

Construction Plans  
for  
Duke Eustis  
South Substation  
City of Eustis, FL

LEGAL DESCRIPTION:  
Parcel 23-19-26-000200000100  
  
(O.R.B. 264, Page 573)

Beginning at the Northwest corner of the SE 1/4 of the NW 1/4 of Section 23, Township 19 South, Range 26 East, thence North 89°45'40" East, along the North boundary of said SE 1/4 of NW 1/4, 534.16 feet to a point on the Westerly right-of-way line of Access Road No. 4, as described in Warranty Deed from W.M. IGOU, Inc. to the STATE OF FLORIDA, dated February 11, 1960, and recorded in Official Records Book 116, Page 628, Public Records of Lake County, Florida, said point being 125.00 feet Westerly from and at right angle to the center line of State Highway No. 19; thence Southerly and Southwesterly, along said right-of-way line, the following bearings and distances: South 0°00'50" West 95.49 feet; South 23°30'50" West 172.22 feet; South 46°59'35" West 455.49 feet; South 58°10'20" West 155.76 feet to the West boundary of said SE 1/4 of NW 1/4; thence North, along said West boundary, 644.00 feet to the Point of Beginning. (Subject to the right of way for Titcomb Street as shown upon the plat of Oleander Court recorded in plat book 8, page 16, public records of Lake County, Florida.

Contains 5.22 Acres.

Parcel Id. No.:  
23-19-26-0002-000-00100

Alternate Key No.:  
1240336

Owner/Developer/Applicant:

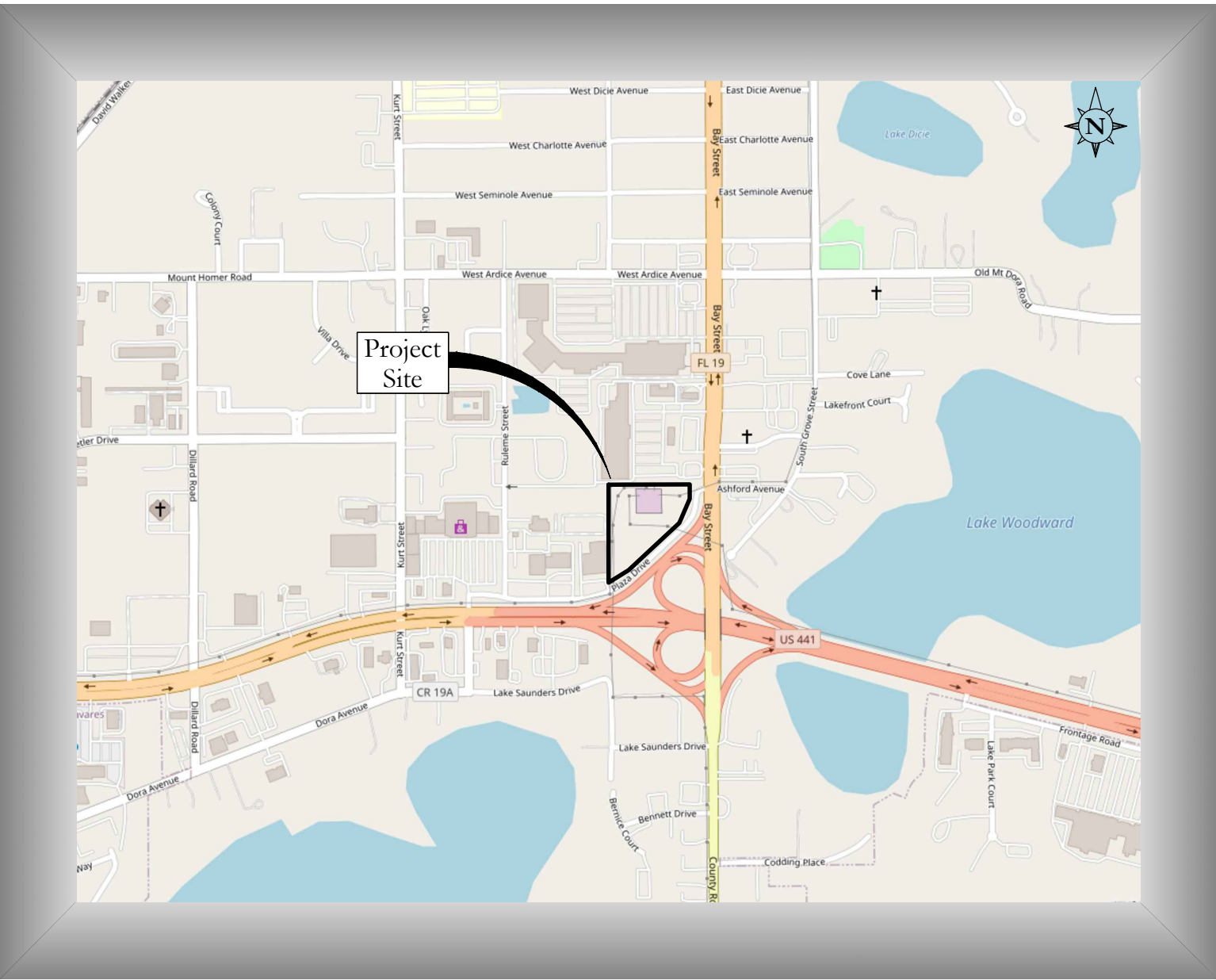
Duke Energy  
3300 Exchange Place  
Lake Mary, FL 32746  
407.942.9479



Civil Engineer:  
Poulos & Bennett, LLC  
2602 E. Livingston St.  
Orlando, FL 32803  
407.487.2594

Surveyor:  
Pickett Surveying Engineering  
475 South First Avenue  
Bartow, FL 33830  
863.533.9095

Geotechnical Engineer:  
BJ Rock, LLC  
14724 Brick Place  
Tampa, FL 33626  
727.243.8013



Vicinity Map  
Scale: 1" = 1,000'

Sheet Index		Subm./Rev.					
Sheet Id.	Sheet Title	1	2	3	4	5	6
C0.00	Cover Sheet	■	■				
S-167-C7	Site Plan	■	■				
S-167-C8	Fire Truck Turning Plan	■	■				
S-167-D105	Clear, Grade & Fill Layout	■	■				
S-167-D106	Paving, Grading & Drainage Plan	■	■				
S-167-D107	Paving, Grading & Drainage Details	■	■				
S-167-D108	Erosion Control & Stormwater Pollution Prevention Plan	■					
Survey							
1 of 3	Boundary & Topographic Plaza Drive	■	■				
2 of 3	Boundary & Topographic Plaza Drive	■	■				
3 of 3	Boundary & Topographic Plaza Drive	■	■				
-	-						
-	-						
	Date	Description					
1	8/1/2022	Submit To City Of Eustis					
2	3/14/2023	Submit To City Of Eustis					

**WAIVER REQUEST**  
1. A WAIVER FROM CITY OF EUSTIS CODE SECTION 115-9 GENERAL LANDSCAPING STANDARDS, TO ALLOW AN 8 FOOT TALL DECORATIVE PRECAST CONCRETE WALL AND 20' COLUMN SPACING BE CONSTRUCTED FOR SCREENING IN LIEU OF LANDSCAPING FOR BUFFERING/SCREENING.

WAIVER #1 JUSTIFICATION: THERE ARE TWO TRANSMISSION LINES AND ONE DISTRIBUTION LINE IN THE AREA. CONSTRUCTION OF A LANDSCAPE BUFFER WOULD POSE SIGNIFICANT SAFETY RISKS TO WORKERS AND THE PUBLIC DUE TO THE POTENTIAL FOR ELECTRICAL HAZARDS. WITH A VEGETATIVE LANDSCAPE BUFFER, THERE IS THE POTENTIAL FOR VEGETATION TO GROW AND INTERFERE WITH THE LINES OR REQUIRE MAINTENANCE, WHICH COULD POSE A RISK TO PUBLIC SAFETY. A WALL, ON THE OTHER HAND, IS A MORE DECORATIVE, DURABLE AND LONG-LASTING SOLUTION THAT REQUIRES MINIMAL MAINTENANCE. THE INSTALLATION OF A WALL WILL PROVIDE A SAFE AND EFFECTIVE ALTERNATIVE TO MEET THE SITE'S SCREENING NEEDS WHILE AVOIDING ANY POTENTIAL HAZARDS. ADDITIONALLY, A WALL WILL ALLOW BETTER MANAGEMENT FOR THE MAINTENANCE AND UPKEEP OF THE AREA. FURTHERMORE, THE WALL WILL PROVIDE ADDITIONAL SECURITY TO THE SITE.

CONSIDERING THESE FACTORS, THE INSTALLATION OF A WALL IN LIEU OF A LANDSCAPE BUFFER WOULD PROVIDE A SAFE AND EFFICIENT ALTERNATIVE FOR MANAGING THE SITE'S LANDSCAPING NEEDS WHILE AVOIDING ANY POTENTIAL HAZARDS. THE WALL WILL PROVIDE AN EFFECTIVE BARRIER TO PREVENT DAMAGE TO THE TRANSMISSION AND DISTRIBUTION LINES AND WILL ALSO SERVE AS A VISUAL BARRIER TO ENHANCE THE OVERALL AESTHETICS OF THE SITE. BASED ON THESE CONSIDERATIONS, WE RESPECTFULLY REQUEST A WAIVER TO ALLOW US TO CONSTRUCT A WALL IN LIEU OF THE LANDSCAPE BUFFER FOR THIS PROJECT.

Rafael L. Arosemena  
Professional Engineer  
No. 72282  
STATE OF FLORIDA  
PEE NO. 072282  
March 15, 2023  
DATE:



This item has been digitally signed and sealed by Rafael L. Arosemena, PE on 3/15/2023 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.

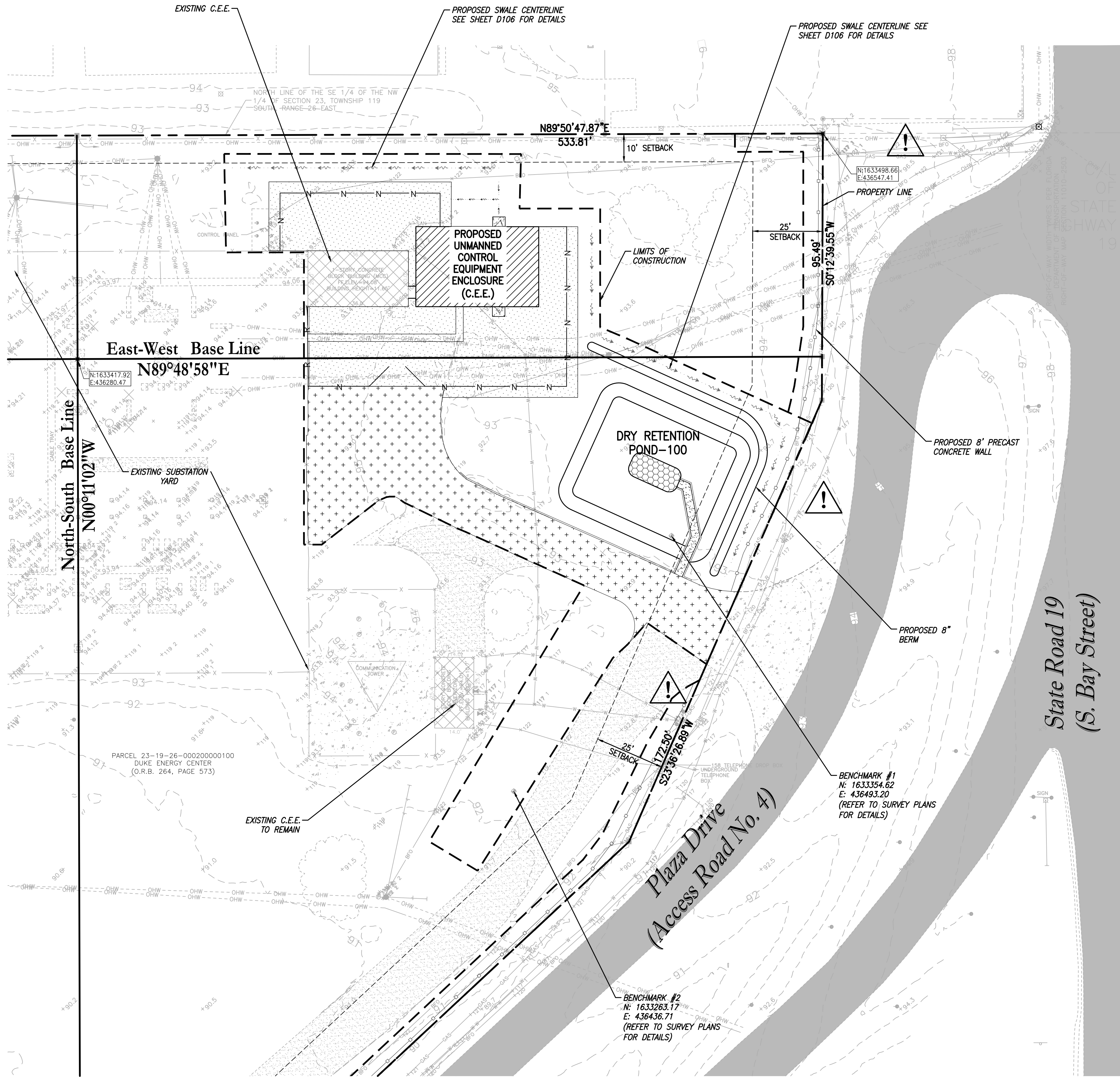
POULOS & BENNETT

2602 E. Livingston St., Orlando, FL 32803  
Tel. 407.487.2594 www.poulosandbennett.com  
Eng. Bus. No. 28567

P&B Job No.: 18-217

NOTE:  
CONSTRUCTION PLANS WERE PREPARED IN ACCORDANCE WITH THE LATEST MANUAL OF UNIFORM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS, FDOT GREEN BOOK, AND CITY OF EUSTIS REGULATIONS AND SPECIFICATIONS.





Site Data		
Gross Property Area (Gross):	227,521 SF	5.22 AC
Zoning:	City of Eustis Doesn't have Zoning Designation	
Future Land Use Category:	General Commercial (GC)	
Existing		
Existing limits of Work:	17,424 SF	0.40 AC
Existing Control Equipment Enclosure (C.E.E.) Area:	1,075 SF	0.02 AC
Existing Impervious Area:	6,636 SF	0.15 AC
Existing Pervious Area:	9,713.0 SF	0.223 AC
Proposed		
Proposed Control Equipment Enclosure (C.E.E.) Area:	1261 SF	0.03 AC
Proposed Yard Rock Area:	3357 SF	0.08 AC
Proposed Milling and Resurfacing of existing Asphalt Driveway Area:	4391 SF	0.10 AC
Total Proposed Impervious Area	9,009 SF	0.21 AC
Total Proposed Pervious Area	8,415 SF	0.19 AC
Total Area		0.40 AC
Setbacks:	Required	Provided
Street or Roads Setback:	25 FT	313 FT
Side Setback:	10 FT	63 FT
Side Setback:	10 FT	150 FT
Rear Setback:	10 FT	102 FT

