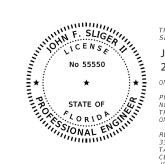
LEON COUNTY INDEX OF DRAWINGS SHEET NO. SHEET DESCRIPTION DEPARTMENT OF PUBLIC WORKS KEY SHEET AYTONA BEACH SIGNATURE SHEET EXISTING CONDITIONS CONSTRUCTION PLANS LOCATION OF PROJECT PROJECT LAYOUT GENERAL NOTES TYPICAL SECTION DETAILS TAMPA TREE REMOVAL CENTERVILLE TRACE POND MINIMUM FROSION CONTROL LIMITS OF CONSTRUCTION/CONTRACTOR STAGING OUTFALL STRUCTURE REPLACEMENT 10 PI AN 11 ACCESS ROAD PLAN-PROFILE 12 GRADING PLAN REPORT OF CORE BORINGS 13-16 TYPICAL SECTION SLOPE COMPACTION DETAILS 17 18-20 CROSS SECTIONS COUNTY COMMISSIONERS ACCESS ROAD CROSS SECTIONS 21 BILL PROCTOR DISTRICT 1 DISTRICT 2/CHAIRMAN DISTRICT 3 WETLAND IMPACTS 22 JIMBO JACKSON RICK MINOR 23 TRAFFIC CONTROL GENERAL NOTES DISTRICT 4/VICE CHAIRMAN DISTRICT 5 24 MISCELLANEOUS DRAINAGE DETAILS BRYAN DESLOGE KRISTIN DOZIER DRAINAGE STRUCTURE DETAILS 25 MARY ANN LINDLEY NICK MADDOX AT-LARGE AT-LARGE 26-27 CONSTRUCTION DETAILS BRENT PELL, P.E. VINCENT S. LONG DIRECTOR OF PUBLIC WORKS COUNTY ADMINISTRATOR WALL CONTROL SP-1 29 STEEL SHEET PILE NOTES (1 OF 2) 30 STEEL SHEET PILE NOTES (2 OF 2) 31 STEEL SHEET PILE DETAILS (1 OF 3) 32 STEEL SHEET PILE DETAILS (2 OF 3) 33 STEEL SHEET PILE DETAILS (3 OF 3) T-2-N T-2-N WEIR AND EMERGENCY SPILLWAY NOTES 34 T_1_N 35 EMERGENCY SPILLWAY DETAILS 36 WEIR DETAILS (1 OF 4) 37 WEIR DETAILS (2 OF 4) BID SET 38 WEIR DETAILS (3 OF 4) 39 WEIR DETAILS (4 OF 4) 40 SKIMMER DETAILS (1 OF 2) 41 SKIMMER DETAILS (2 OF 2) 42 REINFORCING BAR LIST Miles FOUNDATION LAYOUT 43 PLANS PREPARED BY: 44 HELICAL PILE DETAILS PROJECT LOCATION 45 BOARDWALK STRUCTURAL NOTES 46 BOARDWALK PLAN AND ELEVATION REGISTE, SLIGER ENGINEERING, INC. BOARDWALK DETAILS (1 OF 4) 47 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT 48 BOARDWALK DETAILS (2 OF 4) CERT. OF AUTHORIZATION # 9292 3370 CAPITAL CIRCLE NE, SUITE J 49 BOARDWALK DETAILS (3 OF 4) TALLAHASSEE, FL 32308 PHONE: (850) 894-4521 - FAX: (850) 224-0505 BOARDWALK DETAILS (4 OF 4) GOVERNING STANDARD PLANS: Florida Department of Transportation, FY 2019-20 Standard Plans for Road and NOTE: THE SCALE OF THESE PLANS MAY Bridge Construction and applicable Interim Revisions (IRs). HAVE CHANGED DUE TO REPRODUCTION. Standard Plans for Road and Bridge Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans GOVERNING STANDARD SPECIFICATIONS: Florida Department of Transportation, January 2019 Standard Specifications for Road and Bridge Construction at the following website: ENGINEER OF RECORD: JOHN F. SLIGER, II http://www.fdot.gov/programmanagement/Implemented/SpecBooks P.E. NO.: 55550 STORMWATER MANAGEMENT CONTROL OFFICER: FELTON ARD, P.E. (850) 606-1500 FISCAL SHEET YEAR NO. DATE OF PREPARATION: 3/27/2019

LEON COUNTY PROJECT MANAGER: TOM BRANTLEY, P.E.

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John F Sliger II 2019.05.14 13:59:37 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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REGISTE, SLIGER ENGINEERING, INC. 3370 CAPITAL CIRCLE NE, SUITE J TALLAHASSEE, FL 32308 CERTIFICATE OF AUTHORIZATION: 9292 JOHN F. SLIGER II, P.E. NO. 55550

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

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3	EXISTING CONDITIONS
4	PROJECT LAYOUT
5	GENERAL NOTES
6	TYPICAL SECTION DETAILS
7	TREE REMOVAL
8	MINIMUM EROSION CONTROL
9	LIMITS OF CONSTRUCTION/CONTRACTOR STAGING
10	PLAN
11	ACCESS ROAD PLAN-PROFILE
	GRADING PLAN
	CROSS SECTIONS
21 22	ACCESS ROAD CROSS SECTIONS WETLAND IMPACTS
	TRAFFIC CONTROL GENERAL NOTES
23	MICCELLANGOUS DRAINAGE DETAILS
25	DDAINAGE STRUCTURE DETAILS
26-27	MISCELLANEOUS DRAINAGE DETAILS DRAINAGE STRUCTURE DETAILS CONSTRUCTION DETAILS
26-27 28	WALL CONTROL SP-1
	STEEL SHEET PILE NOTES (1 OF 2)
30	STEEL SHEET PILE NOTES (2 OF 2)
31	STEEL SHEET PILE DETAILS (1 OF 3)
32	STEEL SHEET PILE DETAILS (2 OF 3)
33	STEEL SHEET PILE DETAILS (3 OF 3)
34	WEIR AND EMERGENCY SPILLWAY NOTES
35	EMERGENCY SPILLWAY DETAILS
36	EMERGENCY SPILLWAY DETAILS WEIR DETAILS (10 74) WEIR DETAILS (2 0F 4) WEIR DETAILS (3 0F 4) WEIR DETAILS (4 0F 4)
37	WEIR DETAILS (2 OF 4)
38	WEIR DETAILS (3 OF 4)
39	WEIR DETAILS (4 OF 4)
40	SKIMMER DETAILS (1 OF 2)
41 42	SKIMMER DETAILS (2 OF 2)
42	KEINFUKLING BAK LISI
43 44	HELICAL BUE DETAILS
45	WEIR DETAILS (4 OF 4) SKIMMER DETAILS (1 OF 2) SKIMMER DETAILS (2 OF 2) REINFORCING BAR LIST FOUNDATION LAYOUT HELICAL PILE DETAILS BOARDWALK STRUCTURAL NOTES BOARDWALK PLAN AND ELEVATION BOARDWALK DETAILS (1 OF 4) BOARDWALK DETAILS (2 OF 4)
46	BOARDWALK PLAN AND ELEVATION
47	BOARDWALK PEAN AND LEEVATION BOARDWALK DETAILS (1 OF 4)
48	BOARDWALK DETAILS (1 OF 4)
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ENVIRONMENTAL & GEOTECHNICAL SPECIALISTS, INC. 104 NORTH MAGNOLIA DRIVE TALLAHASSEE, FL 32301 CERTIFICATE OF AUTHORIZATION: 6222 MYRON HAYDEN, P.E. NO. 34067

Myron Hayden 2019.05.14 08:32:34 -04'00'

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

SHEET NO. SHEET DESCRIPTION

2 SIGNATURE SHEET

13-16 REPORT OF CORE BORINGS

17 TYPICAL SECTION SLOPE COMPACTION DETAILS

REVISIONS			REVISIONS DESCRIPTION		
DATE DESCRIPTION			DESCRIPTION		

BOARDWALK DETAILS (3 OF 4)

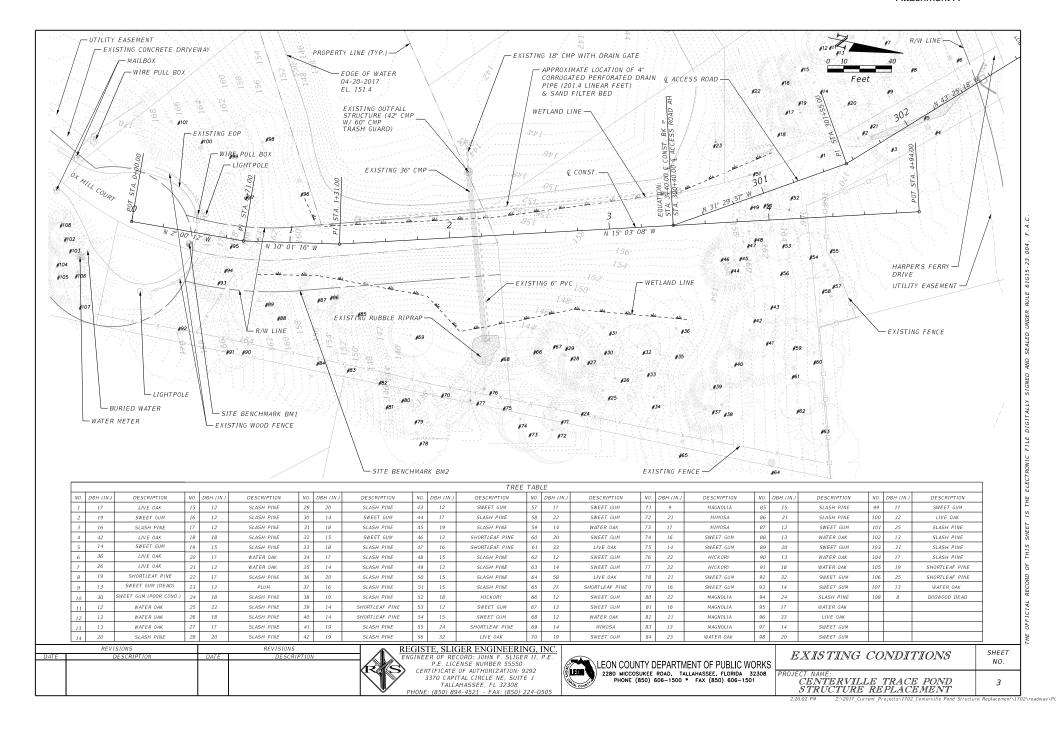
BOARDWALK DETAILS (4 OF 4)

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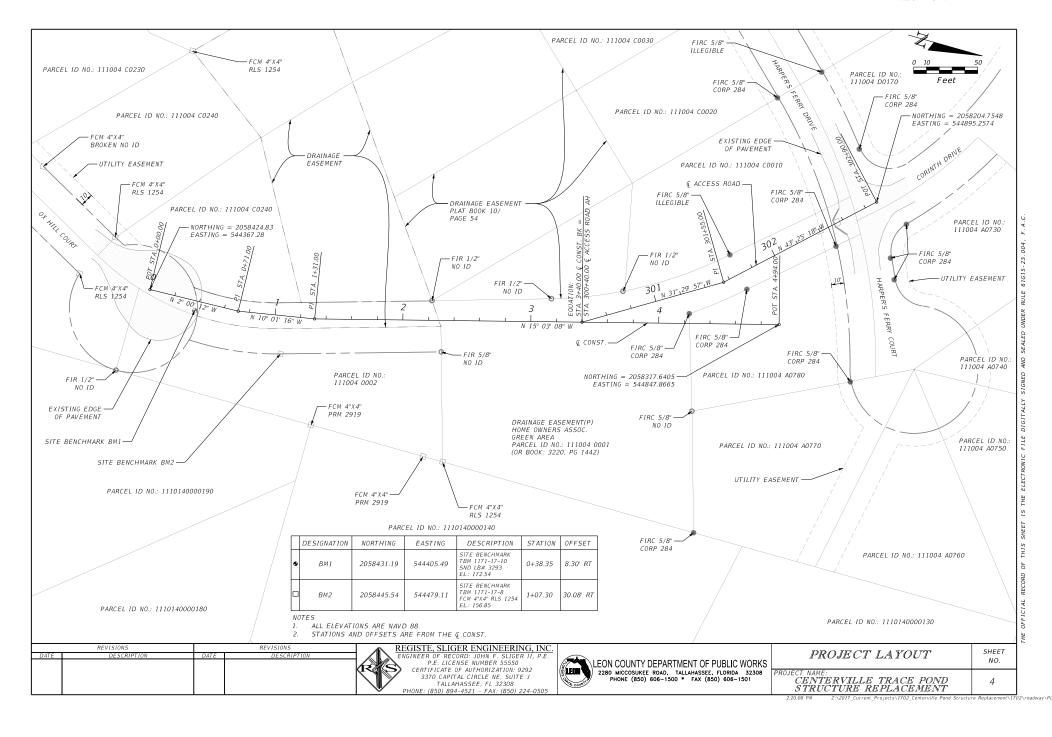




SIGNATURE SHEET	SHEET NO.
PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	2



Attachment A



GENERAL NOTES:

- HORIZONTAL COORDINATES ARE BASED ON A SURVEY COMPLETED BY NOBLES CONSULTING GROUP, INC. JOB NO. 1655-002, DATED 5/2/2017. FLEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVDBB).
- THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND ARE
 CONSIDERED APPROXIMATE ONLY, UTILITIES SHALL REMAIN UNLESS OTHERWISE NOTED.
- 3. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (1-800-432-4770) TWO BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE (OR 10 DAYS ADVANCE NOTICE IF DIGGING UNDER
- 4. ANY PUBLIC LAND CORNER OR BENCHMARK WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED. THE CONTRACTOR SHALL NOTIFY THE COUNTY SURVEYOR, WITHOUT DELAY, BY TELEPHONE. ANY MONUMENT OTHERWISE DESTROYED, DURING CONSTRUCTION WILL BE RESET BY A FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 5. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE COUNTY ENGINEER. HER CONTRACTOR SHALL PROVIDE THE COUNTY ENGINEER WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AND INTENDED FOR EQUIPMENT USE AS A HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT NEED A MSDS SUBMITTAL.
- 6. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE COUNTY, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE COUNTY WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE COUNTY.
- 7. ALL SOD MATERIALS SHALL BE SUBJECT TO INSPECTION BY THE COUNTY PRIOR TO PLACEMENT. ANY SOD WITH NOXIOUS WEEDS AND GRASSES SHALL BE REJECTED FOR USE ON THE PROJECT. THE CONTRACTOR SHALL FURNISH THE COUNTY, PRIOR TO INCORPORATION INTO THE PROJECT, A CERTIFICATION FROM THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES DIVISION OF PLANT INDUSTRY, STATING THAT THE SOD, HAY, STRAW AND MULCH MATERIALS ARE FREE OF NOXIOUS WEEDS, INCLUDING TROPICAL SODA APPLE. ALL SOD SHALL BE OVER SEEDED AT THE DIRECTION OF THE COUNTY. THE COST OF OVER SEEDING SHALL BE INCLUDED IN THE COST OF THE SOD.
- 8. THE CONTRACTOR WILL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AS NOTED ON THE PLAN SHEETS. ALL STAGING AREAS NOT SHOWN IN THE PLANS SHALL REQUIRE APPROVAL BY LEON COUNTY PUBLIC WORKS PRIOR TO CONSTRUCTION. STAGING AND STOCKPILING AREAS OUTSIDE THOSE SHOWN ON THE PLAN ALSO REQUIRE APPROVAL BY LEON COUNTY DEVELOPMENT SUPPORT & ENVIRONMENTAL MANAGEMENT (DSEM) AND MAY REQUIRE A SEPARATE ENVIRONMENTAL MANAGEMENT PERMIT FROM DSEM.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL WORK UNDER IMPROVEMENT, AT HIS COST, UNTIL SUCH TIME AS THE COUNTY ISSUES A CERTIFICATE OF COMPLETION.
- 10. NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT WRITTEN PRIOR APPROVAL FROM BOTH THE DESIGN ENGINEER AND LEON COUNTY.
- 11. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, 3 SETS OF PLANS, CALCULATIONS, AND SPECIFICATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA, FOR ANY PROPOSED CHANGES TO THE CONTRACT DOCUMENTS, TO BE REVIEWED AND APPROVED/REJECTED BY LEON COUNTY.
- 12. ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE TAKEN INTO CONSIDERATION WHEN OBTAINING SCALED DATA.
- IF ARCHAEOLOGICAL FEATURES OR ARTIFACTS ARE ENCOUNTERED DURING PROJECT ACTIVITIES, IMMEDIATELY CONTACT THE DEPARTMENT OF STATE, DIVISION OF HISTORIC RESOURCES. R.A. GRAY BUILDING 500 SOUTH BRONOUGH STREET TALLAHASSEE, FL 32399-0250 (850) 245-6333
- 14. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ADDITIONAL PERMITS NOT PREVIOUSLY ACQUIRED DURING DESIGN THAT ARE NECESSARY TO COMPLETE THE PROJECT. ALL COSTS FOR ALL ADDITIONAL PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR
- 15. DURING ALL NON-WORK HOURS, NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE STORED WITHIN THE ROADWAY. ALL STORAGE AND/OR STAGING AREAS USED SHALL BE APPROVED BY LEON COUNTY.
- 16. ALL EXISTING FENCING THAT WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REMOVED AND REPLACED IN KIND AT CONTRACTOR'S EXPENSE.
- 17. IF A STRUCTURAL FAILURE IS OBSERVED DURING CONSTRUCTION THAT HAS THE POTENTIAL TO CAUSE THE DIRECT DISCHARGE OF SURFACE WATER INTO THE FLORIDAN ADUIFER SYSTEM. CORRECTIVE ACTIONS DESIGNED OR APPROVED BY A REGISTERED PROFESSIONAL SHALL BE TAKEN AS SOON AS PRACTICAL TO CORRECT THE FAILURE. THE CONTRACTOR SHALL SUBMIT A REPORT PREPARED BY A REGISTERED PROFESSIONAL TO THE COUNTY FOR REVIEW AND APPROVAL THAT PROVIDES REASONABLE ASSURANCE THAT THE BREACH WILL BE PERMANENTLY CORRECTED AT NO EXPENSE TO THE COUNTY.

18. THE CONTRACTOR SHALL COMPLY WITH THE STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE PROVIDED BY THE US FISH AND WILDLIFE SERVICE. ADDITIONAL INFORMATION REGARDING REQUIRED PRE/DURING/POST CONSTRUCTION ACTIVITIES CAN BE FOUND AT THE FOLLOWING WEBSITE:

https://www.fws.gov/northflorida/indigosnakes/20130812 eastern indigo snake standard protection measures.htm

- 19. THE CONTRACTOR SHALL BE AWARE AND ABIDE BY THE REQUIREMENTS LISTED WITHIN THE APPROVED PROJECT PERMITS. THE APPROVED PROJECT PERMITS ARE AS FOLLOWS:
 - 1. USACOE NATIONWIDE PERMIT #39 PERMIT NO. SAJ-2019-01590
 - 2. LEON COUNTY EMP PERMIT NO. LEM18-00044 3. NWFWMD INDIVIDUAL ERP - PERMIT NO. IND-073-11703-2
- 3. NW WHO INDIVIDUAL ENG. TENHIN NO. IND 073 11703 E
- 20. MATERIAL REQUIRED TO BACKFILL FOR THE EXCAVATION AND REMOVAL OF THE EXISTING OUTLET STRUCTURE SHALL CONFORM TO THE MATERIAL AND COMPACTION REQUIREMENTS LISTED ON THE TYPICAL SECTION SLOPE COMPACTION DETAIL SHEET.

