



PLANS PREPARED FOR
CITY OF PORT ST. LUCIE, FLORIDA
ENGINEERING DEPARTMENT

CONTRACT PLANS

A14 DRAINAGE CONTROL STRUCTURE REPLACEMENT

COMPONENTS OF CONTRACT PLANS SET

* WIER REPLACEMENT CONSTRUCTION PLANS

INDEX OF PLANS

SHEET NO. SHEET DESCRIPTION

- | | |
|-------|----------------------------|
| 1 | COVER/KEY SHEET |
| 2 | GENERAL NOTES & PAY ITEMS |
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| 4 | STRUCTURE REPLACEMENT PLAN |
| 5 | DRAINAGE IMPROVEMENT PLAN |
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| 7 | SWPPP DETAILS |
| 8 | CONCRETE ENDWALL DETAILS |
| S1-S4 | STRUCTURAL PLANS |

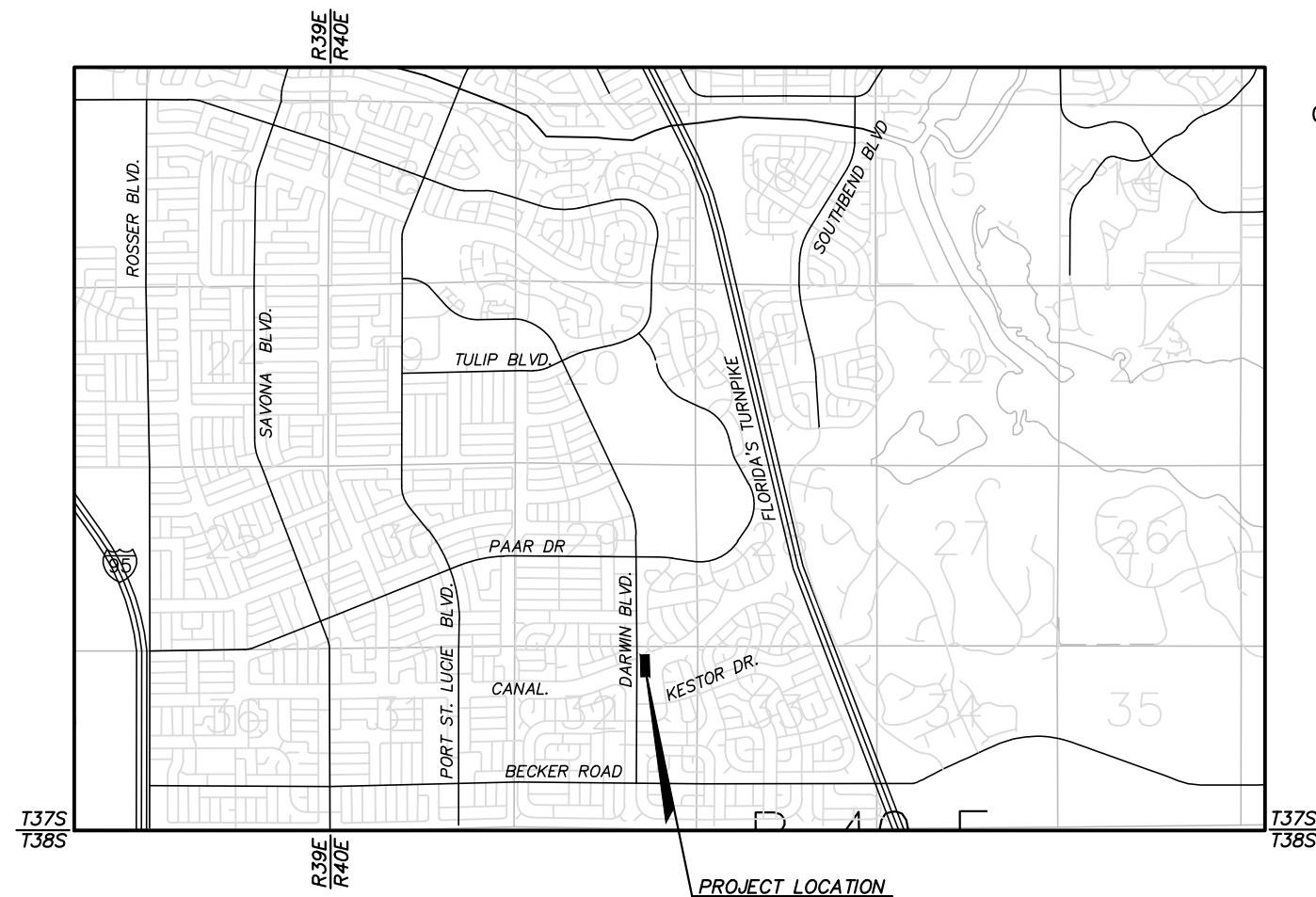
GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED MARCH 2020,
AND STANDARD SPECIFICATIONS FOR ROAD
AND BRIDGE CONSTRUCTION DATED 2020,
AS AMENDED BY CONTRACT DOCUMENTS.

For Design Standards Modifications click on
"Design Standards" at the following web site:
<http://www.dot.state.fl.us/rddesign/>

CITY COUNCIL:

GREGORY J. ORAVEC	MAYOR
STEPHANIE MORGAN	DISTRICT 1
JOHN CARVELLI	DISTRICT 2
SHANNON M. MARTIN	DISTRICT 3
JOLIEN CARABALLO	DISTRICT 4

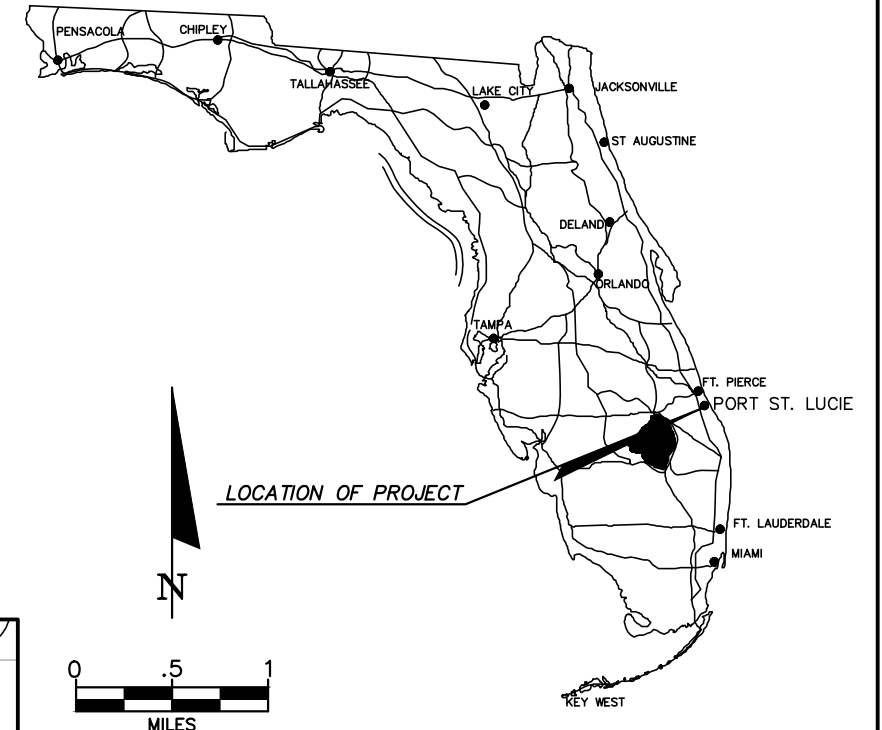
RUSS BLACKBURN - CITY MANAGER
ROBERT SWEENEY, P.E. - PUBLIC WORKS DIRECTOR



LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	LF	0.00
BRIDGES	0 LF	0.00
NET LENGTH OF PROJ.	200 LF	0.038
EXCEPTIONS		
GROSS LENGTH OF PROJ.	200 LF	0.038

PROJECT MANAGER: JOHN DUNTON

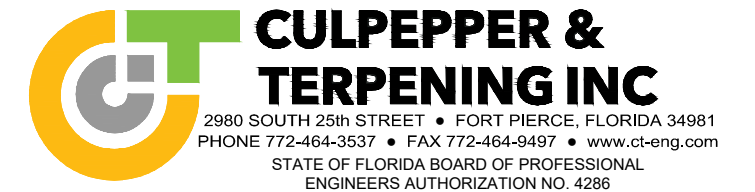
REVISIONS		
KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION



CONSTRUCTION SHOP DRAWINGS
TO BE SUBMITTED TO:

STEFAN K. MATTHES, PE
CULPEPPER & TERPENING, INC.
2980 SOUTH 25TH STREET
FORT PIERCE, FLORIDA 34981

PLANS PREPARED BY:



NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

BID SET
SEPTEMBER 2, 2020

ROADWAY PLANS
ENGINEER OF RECORD: STEFAN K. MATTHES, P.E.
P.E. NO. : 38723

FISCAL YEAR	SHEET NO.
20	1

C&T JOB NO.: 19-023

P:\Proj-2019\19-023 A14 Drainage control structure\Eng\19-023 BASE.dwg Plotted: 9/2/2020 9:48 AM By: KITHIRI UDUGAMA

BID ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
101-1	MOBILIZATION	LS	1
101-1A	PRE AND POST CONSTRUCTION VIDEO	LS	1
102-1	MAINTENANCE OF TRAFFIC (MOT)	LS	1
104-10-3	SEDIMENT BARRIER	LF	260
104-11	FLOATING TURBIDITY BARRIER	LF	250
104-15	SOIL TRACKING DEVICE	EA	2
104-18	INLET PROTECTION	EA	2
110-1	CLEARING & GRUBBING	AC	0.5
110-3	REMOVE EXISTING STRUCTURE	LS	1
400-2-2	CONCRETE CLASS II, ENDWALLS	CY	7.2
400-4-8	CONCRETE CLASS IV, BULKHEAD	CY	38
415-1-8	REINFORCING STEEL - BULKHEAD	LB	1,530
430-174-248	PIPE CULVERT, CAP, ELLIPTICAL, 38" x 60"	LF	88
455-133-3	SHEET PILING STEEL, F&I, PERMANENT	SF	3,968
515-1-2	PIPE GUIDERAIL, ALUMINIUM	LF	69
570-1-2	PERFORMANCE TURF, SOD	SY	1,300
1000	DEWATERING OPERATIONS	LS	1
1000	MAINTENANCE OF DRAINAGE	LS	1

PAY ITEM NOTES

101-1A: INCLUDES CONSTRUCTION STAKING, ASBUILT SURVEY AND CONSTRUCTION VIDEO.
110-1-1: INCLUDES REGULAR EXCAVATION, REMOVAL AND DISPOSAL OF FENCES, DEBRIS, EXISTING DRAINAGE STRUCTURES AND RUBBLE.

