

DATE	REVISIONS	BY	CHECKED

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APOPKA, FLORIDA

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Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

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PHASE I SITE CROSS SECTIONS (1 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-10A
SHEET 23 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005915
SAM J. SEBAALI
STATE OF FLORIDA
No. 42675
PROFESSIONAL ENGINEER
1-29-2024
Digitally signed by SAM J. SEBAALI
Date: 2024.01.29 10:39:05 -05'00'

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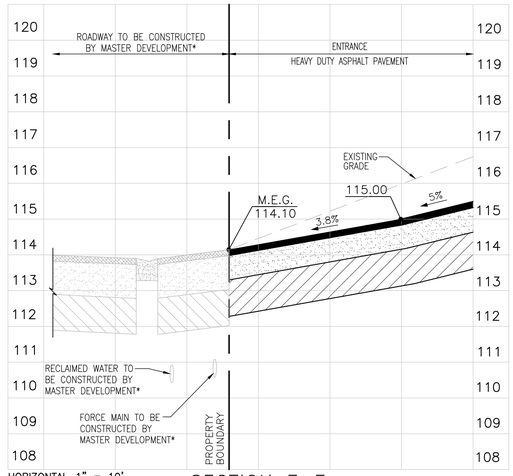
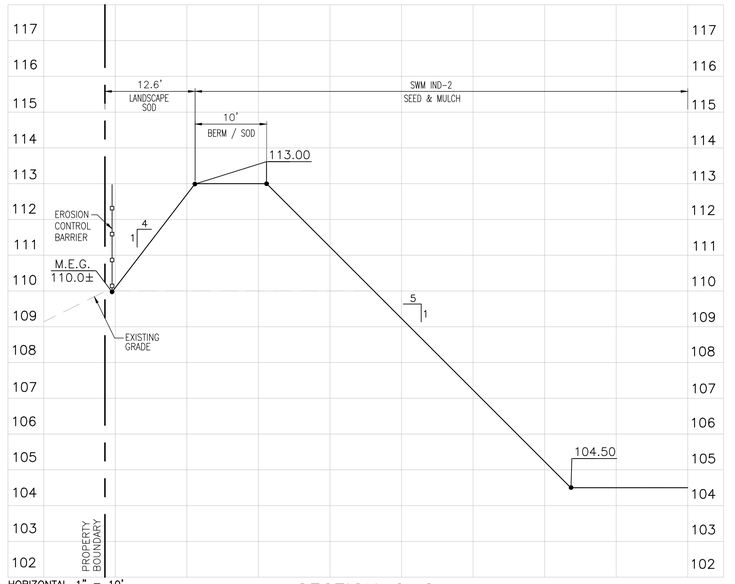


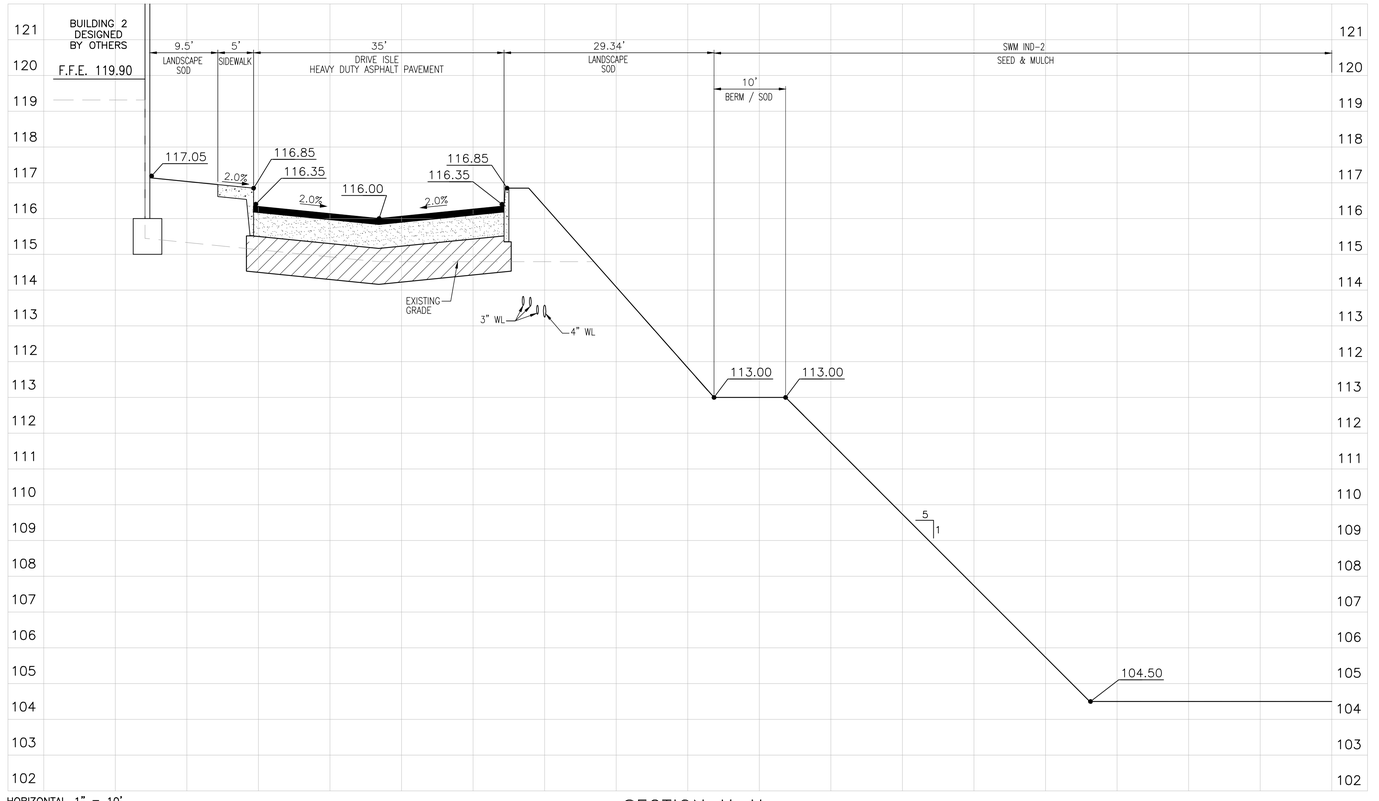
HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION F–F



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION G–G



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION H–H

* ALL IMPROVEMENTS SHOWN TO BE CONSTRUCTED BY THE MASTER DEVELOPER, WHICH AFFECT THE PROPOSED WORK OR ARE POTENTIALLY IMPACTED BY THE PROPOSED WORK ARE TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

DATE	REVISIONS	BY	CHECKED

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APOPKA, FLORIDA

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PHASE I SITE CROSS SECTIONS (2 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-10B
SHEET 24 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005957
No. 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
SAM J. SEGALL
1/29/2024