SEQUENCE OF CONSTRUCTION:

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CONSTRUCTION SEQUENCE UNLESS A SEPARATE SEQUENCE IS SUBMITTED IN WRITING BY THE CONTRACTOR AND APPROVED BY LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT (DSEM)

- PRE-CONSTRUCTION CONFERENCE WITH THE COUNTY ENVIRONMENTAL INSPECTOR.
- SUBMIT A DEWATERING AND TURBIDITY CONTROL PLAN TO LEON COUNTY PUBLIC WORKS FOR APPROVAL. PLANS SHALL INCLUDE PROVISIONS FOR DEWATERING TO ENSURE ALL BACKFILL AND COMPACTION IS ACCOMPLISHED UTILIZING THE DRY FILL METHOD. PLAN SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER AND INCLUDE TURBIDITY TESTING REQUIREMENTS TO MEET LOCAL, STATE AND FEDERAL REQUIREMENTS.
- INSTALL TREE PROTECTION BARRICADES. CONTRACTOR SHALL USE EXTREME CARE TO NOT DAMAGE THE ROOT SYSTEM OF NEARBY TREES. NO EQUIPMENT, SUPPLIES, OR VEHICLES SHALL BE STORED OR PARKED WITHIN THE DRIP LINE OF TREES TO REMAIN.
- INSTALL EROSION CONTROL DEVICES (SILT FENCE, TURBIDITY BARRIERS, ETC.) IN ACCORDANCE WITH THE PROJECT PLANS, CONTRACTOR TURBIDITY CONTROL PLANS AND FDOT STANDARD SPECIFICATIONS.
- 5. ESTABLISH LIMITS OF CLEARING AND GRUBBING.
- 6. CONSTRUCT HARPER'S FERRY DRIVE MAINTENANCE ACCESS ROAD.
- 7. DEWATER PER THE LEON COUNTY PUBLIC WORKS APPROVED CONTRACTOR DEWATERING PLAN.
- 8. REMOVE ALL DEMOLITION ITEMS, INCLUDING EXISTING CONTROL STRUCTURE, DISCHARGE PIPE, AND SAND FILTER. DISPOSE OF ALL DEMOLITION ITEMS OFF SITE IN A LEGAL MANNER.
- 9 CONSTRUCT BOCK FILTER AT TOE OF BERM
- 10. INSTALL STEEL SHEET PILES IN ACCORDANCE WITH THE WALL CONTROL DRAWING AND THE STEEL SHEET PILE NOTES AND DETAILS. ALL PILE DRIVING ACTIVITIES SHALL OCCUR DURING NORMAL BUSINESS HOURS OF 8AM-5PM, MONDAY THRU FRIDAY.
- 11. INSTALL WEIR SUPPORT HELICAL PILES AND CONSTRUCT THE CONCRETE WEIR.
- 12. RE-GRADE THE EXISTING BERM AS SHOWN ON THE GRADING PLAN AND CROSS SECTIONS. INSTALL PROPOSED SIDE BANK SAND FILTER AND CONCRETE LINED EMERGENCY SPILLWAY.
- 13. CONSTRUCT TIMBER BOARDWALK
- 14. FINISH GRADE AND SOD AS SHOWN IN THE PLANS.
- REMOVE ALL EROSION CONTROL DEVICES AT THE END OF CONSTRUCTION AND AFTER SITE IS STABILIZED, WITH APPROVAL FROM THE COUNTY ENVIRONMENTAL INSPECTOR.
- 16. SITE SHALL BE CLEANED, DEBRIS REMOVED, AND CORRECTIONS MADE TO ENSURE A PRISTINE AND NEW CONDITION FOR THE PROJECT PER THE CONSTRUCTION PLANS AND SPECIFICATIONS. SPECIFICALLY, ALL TRASH WILL BE COLLECTED, SOD REPLACED WHERE DAMAGED, AND SOILED STRUCTURES SHALL BE CLEANED.

ADDITIONAL NOTES:

AS-BUILT PLANS WITH SPECIFIC TOPOGRAPHIC INFORMATION, SIGNED AND SEALED BY A FLORIDA LICENSED LAND SURVEYOR AND
A COMPLIANCE CERTIFICATE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER WILL BE REQUIRED AND
SHOULD BE SUBMITTED TO THE COUNTY AT LEAST 20 DAYS PRIOR TO THE PERMITTEE/APPLICANT'S REQUEST FOR FINAL
INSPECTION. LANDSCAPE AS-BUILTS (IF REQUIRED) WILL BE SUBMITTED TO LEON COUNTY DSEM.

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REGISTE, SLIGER ENGINEERING, INC. ENGINEER OF RECORD: JOHN F. SLIGER II, P.E. P.E. LICENSE NUMBER 55550 CERTIFICATE OF AUTHORIZATION: 9292 3370 CAPITAL CIRCLE ME, SUITE J TALLAHASSEE, FL 32308 PHONE: (850) 894-4521 - FAX: (850) 224-0505



(S	GENERAL NOTES	SHEET NO.
8	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	5

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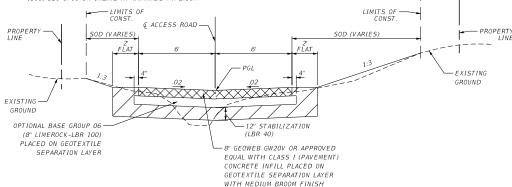
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LINE

GEOWEB CELLULAR CONFINEMENT SYSTEM

- GEOWEB SYSTEM SHALL BE GW20V-CELL SYSTEM MANUFACTURED BY PRESTO GEOSYSTEMS OR APPROVED EQUAL PRESTO GEOSYSTEMS MAY BE CONTACTED AT: (800) 548-3424 OR ONLINE AT WWW.PRESTOGEO.COM
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER CALCULATIONS FOR GEOWEB LOAD SUPPORT AND ANCHORAGE REQUIREMENTS FOR HS25-44 LOADING AND/ OR ANTICIPATED CONSTRUCTION LOADS, WHICHEVER IS GREATER. SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.
- 3. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER INCLUDING MANUFACTURER'S PRODUCT DATA, SAMPLES AND SECTION LAYOUT.
- 4. INSTALL CELLULAR CONFINEMENT GEOWEB SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS
- 5. THE CELLULAR CONFINEMENT SYSTEM MATERIAL SHALL BE PROVIDED FROM A SINGLE MANUFACTURER FOR THE ENTIRE PROJECT
- THE MANUFACTURER'S QUALITY MANAGEMENT SYSTEM SHALL BE CERTIFIED AND IN ACCORDANCE WITH ISO 9001:2008 AND CE CERTIFICATION. ANY SUBSTITUTE MATERIALS SUBMITTED SHALL PROVIDE A CERTIFICATION THAT THEIR CELLULAR CONFINEMENT MANUFACTURING PROCESS IS PART OF AN ISO PROGRAM AND A CERTIFICATION WILL BE REQUIRED SPECIFICALLY STATING THAT THEIR TESTING FACILITY IS CERTIFIED AND IN ACCORDANCE WITH ISO. AN ISO CERTIFICATION FOR THE SUBSTITUTE MATERIAL WILL NOT BE ACCEPTABLE UNLESS IT IS PROVEN IT PERTAINS SPECIFICALLY TO THE GEOCELL MANUFACTURING OPERATIONS.
- 7. THE MANUFACTURER SHALL PROVIDE CERTIFICATION OF COMPLIANCE TO ALL APPLICABLE TESTING PROCEDURES AND RELATED SPECIFICATIONS. THE MANUFACTURER SHALL HAVE A MINIMUM OF 20 YEARS EXPERIENCE PRODUCING CELLULAR CONFINEMENT SYSTEMS.

8. GEOTEXTILE SEPARATION LAYER SHALL BE ADVANCED DRAINAGE SYSTEMS (ADS) 0601T D-4 NONWOVEN GEOTEXTILE OR APPROVED EQUAL. ADS CAN BE CONTACTED AT: (800) 821-6710 OR ONLINE AT WWW.ADS-PIPE.COM



TYPICAL SECTION MAINTENANCE ACCESS ROAD STA. 300+61.58 TO STA. 302+49.19 (€ ACCESS ROAD)

GEOWEB GW20V SYSTEM OR APPROVED EQUAL SHALL BE ANCHORED WITH TENDONS AND ATRA ANCHORS, AND SHALL CONSIST OF THE FOLLOWING: GW20V-CELL WITH 8" NOMINAL CELL DEPTH

ATRA CLIPS ATRA KEYS ATRA ANCHORS

WOVEN KEVLAR TENDON ANCHORS

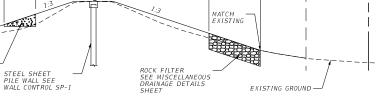
ATRA TENDON CLIPS

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REGISTE, SLIGER ENGINEERING, INC ENGINEER OF RECORD: JOHN F. SLIGER II, P.E P.E. LICENSE NUMBER 55550 CERTIFICATE OF AUTHORIZATION: 9292 3370 CAPITAL CIRCLE NE, SUITE J TALLAHASSEE, FL 32308 PHONE: (850) 894-4521 - FAX: (850) 224-050.



KS	TYPICAL SECTION DETAILS	SHEET NO.
18	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	6



TYPICAL SECTION BERM STABILIZATION

* EROSION CONTROL BLANKET SHALL BE ECP-2 POLYPROPYLENE TURF REINFORCEMENT MAT MANUFACTURED BY EAST COAST EROSION CONTROL OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND RECOMMENDATIONS.

STANDARD CLEARING & GRUBBING (VARIES)

12' BERM

SOD (VARIES)

& CONST.

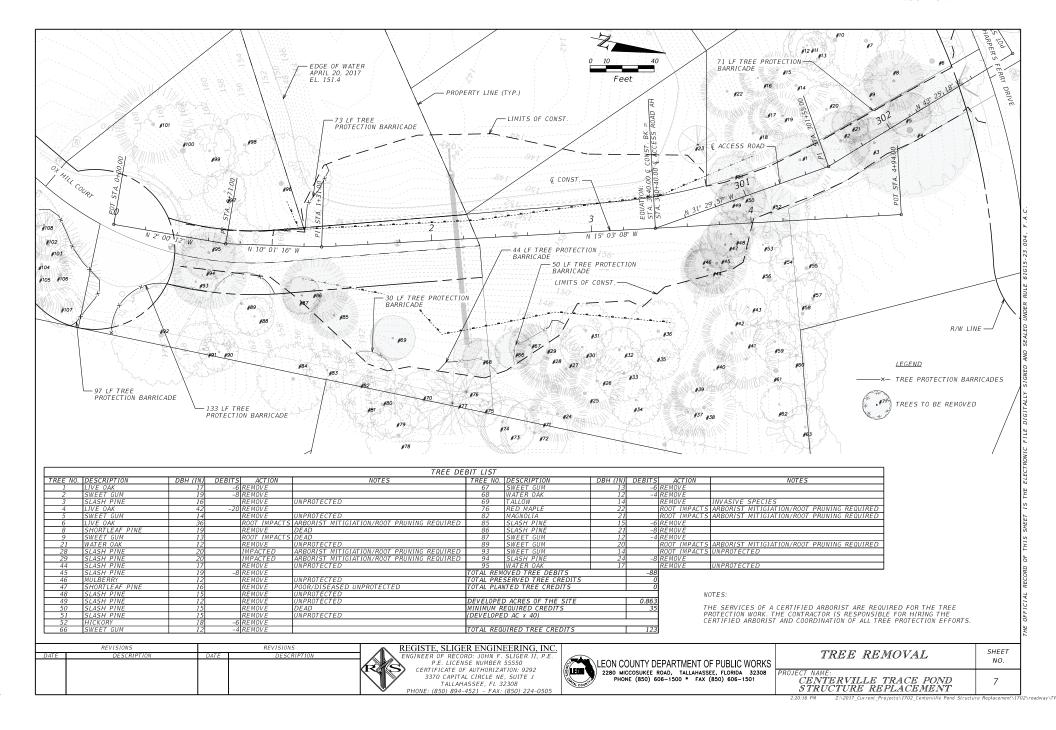
SOD (VARIES)

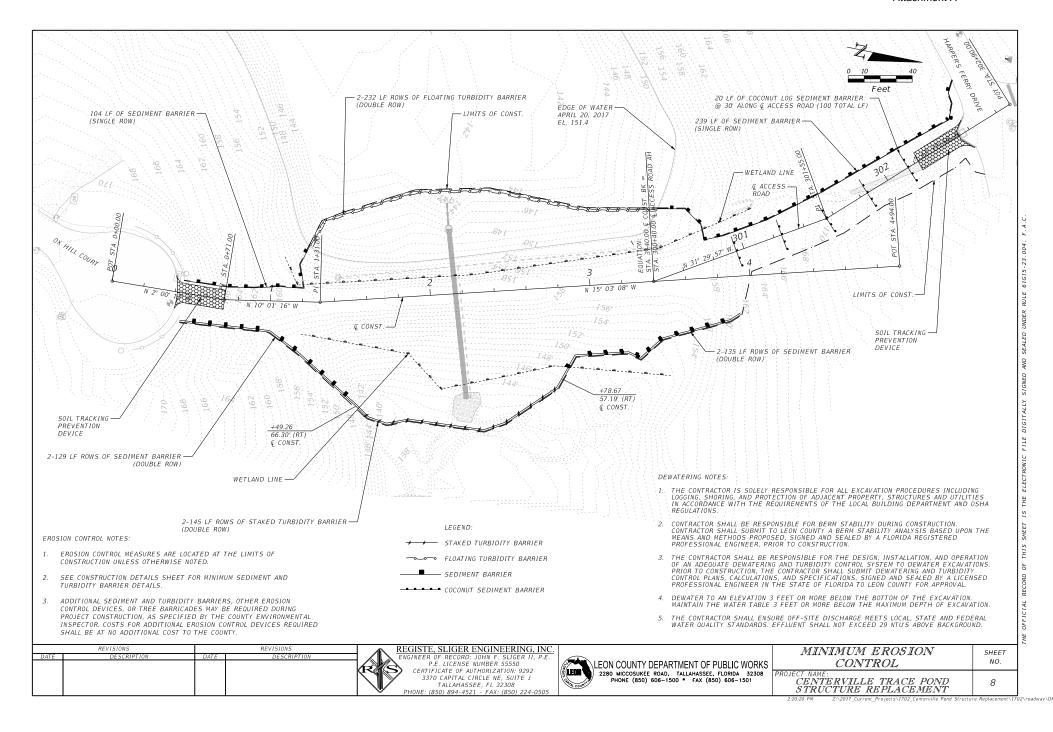
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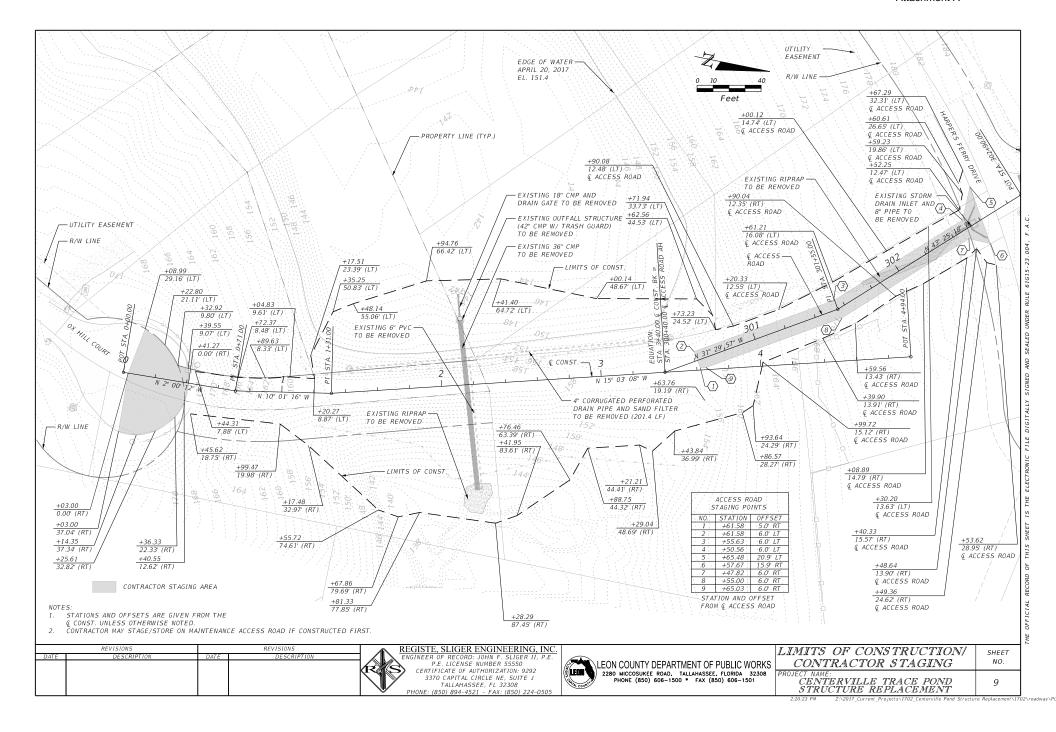
SIDE BANK SAND FILTER WITH

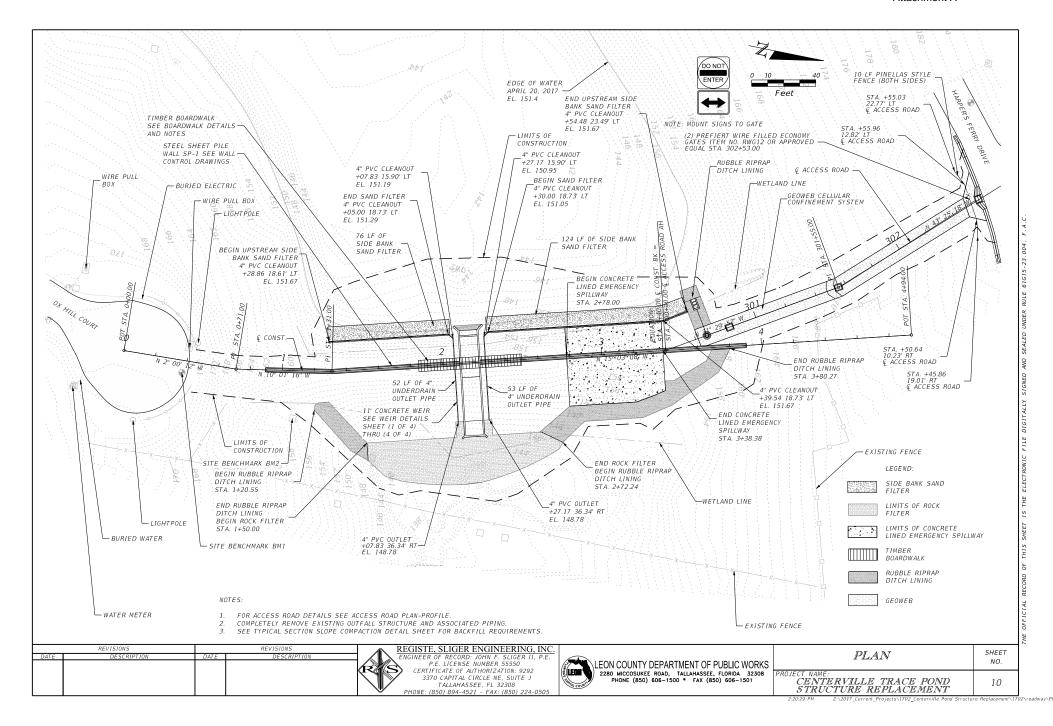
4" PERFORATED PVC PIPE SEE MISCELLANEOUS DRAINAGE