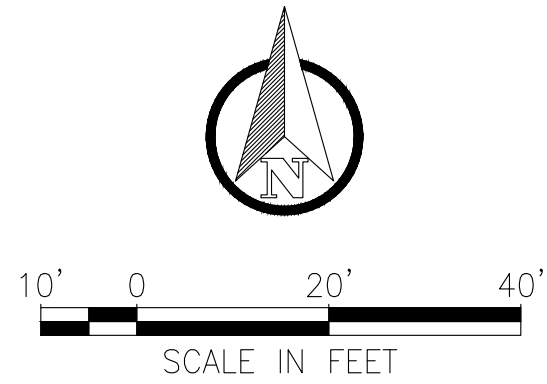
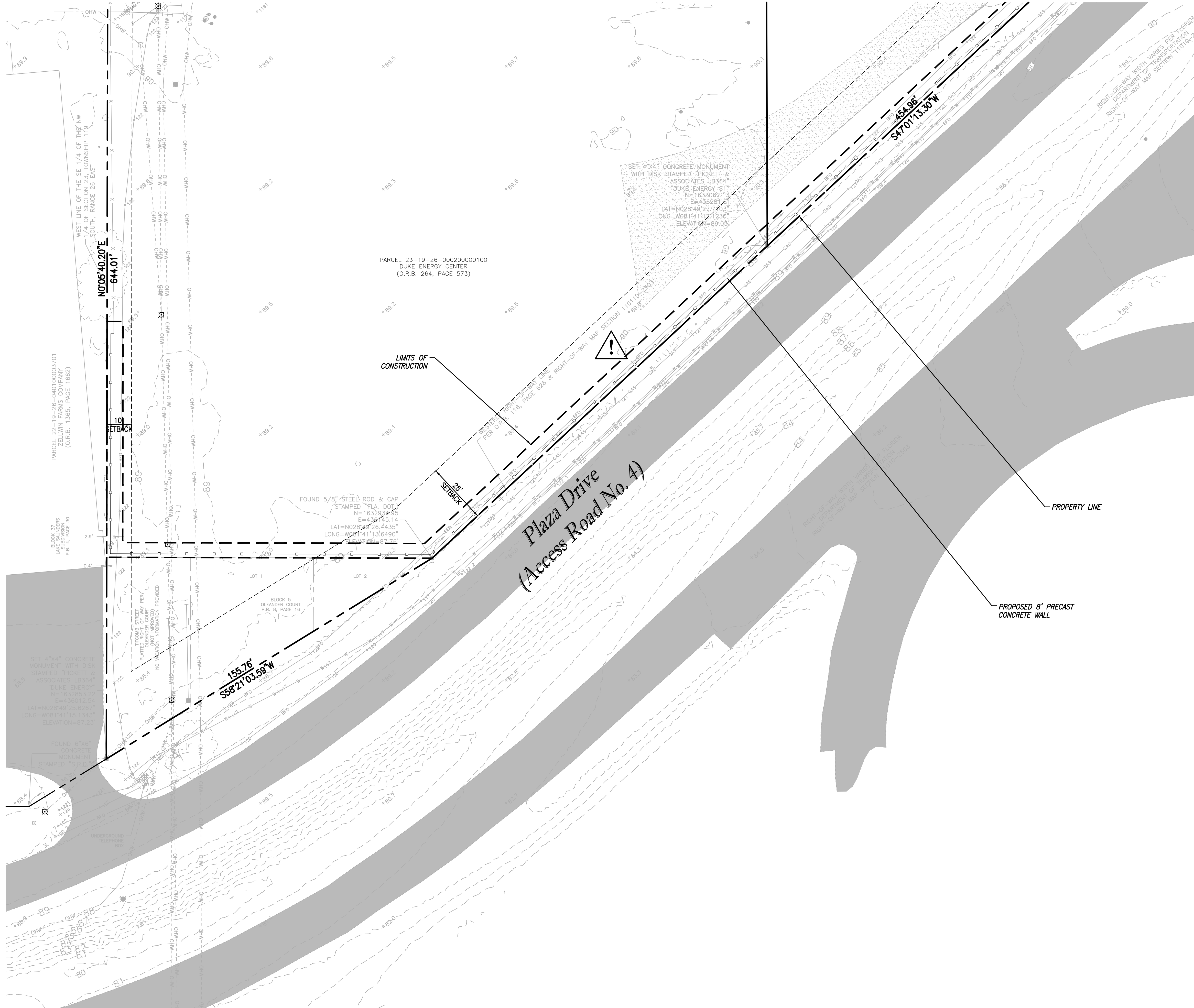
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	PROPOSED SUBSTATION YARD (#57 PREWASHED GRANITE)
	PROPOSED 2" MILL AND RESURFACE ASPHALT PAVEMENT
	RIP RAP SEE DETAIL ON SHEET D107 SHEET 2 OF 2
	EXISTING (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.) TO REMAIN
	EXISTING CONCRETE STRUCTURE OR CABLE TRENCH TO REMAIN
	PROPOSED CABLE TRENCH (REFER TO ELECTRICAL PLANS FOR DETAILS)
	PROPERTY LINE
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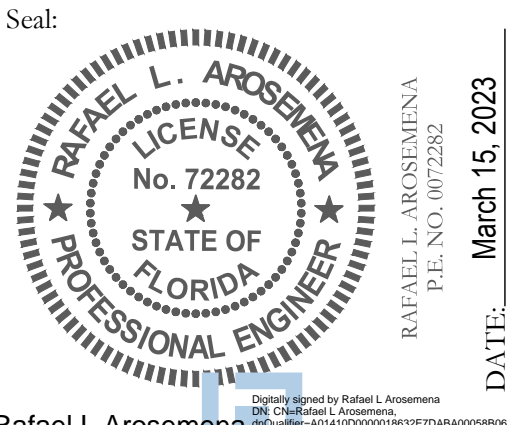
REVISIONS					
NO.	DESCRIPTION	DRAWN	CHKD.	APPR.	DATE
DUKE ENERGY					
02/2022	1:20 SCALE	SUBSTATION ENGINEERING			
PD DRAWN	PD TECH	SITE PLAN			
JP CHECK	RA ENGR	EUSTIS SOUTH SUBSTATION			
1 OF 2 SHEET	DWG.	S-167-C7			



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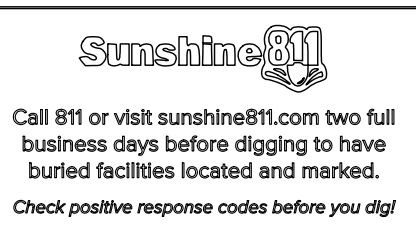
**Poulos & Bennett, LLC**  
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Tel. 407.487.2594 www.poulosandbennett.com  
Eng. Bus. No. 28567  
P&B Job No: 18-216



Rafael L. Arosemena

DATUM: NAVD 88

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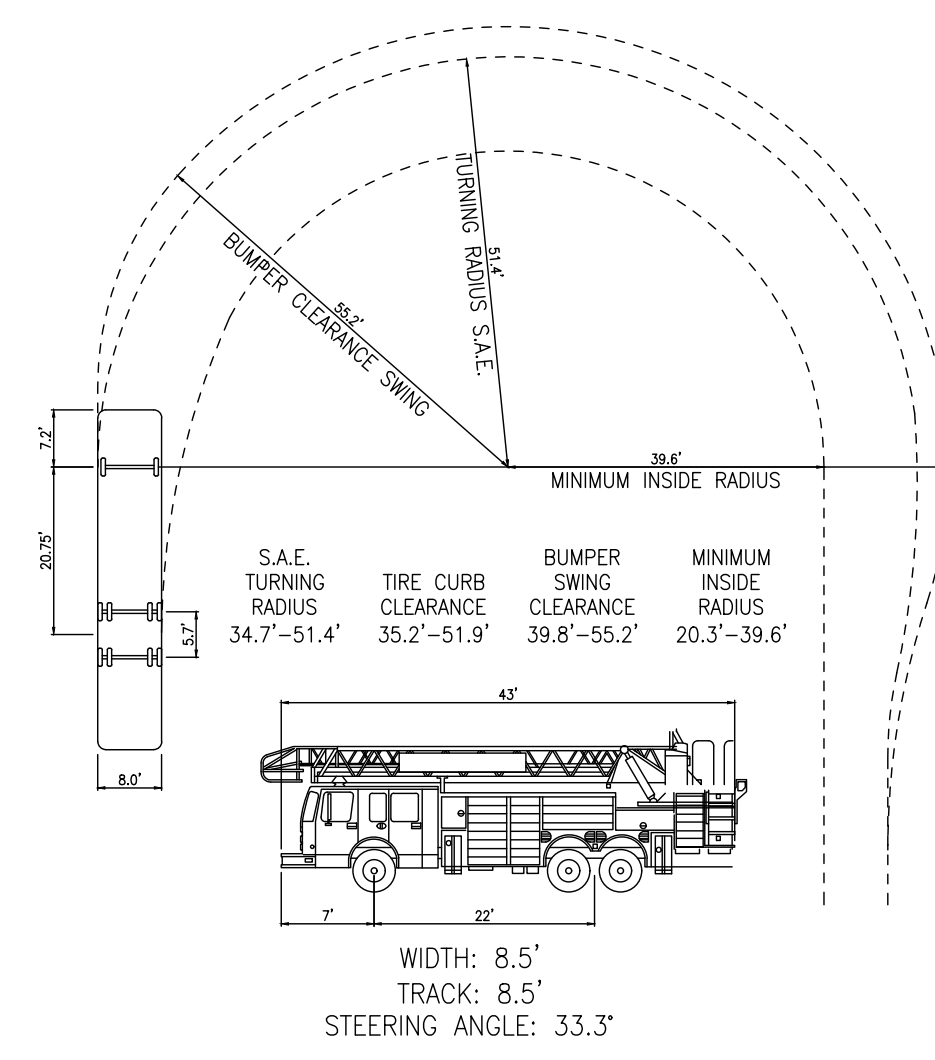
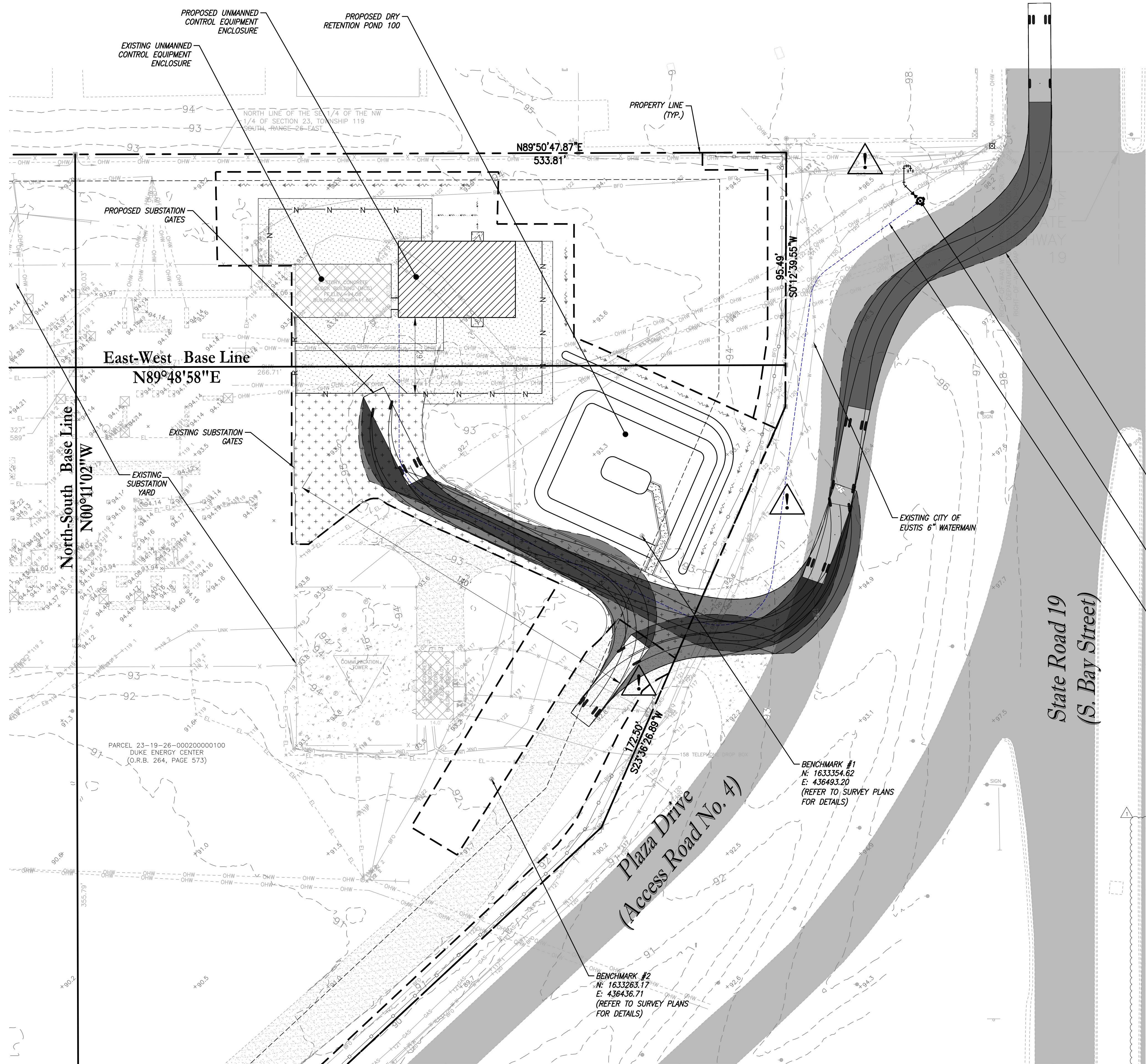
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REVISIONS					
NO.	DESCRIPTION	DRAWN	CHKD.	APPR.	DATE
<b>DUKE ENERGY</b>					
02/2022	1:20 SCALE	SUBSTATION ENGINEERING			
PD	PD	SITE PLAN			
DRAWN	TECH	EUSTIS SOUTH SUBSTATION			
JP	RA				
CHECK	ENGR				
2 OF SHEET	2 DWG.	S-167-C7			



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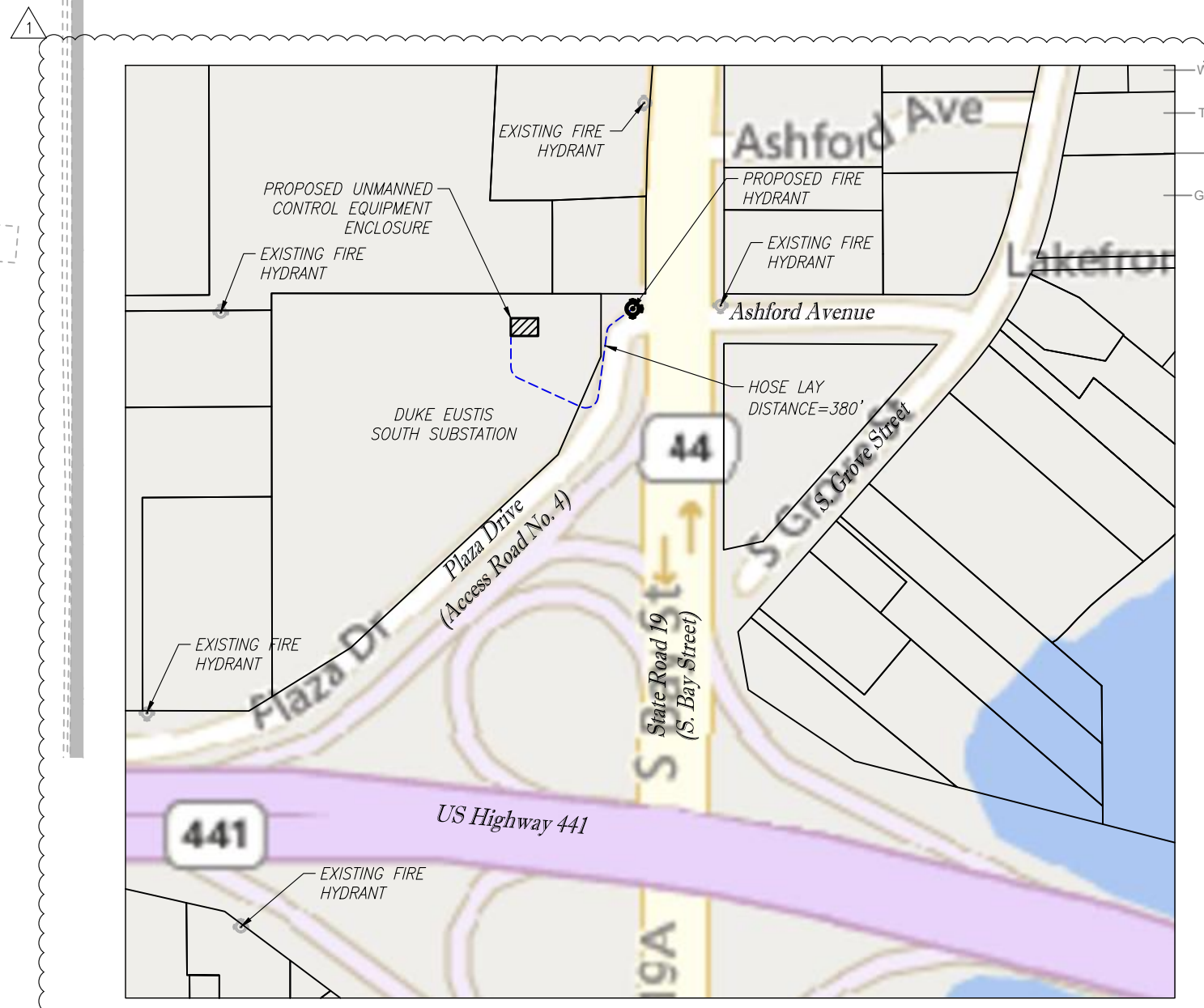


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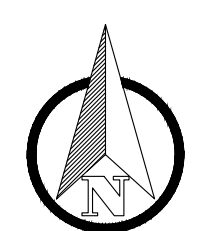
PROPOSED FIRE TRUCK MANEUVERING ROUTE. NOTE: EMERGENCY VEHICLE ACCESS WITHIN THE EXISTING SUBSTATION YARD WILL ONLY BE ALLOWED WHEN DUKE PERSONNEL ARE PRESENT TO ESCORT EMERGENCY VEHICLES TO ENSURE THEIR SAFETY WITHIN THE ENERGIZED STATION YARD.

PROPOSED FIRE HYDRANT ASSEMBLY (FH#1)

HOSE LAY DISTANCE = 380'



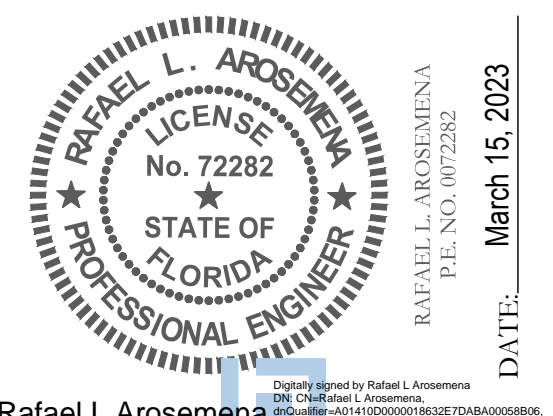
EXISTING AND PROPOSED FIRE HYDRANTS LOCATION MAP N.T.S.