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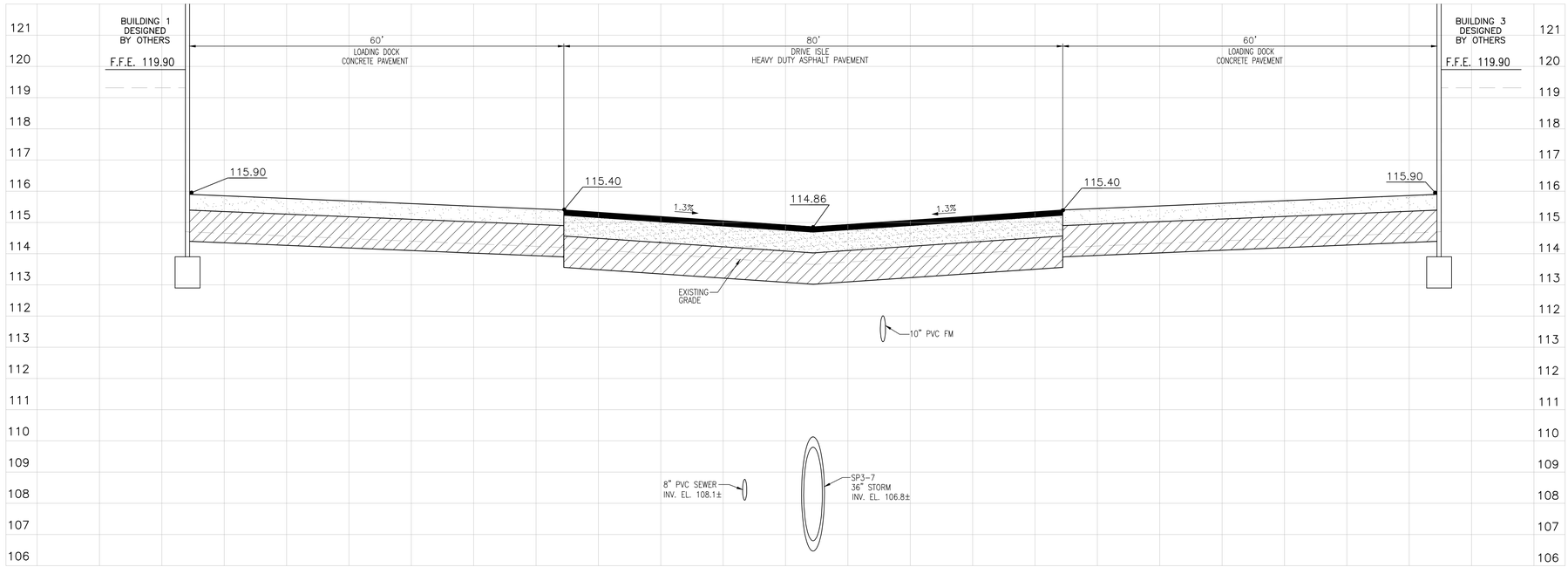
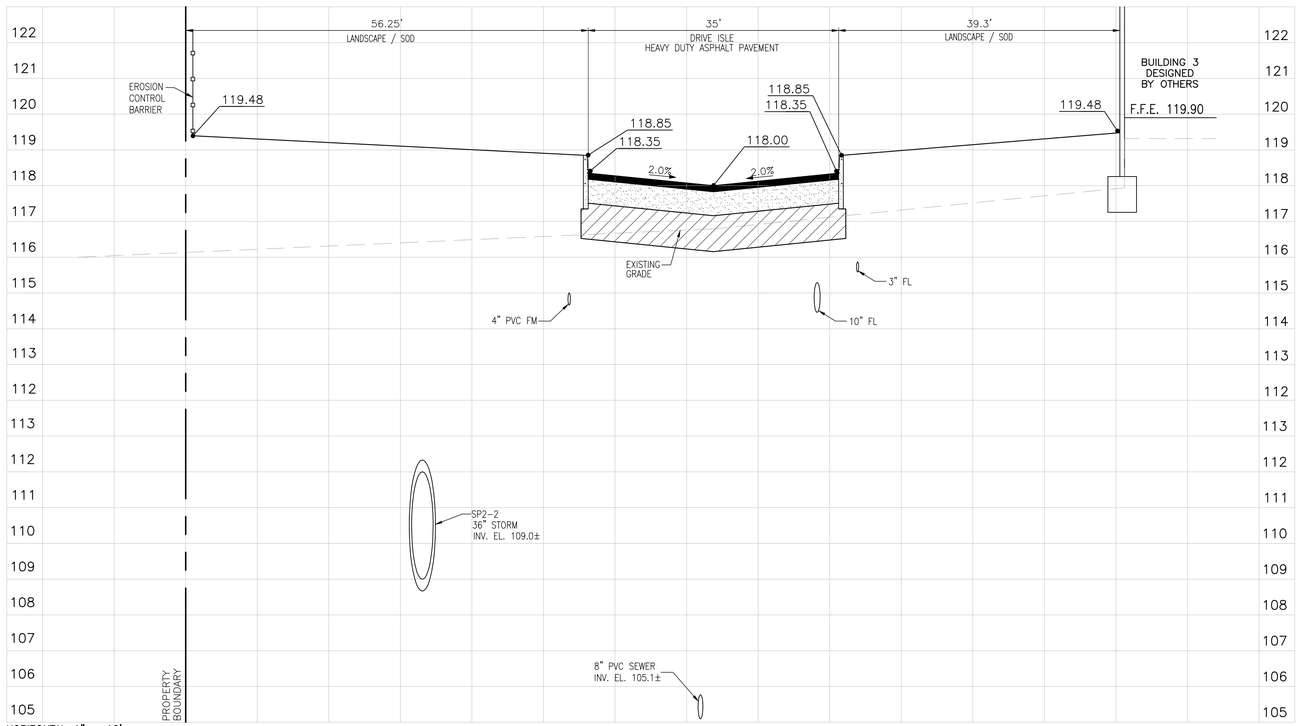


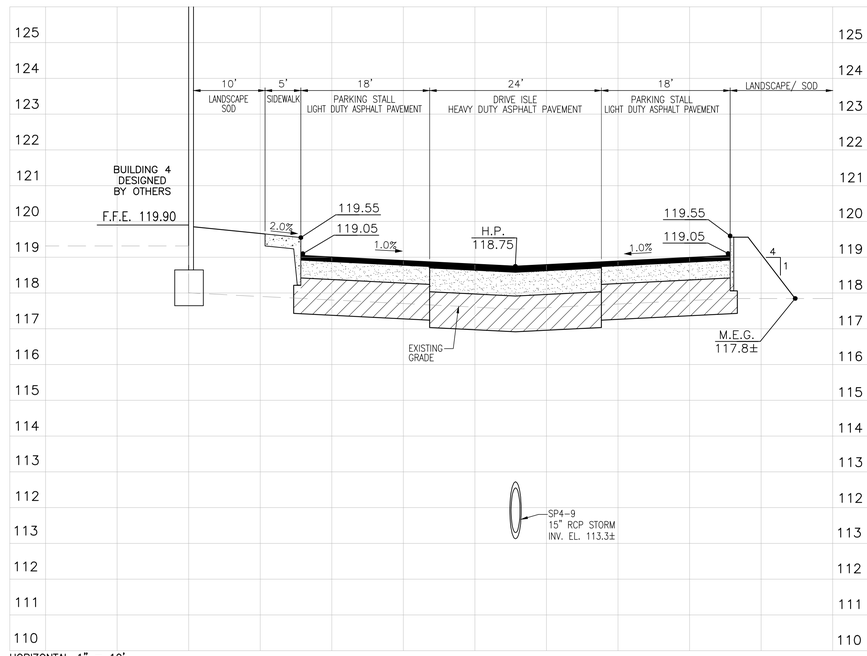
HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION I-I



