

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

UPPER ST. JOHNS RIVER BASIN

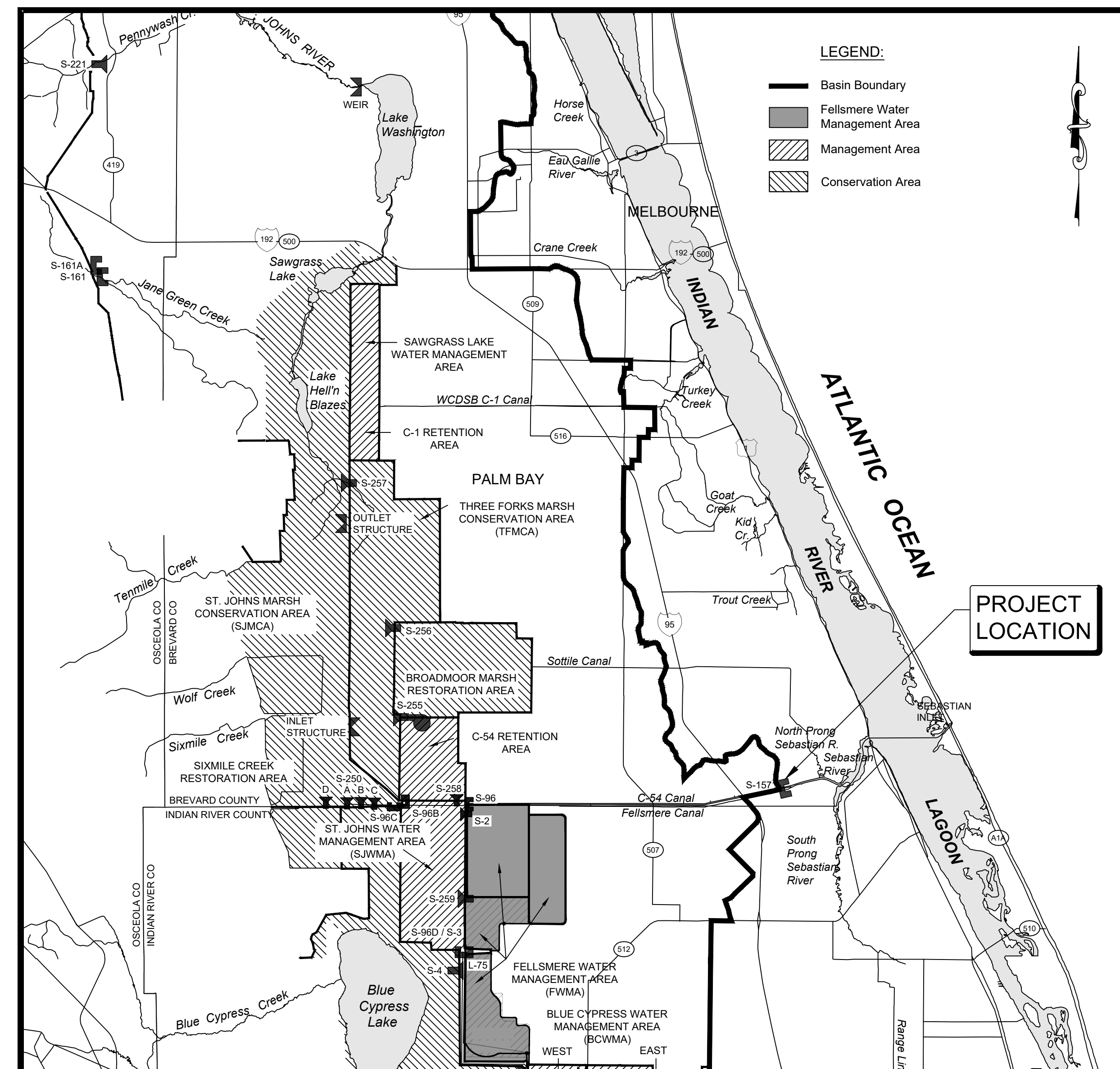
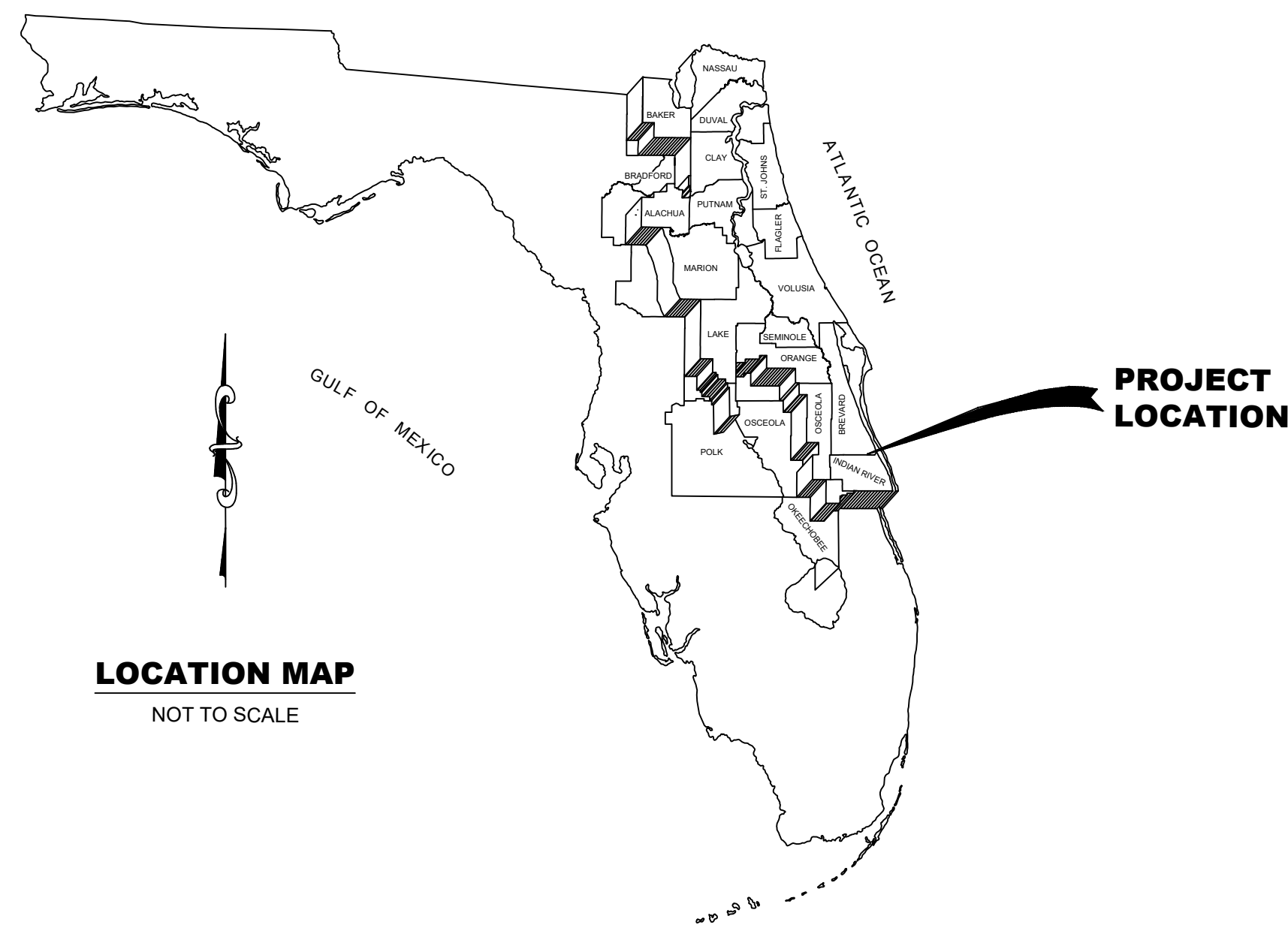
STRUCTURE 157 REHABILITATION

BREVARD COUNTY, FLORIDA



NGVD 1929

ALL ELEVATIONS DEPICTED HEREIN REFERENCE NGVD 1929 UNLESS OTHERWISE NOTED. THE CONVERSION FACTOR TO NAVD 1988 IS -1.47.



VICINITY MAP

SHEET NO.

INDEX OF PLANS

SHEET TITLE

C1	COVER SHEET & VICINITY MAP
C2	SITE PLAN
C3	SITE PLAN (WITH AERIAL)
C4	DOWNSTREAM GRADING PLAN
C5	CANAL SECTIONS AND DOWNSTREAM GRADING SECTION
C6	EROSION & SEDIMENT CONTROL
C7	ALTERNATE 1 - BYPASS FLOW 24-INCH MOBILE PUMP
C8	ALTERNATE 2 - BYPASS FLOW 24-INCH PIPE SIPHON
S1	NOTE SPECIFICATIONS
S2	CONCRETE REPAIR - STRUCTURE PLAN
S3	CONCRETE REPAIR - NORTH WALL INSIDE
S4	CONCRETE REPAIR - SOUTH WALL INSIDE
S5	CONCRETE REPAIR - NORTH SIDE AND SOUTH SIDE CENTER PIERS
S6	CONCRETE REPAIR - NORTH AND SOUTH WALL OUTSIDE
S7	CONCRETE REPAIR - UPSTREAM ELEVATION
S8	CONCRETE REPAIR - DOWNSTREAM ELEVATION
S9	MISCELLANEOUS DETAILS
S10	SHEET PILING REPAIR - WINGWALLS ELEVATION AND DETAILS
S11	UPSTREAM SAFETY BARRIER
S12	DOWNSTREAM SAFETY BARRIER
S13	TYPE A AND TYPE B PILE GROUP DETAILS
S14	SIGN DETAILS
S15	NEW STAFF GAUGES & GATE POSITION GUIDES
S16	FENCE AND HANDRAIL REPLACEMENT PLAN
S17	NEW NORTH WALL FENCE AND HANDRAILS
S18	NEW SOUTH WALL FENCE AND HANDRAILS
S19	NEW UPSTREAM FENCE ELEVATION
S20	NEW DOWNSTREAM FENCE ELEVATION
S21	TYPE 1, TYPE 2, AND TYPE 3 HANDRAILS
S22	TYPE 4, TYPE 5, AND TYPE 6 HANDRAILS
S23	NEW FENCE DETAILS
S24	GATE REHABILITATION ELEVATION, SECTIONS, DETAILS & NOTES
S25	EXISTING CABLE DRUM HOIST

ENGINEER'S NOTES:

- These drawings are prepared for the sole and exclusive use of the St. Johns River Water Management District and shall not be relied upon by any other entity or individual.
- Reproductions of these drawings are "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED ENGINEER."

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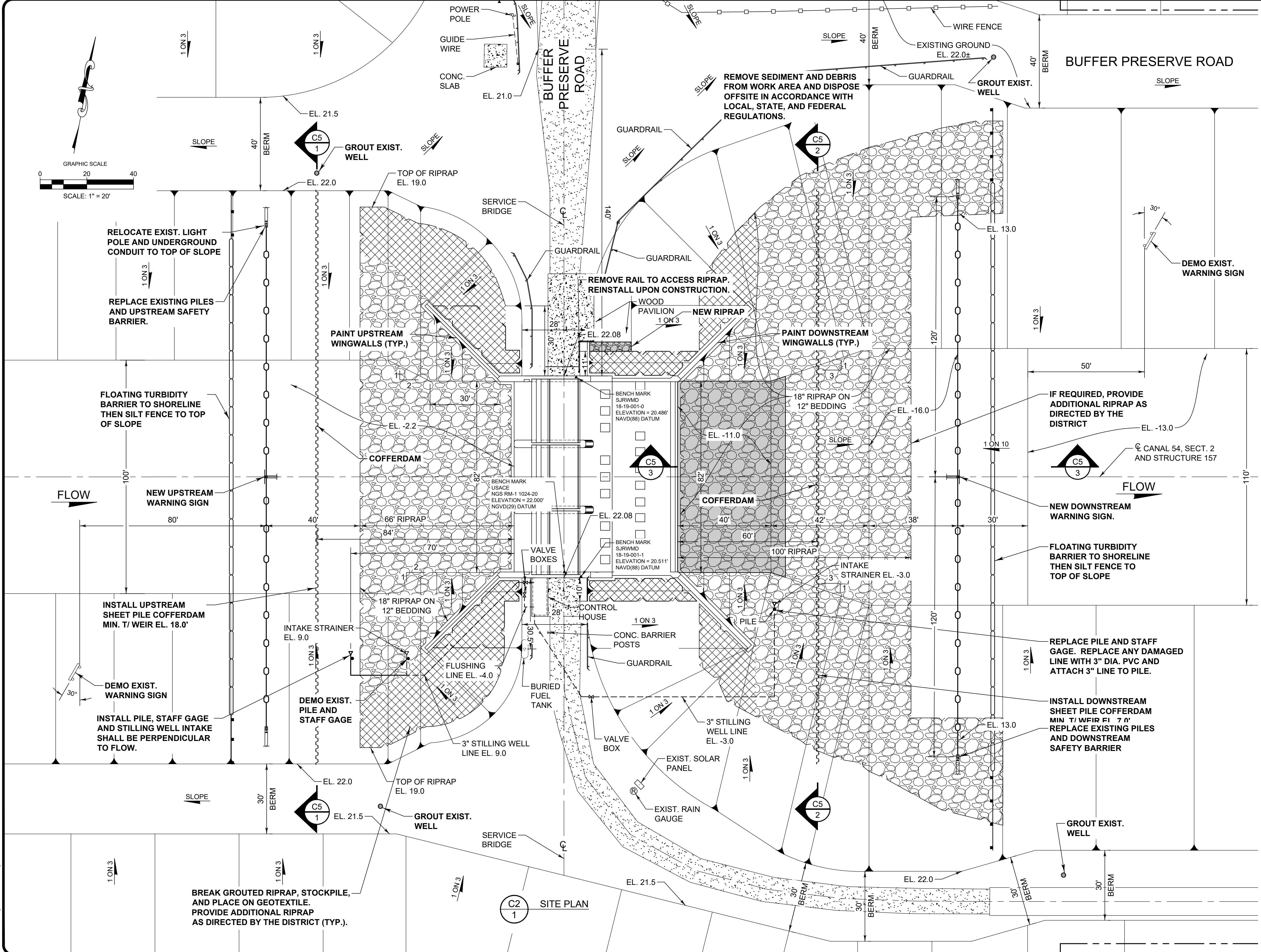


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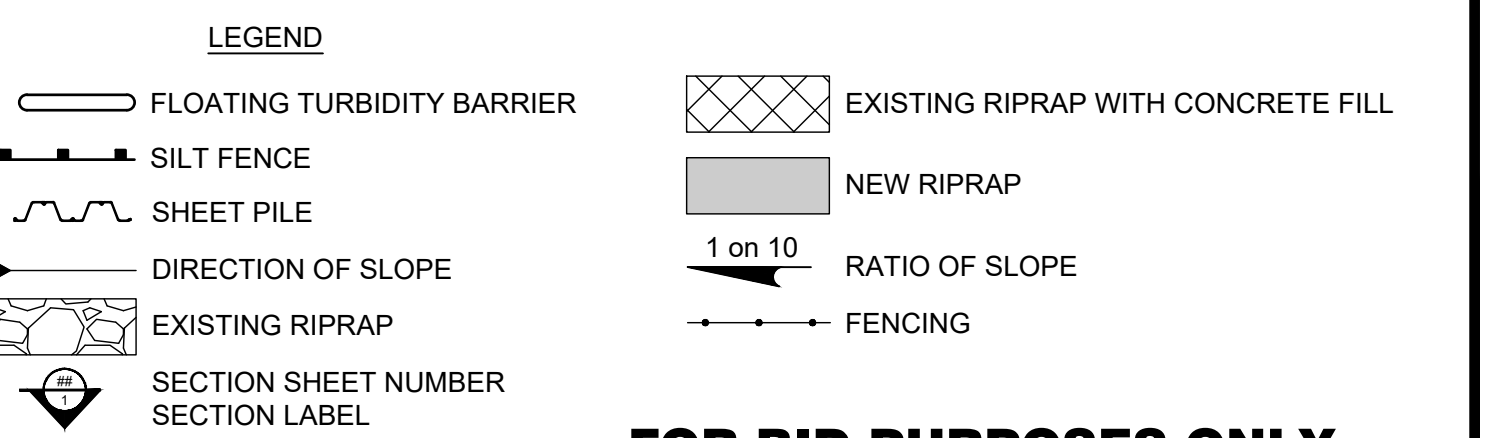
CERTIFICATION:	DRAWING FILENAME:
WILLIAM R. COTE	S-157 PLAN.dwg
P.E. NUMBER: 53746	SHEET:
DATE: APRIL 26, 2023	C1



- SUMMARY OF WORK / CONSTRUCTION SEQUENCE:**
- MOBILIZE LABOR AND EQUIPMENT TO THE SITE. ESTABLISH ON-SITE OFFICE AND STORAGE SPACES.
 - INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES.
 - INSTALL COFFERDAMS UPSTREAM AND DOWNSTREAM OF STRUCTURE.
 - PUMP WATER FROM THE WORK AREA AND PROVIDE CONTINUOUS PUMPING TO KEEP THE WORK AREA Dewatered. PUMPING SHALL BE IN A MANNER THAT WILL MINIMIZE SILTATION INTO THE WATERWAYS.
 - REMOVE SEDIMENT AND DEBRIS FROM THE STRUCTURE WORK AREA.
 - THE DISTRICT AND CONTRACTOR SHALL PERFORM A JOINT INSPECTION TO DETERMINE THE FULL EXTENT AND SCOPE OF THE REPAIR WORK. ERODED CONCRETE SURFACES SHALL BE HYDROBLASTED AND THE REMAINING SURFACES POWER WASHED.
 - INSPECT AND REPAIR CONCRETE SURFACES AS NEEDED.
 - DISCONNECT POWER. REMOVE CABLE DRUM HOISTS AND STORE ON SITE. REFER TO ELECTRIC CABLE DRUM HOIST DRAWING.
 - REMOVE ROLLER GATES, PERFORM JOINT INSPECTION, REPAIR AS NEEDED, AND PAINT.
 - PREPARE SURFACE AND PAINT ALL EXPOSED SURFACES OF EMBEDDED STEEL COMPONENTS EXCEPT FOR STAINLESS STEEL ITEMS. STAINLESS STEEL SHALL BE POWERWASHED.
 - REMOVE RAILS FROM THE CONCRETE WALLS AND SHEET PILE WINGWALLS.
 - REPAIR AND PAINT ALL EXPOSED SURFACES OF EXISTING SHEET PILING.
 - INSTALL NEW RAILS ON THE CONCRETE WALLS AND SHEET PILE WINGWALLS.
 - REPLACE UPSTREAM AND DOWNSTREAM SAFETY BARRIERS AND PILES.
 - BREAK GROUTED RIPRAP AND REGRADE.
 - STRIP AREAS WHERE NEW RIPRAP IS REQUIRED. PROVIDE ADDITIONAL RIPRAP AND BEDDING STONE TO EXISTING RIPRAP AREAS AS DIRECTED BY THE DISTRICT.
 - INSTALL NEW PILES, STAFF GAGES, AND SOLAR MARINE BEACONS. INSTALL NEW GATE POSITION GUIDES.
 - REPLACE UPSTREAM AND DOWNSTREAM WARNING SIGNS AND INSTALL SOLAR LIGHTS. INSTALL SOLAR MARINE BEACON ATOP CENTER PILE GROUPS.
 - INSTALL/REPLACE AND EXTEND STILLING WELL LINES AS SHOWN OR DIRECTED BY DISTRICT.
 - REINSTALL ROLLER GATES AND CABLE DRUM HOISTS. RECONNECT POWER.
 - PERFORM DRY TEST OPERATION OF GATES AND OPERATORS. ADJUST AS NEEDED.
 - ALLOW WORK AREA TO FILL WITH WATER AND TEST OPERATION OF GATES AND OPERATORS UNDER NORMAL OPERATING CONDITIONS. ADJUST AS NEEDED. REMOVE COFFERDAMS.
 - REMOVE FENCING AND RAILS FROM THE CONCRETE STRUCTURE AND INSTALL NEW ALUMINUM FENCING AND RAILS.
 - GROUT EXISTING WELLS.
 - DEMOLISH INCLUDING SITE CLEAN UP, RESTORATION OF FINAL GRADE AND GRASSING TO ORIGINAL CONDITION, AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROLS.