GENERAL NOTES

1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).

2. ALL DRAINAGE INFRASTRUCTURE IS TO REMAIN UNLESS OTHERWISE NOTED.

3. ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.

4. STATIONING AND OFFSETS REFER TO THE BASELINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.

5. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

6. ANY PUBLIC LAND CORNER 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 ENGINEER SHOULD NOTIFY THE COUNTY SURVEYOR ROD REED, WITHOUT DELAY, BY TELEPHONE (772) 462-1721.

7. IN REFERENCE TO EXISTING UTILITIES AND UTILITY ADJUSTMENTS:

A. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN ON THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UTILITY OWNER(S) TO RESOLVE UTILITY CONFLICTS AND UTILITY ADJUSTMENTS AS REQUIRED.

8. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (1-800-432-4770) AND UTILITY OWNERS LISTED BELOW IN TWO BUSINESS DAYS (OR 10 DAYS IF ON THE JOB SITE)

COMPANY	CONTACT	TEL. NO.
AT&T	LUKE FOLKERTS	(407) 496-6041
COMCAST CABLE	TONY SPRINGSTEEL	(561) 804-0973
FLORIDA CITY GAS	ELIO BUSTOS	(786) 810-8159
FLORIDA POWER & LIGHT, CO.	ROB MORRIS	(772) 223-4215
PSLUSD	LANEY SOUTHERLY	(772) 873-6400

(NOTE: IF THERE IS A TRAFFIC MONITORING SITE ON THE PROJECT OR WITHIN ONE MILE OF THE CONSTRUCTION, THE TRANSPORTATION STATISTICS OFFICE IN TALLAHASSEE SHALL BE ADDED TO THE LIST OF UTILITY OWNERS.)

9. WORK HOURS ARE FROM 8:00 AM TO 5:00 PM, MONDAY-FRIDAY. WORK WILL NOT BE ALLOWED ON WEEKENDS OR HOLIDAYS OBSERVED BY THE CITY OF PORT ST. LUCIE UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE CITY OF PORT ST. LUCIE. THE CONTRACTOR MUST RECEIVE WRITTEN PERMISSION FROM THE CITY OF PORT ST. LUCIE AND PROVIDE AN APPROVED MOT PLAN BEFORE ANY LANE CLOSURES OCCUR.

10. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH JOHN DUNTON (772) 344-4035.

11. IN REFERENCE TO THE PROPOSED DRAINAGE STRUCTURES & PIPE:

- A. ALL STORM STRUCTURE TOPS SHALL BE ADJUSTED AT TIME OF FINAL PAVEMENT OF CURB CONSTRUCTION. FINAL ADJUSTMENT OF ALL TOPS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- B. OFFSETS TO CURB INLETS ARE TO THE "CENTERLINE" OF THE INLETS.

12. ANY KNOWN OR SUSPECT HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO JOHN DUNTON BY TELEPHONE (772) 344-4035, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECT HAZARDOUS MATERIAL FROM FURTHER ACCESS. THE PROJECT ENGINEER IS TO NOTIFY THE PROPER REGULATORY AUTHORITY OF THE DISCOVERY. THE PROPER REGULATORY AUTHORITY WILL ADVISE/DIRECT THE PROJECT ENGINEER IN THE INVESTIGATION, IDENTIFICATION AND/OR REMOVAL/REMEDIATION OF THE MATERIAL IN QUESTION AS NEEDED. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF SUSPECTED CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE PROJECT ENGINEER, THE REGULATORY AUTHORITY WILL ADVISE THE PROJECT ENGINEER IN THESE MATTERS.

13. 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 PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO JOHN DUNTON OF THE CITY OF PORT ST. LUCIE ENGINEERING DIVISION OFFICE BY TELEPHONE (772) 344-4035. THE CONTRACTOR SHALL PROVIDE JOHN DUNTON WITH A COPY OF THE SAFETY DATA SHEET (SDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH JOHN DUNTON PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN SDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF AND MAKING THE REPAIRS TO EXISTING PAVEMENT, SIDEWALK, PIPES, CONDUITS, CURBS, CABLES, MAILBOXES, ETC. WHETHER OR NOT SHOWN ON THE PLANS AND DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY AT NO ADDITIONAL COST TO THE OWNER OR CITY OF PORT ST. LUCIE. CONTRACTOR SHALL REPORT ANY DAMAGE TO SIDEWALK, DRIVEWAY, MAILBOXES, ETC. TO ENGINEER AND CITY OF PORT ST. LUCIE, PRIOR TO BEGINNING WORK IN ANY AREA.

15. ALL PIPELINE TRENCHES SHALL BE BACKFILLED DURING ALL PERIODS WHEN CONSTRUCTION IS NOT IN PROGRESS.

16. SOD REPLACED BY THE CONTRACTOR MUST BE THE SAME TYPE AS THAT WAS REMOVED, UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL SOD SHALL MATCH EXISTING. THE SOD STRIPS SHALL BE LAID IN A STAGGERED PATTERN WITH SNUG EVEN JOINTS. ALL JOINTS SHALL BE BUTTED TIGHT TO PREVENT VOIDS.

17. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLAN DIMENSIONS AND SITE CONDITIONS AND IS TO NOTIFY THE ENGINEER AND THE CITY OF PORT ST. LUCIE OF ANY DISCREPANCIES BETWEEN THE SITE CONDITIONS AND INFORMATION SHOWN ON THE PLANS PRIOR TO COMMENCING WORK.

STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

R E V I S I O N S						C&T JOB NO. 19-023
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DESIGNED BY SKM12-20-19 KU 5-15-20
						CHECKED BY SKM
						CHECKED DATE 5-15-20.
						ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723