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION J-J



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION K-K

* ALL IMPROVEMENTS SHOWN TO BE CONSTRUCTED BY THE MASTER DEVELOPER, WHICH AFFECT THE PROPOSED WORK OR ARE POTENTIALLY IMPACTED BY THE PROPOSED WORK ARE TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

DATE	REVISIONS	BY	CHECKED

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PHASE I SITE CROSS SECTIONS (3 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-10C
SHEET 25 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
No. 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42075

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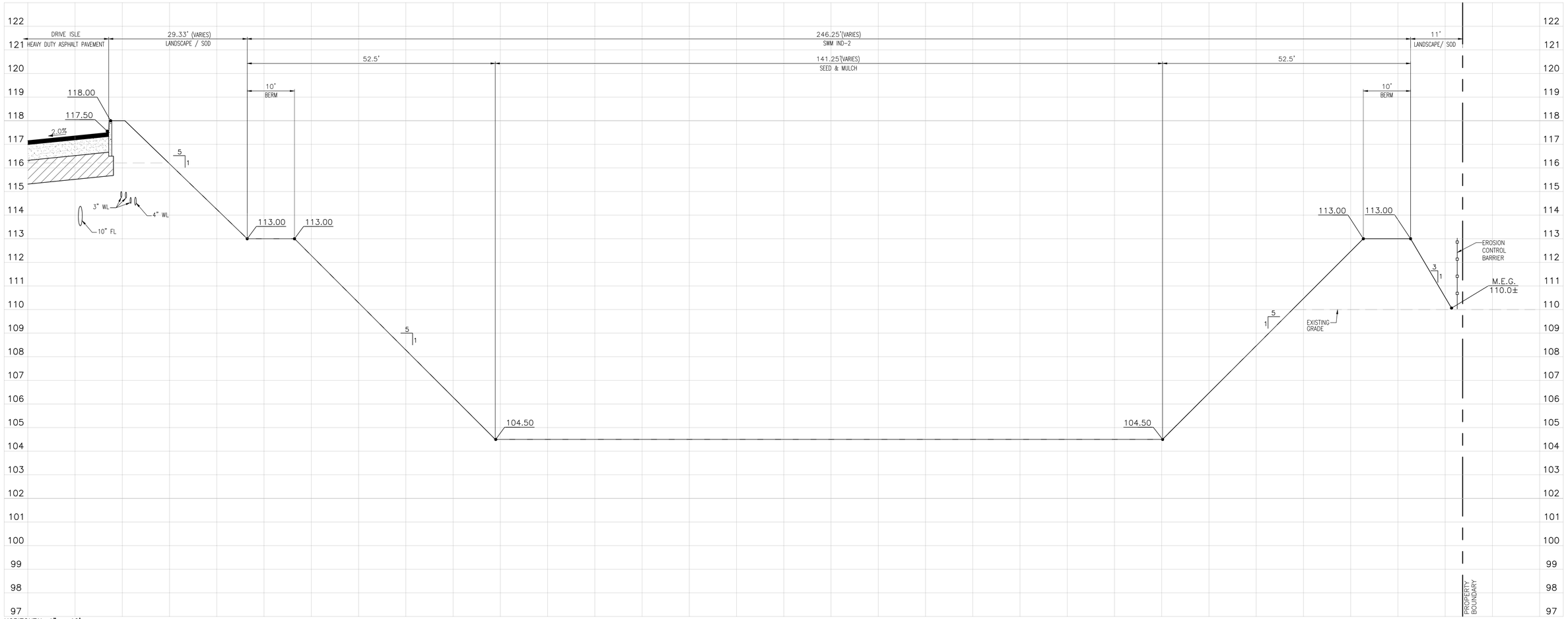

HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION L–L

* ALL IMPROVEMENTS SHOWN TO BE CONSTRUCTED BY THE MASTER DEVELOPER, WHICH AFFECT THE PROPOSED WORK OR ARE POTENTIALLY IMPACTED BY THE PROPOSED WORK ARE TO BE FIELD CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY IMPACTS TO THE DESIGN OR CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

DATE	REVISIONS	BY	CHECKED

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KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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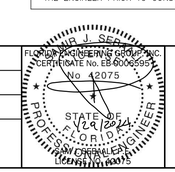
PHASE I SITE CROSS SECTIONS (4 OF 4)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. C-10D
SHEET 26 OF 32



