FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION

ST. JOHNS COUNTY, FLORIDA

APPENDIX A

PROJECT DRAWINGS

FLORIDA INLAND NAVIGATION DISTRICT
DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION
ST. JOHNS COUNTY, FLORIDA

LOCATION MAP

N.T.S.

DRAWING INDEX

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C-2 PROJECT OVERVIEW AND GENERAL NOTES
C-3 EXISTING SITE CONDITIONS
C-4 CLEARING AND GRUBBING PLAN
C-5 SITE PLAN WITH AERIAL
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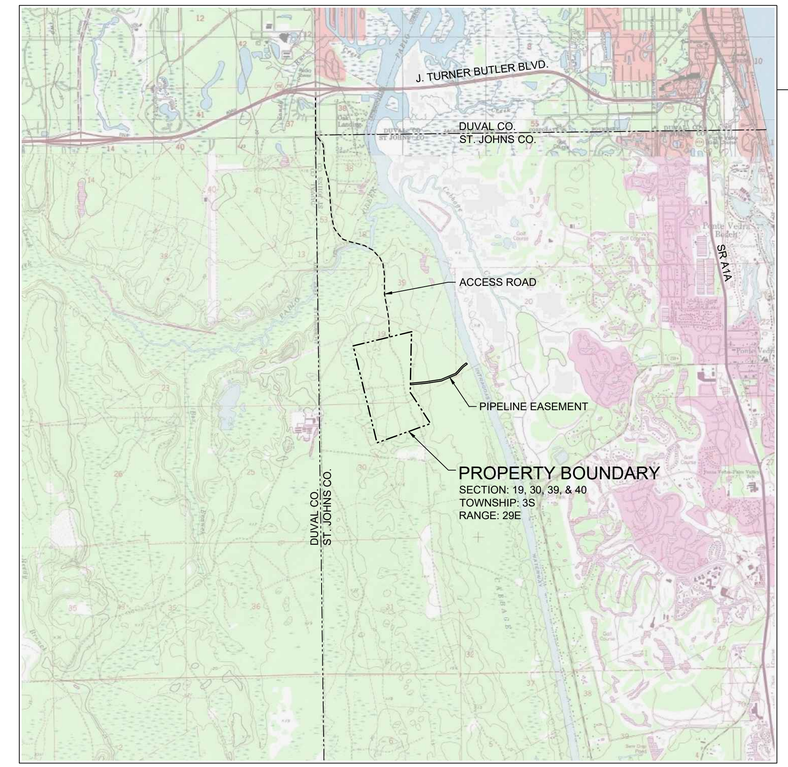
C-11 INTERNAL COLLECTOR DRAIN DETAILS
C-12 ACCESS ROAD CULVERT PLAN AND CROSS-SECTION
C-13 CROSS-SECTIONS
C-14 CROSS-SECTIONS
C-15 EROSION CONTROL DETAILS



VICINITY MAP

1"= 3000' (22x34)
1"= 6000' (11x17)

REFERENCE:
USGS 7.5' QUADRANGLE MAP,
JUPITER, FL, 1995

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CERTIFICATE OF AUTHORIZATION # 4815

PROJECT TITLE
FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION
ST. JOHNS COUNTY, FLORIDA

PROJECT NO	C2014-075
DATE	JAN 2017

SEAL

LORI S. BROWNELL P.E.# 60025

C-1

SHEET 1 OF 15

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GENERAL NOTES

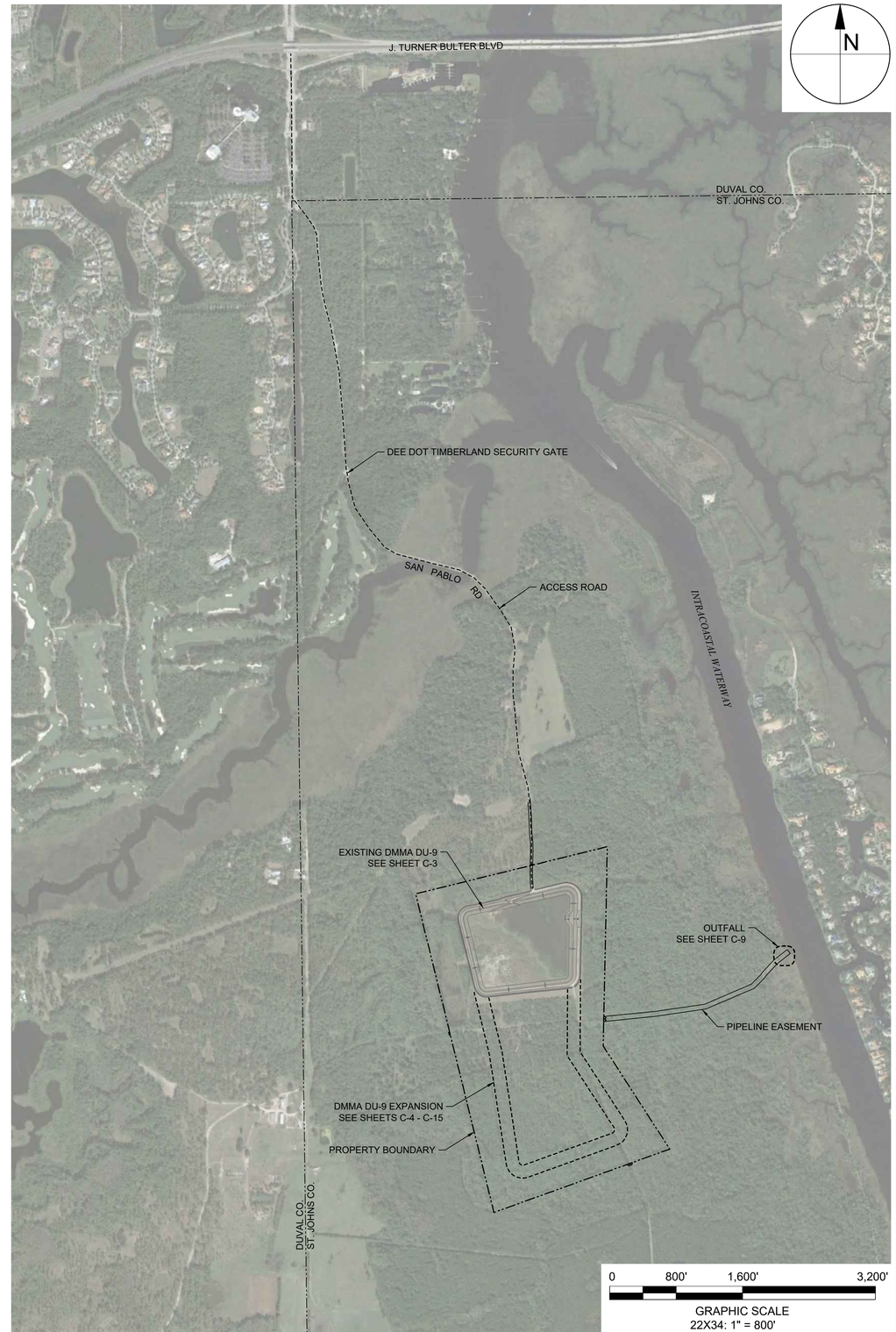
1. BASE DATA REFERENCES AS SHOWN IN THE PROJECT DRAWINGS FOR THE DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION ARE AS FOLLOWS: QUADRANGLE REFERENCE - JUPITER, FL, 1995; AERIAL REFERENCE - GOOGLE EARTH, 2015; BOUNDARY SURVEY - 1992, REVISED 1994 ST JOHNS SURVEY CO.; PROJECT NO. 250-021; TOPOGRAPHIC SURVEY - 1998 U.S. ARMY CORPS OF ENGINEERS; D.O. FILE NO. 8E37,788; 2005 DEGROVE SURVEYORS, INC.; CONSTRUCTION SURVEY FOR DREDGE MATERIAL MANAGEMENT AREA DU-9; INV. NO. W912EP-05-D-001; 2008 ARC SURVEYING & MAPPING, INC.; TOPOGRAPHIC SURVEY DU-9 - 60´ PIPELINE EASEMENT; PROJECT NO. 08-05-06; 2010 ARC SURVEYING & MAPPING, INC. TOPOGRAPHIC SURVEY DU-9 - 60´ PIPELINE EASEMENT; PROJECT NO. 09-09-04 (APPENDIX C); GEOTECHNICAL INFORMATION - 1999 REPORT OF GEOTECHNICAL EXPLORATION; DMMA DU-9; DEE-DOT RANCH PROPERTY; ST. JOHNS COUNTY, FLORIDA; E&A PROJECT NO. 99-1018; 2003 PRELIMINARY REPORT OF GEOTECHNICAL EXPLORATION; DU-9 DREDGED MATERIAL MANAGEMENT AREA; MACTEC PROJECT NO. 6734-03-8695 AND 2015 REVISED REPORT OF GEOTECHNICAL ENGINEERING SERVICE; FIND DU-9 DREDGED MATERIAL MANAGEMENT AREA; AMEC FOSTER WHEELER PROJECT NO. 6734-15-9829; 2015 TECHNICAL ANALYSIS DMMA DU-9; FORMER DISPOSAL AREA NO. 2; ST. JOHNS COUNTY, FLORIDA; GOLDER ASSOCIATES NO. 15-23484; 2016 WELL ABANDONMENT COMPLETION REPORT SLUDGE DISPOSAL AREA NUMBER 2 (SITE) FORMER DEE DOT RANGE SLUDGE LAND FARM COUNTY ROAD 2012; ST. JOHNS COUNTY, FLORIDA SITE ID #/PROJECT ID: COM_179673/245268; GOLDER ASSOCIATES NO. 15-23484.016 (APPENDIX D); NATURAL RESOURCES AND WETLAND DELINEATION - 1998 LOTSPEICH AND ASSOCIATES, INC.; WETLAND DELINEATION REPORT; DREDGED MATERIAL MANAGEMENT AREA DU-9; 2015 AND 2016 USACE JURISDICTIONAL VERIFICATION SAJ-2008-04116.
2. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK FOR INSPECTION BY THE EOR, ENGINEER, AND OWNER.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE EOR AND THE ENGINEER AS NECESSARY FOR CONSTRUCTION INSPECTION AND AS-BUILT CERTIFICATION. THE CONTRACTOR SHALL NOTIFY THE EOR AND THE ENGINEER AT APPROPRIATE AND APPROVED TIMES DURING THE WORK THAT THE CONTRACTOR IS READY FOR INSPECTION. WORK THAT IS ASSEMBLED OR COVERED SO THAT THE ENGINEER CANNOT INSPECT THE WORK PROPERLY SHALL BE DISASSEMBLED, UNCOVERED, OR DESTROYED AS NECESSARY FOR INSPECTION. THE COSTS OF REPAIR OR RESTORATION OF THIS WORK SHALL BE BORNE SOLELY BY THE CONTRACTOR.
4. ALL REQUIRED SUBMITTALS OR MANUFACTURER'S INFORMATION SHALL BE IN U.S. CUSTOMARY UNITS. ALL SUBMITTALS USING METRIC UNITS WILL BE REJECTED AND RETURNED WITHOUT COMMENT.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
6. THE CONTRACTOR SHALL LOCATE ALL ABOVE-GROUND AND BELOW-GROUND UTILITIES BEFORE BEGINNING WORK.
7. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT FACILITIES CAUSED BY HIS ACTIVITIES DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL RESTORE ALL SUCH DAMAGES TO THEIR PRE-CONSTRUCTION CONDITION AT NO COSTS TO THE OWNER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHORING AND DEWATERING OF ALL OPEN EXCAVATIONS. SHORING AND TRENCHING SHALL COMPLY WITH OSHA STANDARDS AND THE FLORIDA SAFE TRENCH ACT.
10. DRAINAGE SHALL BE CONTROLLED ONSITE. DRAINAGE NOT PREVIOUSLY DISCHARGED OFFSITE SHALL NOT BE DISCHARGED TO ADJACENT PROPERTIES DURING THE WORK.
11. ONSITE SOILS SHALL NOT BE ALLOWED TO ERODE OR OTHERWISE MOVE TO ADJACENT PROPERTIES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING BARRIERS AND SIGNS ADEQUATE TO PREVENT NORMAL PUBLIC ACCESS. THIS SHALL INCLUDE AS A MINIMUM, ORANGE PLASTIC FENCE AROUND ALL LAND PORTIONS OF THE PROJECT AND LAY-DOWN AREA(S).
13. IN ADDITION TO THE CLEARING AND GRUBBING LIMITS IDENTIFIED, CONTRACTOR SHALL REMOVE ALL TREES AND WOODY VEGETATION FROM THE EMBANKMENT SLOPES AND CREST TO A MINIMUM OF 25 FEET BEYOND THE EXTERIOR TOE OF THE EMBANKMENT, INCLUDING THE DEFINED LIMITS OF THE PERIMETER DTICH ON THE NORTH, EAST, AND WEST SIDES OF THE EXISTING DMMA.
14.