10' 0 20' 40'  
SCALE IN FEET



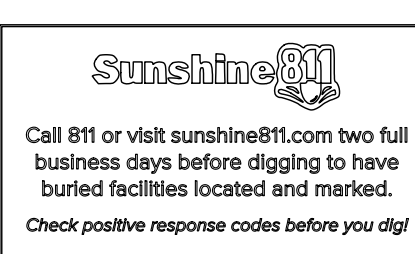
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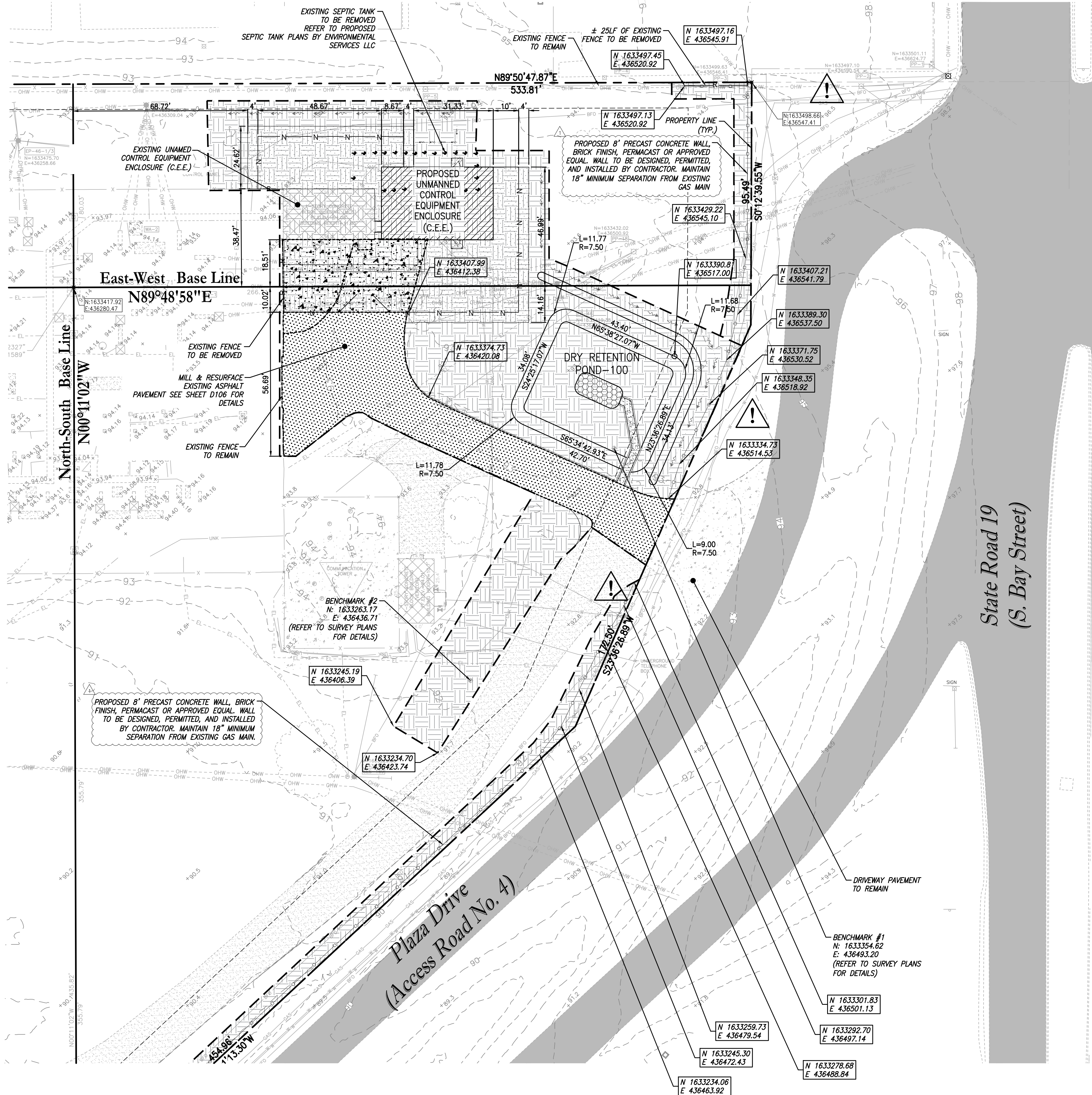
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DUKE ENERGY				
02/2022	DATE	1:20	SCALE	SUBSTATION ENGINEERING
PD	DRAWN	PD	TECH	FIRE TRUCK TURNING PLAN
JP	CHECK	RA	ENGR	EUSTIS SOUTH SUBSTATION
1	OF SHEET	DWG.	S-167-C8	



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CLEAR, GRADE AND FILL NOTES:

CLEAR, GRADE AND FILL IS SUPERIMPOSED ON A PORTION OF THE BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY PICKETT AND ASSOCIATES, INC.

- ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE TO THE SUBSURFACE SOIL EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION (GEOTECHNICAL ENGINEERING REPORT) BY BJ ROCK, LLC, PROJECT NO. 21-211 DATED 10/14/2021.
- FILL DIRT SHALL BE FREE DRAINING, CLEAN SAND AND SHALL BE FREE OF SILT AND CLAY (GROUP A-3, MAX 10% FINES PASSING THE #200 SIEVE AS DEFINED IN AASHTO SPECIFICATIONS M-145) WITH NON-COHESIVE, NON-PLASTIC SOILS. SOIL COMPACTED TO AT LEAST 90 PERCENT TO A MAXIMUM OF 95 PERCENT OF THE MODIFIED PROCTOR (ASTM D-1557) MAXIMUM DRY DENSITY VALUE.
- EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES ARE TO BE INSTALLED PRIOR TO CLEARING AND EARTHWORK COMMENCEMENT, AND SHALL BE OBSERVED AND MAINTAINED DURING CONSTRUCTION.
- EXISTING TURF ON THIS SITE IN THE UNDISTURBED AREAS SHALL REMAIN UNDISTURBED. ANY DAMAGE BY CONTRACTOR SHALL BE REPAIRED TO ORIGINAL CONDITION AT THE EXPENSE OF THE CONTRACTOR.
- IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF ANY ARCHEOLOGICAL/HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATIONS ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON THE SITE. CONTRACTOR TO COORDINATE WITH DUKE ENVIRONMENTAL PERMITTING AGENT FOR ADDITIONAL REQUIREMENTS AND PROCEDURES.
- ANY WELLS FOUND ON SITE NOT IN USE AS PART OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN PLACE PER FDEP REGULATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO REMOVAL.
- CONSTRUCTION BASELINE MONUMENTS SHALL NOT BE DISTURBED DURING CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY AND BASE MONUMENTATION. ANY DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA-LICENSED LAND SURVEYOR SELECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
- #57 GRANITE SHALL BE THE LAST ITEM INSTALLED IN THE SUBSTATION YARD.
- THE FOOTPRINT OF THE PROPOSED DEVELOPMENT AREA, PLUS A MINIMUM MARGIN OF FIVE FEET SHALL BE STRIPPED OF ALL SUBSTATION YARD GRAVEL, SURFACE VEGETATION, STUMPS, DEBRIS, ORGANIC TOP SOIL OR OTHER DELETERIOUS MATERIAL, AS ENCOUNTERED AFTER STRIPPING. THE PROJECT AREA SHALL BE GRUBBED OR ROOT-RAKED SUCH THAT MAJOR ROOT SYSTEMS ARE COMPLETELY REMOVED. SITE CLEARING AND PREPARATION OF WORK SHALL BE CARRIED OUT UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION.

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- 2" MILL AND RESURFACE EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT AND ASPHALT PAVEMENT TO BE REMOVED
- AREA TO BE CLEARED AND GRUBBED AND SOIL PREPARED FOR PROPOSED YARD AND POND. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR DETAILS
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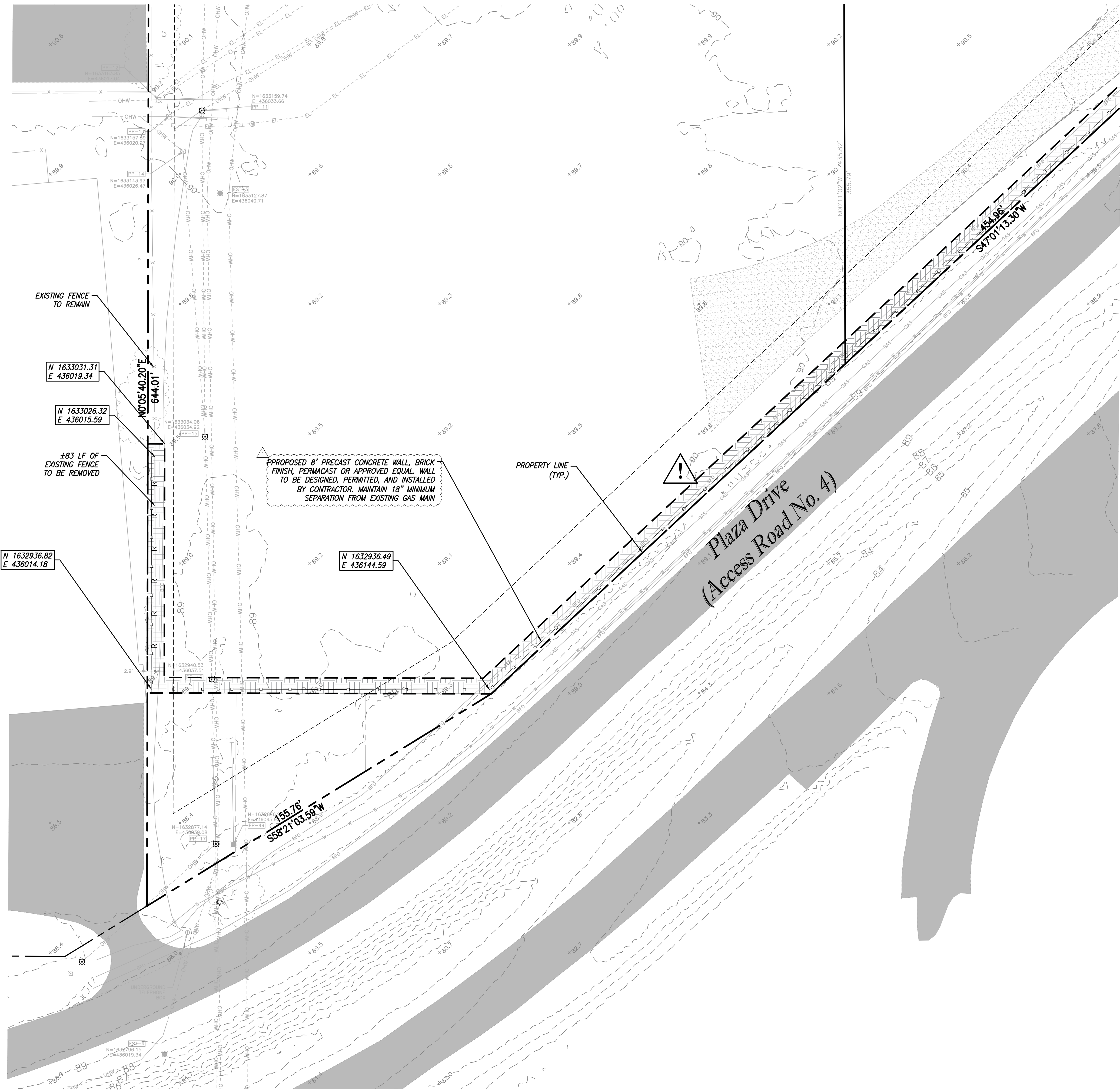
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DUKE ENERGY				
02/2022	DATE	1:20	SUBSTATION ENGINEERING	
PD	DRAWN	PD	CLEAR, GRADE, & FILL LAYOUT	
JP	CHECK	RA	EUSTIS SOUTH SUBSTATION	
1	OF SHEET	2	DWG. S-167-D105	



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- ANY WELLS FOUND ON SITE NOT IN USE AS PART OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN PLACE PER FDEP REGULATIONS. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO REMOVAL.
- CONSTRUCTION BASELINE MONUMENTS SHALL NOT BE DISTURBED DURING CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY AND BASE MONUMENTATION. ANY DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA-LICENSED LAND SURVEYOR SELECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
- #57 GRANITE SHALL BE THE LAST ITEM INSTALLED IN THE SUBSTATION YARD.
- THE FOOTPRINT OF THE PROPOSED DEVELOPMENT AREA, PLUS A MINIMUM MARGIN OF FIVE FEET SHALL BE STRIPPED OF ALL SUBSTATION YARD GRAVEL, SURFACE VEGETATION, STUMPS, DEBRIS, ORGANIC TOP SOIL OR OTHER DELETERIOUS MATERIAL, AS ENCOUNTERED AFTER STRIPPING. THE PROJECT AREA SHALL BE GRUBBED OR ROOT-RAKED SUCH THAT MAJOR ROOT SYSTEMS ARE COMPLETELY REMOVED. SITE CLEARING AND PREPARATION OF WORK SHALL BE CARRIED OUT UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION.

Legend:

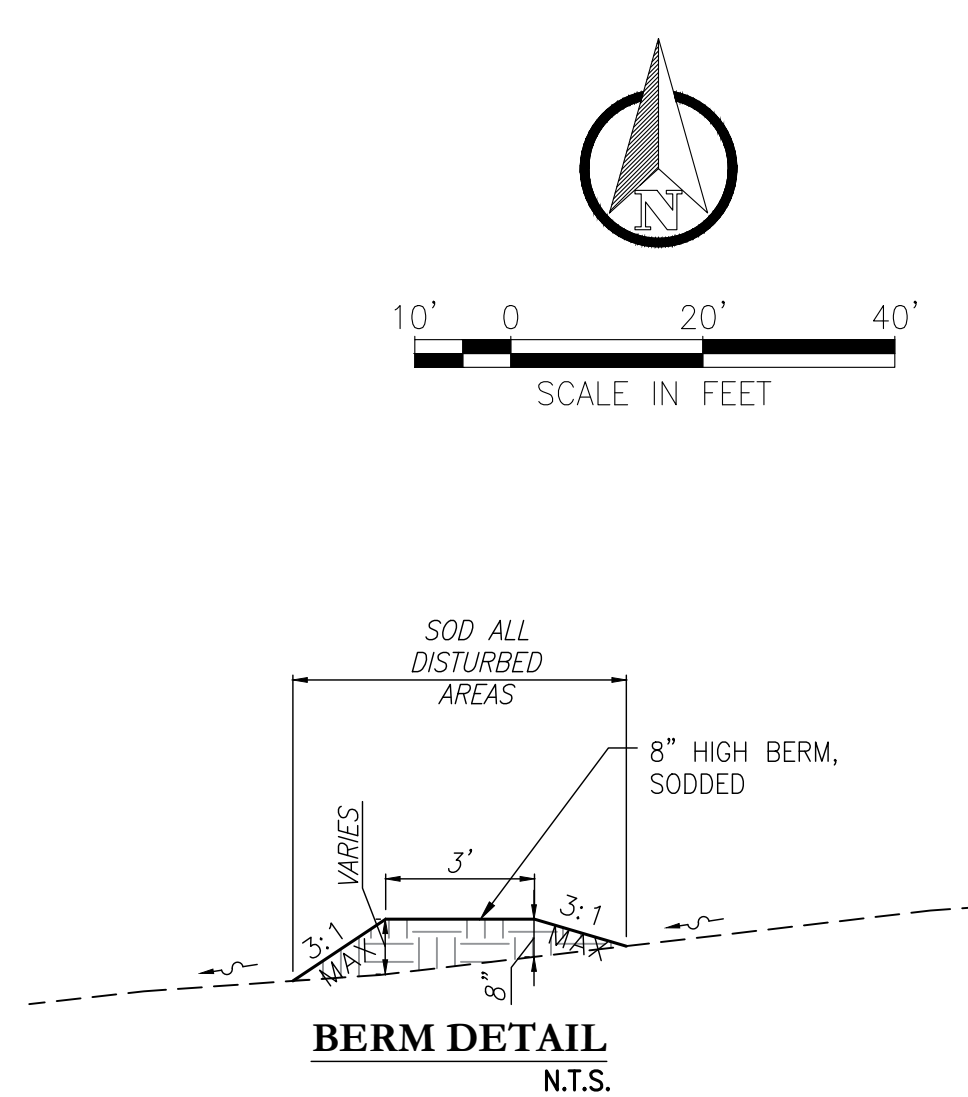
- PROPOSED (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.)
- PROPOSED SUBSTATION YARD (#57 PREWASHED GRANITE)
- 2\"/>

NOTES:

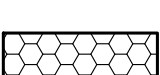


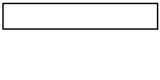
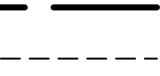
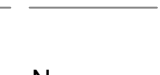
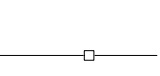















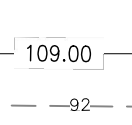









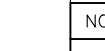



- THE PROPOSED FACILITY INCLUDING THE CONTROL EQUIPMENT ENCLOSURE (C.E.E.) BUILDING IS UNMANNED. NO PARKING IS REQUIRED OR PROVIDED.