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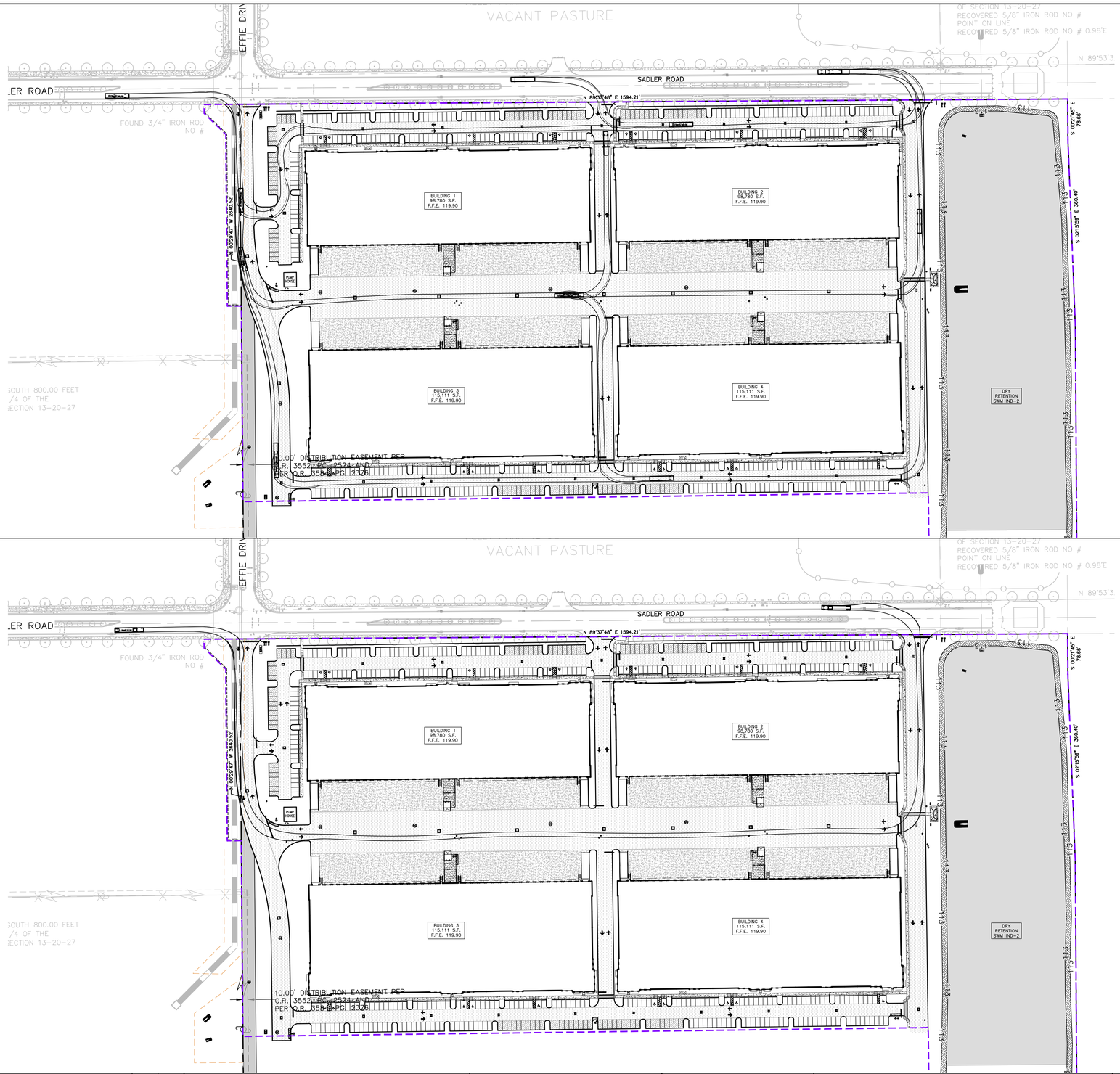
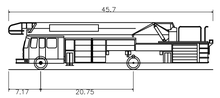


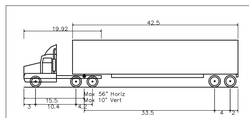
GRAPHIC SCALE

100' 0 50' 100' 200'

1"=100'



OCFRD Platform	
Overall Length	45.700ft
Overall Width	8.330ft
Overall Body Height	10.489ft
Min Body Ground Clearance	0.920ft
Track Width	8.330ft
Max Steering Angle (Virtual)	44.20°
Lock To Lock Time	6.0s
Min Centerline Radius	29.0ft



WB-50 – Intermediate Semi-Trailer	
Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.0os
Curb to Curb Turning Radius	45.000ft

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

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PHASE I FIRE TRUCK AND AUTOTURN PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 22-032
SCALE 1"=100'
DATE JANUARY 29 2024
SHEET NO. C-11
SHEET 27 OF 32

SAM J. SEBAILI
FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No. 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
1/29/2024

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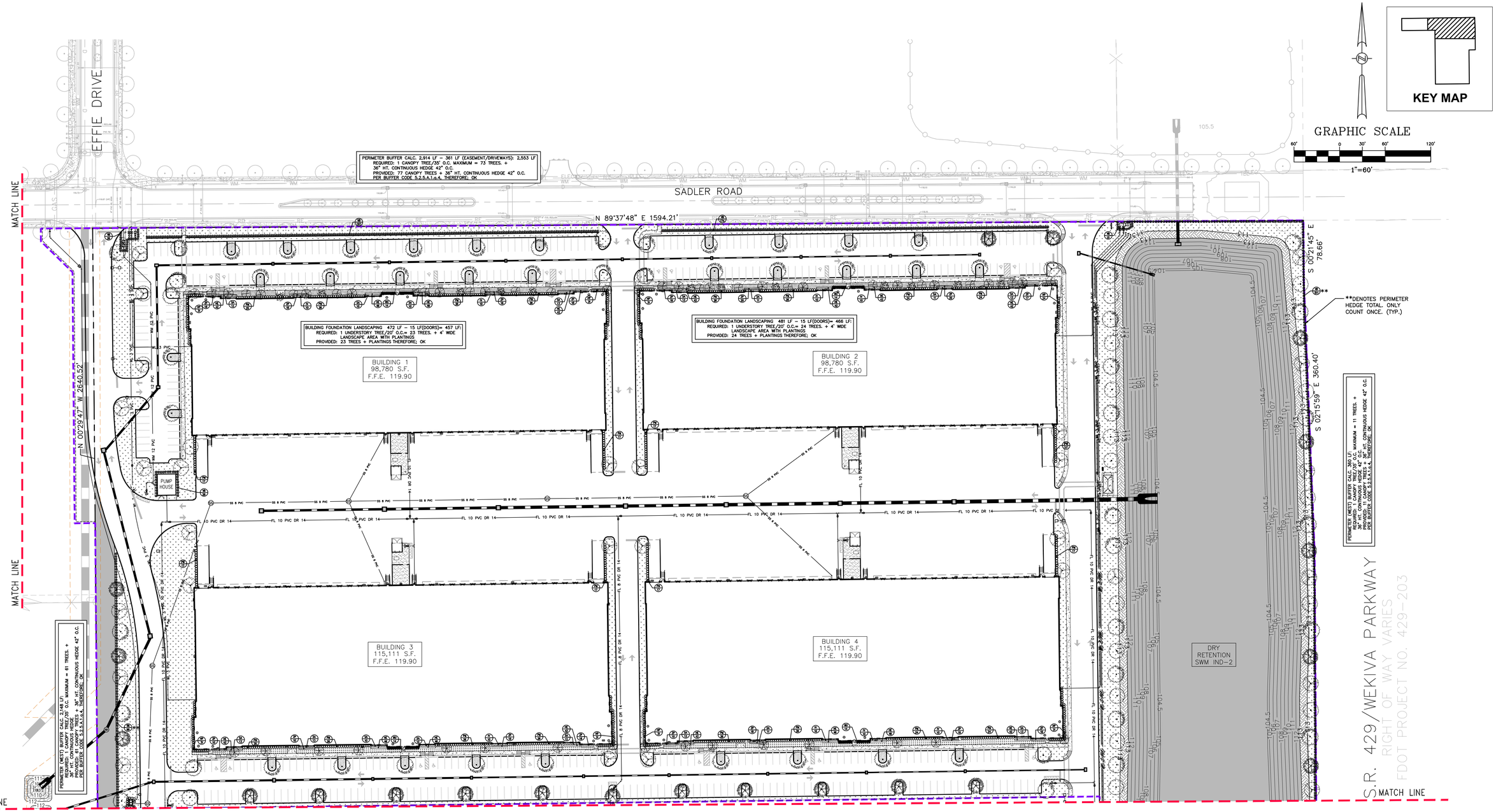

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

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PHASE I SITE LANDSCAPE PLAN
(1 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. L-1
SHEET 28 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION No. EB 0006596
REGISTERED LANDSCAPE ARCHITECT
RICHARD T. ABT
1321
STATE OF
FLORIDA
(LICENSED)

Richard T Abt
Digitally signed by Richard T Abt
Date: 2024.01.31 18:18:26 -05'00'

THIS ITEM, INCLUDING ANY BOUND SHEETS, HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY RICK ABT ON JANUARY 15, 2024 USING A DIGITAL SIGNATURE.