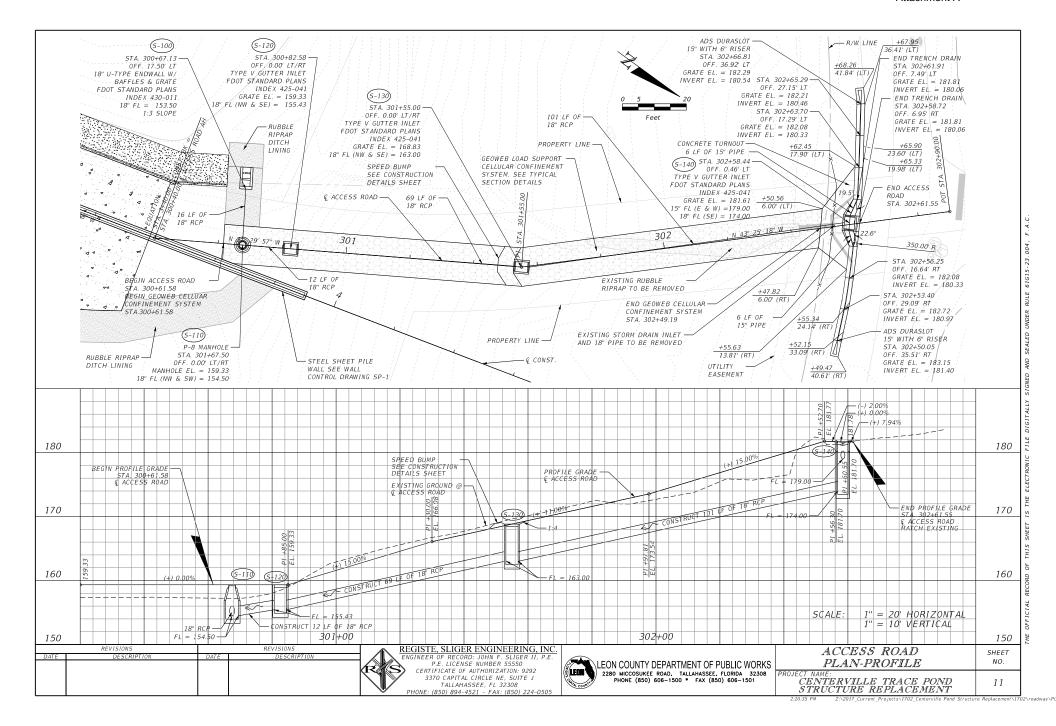
LIMITS OF CONST

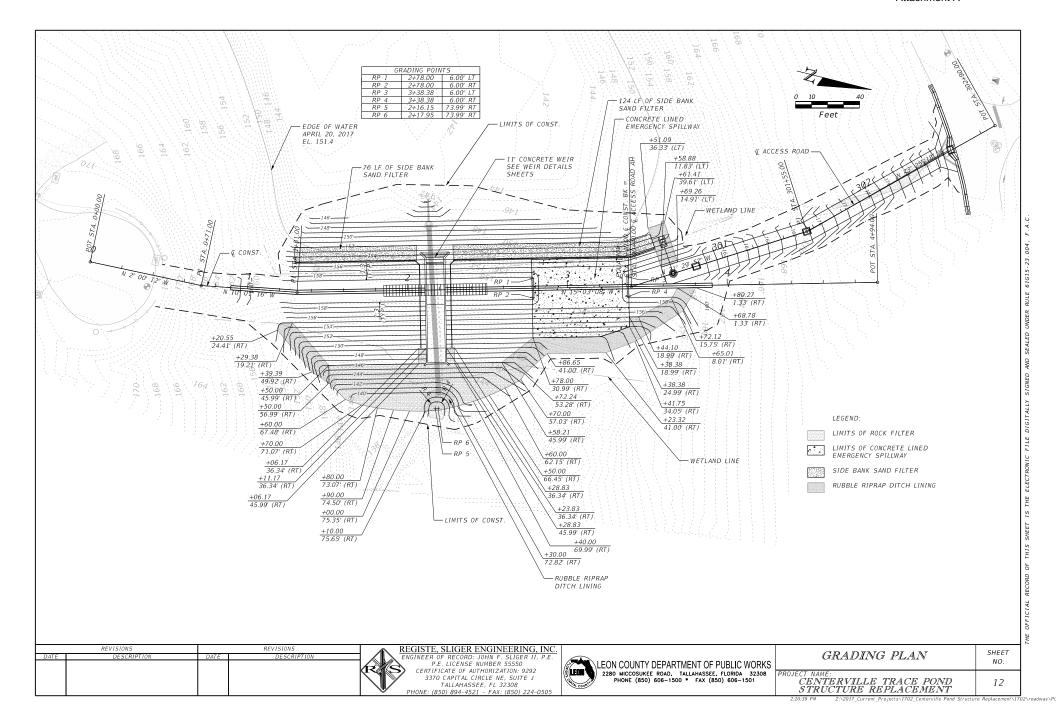












NOTES

- 1. NUMBERS LEFT OF BORING INDICATE STANDARD PENETRATION TEST (SPT) N-VALUES FOR 12 IN. PENETRATION (UNLESS OTHERWISE NOTED).
- 2. WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED, FLUCTUATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
- SOIL DESCRIPTIONS, TEST DATA, AND STANDARD PENETRATION VALUES SHOWN ARE FOR THE SOIL BORING ONLY AND MAY NOT APPLY TO ANY OTHER LOCATIONS EXCEPT AT THE LOCATION OF THE SOIL BORING. EXTRAPOLATION OF THE SOIL BORING DATA TO OTHER LOCATIONS IS THE SOLE RESPONSIBILITY OF THE PERSON PERFORMING THE EXTRAPOLATION.

AUTOMATIC HAMMER

GRANULAR MATERIALS RELATIVE DENSITY	SPT (BLOWS/12 IN.		CONSISTENCY	SPT (BLOWS/12 IN.)
VERY LOOSE	LESS THAN 3		VERY SOFT	LESS THAN 1
L00SE	3 - 8		50FT	1 - 3
MEDIUM DENSE	8 - 24		FIRM	3 - 6
DENSE	24 - 40		STIFF	6 - 12
VERY DENSE	GREATER THAN	40	VERY STIFF	12 - 24
			HARD	GREATER THAN 24
SPLIT-SPOON: INS	IDE DIAMETER:	1.375	IN	

: INSIDE DIAMETER: 1.375 IN OUTSIDE DIAMETER: 2.0 IN AVG. HAMMER DROP: 30.0 IN HAMMER WEIGHT: 140 LBS

LEGEND

MEASURED WATER LEVEL SOIL BORING LOCATION

 \blacksquare

LABORATORY TESTING RESULTS

WATER CONTENT Wc =-200 SIEVE -200= PLASTICITY INDEX PI =LIQUID LIMIT ORGANIC CONTENT II =OC%= UNCONFINED COMPRESSIVE STRENGTH (PSF) UCC= WEIGHT OF HAMMER

UNIFIED CLASSIFICATION GROUP SYMBOL (SM) AASHTO CLASSIFICATION GROUP SYMBOL (A-2-4)

SILTY FINE SAND (SM)



CLAYEY FINE TO PLASTIC CLAYEY SAND (SC)



HIGHLY PLASTIC SANDY CLAY (CH)



DATE BY

WEATHERED LIMESTONE

PLASTIC SILT (MH)

LIMESTONE

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					MYRON HAYDEN, P.E.

Environmental & Geotechnical Specialists, Inc. 104 NORTH MAGNOLIA DRIVE TALLAHASSEE, FLORIDA 32301 OFFICE: (850) 386-1253

REGISTE, SLIGER ENGINEERING, INC. PROJECT TITLE

SOIL BORING LOCATION MAP

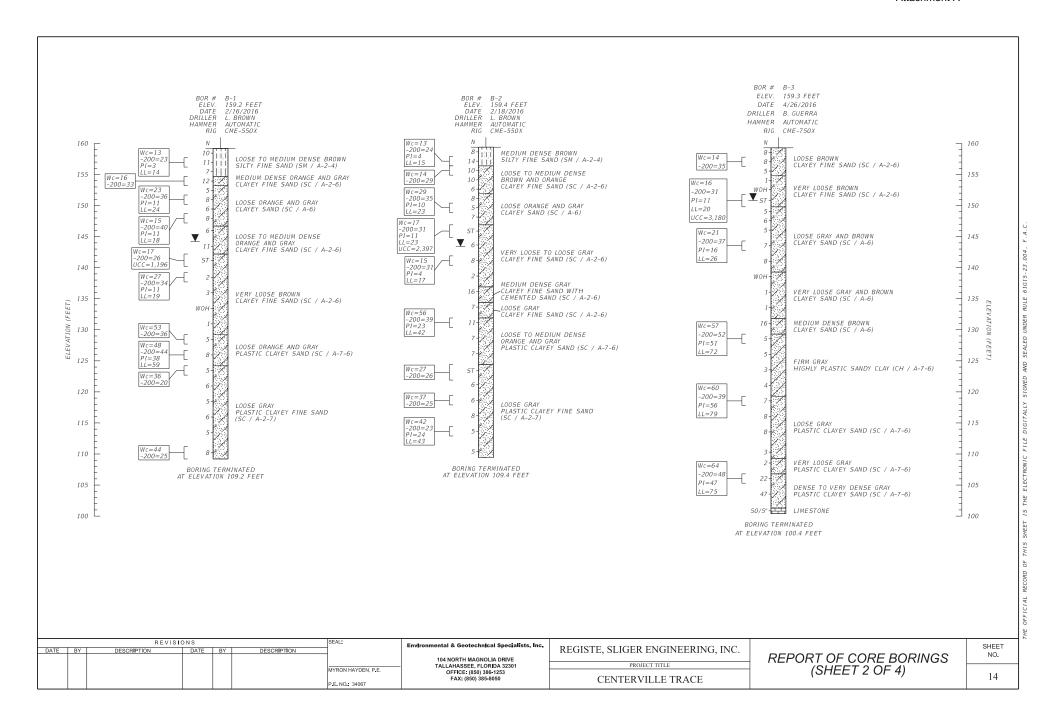
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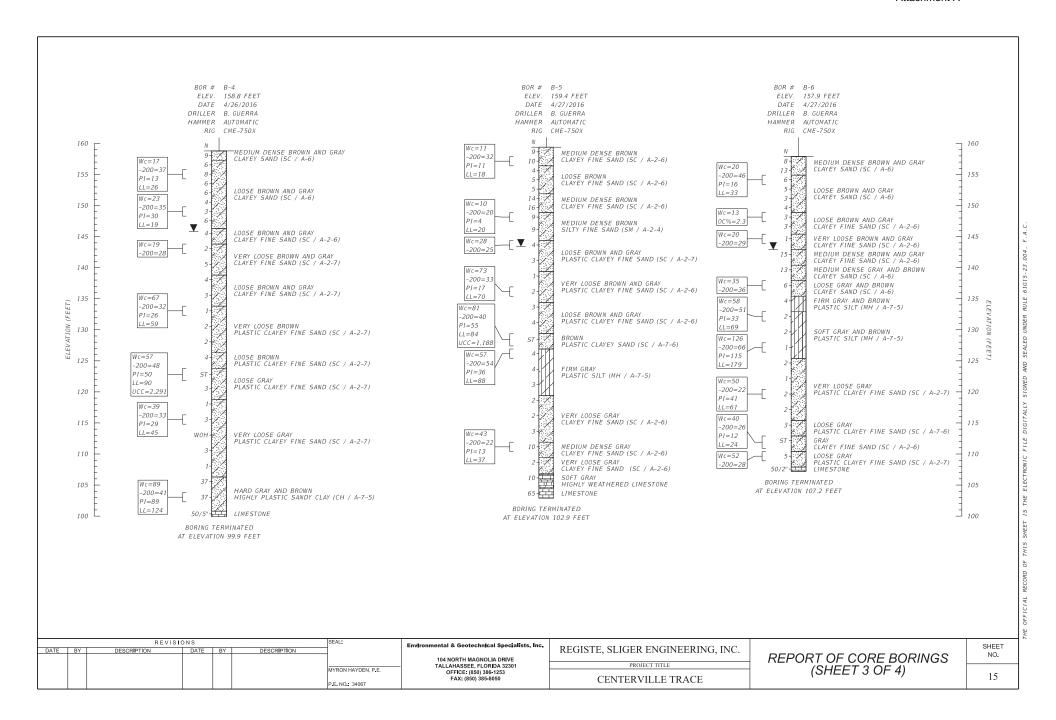
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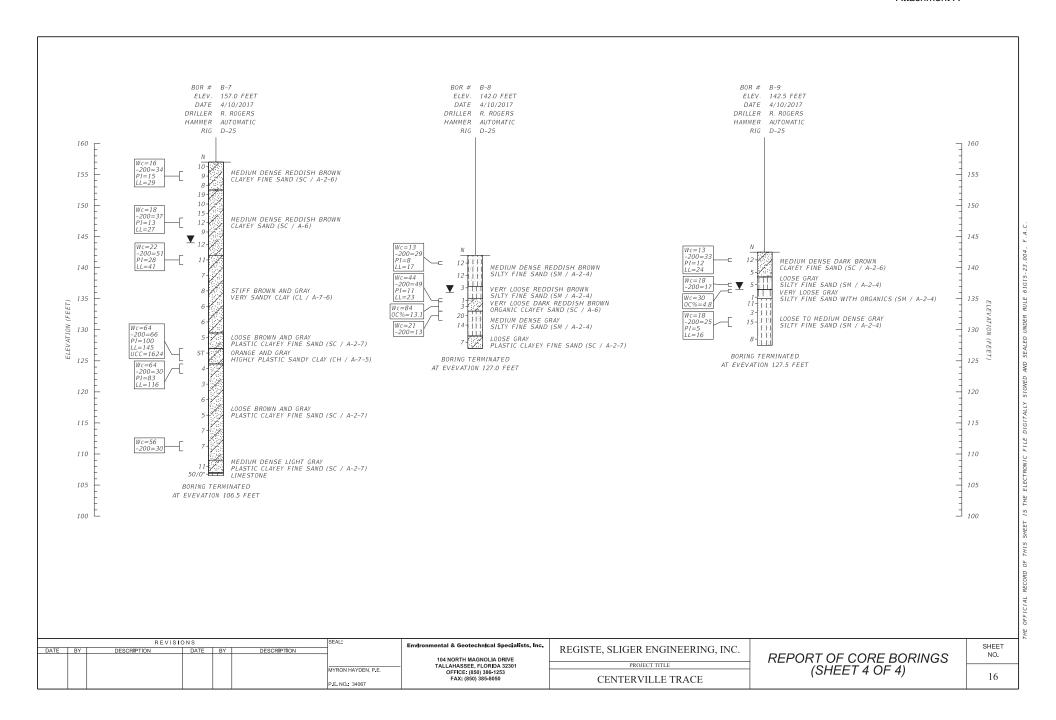
CENTERVILLE TRACE

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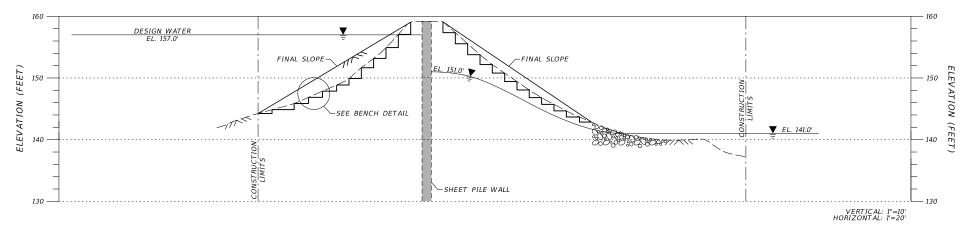






TYPICAL CROSS-SECTION

EMBANKMENT STABILIZATION

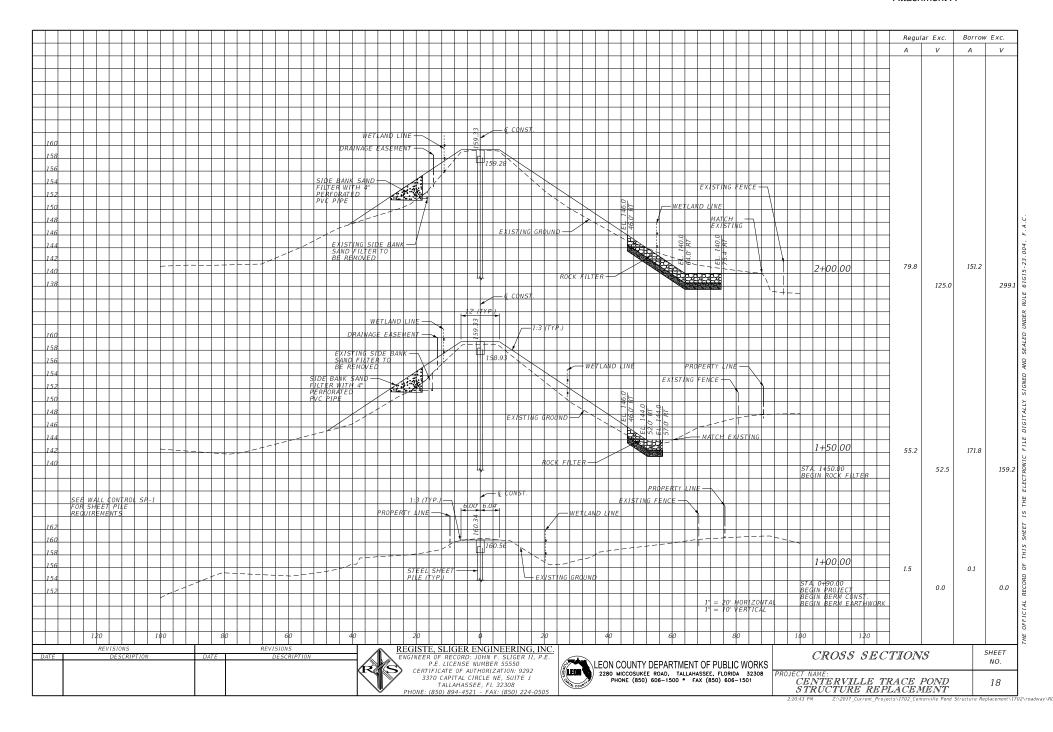


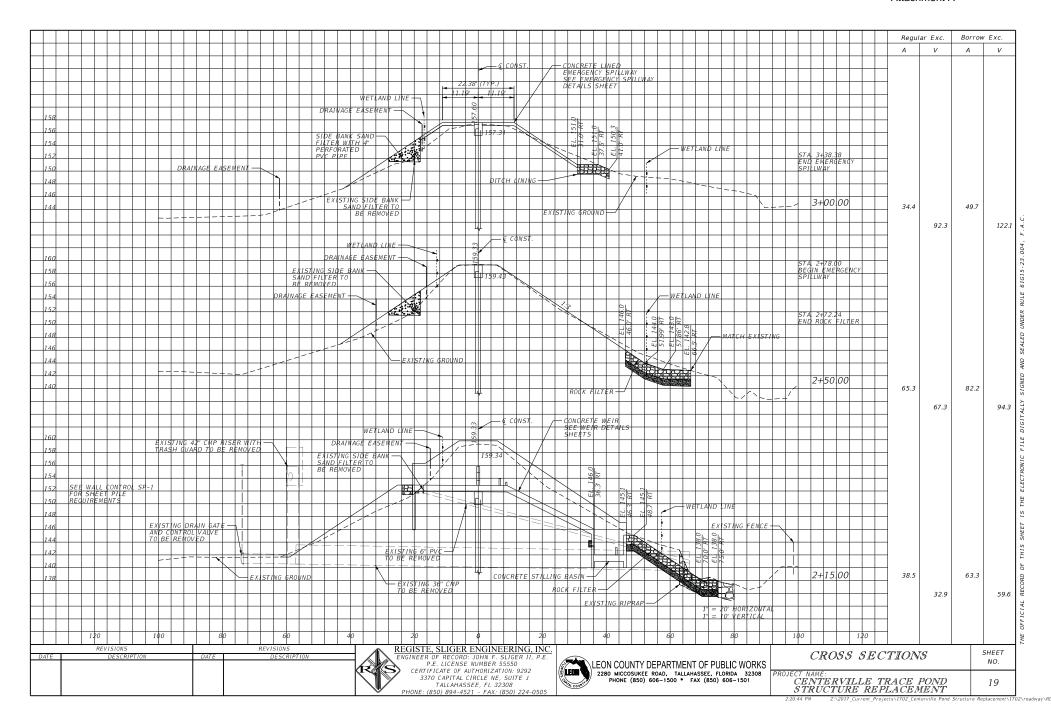
NOTES

- 1. EXCAVATE EMBANKMENT BENCHES STARTING AT THE BOTTOM AND WORKING TO THE TOP OF SLOPE.
- 2. AFTER BENCH HAS BEEN EXCAVATED, SMOOTH THE SURFACE AND COMPACT TO AT LEAST 95% OF THE SOIL'S STANDARD PROCTOR DRY DENSITY.
- 3. BACKFILL TO THE REQUIRED GRADE WITH A CLAYEY SAND (A-2-6/A-6) WITH A MAXIMUM LIQUID LIMIT OF 45, PERCENTAGE OF FINES (PASSING THE NO. 200 SIEVE) NO GREATER THAN 45%, AND A MAXIMUM ORGANIC CONTENT OF 1% BY WEIGHT.
- 4. THE FILL SOILS SHALL BE COMPACTED IN LIFTS THAT DO NOT EXCEED 9 INCHES OF LOOSE SOIL AND COMPACTED TO 95% OF THE SOIL'S STANDARD PROCTOR DRY DENSITY.
- 5. THESE FILL SOILS WILL BE MOISTURE SENSITIVE AND WILL NEED TO BE COMPACTED AT A MOISTURE CONTENT CLOSE TO THE SOIL'S STANDARD PROCTOR OPTIMUM.
- 6. THE BENCHES SHALL BE BACKFILLED AND COMPACTED STARTING AT THE BOTTOM OF THE SLOPE AND WORKING TO THE TOP OF THE SLOPE.
- 7. NO MORE THAN 3 BENCHES SHALL BE EXPOSED PRIOR TO BACKFILLING.
- 8. AFTER THE BENCHES HAVE BEEN COMPACTED, SHAPE THE FACE OF THE SLOPE TO THE REQUIRED FINAL SLOPE.
- 9. THE FOLLOWING MINIMUM DENSITY TESTS SHALL BE CONDUCTED ON THE COMPACTED SOIL: 3 TESTS ON EACH PREPARED BENCH SUBGRADE AND 3 TESTS PER LIFT PER BENCH.