REVISIONS				
NO.	DESCRIPTION	DRAWN	CHKD.	APPR. DATE
DUKE ENERGY				
02/2022	1:20 SCALE	SUBSTATION ENGINEERING		
PD DRAWN	PD TECH	CLEAR, GRADE, & FILL LAYOUT		
JP CHECK	RA ENGR	EUSTIS SOUTH SUBSTATION		
2 OF SHEET	2	DWG. S-167-D105		

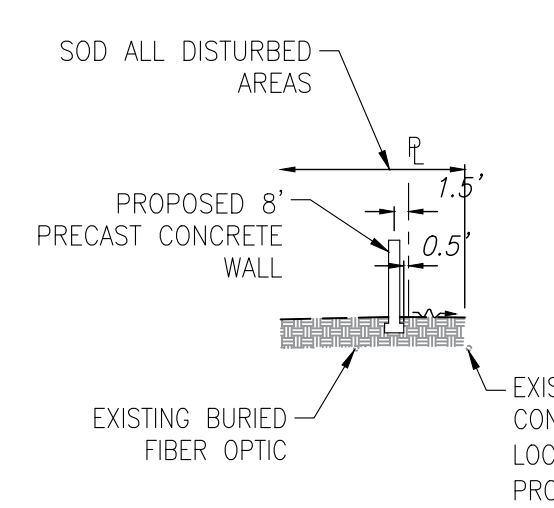
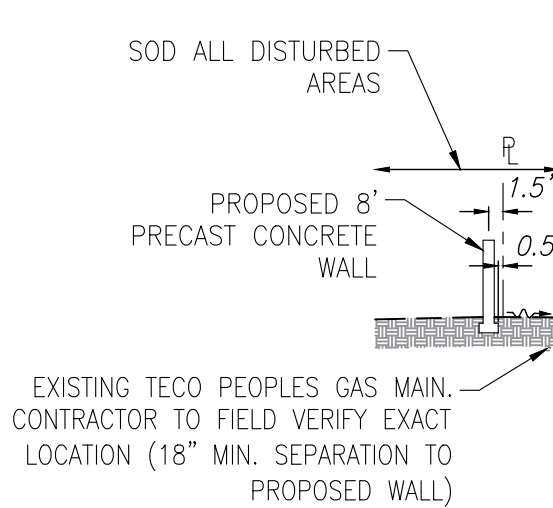




UTILITY CROSSING TABLE			
X-1	2.5" UNKNOWN LINES (VW 1) UNKNOWN LINES TOP ELEV. 90.49' UNKNOWN LINES BTM ELEV. 90.28'	X-6	4.5" BURIED ELECTRIC LINE (VW 6) BURIED ELECTRIC LINE TOP ELEV. 90.20' BURIED ELECTRIC LINE BTM ELEV. 89.80'
SEPARATION: 1.05'		SEPARATION: 1.17'	
18"x12" ERCP STORM PIPE STORM TOP ELEV. 89.23' STORM BTM ELEV. 87.82'		18"x12" ERCP STORM PIPE STORM TOP ELEV. 88.63' STORM BTM ELEV. 87.21'	
X-2	2" COMMUNICATION LINE (VW 2) COMMUNICATION LINE TOP ELEV. 90.70' COMMUNICATION LINE BTM ELEV. 90.53'	X-7	BURIED ELECTRIC DUCT (VW 7) BURIED ELECTRIC DUCT TOP ELEV. 90.30' BURIED ELECTRIC DUCT BTM ELEV. 89.40'
SEPARATION: 1.23'		SEPARATION: 0.73'	
18"x12" ERCP STORM PIPE STORM TOP ELEV. 89.30' STORM BTM ELEV. 87.88'		18"x12" ERCP STORM PIPE STORM TOP ELEV. 88.67' STORM BTM ELEV. 87.26'	
X-3	1" WATER LINE (VW 3) WATER LINE TOP ELEV. 91.50' WATER LINE BTM ELEV. 91.41'	X-8	3" UNKNOWN LINES (VW 8) UNKNOWN LINES TOP ELEV. 91.20' UNKNOWN LINES BTM ELEV. 90.90'
SEPARATION: 2.06'		SEPARATION: 2.25'	
18"x12" ERCP STORM PIPE STORM TOP ELEV. 89.35' STORM BTM ELEV. 87.93'		18"x12" ERCP STORM PIPE STORM TOP ELEV. 88.65' STORM BTM ELEV. 87.23'	
X-4	1" & 2" WATER LINE (VW 4) WATER LINE TOP ELEV. 91.88' WATER LINE BTM ELEV. 91.63'	X-9	1" WATER LINE (VW 9) WATER LINE TOP ELEV. 91.40' WATER LINE BTM ELEV. 91.30'
SEPARATION: 2.22'		SEPARATION: 2.65'	
18"x12" ERCP STORM PIPE STORM TOP ELEV. 89.41' STORM BTM ELEV. 87.99'		18"x12" ERCP STORM PIPE STORM TOP ELEV. 88.65' STORM BTM ELEV. 87.23'	
X-5	2" UNKNOWN LINE (VW 5) UNKNOWN LINE TOP ELEV. 92.07' UNKNOWN LINE BTM ELEV. 91.90'	X-10	BURIED ELECTRIC DUCT (VW 10) BURIED ELECTRIC DUCT TOP ELEV. 90.50' BURIED ELECTRIC DUCT BTM ELEV. 89.00'
SEPARATION: 2.25'		SEPARATION: 0.33'	
18"x12" ERCP STORM PIPE STORM TOP ELEV. 89.65' STORM BTM ELEV. 88.23'		18"x12" ERCP STORM PIPE STORM TOP ELEV. 88.67' STORM BTM ELEV. 87.26'	

	PROPOSED (UNMANNEO) CONTROL EQUIPMENT ENCLOSURE (C.E.E.)
	PROPOSED SUBSTATION YARD (#57 PREWASHED GRANITE)
	2" MILL EXISTING PAVEMENT AND RESURFACE WITH TYPE SP-12.5 OR TYPE SP-9.5 ASPHALT SUPERPAVE
	RIP RAP SEE DETAIL ON SHEET D107 SHEET 2 OF 2
	EXISTING (UNMANNEO) CONTROL EQUIPMENT ENCLOSURE (C.E.E.) TO REMAIN
	EXISTING CONCRETE STRUCTURE OR CABLE TRENCH TO REMAIN
	PROPOSED CABLE TRENCH (REFER TO ELECTRICAL PLANS FOR DETAILS)
	PROPERTY LINE
	REQUIRED SETBACKS
	RIGHT OF WAY
	PROPOSED SECURITY FENCE (7' CHAINLINK WITH 3 STRANDS OF BARBED WIRE, 8' TOTAL HEIGHT)
	PROPOSED 8' PRECAST MASONRY WALL, BRICK FINISH, PERMACAST OR APPROVED EQUAL. WALL TO BE DESIGNED, PERMITTED, AND INSTALLED BY OTHERS.
	LIMITS OF CONSTRUCTION
	EXISTING FENCE TO REMAIN
	EXISTING OVERHEAD UTILITIES
	EXISTING ELECTRICAL LINES TO REMAIN
	EXISTING UTILITY POLE TO REMAIN
	TREE LINE TO REMAIN AND PROTECTED
	EXISTING WATER LINE TO REMAIN
	EXISTING TELEPHONE LINES TO REMAIN
	EXISTING BURIED FIBER OPTIC TO REMAIN
	EXISTING GAS LINE TO REMAIN
	CONTRACTOR TO FIELD LOCATE AND VERIFY DEPTH OF THE GAS MAIN PRIOR TO EXCAVATION. CONTRACTOR TO EXERCISE CAUTION WHEN EXCAVATION NEAR GAS MAIN
	SECTION DESIGNATION
	DRAWING SHEET LABEL
	PROPOSED CONTOUR
	EXISTING CONTOUR
	PROPOSED STORMWATER PVC PIPE
	PROPOSED D.B.I. STRUCTURE
	PROPOSED NYLOPLAST DRAIN
	PROPOSED DIRT GRADE
	PROPOSED FINISHED GRADE
	EXISTING GRADE
	EXISTING SPOT ELEVATION
	EXISTING TOP OF GRAVEL ELEVATION
	EXISTING BOTTOM OF GRAVEL ELEVATION

STORM STRUCTURE TABLE		
(D-1)	(D-2)	(D-3)
FDOT TYPE C INLET N = 1633429.88 E = 4364384.95 TOP ELEV. = 92.75' 12"x18" INV. = 87.74' (E)	FDOT TYPE C INLET N = 1633429.86 E = 436409.72 TOP ELEV. = 92.65 12"x18" INV. = 87.65' (W) 12X18" INV. = 87.65' (SE)	FDOT TYPE C INLET N = 1633401.16 E = 436418.61 TOP ELEV. = 92.09' 12"x18" INV. = 87.54' (SE) 12"x18" INV. = 87.54' (NW)
(D-4)	(DS-1)	(MES-1)
FDOT TYPE C INLET N = 1633248.30 E = 436419.39 TOP ELEV. = 91.25 12"x18" INV. = 87.93' (NE)	OUTFALL STRUCTURE N = 1633365.74 E = 436489.67 SEE SHEET D107 FOR DETAILS	MITERED END SECTION (5:1) N = 1633379.70 E = 436481.81 INV. = 87.29'




**I** SECTION  
N.T.S.

**J** **SECTION**  
N.T.S.

- NOTES:
1. THE PROPOSED FACILITY INCLUDING THE CONTROL EQUIPMENT ENCLOSURE (C.E.E.) BUILDING IS UNMANNED. NO PARKING IS REQUIRED OR PROVIDED.

**Sunshine811**  
Call 811 or visit [sunshine811.com](http://sunshine811.com) two full business days before digging to have buried facilities located and marked.  
*Check positive response codes before you dig!*

		DATE		DATE		DATE		DATE
NO.	DESCRIPTION			DRAWN	CHKD.	APPR.	DATE	
REVISIONS								
 <b>DUKE ENERGY.</b>								
02/2022 DATE	1:20 SCALE	SUBSTATION ENGINEERING						
PD DRAWN	PD TECH	PAYING, GRADING, & DRAINAGE PLAN						
JP CHECK	RA ENGR	EUSTIS SOUTH SUBSTATION						
1 OF SHEET 2		DWG. S-167-D106						

**POULOS & BENNETT**

**Poulos & Bennett, LLC**  
2602 E. Livingston St., Orlando, FL 32803  
Tel. 407.487.2594 www.poulosandbennett.com  
Eng. No. 26-28567  
P&B Job No. 18-216

Seal:

The seal is circular with a double-lined border. Between the lines, the words "PROFESSIONAL ENGINEER" are written at the bottom and "RAFAEL L. AROSEMENA" at the top. In the center, it says "LICENSE NO. 72282" above "STATE OF FLORIDA". Two five-pointed stars flank the central text.

RAFAEL L. AROSEMENA  
FL No. 72282

**March 15, 2023**

DWTE:

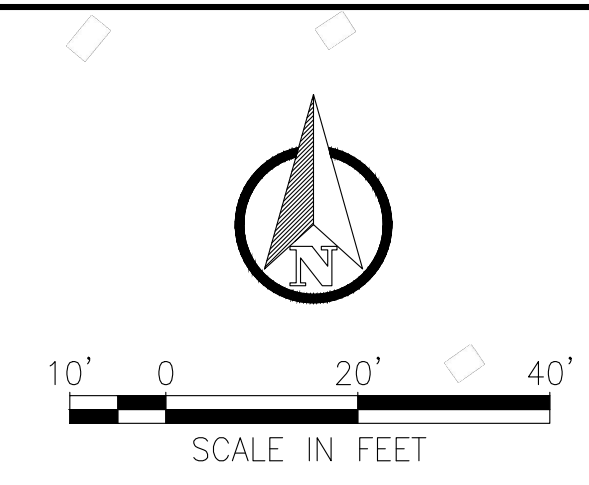
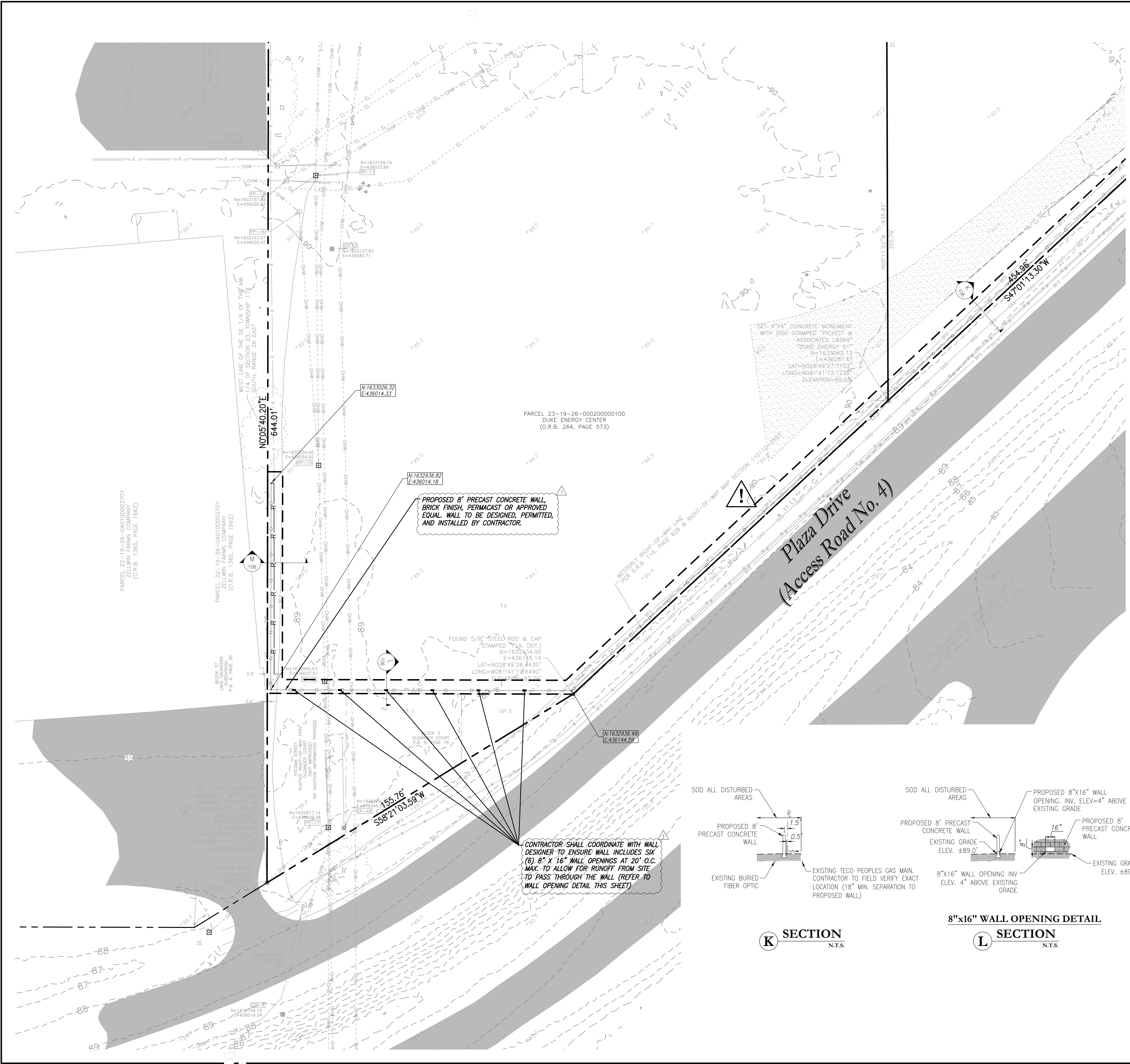
Rafael L. Arosemena  
Engineer-in-Charge  
Rafael L. Arosemena  
PE, License No. 72282  
P&B JOB NO. 18-216  
TEL: 407.487.2594 FAX: 407.487.2597  
WWW.POULOSANDBENNETT.COM

DATUM: NAVD 88  
 This item has been digitally signed and sealed by Rafael L. Arosemena, PE on 3.15.2023 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.