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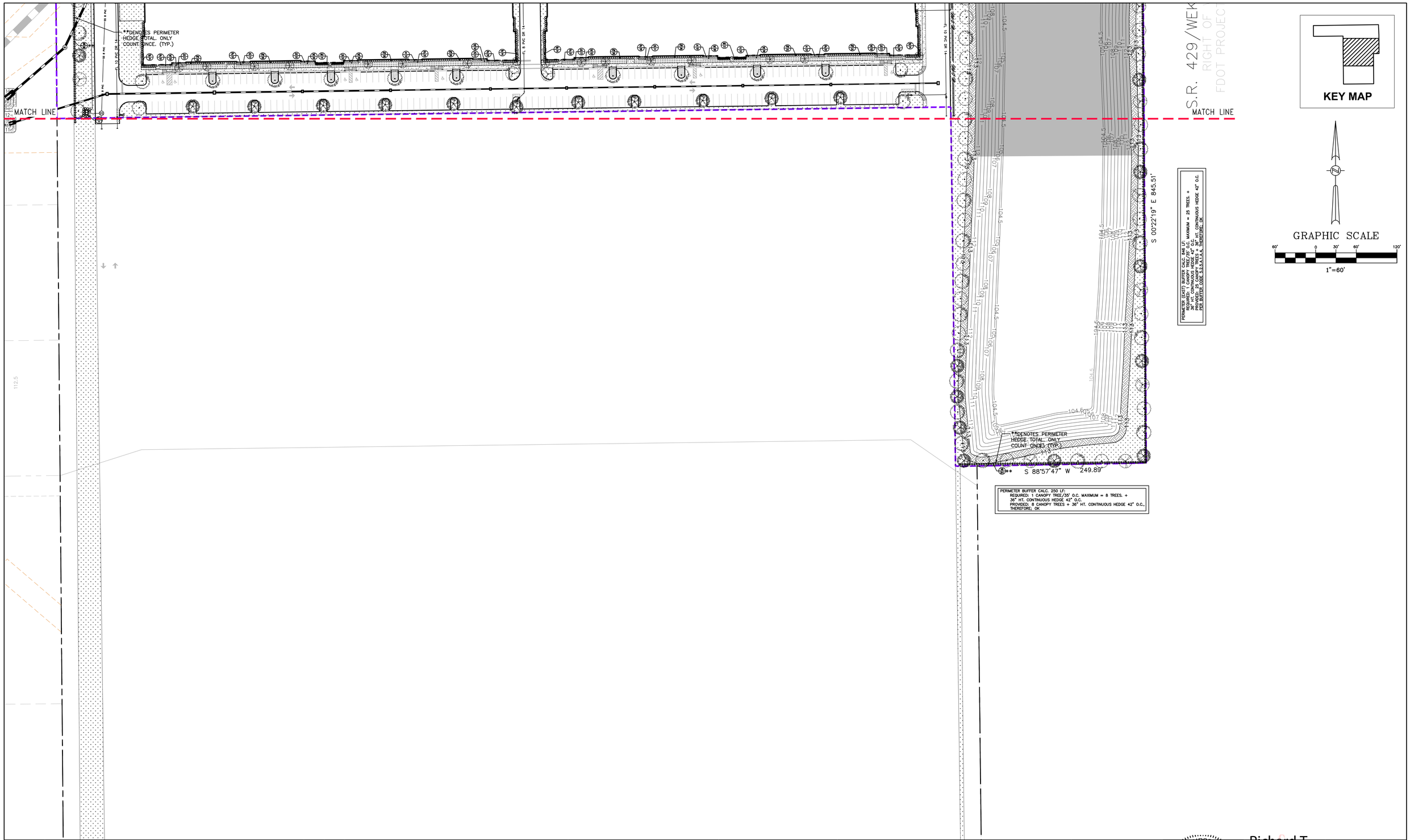

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

PHASE I SITE LANDSCAPE PLAN
(2 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. L-2
SHEET 29 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION No. EB 0006599
REGISTERED LANDSCAPE ARCHITECT
RICHARD T. ABT, JR.
1321
STATE OF FLORIDA
(ACTIVE)

Richard T Abt
Digitally signed by Richard T Abt
Date: 2024.01.31 18:19:02 -05'00'

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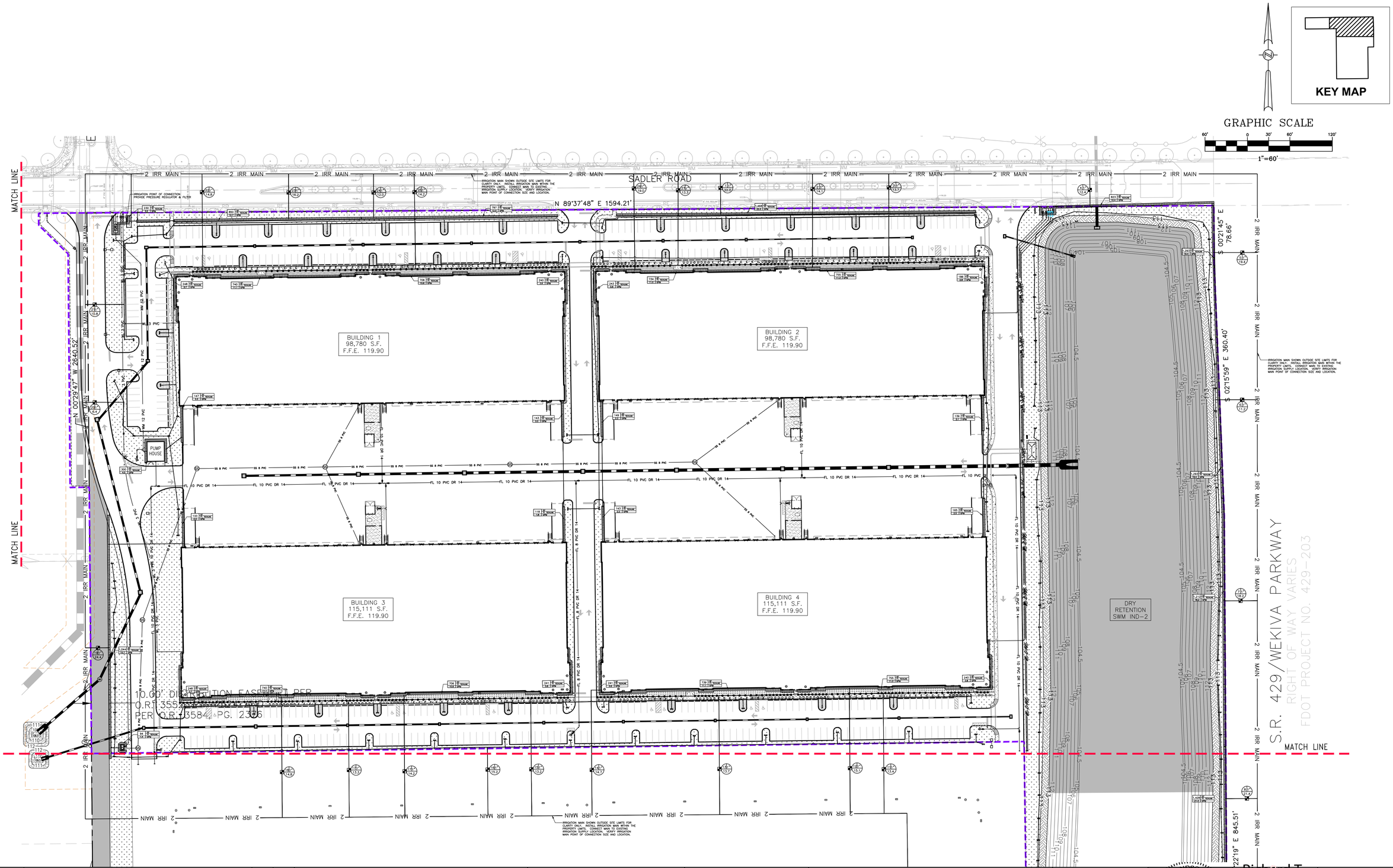