- COFFERDAMS:**
- THE CONTRACTOR SHALL DESIGN, SUPPLY, INSTALL, AND REMOVE ALL TEMPORARY COFFERDAMS AS NECESSARY TO PERFORM THE WORK. THE DESIGN SHALL BE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF USACE ENGINEERING MANUAL 1110-2-2504 DESIGN OF SHEET PILE WALLS.
 - COFFERDAMS SHALL BE DESIGNED FOR ADEQUATE DEPTHS AND HEIGHTS, SHALL BE SAFELY DESIGNED AND CONSTRUCTED, AND SHALL BE AS WATERTIGHT AS NECESSARY FOR THE PROPER PERFORMANCE OF THE WORK WHICH MUST BE DONE BEHIND THEM.
 - ANY FILL REQUIRED FOR CRANE ACCESS SHALL BE LIMITED TO AREAS ABOVE THE WATER LINE. OFF ROAD TRUCKS FOR HAULING FILL SHALL NOT BE PERMITTED. EXCAVATION OF THE EXISTING LEVEE SLOPES SHALL NOT BE PERMITTED AND THE SLOPES AND TOP OF ALL LEVEES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE WORK.
 - THE CONSTRUCTION AND MAINTENANCE OF ALL COFFERDAMS SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL PERMITS AND REGULATIONS.
 - FOLLOWING COMPLETION OF THE COFFERDAMS, THE CONTRACTOR SHALL PUMP OUT THE AREA BEHIND THE COFFERDAMS IN A MANNER THAT WILL MINIMIZE SILTATION INTO THE WATERWAYS.
 - DURING INSTALLATION AND REMOVAL OF COFFERDAMS, CARE SHALL BE TAKEN NOT TO DISTURB OR OTHERWISE INJURE ANY ADJACENT STRUCTURES.

- GENERAL:**
- ALL PROPOSED WORK IS SHOWN IN BOLD.
 - ALL ELEVATIONS ARE NGVD1929 UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SURVEY CONTROL AS REQUIRED FOR COMPLETION OF THE WORK.
 - ACCESS TO THE PROJECT SITE SHALL BE VIA BABCOCK ROAD TO BUFFER PRESERVE ROAD WHICH IS BETWEEN THE SOUTH SIDE OF THE ST. SEBASTIAN RIVER STATE PARK AND THE NORTH SIDE OF THE C-54 CANAL.
 - THE CONTRACTOR SHALL PROVIDE ON SITE STORAGE AS NECESSARY TO HOUSE EQUIPMENT AND SUPPLIES. THE USE OF DISTRICT CONTROL BUILDINGS FOR STORAGE WILL NOT BE ALLOWED.
 - THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND OTHER SITE IMPROVEMENTS FROM DAMAGE WHETHER OR NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS TO UTILITIES AND OTHER SITE IMPROVEMENTS DAMAGED DURING CONSTRUCTION.



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UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

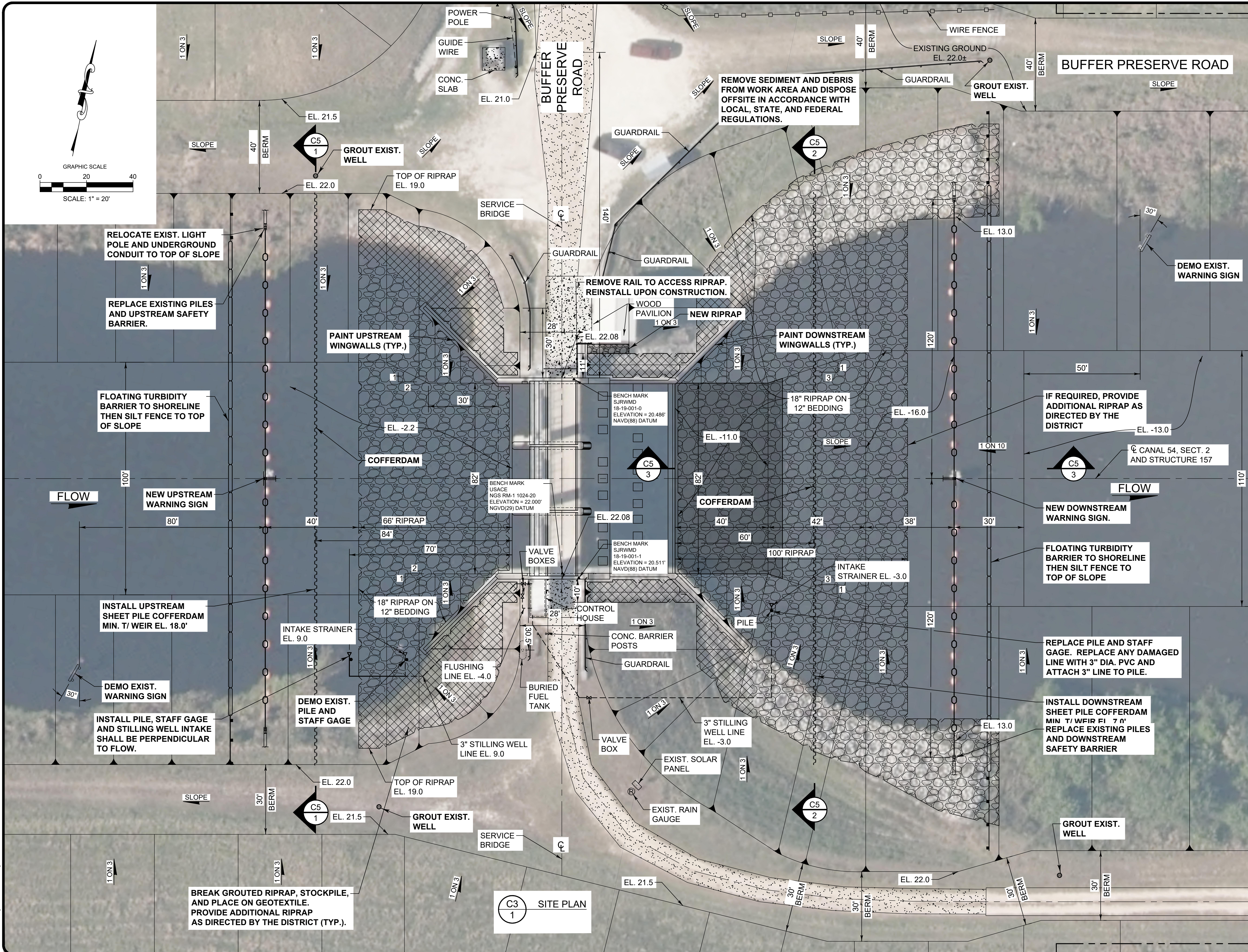
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 1" = 20' DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

SITE PLAN

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 PLAN.dwg
PROJECT NO.:
SHEET:
C2



SUBMITTALS:

1. SAFETY PLAN FOR INFORMATION ONLY
2. CONSTRUCTION SCHEDULE
3. COFFERDAM DESIGN CALCULATIONS AND DRAWINGS
4. SILT FENCE AND TURBIDITY BARRIER DATA SHEETS
5. MANATEE PROTECTION SCREEN AT DISCHARGE PIPE CULVERT
6. CONCRETE MORTAR REPAIR DATA SHEETS
7. CONCRETE MORTAR EVAPORATION RETARDANT DATA SHEETS
8. CONCRETE TOPCOAT DATA SHEETS
9. CONCRETE AND REBAR BONDING AGENT DATA SHEETS
10. CONCRETE CRACK WITH FLOWING WATER REPAIR PRODUCT DATA SHEETS
11. CONCRETE MIX DESIGN (IF NECESSARY)
12. JOINT CAULK DATA SHEETS
13. BLAST MEDIA SOURCE AND DATA SHEETS
14. PAINT AND PROTECTIVE COATINGS DATA SHEETS
15. GEOTEXTILE PRODUCT DATA SHEETS
16. SAND BACKFILL, BEDDING STONE, DITCH LINING, AND BANK AND SHORE RIPRAP SOURCE, GRADATION, AND SPECIFIC GRAVITY
17. FLOATING SAFETY BARRIER DATA SHEETS AND SHOP DRAWINGS
18. WARNING SIGN SHOP DRAWINGS
19. SOLAR LIGHT AND SOLAR MARINE BEACON LIGHT DATA SHEETS
20. STAFF GAUGE AND GATE POSITION GUIDE SHOP DRAWINGS
21. FENCE AND HANDRAIL SHOP DRAWINGS. BUTYL RUBBER COATING.
22. EPOXY ANCHOR DATA SHEETS
23. GATE RAIL AND CLIPS DATA SHEETS
24. GATE WHEEL BEARINGS DATA SHEETS AND DETAILS
25. GATE ANODE DATA SHEETS
26. GATE SEAL DATA SHEETS
27. GATE STAINLESS STEEL BOLT DATA SHEETS
28. GATE BRONZE NUT DATA SHEETS
29. AS-BUILT DRAWINGS

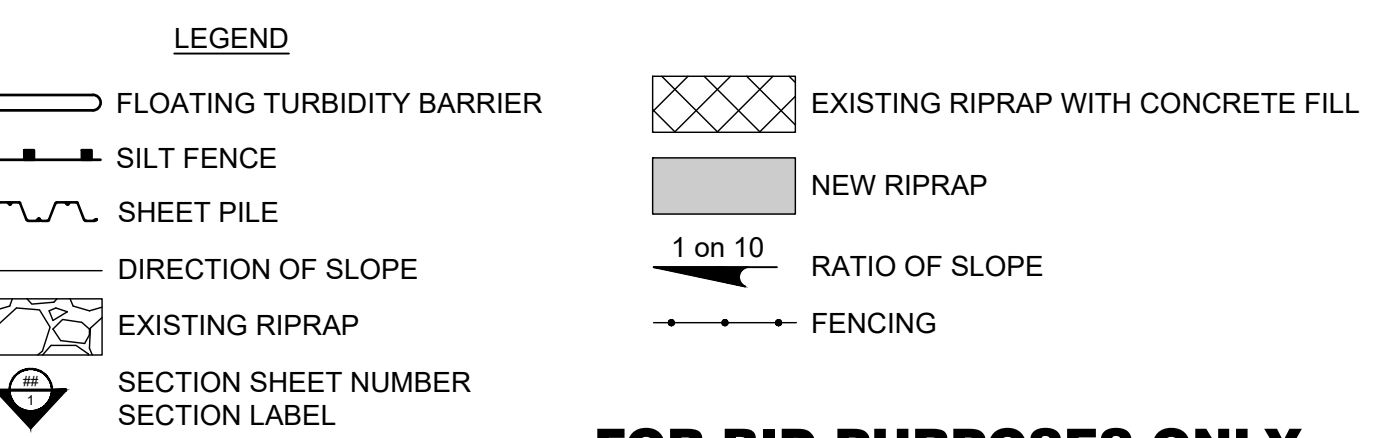
NOTE SPECIFICATIONS:

RIPRAP SYSTEM SPECIFICATIONS:

1. PROVIDE RUBBLE RIPRAP, BEDDING STONE, AND GEOTEXTILE FABRIC AT THE LOCATIONS SHOWN ON THE DRAWINGS. THE WORK SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, (FDOT) LATEST EDITION, CONFORMING TO FDOT SECTIONS 514, 530, AND 985, UNLESS OTHERWISE NOTED HEREIN.
2. GEOTEXTILE FABRIC WHERE REQUIRED SHALL BE MIRAFIL FILTERWEAVE WOVEN NO. FW 404 (OR APPROVED EQUAL) AND SHALL COMPLY WITH THE REQUIREMENTS SECTION 514 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. ADDITIONALLY, THE GEOTEXTILE FABRIC MATERIAL SHALL CONFORM TO THE REQUIREMENTS FDOT TYPE D-2 OF THE FDOT SPECIFICATION SECTION 985. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
3. BEDDING STONE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 530 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION, LATEST EDITION. THE FINAL BLANKET THICKNESS SHALL BE A MINIMUM OF 12 INCHES. THE MINIMUM UNIT WEIGHT OF STONE SHALL BE 145 PCF (SATURATED SURFACE DRY).
4. RUBBLE RIPRAP SHALL COMPLY WITH THE REQUIREMENTS OF FDOT SECTION 530-2.1.3.1 BANK AND SHORE PROTECTION OR 530-2.1.3.2 DITCH LINING, AS DIRECTED BY THE DISTRICT. THE MATERIAL SHALL BE WELL-GRADED, SOUND AND DURABLE, AND SHALL HAVE A MINIMUM SPECIFIC GRAVITY OF 2.3. THE MATERIAL SHALL BE FREE OF CRACKS, SOFT SEAMS OR OTHER STRUCTURAL DEFECTS. THE PIECES SHALL BE ROUGHLY ANGULAR, AND THE LOT SHALL REASONABLY FREE OF THIN, FLAT OR ELONGATED PIECES. CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 530.
5. COMPACTED SAND BACKFILL WHERE REQUIRED SHALL CONSIST OF CLEAN SAND CLASSIFIED AS SW OR SP WITH LESS THAN 5% PASSING THE NO. 200 SIEVE.
6. CONSTRUCTION REQUIREMENTS: ALL SLOPES TO BE TREATED WITH RIPRAP SHALL BE TRIMMED TO THE LINES AND GRADES INDICATED BY THE PLANS OR DIRECTED BY THE DISTRICT. THE SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS. ALL OUTER EDGES AND THE TOP OF RIPRAP WHERE THE RIPRAP TERMINATES SHALL BE FORMED SO THAT THE SURFACE OF THE RIPRAP WILL BE EMBEDDED AND EVEN WITH THE SURFACE OF THE GROUND AND/OR SLOPE. ALL RIPRAP CONSTRUCTION SHALL BEGIN AT THE BOTTOM OF THE SLOPE AND PROGRESS UPWARD.

PLACE A MINIMUM 12-INCH THICK LAYER OF BEDDING STONE UNDER ALL RUBBLE RIPRAP WITHOUT PUNCTURING OR TEARING THE GEOSYNTHETIC MATERIAL. REMOVE AND REPLACE GEOTEXTILE FABRIC DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS.

PLACE RIPRAP FORMING A COMPACT LAYER CONFORMING TO THE NEAT LINES AND THICKNESS SPECIFIED ON THE DRAWINGS. ENSURE THAT RIPRAP DOES NOT SEGREGATE SO THAT SMALLER PIECES EVENLY FILL THE VOIDS BETWEEN THE LARGER PIECES.