Z:\2021\21-115 DUKE - EUSTIS SOUTH\CAD\FINAL\CITY\167D1061



Z:\2021\21-115 DUKE - EUSTIS SOUTH\CAD\FINAL\DWG\167D1062



**POULOS & BENNETT**

**Poulos & Bennett, LLC**  
2402 E. Livingston St., Orlando, FL 32803  
Tel. 407.487.2594 www.poulosandbennett.com  
Eng. Bus. No. 28567  
P&B Job No: 18-216

Scal:

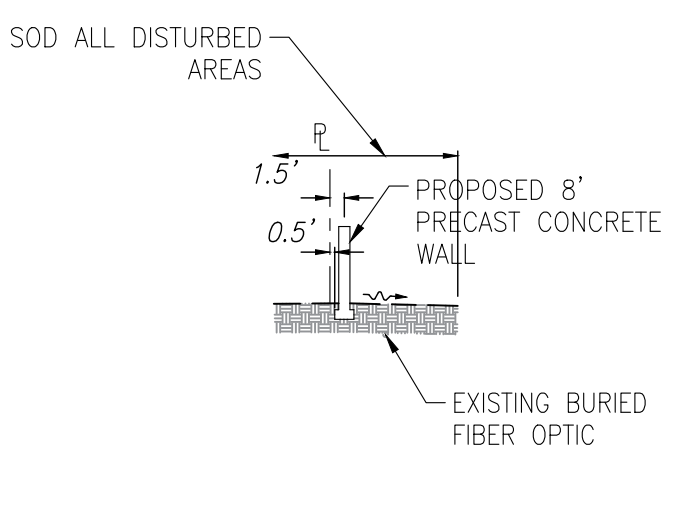
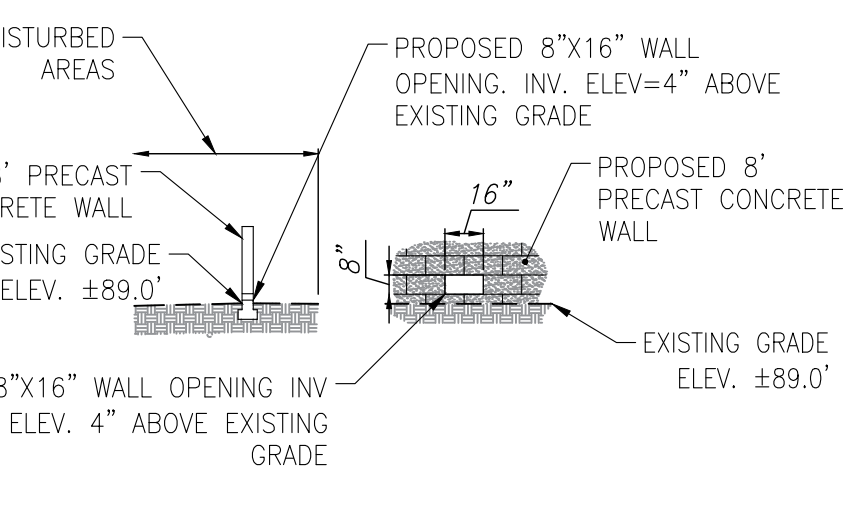
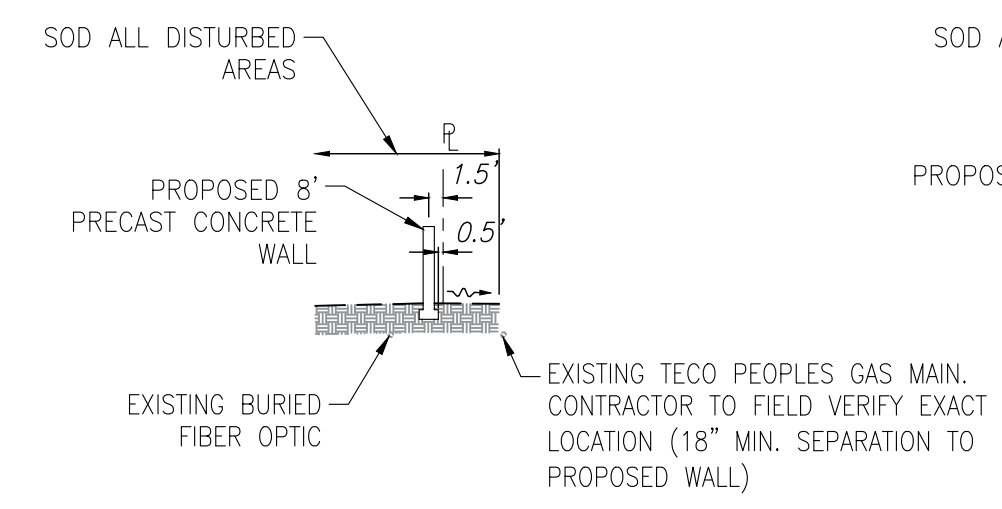
**RAFAEL L. AROSEMENA**  
LICENSE  
No. 72282  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER  
P.E. NO. 007282  
DATE: **March 15, 2023**

DATUM: NAVD 88

This item has been digitally signed and sealed by Rafael L. Arosemena, P.E. on 3/15/2023 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.

**Legend:**

- PROPOSED (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.)
- PROPOSED SUBSTATION YARD (#57 PREWASHED GRANITE)
- 2" MILL EXISTING PAVEMENT AND RESURFACE WITH TYPE SP-12.5 OR TYPE SP-9.5 ASPHALT SUPERPAVE
- RIP RAP SEE DETAIL ON SHEET D107 SHEET 2 OF 2
- EXISTING (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.) TO REMAIN
- EXISTING CONCRETE STRUCTURE OR CABLE TRENCH TO REMAIN
- PROPOSED CABLE TRENCH (REFER TO ELECTRICAL PLANS FOR DETAILS)
- PROPERTY LINE
- REQUIRED SETBACKS
- RIGHT OF WAY
- PROPOSED SECURITY FENCE (7' CHAINLINK WITH 3 STRANDS OF BARBED WIRE, 8' TOTAL HEIGHT)
- PROPOSED 8' PRECAST CONCRETE WALL, BRICK FINISH, PERMACAST OR APPROVED EQUAL WALL TO BE DESIGNED, PERMITTED, AND INSTALLED BY OTHERS.
- LIMITS OF CONSTRUCTION
- EXISTING FENCE TO REMAIN
- EXISTING OVERHEAD UTILITIES
- EXISTING ELECTRICAL LINES TO REMAIN
- EXISTING UTILITY POLE TO REMAIN
- TREE LINE TO REMAIN AND PROTECTED
- EXISTING WATER LINE TO REMAIN
- EXISTING TELEPHONE LINES TO REMAIN
- EXISTING BURIED FIBER OPTIC TO REMAIN
- EXISTING GAS LINE TO REMAIN
- CONTRACTOR TO FIELD LOCATE AND VERIFY DEPTH OF THE GAS MAIN PRIOR TO EXCAVATION. CONTRACTOR TO EXERCISE CAUTION WHEN EXCAVATION NEAR GAS MAIN
- SECTION DESIGNATION
- DRAWING SHEET LABEL
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED STORMWATER PVC PIPE
- PROPOSED D.B.I. STRUCTURE
- PROPOSED NYLOPLAST DRAIN
- PROPOSED DIRT GRADE
- PROPOSED FINISHED GRADE
- EXISTING GRADE
- EXISTING SPOT ELEVATION
- EXISTING TOP OF GRAVEL ELEVATION
- EXISTING BOTTOM OF GRAVEL ELEVATION



**K SECTION**  
N.T.S.


**L SECTION**  
N.T.S.

**M SECTION**  
N.T.S.

- NOTES:**
- THE PROPOSED FACILITY INCLUDING THE CONTROL EQUIPMENT ENCLOSURE (C.E.E.) BUILDING IS UNMANNED. NO PARKING IS REQUIRED OR PROVIDED.

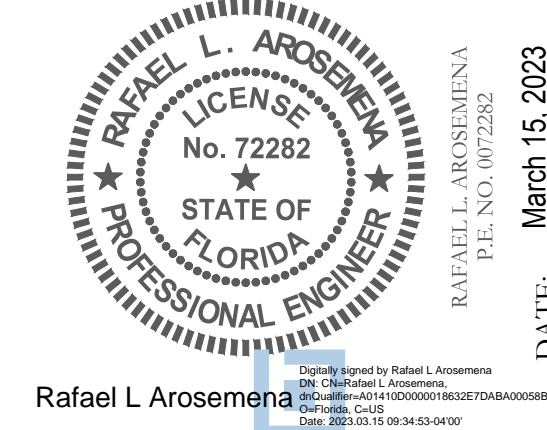
**Sunshine811**

Call 811 or visit [sunshine811.com](http://sunshine811.com) two full business days before digging to have buried facilities located and marked.  
Check positive response codes before you dig!

		REV. 001		REV. 002		REV. 003		REV. 004	
NO.	DESCRIPTION			DRAWN	CHKD.	APPR.	DATE		
REVISIONS									
 <b>DUKE ENERGY.</b>									
02/2022 DATE	1:20 SCALE		SUBSTATION ENGINEERING						
PD DRAWN	PD TECH		PAVING, GRADING, & DRAINAGE PLAN						
JP CHECK	RA ENGR		EUSTIS SOUTH SUBSTATION						
2 OF SHEET		2		DWG. S-167-D106					



Seal:



**Rafael L Arosemena**  
Digitally signed by Rafael L Arosemena  
DN: cn=Rafael L Arosemena,  
o=Qualcomm, ou=141000000186027DABAA0006B8,  
c=Florida, c=US  
Date: 2023.03.15 09:34:53 -0400

DATUM: NAVD 83

This item has been digitally signed and sealed by Rafael L. Arosemena, PE on 3.15.2023 using a Digital Signature.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copy.

**B ENCLOSURE - YARD SECTION**



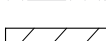
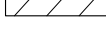
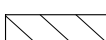






## SECTION

**TRENCH CURB DETAIL**  
**DRIVEWAY**  
NTS

**DRY POND SECTION**

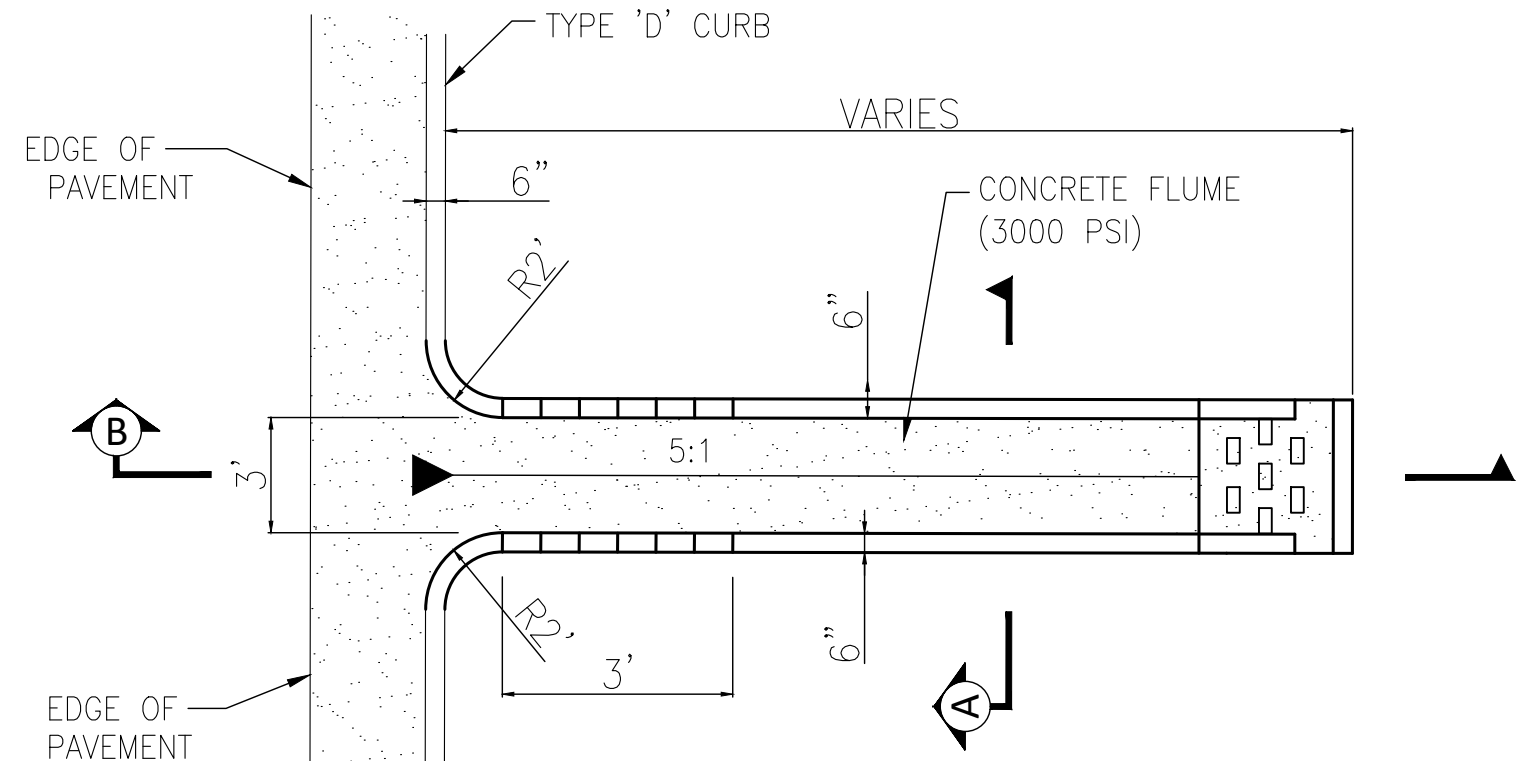
### TYPICAL ASPHALT PAVEMENT SECTION

Legend:

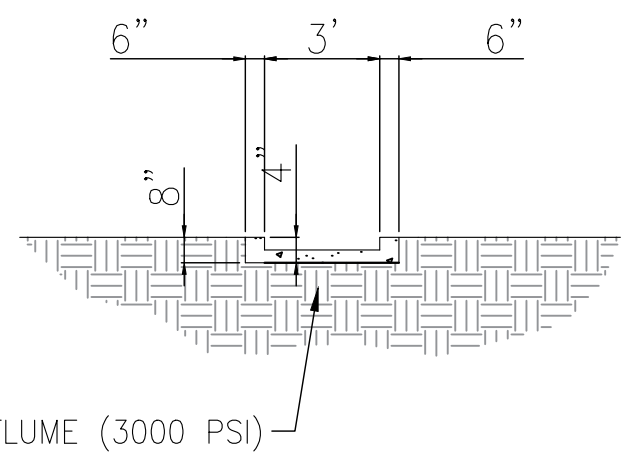
- 
 PROPOSED 6" #57 GRANITE (PREWASHED)
- 
 EXISTING #57 GRANITE
- 
 EXISTING GRADE
- 
 6" BASE (LBR=100) COMPACTED TO 98%  
OF MODIFIED PROCTOR (ASTM D-1557  
AASHTO T-180)
- 
 12" STABILIZED SUBGRADE (LBR=40)  
COMPACTED TO 98% OF MODIFIED  
PROCTOR (ASTM D-1557 AASHTO T-180)
- 
 PROPERTY LINE
- 
 EXISTING GRADE
- 
 PROPOSED GATE
- 
 EXISTING SECURITY FENCE  
TO BE REMOVED
- 
 PROPOSED SECURITY FENCE 7" CHAIN LINK  
WITH 3 STRANDS OF BARBED WIRE, 8" TOTAL
- 
 DRAINAGE FLOW ARROW

NOTE: ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN CITY OF WINTER GARDEN LAND DEVELOPMENT CODE AND/OR RELATED ORDINANCES.