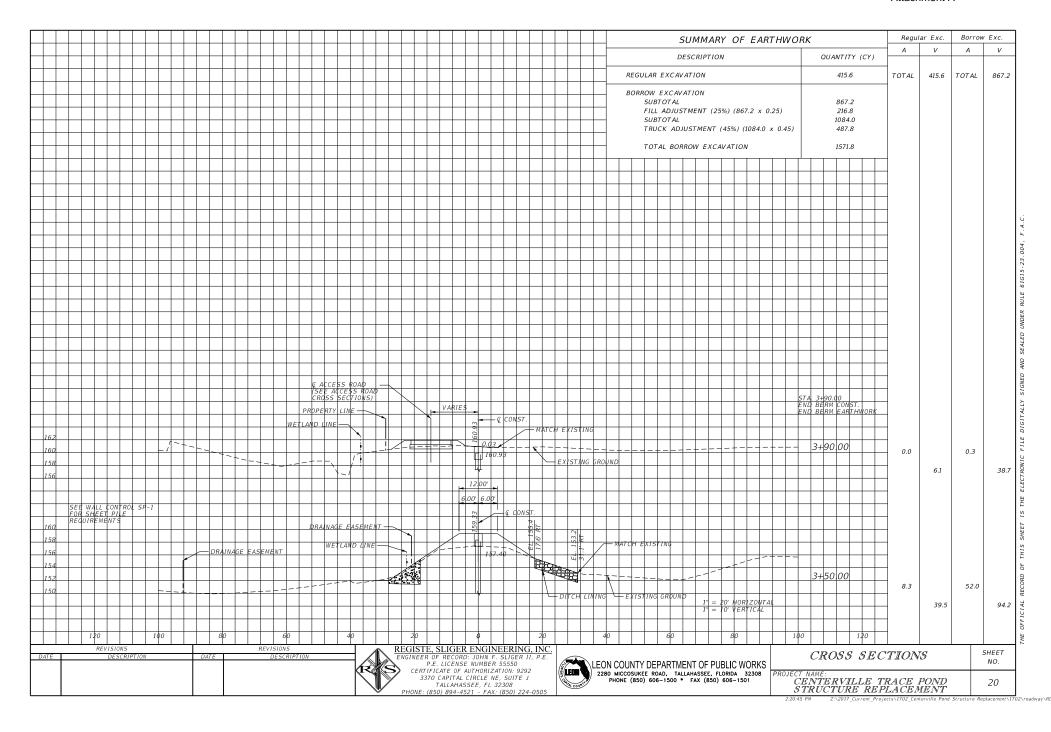
FINAL SLOPE EMBANKMENT FILL HEIGHT VARIES

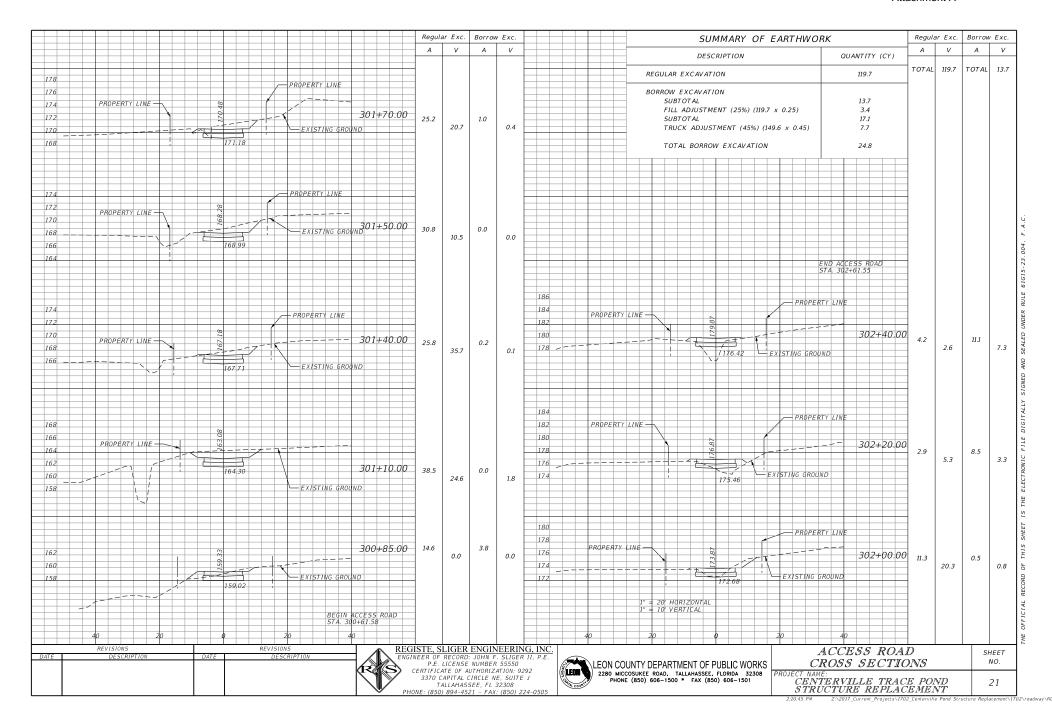
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-			ECC	104 NORTH MAGNOLIA DRIVE	REGISTE, SLIGER ENGINEERING, INC.	TYPICAL SECTION	SHEET NO.
		M, HAYDEN, P.E.	LGS	TALLAHASSEE, FLORIDA 32301		SLOPE COMPACTION DETAIL	
		P.E. NO. 34067	Cert. of Auth.: 6222	OFFICE: (850) 386-1253 FAX: (850) 385-8050	CENTERVILLE TRACE EMBANKMENT DAM	SECT E COMITACTION BETAIL	17

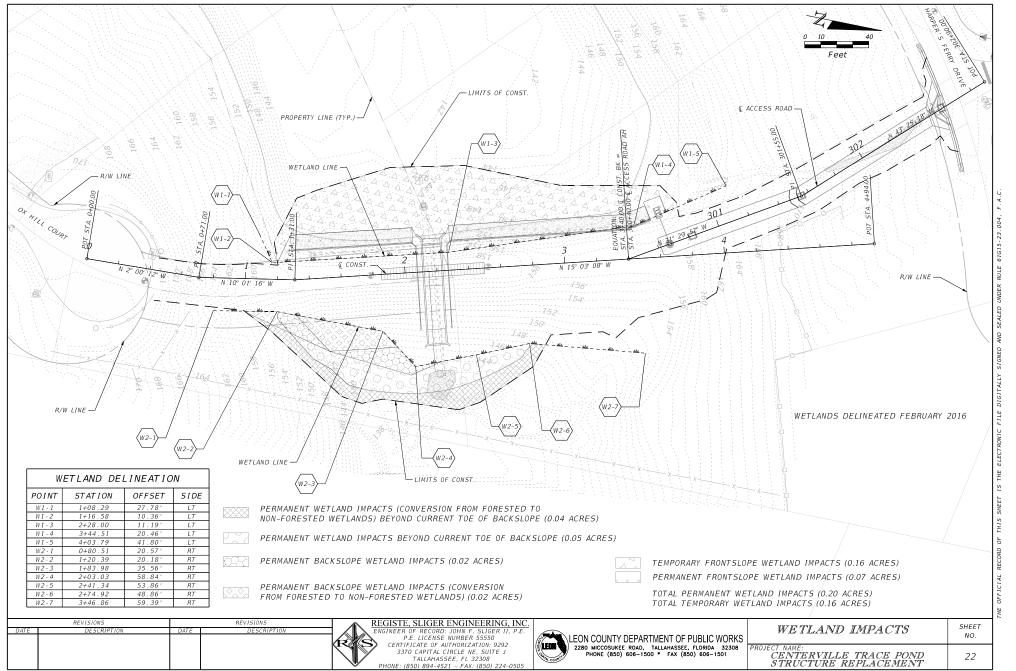




Attachment A







Z:\2017_Current_Projects\1702_Centerville Pond Structure Replacement\1702\roadway

MAINTENANCE OF TRAFFIC NOTES

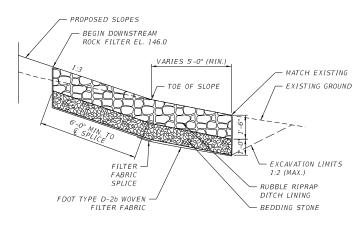
- CONTRACTOR SHALL SUBMIT MAINTENANCE OF TRAFFIC PLANS TO THE LEON COUNTY PROJECT MANAGER FOR APPROVAL. MAINTENANCE OF TRAFFIC PLANS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER OR CERTIFIED BY AN INDIVIDUAL WITH A CURRENT FOOT CERTIFIED ADVANCED MOT PRACTITIONER CERTIFICATE.
- TRAFFIC IS TO BE MAINTAINED IN ACCORDANCE WITH FDOT STANDARD PLANS 102-603 AND 102-604, DEPENDANT UPON THE OPERATION TO BE PERFORMED. FOR GENERAL TCZ REQUIREMENTS AND ADDITIONAL INFORMATION, REFER TO STANDARD PLANS INDEX 102-600.
- 3. THE TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD PLANS FOR ROAD CONSTRUCTION.
- EXISTING SPEED LIMIT SIGNS SHALL BE MAINTAINED WITHIN THE LIMITS OF THE ACTIVE WORK ZONES ALONG PROJECT.
- POSITIVE DRAINAGE SHALL BE MAINTAINED PRIOR TO, DURING, AND AFTER CONSTRUCTION.
- 6. ALL LANES MUST BE REOPENED TO NORMAL TRAFFIC WITHIN 12 HOURS DURING AN EVACUATION NOTICE OF A HURRICANE OR ANY OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE LEON COUNTY PROJECT MANAGER.
- PUBLIC ACCESS TO RESIDENCES MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- 8. CONTRACTOR IS RESPONSIBLE FOR KEEPING UP ROAD MAINTENANCE DURING CONSTRUCTION. CONTRACTOR SHALL STREET SWEEP DAILY OR AS NECESSARY TO KEEP STREETS FREE OF SEDIMENT AND DEBRIS.
- 9. ALL LANE CLOSURES SHALL REQUIRE APPROVAL FROM LEON COUNTY. REQUESTS SHALL BE SUBMITTED TO LEON COUNTY 2 WEEKS PRIOR TO LANE CLOSURE OPERATIONS.

REVISIONS				REVISIONS
V	DESCRIPTION		DATE	DESCRIPTION

REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.
P.E. LICENES NUMBER 55550
CERTIFICATE OF AUTHORIZATION: 9292
3370 CAPITAL CIRCLE NE. SUITE J
ALLAHASSEE, FL 32308
PHONE: (850) 894-4521 - FAX: (850) 224-0505

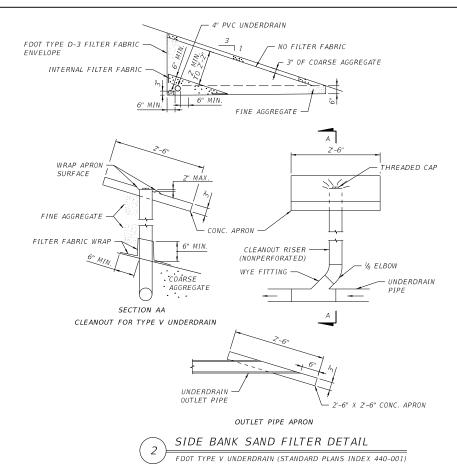


(S	TRAFFIC CONTROL GENERAL NOTES	SHEET NO.
8	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	23



- ROCK SHALL BE RUBBLE RIPRAP DITCH LINING IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 530.
- 2. FOR LOCATION AND LIMITS OF ROCK FILTER, SEE GRADING PLAN.
- ROCK FILTER SHALL BE INSTALLED PRIOR TO INSTALLATION OF STEEL SHEET PILE WALL. EXCAVATION SLOPES FOR INSTALLATION OF ROCK FILTER SHALL NOT EXCEED 1V:2H.





NOTES:

- 1. FINE AGGREGATE SHALL BE QUARTZ SAND MEETING THE REQUIREMENTS OF SECTION 902-4 OF THE FDOT STANDARD SPECIFICATIONS
- 2. COARSE AGGREGATE SHALL BE GRAVEL OR STONE MEETING THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTIONS 901-2 OR 901-3. GRADATION SHALL BE ACCORDING TO SECTION 901, GRADES 4, 467, 5, 56 OR 57 STONE.
- 3. UNDERDRAIN SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 440.
- 4. FILTER FABRIC SOCK SHALL MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 948.
- 5. FILTER FABRIC SHALL BE TYPE D-3 IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 985. THE INTERNAL FILTER FABRIC SHALL HAVE A PERMITTIVITY OF 0.7 / SEC. AND AN AOS OF #40 SIEVE. ALL FILTER FABRIC JOINTS SHALL OVERLAP A MINIMUM OF 1. THE INTERNAL FILTER FABRIC SHALL OVERLAP INTO THE COARSE AGGREGATE OR THE FINE AGGREGATE A MINIMUM OF 1.
- 6. UNDERDRAIN OUTLET PIPES SHALL BE NONPERFORATED AND ALL BENDS SHALL BE MADE USING ⅙ (45 DEG.) ELBOWS. 90 DEG. BENDS SHALL BE CONSTRUCTED WITH TWO ⅙ ELBOWS SEPARATED BY AT LEAST 1' OF STRAIGHT PIPE.
- 7. PVC PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM F758 OR ASTM F949. PERFORATED PVC PIPE SHALL BE IN ACCORDANCE WITH THE PERFORATION REQUIREMENTS GIVEN IN AASHTO M36 OR AASHTO M196.

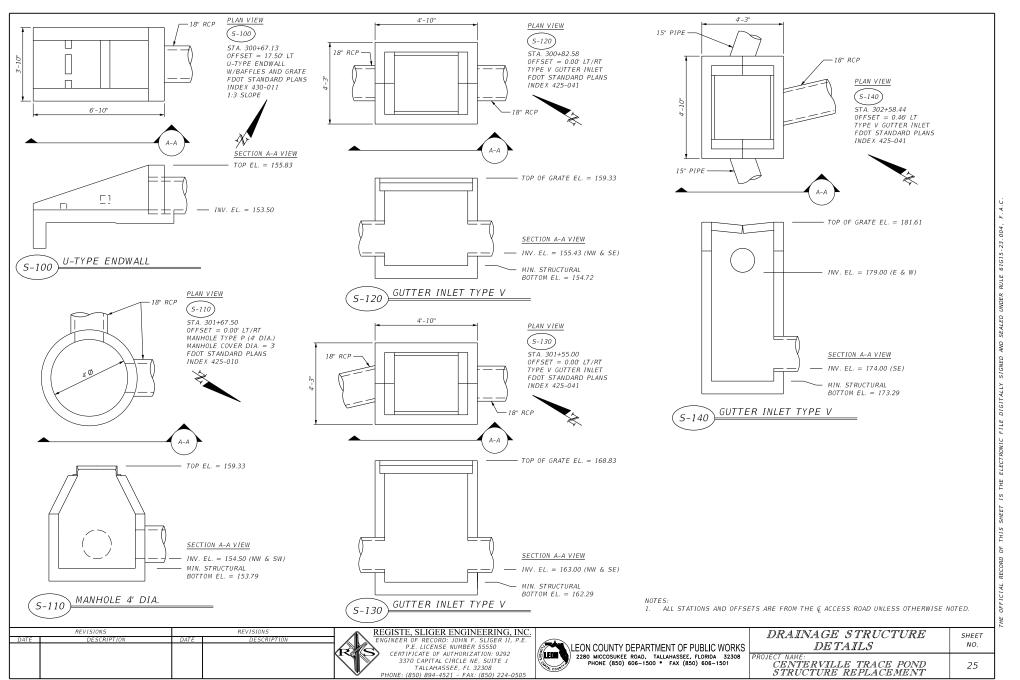
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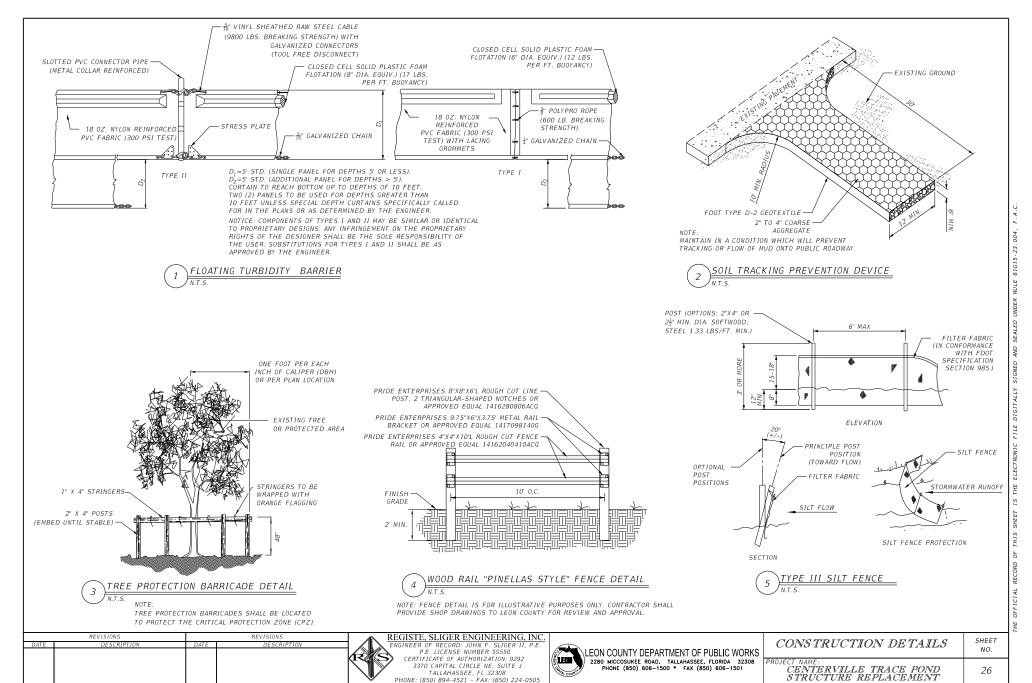
REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER 11, P.E.
P.E. LICENSE NUMBER 55550
CERTIFICATE OF AUTHORIZATION: 9292
3370 CAPITAL CIRCLE NE, SUITE J
TALLAHASSEE, FL 32308
PHONE: (850) 894-4521 - FAX: (850) 224-0505

-	
	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501

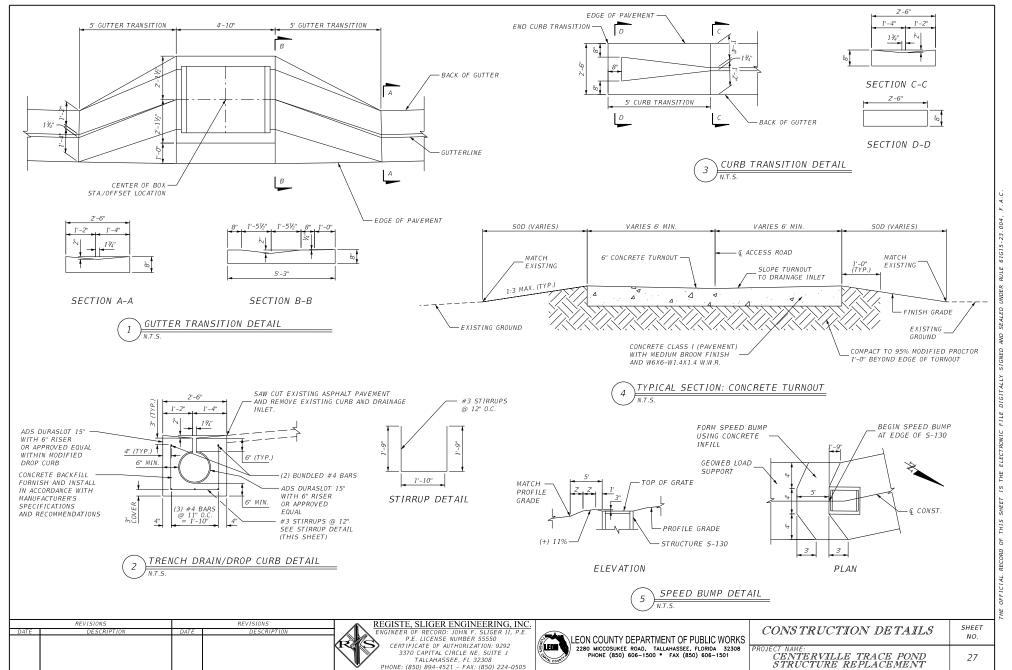
	MISCELLANEOUS DRAINAGE	SHEET
RKS	DETAILS	NO.
808	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	24