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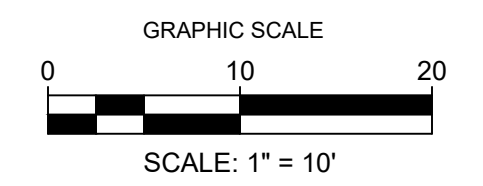
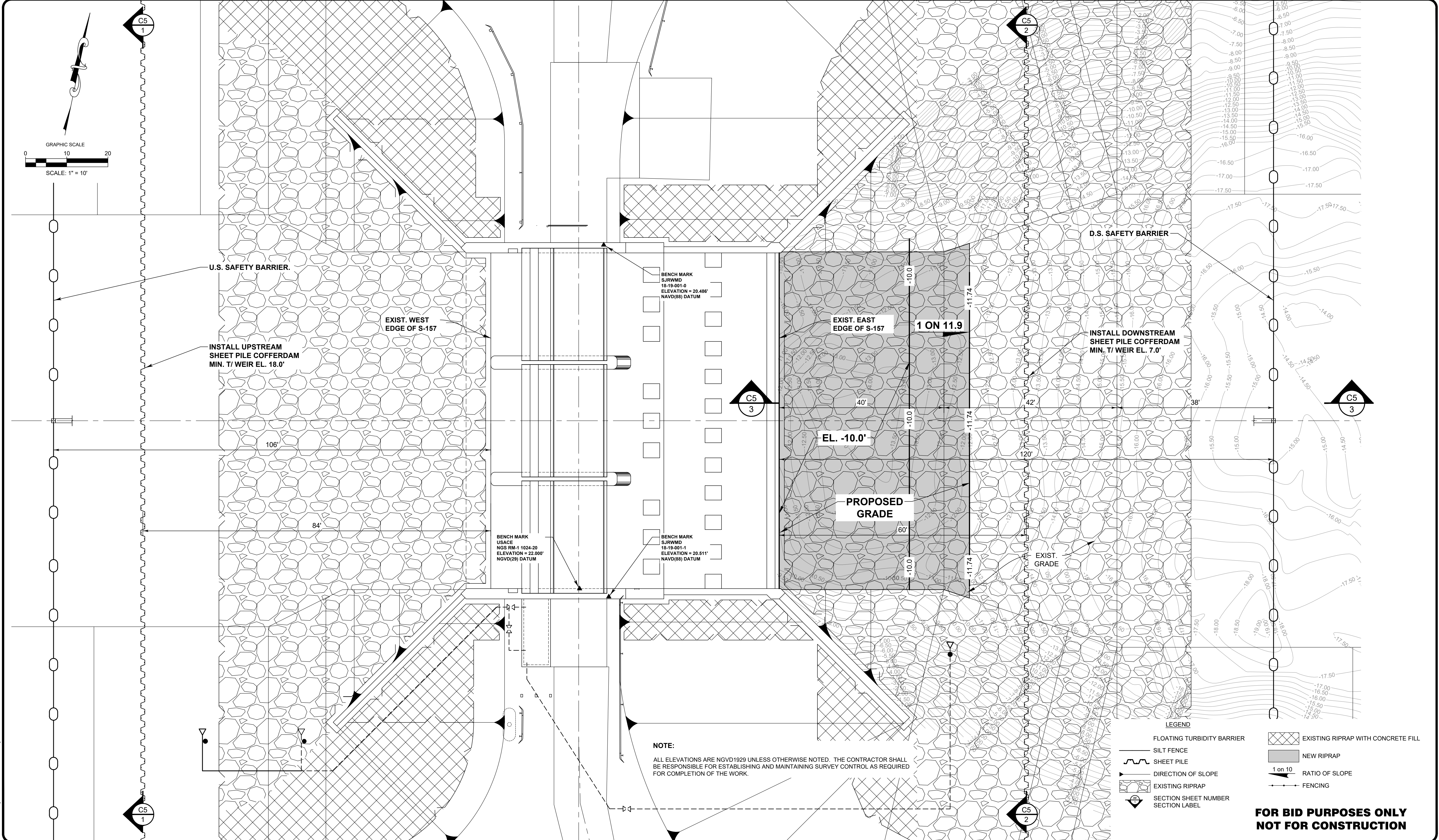
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 1" = 20' DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

SITE PLAN (WITH AERIAL)

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 PLAN.dwg
PROJECT NO.:
SHEET:
C3



U.S. SAFETY BARRIER.
 INSTALL UPSTREAM SHEET PILE COFFERDAM MIN. T/ WEIR EL. 18.0'

EXIST. WEST EDGE OF S-157

EXIST. EAST EDGE OF S-157

D.S. SAFETY BARRIER

INSTALL DOWNSTREAM SHEET PILE COFFERDAM MIN. T/ WEIR EL. 7.0'

PROPOSED GRADE

EXIST. GRADE

NOTE:
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- LEGEND**
- FLOATING TURBIDITY BARRIER
 - SILTY FENCE
 - SHEET PILE
 - DIRECTION OF SLOPE
 - EXISTING RIPRAP
 - SECTION SHEET NUMBER SECTION LABEL
 - EXISTING RIPRAP WITH CONCRETE FILL
 - NEW RIPRAP
 - 1 on 10 RATIO OF SLOPE
 - FENCING

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UPPER ST. JOHNS RIVER BASIN
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 BREVARD COUNTY, FLORIDA

**ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
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DOWNSTREAM GRADING PLAN

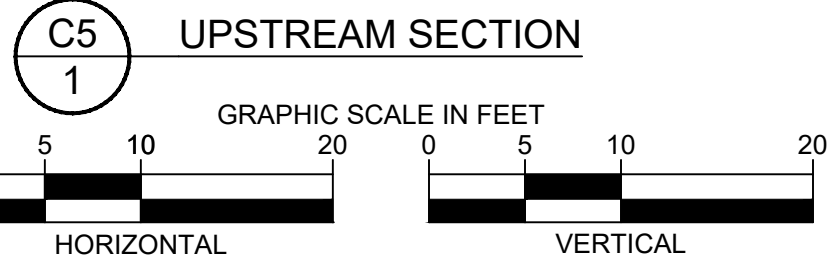
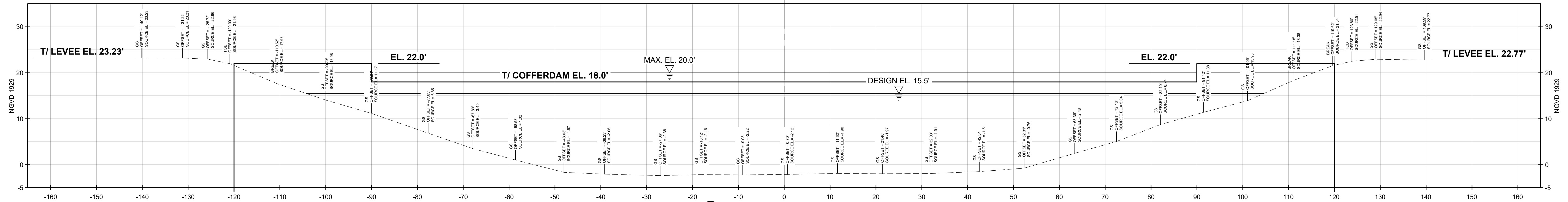
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 WILLIAM R. COTE
 P.E. NUMBER: 53746
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FILE NAME:
 S-157 DOWNSTREAM.dwg
 PROJECT NO.:
 SHEET:
C4

SOUTH

NORTH

☉ OF CANAL 54, SECT. AND STRUCTURE 157

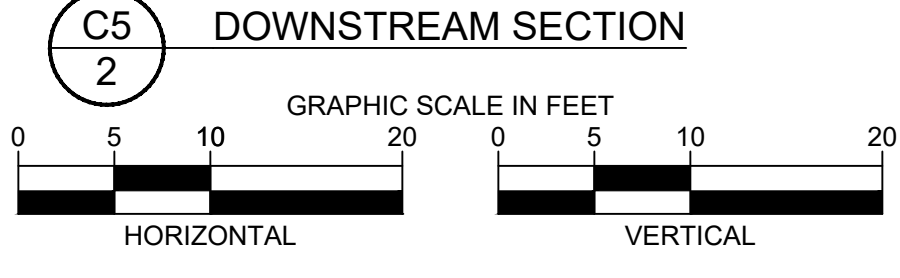
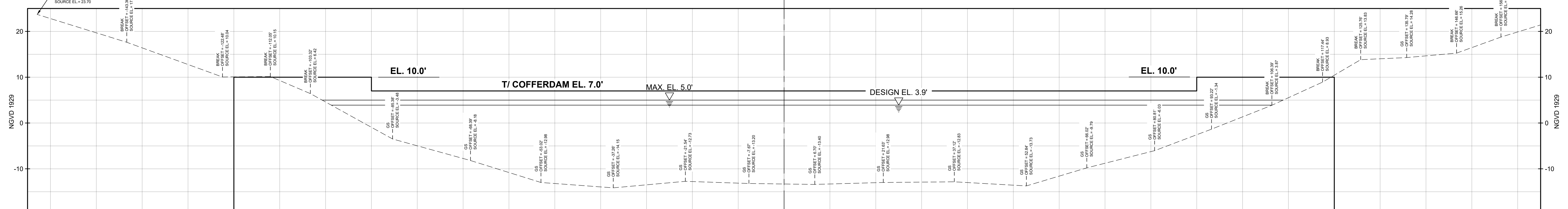


NOTE:
THIS CHANNEL SECTION IS BASED ON FEBRUARY 17, 2022
SJRWMD SURVEY WORK ORDER NO. 7394-21.

SOUTH

NORTH

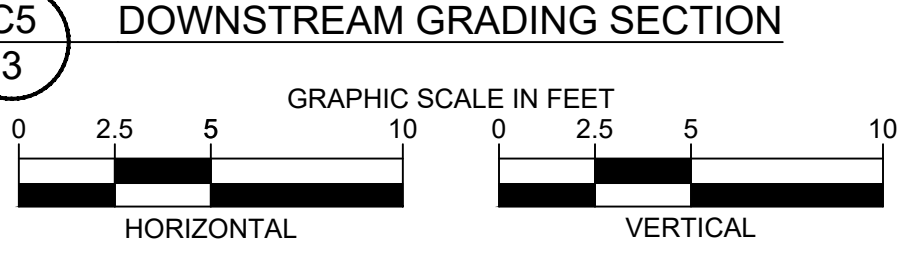
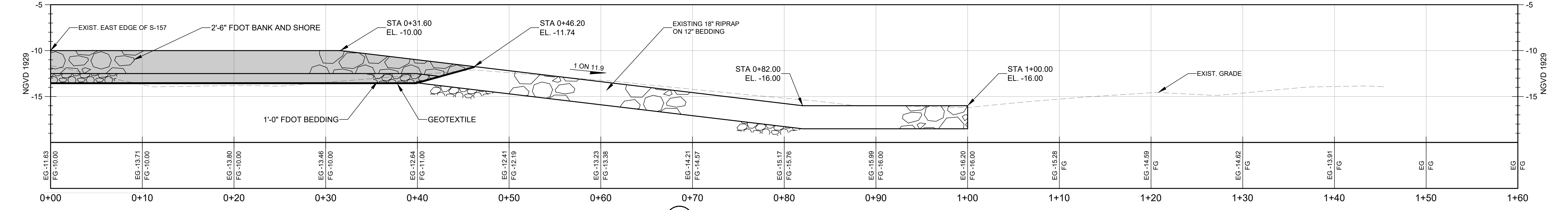
☉ OF CANAL 54, SECT. AND STRUCTURE 157



NOTE:
THIS CHANNEL SECTION IS BASED ON FEBRUARY 17, 2022
SJRWMD SURVEY WORK ORDER NO. 7394-21 AND AUGUST
4, 2022 SJRWMD SURVEY WORK ORDER NO. 7446-22.

WEST

EAST



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SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SURVEY
CONTROL AS REQUIRED FOR COMPLETION OF THE WORK.

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ISSUED FOR BID	N.J.G.	04/26/23	W.R.C.	04/26/23
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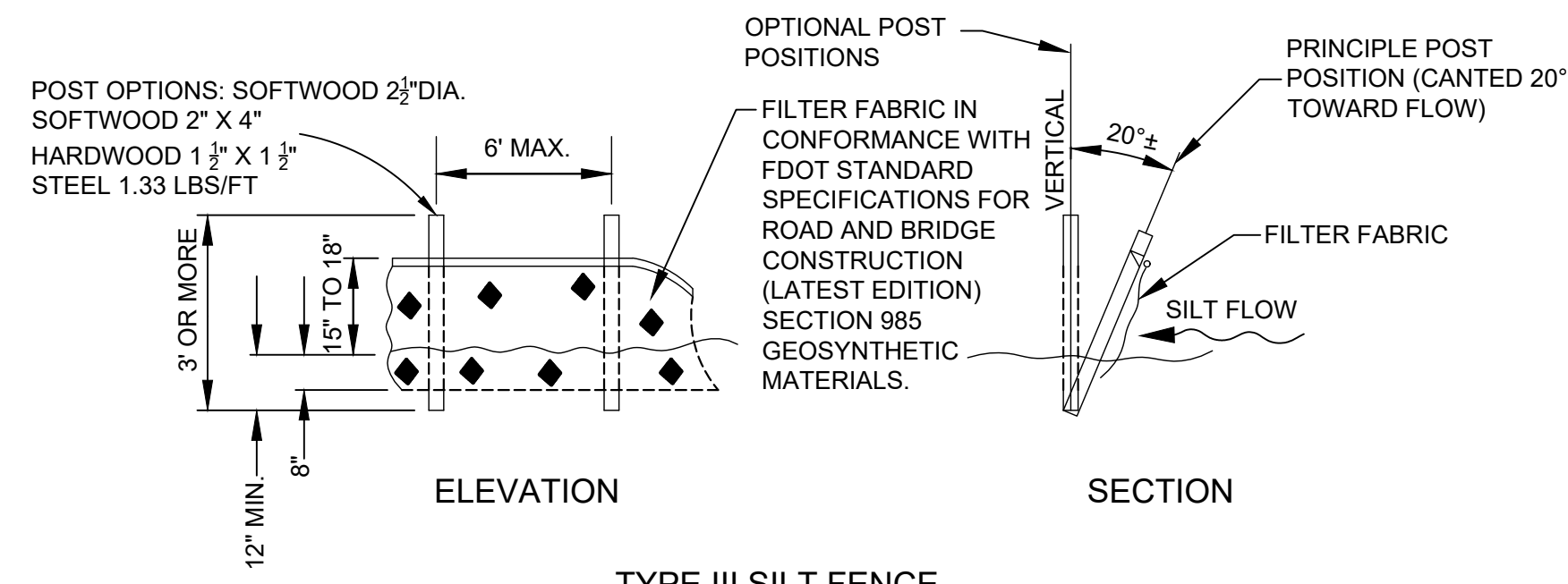
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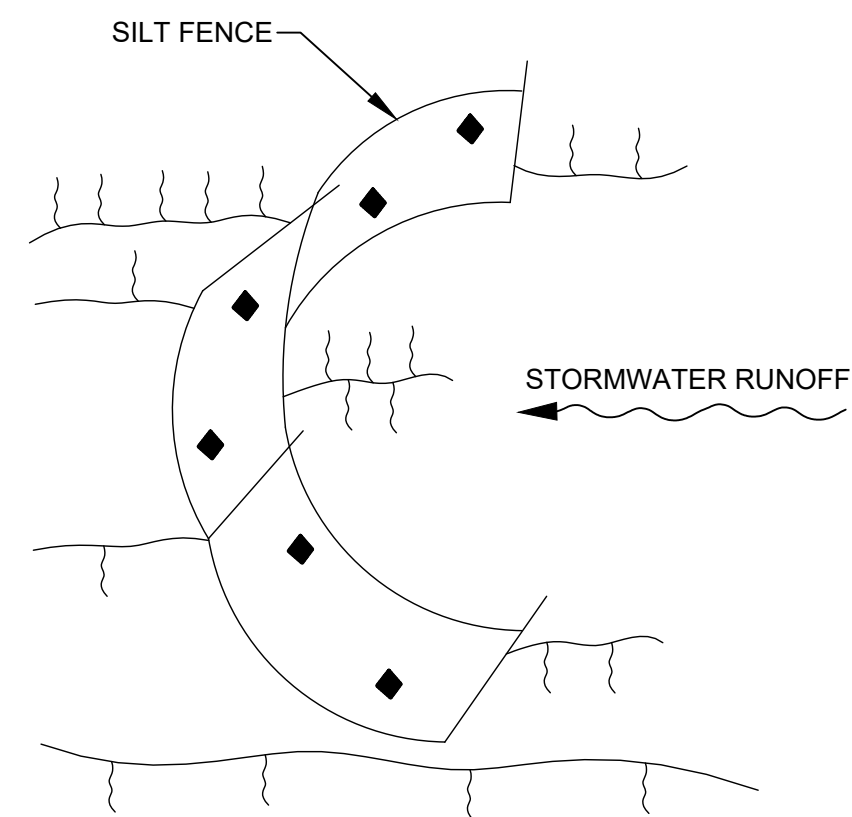
CANAL SECTIONS AND
DOWNSTREAM GRADING SECTION

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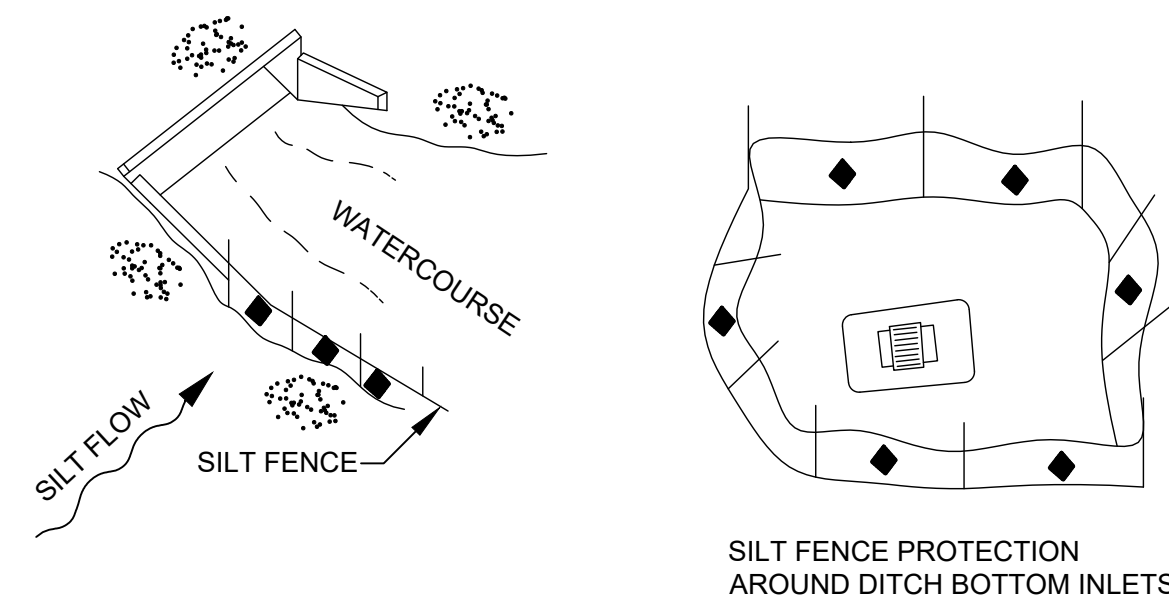
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TYPE III SILT FENCE



SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW

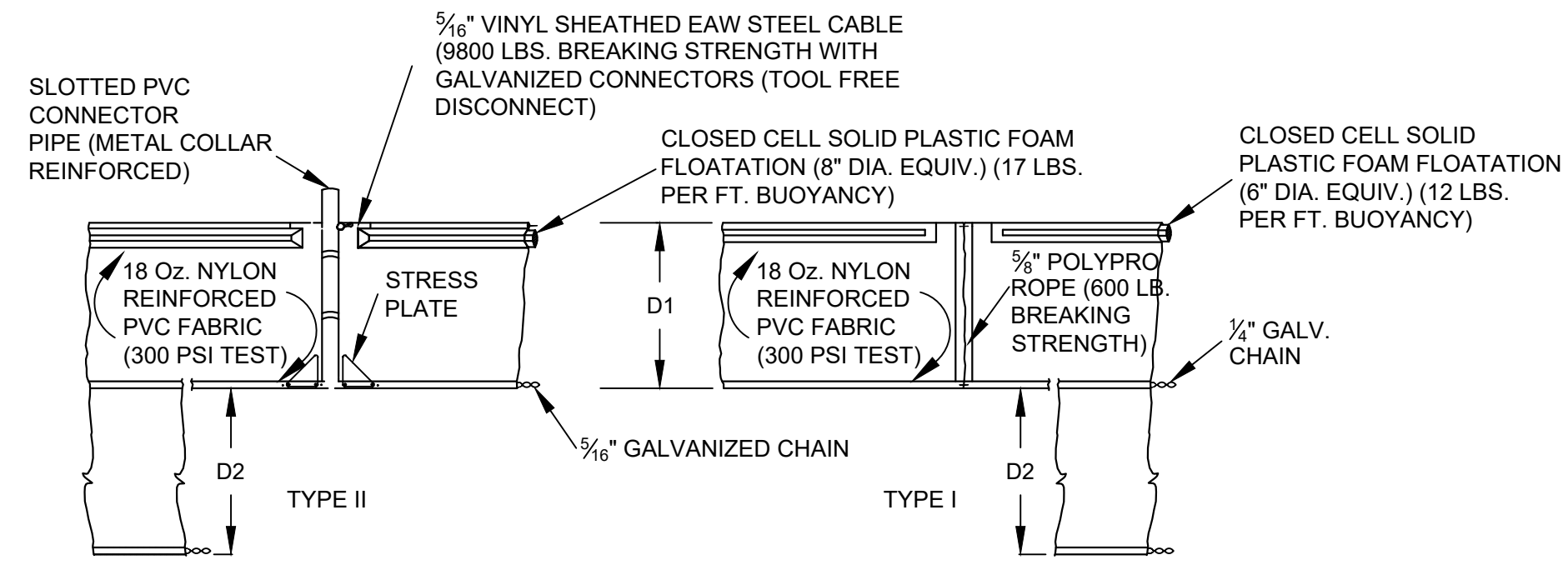


SILT FENCE APPLICATIONS

NOTES FOR SILT FENCES

- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH SECTION V OF THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (JULY 2013).
- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.
- DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.
- SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, (L.S).