SURVEY INFORMATION

1. BEARINGS, DISTANCES, AND HORIZONTAL COORDINATES IN DRAWINGS ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983 (NAD 83).
2. VERTICAL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

PERMITS AND PERMIT CONDITIONS

1. THE OWNER HAS SUPPLIED COPIES OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT 55-129250-006-EI (APPENDIX B), U.S. ARMY CORPS OF ENGINEERS LETTER SAJ-2008-04116 (APPENDIX B), AND FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION GOPHER TORTOISE INCIDENTAL TAKE PERMIT STJ-24 (APPENDIX B). THE CONTRACTOR SHALL COMPLY WILL ALL PERMIT CONDITIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT SUPPLIED BY THE OWNER. COSTS OF OBTAINING PERMITS NOT SUPPLIED BY THE OWNER SHALL BE BORNE BY THE CONTRACTOR. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: NPDES PERMIT (OR NOI), CLEARING OR LAND DISTURBANCE PERMITS, TREE IMPACT PERMITS, CITY OR COUNTY BUILDING PERMITS, DRIVEWAY OR ENTRANCE PERMITS, TEMPORARY UTILITIES PERMITS, ETC.
3. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ALL WETLAND AREAS AND WATER BODIES OUTSIDE THE SPECIFIC LIMITS OF CONSTRUCTION AUTHORIZED BY THIS PERMIT SHALL BE PROTECTED FROM EROSION, SILTATION, SCOURING, AND/OR DEWATERING. WITHIN 7 DAYS OF ANY CONSTRUCTION ACTIVITY, EROSION BARRIERS SHALL BE INSTALLED PRIOR TO ANY EXCAVATION OR PLACEMENT OF FILL MATERIAL. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED AREAS ARE STABILIZED.
4. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY PERMIT AUTHORITIES. ANY ADDITIONAL EROSION CONTROL MEASURES SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE OWNER. ALL PRACTICES SHALL BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS DESCRIBED IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL; A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DEPARTMENT OF ENVIRONMENTAL REGULATION, 1988).
5. IF HISTORICAL OR ARCHAEOLOGICAL ARTIFACTS ARE DISCOVERED AT ANY TIME ON THE PROJECT SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD AND CEASE WORK IN THE AREA THE ARTIFACTS WERE IDENTIFIED.
6. ALL STORAGE OR STOCKPILING OF TOOLS AND MATERIAL AND OPERATION OF HEAVY EQUIPMENT ASSOCIATED WITH CONSTRUCTION SHALL BE LIMITED TO ADJACENT UPLANDS.
7. IN ACCORDANCE WITH FWC GOPHER TORTOISE PERMITTING GUIDELINES (FWC, 2015), GOPHER TORTOISE PERMITTING AND RELOCATION IS REQUIRED FOR DISTURBANCES WITHIN A 25-FOOT RADIUS OF ANY ACTIVE OR INACTIVE GOPHER TORTOISE BURROW. PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE STUDY AREA, THE OWNER - VIA AN FWC-AUTHORIZED GOPHER TORTOISE AGENT - WILL SURVEY ALL SUITABLE GOPHER TORTOISE HABITAT WITHIN THE DEFINED CONSTRUCTION LIMITS. ALL ACTIVE GOPHER TORTOISE BURROWS WITHIN THE 25-FOOT RADIUS OF THE CONSTRUCTION LIMITS SHALL EITHER BE RELOCATED BY THE OWNER OR BE BARRICADED USING SILT FENCE BARRIERS AND SURROUNDED BY ORANGE SAFETY FENCES FOR VISIBILITY IF THEY ARE LOCATED NEAR AREAS OF HEAVY EQUIPMENT TRAFFIC. ALL BARRICADES NEAR CONSTRUCTION AREAS SHALL BE INSPECTED REGULARLY TO PREVENT TORTOISES FROM ESCAPING. UPON COMPLETION OF WORK, ALL BARRICADES SHALL BE REMOVED.
8. IN ACCORDANCE WITH FWC GOPHER TORTOISE PERMITTING GUIDELINES (FWC, 2015), GOPHER TORTOISE PERMITTING AND RELOCATION IS REQUIRED FOR DISTURBANCES WITHIN A 25-FOOT RADIUS OF ANY ACTIVE OR INACTIVE GOPHER TORTOISE BURROW. PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE STUDY AREA, THE OWNER - VIA AN FWC-AUTHORIZED GOPHER TORTOISE AGENT - WILL SURVEY ALL SUITABLE GOPHER TORTOISE HABITAT WITHIN A MINIMAL 25-FOOT RADIUS OF THE DEFINED CONSTRUCTION LIMITS. ALL ACTIVE GOPHER TORTOISE BURROWS WITHIN THE 25-FOOT RADIUS OF THE CONSTRUCTION LIMITS WILL BE RELOCATED BY THE OWNER. TORTOISE BURROWS THAT ARE OUTSIDE THE CONSTRUCTION LIMITS BY A 25-FOOT RADIUS WILL BE EXCLUDED FROM ENTERING THE ACTIVE CONSTRUCTION ZONE USING SILT FENCE BARRIERS AND SURROUNDED BY ORANGE SAFETY FENCES FOR VISIBILITY IF THEY ARE LOCATED NEAR AREAS OF HEAVY EQUIPMENT TRAFFIC. ALL SILT FENCING AND BARRICADES NEAR CONSTRUCTION AREAS SHALL BE INSPECTED REGULARLY TO PREVENT TORTOISES FROM ENTERING THE ACTIVE CONSTRUCTION ZONE. UPON COMPLETION OF WORK, ALL SILT FENCING AND BARRICADES SHALL BE REMOVED.
9. A PORTION OF THE SITE WAS PREVIOUSLY USED AS A SLUDGE DISPOSAL AREA. ESTUARY CORP. AS OF MAY 2016, THE SITE HAS BEEN SUCCESSFULLY REMEDIATED AND WAS ISSUED A CONDITIONAL SITE REHABILITATION COMPLETION ORDER (SRCO) BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. DUE TO THE SITE'S HISTORY, THE CONTRACTOR SHALL VISUALLY PRE-SCREEN THE MATERIAL IN THE AREA OF THE FORMER DEE DEE DOT SLUDGE DISPOSAL AREA NO. 2 FOR THE UNLIKELY FINDING OF ANY REMAINING CONTAMINATED MATERIALS. SHOULD ANY SUSPECT MATERIAL BE IDENTIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND PLACE THE MATERIAL INTO THE DESIGNATED "TEMPORARY DISPOSAL AREA FOR UNSUITABLE MATERIAL" STOCKPILE AREA FOR FURTHER INSPECTION.
10. SHOULD ANY MONITORING WELLS ASSOCIATED WITH THE CLEAN-UP OF THE FORMER DEE DOT SLUDGE DISPOSAL AREA NO. 2 BE IDENTIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER WILL NOTIFY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ESTUARY'S CONSULTANT, GOLDER ASSOCIATES, FOR FORMAL ABANDONMENT OF THE IDENTIFIED WELL(S).