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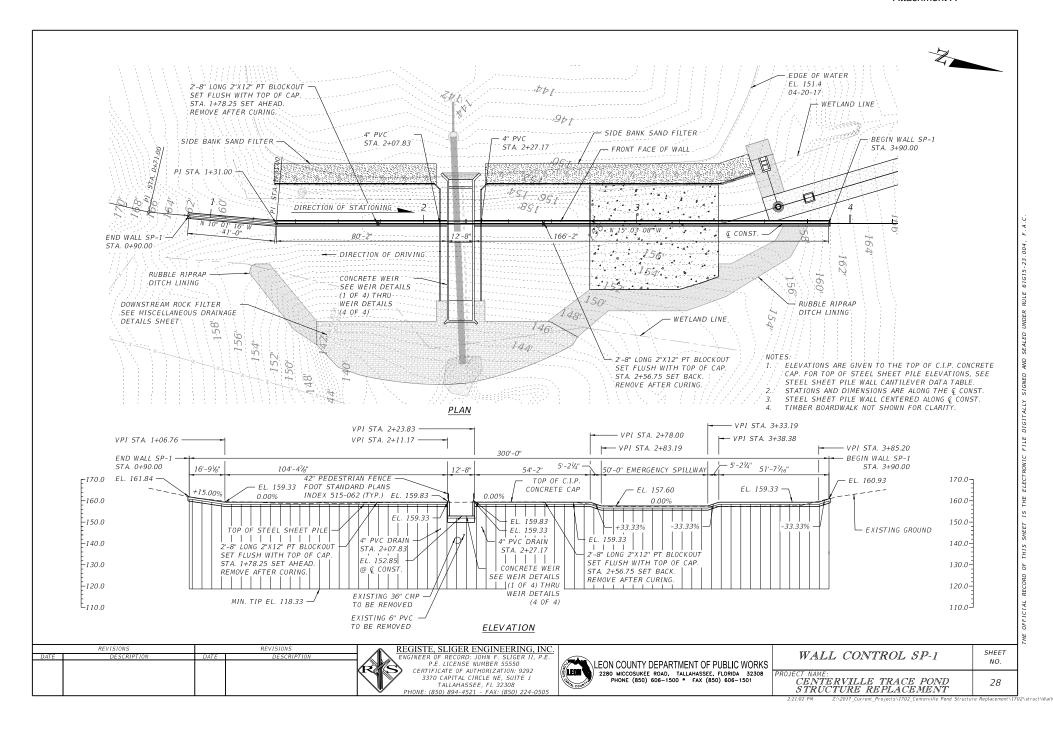




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GENERAL NOTES.

- THE DESIGN PARAMETERS INDICATED IN THE TABLES WERE USED IN THE SHEET PILE WALL ANALYSIS. IF THE CONTRACTOR PLANS OPERATIONS WHICH EXCEED THE DESIGN PARAMETERS SHOWN, THE CONTRACTOR'S SPECIALTY ENGINEER WILL REDESIGN THE WALL TO RESIST CONSTRUCTION LOADS AT A MAXIMUM DEFLECTION OF 3.0 INCHES.
- THE EMBANKMENT SEEPAGE INVESTIGATION WAS PERFORMED BY ENVIRONMENTAL AND GEOTECHNICAL SPECIALISTS, INC. SEE REPORT OF CORE BORINGS FOR BORING LOCATION AND SOIL PROPERTIES.
- THE ENVIRONMENTAL CLASSIFICATION FOR THE STRUCTURE IS EXTREMELY AGGRESSIVE.

SHEET PILE DRIVING NOTES:

- STEEL SHEET PILES SHALL BE DRIVEN BY USE OF VIBRATORY OR PRESS IN METHODS ONLY.
- ALL SHEET PILE SECTIONS SHALL BE DRIVEN TO THE MINIMUM DEPTHS SHOWN IN THE PLANS, PILES SHALL BE DRIVEN SO AS NOT TO SUBJECT THE PILES TO DAMAGE AND TO ENSURE PROPER INTERLOCK THROUGHOUT THEIR LENGTHS. CONTRACTOR SHALL REMOVE AND REPLACE ANY SECTION DAMAGED DURING HANDLING AND/OR INSTALLATION OR PILES DRIVEN OUT OF INTERLOCK AT NO COST TO THE COUNTY.
- ALL STEEL PILING SHALL HAVE SHOP DRAWINGS (SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA) SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. THE SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION AND DIMENSIONS NECESSARY TO CONSTRUCT THE WALLS. CONTRACTOR SHALL SUBMIT A PILE DRIVING INSTALLATION PLAN (SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA) TO THE ENGINEER 14 DAYS PRIOR TO PILE INSTALLATION FOR APPROVAL INCLUDING:
 - -DETAILED DRAWINGS OF TEMPLATES
 - -SEQUENCE OF PILE SECTION DRIVING
 - -MANUFACTURER'S DATA SHEETS ON HAMMERS
 - -LIST AND SIZE OF ALL EQUIPMENT INCLUDING CRANES AND DRIVING EQUIPMENT
 - CAPABLE OF INSTALLING SHEET PILE
 - -MONITORING PLAN

CONTRACTOR SHALL PROVIDE A FIXED TEMPLATE, ADEQUATE TO MAINTAIN THE PILE IN PROPER POSITION AND ALIGNMENT DURING DRIVING WHERE PRACTICAL, PLACE THE TEMPLATE SO THAT THE PILE CAN BE DRIVEN TO CUT-OFF ELEVATION BEFORE REMOVING THE TEMPLATE. ENSURE THAT TEMPLATES DO NOT RESTRICT THE VERTICAL MOVEMENT OF THE PILE. SUPPLY A STABLE REFERENCE CLOSE TO THE PILE, WHICH IS SATISFACTORY IN THE OPINION OF THE ENGINEER, FOR DETERMINATION OF THE PILE PENETRATION. AT THE TIME OF DRIVING PILES, FURNISH THE ENGINEER WITH ELEVATIONS OF THE ORIGINAL GROUND AND TEMPLATE AT EACH PILE.

- TEMPORARY SOIL EXCAVATION, EMBANKMENT AND/OR DEWATERING OF THE SITE MAY BE REQUIRED AS MEANS AND METHODS TO INSTALL THE SHEET PILE SECTIONS, ALL EXCAVATION SUPPORT AND DEWATERING DESIGN SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH A MINIMUM OF 10 YEARS EXPERIENCE WITH SIMILAR DESIGN WORK
- 5. SHEET PILE SECTIONS SHALL BE DRIVEN PLUMB WITHIN A TOLERANCE OF 1% IN ANY DIRECTION.
- JETTING OF STEEL SHEET PILES SHALL NOT BE PERMITTED.

SHEET PILE INSTALLATION NOTES

- SHEET PILES SHALL BE INSTALLED SUCH THAT THE LEADING INTERLOCK IN THE DIRECTION OF DRIVING DOES NOT CONTAIN THE WATER-SWELLING PRODUCT.
- PRIOR TO THREADING THE TRAILING INTERLOCK OF THE FOLLOWING SHEET (TREATED WITH WATER-SWELLING PRODUCT AND LUBRICATED), INSTALL NONRECOVERABLE INTERLOCK CLEANING TOOL AS PROVIDED BY THE MANUFACTURER FOR EXPULSION OF SOIL FROM THE LEADING INTERLOCK
- THE WATER-SWELLING PRODUCT SHALL BE LUBRICATED IMMEDIATELY PRIOR TO SHEET PILE INSTALLATION USING A COMMERCIAL SOAP PRODUCT APPLIED TO THE INTERLOCK WITH A PAINT BRUSH.
- INDIVIDUAL SHEET PILES SHALL BE DRIVEN TO GRADE IN THEIR FINAL POSITION WITHIN 2 HOURS TO AVOID EXPANSION AND STRIPPING OF THE WATER-SWELLING PRODUCT, PARTIALLY DRIVEN PILES SUSPENDED OR NOT DRIVEN TO GRADE AND IN FINAL POSITION IN EXCESS OF 2 HOURS SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. THE EXISTING WATER SWELLING PRODUCT SHALL BE REMOVED AND REAPPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THESE NOTES.
- THE CONTRACTOR SHALL MONITOR THE TEMPERATURE OF THE SHEET PILE INTERLOCKS DURING INSTALLATION. SUBMIT FOR APPROVAL PRIOR TO SHEET PILE DRIVING OPERATIONS A MONITORING PLAN INCLUDING TEMPERATURE GAUGING TECHNIQUES AND TEMPERATURE RECORDING INTERVALS. IF, AT ANY TIME DURING THE INSTALLATION OF THE SHEET PILES, THE INTERLOCK TEMPERATURE EXCEEDS 270 °F, THE SHEET SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. THE SHEET MAY BE REUSED UPON REMOVAL AND REAPPLICATION OF THE WATER SWELLING PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THESE NOTES.

SHEET PILE SECTION:

HOT ROLLED STEEL SHEET PILE SHALL BE PROVIDED BY SKYLINE STEEL OR APPROVED EQUAL. STEEL SHEET PILE SECTIONS SHALL BE NZ 28. SKYLINE STEEL MAY BE CONTACTED AT 1-866-875-9546 OR ONLINE AT WWW.SKYLINESTEEL.COM

	NZ 28 SECTION PROPERTIES							
	MINIMUM THICKNESS							
STEEL REQUIREME A-572 (ksi)	NTS	MINIMUM SECTION MODULUS (in³/ft)	REQUIRED MOMENT OF INERTIA (in⁴/ft)	SECTION HEIGHT (in)	WIDTH (in)	FLANGE (in)	WALL (in)	
f y=50		52.62	457.4	17.38	27.56	0.56	0.56	

NZ 28 STEEL SHEET PILE WALL CANTILEVER DATA TABLE						
WALL LOCATION	MINIMUM	WALL TOP				
STATION (BEGIN TO END)	WALL TIP ELEVATION (ft)	ELEV. (ft)				
3+90.00 TO 3+85.20	118.33	159.93-158.33				
3+85.20 TO 3+38.38	118.33	158.33				
3+38.38 TO 3+33.19	118.33	158.33-156.60				
3+33.19 TO 2+83.19	118.33	156.60				
2+83.19 TO 2+78.00	118.33	156.60-158.33				
2+78.00 TO 2+24.64	118.33	158.33				
2+24.64 TO 2+10.86	118.33	150.85				
2+10.86 TO 1+06.76	118.33	158.33				
1+06.76 TO 0+90.00	118.33	158.33-160.84				

SHEET PILE INTERLOCK WELDING

- 1. ALL WELDS SHALL CONFORM TO ANSI/AWS D1.1-96 UTILIZING ETOXX ELECTRODES. WELDS SHALL BE A MINIMUM OF 1/4"
- PILES SHALL BE SUPPLIED TO THE SITE IN DOUBLE UNITS WITH THE CENTER INTERLOCKS (THREADED AT THE FACTORY) WITH SEALING WELDING CARRIED OUT AT THE FACTORY IN A HORIZONTAL POSITION. WELDING SHALL BE PERFORMED PER THE MANUFACTURER'S RECOMMENDATIONS
- WHEN THE GAP BETWEEN ADJACENT INTERLOCKS IS SMALL ENOUGH, IT IS POSSIBLE TO CREATE A SEAL BY APPLYING A SIMPLE FILLET WELD ACROSS THE JOINT.
- WHERE THE GAP IS TOO LARGE TO BE BRIDGED IN A SINGLE PASS. INTRODUCTION OF A SMALL DIAMETER BAR CAN BE EFFECTIVE WITH A WELD RUN APPLIED TO EITHER SIDE OF THE JOINT TO CREATE THE SEAL.

SHEET PILE COATING REQUIREMENTS:

- COAT ENTIRE SURFACE OF STEEL SHEET PILES WITH THE EXCEPTION OF NON-WELDED INTERLOCK CHAMBERS.
- STEEL SHEET PILE COATING SHALL BE A SHOP APPLIED COATING, CONSISTING OF AN INORGANIC ZINC PRIMER COAT, AND 2 COATS OF COAL TAR EPOXY IN ACCORDANCE WITH FOOT SPECIFICATION SECTION 560.
- COATING APPLICATION EQUIPMENT SHALL BE IN ACCORDANCE WITH THE COATING MANUFACTURER'S TECHNICAL DATA REQUIREMENTS
- 4. STEEL SHEET PILE SURFACES IN CONTACT OR ENCASED IN CONCRETE SHALL NOT BE COATED.

	REVISIONS		REVISIONS	4	REGISTE, SLIGER ENGINEERING, INC.			STEEL SHEET PILE NOTES	SHEET
DATE	DESCRIPTION	DATE	DESCRIPTION		ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.			S	I NO
					P.E. LICENSE NUMBER 55550	(8)	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	(1 OF 2)	NO.
					CERTIFICATE OF AUTHORIZATION: 9292	(§(LEON T	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308	PROJECT NAME:	
					3370 CAPITAL CIRCLE NE, SUITE J	E STA COUNTY	PHONE (850) 606-1500 * FAX (850) 606-1501	CENTERVILLE TRACE POND	20
					TALLAHASSEE, FL 32308	A COUNT	,	STRUCTURE REPLACEMENT	1 23
					PHONE: (850) 894-4521 - FAX: (850) 224-0505			2/21/06 DM	0 1 117

FFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.

WATER-SWELLING PRODUCT:

1. THE WATER-SWELLING PRODUCT SHALL BE ADEKA ULTRASEAL P-021 HYDROPHILIC WATERSTOP OR APPROVED EQUAL. THE PRODUCT SHALL BE A HYDROPHILIC URETHANE PASTE AND SHALL MEET THE MINIMUM PERFORMANCE CRITERIA:

HARDNESS HS- A45 TENSILE STRENGTH-4 MPA ELONGATION- 850% SPECIFIC GRAVITY- 1.25 VOLUME EXPANSION-100%

MASS CHANGE- NOT GREATER THAN 5.0%

- THE WATER-SWELLING PRODUCT SHALL BE FIELD APPLIED USING THE ROXAN SEALANT SYSTEM OR APPROVED EQUAL.
 THE FOLLOWING SPECIFICATIONS SHALL BE APPLIED ALONG WITH THE MANUFACTURER'S SPECIFICATIONS AND
 RECOMMENDATIONS:
 - 1. THE INTERLOCK MUST BE DRY PRIOR TO APPLICATION.
 - 2. LAY OUT THE PILING IN THE HORIZONTAL POSITION.
 - RECENTLY ROLLED PILES NEED TO BE CLEANED WITH A JET OF COMPRESSED AIR. IN THE EVENT OF CORROSION
 IN THE INTERLOCK, CLEANING WITH A STEEL WIRE BRUSH AND/OR HIGH PRESSURE WATER JET IS NECESSARY.
 - 4. APPLY TO THE SHEET PILE INTERLOCK USING AN AIRLESS OR EXTRUSION PUMP AT A RATE OF 90 LF PER GALLON.
 - IN ORDER TO ENSURE ADEQUATE COATING OF THE SHEET PILE INTERLOCK, USE THE MANUFACTURER SUPPLIED PROFILARBED PATENTED TEMPLATE TO EXTRUDE AND SPREAD THE WATER-SWELLING PRODUCT.
 - 6. FILL IN THE INTERLOCK TAKING INTO ACCOUNT THE DIRECTION OF THE DRIVING.
 - 7. THE PILES SHALL BE SUPPLIED AND FITTED TOGETHER IN DOUBLE UNITS. THE INTERMEDIATE INTERLOCK SHALL BE SHOP WELDED, ONLY THE TRAILING INTERLOCK SHALL BE FILLED WITH THE WATER-SWELLING PRODUCT.
 - 8. PILES WITH WATER-SWELLING PRODUCT SHALL BE TRANSPORTED WITH THE OPENINGS OF THE SEALED, FREE INTERLOCKS FACING DOWNWARDS.
 - 9. THE WATER-SWELLING PRODUCT SHALL BE APPLIED UNDER SHELTER AT AMBIENT TEMPERATURES. PRIOR TO DRIVING OF SHEETS, ALLOW FOR A MINIMUM CURE DURATION OF 48 HOURS AFTER APPLICATION OF WATER-SWELLING PRODUCT. STORE SHEETS DURING CURE PERIOD WITH THE OPEN ENDS OF THE SEALED INTERLOCKS FACING DOWNWARD AND UNDER SHELTER.

SHEET PILE SPLICING:

 AT THE CONTRACTOR'S OPTION, THE STEEL SHEET PILES MAY BE SUPPLIED IN FULL LENGTH SECTIONS OR PARTIAL LENGTH SECTIONS. IF THE CONTRACTOR ELECTS TO HAVE THE SHEETS SUPPLIED IN PARTIAL SECTIONS, THE SECTIONS SHALL BE FIELD SPLICED IN ACCORDANCE WITH THE STEEL SHEET PILE SPLICING DETAILS AT NO ADDITIONAL COST TO LEON COUNTY.

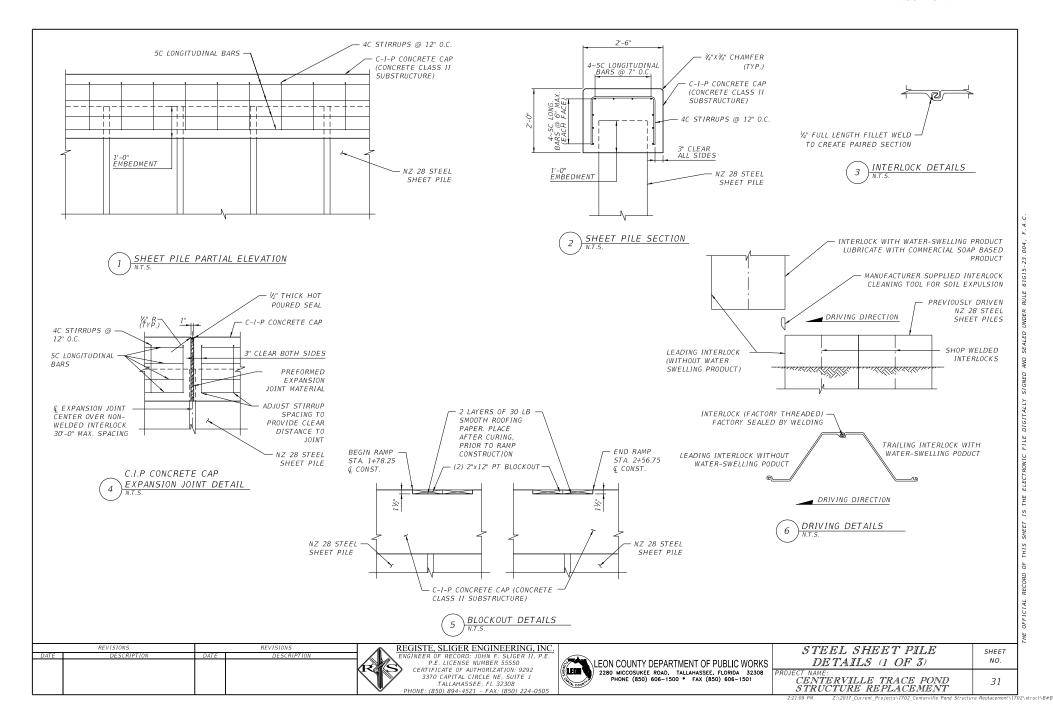
C-I-P CONCRETE CAP:

- 1. CONCRETE SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 346.
- CONCRETE FOR C-I-P SHEET PILE CAP SHALL BE CLASS II (SUBSTRUCTURE) WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3.400 PSI.
- 3. THE CONTRACTOR SHALL COORDINATE C-I-P CONCRETE CAP CONSTRUCTION WITH BOARDWALK RAMP CONSTRUCTION.