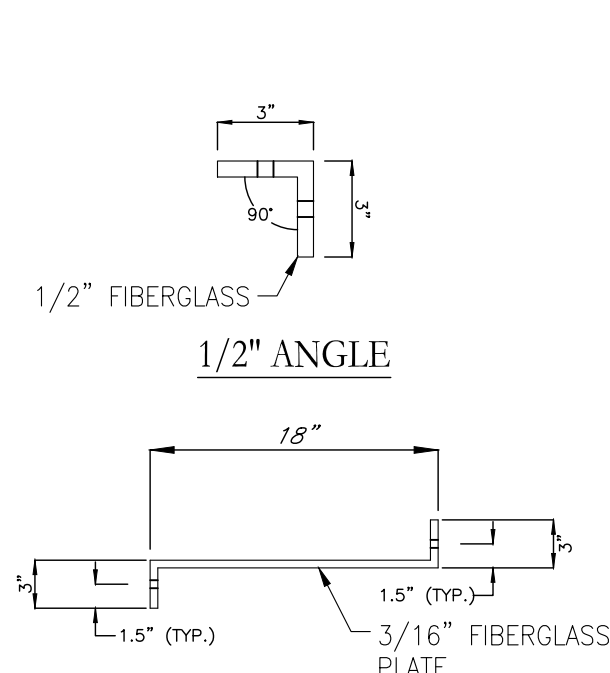




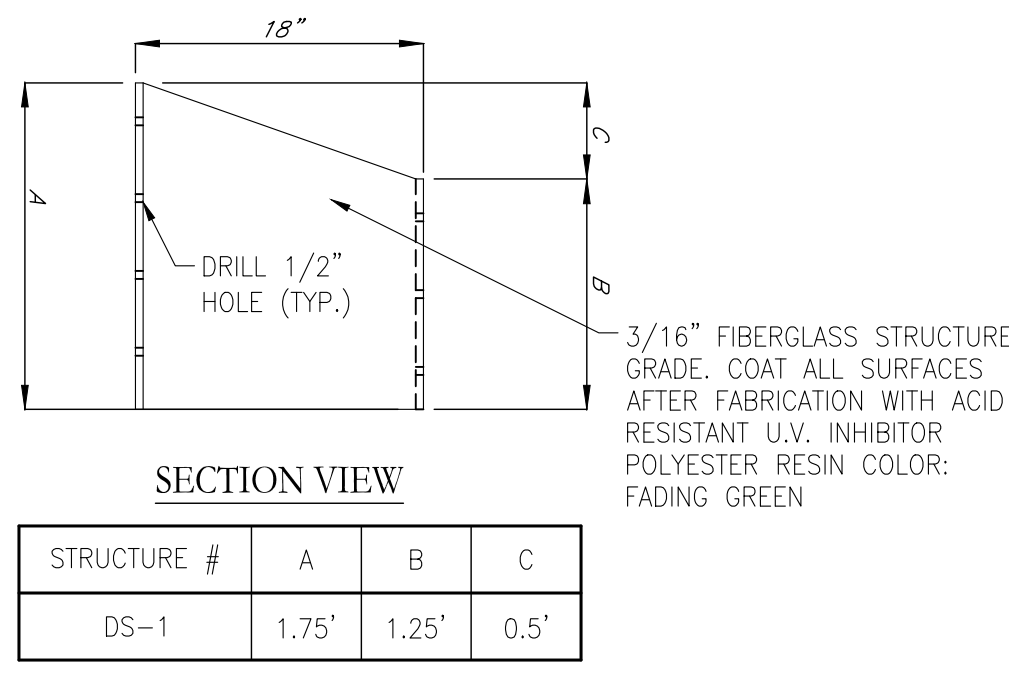
PLAN VIEW



SECTION A



PLAN VIEW

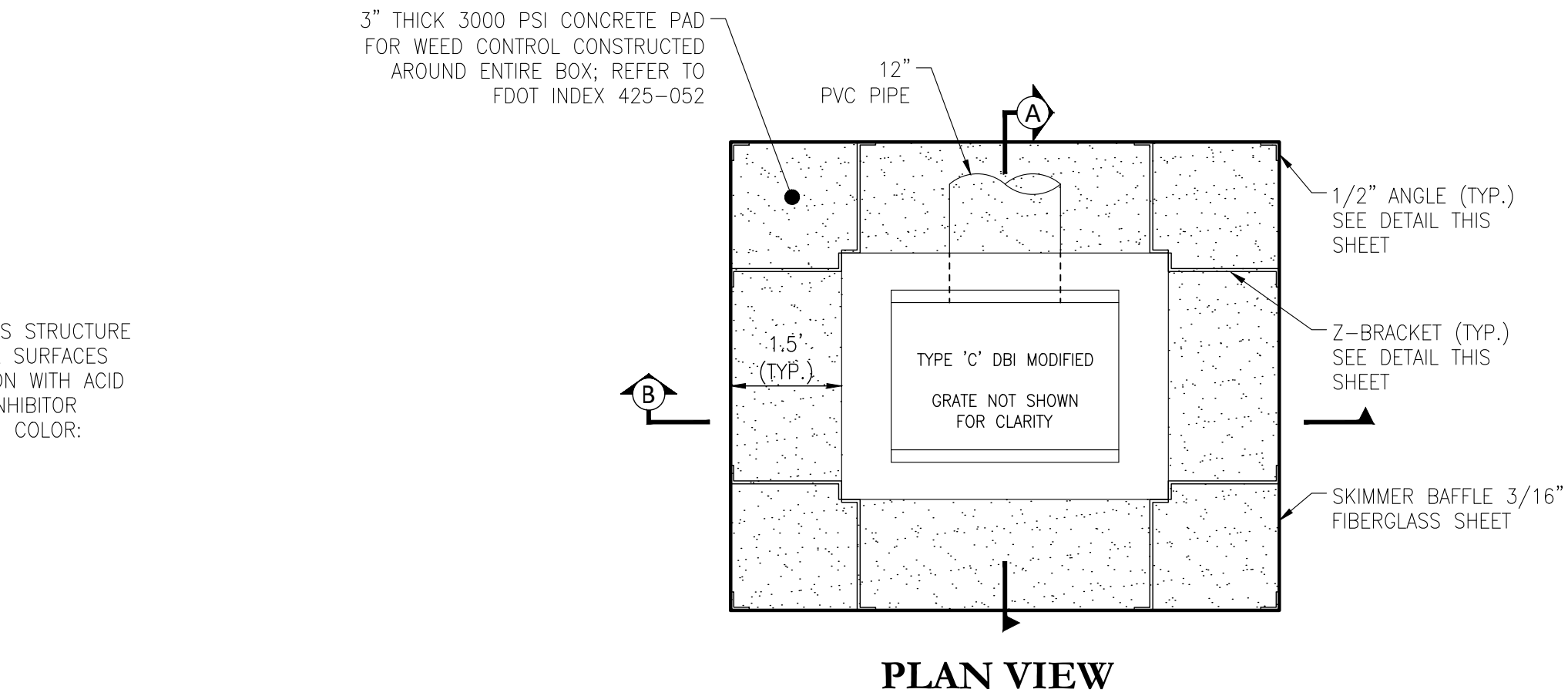


SECTION VIEW

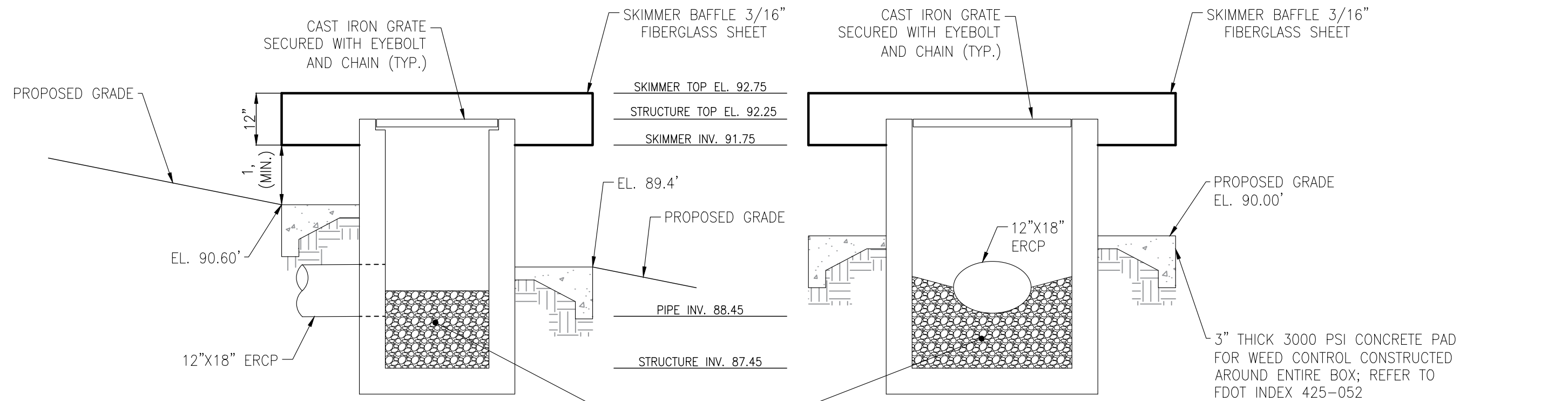
- NOTES:
1. MOUNT BRACKETS TO SKIMMERS W/ 1/4" STAINLESS STEEL BOLTS.
  2. MOUNT BRACKETS TO STRUCTURES W/ 3/8" x 3 1/2" STAINLESS STEEL WEDGE ANCHORS.
  3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

MOUNTING Z-BRACKET DETAIL

- NOTES:
1. MOUNT BRACKETS TO SKIMMER W/ 1/4" STAINLESS STEEL BOLTS.
  2. MOUNT BRACKETS TO STRUCTURES W/ 3/8"x3 1/2" STAINLESS STEEL WEDGE ANCHORS.
  3. A BENCH MARK IS TO BE SET ON TOP OF THE OUTFALL STRUCTURES.
  4. SKIMMER TO BE MOUNTED TO D.B.I. IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS USING Z-BRACKETS.
  5. THE CONTROL STRUCTURES ARE TO BE LOCATED IN THE SMA PER THE CONTROL STRUCTURE DETAIL.
  6. ALL BOX STRUCTURES ARE TO INCLUDE GRATES AND CHAINS.



PLAN VIEW

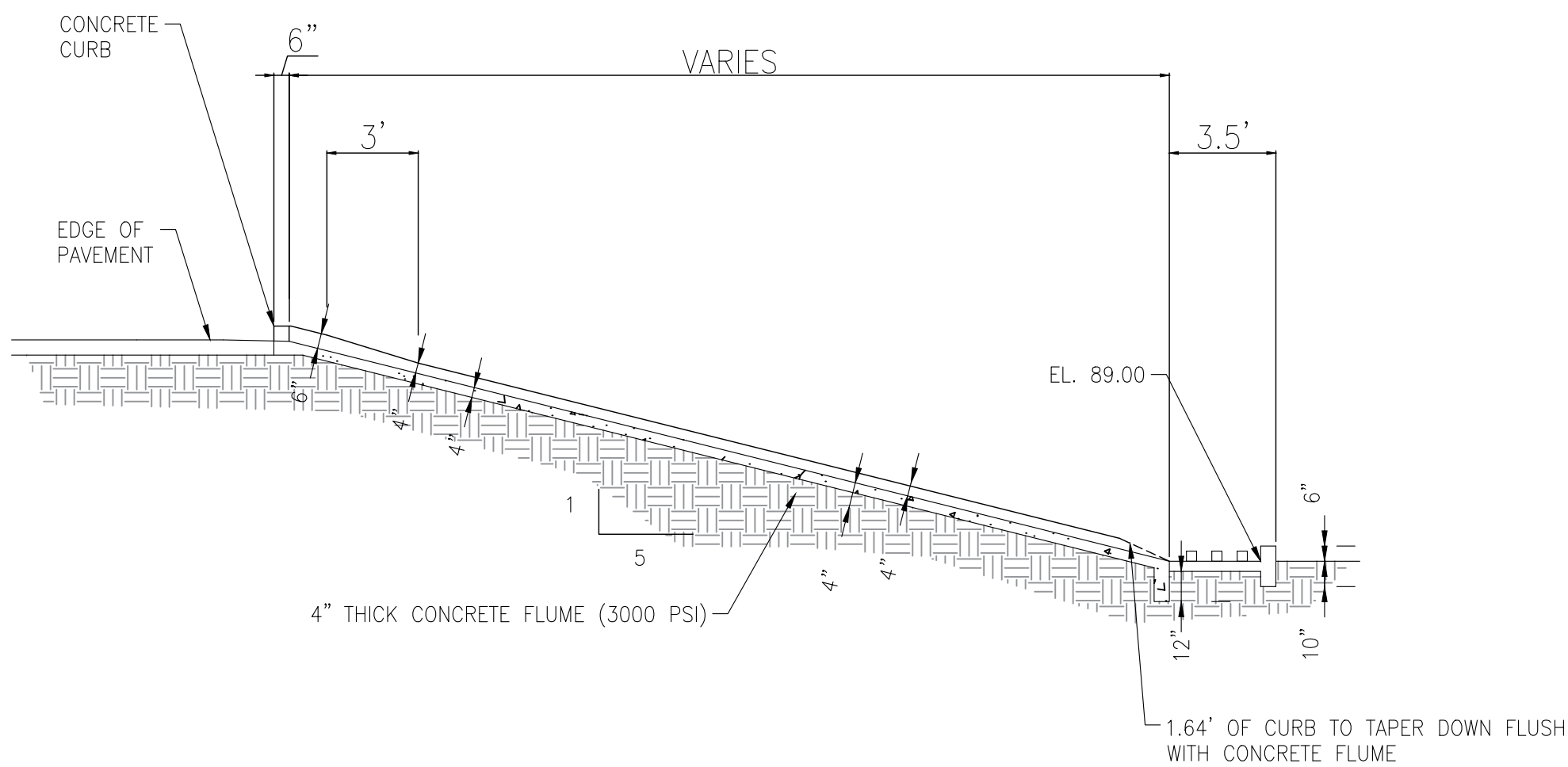


SECTION A

SECTION B

OUTFALL STRUCTURE DS-1

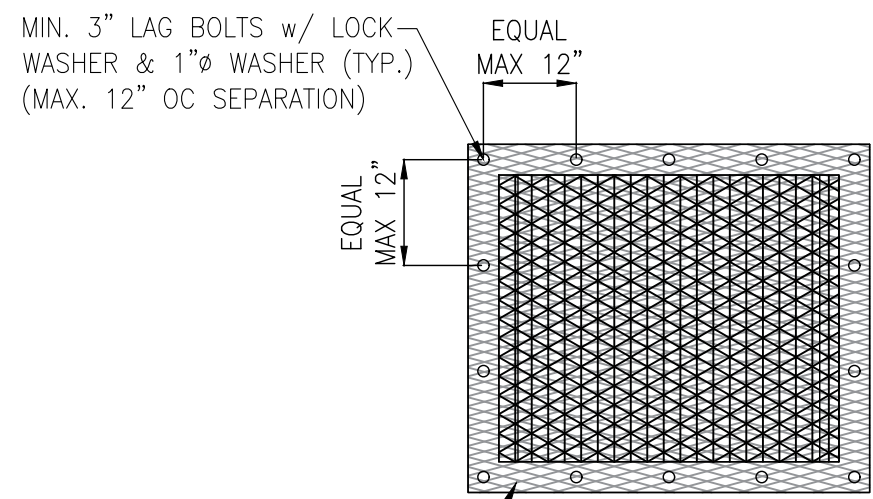
NTS



SECTION B

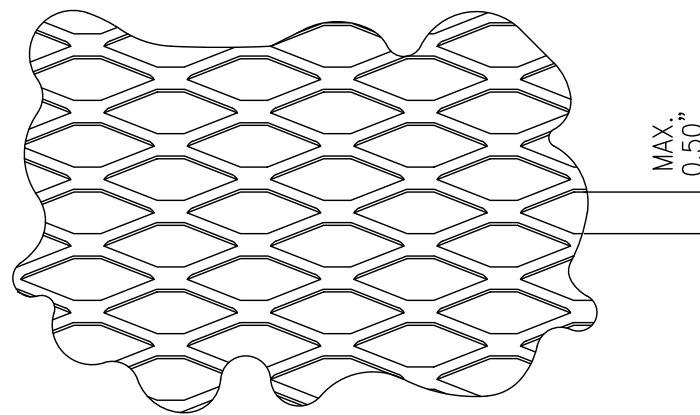
CONCRETE FLUME DETAIL

NTS



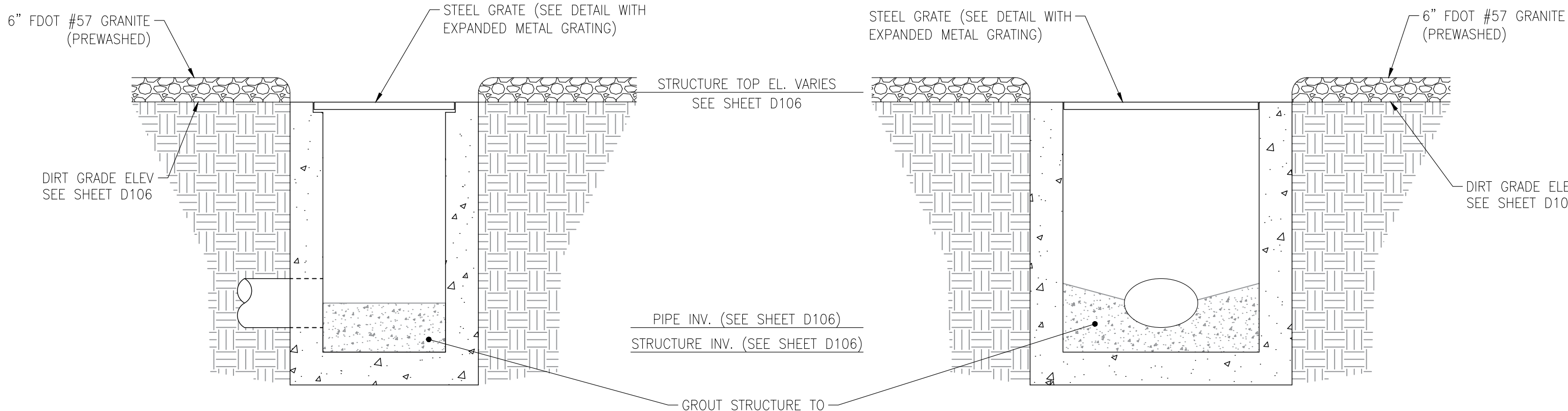
PLAN

EXPANDED STEEL GRATING OVER STEEL RETICULINE GRATE (SEE DETAIL THIS SHEET)