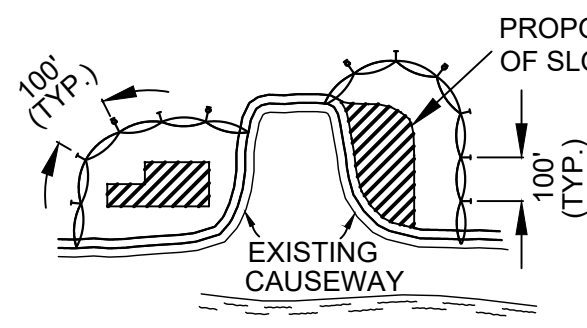
TEMPORARY SILT FENCE DETAIL
NOT TO SCALE



D1= 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D2= 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5')
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

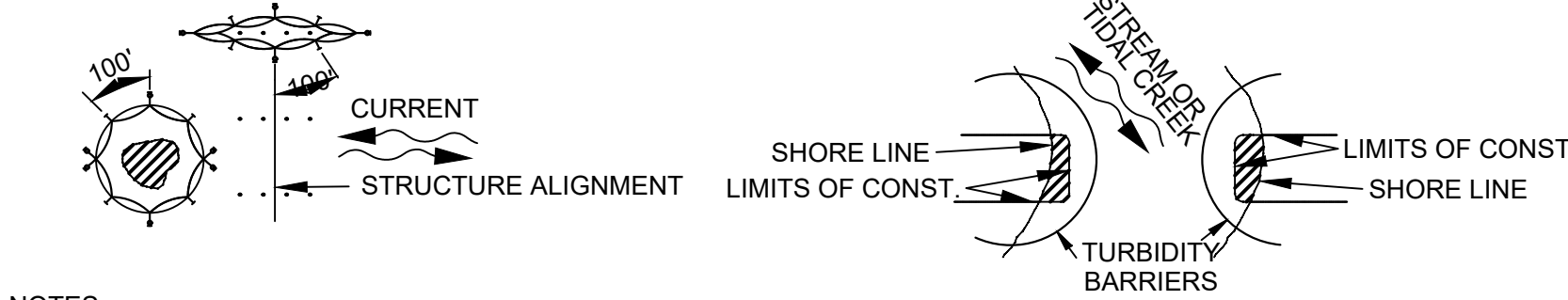
NOTICE: COMPONENTS OF TYPE I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGN. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS
NOT TO SCALE



GENERAL NOTES:

- FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, (L.S).
- STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, (L.S).



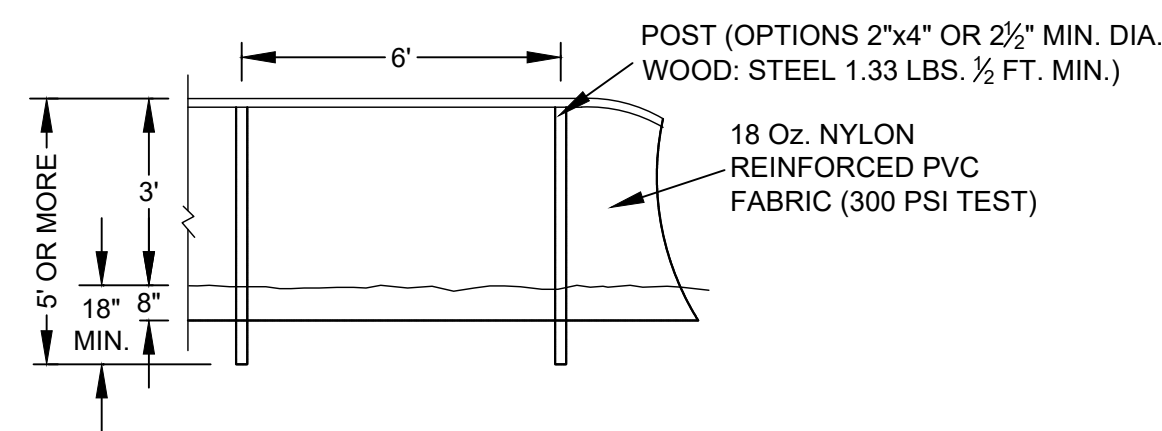
NOTES:

- TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
- NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
- DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
- NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
- TURBIDITY BARRIERS SHALL CONFORM TO SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).

LEGEND

- PILE LOCATIONS
- DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

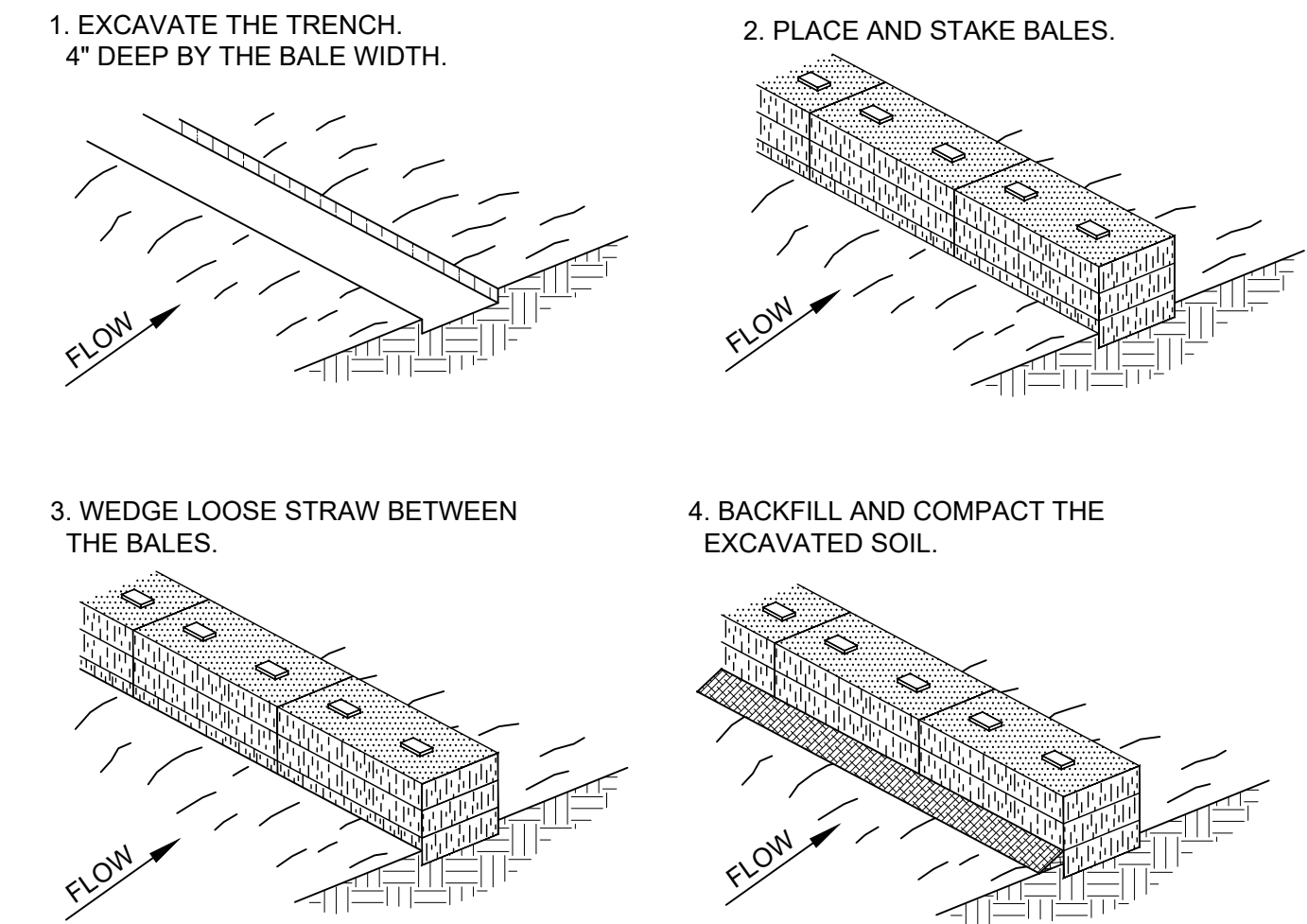
TURBIDITY BARRIER APPLICATIONS
NOT TO SCALE



NOTES:

TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS. HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE DISTRICT.

STAKED TURBIDITY BARRIER
NOT TO SCALE



NOTES:

- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE BARRIER
NOT TO SCALE

PERMIT CONDITIONS FOR MANATEE PROTECTION:

- MANATEES ARE EXPECTED TO BE PRESENT AT THIS SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL STANDARD MANATEE CONDITIONS IN THE PERMIT.
- SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.
- CONTRACTOR SHALL PROVIDE MANATEE PROTECTION SCREENS WITH A MAXIMUM 8-INCH OPENING FOR ANY AND ALL DEWATERING OUTLET PIPES.

EROSION AND SEDIMENT CONTROL NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL WORK AT COMPLETION OF CONSTRUCTION.
- ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND GRASSED.
- THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS, PERMITS, AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT CRITERIA.
- FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (LATEST EDITION).
- ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, WATERED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. GRASSING SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 570 AND 981 THRU 983 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITIONS). NOTE THAT OTHER GRASSING ALTERNATIVES MAY BE USED WITH PRIOR DISTRICT APPROVAL.

**FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION**

NO.	REVISION	BY	DATE	APPROVED	DATE

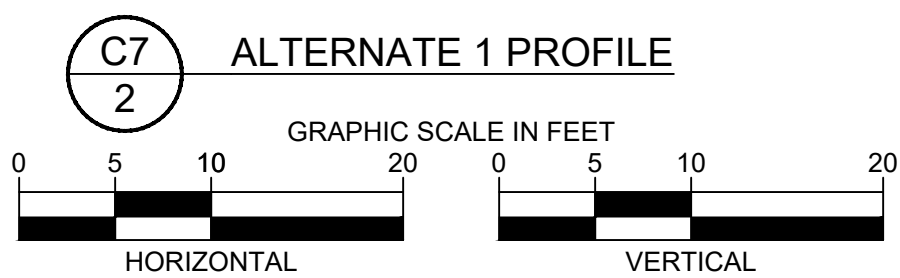
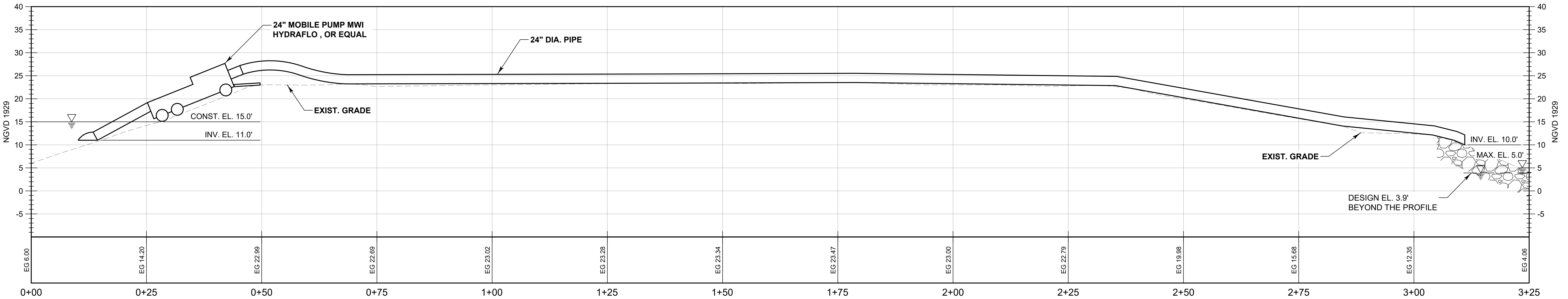
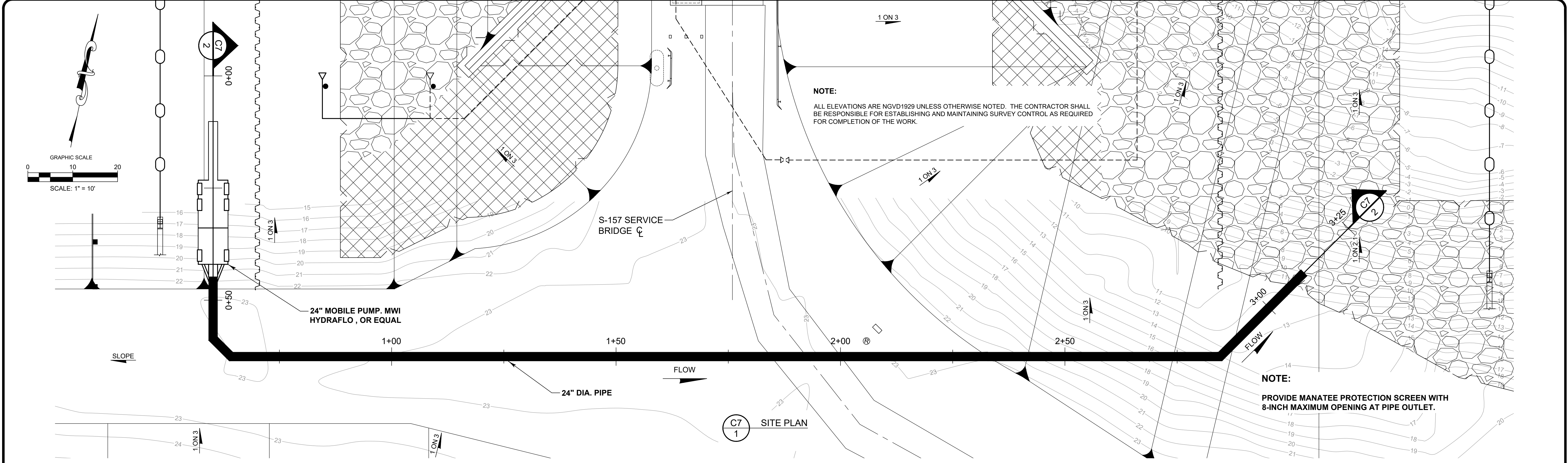
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT P.O. BOX 1429 PALATKA, FLORIDA			
DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.	
SCALE: AS NOTED	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.	

EROSION AND SEDIMENT CONTROL

CERTIFICATION:	
WILLIAM R. COTE	
P.E. NUMBER: 53746	
DATE: APRIL 26, 2023	

FILE NAME: S-157 EROSION.dwg
PROJECT NO.:
SHEET: C6



- LEGEND**
- FLOATING TURBIDITY BARRIER
 - SILT FENCE
 - SHEET PILE
 - DIRECTION OF SLOPE
 - EXISTING RIPRAP
 - SECTION SHEET NUMBER
SECTION LABEL
 - EXISTING RIPRAP WITH CONCRETE FILL
 - NEW RIPRAP
 - 1 on 10 RATIO OF SLOPE
 - FENCING

**CONCEPTUAL
NOT FOR CONSTRUCTION**

ISSUED FOR BID	N.J.G.	04/26/23	W.R.C.	04/26/23
NO.	REVISION	BY	DATE	APPROVED

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

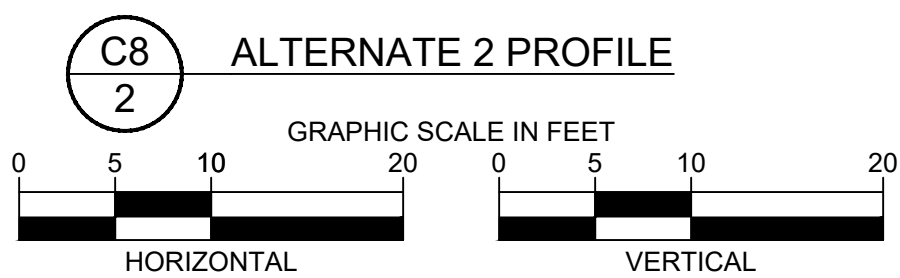
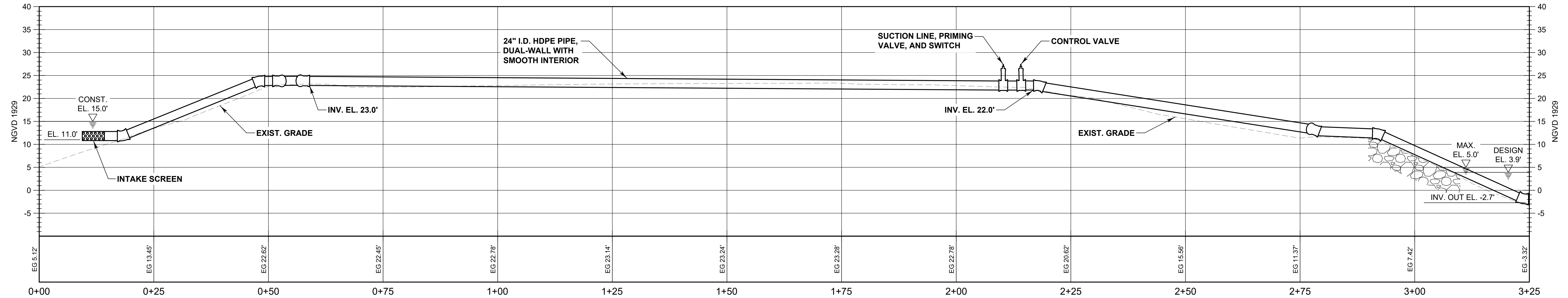
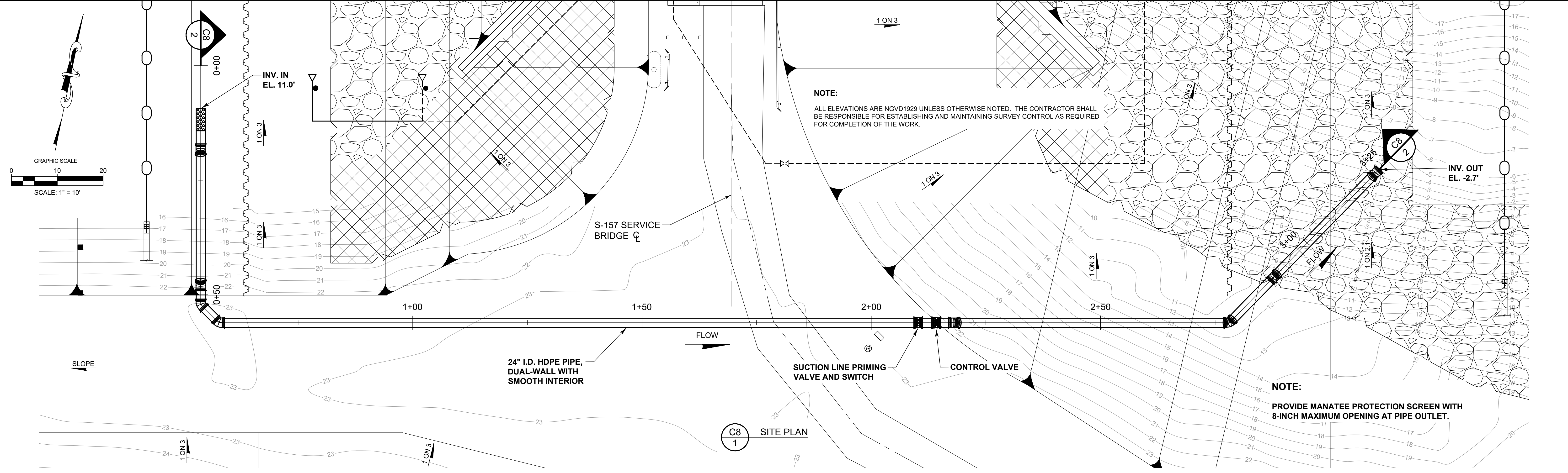
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 1" = 10' DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