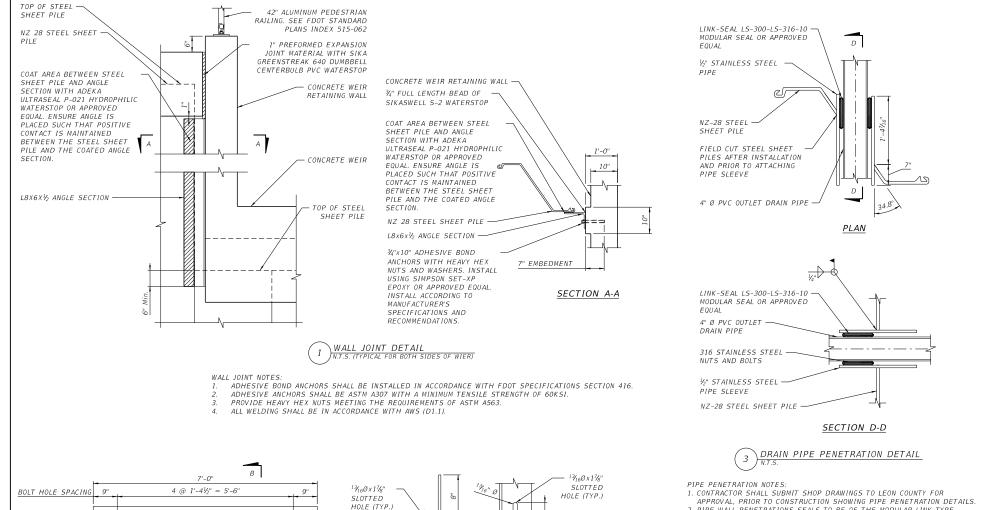
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REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.
P.E. LICENSE NUMBER 55550
CERTIFICATE OF AUTHORIZATION: 992
3370 CAPITAL CIRCLE NE, SUITE J
TALLAHASSEE, FL 32308
PHONE: (850) 894-4512 - FAX: (850) 224-0505









- 2. PIPE WALL PENETRATIONS SEALS TO BE OF THE MODULAR LINK TYPE.

 SEALS SHALL CONSIST OF A SERIES OF INTERLOCKING, MOLDED

 SYNTHETIC RUBBER LINKS, WITH HEAVY-DUTY PLASTIC PRESSURE
- PLATES, AND STAINLESS STEEL NUTS AND BOLTS.

 3. SEALS TO BE DESIGNED TO PROVIDE A HYDROSTATIC SEAL BETWEEN THE PIPE AND WALL PENETRATION. SEALS SHALL BE SIZED AND SELECTED PER THE MANUFACTURER RECOMMENDATIONS.
- 4. MODULAR PIPE SEALS SHALL BE FABRICATED OF A EPDM ELASTOMER FOR GENERAL SERVICE. MANUFACTURER SHALL BE GTP INDUSTRIES OR APPROVED FOULL
- 5. PIPE SHALL BE 304 STAINLESS STEEL IN ACCORDANCE WITH ASTM A312.

	REVISIONS		REVISIONS
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18"X6"X1/5"

HOLE (TYP.)

ANGLE SECTION

13/160×17/8" SLOTTED

REGISTE, SLIGER ENGINEERING, INC ENGINEER OF RECORD: JOHN F. SLIGER II, P.E. P.E. LICENSE NUMBER 55550 CERTIFICATE OF AUTHORIZATION: 9292 3370 CAPITAL CIRCLE NE, SUITE J TALLAHASSEE, FL 32308 PHONE: (850) 894-4521 - FAX: (850) 224-0505

SECTION B-B

L8"X6"X1/5

SECTION

ANGLE

ANGLE SECTION DETAIL



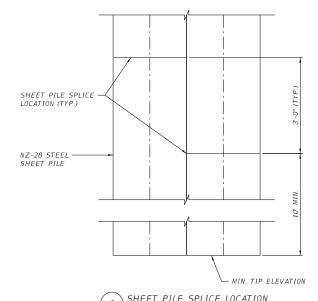
L8"X6"X½"

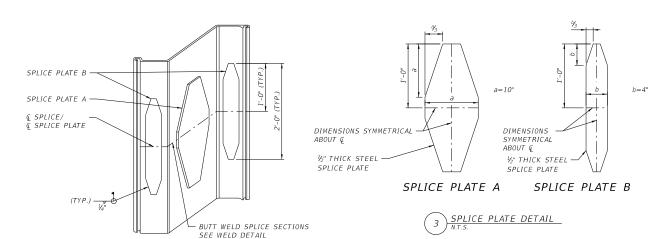
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SECTION

SECTION C-C

STEEL SHEET PILE	SHEET
DETAILS (2 OF 3)	NO.
ROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	32





ISOMETRIC SPLICE PLATE DETAIL

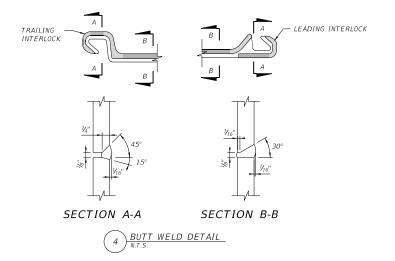
1 SHEET PILE SPLICE LOCATION N.T.S.

NOTES

- 1. ALTERNATE SPLICE LOCATIONS EVERY OTHER SHEET SECTION.
- SHEET PILE SPLICE TO BE LOCATED 3"-0" ABOVE OR BELOW PREVIOUS SECTION SPLICE LOCATION.

NOTES:

- 1. ALL WELDING SHALL CONFORM TO AWS (D1.1).
- 2. SPLICE PLATES SHALL MATCH THE GRADE REQUIREMENTS OF THE STEEL SHEET PILES.
- 3. INTERLOCKS SHALL BE FREE OF WELD MATERIAL. CONTRACTOR SHALL GRIND THE INTERLOCKS OF SPLICED SHEET SECTIONS IN THE EVENT THAT WELD MATERIAL ENTERS THE INTERLOCK TO THE SATISFACTION OF THE ENGINEER.
- 4. SHEET PILE SPLICE LOCATIONS SHALL BE PLACED A MINIMUM OF 10'-0" AND A MAXIMUM OF 13'-0" FROM THE BOTTOM
 OF THE STEEL SHEET PILE SECTIONS. CONSECUTIVE SPLICE LOCATIONS SHALL BE STAGGERED BY VERTICALLY 3 FEET.
- 5. STEEL SHEET PILE SPLICES SHALL BE CONTINUOUSLY BUTT WELDED PRIOR TO WELDING OF STEEL SHEET PILE SPLICE PLATES.
- 6. STEEL SHEET PILE SPLICE PLATES SHALL BE WELDED TO THE SAME FACE OF THE STEEL SHEET PILE THROUGHOUT THE WALL LENGTH. SPLICE PLATES ARE REQUIRED AT ALL FLANGE AND ALL WEB LOCATIONS. CENTER SPLICE PLATES ABOUT THE CENTER OF THE WEB OR FLANGE AS APPLICABLE.



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REGISTE, SLIGER ENGINEERING, INC.	T
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.	ı
P.E. LICENSE NUMBER 55550	П
CERTIFICATE OF AUTHORIZATION: 9292	П
3370 CAPITAL CIRCLE NE, SUITE J	ľ
TALLAHASSEE, FL 32308	ı
PHONE: (850) 894-4521 - FAX: (850) 224-0505	П

- 1		
	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	
	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	Р

STEEL SHEET PILE	SHEET
DETAILS (3 OF 3)	NO.
PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	33

STRUCTURE NOTES

- CONSTRUCTION IS TO COMPLY WITH THE REQUIREMENTS OF THE GOVERNING BUILDING CODE AND ALL OTHER
 APPLICABLE FEDERAL, STATE, LOCAL CODES, STANDARDS, REGULATIONS AND LAW. THE GOVERNING BUILDING CODE
 FOR THIS PROJECT IS THE FLORIDA BUILDING CODE 2017, SIXTH EDITION INCLUDING ALL CURRENT AMENDMENTS.
- 2. THE CONTRACTOR SHALL COORDINATE ALL CONTRACT DOCUMENTS WITH FIELD CONDITIONS, DIMENSIONS AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS (+/-) USE ONLY PRINTED DIMENSIONS. ELECTRONIC DRAWINGS SHOULD NOT BE ASSUMED TO BE DRAWN TO SCALE. REPORT ANY DISCREPANCIES IN WRITING TO THE EMGINEER PRIOR TO PROCEEDING WITH WORK. DO NOT CHANGE SIZE OR LOCATION OF STRUCTURAL MEMBERS WITHOUT WRITTEN INSTRUCTION FROM THE EMGINEER.
- THE STRUCTURE AND ITS COMPONENTS ARE DESIGNED TO BE STRUCTURALLY SOUND WHEN COMPLETED. PRIOR TO COMPLETION, THE CONTRACTOR IS RESPONSIBLE FOR STABILITY AND TEMPORARY BRACING OR SUPPORT.
- 4. DETAILS LABELED "TYP." APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED, WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. QUESTION REGARDING THE APPLICABILITY OF TYPICAL DETAILS SHALL BE RESOLVED BY THE LEON COUNTY REPRESENTATIVE.

<u>CONCRETE</u>

CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 346 OF THE FDOT STANDARD SPECIFICATIONS. CONCRETE SHALL INCLUDE A
PERMEABILITY REDUCING ADMIXTURE SUCH AS SIKA WATERTIGHT CONCRETE POWDER OR APPROVED EQUAL. USE IN ACCORDANCE
WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

LOCATION	CONCRETE CLASS	MIN. 28 DAY COMPRESSIVE STRENGTH	MAXIMUM WATER/CEMENT RATIO
EMERGENCY SPILLWAY	IV SUBSTRUCTURE	5,500 PSI	0.41
C_I_D WEID	IV DETAINING WALLS	5 500 DSI	0.41

- CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN
 AS "MINIMUM COVER". SEE FOOT STANDARD SPECIFICATIONS SECTION 415 FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS
 PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO THE CENTERLINE OF THE BAR EXCEPT WHERE CLEAR DIMENSION IS
 NOTED TO FACE OF CONCRETE.
- 3. VIBRATE CONCRETE TO PREVENT HONEYCOMBS AND VOIDS. DO NOT USE ADMIXTURES CONTAINING CHLORIDE SALTS IN THE
- 4. ALL REINFORCING STEEL SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS SECTION 415 & 931.

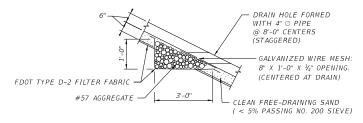
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	EGISTE, SLIGER ENGINEERING, INC.
E	NGINEER OF RECORD: JOHN F. SLIGER II, P.E.
7	P.E. LICENSE NUMBER 55550
?>	CERTIFICATE OF AUTHORIZATION: 9292
/	3370 CAPITAL CIRCLE NE, SUITE J
	TALLAHASSEE, FL 32308
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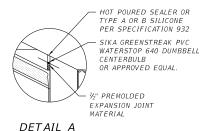


(S	WEIR AND EMERGENCY SPILLWAY NOTES	SHEET NO.
3	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	34

NOTE: VERTICAL JOINTS SHALL BE SEALED.



DRAIN HOLE DETAIL



30'-4%16" 30'-0" BEGIN CONCRETE EMERGENCY -SPILLWAY STA. 2+78.00 1:3 EXPANSION JOINT 1:3 SEE DETAIL A (TYP.) N 15° 03' 08" W - END CONCRETE **EMERGENCY** CONST. SPILLWAY 1:3 SPILLWAY JOINT 1:3 STA. 3+38.38 SEE DETAIL A (TYP.) 1:3 5'-21/4" 6'-0" 8'-0" (TYP.) - 2'-0" © DRAIN HOLE 8'-0" (TYP.) 8'-49/16" 10' EXPANSION JOINT SEE DETAIL A (TYP.) 16'<u>-0"</u>

PLAN

CONCRETE LINED EMERGENCY SPILLWAY DETAIL

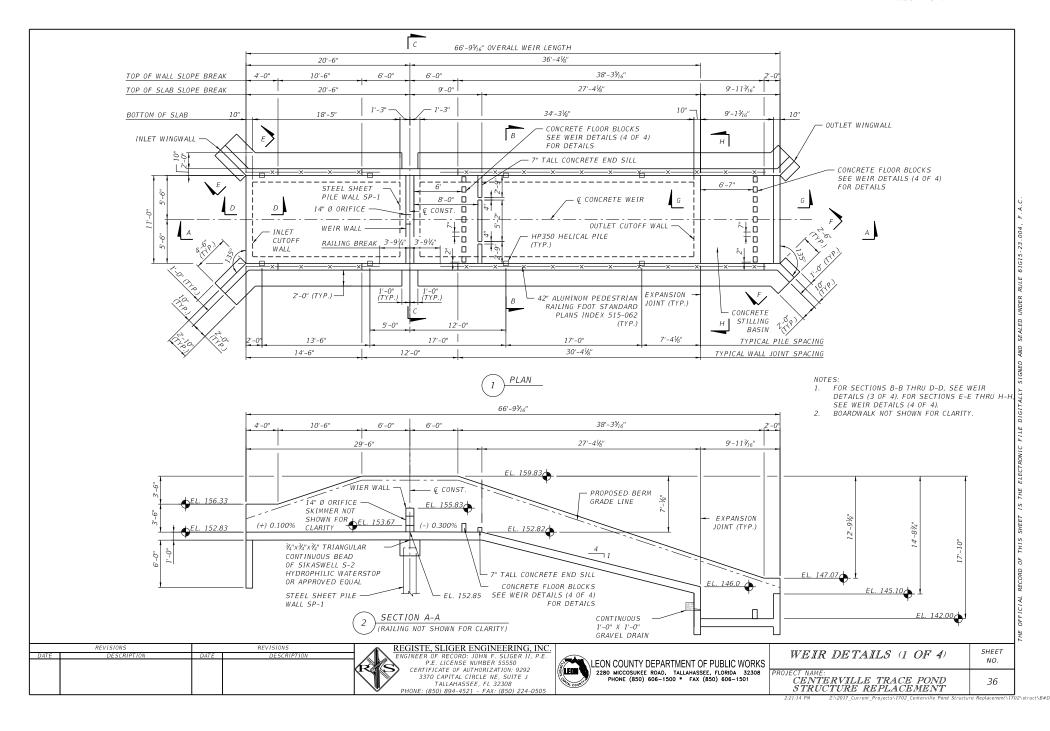
NOTE:
COMPACT FOUNDATION SOILS MINIMUM OF 2'-3" FEET BELOW THE CONCRETE LINED
EMERGENCY SPILLWAY TO 95% OF THE SOIL'S MODIFIED PROCTOR DRY DENSITY. LIFTS
SHALL NOT EXCEED 9" IN HEIGHT.

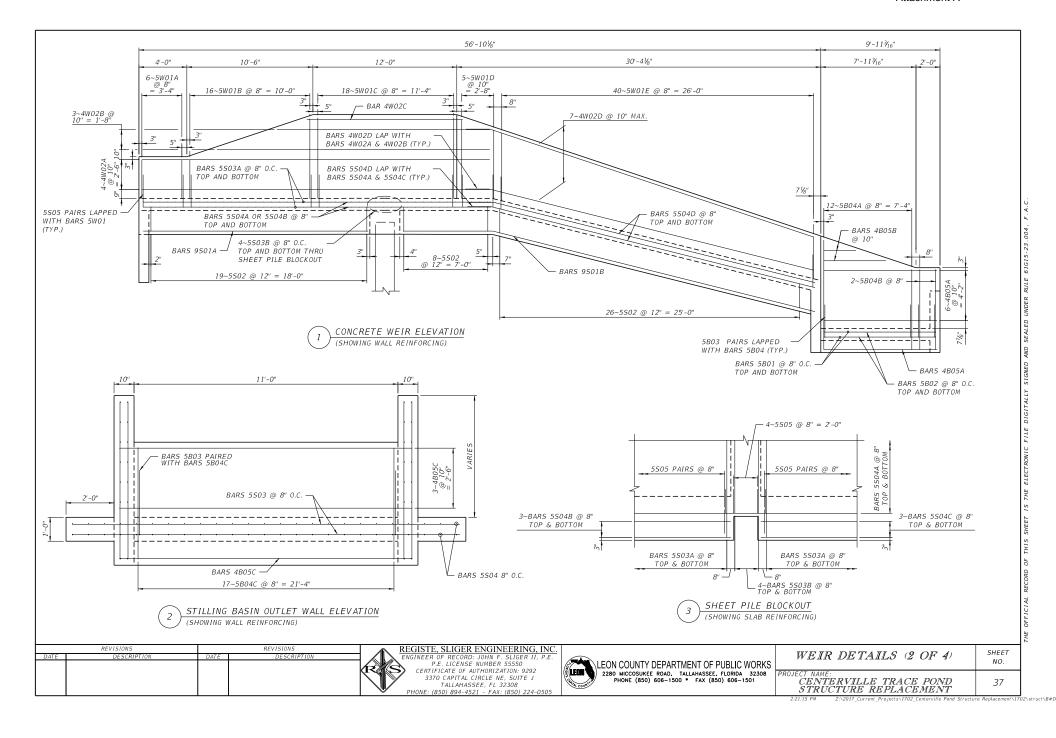
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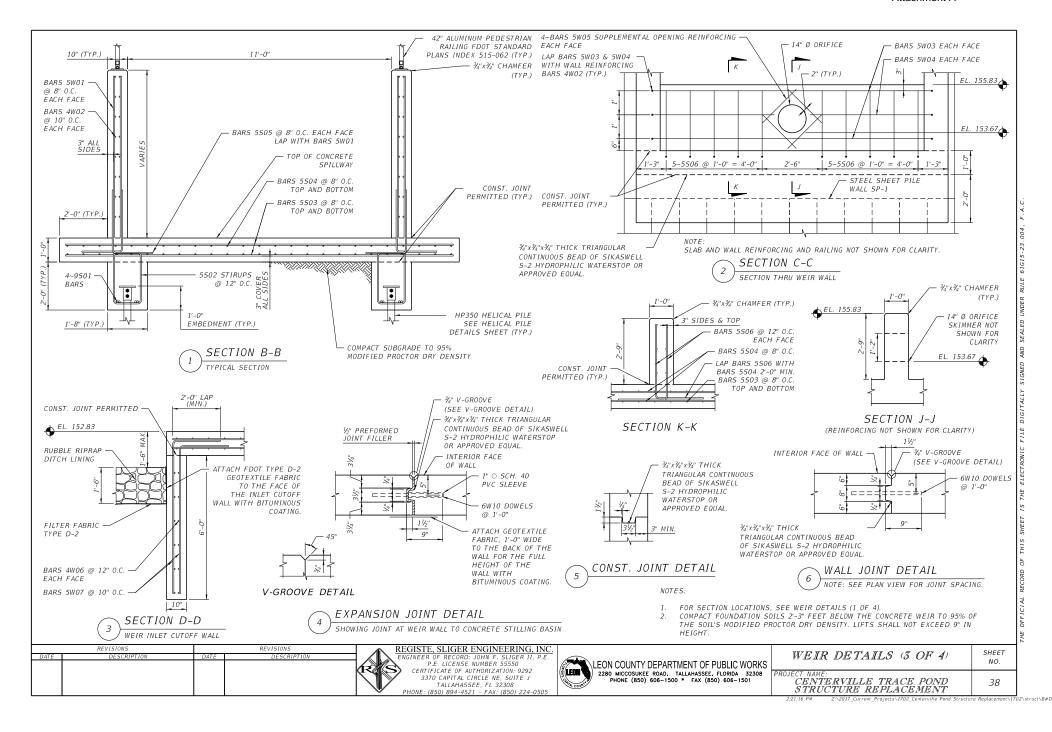
REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.
P.E. LICENSE MUMBER 5555
ERTIFICATE OF AUTHORIZATION: 9929
3370 CAPITAL CIRCLE NE, SUITE J
TALLAHASSEE, FL 32308
PHONE: (850) 894-4521 - FAX. (850) 224-0505