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SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

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ST. JOHNS COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2014-075
DATE	JAN 2017
DESIGNED	LSB
DRAWN	AF
CHECKED	KAK
REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

PROJECT OVERVIEW AND GENERAL NOTES

C-2

SHEET 2 OF 15

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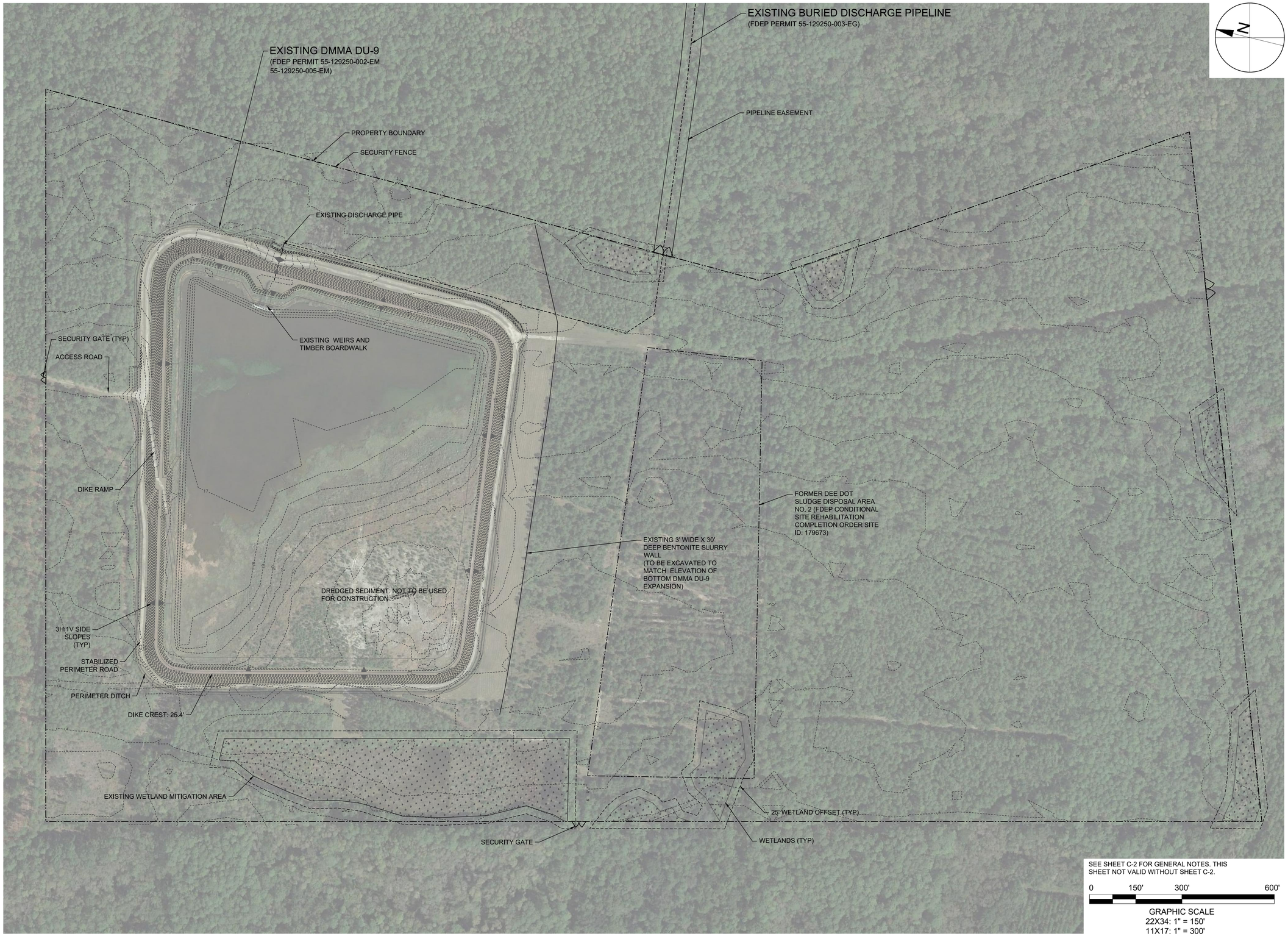

SEE SHEET C-2 FOR GENERAL NOTES. THIS SHEET NOT VALID WITHOUT SHEET C-2.

0 150' 300' 600'

GRAPHIC SCALE
22X34: 1" = 150'
11X17: 1" = 300'

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DRAWN	AF
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REVIEWED	JS
SCALE	AS SHOWN

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EXISTING SITE CONDITIONS

C-3

SHEET 3 OF 15

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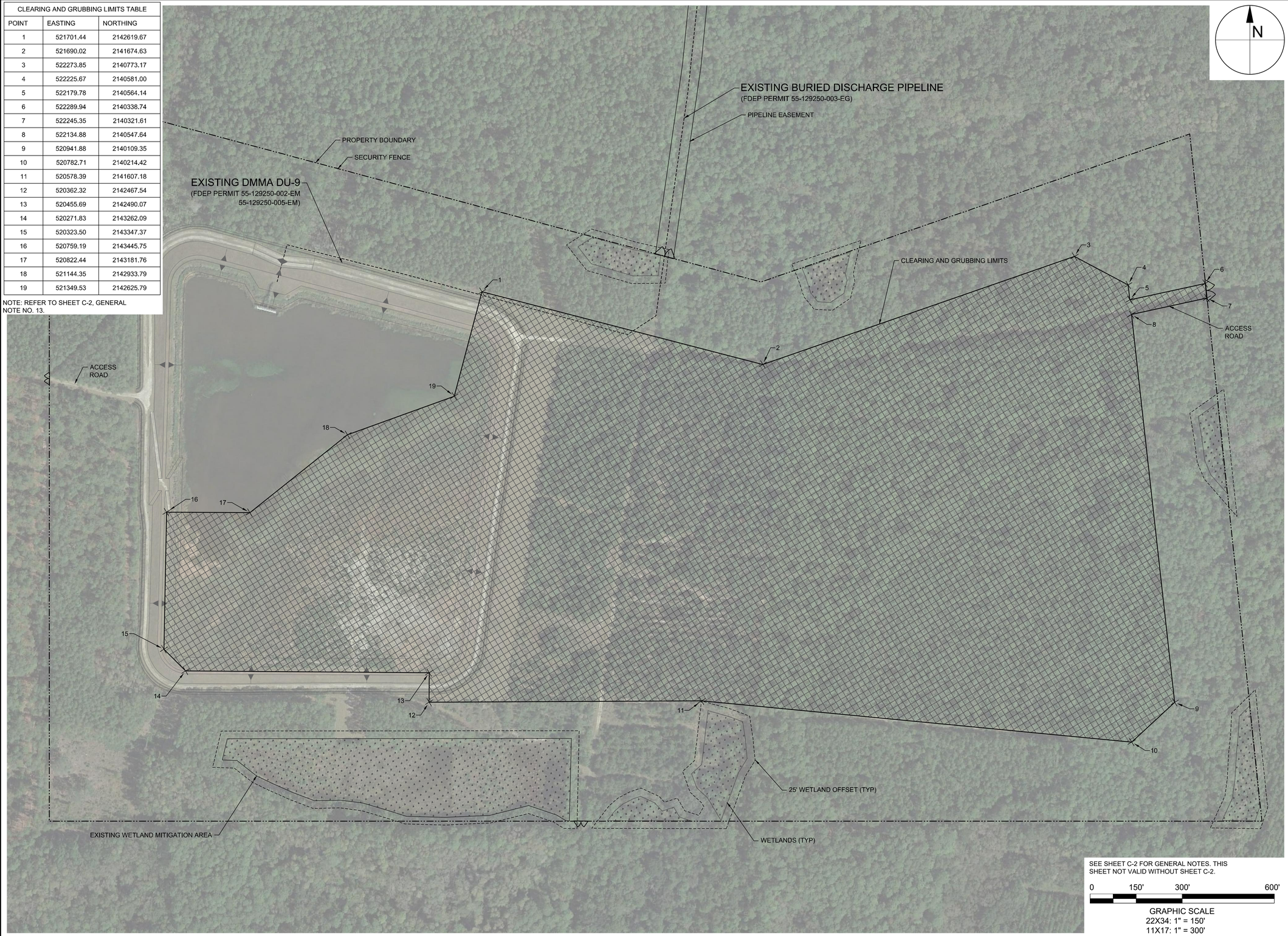
CLEARING AND GRUBBING LIMITS TABLE		
POINT	EASTING	NORTHING
1	521701.44	2142619.67
2	521690.02	2141674.63
3	522273.85	2140773.17
4	522225.67	2140581.00
5	522179.78	2140564.14
6	522289.94	2140338.74
7	522245.35	2140321.61
8	522134.88	2140547.64
9	520941.88	2140109.35
10	520782.71	2140214.42
11	520578.39	2141607.18
12	520362.32	2142467.54
13	520455.69	2142490.07
14	520271.83	2143262.09
15	520323.50	2143347.37
16	520759.19	2143445.75
17	520822.44	2143181.76
18	521144.35	2142933.79
19	521349.53	2142625.79

NOTE: REFER TO SHEET C-2, GENERAL NOTE NO. 13.



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DRAWING TITLE

CLEARING AND GRUBBING PLAN

C-4

SHEET 4 OF 15

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ESTIMATED EARTHWORK QUANTITIES	
ITEM	VOLUME (CUBIC YARDS)
CUT	157,828
FILL (WITH 18% FACTOR)	141,333
NET	16,495 CUT

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DRAWING TITLE

SITE PLAN WITH AERIAL

C-5

SHEET 5 OF 15

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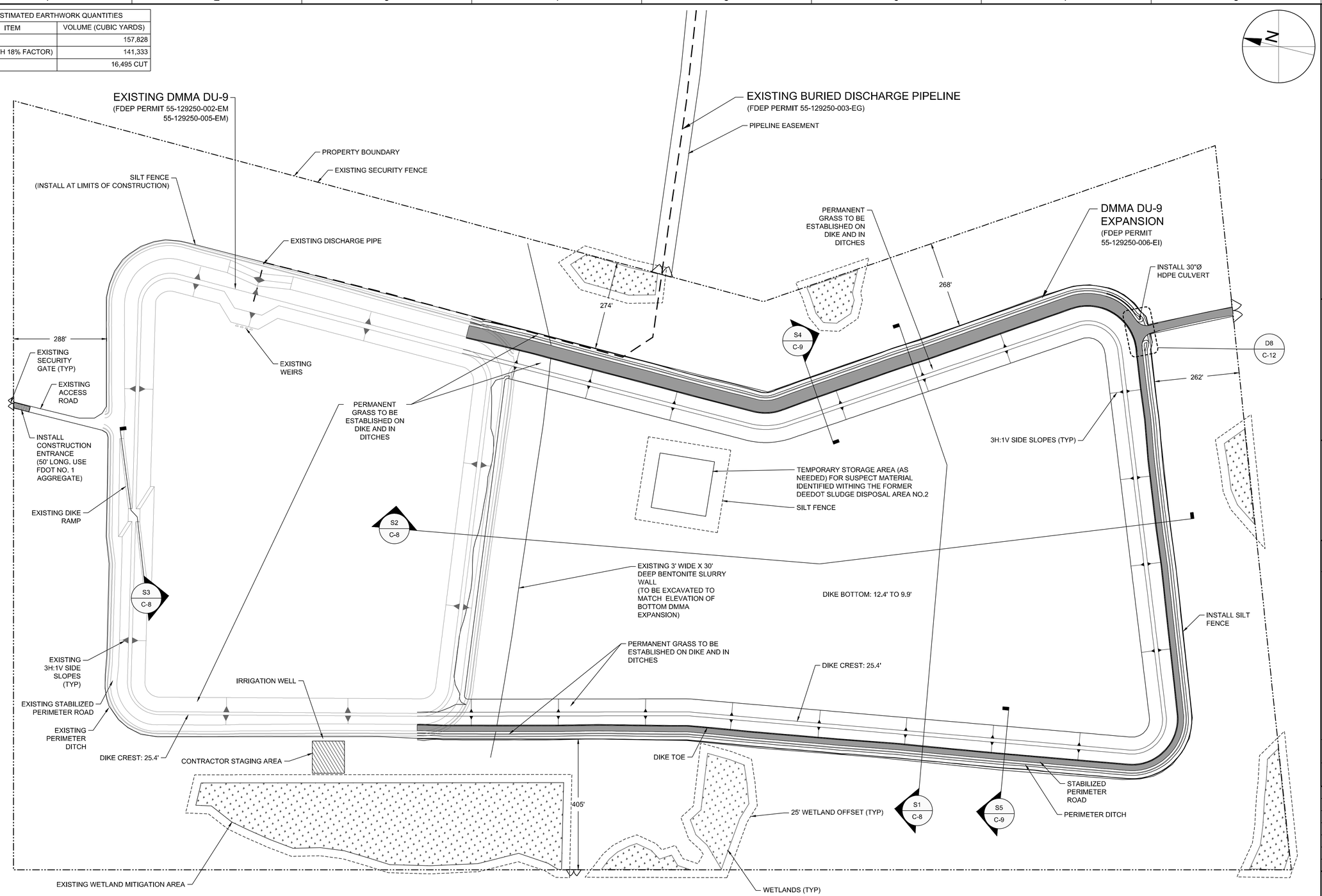
ESTIMATED EARTHWORK QUANTITIES	
ITEM	VOLUME (CUBIC YARDS)
CUT	157,828
FILL (WITH 18% FACTOR)	141,333
NET	16,495 CUT