ALTERNATE 1 - BYPASS FLOW
24-INCH MOBILE PUMP

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 ALTERNATE 1.dwg
PROJECT NO.:
SHEET:
C7



- LEGEND**
- FLOATING TURBIDITY BARRIER
 - SILT FENCE
 - SHEET PILE
 - DIRECTION OF SLOPE
 - EXISTING RIPRAP
 - SECTION SHEET NUMBER
SECTION LABEL
 - EXISTING RIPRAP WITH CONCRETE FILL
 - NEW RIPRAP
 - 1 on 10 RATIO OF SLOPE
 - FENCING

**CONCEPTUAL
NOT FOR CONSTRUCTION**

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

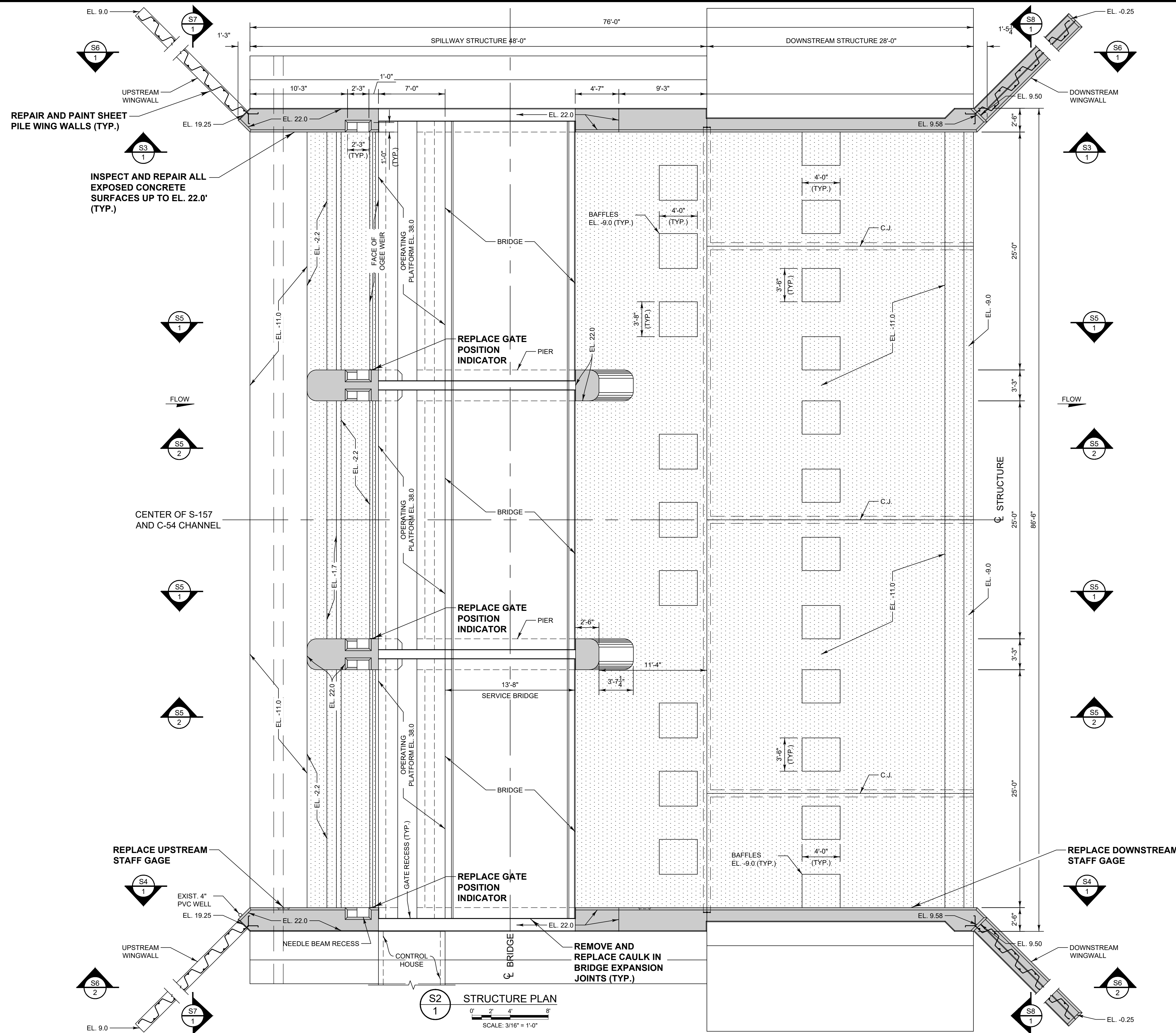
DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.

SCALE: 1" = 10' DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

ALTERNATE 2 - BYPASS FLOW
24-INCH PIPE SIPHON

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 ALTERNATE 2.dwg
PROJECT NO.:
SHEET:
C8



LEGEND

- SIKATOP 144 ONLY
- TAMMS STRUCTURAL MORTAR AND SIKATOP 144
- # SECTION SHEET NUMBER
- 1 SECTION LABEL

NOTE:
THE SERVICE BRIDGE WAS DESIGNED FOR DEAD LOAD PLUS AN H20-44 LIVE LOAD

**FOR BID PURPOSES ONLY
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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

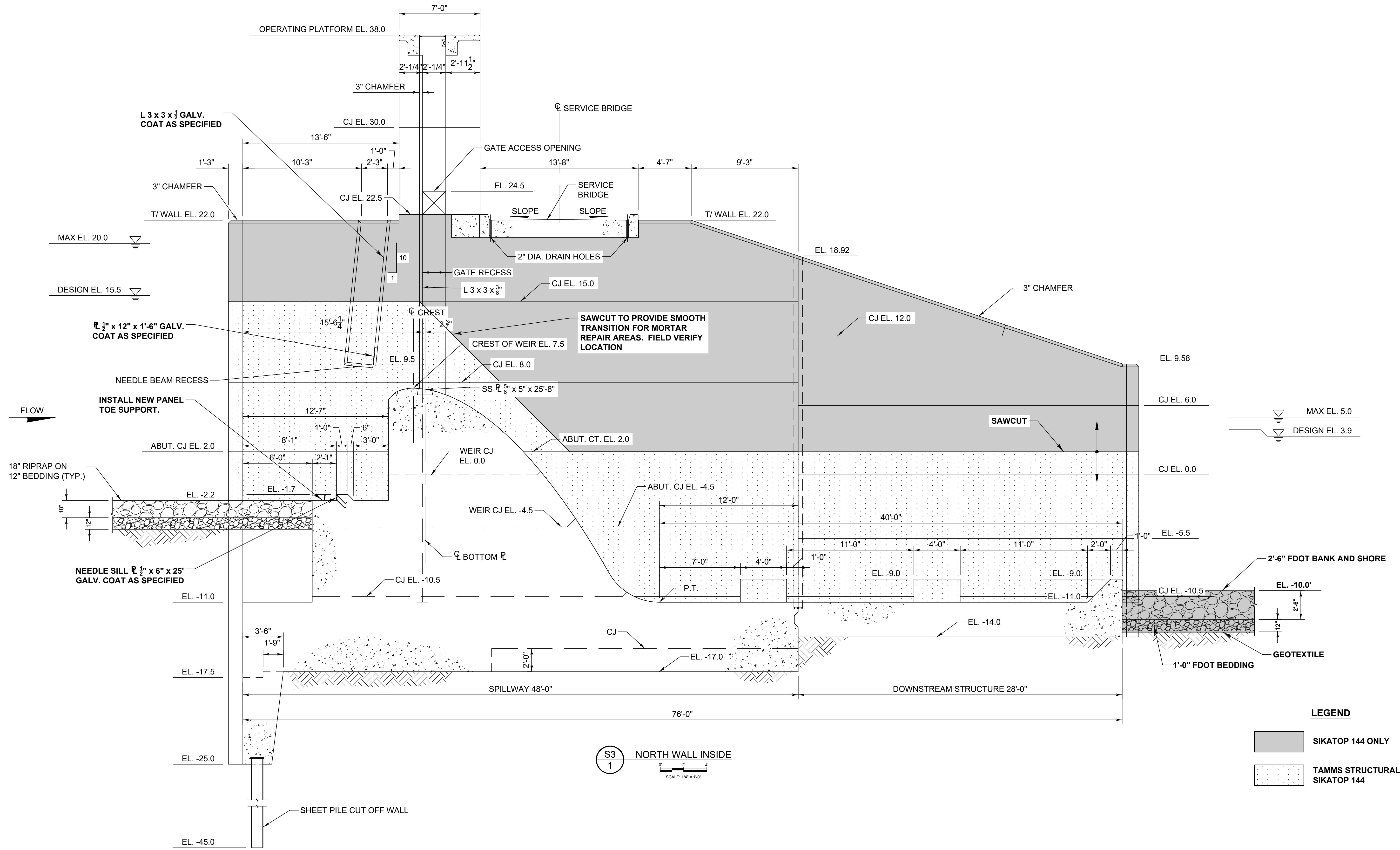
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SCALE: 3/16" = 1'-0"	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

CONCRETE REPAIR - STRUCTURE PLAN


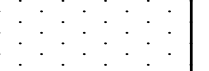
CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S2



LEGEND

 SIKATOP 144 ONLY
 TAMMS STRUCTURAL MORTAR AND SIKATOP 144

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NOT FOR CONSTRUCTION**

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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

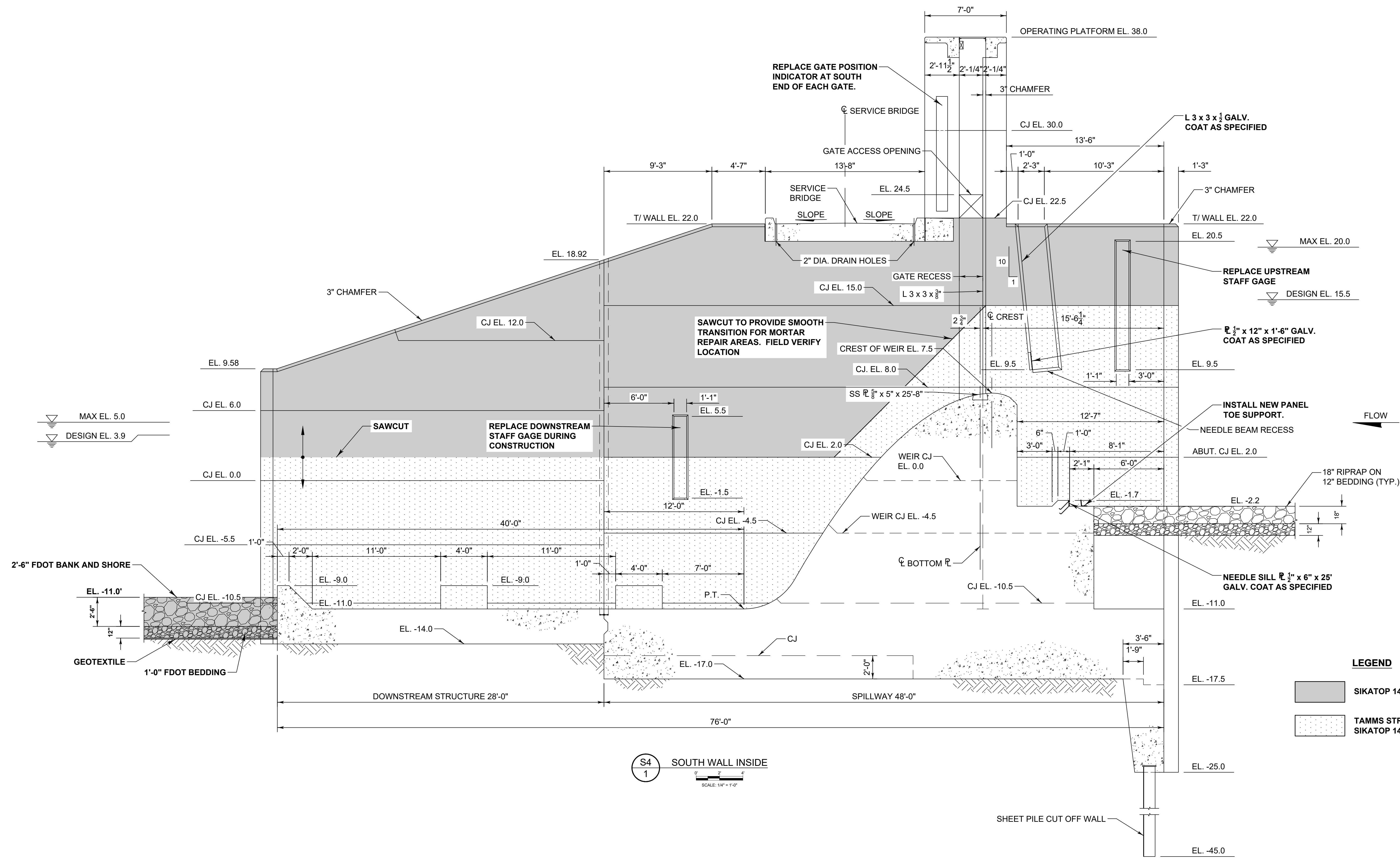

**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
 SCALE: 1/4" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.


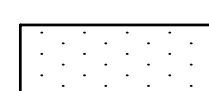
CONCRETE REPAIR - NORTH WALL INSIDE

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: APRIL 26, 2023

FILE NAME:
 S-157 STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S3



LEGEND

 SIKATOP 144 ONLY
 TAMMS STRUCTURAL MORTAR AND SIKATOP 144

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STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