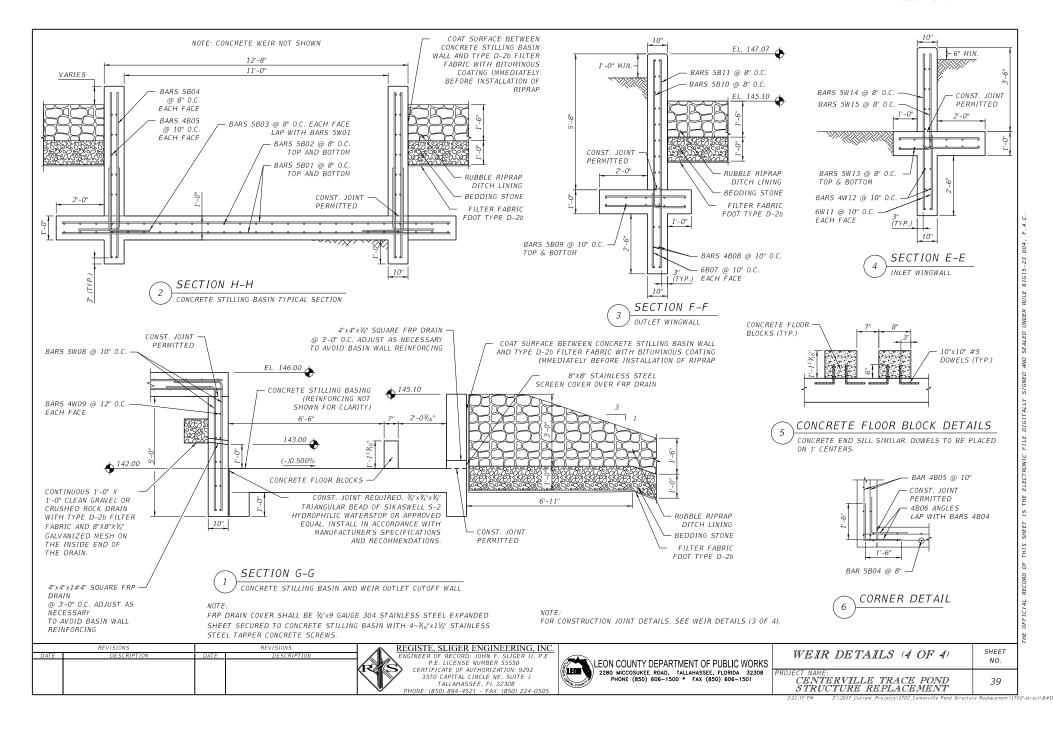


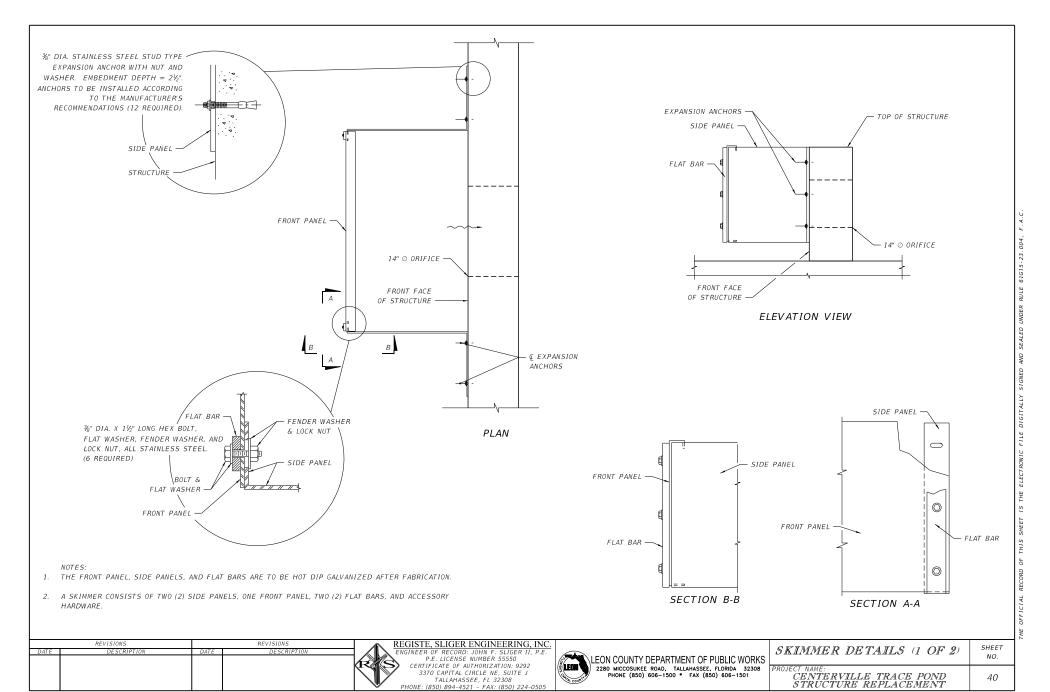
	EMERGENCY SPILLWAY	SHEET
3	DE TAILS	NO.
	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	35

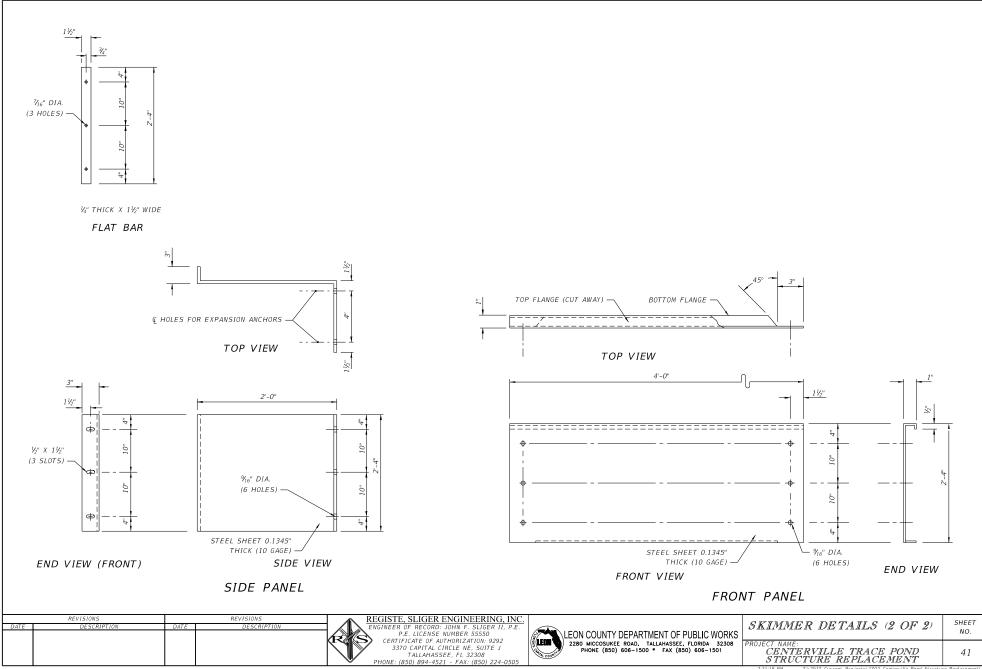












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		7-11	0	1			6-8									
5	B04B		8	1		_	6- 8									
5	BO4C	4- 7	34	1		_	4- 7									
4	B05A	9- 5	28	1		+	9- 5									
4	B05B	VARY	8	1		+	5- 2									
	0050	3-11	0	1		+	2- 8									
4	B05C	12- 2	8		Н	+	12- 2									
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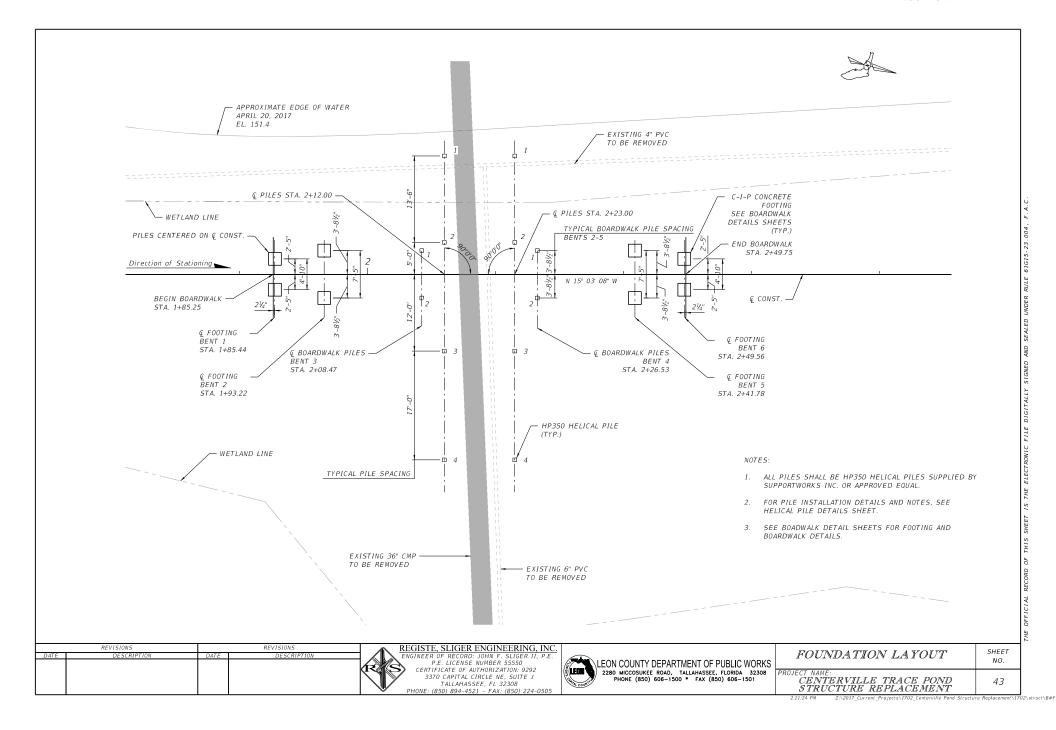
WORK THIS SHEET WITH FDOT STANDARD PLANS INDEX 415-001.

REVISIONS

REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.
P.E. LICENSE NUMBER 55550
CERTIFICATE OF AUTHORIZATION: 9292
3370 CAPITAL CIRCLE NE, SUITE J
TALLAHASSEE, FI. 32308
PHONE: (850) 894-4521 - FAX: (850) 224-0505

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	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606–1500 * FAX (850) 606–1501

REINFORCING BAR LIST	SHEET NO.
PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	42



HELICAL PILE DATA TABLE											
	INSTALLATION CRITERIA DESIGN CRITERIA									IA	
STATION	PILE NO.	SHAFT TYPE	BRACKET TYPE	MINIMUM TIP ELEVATION (ft.)	ULTIMATE BEARING RESISTANCE (tons)	FINAL INSTALLATION TOROUE (Ib*ft)	MIN. OVERALL PILE LENGTH (ft)	FACTORED DESIGN LOAD (tons)	FS	К _t (1 t)	MAXIMUM INSTALLATION TORQUE (Ib*ft)
2+12.00	1 - 4	HP350	HP350NCB8	124.0	50	13,413	35.0	23	2.0	7.0	17,500
2+23.00	1 - 4	HP350	HP350NCB8	124.0	50	13,413	35.0	23	2.0	7.0	17,500
2+08.47	1 - 2	HP350	*	143.0	12	3,457	17.0	6	2.0	7.0	17,500
2+26.53	1 - 2	HP350	*	143.0	12	3,457	17.0	6	2.0	7.0	17,500
	2+12.00 2+23.00 2+08.47	2+12.00 1-4 2+23.00 1-4 2+08.47 1-2	2+12.00 1-4 HP350 2+23.00 1-4 HP350 2+08.47 1-2 HP350	2+12.00 1-4 HP350 HP350NCB8 2+23.00 1-4 HP350 HP350NCB8 2+08.47 1-2 HP350 *	STATION PILE NO. SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) 2+12.00 1-4 HP350 HP350NCB8 124.0 2+23.00 1-4 HP350 HP350NCB8 124.0 2+08.47 1-2 HP350 * 143.0	STATION PILE NO. SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) BEARING RESISTANCE (tons) 2+12.00 1-4 HP350 HP350NCB8 124.0 50 2+23.00 1-4 HP350 HP350NCB8 124.0 50 2+08.47 1-2 HP350 * 143.0 12	STATION PILE NO. SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) BEARING (ft.) INSTALLATION TOROUG (fb*ft) 2+12.00 1-4 HP350 HP350NCB8 124.0 50 13.413 2+23.00 1-4 HP350 HP350NCB8 124.0 50 13.413 2+08.47 1-2 HP350 * 143.0 12 3.457	STATION PILE NO. 2 SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) ULI IMATE RESISTANCE (tons) INSTALLATION TORQUE (lb*ft) OVERALL PILE ELEGITH (ft.) 2+12.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 2+23.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 2+08.47 1-2 HP350 * 143.0 12 3.457 17.0	STATION PILE NO. SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) COLITIANT TO ELEVATION (ft.) COLITIANT TO ELEVATION (ft.) COLITIANT TO ELEVATION (ft.) COLITIANT TO TOROUE (lb*ft.) OVERALL FACTORD DESIGN DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD DESIGNATION TO TOROUE (lb*ft.) PILE ENGTH (ft.) DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD DESIGNATION TO TOROUE (lb*ft.) DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD DESIGNATION TO TOROUE (lb*ft.) DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD DESIGNATION TO TOROUE (lb*ft.) DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD DESIGNATION TO TOROUE (lb*ft.) OVERALL FACTORD TOROUE (lb	STATION PILE NO. TYPE SHAFT TYPE BRACKET TYPE TIP ELEVATION (ft.) ULI IMATE TYPE FRACTORE (tons) PILE SHARING RESISTANCE (tons) INSTALLATION TORQUE (lb*ft) OVERALL PILE ELEGITH (ft.) POESIGN LOAD (tons) FS 2+12.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 23 2.0 2+23.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 23 2.0 2+08.47 1-2 HP350 * 143.0 12 3.457 17.0 6 2.0	STATION PILE NO. SHAFT TYPE BRACKET TYPE WINIMUM ELEVATION CITY BEARING RESISTANCE (tons) INSTALLATION TOROUS (lb*ft) OVERALL PLANT FOR DESIGN LOAD (tons) FS Kt (½) 2+12.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 23 2.0 7.0 2+23.00 1-4 HP350 HP350NCB8 124.0 50 13.413 35.0 23 2.0 7.0 2+08.47 1-2 HP350 * 143.0 12 3.457 17.0 6 2.0 7.0

PILE INSTALLATION NOTES:

*SEE BOARDWALK PILES, NOTE 1 ON BOARDWALK STRUCTURAL NOTES SHEET.

- HELICAL PILES TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- THE REQUIRED ULTIMATE TORQUE-CORRELATED CAPACITY SHALL BE VERIFIED AT EACH PILE LOCATION, MONITORING AND RECORDING THE FINAL INSTALLATION TORQUE AND APPLYING DEFAULT TORQUE CORRELATIONS PER ICC-EC AC358.
- THE HELICAL PILES SECTIONS SHALL BE ADVANCED INTO THE SOIL IN A CONTINUOUS MANNER AT A RATE OF ROTATION LESS THAN 25 RPM. SUFFICIENT CROWD SHALL BE APPLIED TO ADVANCE THE HELICAL PILE SECTIONS AT A RATE OF APPROXIMATELY EQUAL TO THE PITCH OF THE HELIX PLATE PER REVOLUTION. THE RATE OF ROTATION AND MAGNITUDE OF DOWNWARD PRESSURE SHALL BE ADJUSTED FOR DIFFERENT SOIL CONDITIONS AND DEPTHS. EXTENSIONS SHALL BE PROVIDED TO OBTAIN THE REQUIRED MINIMUM OVERALL LENGTH AND MINIMUM TORSIONAL RESISTANCE SHOWN.
- IF THE TORSIONAL RESISTANCE DURING INSTALLATION REACHES THE HELICAL PILE'S MAXIMUM INSTALLATION TORQUE RATING PRIOR TO SATISFACTION OF THE MINIMUM TIP ELEVATION, TERMINATE THE INSTALLATION AT THE DEPTH OBTAINED.
- THE CONTRACTOR SHALL PROVIDE LEON COUNTY COPIES OF THE INDIVIDUAL HELICAL PILE INSTALLATION RECORDS WITHIN 24 HOURS AFTER EACH INSTALLATION IS COMPLETED. FORMAL COPIES SHALL BE SUBMITTED WITHIN 30 DAYS FOLLOWING THE COMPLETION OF THE HELICAL PILE INSTALLATION. RECORDS SHALL CONTAIN AT A MINIMUM, THE FOLLOWING.

DATE AND TIME OF INSTALLATION

LOCATION OF HELICAL PILE AND PILE IDENTIFICATION NUMBER

INSTALLED HELICAL PILE MODEL AND CONFIGURATION

TERMINATION DEPTH. PILE HEAD DEPTHS. AND LENGTH OF INSTALLED PILE

INSTALLED INCLINATION OF PILE

FINAL TORSIONAL RESISTANCE

CALCULATED GEOTECHNICAL CAPACITY BASED ON FINAL TORSIONAL RESISTANCE

COMMENTS PERTAINING TO INTERRUPTIONS, OBSTRUCTIONS OR OTHER RELEVANT INFORMATION

WITH MINIMUM HOLD TIMES OF 4 MIN. AT EACH INCREMENT

A SINGLE PILE LOAD TEST SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM D1143 QUICK TEST METHOD AND THE FOLLOWING CRITERIA:

FAILURE CRITERIA- SHALL BE IN ACCORDANCE WITH AC358

LOADING-

INCREMENTS SHALL BE PERFORMED AT 5% OF THE ANTICIPATED FAILURE LOAD OR MAXIMUM ANTICIPATED TEST LOAD WITH A MINIMUM HOLD TIMES OF 4 MIN. AT EACH INCREMENT. UPON COMPLETION OF THE MAXIMUM TEST LOAD HOLD INCREMENT, THE PILES SHALL BE UNLOADED IN 5 TO 10 EVEN INCREMENTS

HELICAL PILE NOTES:

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HELICAL PILES SHALL BE OBTAINED FROM SUPPORTWORKS, INC. OR APPROVED EQUAL.

MINIMUM MATERIAL REQUIREMENTS: SHAFTS-FY = 65 KSI, FU = 75 KSI

COUPLERS-FY = 70 KSI, FU = 80 KSI

HELIX PLATES-ASTM A572 GR. 50

SHAFT COUPLING HARDWARE - (4) - Ø 1" GRADE 5 BOLTS WITH NUTS

BRACKET WELDMENT - ASTM A36

EXTERNAL SLEEVE - FY = 50 KSI. FU = 62 KSI

CAP PLATE - ASTM A572 GRADE 50

BRACKET HARDWARE - (2) - 1" Ø SAE J429 GRADE 5 BOLTS WITH NUTS

- ALL WELDING TO BE IN ACCORDANCE WITH AWS DI.I LATEST ISSUE WITH E70-XX MIN. ELECTRODE.
- HELIX PLATES HAVE A NOMINAL 3" PITCH WITH LEADING AND TRAILING EDGES BEING NO MORE THAN 1/4" OUT OF PARALLEL.
- LEADS, EXTENSIONS, COUPLERS, HELIX PLATES AND BRACKETS SHALL BE HOT-DIP GALVANIZED (HDG) IN ACCORDANCE WITH ASTM A123
- SHAFT COUPLING AND BRACKET HARDWARE SHALL BE ZINC COATED IN ACCORDANCE WITH ASTM B633.

	REVISIONS		REVISIONS	A F	REGISTE, SLIGER ENGINE
Г	DESCRIPTION	DATE	DESCRIPTION		ENGINEER OF RECORD: JOHN F. S
П					P.E. LICENSE NUMBER 5
ı					CERTIFICATE OF AUTHORIZAT
ı					3370 CAPITAL CIRCLE NE,
ı				\	TALLAHASSEE, FL 32.
1				1 /4/	

EERING, INC. SLIGER II, P.E 55550 TION: 9292 E (LEON) SUITE J 2308 PHONE: (850) 894-4521 - FAX: (850) 224-050.

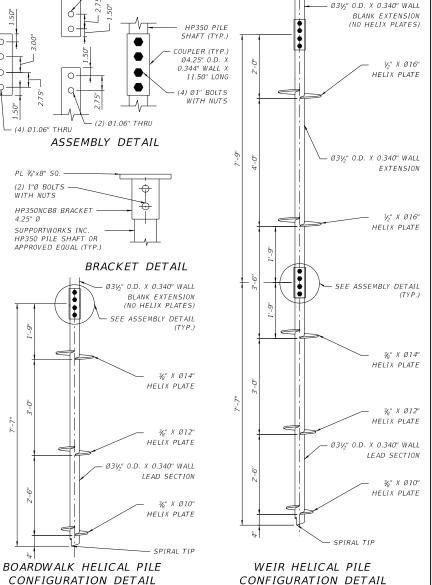
MANUFACTURER INFORMATION:

11850 VALLEY RIDGE DRIVE

SUPPORTWORKS, INC.