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

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PHASE I SITE IRRIGATION PLAN
(1 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. L-3
SHEET 30 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE OF AUTHORIZATION NO. EB 0006595
REGISTERED LANDSCAPE ARCHITECT
RICHARD T. ABT, JR.
1321
STATE OF
FLORIDA

Richard T Abt
Digitally signed by Richard T Abt
Date: 2024.01.31 18:19:39 -05'00'

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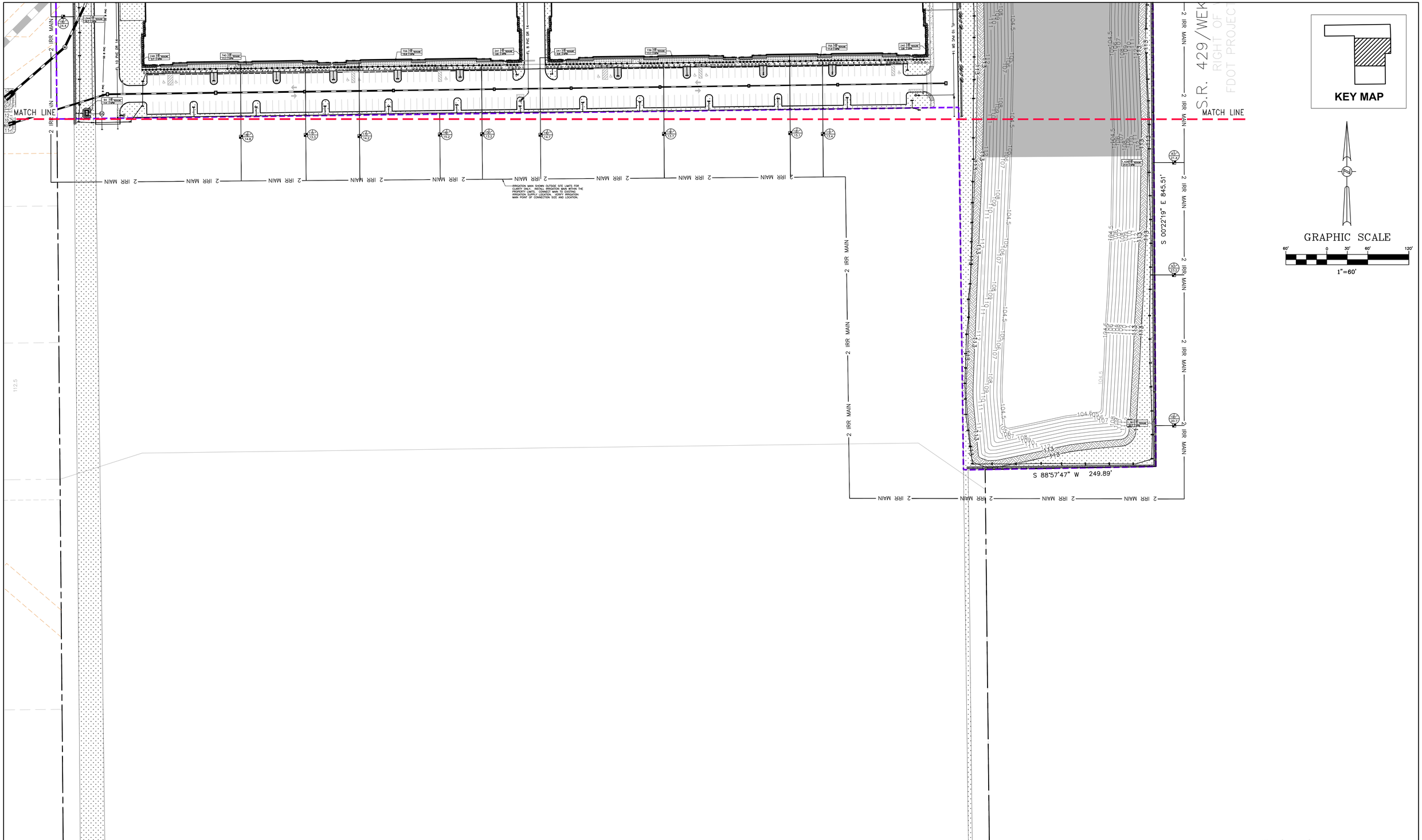

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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Engineering the Future

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PHASE I SITE IRRIGATION PLAN
(2 OF 2)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA	SJS

PROJECT NO. 22-032
SCALE 1"=60'
DATE JANUARY 29 2024
SHEET NO. L-4
SHEET 31 OF 32

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
REGISTERED LANDSCAPE ARCHITECT
RICHARD T. ABT
1321
STATE OF FLORIDA
LICENSED ARCHITECT

Richard T Abt
Digitally signed by Richard T Abt
Date: 2024.01.31 18:20:18 -05'00'