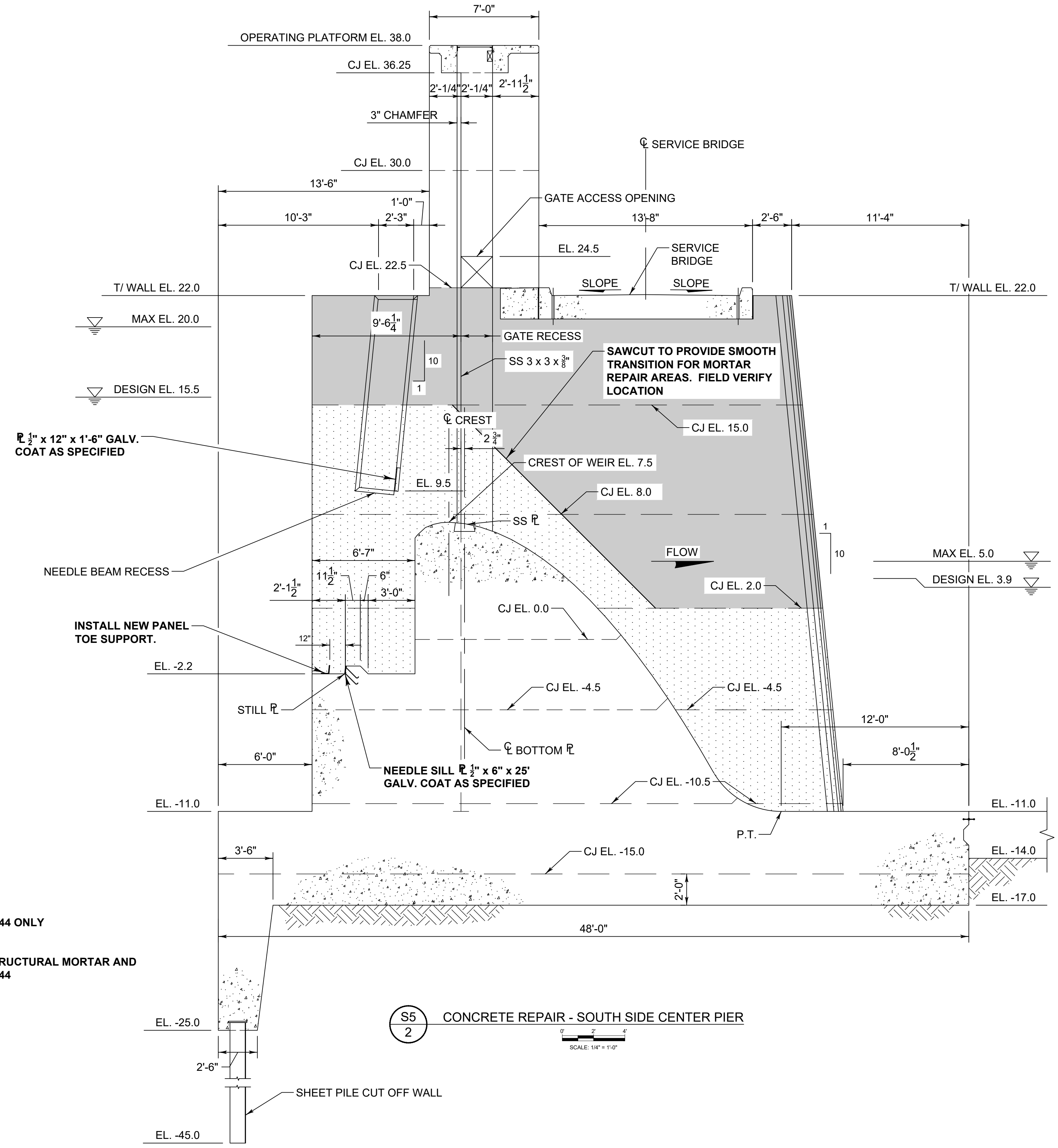
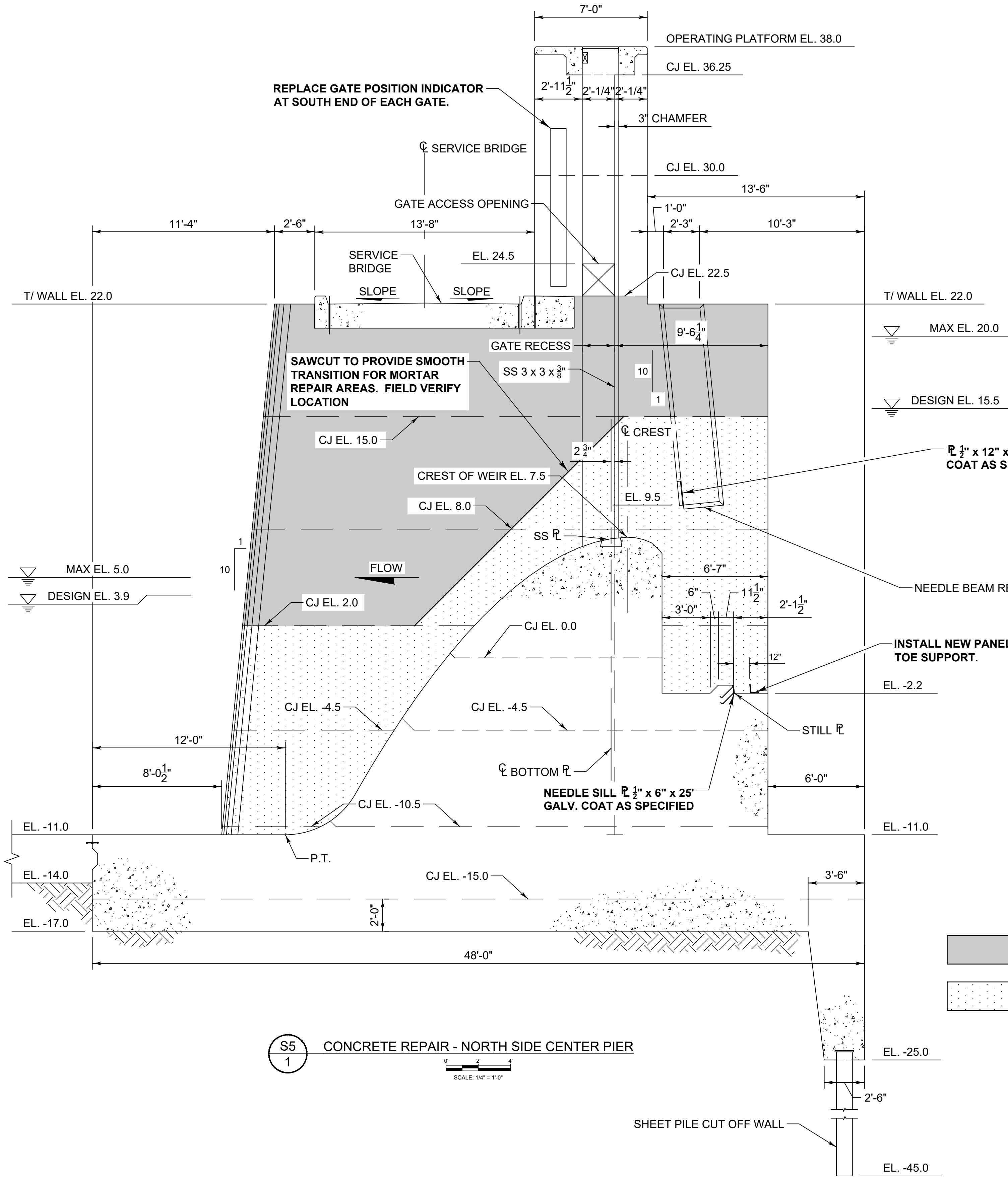

**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

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 SCALE: 1/4" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

CONCRETE REPAIR - SOUTH WALL INSIDE

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: APRIL 26, 2023

FILE NAME:
 S-157 STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S4



LEGEND

- SIKATOP 144 ONLY
- TAMMS STRUCTURAL MORTAR AND SIKATOP 144

S5 1 CONCRETE REPAIR - NORTH SIDE CENTER PIER
SCALE: 1/4" = 1'-0"

S5 2 CONCRETE REPAIR - SOUTH SIDE CENTER PIER
SCALE: 1/4" = 1'-0"

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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

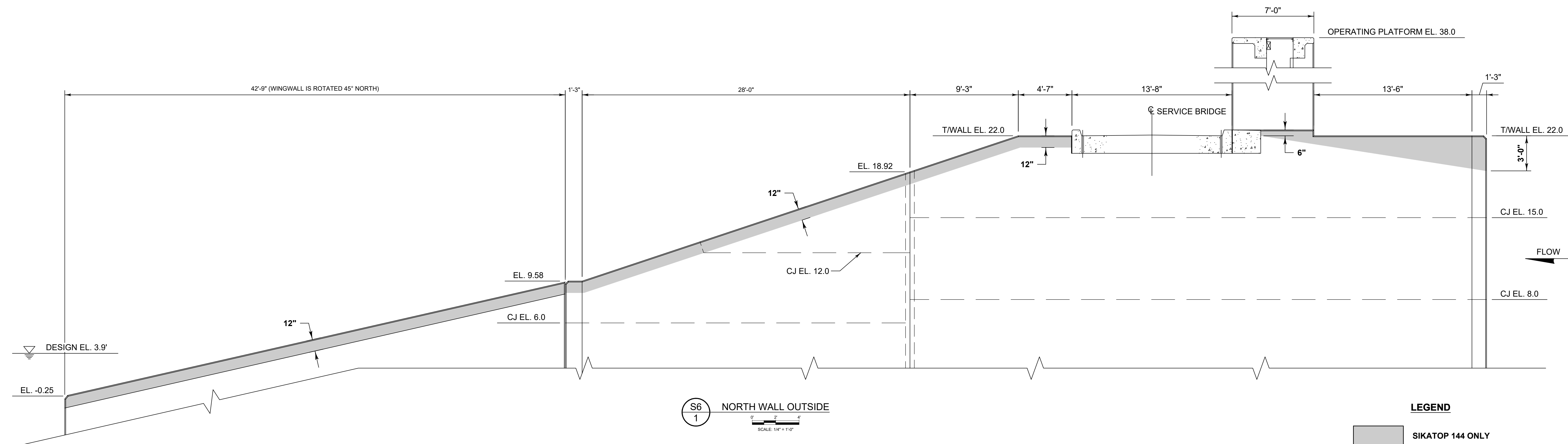
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.
SCALE: 1/4" = 1'-0"	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

CONCRETE REPAIR - NORTH SIDE
AND SOUTH SIDE CENTER PIERS

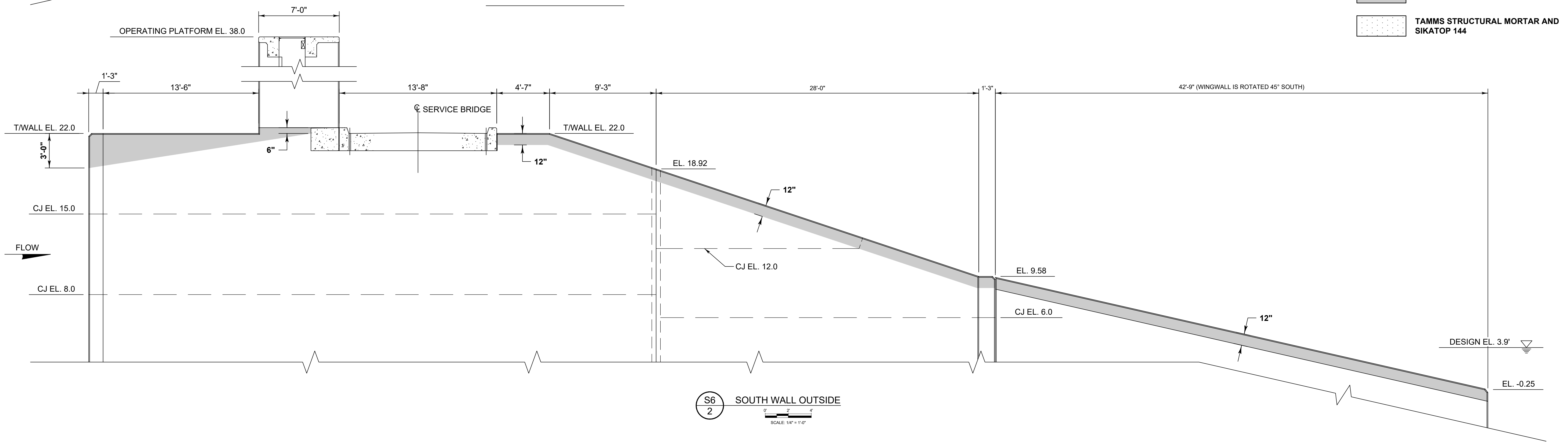
CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S5



S6
1 NORTH WALL OUTSIDE
SCALE: 1/4" = 1'-0"

- LEGEND**
- SIKATOP 144 ONLY
 - TAMMS STRUCTURAL MORTAR AND SIKATOP 144



S6
2 SOUTH WALL OUTSIDE
SCALE: 1/4" = 1'-0"

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UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

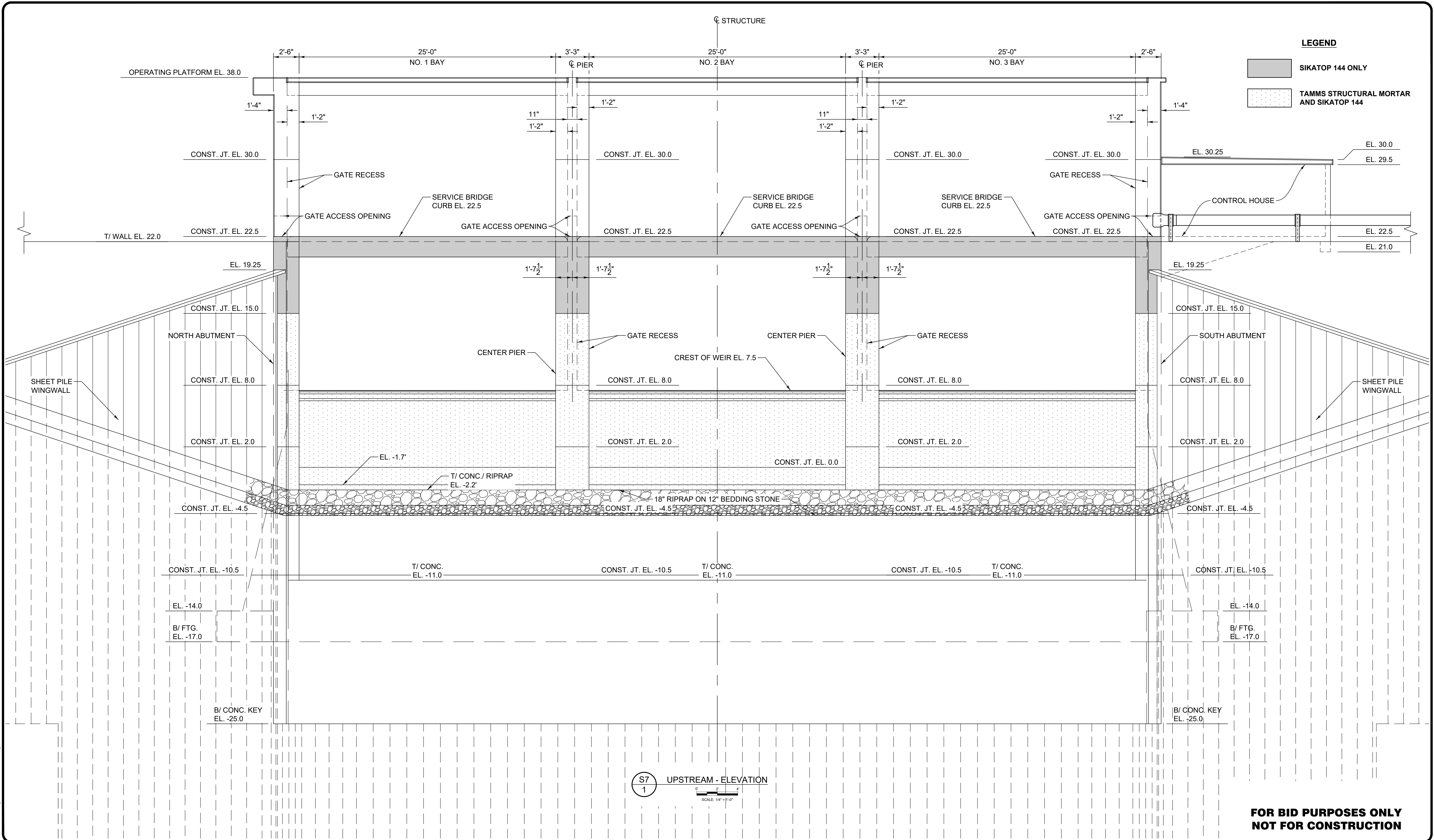
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.
SCALE: 1/4" = 1'-0"	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

CONCRETE REPAIR - NORTH
AND SOUTH WALL OUTSIDE

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S6




LEGEND

SIKATOP 144 ONLY
 TAMMS STRUCTURAL MORTAR AND SIKATOP 144

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NOT FOR CONSTRUCTION**

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
 STRUCTURE 157 REHABILITATION
 BREVARD COUNTY, FLORIDA



**ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.
SCALE: 1/4" = 1'-0"	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

CONCRETE REPAIR - UPSTREAM ELEVATION

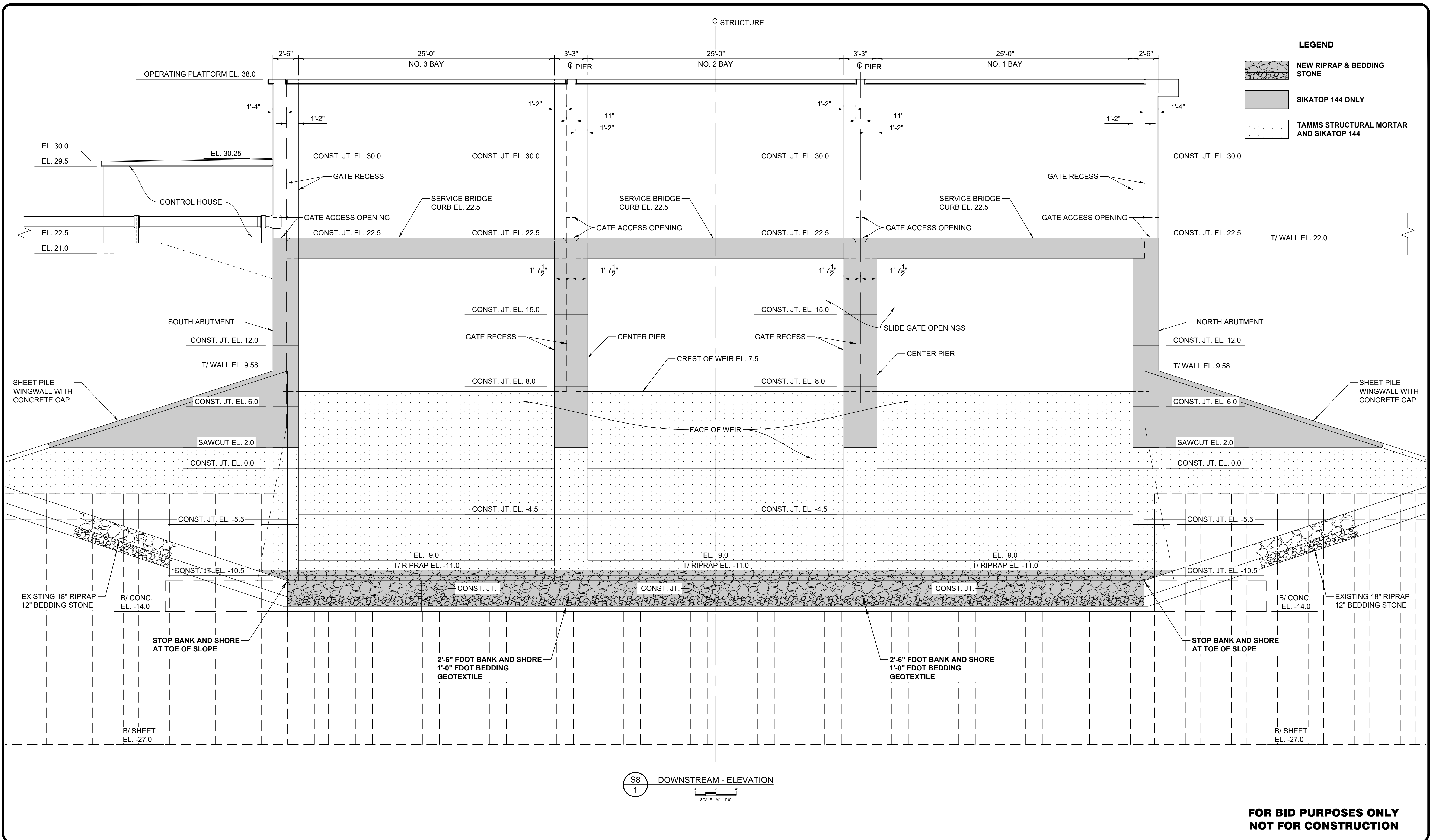
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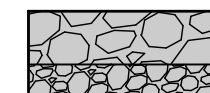

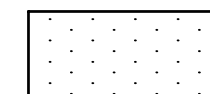
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: APRIL 26, 2023

FILE NAME:
 S-157 STRUCTURE.dwg
 PROJECT NO.:

 SHEET:
S7

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- LEGEND**
-  NEW RIPRAP & BEDDING STONE
 -  SIKATOP 144 ONLY
 -  TAMMS STRUCTURAL MORTAR AND SIKATOP 144

S8 DOWNSTREAM - ELEVATION
1
SCALE: 1/4" = 1'-0"