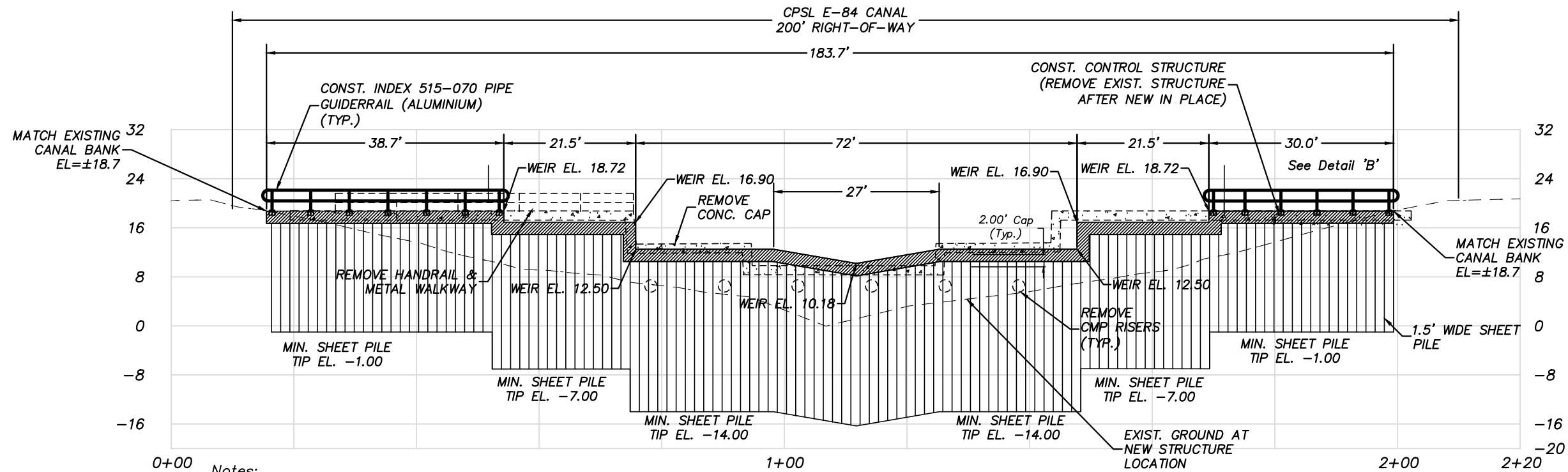
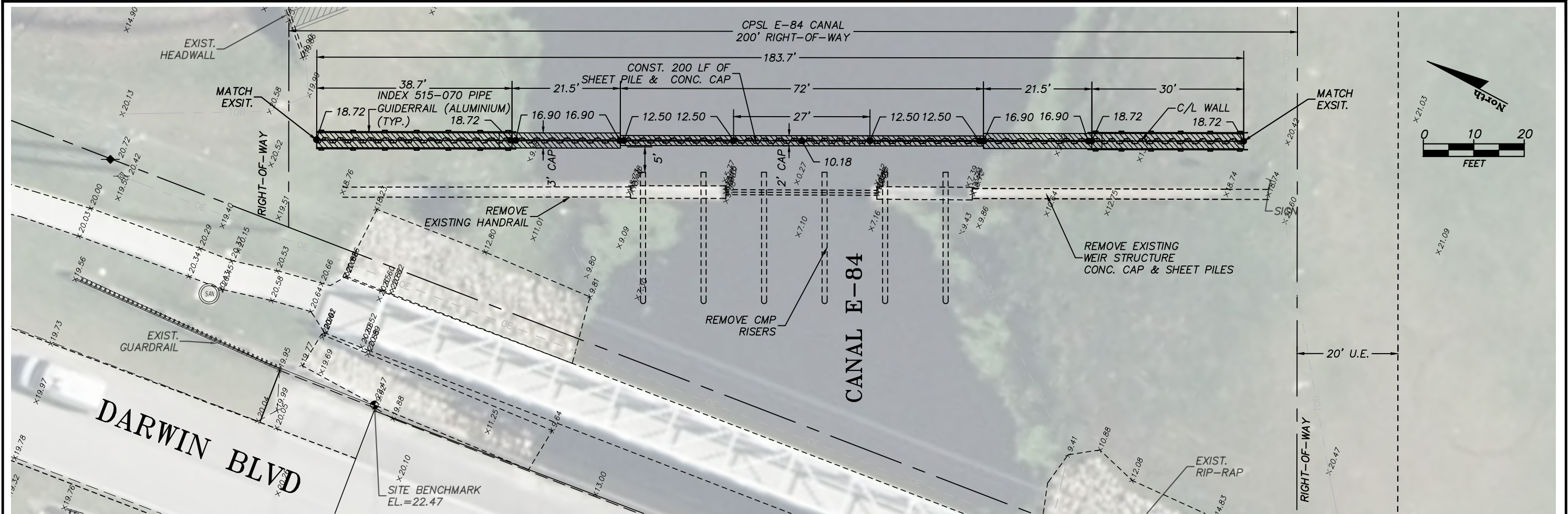
CULPEPPER & TERPENING INC
2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981
PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com
STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
A-14 DRAINAGE CONTROL STRUCTURE	-----"-----"

GENERAL NOTES & PAY ITEMS

SHEET NO.

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- Notes:
1. For Steel Sheet Pile Wall Data Table, see sheet S-2.
 2. For Section A-A, B-B and Details C & D, see sheet S-3.
 3. For Pipe Guiderail Support Bracket Details, see sheet S-4.

STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CHECKED BY SKM	CHECKED DATE 5-15-20
ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723	



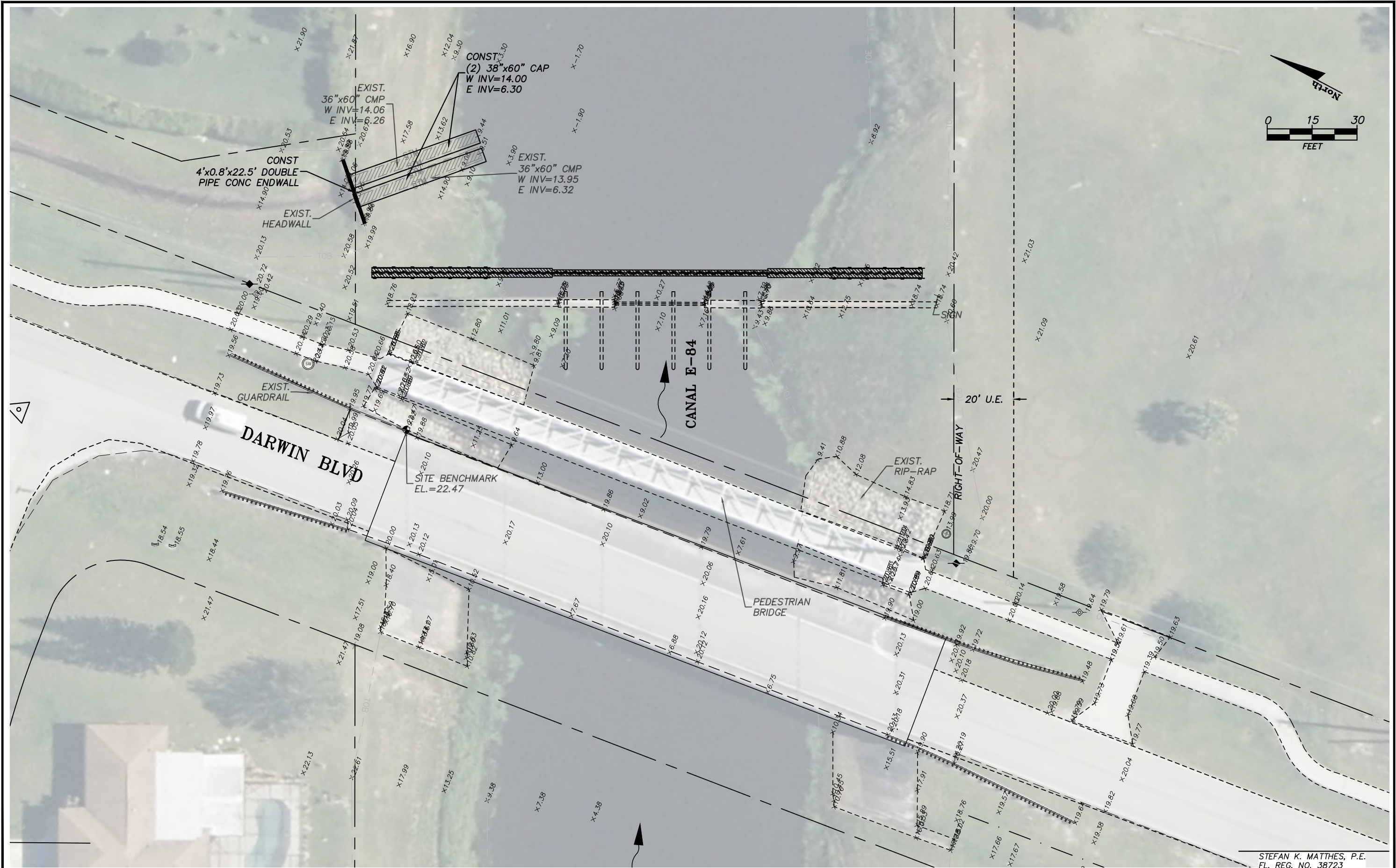
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CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
A-14 DRAINAGE CONTROL STRUCTURE	-----

STRUCTURE REPLACEMENT PLAN	

SHEET NO.
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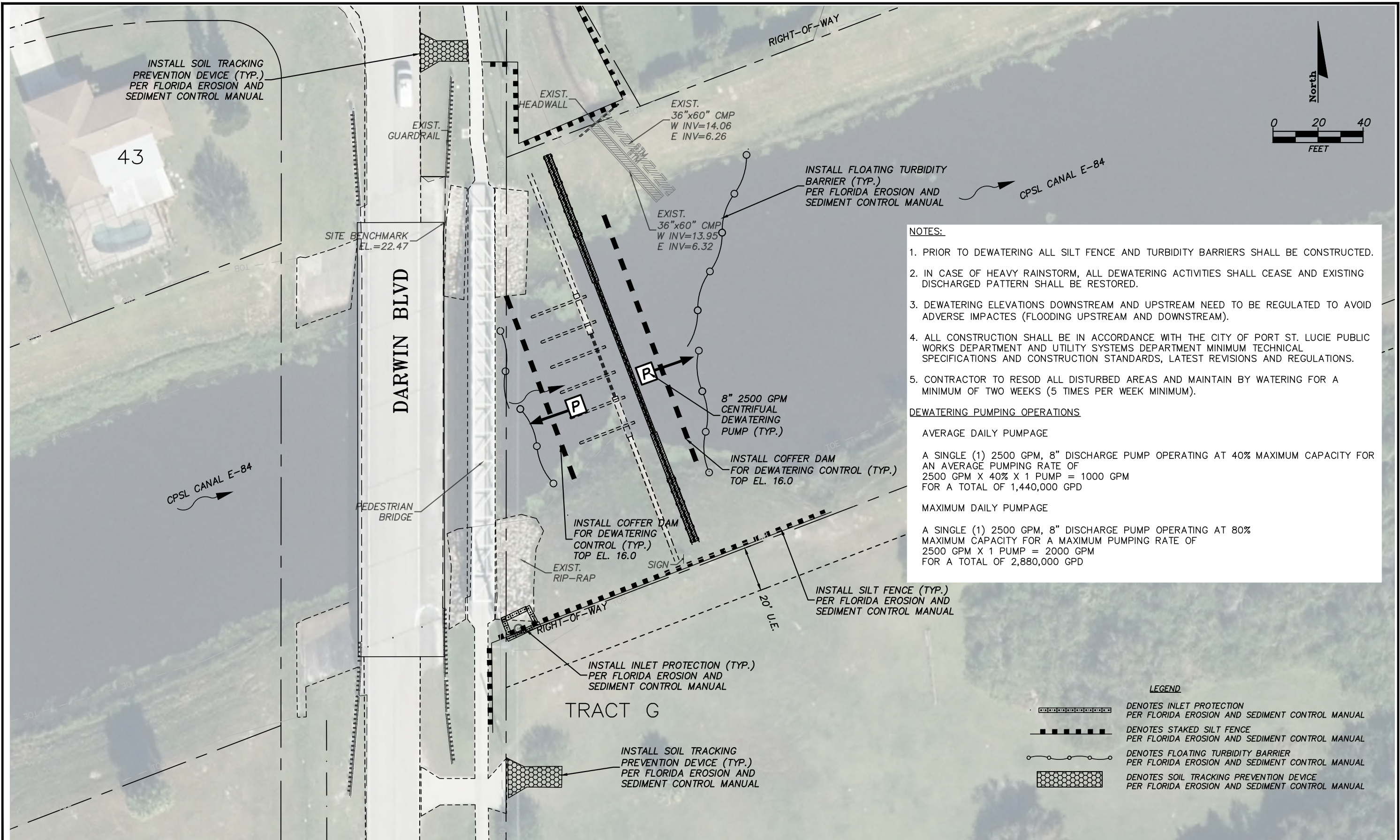
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STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