EXPANDED METAL GRATING

NTS

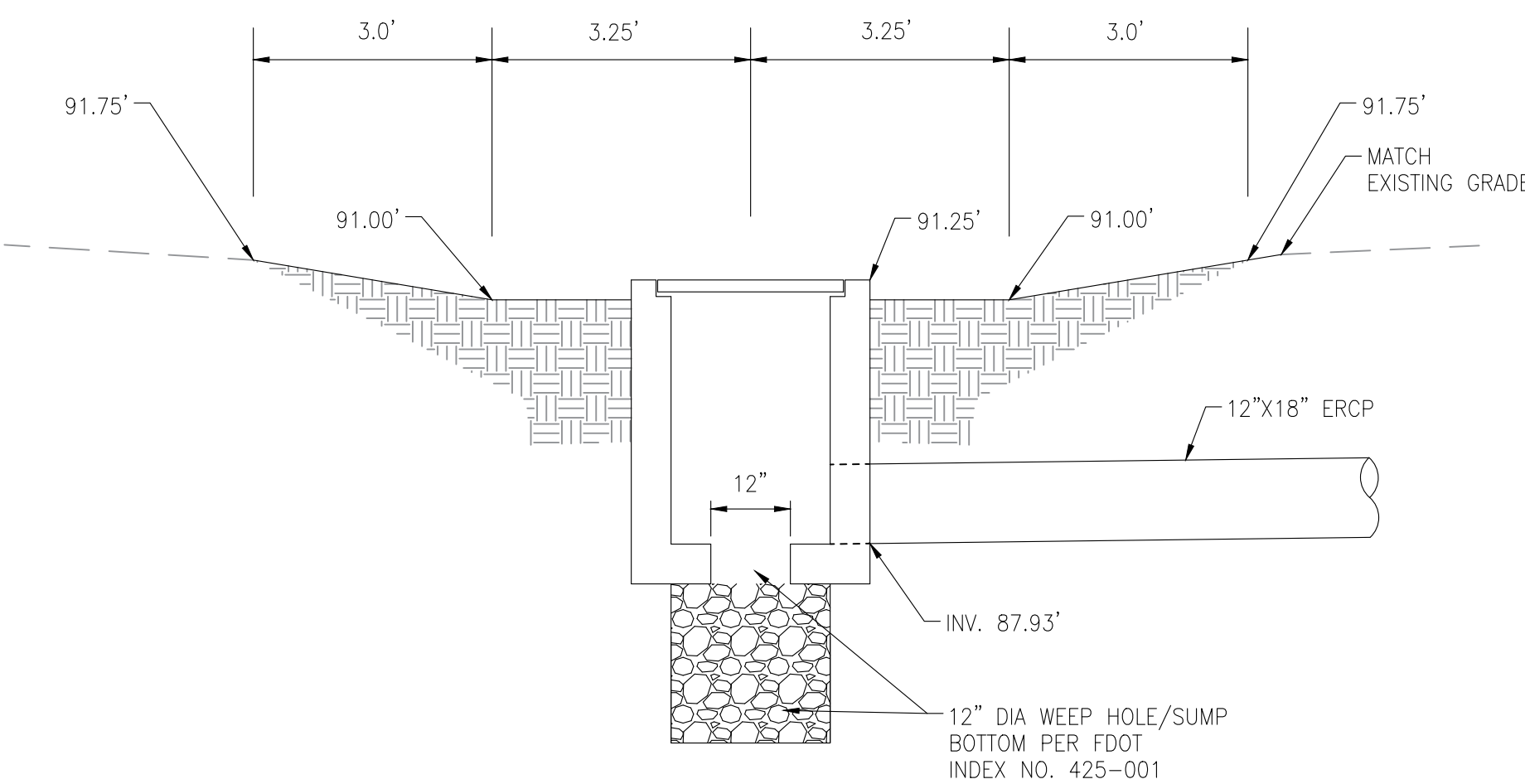


SECTION A

SECTION B

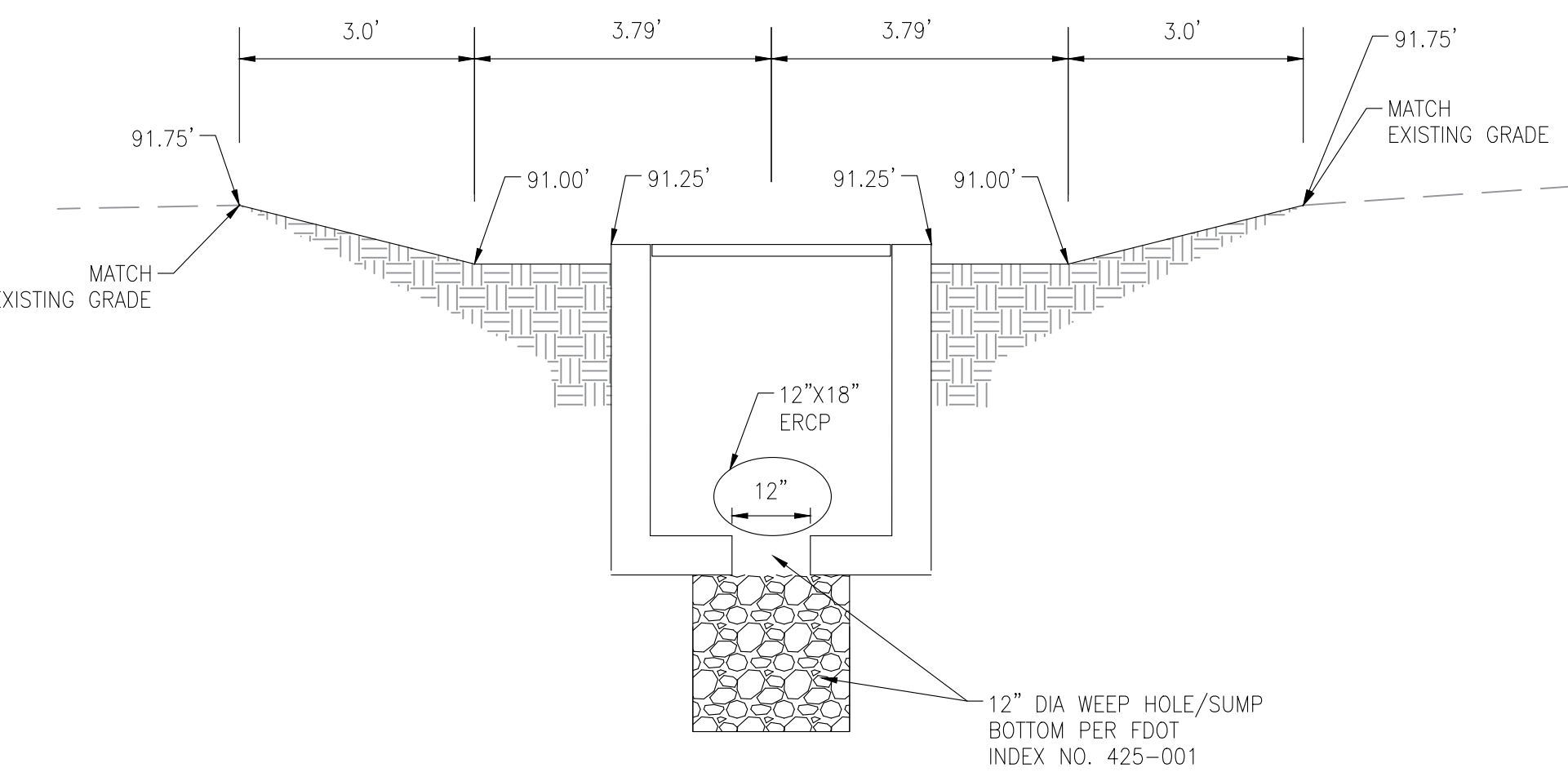
TYPE 'C' STRUCTURES (D-1 & D-2)

1"=2'



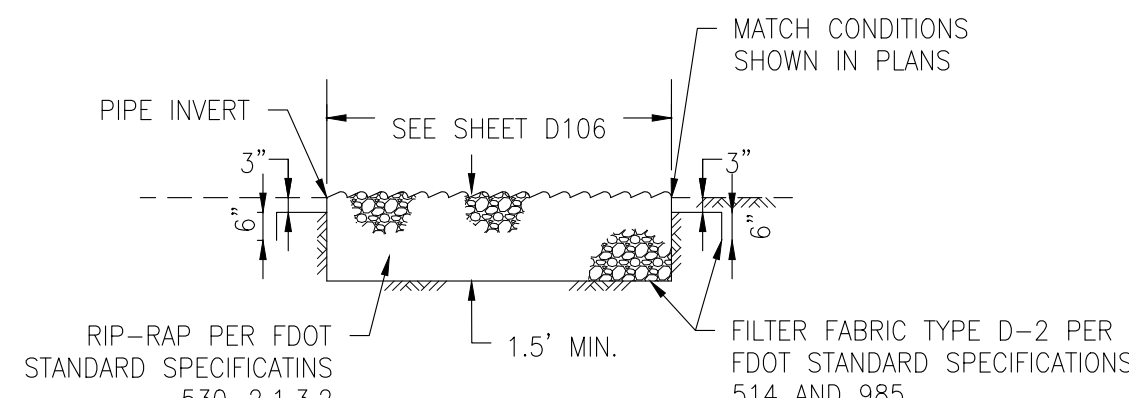
OUTFALL SPREADER SWALE & BUBBLE STRUCTURE (D-4)

NTS



OUTFALL SPREADER SWALE & BUBBLE STRUCTURE (D-4)

NTS



RIP-RAP DETAIL

NTS

NO.	DESCRIPTION	DRAWN	CHKD.	APPR.	DATE
1					
REVISIONS					
DUKE ENERGY					
02/2022	N.T.S.	SUBSTATION ENGINEERING			
PD	SCALE	PAVING, GRADING, & DRAINAGE DETAILS			
DRAWN	PD	EUSTIS SOUTH SUBSTATION			
TECH	RA				
JP	ENGR				
CHECK					
2 OF SHEET		DWG. S-167-D107			



Z:\2021\21-115 DUKE - EUSTIS SOUTH\CAO\FINAL\CD\1701081

GENERAL SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL SILT FENCE AT LOCATION SHOWN ON ADJACENT PLAN.
2. COMMENCE SITE CONSTRUCTION ACTIVITIES.
3. AS PROPOSED INLETS ARE CONSTRUCTED, INSTALL SILT FENCE AROUND EACH.
4. INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 7 DAYS.
5. INSTALL PERMANENT SEEDING OR SOD AND PLANTING IN AREAS WHERE FINAL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 7 DAYS FOLLOWING THE LAST CONSTRUCTION ACTIVITY.
6. REMOVE ACCUMULATED SEDIMENT.
7. REMOVE TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSE OF MATERIALS ACCORDING TO APPLICABLE FDEP REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC..
8. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE CONTROL MEASURES ON AN INSPECTION REPORT FORM PROVIDED FOR THIS PURPOSE. THESE REPORTS SHALL DOCUMENT THE INSPECTION OF ALL POLLUTION PREVENTION MEASURES AND SHALL ALSO BE USED TO REQUEST MAINTENANCE AND REPAIR. THE CONTRACTOR SHALL CORRECT DAMAGE OR PROVIDE MAINTENANCE AS RECOMMENDED BY THE REPORT AS SOON AS PRACTICAL BUT IN NO CASE LATER THAT 7 DAYS AFTER THE INSPECTION.

SWPPP NOTES

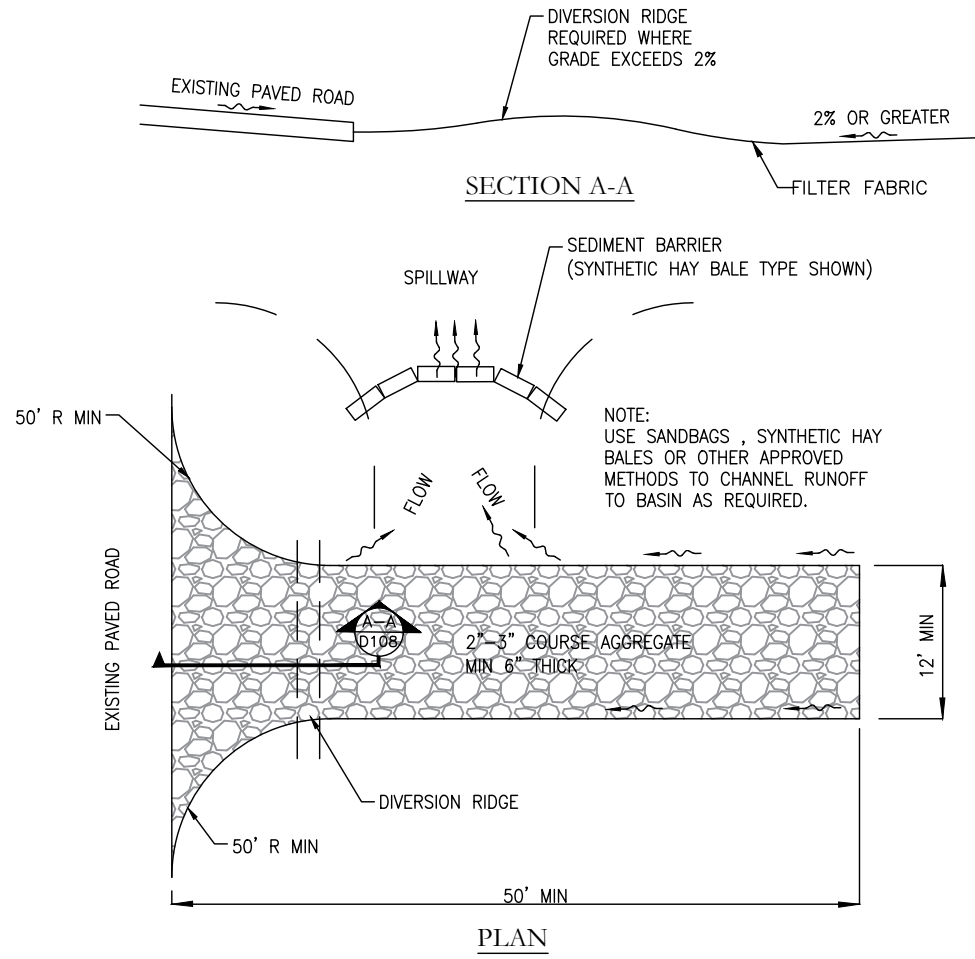
1. CONSTRUCTION ACTIVITY PERTAINS TO THE EXPANSION OF AN EXISTING SUBSTATION (0.40 ACRES OF DISTURBED AREAS AT LATITUDE 28°49'30.80"N & LONGITUDE 81°41'12.31"W).
2. THE EXISTING ON-SITE SOILS ARE NO. 8 'CANDLER SAND', 17 'ARENTS', AND 21 'LAKE SAND' PER NRCS SOILS MAP. THE SEASONAL HIGH WATER ELEVATION IS ESTIMATED AT ELEVATION X.XX PER GEOTECHNICAL ENGINEERING REPORT BY BJ ROCK GEOENGINEERING, LLC PROJECT NUMBER 19-139 DATED 11/15/2019 AND THE STORMWATER RECOVERY ANALYSIS BY BJ ROCK GEOENGINEERING, LLC DATED 06/23/2022.
3. ALL PROPOSED INLETS/OUTFALLS, ONCE INSTALLED, SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNOFF USING FILTER FABRIC AND PROPERLY INSTALLED FILTER FABRICS. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED SHALL BE STABILIZED WITH SOD. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF THE SITE AND A DOUBLE ROW SILT FENCE REINFORCED WITH FIELD FENCING SHALL BE PLACED AROUND VEGETATIVE BUFFERS AND WETLAND AREAS. ALL AREAS DISTURBED MORE THAN 7 DAYS SHALL BE STABILIZED WITH RYE GRASS OR OTHER APPROPRIATE TEMPORARY VEGETATION APPLIED AT MANUFACTURER'S RECOMMENDATION.
4. THE TEMPORARY AND PERMANENT STABILIZATION PRACTICES INCLUDING SODDING ALL DISTURBED AREAS FOR STABILIZATION. MULCHING PRACTICES AND SOD SHALL BE APPLIED TO THE PARKING LOT AREAS.
5. SILT FENCE, INLET/OUTLET PROTECTION SHALL BE INSTALLED PER BEST MANAGEMENT PRACTICES, SEE SECTION 8.
6. SEDIMENT BASIN IS NOT APPLICABLE DUE TO PROJECT AREA OF LESS THAN 10 AC.
7. CONTROL DETAILS OF POTENTIAL POLLUTANTS AS FOLLOWS:
  - 7.1. PROPER APPLICATION RATES OF ALL FERTILIZERS, HERBICIDES AND PESTICIDES AT CONSTRUCTION SITE - FLORIDA FRIENDLY FERTILIZERS AND PESTICIDES WILL BE USED AT A MINIMUM AND IN ACCORDANCE WITH MANUFACTURER'S SUGGESTED APPLICATION RATES. THE FERTILIZERS AND PESTICIDES WILL BE STORED IN A COVERED SHED.
  - 7.2. STORAGE, APPLICATION, GENERATION AND MIGRATION OF ALL TOXIC SUBSTANCES - ALL PAINTS AND OTHER CHEMICALS WILL BE STORED IN A LOCKED COVERED SHED.
  - 7.3. OTHER - PORT-O-LETS WILL BE PLACED AWAY FROM STORM SEWER SYSTEMS, STORM INLETS, SURFACE WATER AND WETLANDS. 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 ALLOWING FOR DISCHARGE OF POLLUTED RUNOFF. A SMALL VEGETATED BERM SHALL BE PLACED AROUND THE WASHDOWN AREA.
8. WASTE DISPOSAL - ALL CONSTRUCTION MATERIALS AND DEBRIS WILL BE PLACED IN DUMPSTER AND HAULED OFF SITE TO A LANDFILL OR OTHER DISPOSAL SITE. NO MATERIALS SHALL BE BURIED ON SITE.
9. MAINTENANCE FOR ALL STRUCTURAL AND NON-STRUCTURAL CONTROLS SHALL BE AS FOLLOWS:
  - 9.1. SILT FENCE SHALL BE INSPECTED AT LEAST WEEKLY. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENTS DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - 9.2. MAINTENANCE SHALL BE PERFORMED ON THE ROCK ENTRANCE WHEN ANY VOID SPACES ARE FULL OF SEDIMENTS.
  - 9.3. INLETS/OUTLETS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAIN EVENT AND ANY REQUIRED REPAIRS TO THE FILTER FABRIC ON INLETS, SILT FENCE, OR FILTER FABRIC SHALL BE PERFORMED IMMEDIATELY.
  - 9.4. BARE AREAS OF THE SITE THAT WERE PREVIOUSLY SEEDED SHALL BE RE-SEEDED PER MANUFACTURER'S INSTRUCTIONS.
  - 9.5. MULCH AND SOD THAT HAS BEEN WASHED OUT SHALL BE REPLACED IMMEDIATELY.
  - 9.6. MAINTAIN ALL OTHER AREAS OF THE SITE WITH PROPER CONTROLS AS NECESSARY.
10. NON-STORMWATER DISCHARGES MAY OCCUR FROM CONSTRUCTION ACTIVITIES SUCH AS WATERLINE FLUSHING, AND PAVEMENT WASH WATER (FROM NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED). IF SAID DISCHARGES DO OCCUR, THEY WILL BE DIRECTED TO THE TEMPORARY SEDIMENT BASIN PRIOR TO DISCHARGE. TURBID WATER FROM STORMWATER POND SHALL NOT BE PUMPED DIRECTLY INTO ANY RECEIVING WATERS. TREATMENT CAN INCLUDE SILT FENCES, SETTLING PONDS, PROPER USE OF FLOCCULATING AGENTS OR OTHER APPROPRIATE MEANS.