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NOT FOR CONSTRUCTION**

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

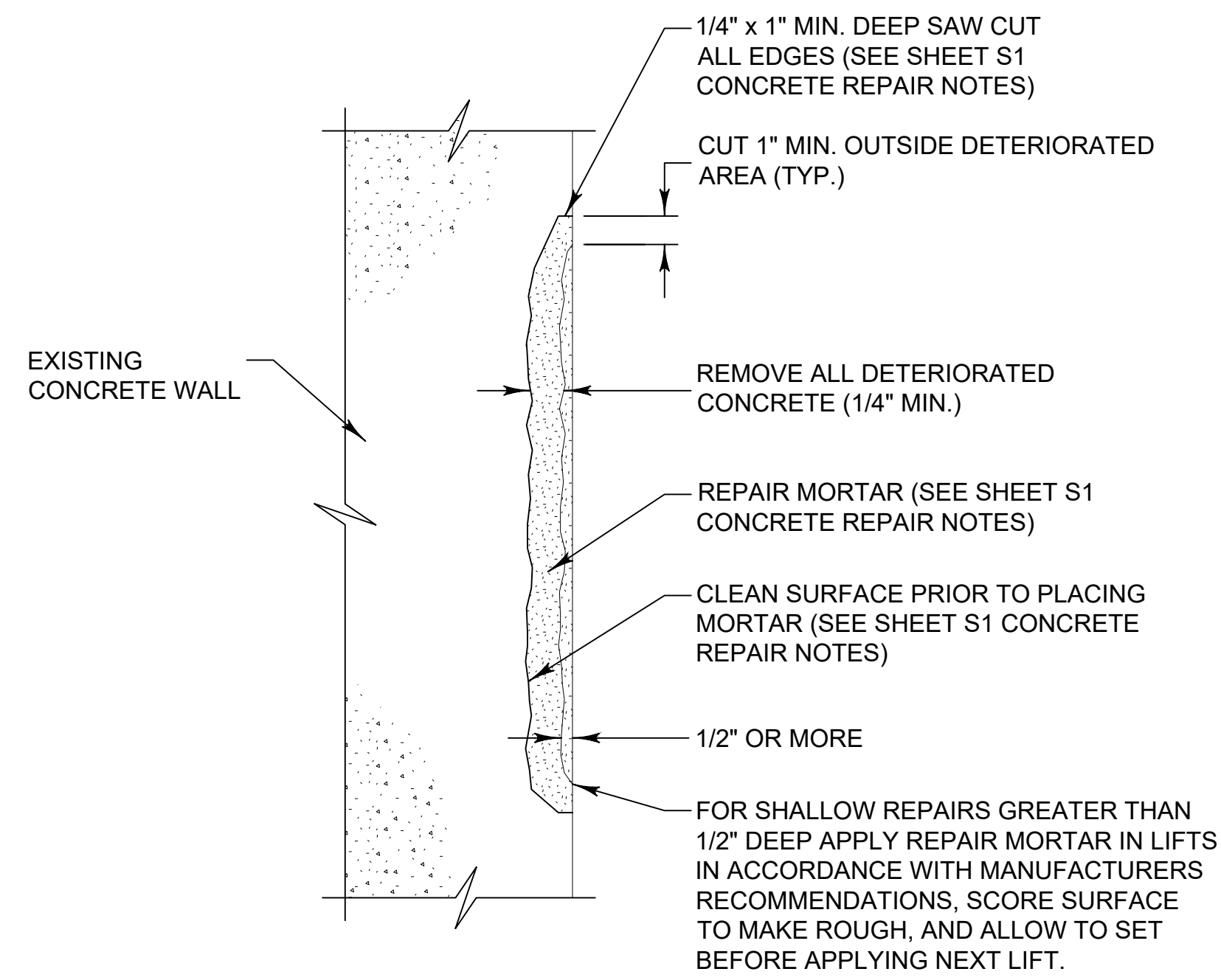
DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 1/4" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

CONCRETE REPAIR - DOWNSTREAM ELEVATION

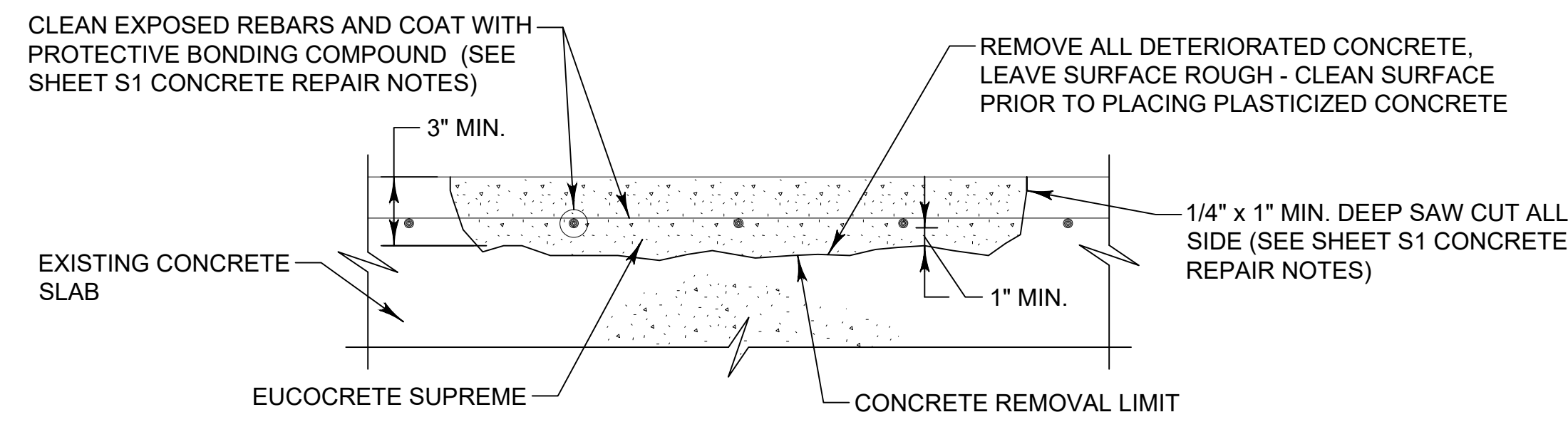
CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S8

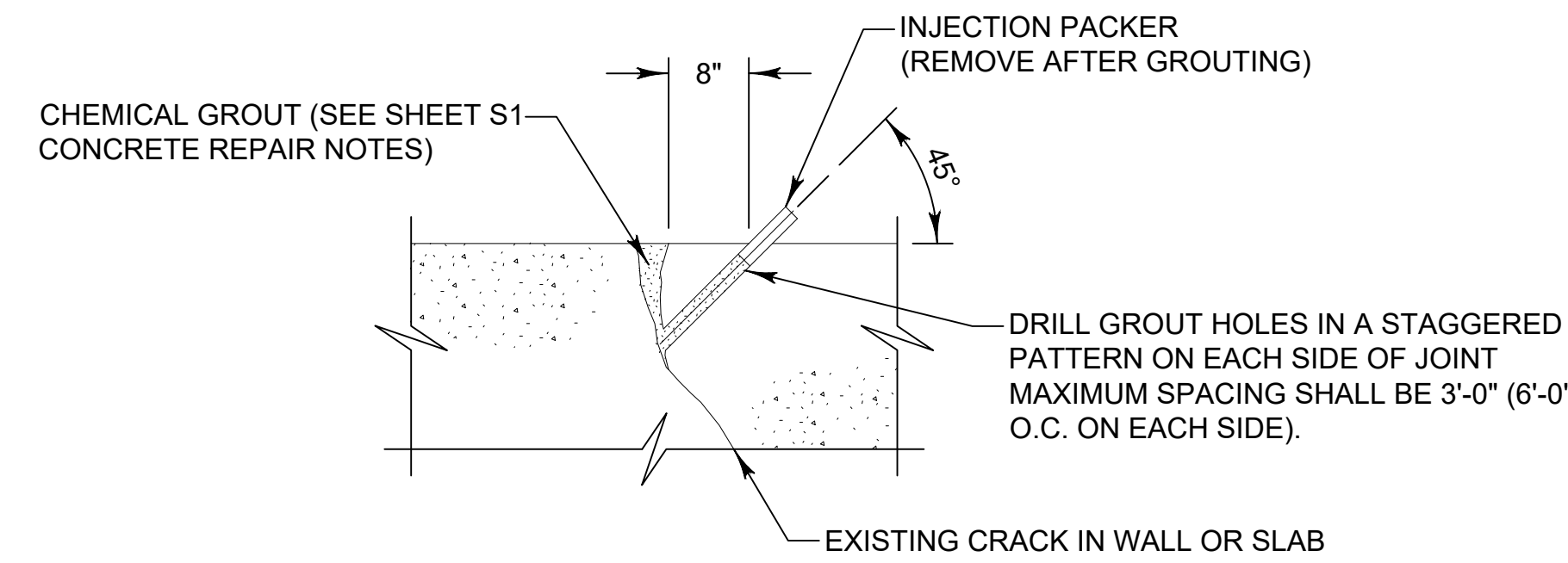
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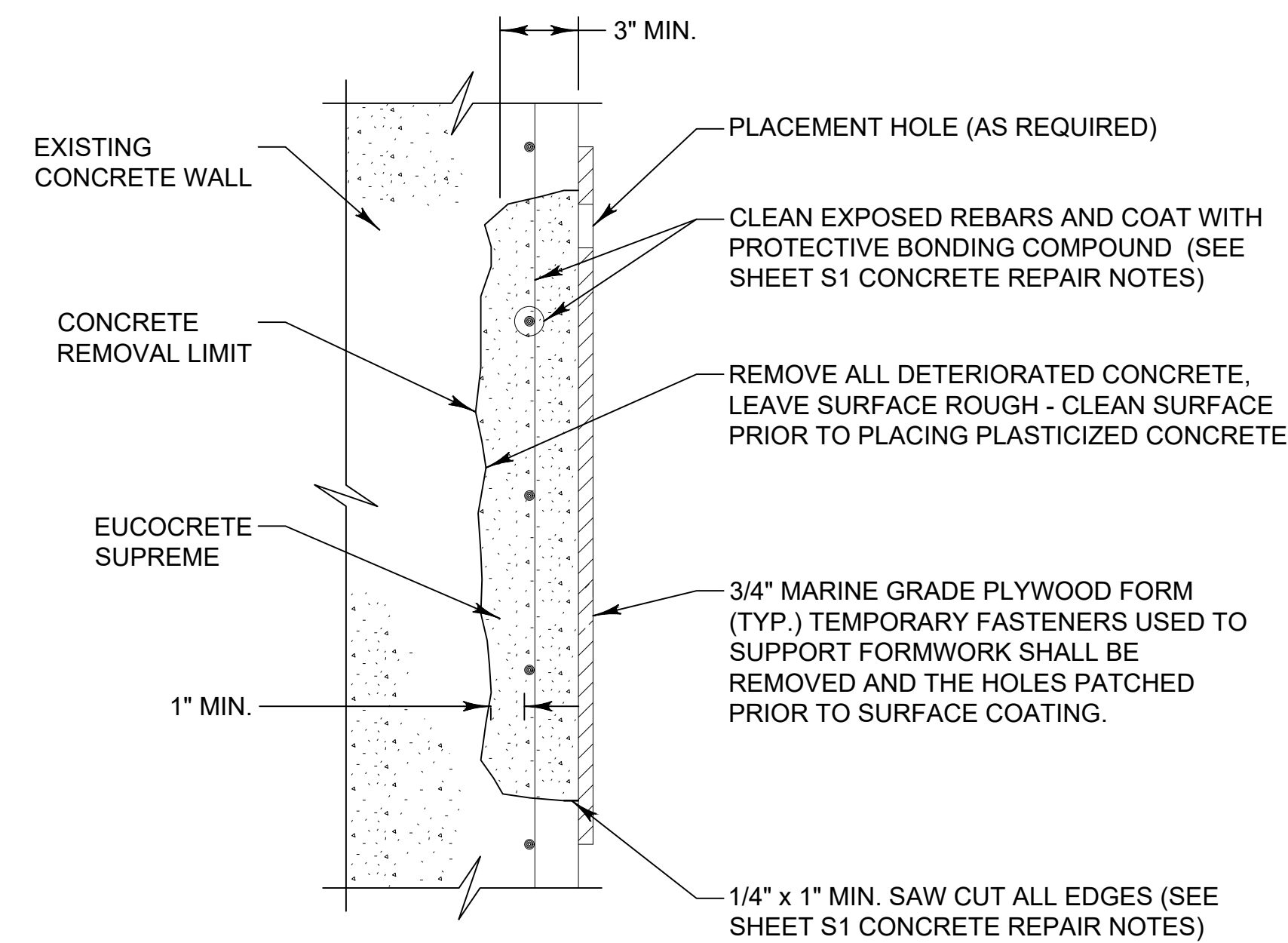
S9
1
SHALLOW MORTAR REPAIR
FOR WALL / SLAB
CONCRETE SURFACES
NOT TO SCALE



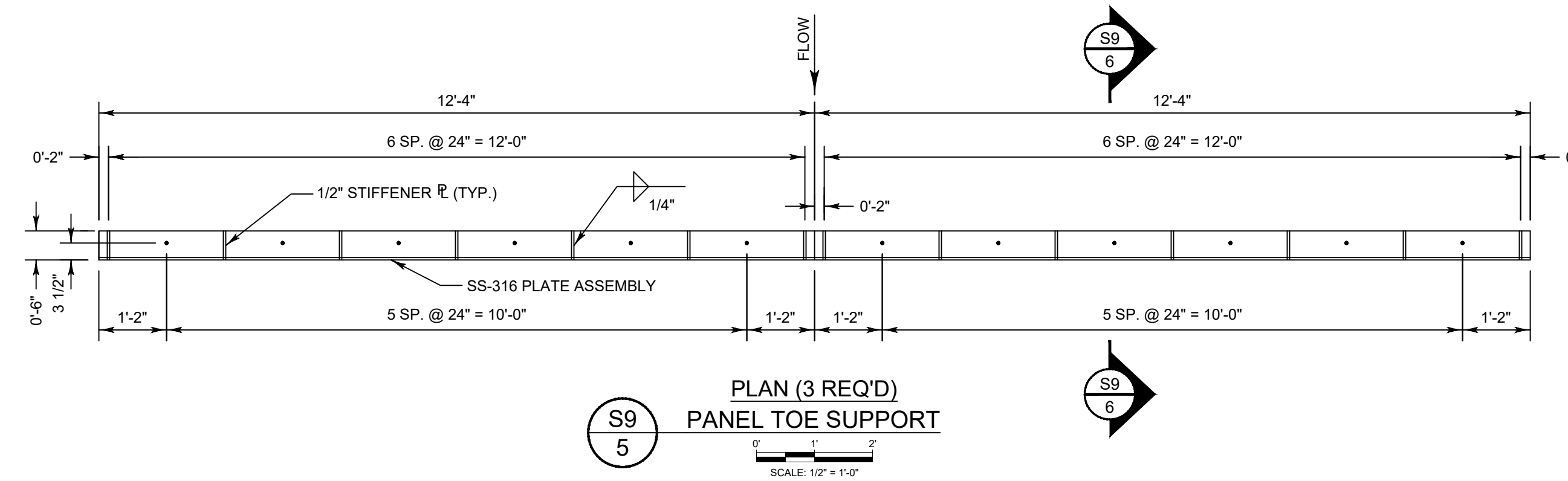
S9
3
DEEP CONCRETE REPAIR FOR SLABS
NOT TO SCALE



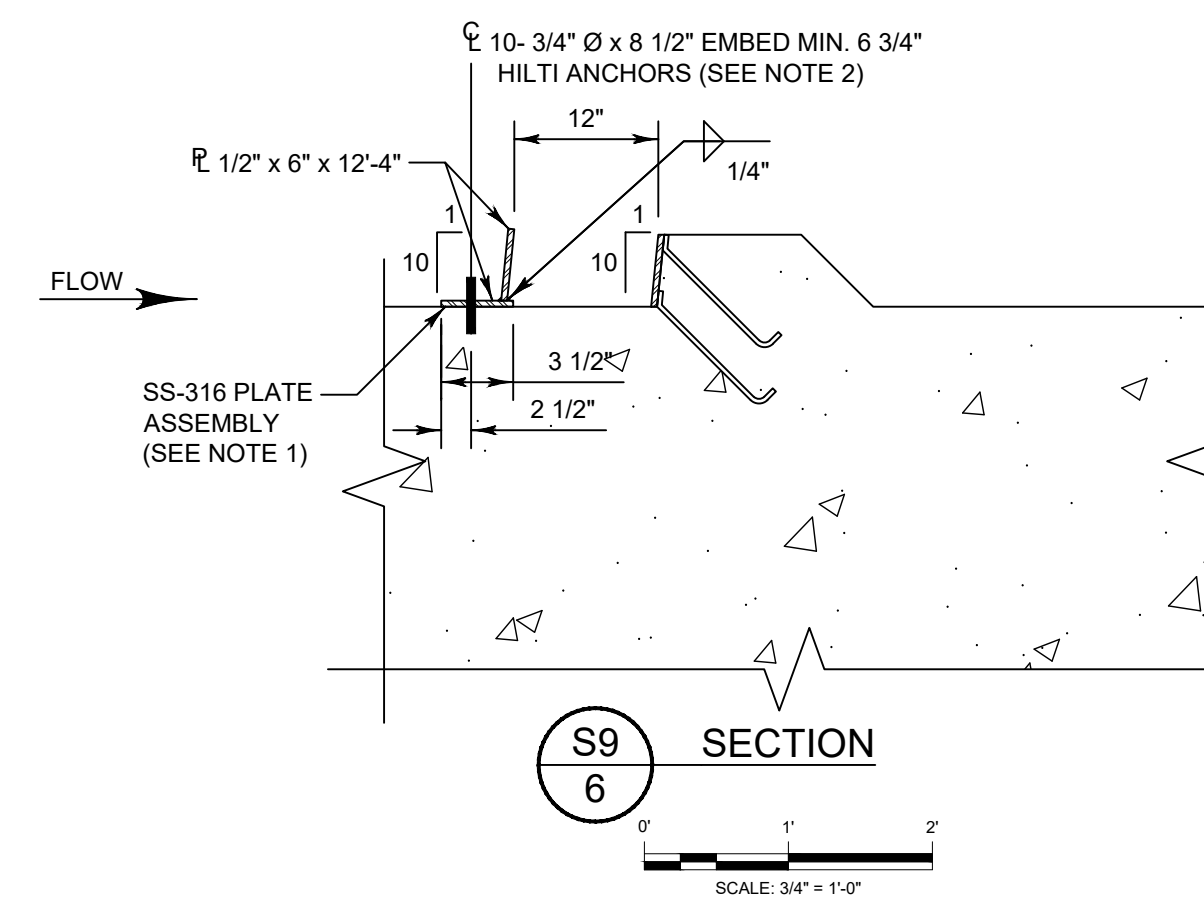
S9
4
CHEMICAL GROUTING DETAIL FOR
CONCRETE CRACKS WITH FLOWING WATER
NOT TO SCALE



S9
2
DEEP CONCRETE
REPAIR FOR WALLS
NOT TO SCALE



S9
5
PLAN (3 REQ'D)
PANEL TOE SUPPORT
SCALE: 1/2\"/>



S9
6
SECTION
SCALE: 3/4\"/>

CONCRETE:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 400 WITH SUPPLEMENTS AND ALL PERTINENT SPECIFICATIONS CONTAINED THEREIN.
2. ALL CONCRETE SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,500 PSI. PORTLAND CEMENT SHALL BE TYPE II IN ACCORDANCE WITH ASTM C-150. CONCRETE SHALL BE AIR ENTRAINED WITH TOTAL AIR AS PERCENT BY VOLUME OF CONCRETE EQUAL TO 4%. THE AIR ENTRAINING ADMIXTURE SHALL BE MICRO AIR, AS MANUFACTURED BY MASTER BUILDERS, OR EQUAL, CONFORMING TO ASTM C-260. THE AGGREGATES SHALL CONFORM TO ASTM C-33 AND SHALL HAVE A 3/4-INCH MAXIMUM SIZE.
3. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A-615.
4. THE MINIMUM CLEAR CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES FOR FORMED SURFACES AND 4.5 INCHES FOR CONCRETE CAST AGAINST EARTH.
5. CRACKS WITH FLOWING WATER SHALL BE REPAIRED WITH CHEMICAL GROUT AS DETAILED PRIOR TO CONCRETE SURFACE REPAIR. CUT AND REMOVE EXCESS CHEMICAL GROUT PRIOR TO CONCRETE REPAIR. WHEN SEALING VERTICAL CRACKS, BEGIN AT THE BOTTOM AND WORK UP. WHERE WATER FLOW IS PRESENT, BEGIN INJECTING CRACK AT THE POINT OF LEAST FLOW AND WORK TOWARDS AREA OF HEAVIEST FLOW. CHEMICAL GROUT SHALL BE HYDRO ACTIVE FLEX AS MANUFACTURED BY DENEFF CONSTRUCTION CHEMICALS, INC., OR APPROVED EQUAL.