R E V I S I O N S						C&T JOB NO. 19-023		 CULPEPPER & TERPENING INC 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981 PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286	CITY OF PORT ST. LUCIE		DRAINAGE IMPROVEMENT PLAN		SHEET NO.		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DESIGNED BY	DRAWN BY		PROJECT NAME	FINANCIAL PROJECT ID					
						SKM12-20-19	KU		5-15-20						
						CHECKED BY	CHECKED DATE		SKM	5-15-20.					
						ENGINEER OF RECORD:			STEFAN K. MATTHES, P.E. NO. 38723						
A-14 DRAINAGE CONTROL STRUCTURE													-----		5 of 8

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NOTES:

1. PRIOR TO DEWATERING ALL SILT FENCE AND TURBIDITY BARRIERS SHALL BE CONSTRUCTED.
2. IN CASE OF HEAVY RAINSTORM, ALL DEWATERING ACTIVITIES SHALL CEASE AND EXISTING DISCHARGED PATTERN SHALL BE RESTORED.
3. DEWATERING ELEVATIONS DOWNSTREAM AND UPSTREAM NEED TO BE REGULATED TO AVOID ADVERSE IMPACTS (FLOODING UPSTREAM AND DOWNSTREAM).
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PORT ST. LUCIE PUBLIC WORKS DEPARTMENT AND UTILITY SYSTEMS DEPARTMENT MINIMUM TECHNICAL SPECIFICATIONS AND CONSTRUCTION STANDARDS, LATEST REVISIONS AND REGULATIONS.
5. CONTRACTOR TO RESOD ALL DISTURBED AREAS AND MAINTAIN BY WATERING FOR A MINIMUM OF TWO WEEKS (5 TIMES PER WEEK MINIMUM).

DEWATERING PUMPING OPERATIONS

AVERAGE DAILY PUMPAGE

A SINGLE (1) 2500 GPM, 8" DISCHARGE PUMP OPERATING AT 40% MAXIMUM CAPACITY FOR AN AVERAGE PUMPING RATE OF
2500 GPM X 40% X 1 PUMP = 1000 GPM
FOR A TOTAL OF 1,440,000 GPD

MAXIMUM DAILY PUMPAGE

A SINGLE (1) 2500 GPM, 8" DISCHARGE PUMP OPERATING AT 80% MAXIMUM CAPACITY FOR A MAXIMUM PUMPING RATE OF
2500 GPM X 1 PUMP = 2000 GPM
FOR A TOTAL OF 2,880,000 GPD

LEGEND	
	DENOTES INLET PROTECTION PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
	DENOTES STAKED SILT FENCE PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
	DENOTES FLOATING TURBIDITY BARRIER PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL
	DENOTES SOIL TRACKING PREVENTION DEVICE PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL

STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

REVISIONS					
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SKM12-20-19 KU	5-15-20
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ENGINEER OF RECORD:	
STEFAN K. MATTHES, P.E. NO. 38723	