EROSION CONTROL NOTES

1. 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 SURFACE WATERS. 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.
2. SODDING OF RETENTION PONDS AND OTHER AREAS DESIGNATED FOR SOD, SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
3. 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.
4. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  - 4.1. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  - 4.2. 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.
5. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED EROSION CONTROL PLAN TO CITY OF EUSTIS FOR REVIEW AND APPROVAL A MINIMUM OF 2 WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING AT A MINIMUM. THE EROSION CONTROL PLAN SHALL PROPOSE SILT SCREEN OR STAKED SYNTHETIC HAY BALES AND TURBIDITY BARRIERS, IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
6. AT A MINIMUM SILT BARRIERS SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION PLANS TO ENSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT TO CAUSE AN INCREASE IN TURBIDITY, OR DISCHARGE OF MATERIAL OFFSITE OR TO EXISTING WETLANDS. IF DURING CONSTRUCTION THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM, SATISFACTORY ALTERNATIVES AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH CITY OF EUSTIS AND SJRWMD EROSION PROTECTION STANDARDS.
7. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION PROTECTION COSTS, INCLUDING ANY COST ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
8. ALL PERMANENT EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 7 DAYS OF FINAL GRADING. ALL TEMPORARY EROSION CONTROL SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE COMPLETED AND ESTABLISHED.
9. CONTRACTOR SHALL STAKE IN ALL SOD AT SLOPES GREATER THAN 5:1 UNTIL SUCH TIME THAT GROUND IS STABILIZED IN ORDER TO PREVENT EROSION.
10. WORK SHALL BE DONE IN ACCORDANCE WITH EPA, FDEP, SJRWMD, CITY OF EUSTIS AND LAKE COUNTY BEST MANAGEMENT PRACTICES AND EROSION CONTROL SPECIFICATIONS.

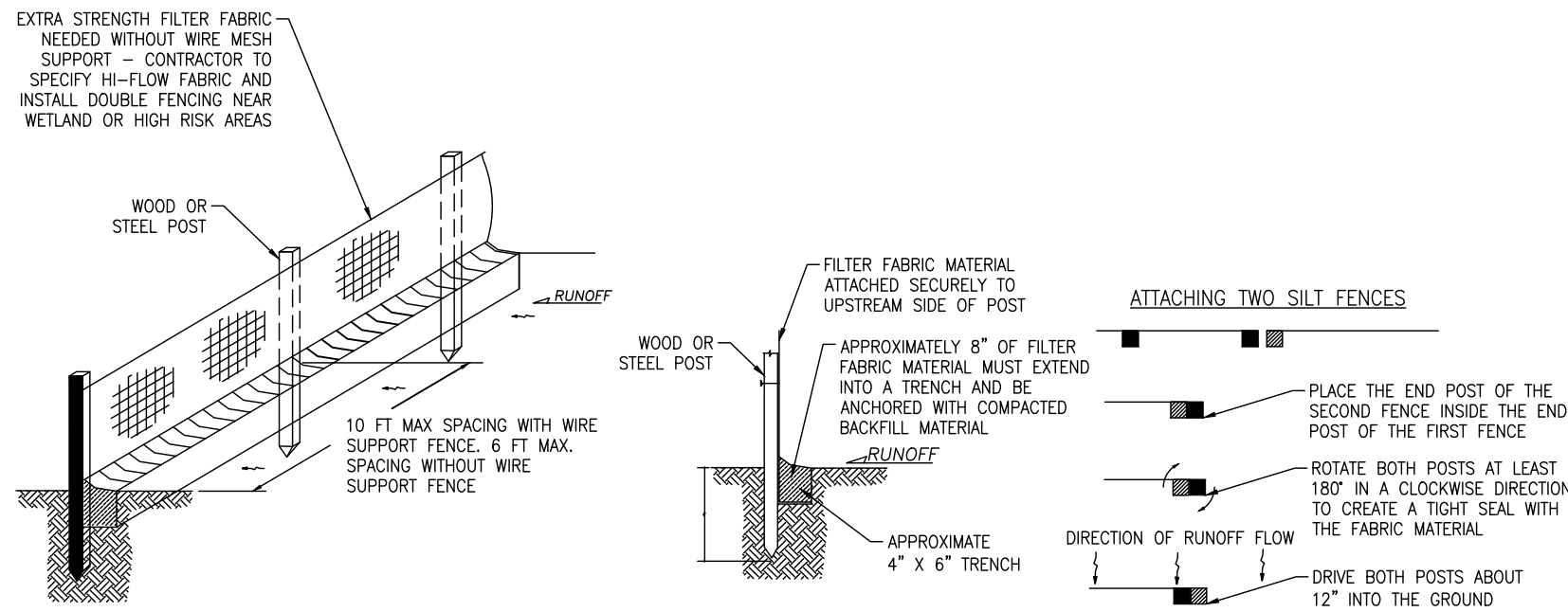
MAINTENANCE AND INSPECTION PROCEDURES

1. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. ALL CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE AREA THEY PROTECT HAS BEEN COMPLETELY STABILIZED AND THE CONSTRUCTION IS COMPLETE.
2. BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE HALF OF THE HEIGHT OF THE FENCE.
3. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, IF FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND IF FENCE POSTS ARE FIRMLY IN THE GROUND. SILT FENCE AND ALL OTHER EROSION AND SEDIMENT CONTROLS WILL BE INSTALLED AND MAINTAINED PER MANUFACTURER SPECIFICATIONS.
4. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.



- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING TO FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-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 ACCESS DETAIL  
N.T.S.



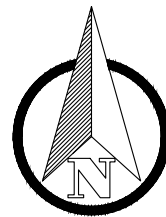
FILTER FABRIC SILT FENCE INSTALLATION

NOTE: ADDITIONAL CONTROLS TO BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.

NPDES Information

Address	Plaza Drive Eustis, FL 32726
Latitude	28°49'30.86"N
Longitude	81°41'11.23"W
Jurisdictional Authority	St. Johns River Water Management District
Total Area (Per Survey)	5.22 Acres
Project (Disturbed) Area	0.66 Acres
Area Operator	N/A
MS4 Operator	N/A
Receiving Water Name	N/A
Soils (USDA NRCS "Web Soil Survey")	8 - Candler Fine Sand 17 - Arents 21 - Lake Sand

NOTE: PER PROJECTS WITH DISTURBED AREAS LESS THAN 1 ACRE NPDES PERMITTING IS NOT REQUIRED.



15' 0 30' 60'  
SCALE IN FEET



**Poulos & Bennett, LLC**  
2642 E. Livingston St., Orlando, FL 32803  
Tel. 407.487.2594 www.poulosandbennett.com  
Eng. Bus. No. 28567  
P&B Job No.: 18-216

Scale:



Rafael L Arosemena

DATUM:

NAVD 88

This item has been digitally signed and sealed by Rafael L. Arosemena, PE on 3/15/2023 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.

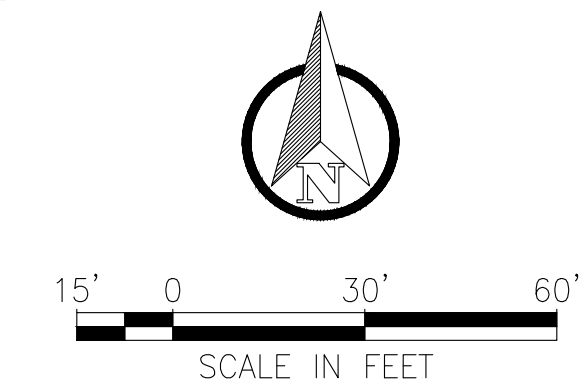
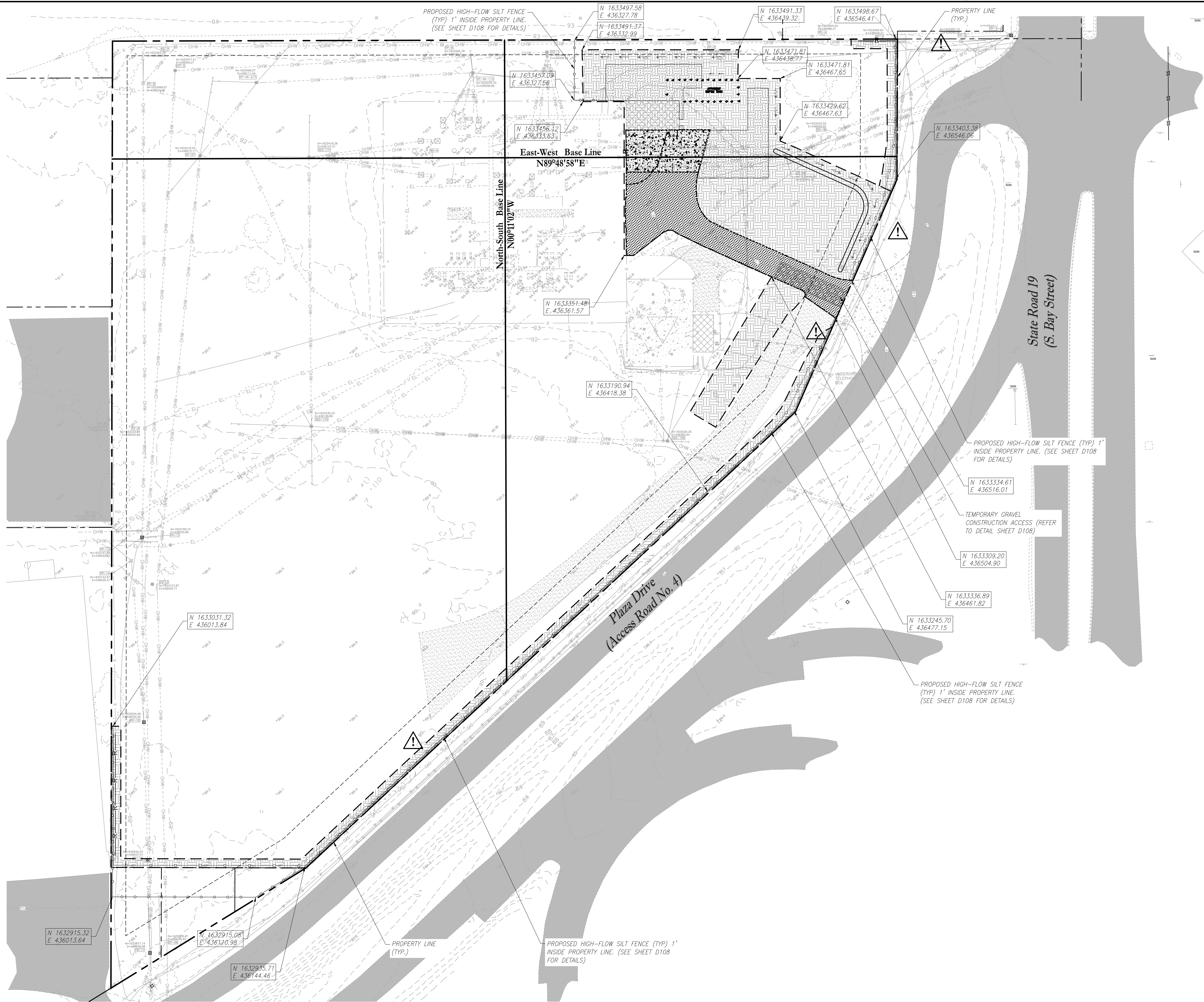


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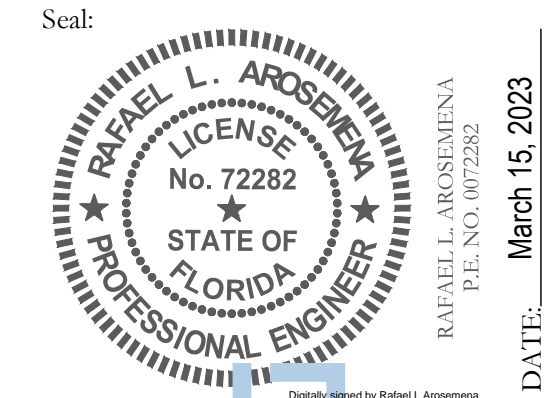
1. THE PROPOSED FACILITY INCLUDING THE CONTROL EQUIPMENT ENCLOSURE (C.E.C.) BUILDING IS UNMANNED. NO PARKING IS REQUIRED OR PROVIDED.



Z:\2021\21-115 DUKE - EUSTIS SOUTH\CAD\FINAL\DWG\167D1082



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P&B Job No: 18-216



Rafael L. Arosemena  
DATE: March 15, 2023

DATUM: NAVD 88  
This item has been digitally signed and sealed by Rafael L. Arosemena, PE on 3/15/2023 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.

**Sunshine811**  
Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.  
Check positive response codes before you dig!

**Legend:**

- PROPOSED (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.)
- PROPOSED SUBSTATION YARD (#57 PREWASHED GRANITE)
- 2" MILL AND RESURFACE EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT AND ASPHALT PAVEMENT TO BE REMOVED
- AREA TO BE CLEARED AND GRUBBED AND SOIL PREPARED FOR PROPOSED YARD, POND AND WALL. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR DETAILS
- EXISTING (UNMANNED) CONTROL EQUIPMENT ENCLOSURE (C.E.E.) TO REMAIN
- EXISTING CONCRETE STRUCTURE OR CABLE TRENCH TO REMAIN
- PROPOSED CABLE TRENCH (REFER TO ELECTRICAL PLANS FOR DETAILS)
- PROPERTY LINE
- REQUIRED SETBACKS
- RIGHT OF WAY
- PROPOSED SECURITY FENCE (7' CHAINLINK WITH 3 STRANDS OF BARBED WIRE, 8' TOTAL HEIGHT)
- PROPOSED SILT FENCE
- PROPOSED 8' PRECAST MASONRY WALL, BRICK FINISH, PERMACAST OR APPROVED EQUAL. WALL TO BE DESIGNED, PERMITTED, AND INSTALLED BY OTHERS.
- LIMITS OF CONSTRUCTION
- EXISTING FENCE TO REMAIN
- EXISTING OVERHEAD UTILITIES
- EXISTING ELECTRICAL LINES TO REMAIN
- EXISTING UTILITY POLE TO REMAIN
- TREE LINE TO REMAIN AND PROTECTED
- EXISTING WATER LINE TO REMAIN
- EXISTING TELEPHONE LINES TO REMAIN
- EXISTING BURIED FIBER OPTIC TO REMAIN
- EXISTING GAS LINE TO REMAIN
- CONTRACTOR TO FIELD LOCATE AND VERIFY DEPTH OF THE GAS MAIN PRIOR TO EXCAVATION. CONTRACTOR TO EXERCISE CAUTION WHEN EXCAVATION NEAR GAS MAIN

**NOTES:**

- THE PROPOSED FACILITY INCLUDING THE CONTROL EQUIPMENT ENCLOSURE (C.E.E.) BUILDING IS UNMANNED. NO PARKING IS REQUIRED OR PROVIDED.

REVISIONS				
NO.	DESCRIPTION	DRAWN	CHKD.	APPR. DATE
<b>DUKE ENERGY</b>				
02/2022	1:30 SCALE	SUBSTATION ENGINEERING		
PD	PD	EROSION CONTROL & STORMWATER		
DRAWN	TECH	POLLUTION PREVENTION PLAN		
JP	RA	EUSTIS SOUTH		
CHECK	ENGR	SUBSTATION		
2 OF 2 SHEET	DWG	S-167-D108		