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DRAWING TITLE

SITE PLAN WITHOUT AERIAL

C-6

SHEET 6 OF 15

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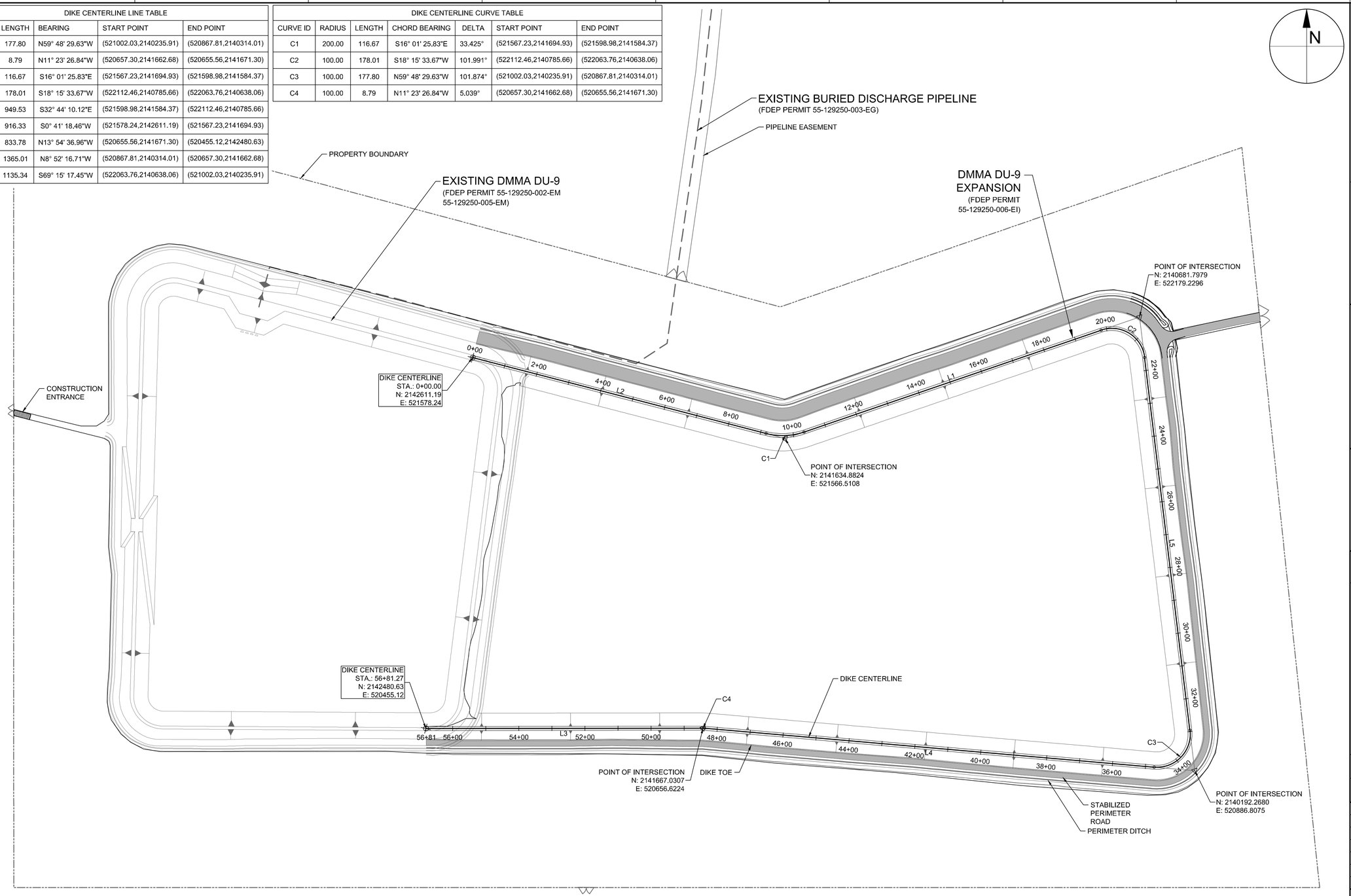
DIKE CENTERLINE LINE TABLE				
LINE ID	LENGTH	BEARING	START POINT	END POINT
C3	177.80	N59° 48' 29.63"W	(521002.03,2140235.91)	(520867.81,2140314.01)
C4	8.79	N11° 23' 26.84"W	(520657.30,2141662.68)	(520655.56,2141671.30)
C1	116.67	S16° 01' 25.83"E	(521567.23,2141694.93)	(521598.98,2141584.37)
C2	178.01	S18° 15' 33.67"W	(522112.46,2140785.66)	(522063.76,2140638.06)
L1	949.53	S32° 44' 10.12"E	(521598.98,2141584.37)	(522112.46,2140785.66)
L2	916.33	S0° 41' 18.46"W	(521578.24,2142611.19)	(521567.23,2141694.93)
L3	833.78	N13° 54' 36.96"W	(520655.56,2141671.30)	(520455.12,2142480.63)
L4	1365.01	N8° 52' 16.71"W	(520867.81,2140314.01)	(520657.30,2141662.68)
L5	1135.34	S69° 15' 17.45"W	(522063.76,2140638.06)	(521002.03,2140235.91)

DIKE CENTERLINE CURVE TABLE						
CURVE ID	RADIUS	LENGTH	CHORD BEARING	DELTA	START POINT	END POINT
C1	200.00	116.67	S16° 01' 25.83"E	33.425°	(521567.23,2141694.93)	(521598.98,2141584.37)
C2	100.00	178.01	S18° 15' 33.67"W	101.991°	(522112.46,2140785.66)	(522063.76,2140638.06)
C3	100.00	177.80	N59° 48' 29.63"W	101.874°	(521002.03,2140235.91)	(520867.81,2140314.01)
C4	100.00	8.79	N11° 23' 26.84"W	5.039°	(520657.30,2141662.68)	(520655.56,2141671.30)



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DRAWING TITLE

CONTROL PLAN

C-7

SHEET 7 OF 15

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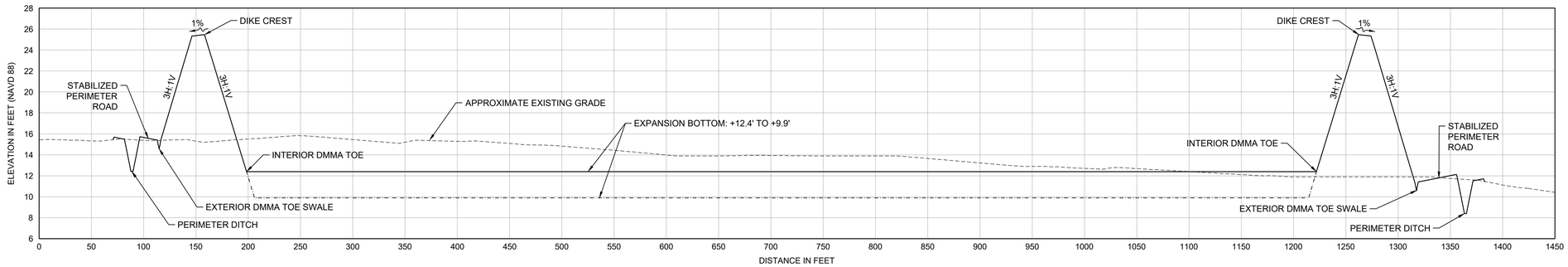
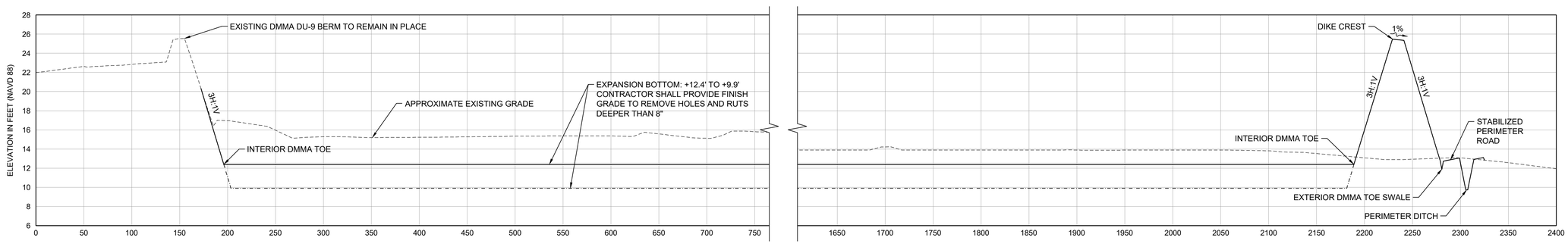


S1 C-5 C-6

EAST-WEST SECTION

22x34: 1" = 60'
11x17: 1" = 120'
V-SCALE: 1" = 6' (22X34)
V-SCALE: 1" = 12' (11X17)

0 60' 120'

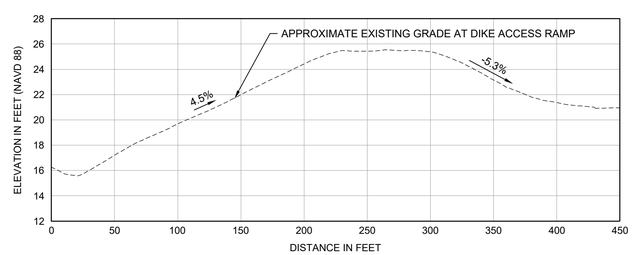


S2 C-5 C-6

NORTH-SOUTH SECTION

22x34: 1" = 60'
11x17: 1" = 120'
V-SCALE: 1" = 6' (22X34)
V-SCALE: 1" = 12' (11X17)

0 60' 120'



S3 C-5 C-6

EXISTING DIKE RAMP PROFILE

22x34: 1" = 60'
11x17: 1" = 120'
V-SCALE: 1" = 6' (22X34)
V-SCALE: 1" = 12' (11X17)

0 60' 120'

SEE SHEET C-2 FOR GENERAL NOTES. THIS SHEET NOT VALID WITHOUT SHEET C-2.