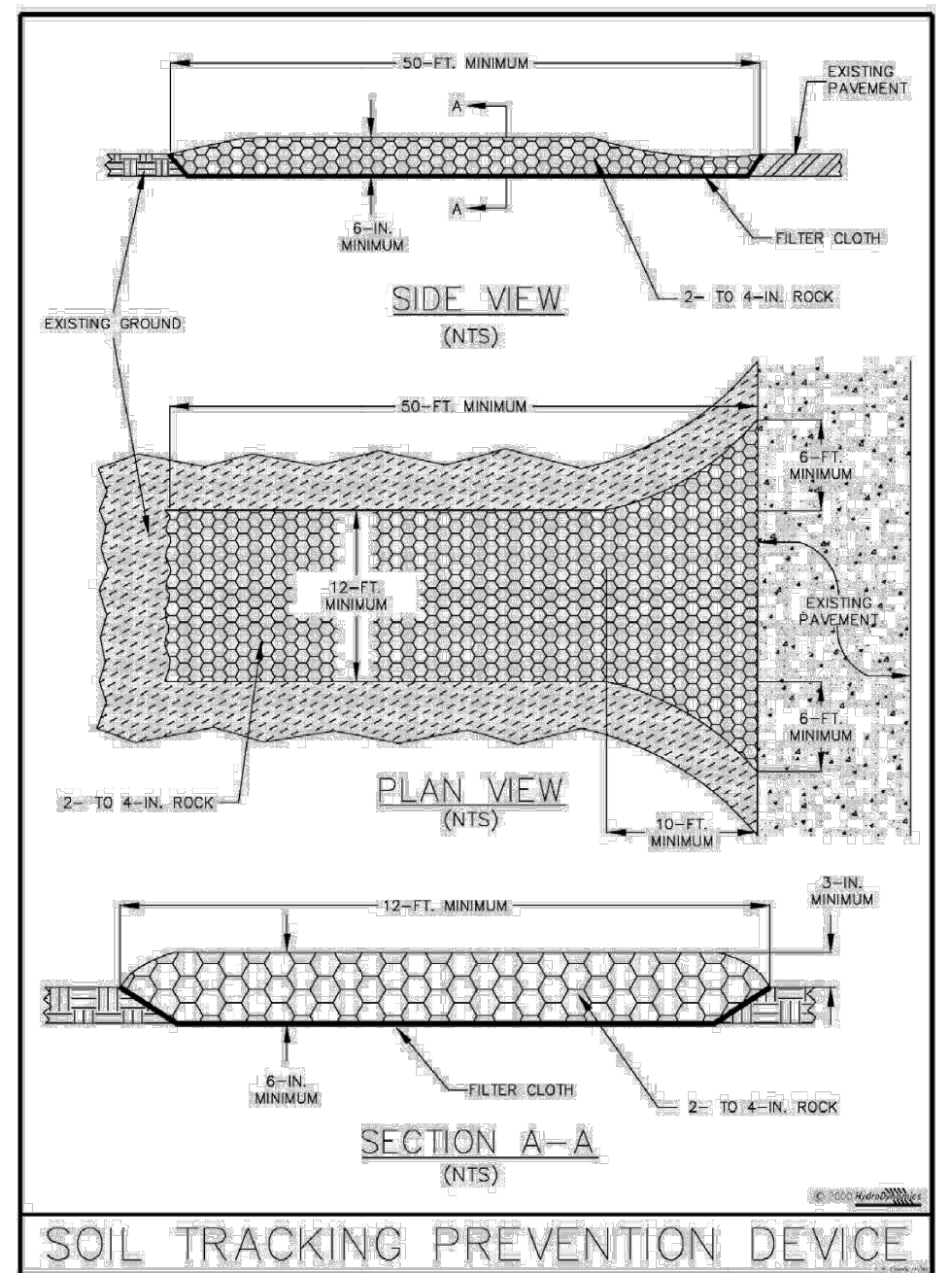
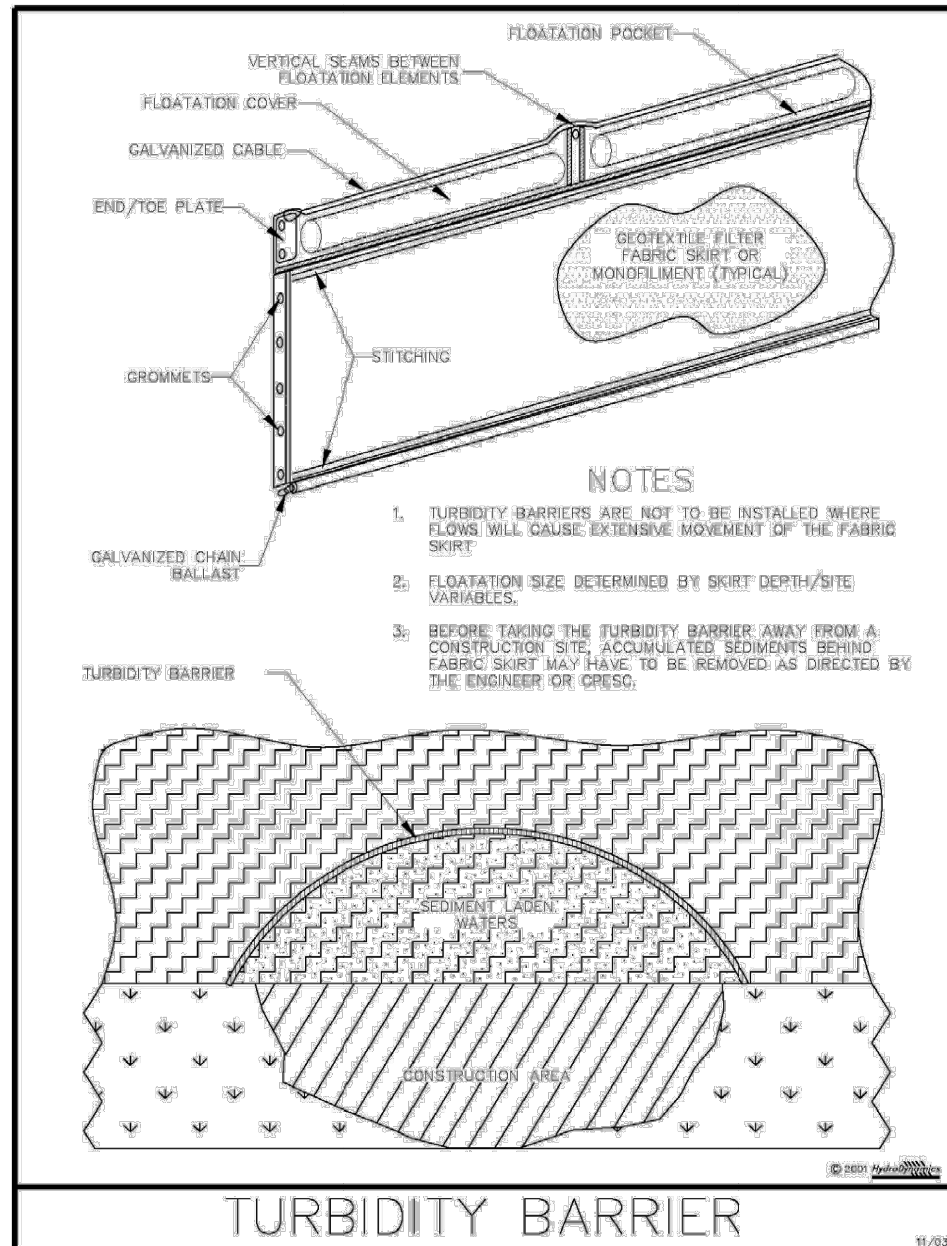
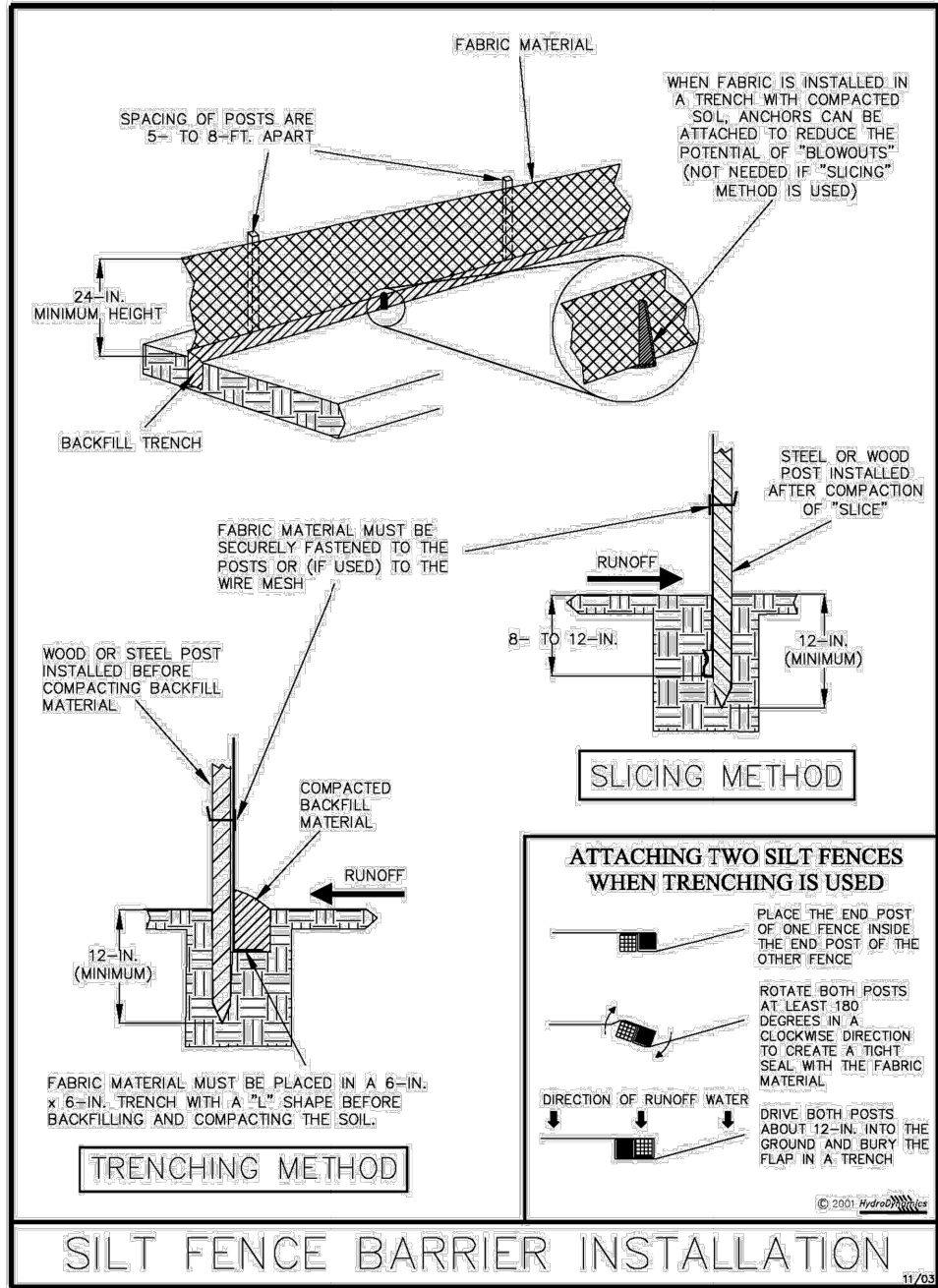
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CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
A-14 DRAINAGE CONTROL STRUCTURE	-----

DEWATERING & SWPP PLAN	

SHEET NO.
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STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

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SKM12-20-19	KU 5-15-20
CHECKED BY	CHECKED DATE
SKM	5-15-20
ENGINEER OF RECORD:	
STEFAN K. MATTHES, P.E. NO. 38723	