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LANDSCAPE NOTES

1. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT LIST AND THE ACTUAL NUMBER OF PLANTS SHOWN ON THE PLAN, THE PLAN SHALL CONTROL. THE LANDSCAPE CONTRACTOR SHALL NOTIFY FEG OF ANY DISCREPANCY PRIOR TO ISSUANCE OF BIDS.
2. ALL NEW PLANTINGS MUST COMPLY WITH THE SIZES AND QUANTITIES SHOWN IN THE PLANT LIST. ALL PLANTS MUST COMPLY WITH THE APPLICABLE JURISDICTIONAL CODE. PER THE FLORIDA GUIDES AND STANDARDS MANUAL ALL NEW TREES SHALL HAVE THEIR CALIPER MEASURED AT 6" ABOVE GRADE FOR ALL TREES UP TO AND INCLUDING 4" CALIPER TREES AND 12" ABOVE GRADE FOR ALL LARGER TREES.
3. ALL PLANTING BEDS AND TREE SAUCERS TO HAVE ORGANIC MULCH TO A DEPTH OF 2" MINIMUM. AREAS WITH SLOPES GREATER THAN 4:1 SHALL HAVE MULCH RINGS OR TERRACED IN LONGER BEDS DESIGNED TO CAPTURE WATER AND REDUCE EROSION. TOPS OF MULCH RINGS OR TERRACES ARE TO BE LEVEL WITH RESPECT TO GRADE AND MULCH ON THE HIGH SIDE OF THE PLANTS.
4. A TWELVE MONTH WARRANTY IS TO BE PROVIDED FOR ALL NEW PLANT MATERIALS STARTING FROM THE DATE OF FINAL CERTIFICATE OF OCCUPANCY OR ACCEPTANCE BY THE OWNER. WARRANTY CAN EXCLUDE PLANTS LOST DUE TO ACTS OF GOD OR VANDALISM. REPLACEMENT OF DEAD OR UNHEALTHY PLANT MATERIALS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR WITHIN 30 DAYS OF NOTIFICATION IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN.
5. ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE FULLY SODDED ASIDE FROM DEFINED PLANTING BEDS. SOD SHALL BE FREE OF WEEDS AND NOXIOUS PESTS OR DISEASES. DISTURBED AREAS OUTSIDE OF PROJECT LIMITS SHALL BE SEEDED AND MULCHED UNLESS STEEPER THAN 5:1. PROVIDE SOD ON SLOPES STEEPER THAN 5:1. ALL DRY PONDS CAN BE SEEDED AND MULCHED ON THE BOTTOMS AND SIDE SLOPES. WET PONDS ARE TO BE SODDED DOWN TO THE DESIGNED HIGH WATER LINE.
6. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING ON SITE OR ADJACENT AREAS, INCLUDING, BUT NOT LIMITED TO BUILDINGS, PAVING, UTILITIES, ETC., WHICH IS CAUSED BY PREPARING OR INSTALLING ANY AND ALL PLANT MATERIAL.
7. GRADE, DRESS AND SOD OR SEED AREAS THAT HAVE BEEN DISTURBED AS SOON AS POSSIBLE TO PREVENT EROSION.
8. ALL PLANT MATERIAL SHALL BE SET BACK FROM THE BACK OF CURBS OR PAVEMENT. SET TREES 3 FEET BACK FROM CURBS.
9. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF THERE ARE ANY INVASIVE OR EXOTIC TREES LOCATED ON THE SITE AND IS REQUIRED TO REMOVE ALL INVASIVE SPECIES PER THE LOCAL JURISDICTION'S INVASIVE SPECIES LIST LOCATED IN THEIR CODE OF ORDINANCES. GENERAL CONTRACTOR TO CONFIRM WITH THE LANDSCAPE INSTALLER THAT NO INVASIVE OR EXOTIC PLANT MATERIALS EXIST ON SITE. INFORM LANDSCAPE ARCHITECT IF ANY OF THESE PLANTS EXIST.
10. ANY PRUNING OF EXISTING TREES OR VEGETATION TO REMAIN AS A LANDSCAPE ELEMENT MUST BE CONDUCTED BY A CERTIFIED ARBORIST HOLDING A CURRENT CREDENTIAL WITH THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA). ALL PRUNING SHALL CONFORMING TO THE ANSI A300 STANDARDS, PART 1; PRUNING. THE SPECIFICATIONS FOR PRUNING SHALL BE DETERMINED BY THE CERTIFIED ARBORIST OR A PERSON QUALIFIED TO CREATE PRUNING SPECIFICATIONS ACCORDING TO THE ANSI STANDARD. THE GREATEST EMPHASIS IN PRUNING SHALL BE THE SAFETY, HEALTH AND WELFARE OF THE TRAVELING OR PEDESTRIAN TRAFFIC ESPECIALLY AS IT RELATES TO PEOPLE OR PROPERTY WITHIN THE FAILURE FOOTPRINT OF THE TREE OR VEGETATION TO BE PRUNED. WHEN THERE ARE EXISTING TREES OR VEGETATION TO REMAIN, CONTRACTOR SHALL EMPLOY A CERTIFIED TREE SURGEON TO SELECTIVELY PRUNE AND TRIM ALL EXISTING PLANT MATERIALS TO PROVIDE A BALANCED APPEARANCE WHILE ALSO ELIMINATING ANY INTERFERENCE WITH THE NEW CONSTRUCTION OR SAFETY, VISIBILITY CORRIDORS.
11. IRRIGATION (100% COVERAGE) SHALL BE PROVIDED IN ALL NEWLY PROPOSED PLANTING AREAS IN ACCORDANCE WITH THE JURISDICTIONAL LAND DEVELOPMENT CODE.

TREES TO BE REMOVED

POINT TABLE	
POINT NO.	DESCRIPTION
7985	OAK 22
7986	OAK 24
7987	OAK 19
7988	OAK 25
7989	OAK 14
7990	OAK 29
7991	OAK 14–12
7992	OAK 25
7993	OAK 25
7994	OAK 12
7995	OAK 12
7996	OAK 23
7998	OAK 23
7999	OAK 9–8
8000	OAK 11
8001	OAK 21
8002	OAK 32
8004	OAK 20

POINT TABLE	
POINT NO.	DESCRIPTION
8005	OAK 8
8006	OAK 11–9
8007	OAK 13–7
8008	OAK 7
8009	OAK 7
8010	OAK 9
8011	OAK 15
8012	OAK 15
8013	OAK 18
8014	OAK 7
8015	OAK 22
8016	OAK 10
8017	OAK 13
8018	OAK 16
8019	OAK 15
8020	OAK 21
8021	OAK 17
8022	OAK 15
8023	OAK 19
8024	OAK 15

POINT TABLE	
POINT NO.	DESCRIPTION
8025	OAK 17
8026	OAK 16
8027	OAK 19
8028	OAK 13
8029	OAK 19
8030	OAK 18
8031	OAK 18
8032	OAK 22
8033	OAK 17
8034	OAK 18
8035	OAK 18
8036	OAK 7
8037	OAK 18
8038	OAK 15
8039	OAK 21
8040	OAK 23
8041	OAK 15
8042	OAK 20
8043	OAK 11
8044	OAK 15

POINT TABLE	
POINT NO.	DESCRIPTION
8045	OAK 15
8046	OAK 15
8047	OAK 15
8048	OAK 23
8049	OAK 17
8050	OAK 13
8053	OAK 26
8054	OAK 9
8055	OAK 9
8059	OAK 20
8060	OAK 15
8061	OAK 18
8063	OAK 8