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
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(904)-731-7040
1655 PALM BEACH LAKES BLVD
SUITE 1012
WEST PALM BEACH, FL 33401
(561)-640-7310
CERTIFICATE OF AUTHORIZATION # 4815

SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION
ST. JOHNS COUNTY, FLORIDA

SUNSHINE STATE ONE CALL OF FLORIDA
SUNSHINE 811 - ALWAYS CALL 811 BEFORE YOU DIG
1-800-638-4097

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2014-075
DATE	JAN 2017
DESIGNED	LSB
DRAWN	AF
CHECKED	KAK
REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

TYPICAL SECTIONS

C-8

SHEET 8 OF 15

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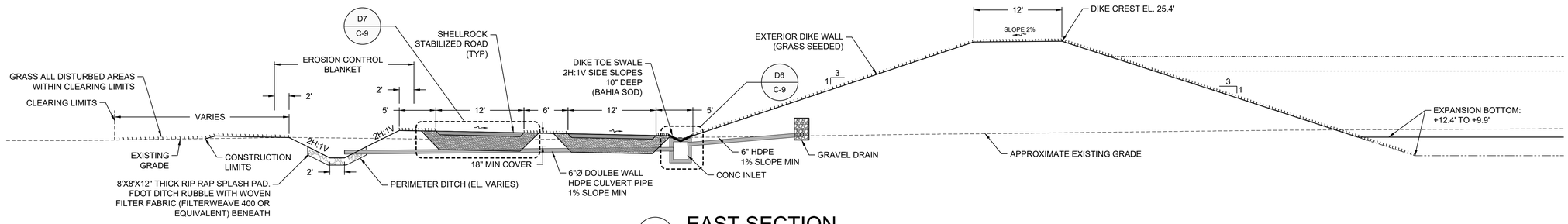
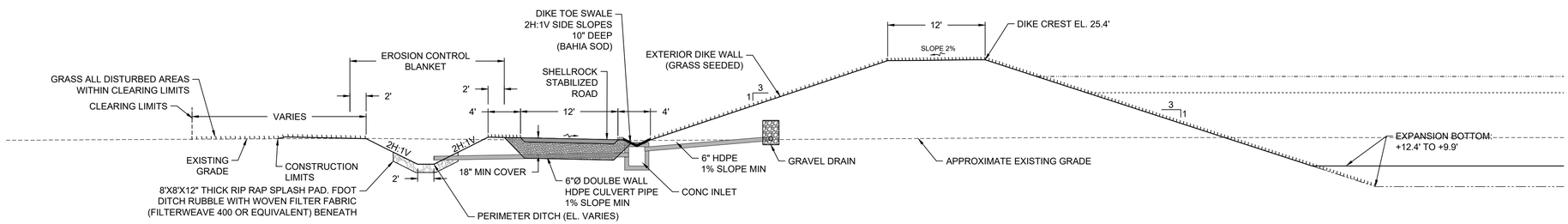


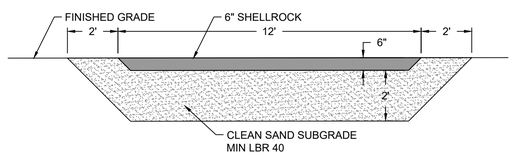
S4 C-5 C-6 **EAST SECTION**

22x34: 1" = 8'
11x17: 1" = 16'



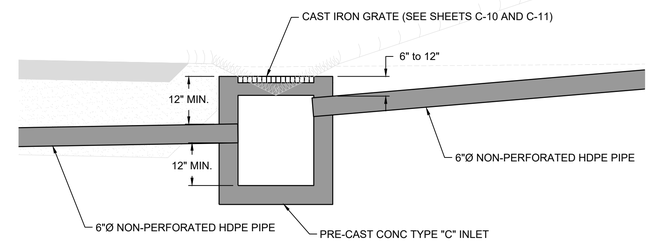
S5 C-5 C-6 **WEST SECTION**

22x34: 1" = 8'
11x17: 1" = 16'



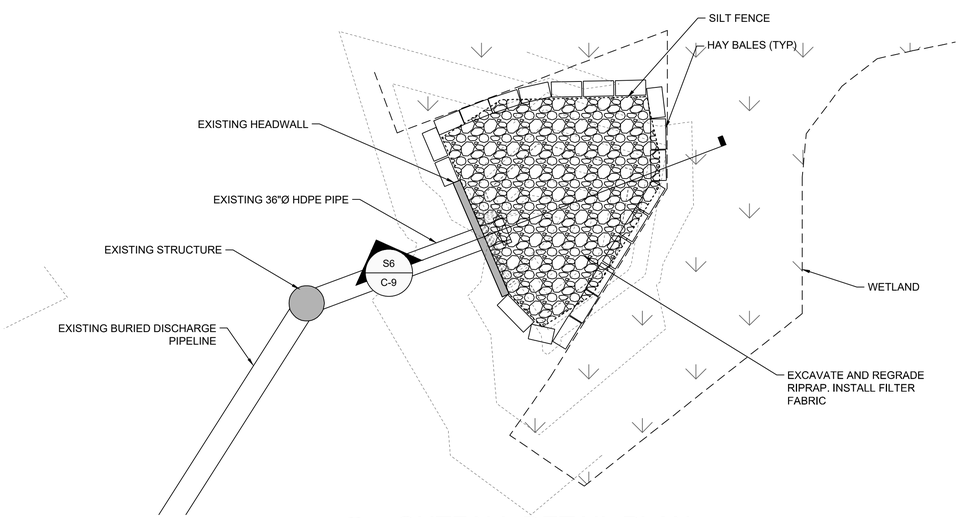
D7 C-9 **STABILIZED ROAD TYPICAL DETAIL**

22x34: 1" = 3'
11x17: 1" = 6'



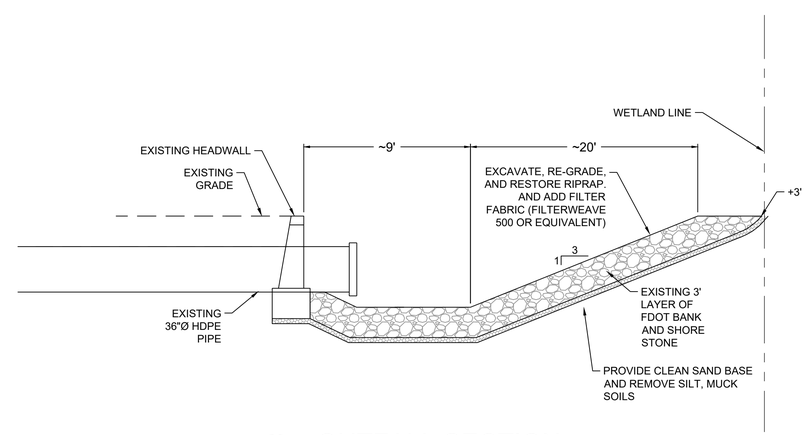
D6 C-9 **TOE DRAIN INLET DETAIL**

22x34: 1" = 2'
11x17: 1" = 4'



D5 C-2 **OUTFALL DETAIL PLAN**

22x34: 1" = 1'
11x17: 1" = 2'



S6 C-9 **OUTFALL SECTION**

22x34: 1" = 1'
11x17: 1" = 2'

TAYLOR ENGINEERING INC.
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SUITE 1012
WEST PALM BEACH, FL 33401
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CERTIFICATE OF AUTHORIZATION # 4815

SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION
ST. JOHNS COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2014-075
DATE	JAN 2017
DESIGNED	LSB
DRAWN	AF
CHECKED	KAK
REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

TYPICAL SECTIONS

C-9

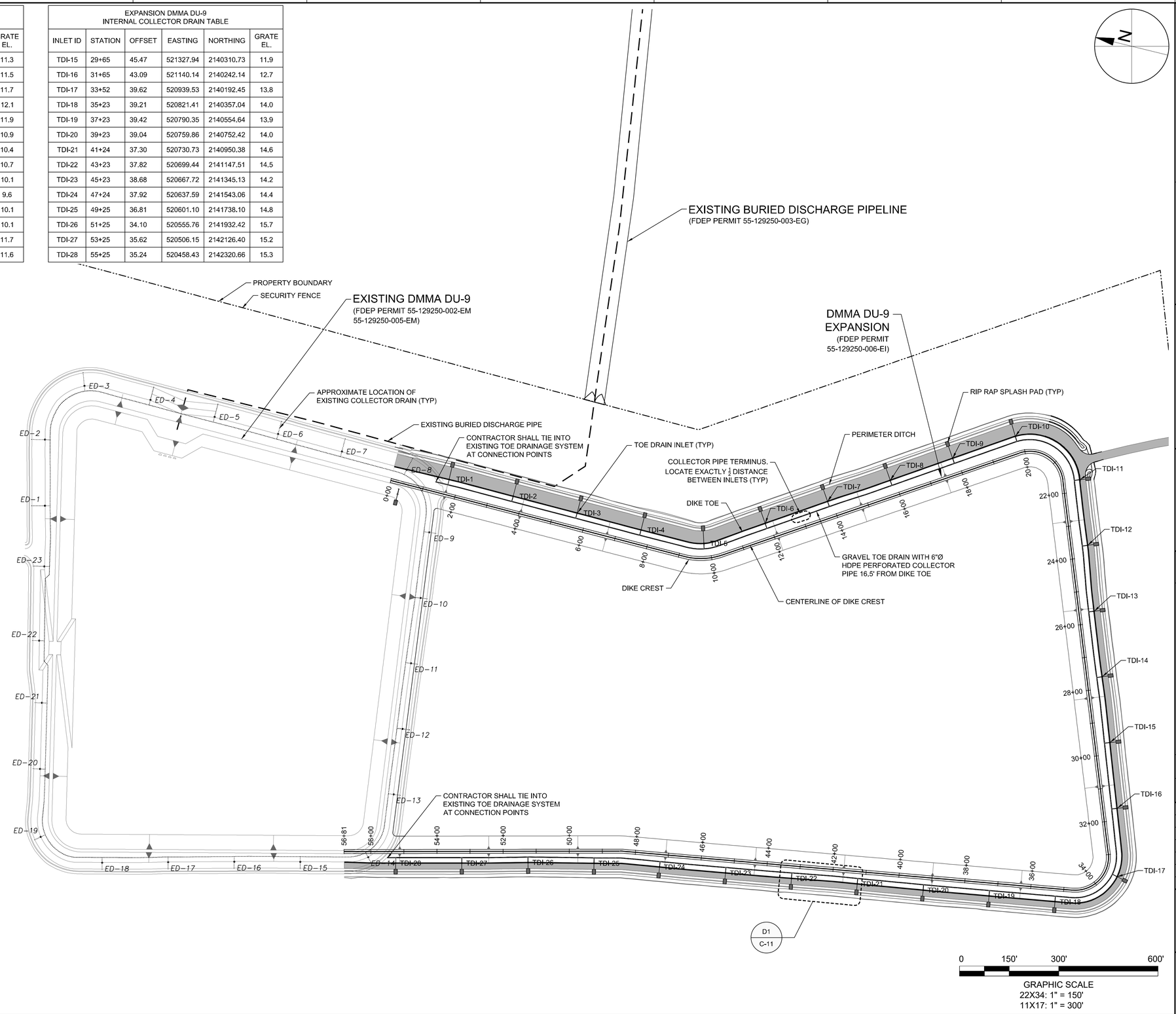
SHEET 9 OF 15

ANTON FLEVELLING, 14/2017 1:13:13 PM, X:\sys\Projects\2014-075_DU9_Permit\Construction\2014-075-C-Dike Typical Sections.dwg