PAPILLION, NE 68046

(800) 281-8545



LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501

(2) Ø1.06" THRU

HELICAL PILE DETA	ILS SHEET NO.
PROJECT NAME: CENTERVILLE TRACE PO STRUCTURE REPLACEME.	

7:\2017 Current Projects\1702 Centerville Pand Structure Replacement\1702\struct\RIP

STRUCTURAL NOTES

- CONSTRUCTION IS TO COMPLY WITH THE REQUIREMENTS OF THE GOVERNING BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, STATE, LOCAL CODES, STANDARDS, REQULATIONS AND LAW. THE GOVERNING CODE FOR THIS PROJECT IS THE FLORIDA BUILDING CODE OF HE EDITION (2017) INCLUDING ALL CURRENT AMENDMENTS.
- THE STRUCTURE IS DESIGNED TO BE STRUCTURALLY SOUND WHEN COMPLETED. PRIOR TO COMPLETION, THE CONTRACTOR IS
 RESPONSIBLE FOR STABILITY AND TEMPORARY BRACING OR SUPPORT.
- DESIGN SUPERIMPOSED LOADS DECK LIVE LOAD -----100 PSF
- 5. VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO START OF CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES. NO CHANGES OF INFORMATION SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT THE SPECIFIC WRITTEN APPROVAL OF THE ENGINEER. DESIGN INFORMATION SHOWN ON THE DRAWINGS PROVIDE OVERALL DIMENSIONAL PARAMETERS AND DESCRIBE ELEMENTS TO BE CONSTRUCTED. THE CONTRACTOR SHALL ADJUST DIMENSIONS AND DETAILS AS REQUIRED TO FIT EXISTING CONDITIONS. THE ENGINEER SHALL BE NOTIFIED OF ANY PROPOSED MODIFICATIONS.
- 6. DETAILS LABELED "TYP" APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. QUESTION REGARDING THE APPLICABILITY OF TYPICAL DETAILS SHALL BE RESOLVED BY THE ENGINEER.
- CONTRACTORS WHO DISCOVER DISCREPANCIES, OMISSIONS OR VARIATIONS IN THE CONTRACT DOCUMENTS SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER WILL RESOLVE THE CONDITION AND ISSUE A WRITTEN CLARIFICATION.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL CONTRACT DOCUMENTS WITH FIELD CONDITIONS, DIMENSIONS AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS MARKED WITH (+/-). USE ONLY PRINTED DIMENSIONS.
- ELECTRONIC DRAWINGS SHOULD NOT BE ASSUMED TO BE DRAWN TO SCALE. REPORT ANY DISCREPANCIES IN WRITING TO THE
 ENGINEER PRIOR TO PROCEEDING WITH WORK. DO NOT CHANGE SIZE OR LOCATION OF STRUCTURAL MEMBERS WITHOUT WRITTEN
 INSTRUCTION FROM THE STRUCTURAL ENGINEER OF RECORD.
- 10. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTY, HIS OWN WORK, AND THE PUBLIC FROM HARM. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, AND JOB SITE SAFETY INCLUDING ALL OSHA REQUIREMENTS.
- 11. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, 3 SETS OF PLANS, CALCULATIONS, AND SPECIFICATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. FOR ANY PROPOSED CHANGES TO THE CONTRACT DOCUMENTS.

DIMENSIONAL LUMBER

- ALL DIMENSIONAL LUMBER SHALL BE \$4\$ AND GRADE STAMPED BY AN AGENCY CERTIFIED BY THE AMERICAN LUMBER STANDARDS
 COMMITTEE'S BOARD OF REVIEW AND MANUFACTURED IN ACCORDANCE WITH PS-20, LATEST REVISION.
- 2. FRAMING MATERIAL SHALL BE SOUTHERN YELLOW PINE, No.1 OR BETTER, WITH A MAXIMUM MOISTURE CONTENT OF 19%.
- 3. ALL MATERIAL SHALL BE SOUTHERN PINE, COMPLYING WITH THE STRESS VALUE TABLES LOCATED ON THIS SHEET.
- 4. WANES ARE NOT ACCEPTABLE IN EXPOSED MATERIAL.
- 5. "PT" DENOTES PRESSURE TREATED. ALL PT LUMBER SHALL BE KILN DRIED AFTER TREATMENT (KDAT).
- 6. ALL LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PROTECTION ASSOCIATION STANDARD T1.
- FIELD CUTS, HOLES, AND DAMAGE SHALL BE TREATED WITH A BRUSH APPLIED COPPER NAPTHANATE OR
 APPROVED PRESERVATION SYSTEM AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR SHALL SUBMIT PRODUCT TREATMENT DATA SHEETS FOR APPROVAL BY LEON COUNTY PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ABIDE BY AWPA USE CATEGORY STANDARD UI. MATERIALS NOT PROPERLY TREATED FOR THEIR SPECIFIC USE SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- 10. ALL LUMBER FASTENERS SHALL BE APPLIED PER TABLE 2304.10.1, FBC 2017 UNLESS OTHERWISE NOTED.

CONNECTORS:

- 1. ALL CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
- 2. ALL CONNECTORS AND FASTENERS THAT ARE NOT STAINLESS STEEL (SS) SHALL BE HOT DIPPED GALVANIZED FOR CORROSION PROTECTION ZMAX (G185)- MIN. 1.85 OZ. OF ZINC PER SQUARE FOOT OF SURFACE AREA PER ASTM A653. HDG (14 GA. AND THICKER)- MIN. AVG. COATING WEIGHT OF 2.0 OZ. PER SQUARE FOOT OF SURFACE AREA PER ASTM A123. CONNECTORS MAY REQUIRE SPECIAL FABRICATION FROM THE MANUFACTURER. NO ADDITIONAL CONTRACT TIME SHALL BE GRANTED TO OBTAIN THE REQUIRED CONNECTORS. CONTRACTOR SHALL HAVE ALL CONNECTORS INSPECTED BY THE ENGINEER PRIOR TO CONCRETE EMBEDMENT OR COVERING CONNECTORS WITH SUBSEQUENT WORK.
- CONTRACTOR SHALL USE FASTENERS THAT ARE COMPATIBLE WITH THE CORROSION PROTECTION OF THE CONNECTOR, AND SHALL USE
 ALL FASTENERS REQUIRED TO OBTAIN MAXIMUM PUBLISHED CONNECTOR LOADS UNLESS OTHERWISE NOTED.
- 4. CONTRACTOR SHALL INSTALL ALL CONNECTORS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS
- 5. THREADED ROD WITH NUTS AND WASHERS OF THE SAME MATERIAL TYPE AND DIAMETER MAY BE SUBSTITUTED FOR THRU-BOLTS, BUT NOT FOR CARRIAGE BOLTS.

BOARDWALK PILES:

 HELICAL PILE BEAM BRACKETS (4 REQUIRED) MAY REQUIRE SPECIAL FABRICATION. SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA SHALL BE SUBMITTED TO LEON COUNTY PRIOR TO FABRICATION OR INSTALLATION. ALL COSTS FOR PILE BRACKETS SHALL BE INCLUDED IN THE UNIT COST OF THE HELICAL PILES. NO ADDITIONAL CONTRACT TIME SHALL BE GRANTED TO OBTAIN THE REQUIRED BRACKETS.

BOARDWALK FOOTERS

- 1. CONSTRUCT REINFORCED CONCRETE IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 346.
- 2. CONCRETE SHALL BE CLASS II. WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,400 PSI
- 3. USE NORMAL WEIGHT CONCRETE FOR ALL STRUCTURAL MEMBERS, UNLESS OTHERWISE NOTED
- PROVIDE ASTM A-615 GRADE 60 REINFORCING STEEL REINFORCING STEEL SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED AND
 FIRMLY TIED IN PLACE WITH APPROPRIATE BAR SUPPORTS AND SPACERS. FOR BAR BENDING DETAILS, SEE REINFORCING BAR LIST,
 SHEET 42.

PROVIDE COVER OVER REINFORCING AS FOLLOWS:

ELEMENT: BOTTOM TOP SIDES
BOARDWALK FOOTERS 3" 3" 3"

SOILS AND COMPACTION

- SOILS BELOW BOARDWALK FOOTERS SHALL BE COMPACTED TO A DEPTH OF 27" AT OPTIMUM MOISTURE CONTENT TO 95% MODIFIED PROCTOR, PER ASTM D-1557 (9 INCH MAX LIFTS).
- AT LEAST 1 IN-PLACE DENSITY TEST SHALL BE PERFORMED FOR EVERY FOOTER PRIOR TO PLACING ANY STEEL IN THE EXCAVATIONS.
 AFTER THE FOOTER HAS BEEN PLACED, ADEQUATELY CURED, AND FORMS ARE REMOVED, BACKFILL SHOULD BE PLACED AROUND
 THE FOOTERS IN LOOSE LIFTS NOT EXCEEDING 9 INCHES AND COMPACTED TO MEET THE TESTING CRITERIA AS DESCRIBED ABOVE.

SCHEDULE OF REQUIRED STRESS VALUES VISUALLY GRADED, NO. 1 MATERIAL (@100% STRESS RATING)							
	REQUIRED VALUES, IN PSI						
WOOD FRAMING SIZE	Fb	Ft	Fv	Fc .	Fc	E	
SOUTHERN YELLOW PINE (SYP)							
2X4, 3X4, & 4X4	1500	1000	175	565	1650	1,600,000	
2X6, 3X6, & 4X6	1350	875	175	565	1550	1,600,000	
2X8, 3X8, & 4X8	1250	800	175	565	1500	1,600,000	
2X12, 3X12, & 4X12	1000	650	175	565	1400	1,600,000	

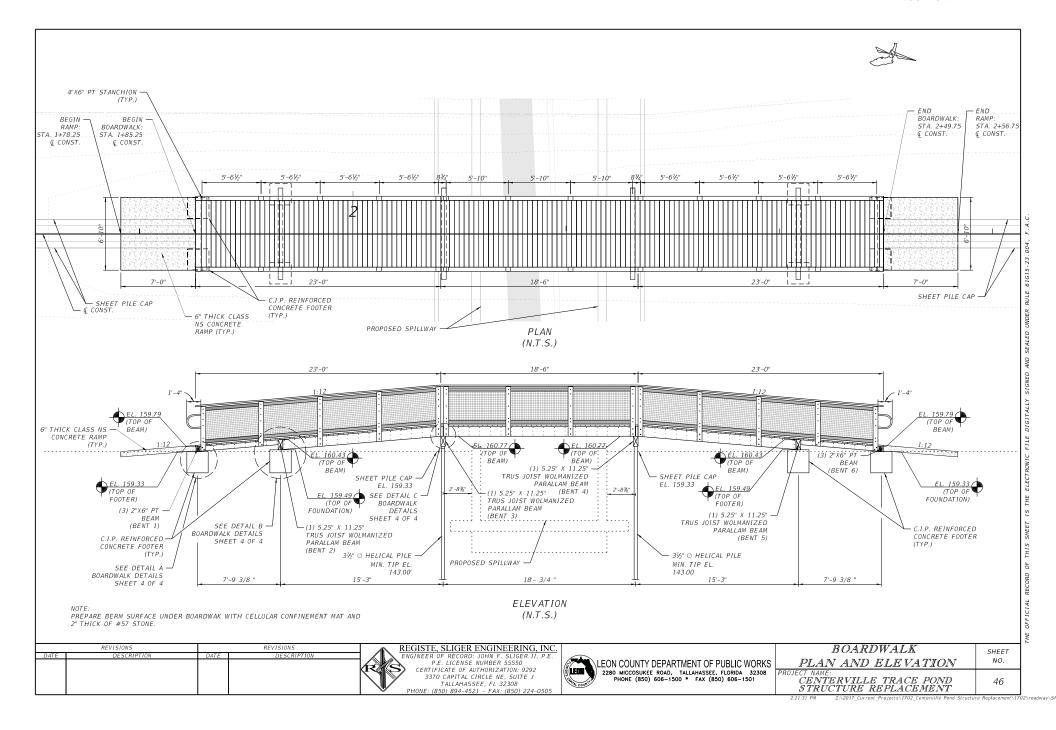
TRUS JOIST PARA (@1003		S PSL	WOLMA			
WOOD FRAMING SIZE REQUIRED VALUES, IN PSI						
WOOD FRAMING SIZE	Fb	Ft	Fv	Fc,	Fc	E
SERVICE LEVEL 2						
51 × 111"	1827	1397	197	338	1508	1,460,000

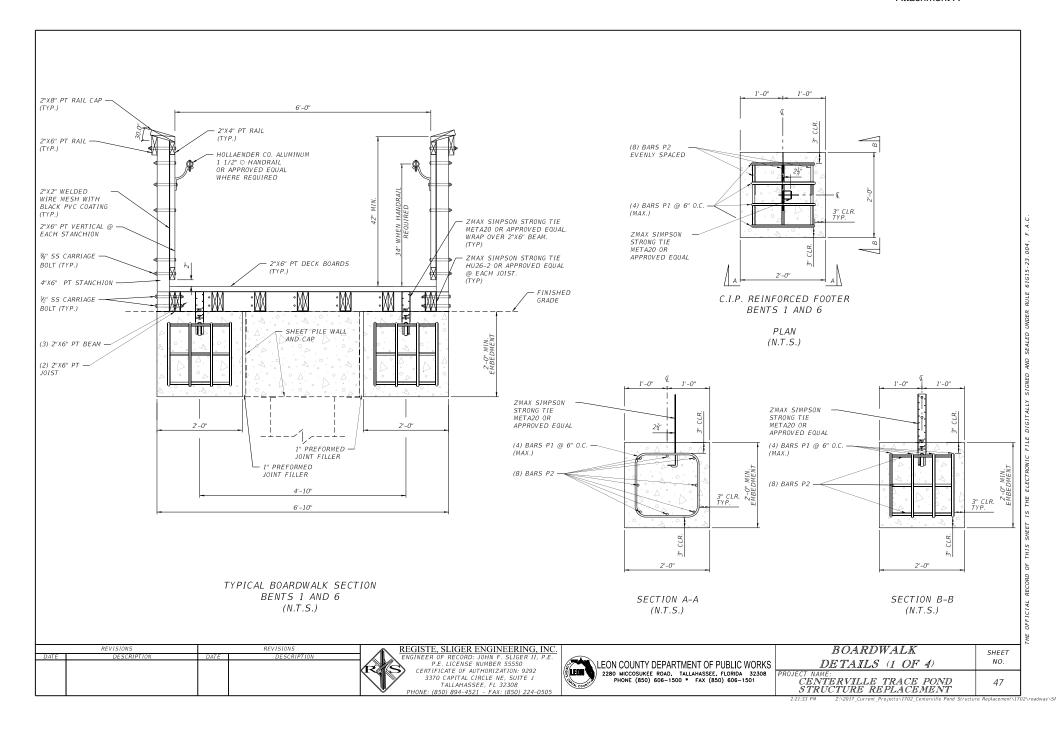
	REVISIONS	REVISIONS				
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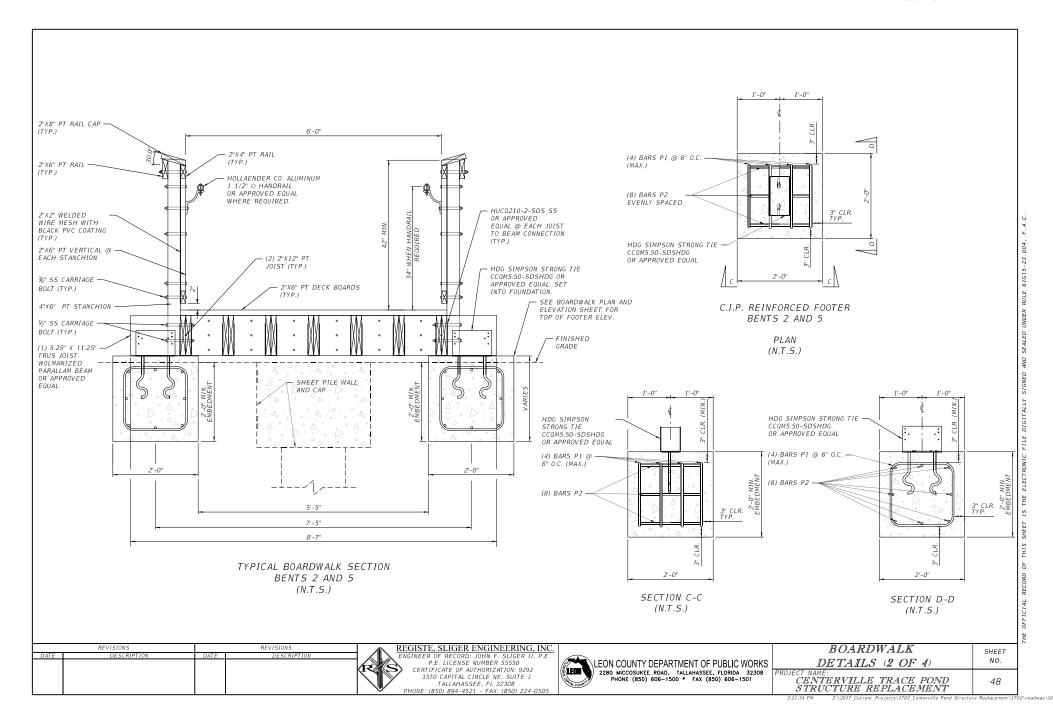
REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER II, P.E.
P.E. LICENSE NUMBER 55550
CERTIFICATE OF AUTHORIZATION: 9992
3370 CAPITAL CIRCLE NE, SUITE J
TALLAHASSEE, FL 32308
PHONE: (850) 894-4521 - FAX: (850) 224-0505

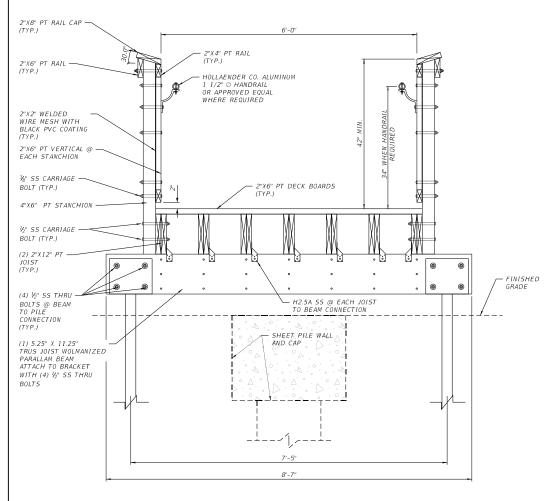
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 606-1500 * FAX (850) 606-1501

S	BOARDWALK STRUCTURAL NOTES	SHEET NO.
	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	45



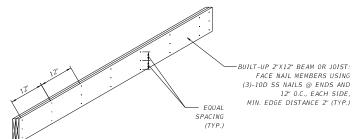






BEAM BUILD UP

- 2"X12" BUILT UP BEAMS AND JOISTS SHALL HAVE MEMBERS FASTENED TOGETHER WITH (3) 10D STAINLESS STEEL RING SHANK NAILS @ EACH END AND @ 12" O.C.
- 2. 2"X6" BUILT UP BEAMS AND JOISTS SHALL HAVE MEMBERS FASTENED TOGETHER WITH (2) 10D STAINLESS STEEL RING SHANK NAILS @ EACH END AND @ 12" O.C.



2"X12" BUILT-UP MEMBER NAILING PATTERN (N.T.S.)

* NOTE: 2-PLY MEMBER SHOWN. 3-PLY AND 4-PLY MEMBERS SIMILAR.

TYPICAL BOARDWALK SECTION BENTS 3 AND 4 (N.T.S.)

	REVISIONS	REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION			
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REGISTE, SLIGER ENGINEERING, INC.
ENGINEER OF RECORD: JOHN F. SLIGER 11, P.E.
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	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	
	2280 MICCOSUKEE ROAD. TALLAHASSEE, FLORIDA 32308	7
	PHONE (850) 606-1500 * FAX (850) 606-1501	ľ
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s	BOARDWALK DETAILS (3 OF 4)	SHEET NO.
	PROJECT NAME: CENTERVILLE TRACE POND STRUCTURE REPLACEMENT	49