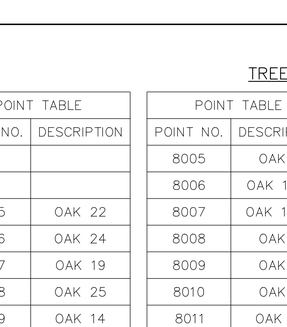
TOTAL TREES REMOVED ON–SITE: 75

FLORIDA NATIVE LANDSCAPE SCHEDULE

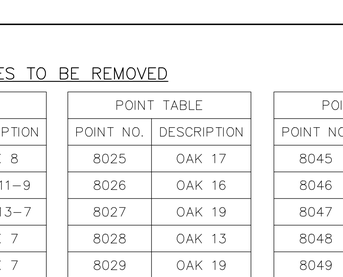
SYMBOL	ABR.	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	QUANTITY	REMARKS	NATIVE
CANOPY TREES							
	QV	QUERCUS VIRGINIA 'HIGH RISE'	HIGH RISE LIVE OAK	8'–10' HT. 3" CAL.	78	SPECIMEN	Y
	QS	QUERCUS SHUMARDII	SHUMARD OAK	8'–10' HT. 3" CAL.	34	SPECIMEN	Y
	UA	ULMUS ALATA	WINGED ELM	8'–10' HT. 3" CAL.	30	SINGLE STRAIGHT TRUNK	Y
	MG	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	8'–10' HT. 3" CAL.	28	SINGLE STRAIGHT TRUNK	Y
	MV	MAGNOLIA VIRGINIANA	BAY MAGNOLIA	8'–10' HT. 3" CAL.	14	SINGLE STRAIGHT TRUNK	Y
TOTAL CANOPY TREES					184		
UNDERSTORY TREES							
	LI	LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	10'– HT. 2" CAL. 15 GAL.	18	MULTI TRUNK 3–5 TRUNKS MIN.	Y
	IA	ILEX ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	7' HT. 2" CAL. 15 GAL.	34	SINGLE STRAIGHT TRUNK	
TOTAL UNDERSTORY TREES					52		
SHRUBS							
	VB	VIBURNUM ODORATISSIMUM	VIBURNUM	30" HT. 36" O.C.	1,043		Y
	HP	HAMELIA PATENS	FIREBUSH	3 GAL. 24"–30" 36" O.C.	241		Y
	PM	PODOCARPUS MACROPHYLLUS	PODOCARPUS	3 GAL. 24"–30" 36" O.C.	554		Y
	MU	MUHLENBERGIA	RED MUHLY GRASS	3 GAL. 24"–30" 36" O.C.	46		Y
GROUND COVER							
	SA	SALVIA AZUREA	BLUE SAGE	5 GAL 24" O.C.	190		Y
	ZP	ZAMIA PUMILA	COONTIE	3 GAL. 18" O.C.	246		Y
	IV	ILEX VOMITORIA	SCHELLINGS DWARF	3 GAL. 12"X15" 24" O.C.	80		Y
	HE	HEMEROCALLIS SPP.	DAYLILY	1 GAL. 12" O.C.	696		
SOD/MISC.							
	SOD	ST.AUGUSTINE	**QTY. BY CONTRACTOR FOR BUILDING FRONTAGE ONLY**				
	SOD	BAHIA HYBRID	*NO MORE THAN 60% OF ALL LANDSCAPE AREA CAN BE SOD. QTY. BY CONTRACTOR				

IRRIGATION LEGEND

- DRIP EMITTER – 2 PER TREE
- DRIPLINE ZONE VALVE
- DRIPLINE ZONE 12" ON CENTER
- C — CONTROLLER
- R — RAIN SENSOR
- PVC SLEEVE–2 SIZES LARGER
- VALVE ZONE NO. — X | 1" — VALVE SIZE; XX.X — VALVE GPM



1 L-1 ELECTRIC VALVE DETAIL — NOT TO SCALE



2 L-1 DETAIL DRIP EMITTER — NOT TO SCALE

TREE MITIGATION TOTALS

SITE CLEARING AREA: 32.2 AC. (1,401,126 SF)

TOTAL TREES ON–SITE: 75
TOTAL TREES REMOVED: 75
TOTAL TREES RETAINED: 0

TOTAL INCHES ON–SITE: 1,212

TOTAL INCHES REMOVED: 1,212 (INCLUDES SPECIMEN TREES)
TOTAL INCHES RETAINED: 0
TOTAL SPECIMEN TREES REMOVED: 7 TREES (186 INCHES)
TOTAL SPECIMEN INCHES RETAINED: 0

TOTAL INCHES REQUIRED: 225" (75 TREES AT 3" CALIPER)
TOTAL TREE INCHES TO BE PROVIDED: 177 CANOPY @ 3" + 36 U/S @ 2" = 603"
TREE INCHES TO BE MITIGATED THROUGH TREE FUND: 0"

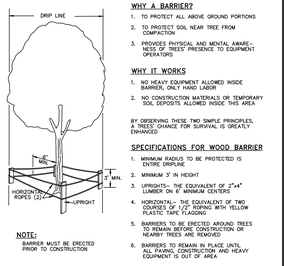
PROPOSED TREE TOTALS

TOTAL TREES PROPOSED = 213

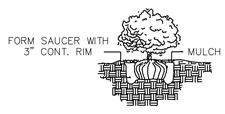
TOTAL TREES AT 3" CALIPER PROPOSED 177 = 531"

TOTAL TREES AT 2" CALIPER PROPOSED 36 = 72"

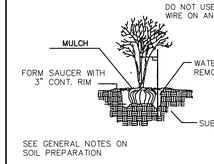
TOTAL CALIPER PROPOSED = 603"



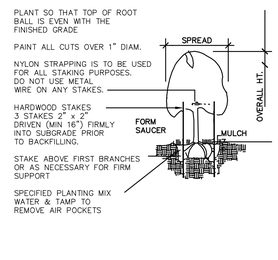
TREE PROTECTION MEASURES



SHRUB PLANTING



MULTI–TRUNK TREE STAKES



TREE PLANTING VERTICAL STAKES

DATE	REVISIONS	BY	CHECKED

SITE CONSTRUCTION PLANS
KELLY INDUSTRIAL PARK - PHASE I
APOPKA, FLORIDA

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Engineering the Future

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PHASE I SITE LANDSCAPE PLAN AND IRRIGATION NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA	SJS

PROJECT NO. 22-032
SCALE NOTED
DATE JANUARY 29 2024
SHEET NO. L-5
SHEET 32 OF 32

FLORIDA ENGINEERING GROUP, INC. CERTIFICATE OF AUTHORIZATION No. EB #0006594 — REGISTERED LANDSCAPE ARCHITECT — RICHARD T. ABT — 1321 STATE OF FLORIDA

Richard T Abt
Digitally signed by Richard T Abt
Date: 2024.01.31 18:17:42 -05'00'

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