EXPANSION DMMA DU-9 INTERNAL COLLECTOR DRAIN TABLE					
INLET ID	STATION	OFFSET	EASTING	NORTHING	GRATE EL.
TDI-1	1+70	47.33	521623.53	2142440.85	11.3
TDI-2	3+70	46.83	521620.62	2142240.51	11.5
TDI-3	5+70	46.17	521617.56	2142040.55	11.7
TDI-4	7+70	45.02	521614.01	2141840.67	12.1
TDI-5	9+79	45.44	521619.69	2141646.46	11.9
TDI-6	11+87	48.51	521723.01	2141481.16	10.9
TDI-7	13+87	50.01	521832.42	2141313.75	10.4
TDI-8	15+87	49.13	521939.81	2141145.07	10.7
TDI-9	17+87	50.82	522049.38	2140977.75	10.1
TDI-10	19+86	52.30	522159.18	2140809.54	9.6
TDI-11	21+65	50.77	522077.95	2140589.14	10.1
TDI-12	23+64	50.89	521891.25	2140518.30	10.1
TDI-13	25+64	46.02	521702.34	2140451.96	11.7
TDI-14	27+64	46.25	521515.70	2140381.02	11.6

EXPANSION DMMA DU-9 INTERNAL COLLECTOR DRAIN TABLE					
INLET ID	STATION	OFFSET	EASTING	NORTHING	GRATE EL.
TDI-15	29+65	45.47	521327.94	2140310.73	11.9
TDI-16	31+65	43.09	521140.14	2140242.14	12.7
TDI-17	33+52	39.62	520939.53	2140192.45	13.8
TDI-18	35+23	39.21	520821.41	2140357.04	14.0
TDI-19	37+23	39.42	520790.35	2140554.64	13.9
TDI-20	39+23	39.04	520759.86	2140752.42	14.0
TDI-21	41+24	37.30	520730.73	2140950.38	14.6
TDI-22	43+23	37.82	520699.44	2141147.51	14.5
TDI-23	45+23	38.68	520667.72	2141345.13	14.2
TDI-24	47+24	37.92	520637.59	2141543.06	14.4
TDI-25	49+25	36.81	520601.10	2141738.10	14.8
TDI-26	51+25	34.10	520555.76	2141932.42	15.7
TDI-27	53+25	35.62	520506.15	2142126.40	15.2
TDI-28	55+25	35.24	520458.43	2142320.66	15.3

EXISTING DMMA DU-9 INTERNAL COLLECTOR DRAIN TABLE		
INLET ID	EASTING	NORTHING
ED-1	521254.31	2143608.57
ED-2	521448.35	2143656.26
ED-3	521634.96	2143579.21
ED-4	521641.48	2143375.16
ED-5	521637.74	2143174.49
ED-6	521633.47	2142975.57
ED-7	521628.06	2142775.69
ED-8	521620.93	2142572.40
ED-9	521453.49	2142460.87
ED-10	521254.81	2142439.02
ED-11	521055.96	2142419.85
ED-12	520857.37	2142397.19
ED-13	520658.70	2142375.99
ED-14	520455.94	2142405.30
ED-15	520392.94	2142601.42
ED-16	520345.64	2142795.67
ED-17	520296.82	2142989.46
ED-18	520247.64	2143182.79
ED-19	520278.69	2143382.00
ED-20	520477.91	2143432.98
ED-21	520673.38	2143475.24
ED-22	520854.12	2143528.07
ED-23	521075.96	2143566.56



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CERTIFICATE OF AUTHORIZATION # 4815

SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION

ST. JOHNS COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2014-075
DATE	JAN 2017
DESIGNED	LSB
DRAWN	AF
CHECKED	KAK
REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

INTERNAL COLLECTOR DRAIN PLAN

C-10

SHEET 10 OF 15

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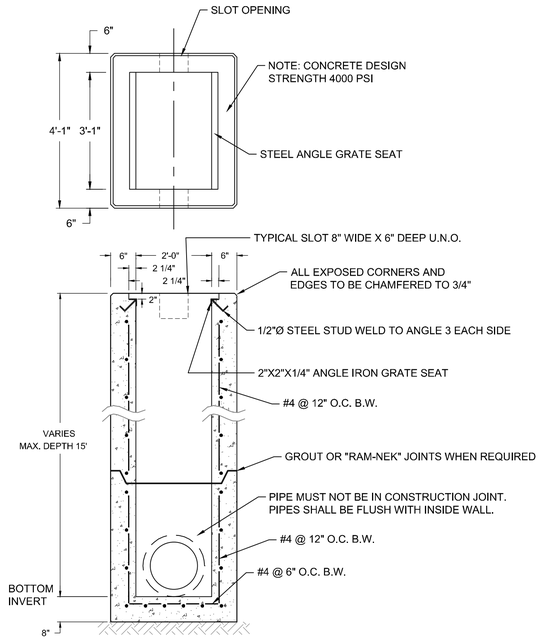
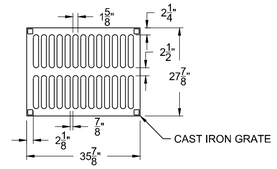


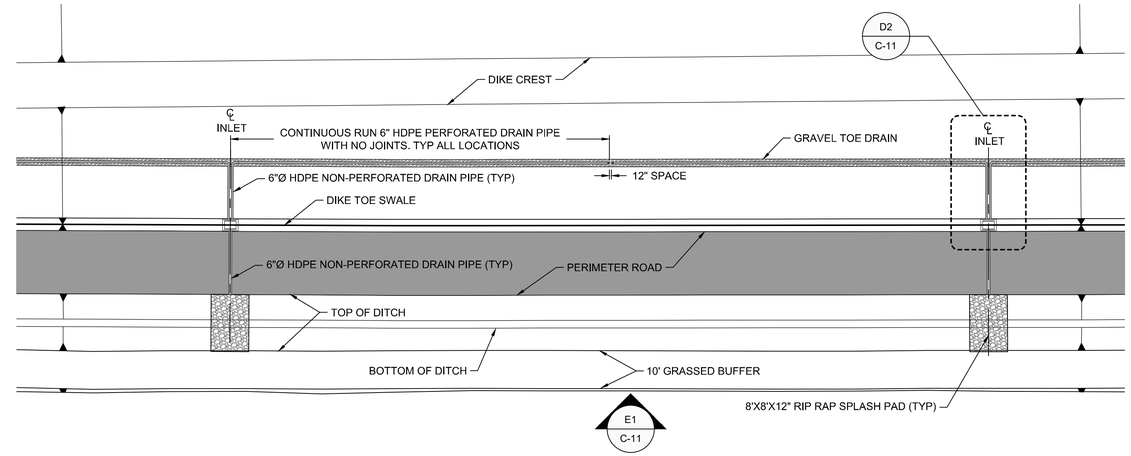
PRE-CAST CONCRETE TYPE 'C' INLET DETAIL

NOT TO SCALE



GRATE DETAIL

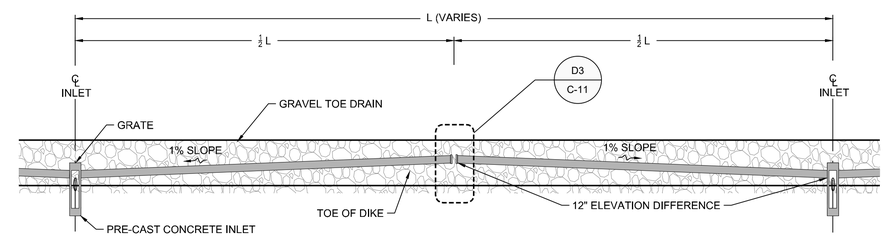
NOT TO SCALE



D1 C-10

TOE DRAIN PLAN DETAIL

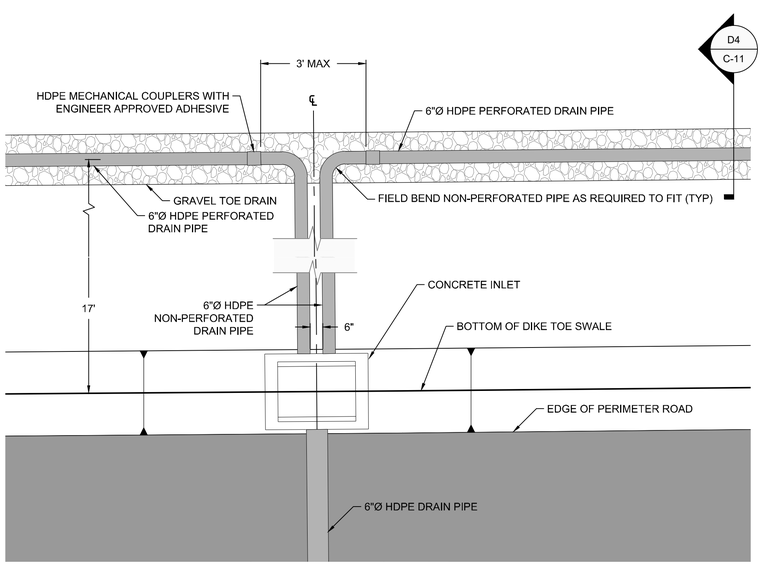
NOT TO SCALE



E1 C-11

TOE DRAIN ELEVATION DETAIL

NOT TO SCALE

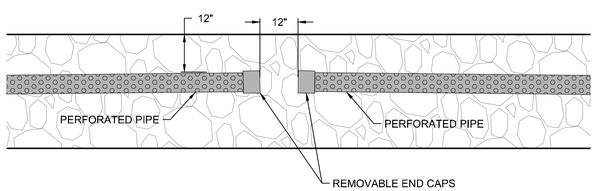


D2 C-11

GRAVEL TOE DRAIN TO CONCRETE INLET DETAIL

22x34: 1" = 3'
11x17: 1" = 6'
V-SCALE: 1" = 1' (22X34)
V-SCALE: 1" = 2' (11X17)