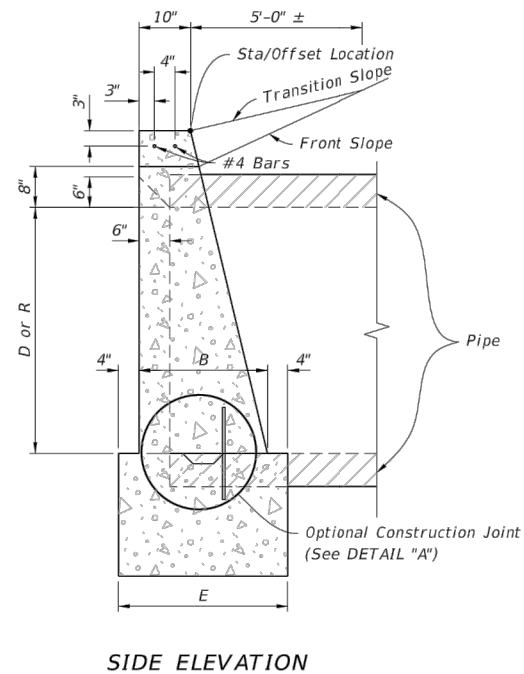
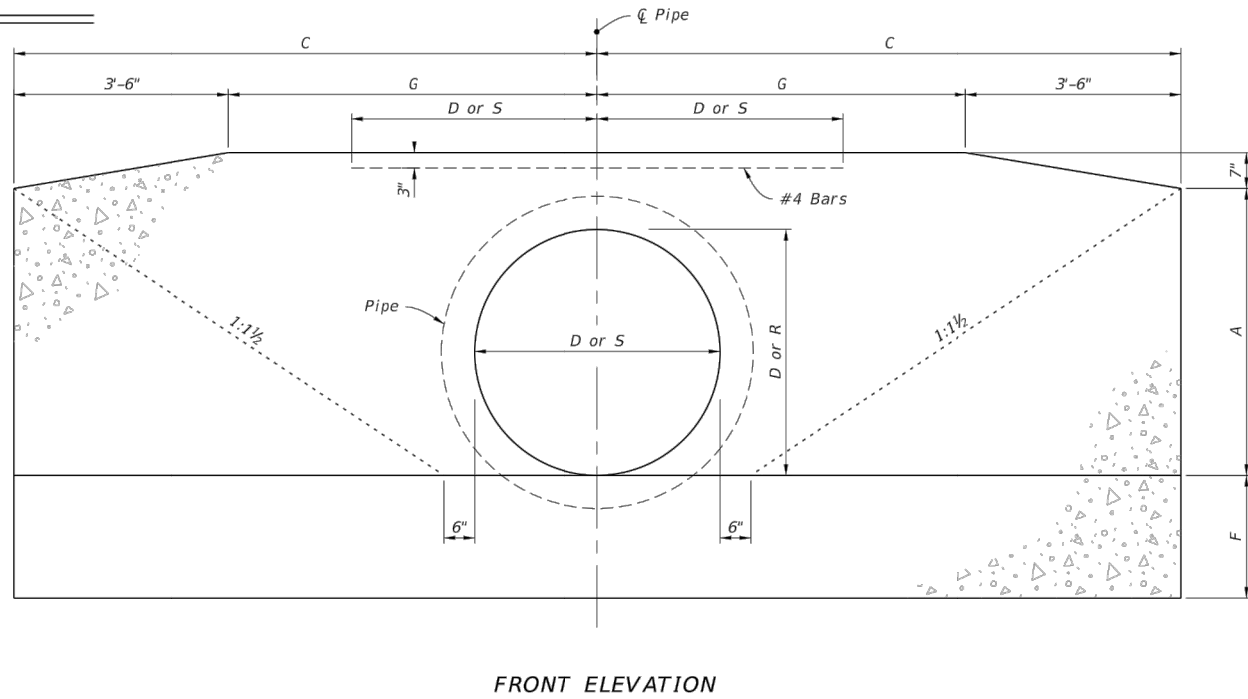
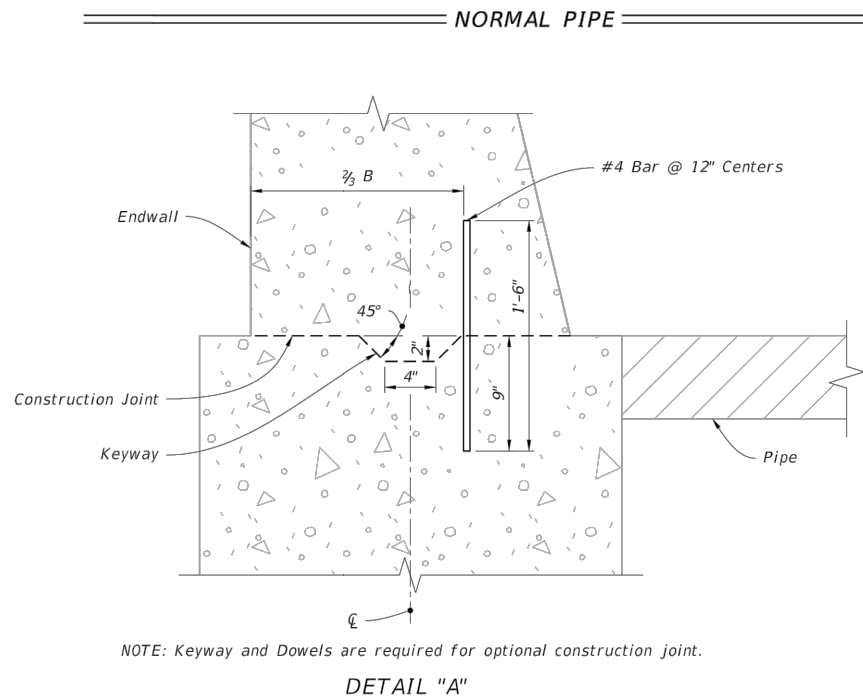
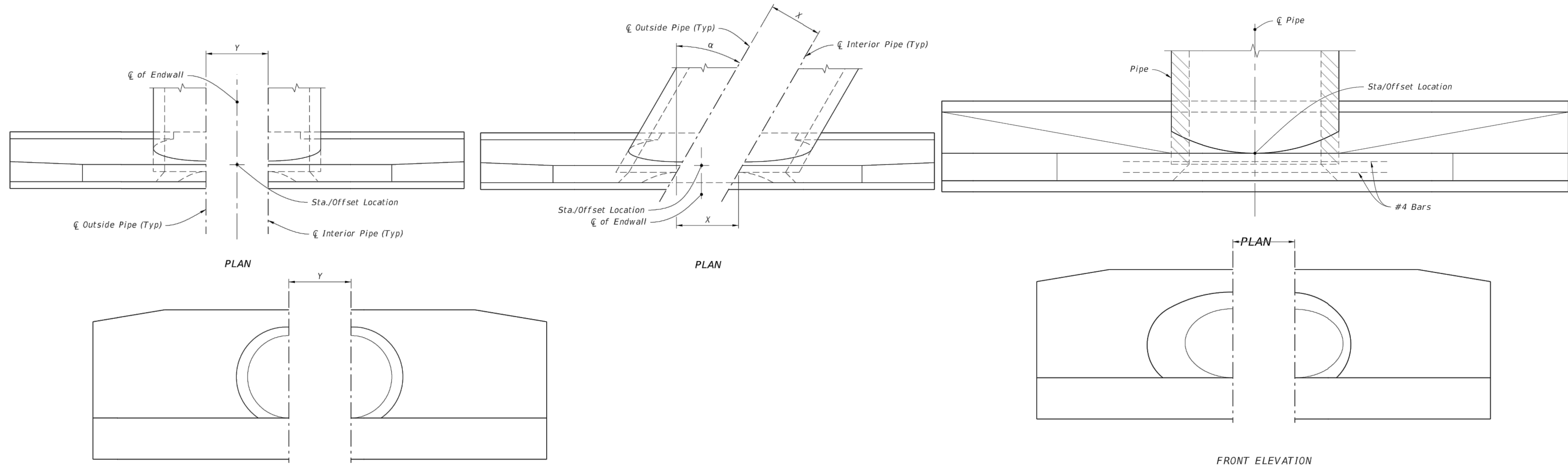
CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
A-14 DRAINAGE CONTROL STRUCTURE	-----

SWPP DETAILS

SHEET NO.

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LAST REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE	INDEX
11/01/19					430-030

STEFAN K. MATTHES, P.E.
FL. REG. NO. 38723

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

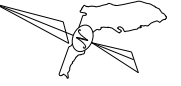
C&T JOB NO. 19-023	
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SKM12-20-19	KU 5-15-20
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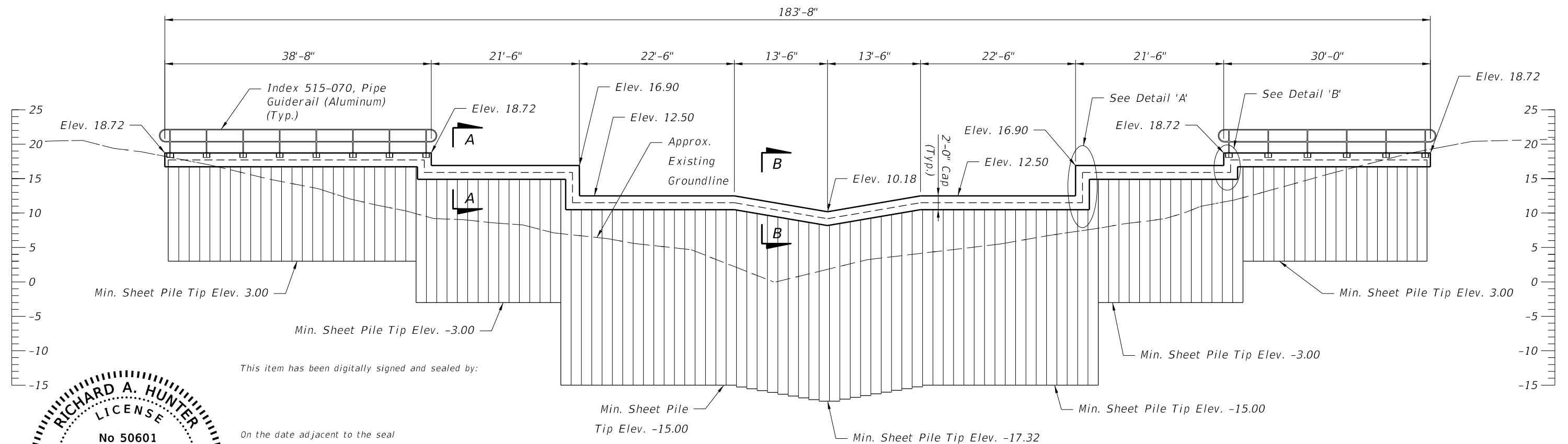
CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
A-14 DRAINAGE CONTROL STRUCTURE	-----

CONCRETE ENDWALL DETAILS	

SHEET NO.
8 of 8



PLAN VIEW



This item has been digitally signed and sealed by:

On the date adjacent to the seal

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC
2818 Cypress Ridge Blvd., Suite 200
Wesley Chapel, Florida 33544
Phone: (813) 435-2600 Fax: (813) 435-2601
Certificate of Authorization No. 9302
Richard A. Hunter, P.E. NO. 50601

The above named Professional Engineer shall be responsible for the following sheets in accordance with Rule 61G15-23.004, F.A.C.: S-1 to S-4.