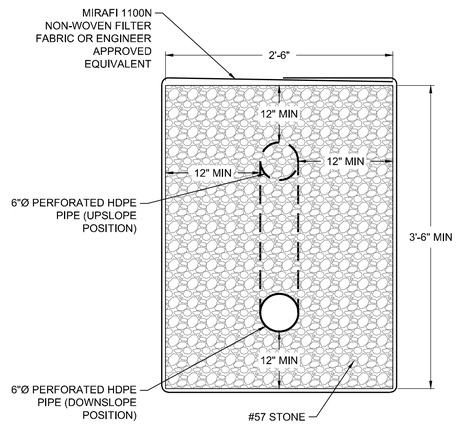
0 3' 6'



D3 C-11

TOE DRAIN DETAIL

NOT TO SCALE



D4 C-11

TYPICAL GRAVEL TOE DRAIN DETAIL

22x34: 1" = 1'
11x17: 1" = 2'

0 1' 2'

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(561)-640-7310
CERTIFICATE OF AUTHORIZATION # 4815

SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

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ST. JOHNS COUNTY, FLORIDA

SUNSHINE STATE ONE CALL OF FLORIDA
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NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

INTERNAL COLLECTOR DRAIN DETAILS

C-11

SHEET 11 OF 15

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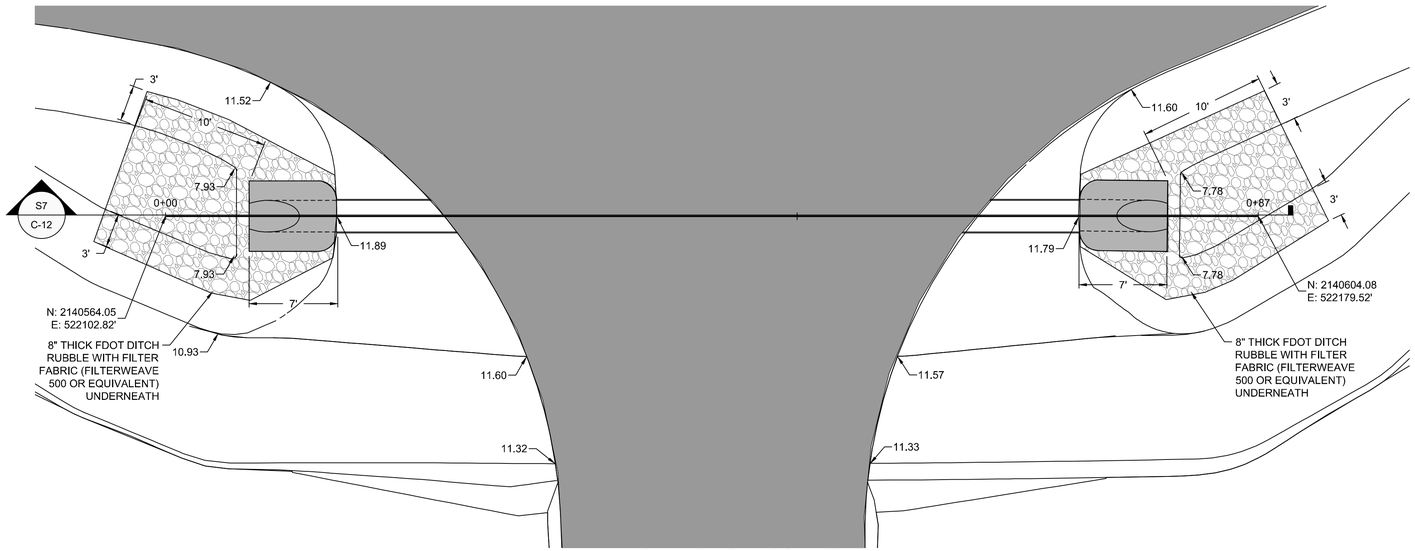
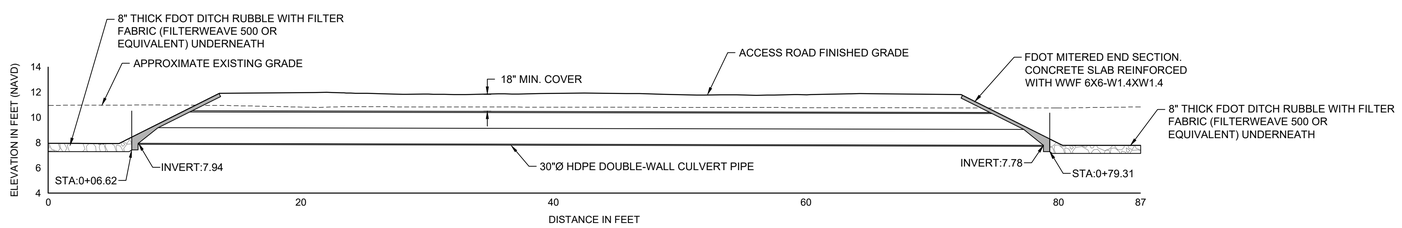


D8 / C-6

SOUTH ACCESS ROAD CULVERT PLAN

22x34: 1" = 6'
11x17: 1" = 12'

0 6' 12'



S7 / C-12

SOUTH ACCESS ROAD CULVERT SECTION

22x34: 1" = 6'
11x17: 1" = 12'

0 6' 12'

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REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

ACCESS ROAD CULVERT PLAN AND CROSS-SECTION

C-12

SHEET 12 OF 15

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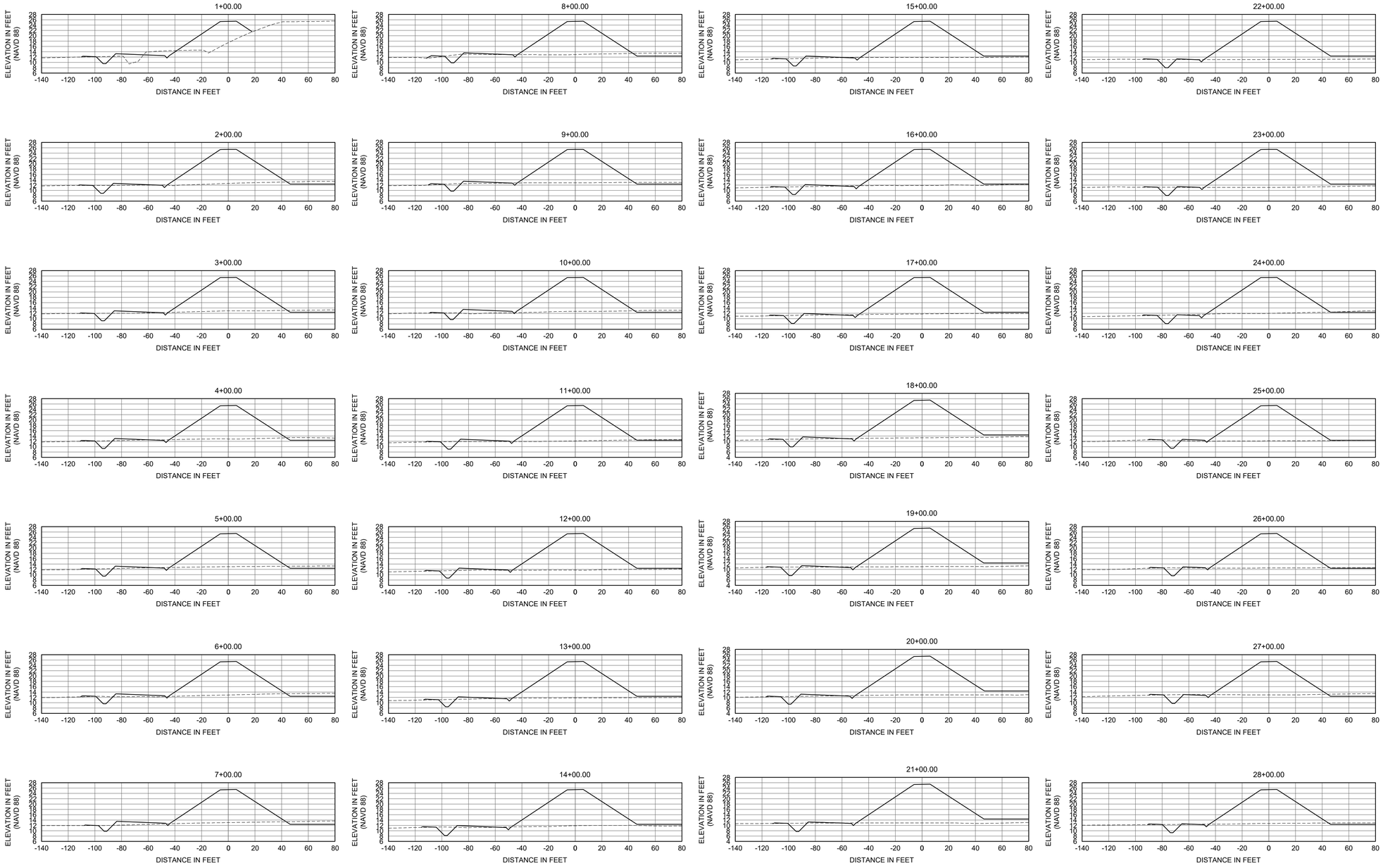

LEGEND:
- - - - - - EXISTING GRADE
——— FINISHED GRADE

0 40' 80' 160'
GRAPHIC SCALE
22X34: 1" = 40'
11X17: 1" = 80'