Notes:

- Notes:
1. For Steel Sheet Pile Wall Data Table, see sheet S-2.
2. For Section A-A, B-B and Details C & D, see sheet S-3.
3. For Pipe Guiderail Support Bracket Details, see sheet S-4.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: DP	CITY OF PORT ST. LUCIE			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: RH				SHEET PILE WALL LAYOUT		
							DESIGNED BY: SS	ROAD NO.	COUNTY	ACE PROJECT NUMBER	PROJECT NAME:	SHEET NO.	
							CHECKED BY: RH	N/A	ST. LUCIE	5209214	A-14 DRAINAGE CONTROL STRUCTURE	S-1	

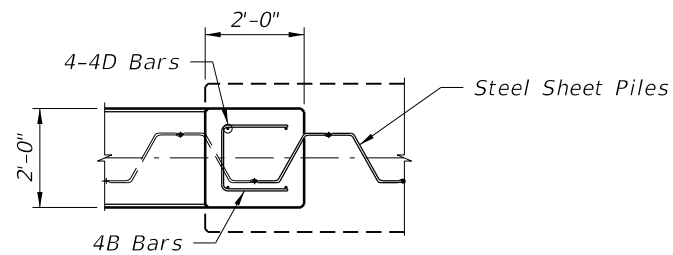
STEEL SHEET PILE WALL, CANTILEVER DATA TABLE										
CONSTRUCTION INFORMATION						DESIGN PARAMETERS				
WALL LOCATION	MINIMUM * SECTION MODULUS (in³/ft)		MINIMUM REQUIRED MOMENT OF INERTIA (in⁴/ft)	MINIMUM WALL TIP ELEVATION (ft)	WALL TOP ELEV. (ft)	SOIL ELEVATION		WATER ELEVATION		DESIGN HORIZONTAL STREAM LOAD (psf)
	A-328 (ksi) fy=39 ksi	A-572 (ksi) fy=50 ksi				FRONT OF WALL (ft)	BACK OF WALL (ft)	FRONT OF WALL (ft)	BACK OF WALL (ft)	
0+15.56 to 0+54.23	5	4	2	3.00	18.72	11.84	11.84	18.72	18.72	36.768
0+54.23 to 0+75.73	7	5	4	-3.00	16.90	8.95	8.95	16.90	16.90	36.768
0+75.73 to 1+47.73	29	23	18	**	***	0.13	0.13	11.65	11.65	36.768
1+47.73 to 1+69.23	7	5	4	-3.00	16.90	8.95	8.95	16.90	16.90	36.768
1+69.23 to 1+99.23	5	4	2	3.00	18.72	11.84	11.84	18.72	18.72	36.768

* Minimum Section Modulus is based on Hot Rolled Sections. For Cold Rolled Sections, increase Minimum Section Modulus by 20%.
** Varies from 12.50 to 10.18 (see Sheet S-1)
*** Varies from -15.00 to -17.32 (see Sheet S-1)

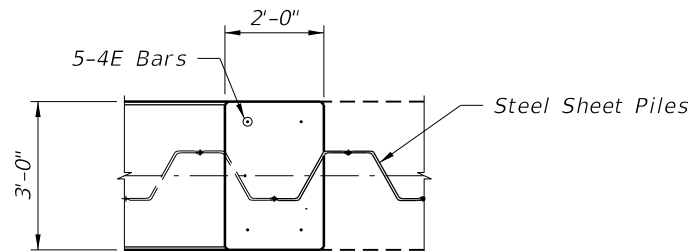
NOTES:

1. The Design Parameters indicated in this table were used in the sheet pile wall analysis. If the Contractor plans operations, which exceed the design parameters shown above, the Contractor's Specialty Engineer will redesign the wall to resist construction loads at a maximum deflection of 1.5 inches.

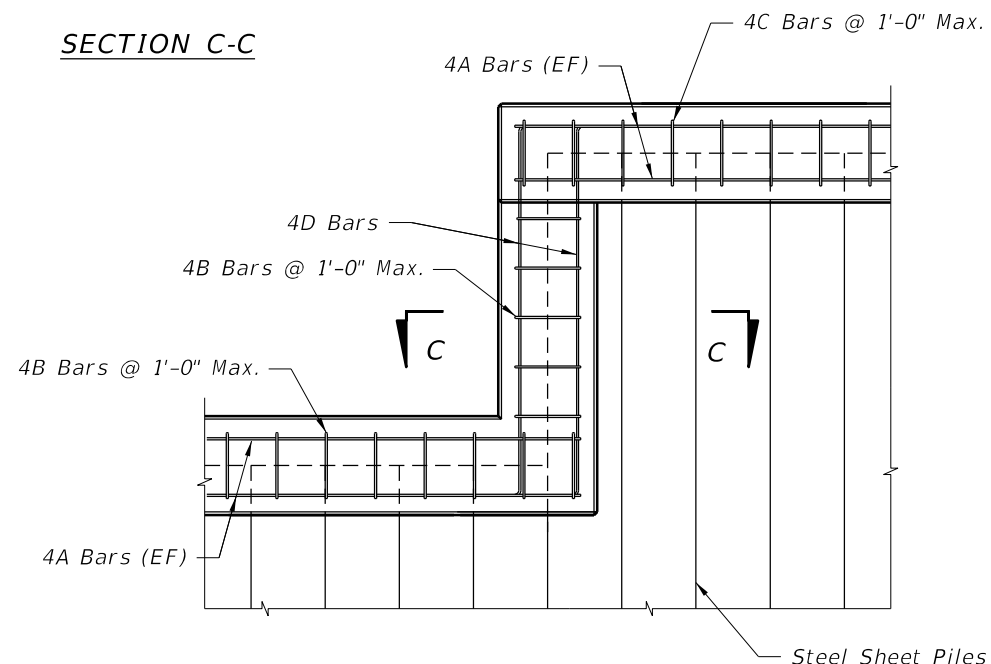
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: <i>DP</i> CHECKED BY: <i>RH</i> DESIGNED BY: <i>SS</i> CHECKED BY: <i>RH</i>		CITY OF PORT ST. LUCIE			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				ROAD NO.	COUNTY	ACE PROJECT NUMBER	STEEL SHEET PILE WALL DATA TABLE		
												PROJECT NAME:		SHEET NO.
									N/A	ST. LUCIE	5209214	A-14 DRAINAGE CONTROL STRUCTURE		S - 2



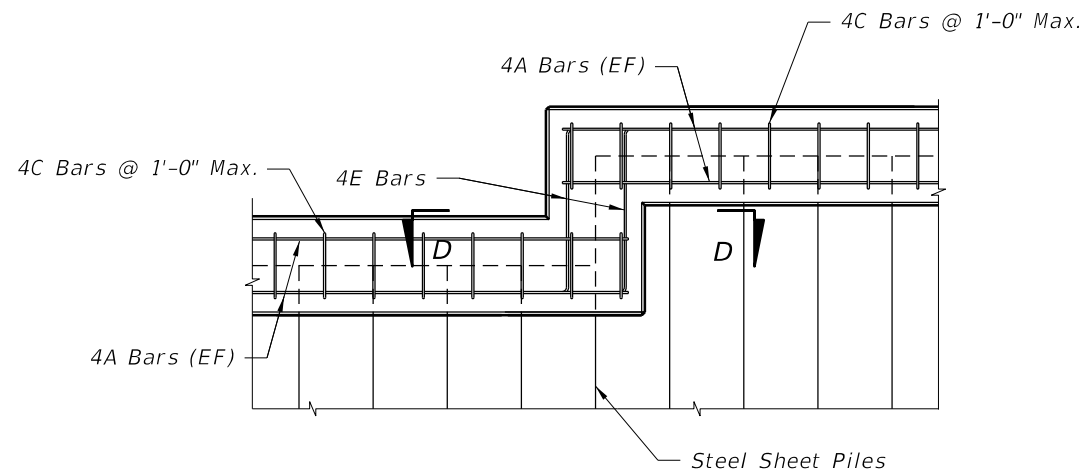
SECTION C-C



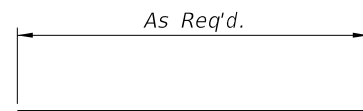
SECTION D-D



DETAIL 'A'



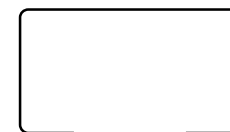
DETAIL 'B'



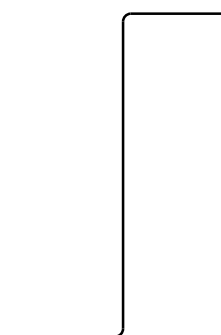
BARS 4A



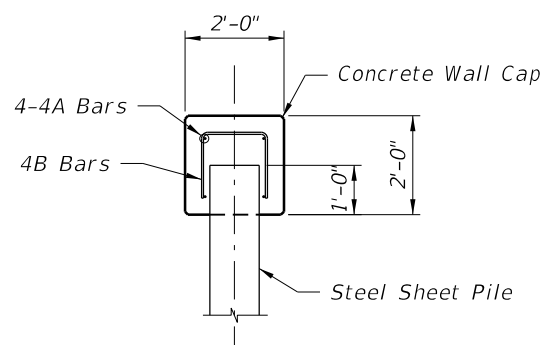
BARS 4B



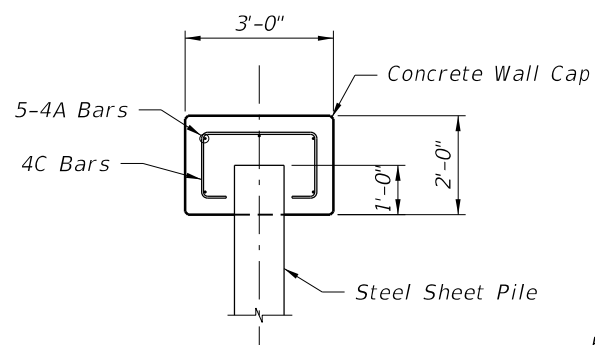
BARS 4C



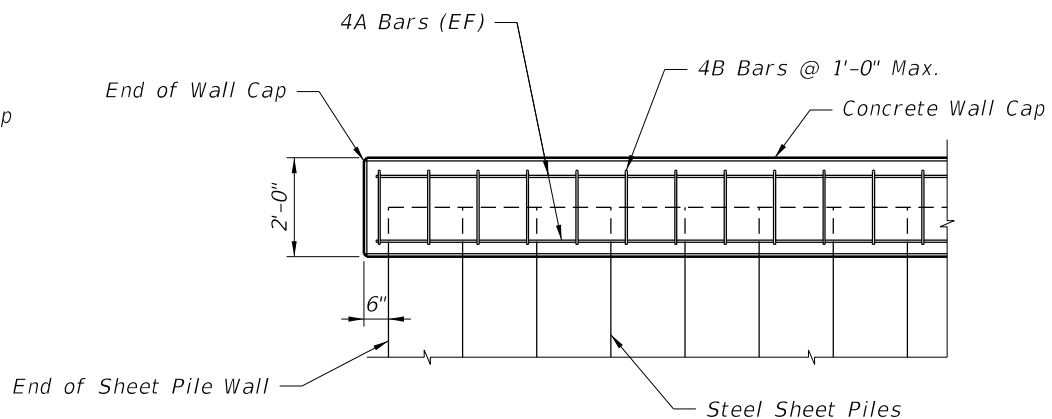
BARS 4D & 4E



SECTION A-A



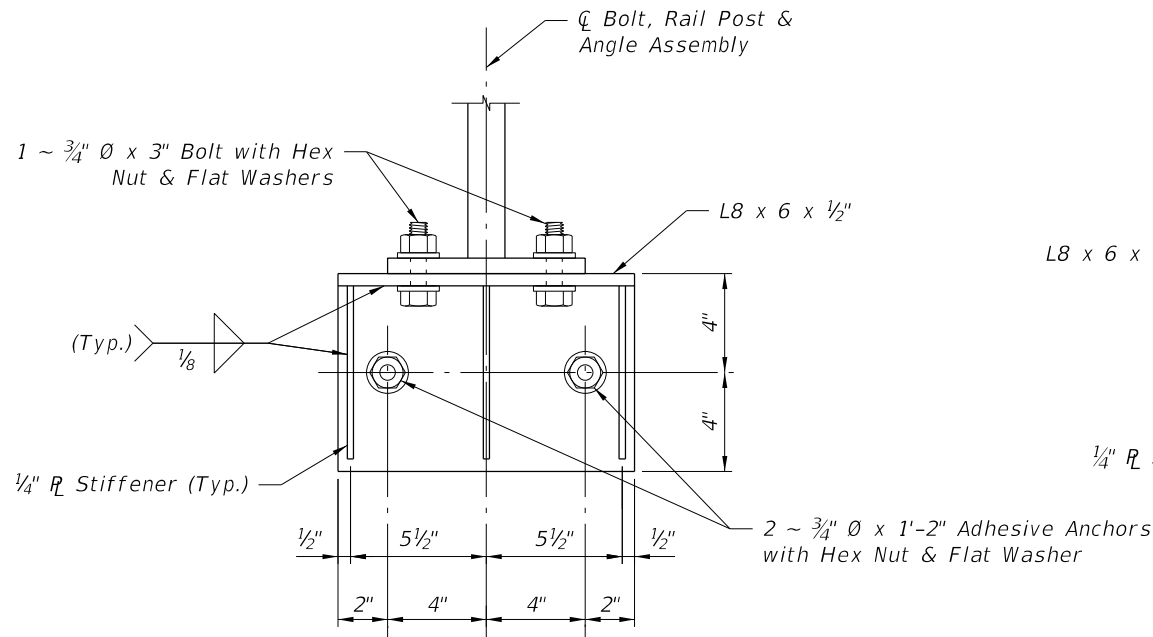
SECTION B-B



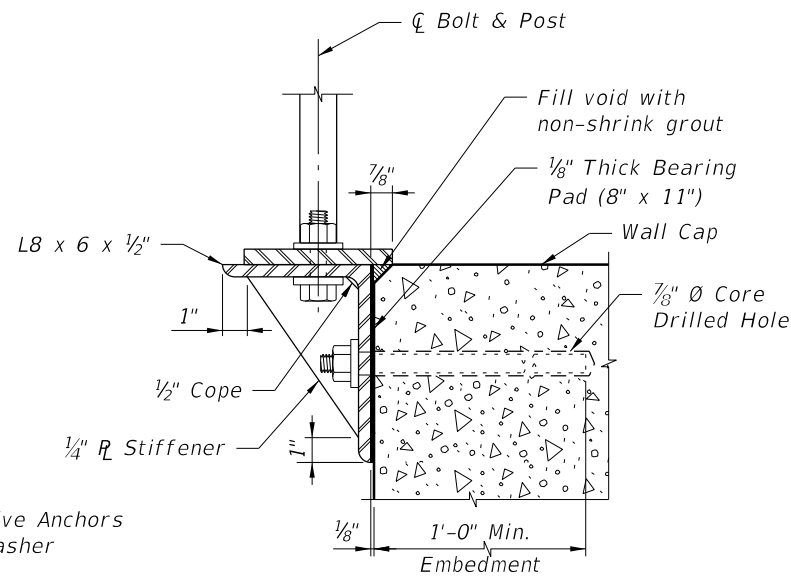
TYPICAL WALL CAP ELEVATION

- NOTES:**
1. Minimum Reinforcing Splice Length = 3'-0".
 2. All exposed corners and edges of concrete are to be chamfered $\frac{3}{4}$ ".
 3. Minimum Cover = 3" unless otherwise noted.

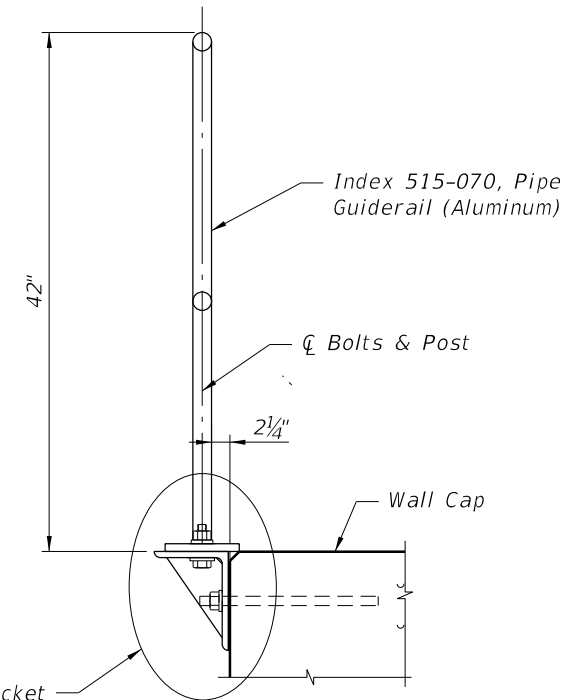
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601			CITY OF PORT ST. LUCIE ROAD NO. COUNTY ACE PROJECT NUMBER N/A ST. LUCIE 5209214			SHEET TITLE: SHEET PILE WALL DETAILS A-14 DRAINAGE CONTROL STRUCTURE		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION									
														SHEET NO.
														S - 3



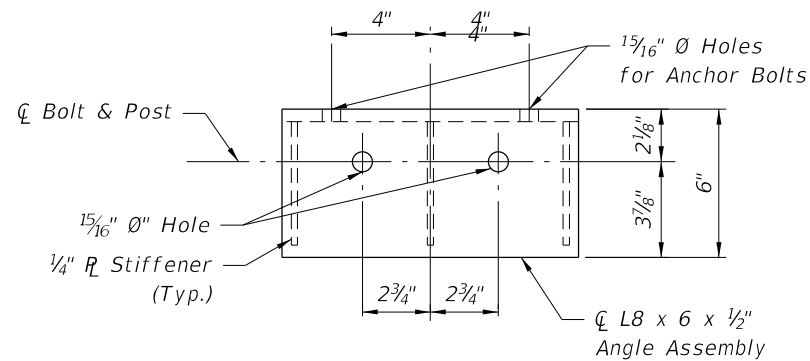
ELEVATION VIEW



TYPICAL SECTION



**TYPICAL SECTION THROUGH
SIDE MOUNTED RAILING**



PLAN VIEW

SIDE-MOUNTED SUPPORT BRACKET DETAILS

NOTES:

- Shop Drawings are required.
- Materials:
 - Galvanized Steel Fasteners: Hex Head Bolt ASTM A307, Hex Nuts ASTM A563, Washers ASTM F436.
 - Aluminum: Support Bracket (Scheme 3) L-shape and Stiffener Plate: ASTM B209, Alloy 6061-T6. Welding shall be in accordance with the American Society of Structural Welding Code (Aluminum) ANSI/AWS D1.2 (current edition). Nondestructive testing of welds is not required.
 - Bearing Pads: Provide 1/8 inch thick Plain, Fabric Reinforced or Fabric Laminated pads meeting the requirements of Specification Section 962 for Ancillary Structures.
- Payment: Support Bracket is incidental to the cost of railing.

REVISIONS						DRAWN BY: DP CHECKED BY: RH DESIGNED BY: SS CHECKED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE: PIPE RAIL SUPPORT DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	5209214	PROJECT NAME: A-14 DRAINAGE CONTROL STRUCTURE	SHEET NO. S - 4

AMERICAN CONSULTING ENGINEERS
OF FLORIDA, LLC
2818 Cypress Ridge Blvd, Suite 200
Wesley Chapel, Florida 33544
Phone: (813) 435-2600 Fax: (813) 435-2601
Certificate of Authorization No. 9302
Richard A. Hunter, P.E. No. 50601