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SCALE	AS SHOWN

DRAWING TITLE

CROSS-SECTIONS

C-13

SHEET 13 OF 15

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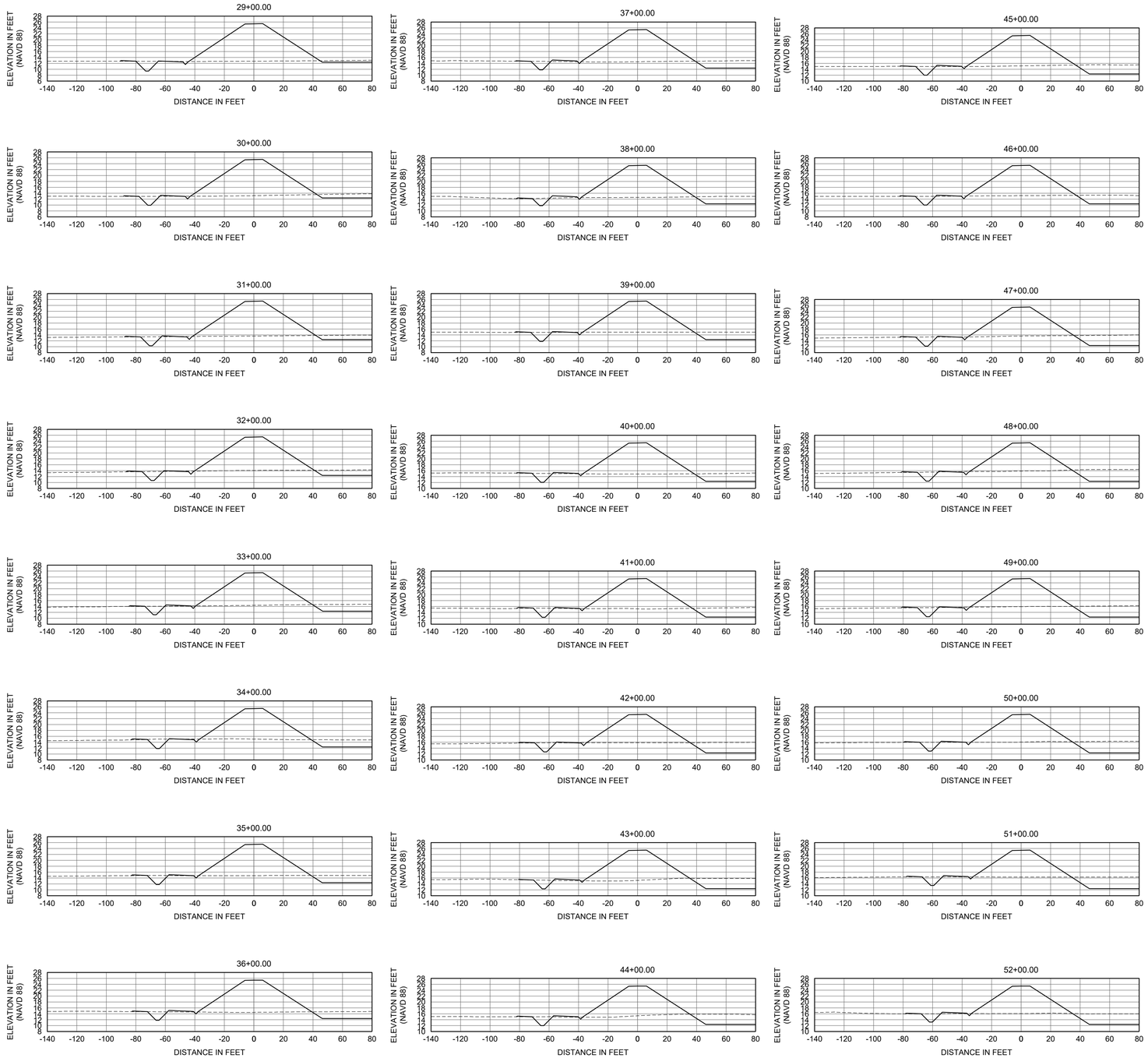

LEGEND:
- - - - - - EXISTING GRADE
——— FINISHED GRADE

0 40' 80' 160'
GRAPHIC SCALE
22X34: 1" = 40'
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CROSS-SECTIONS

C-14

SHEET 14 OF 15

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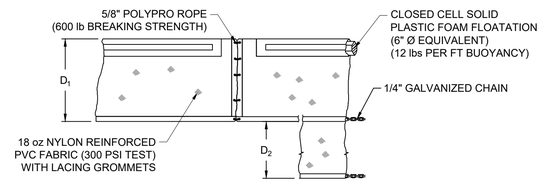
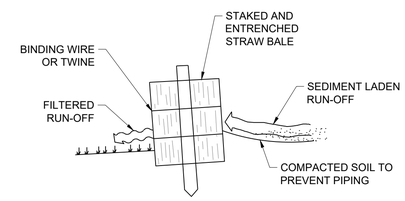
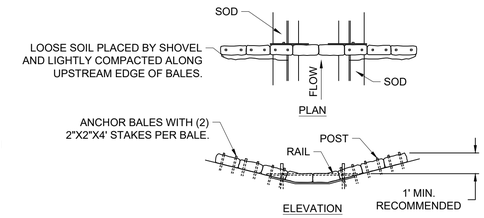


FLOATING TURBIDITY BARRIER - TYPE 1

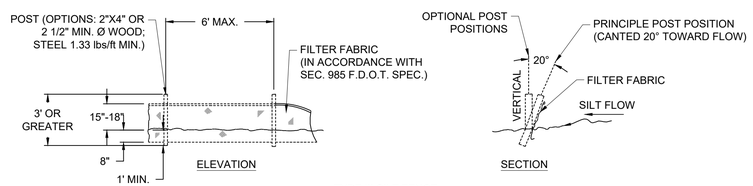


CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE

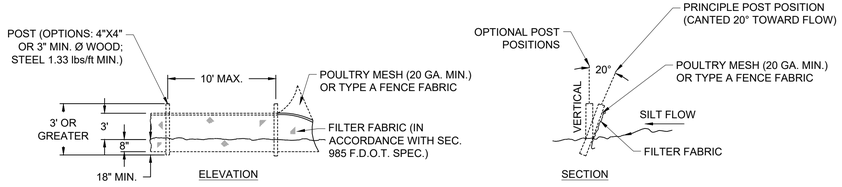


SPACING: BALE BARRIERS FOR PAVED DITCHES SHOULD BE SPACED IN ACCORDANCE WITH CHART I, SHEET 1 OF 3, INDEX NO. 102 OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.

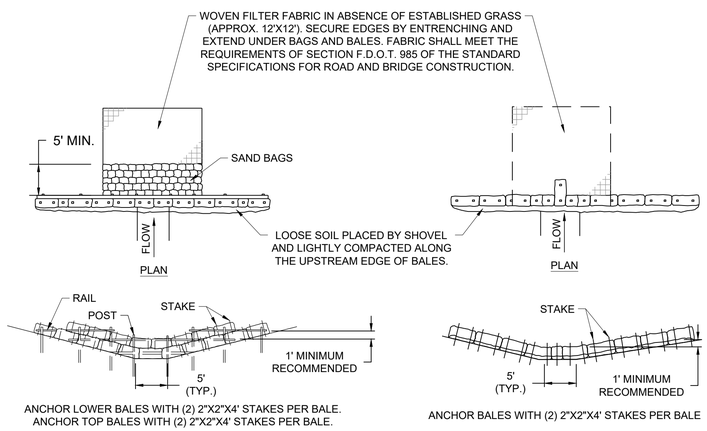
STRAW BALE BARRIER FOR PAVED DITCH



TYPE III SILT FENCE



TYPE IV SILT FENCE

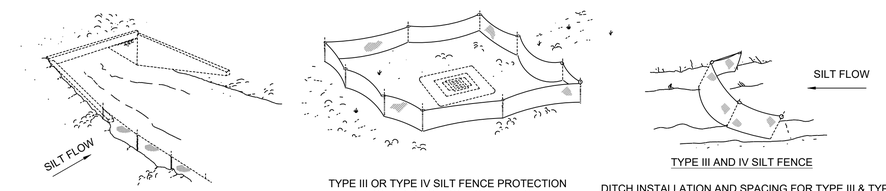


APPLICATION AND SPACING OF TYPES I & TYPES II HAY BALE BARRIERS SALL BE IN ACCORDANCE WITH SHEET 1 OF 3, F.D.O.T. INDEX NO. 102

TYPE II

TYPE I

TYPICAL STRAW BALE DETAIL



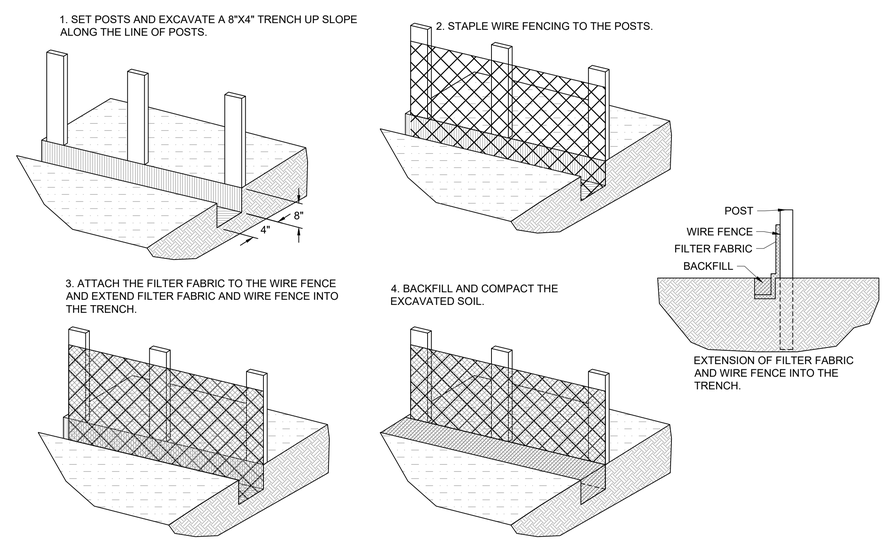
TYPE III OR TYPE IV SILT FENCE

TYPE III OR TYPE IV SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

TYPE III AND IV SILT FENCE

DITCH INSTALLATION AND SPACING FOR TYPE III & TYPE IV FENCE TO BE IN ACCORDANCE WITH SHEET 1 OF 3, OF THE F.D.O.T. INDEX NO. 102

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 INSTALLATION DETAILS

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
(904)-731-7040
1655 PALM BEACH LAKES BLVD
SUITE 1012
WEST PALM BEACH, FL 33401
(561)-640-7310
CERTIFICATE OF AUTHORIZATION # 4815

SEAL

LORI S. BROWNELL P.E.# 60025

PROJECT TITLE

FLORIDA INLAND NAVIGATION DISTRICT DREDGED MATERIAL MANAGEMENT AREA DU-9 EXPANSION

ST. JOHNS COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2014-075
DATE	JAN 2017
DESIGNED	LSB
DRAWN	AF
CHECKED	KAK
REVIEWED	JS
SCALE	AS SHOWN

DRAWING TITLE

EROSION CONTROL DETAILS

C-15

SHEET 15 OF 15

ANTON FLEVELLING, 1/4/2017 1:14:28 PM, X:\sys\Projects\c2014-075_DU9_Permit\Construction\c2014-075-C-Erosion.dwg