STEEL:

1. THE PANEL TOE SUPPORT ASSEMBLY SHALL BE STAINLESS STEEL TYPE 316 CONFORMING TO ASTM A479.
2. ANCHORS SHALL UTILIZE THE HILTI HIT-RE 500-V3 EPOXY ADHESIVE ANCHORING SYSTEM, OR EQUAL. THREADED ANCHOR RODS SHALL BE 3/4\"/>

LEGEND

##
1
SECTION SHEET NUMBER
SECTION LABEL

**FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION**

U:\Projects\CADD\US-RRIS-157\05 Production Drawings\S-157 STRUCTURE.dwg

NO.	REVISION	BY	DATE	APPROVED	DATE
1	ISSUED FOR BID	N.J.G.	04/26/23	W.R.C.	04/26/23

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

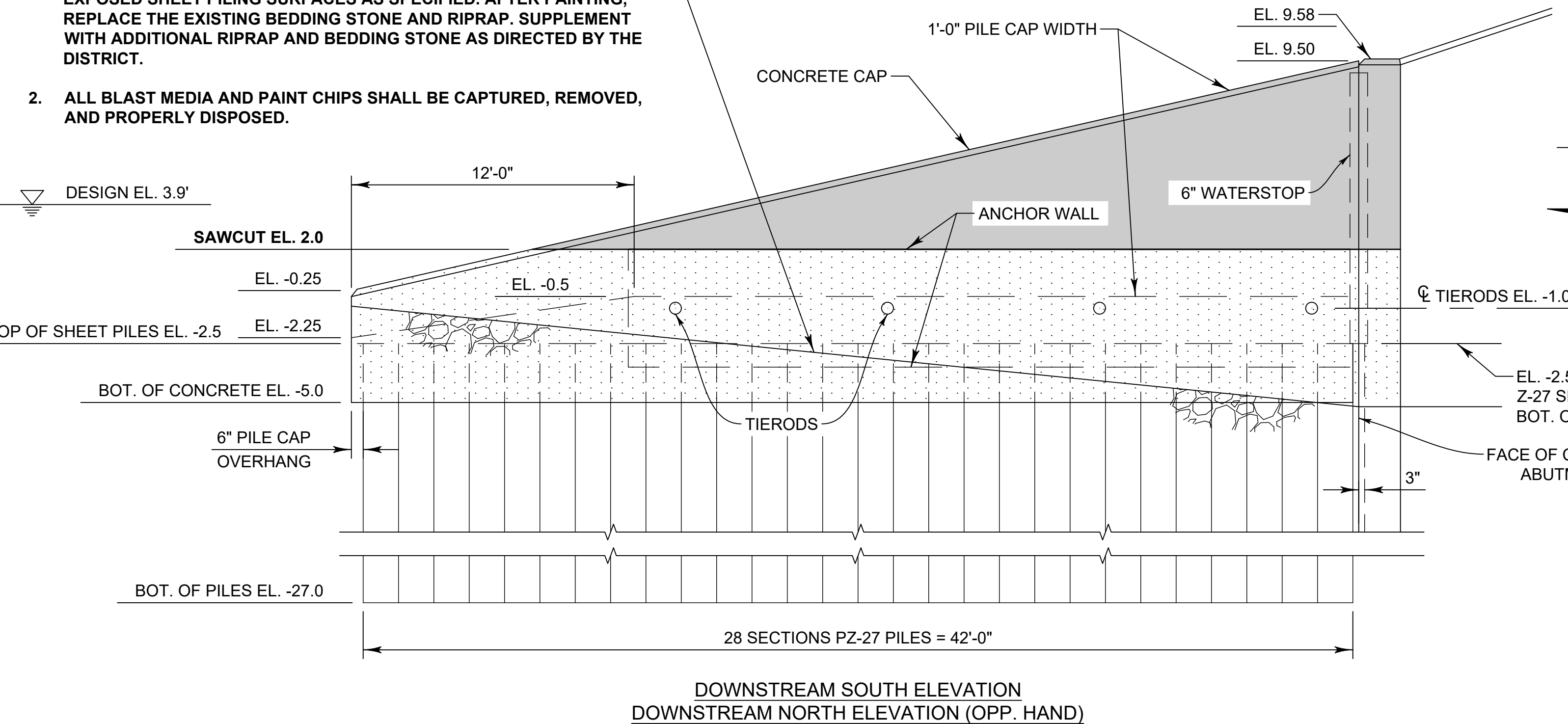
DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: AS NOTED DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

MISCELLANEOUS DETAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S9

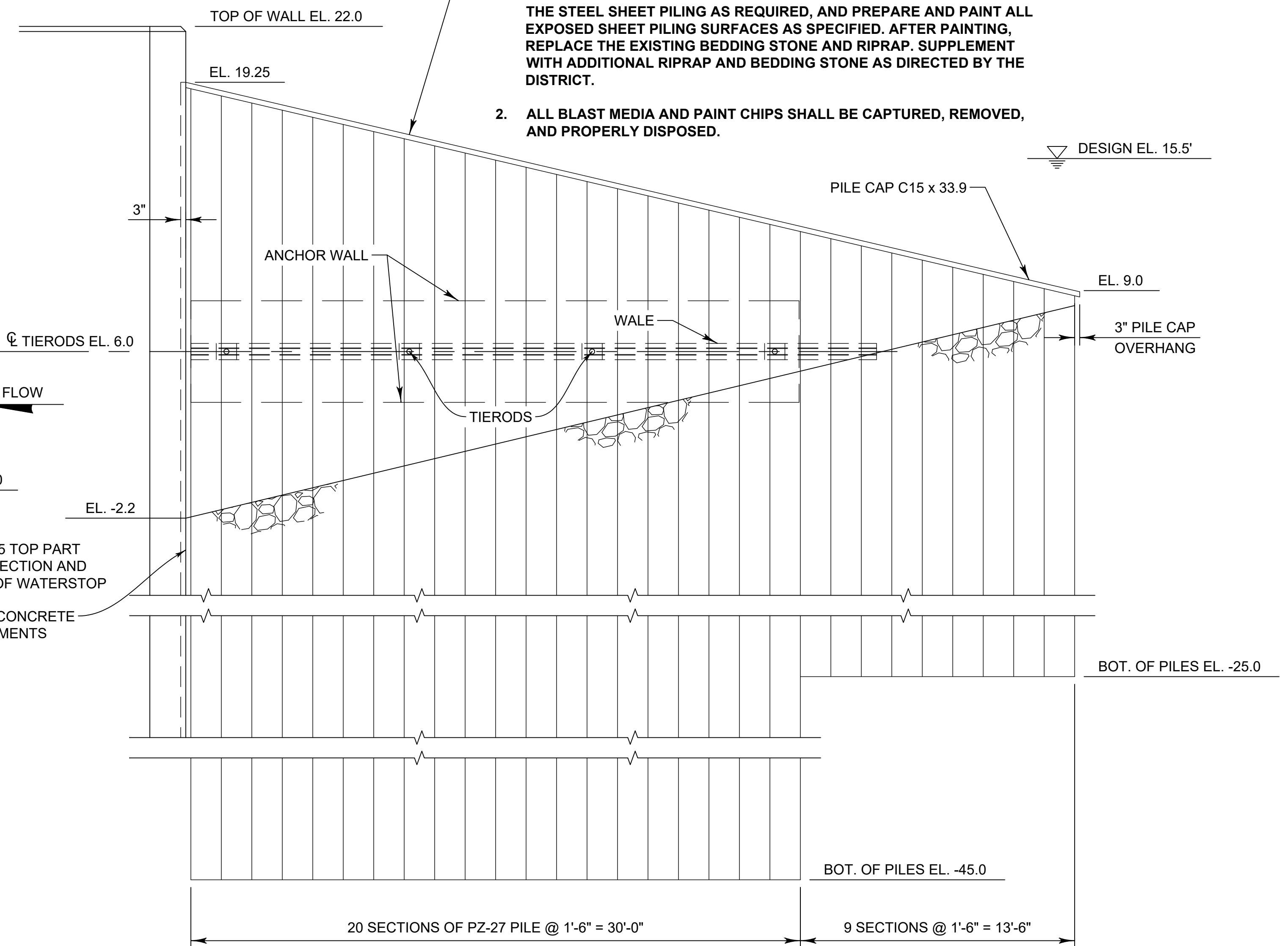
- NOTES:**
- EXCAVATE EXISTING RIPRAP AND BEDDING STONE ADJACENT TO THE SHEET PILING WALLS DOWN TO THE SUBGRADE. INSPECT AND REPAIR THE STEEL SHEET PILING AS REQUIRED, AND PREPARE AND PAINT ALL EXPOSED SHEET PILING SURFACES AS SPECIFIED. AFTER PAINTING, REPLACE THE EXISTING BEDDING STONE AND RIPRAP. SUPPLEMENT WITH ADDITIONAL RIPRAP AND BEDDING STONE AS DIRECTED BY THE DISTRICT.
 - ALL BLAST MEDIA AND PAINT CHIPS SHALL BE CAPTURED, REMOVED, AND PROPERLY DISPOSED.



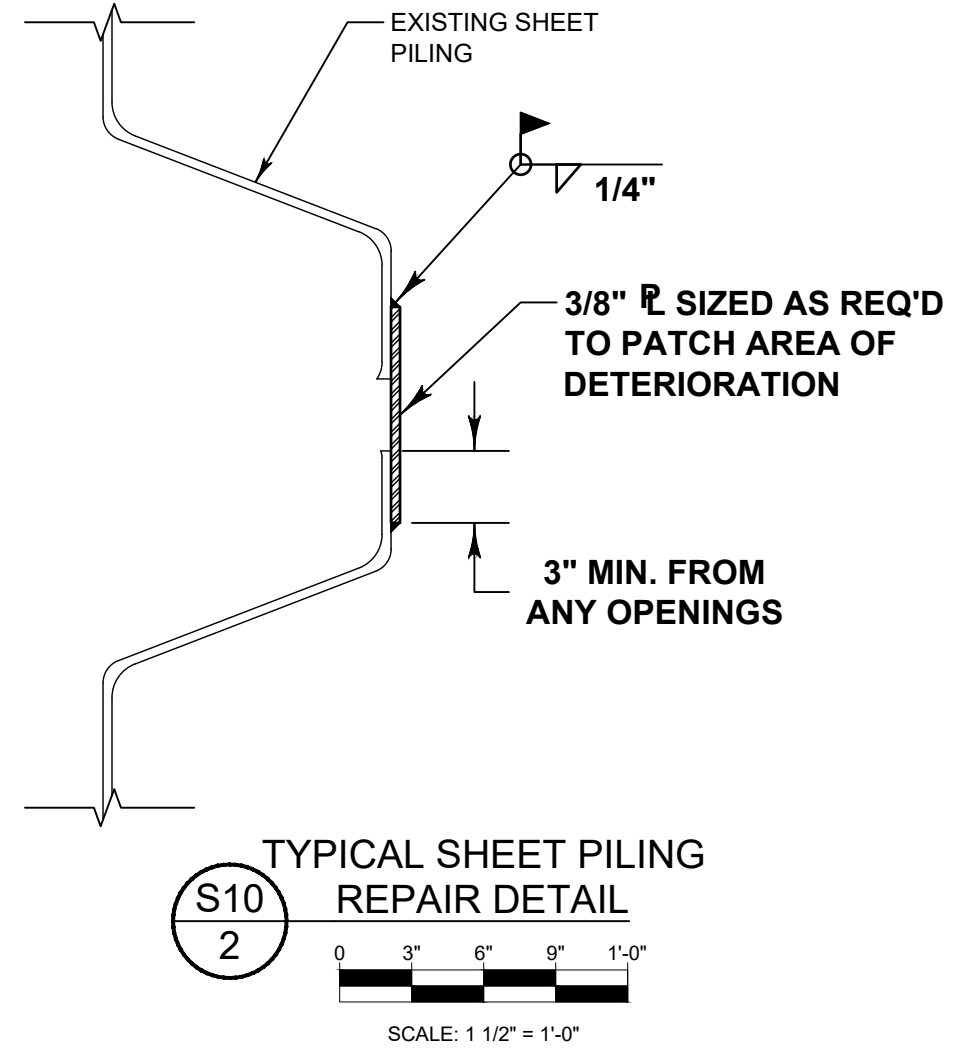
DOWNSTREAM SOUTH ELEVATION
DOWNSTREAM NORTH ELEVATION (OPP. HAND)

S10 WINGWALLS
1
SCALE: 1/4" = 1'-0"

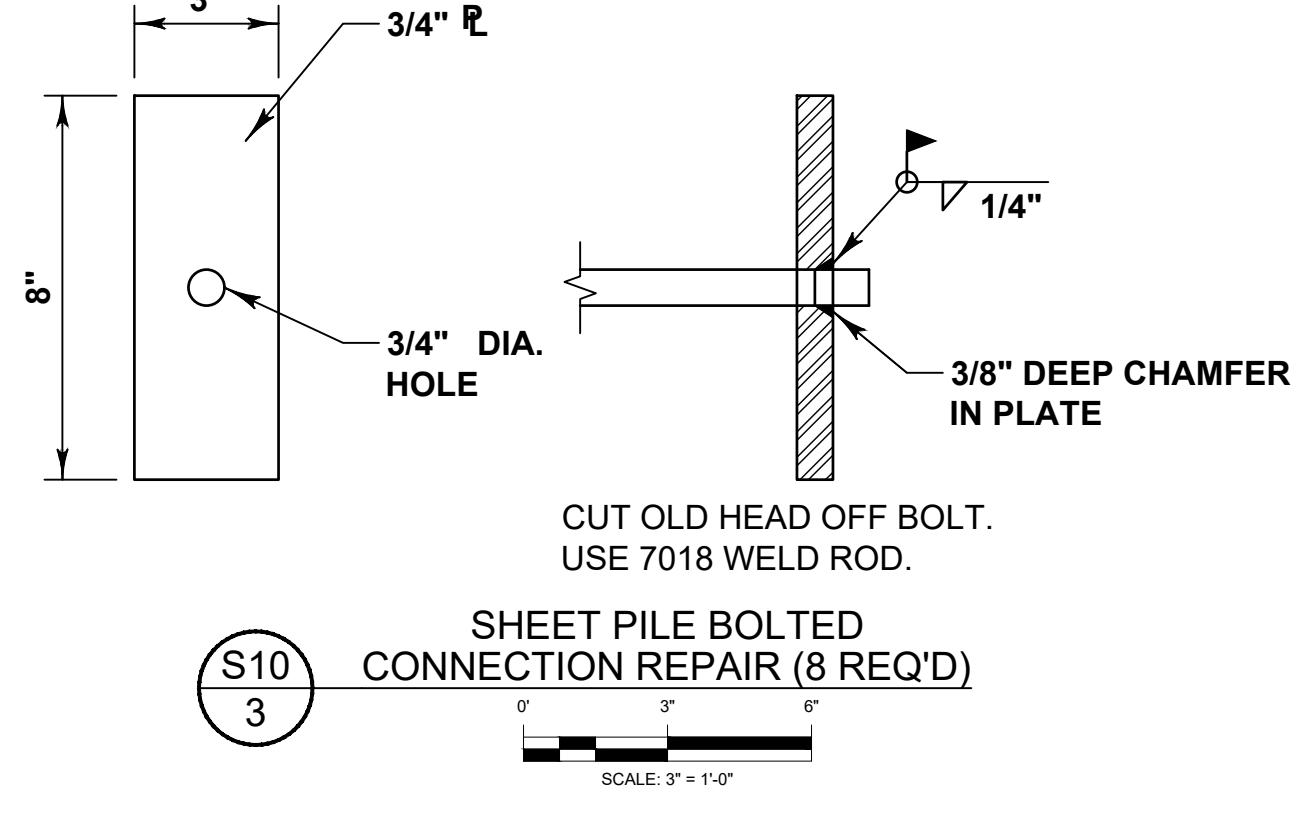
- NOTES:**
- EXCAVATE EXISTING RIPRAP AND BEDDING STONE ADJACENT TO THE SHEET PILING WALLS DOWN TO THE SUBGRADE. INSPECT AND REPAIR THE STEEL SHEET PILING AS REQUIRED, AND PREPARE AND PAINT ALL EXPOSED SHEET PILING SURFACES AS SPECIFIED. AFTER PAINTING, REPLACE THE EXISTING BEDDING STONE AND RIPRAP. SUPPLEMENT WITH ADDITIONAL RIPRAP AND BEDDING STONE AS DIRECTED BY THE DISTRICT.
 - ALL BLAST MEDIA AND PAINT CHIPS SHALL BE CAPTURED, REMOVED, AND PROPERLY DISPOSED.



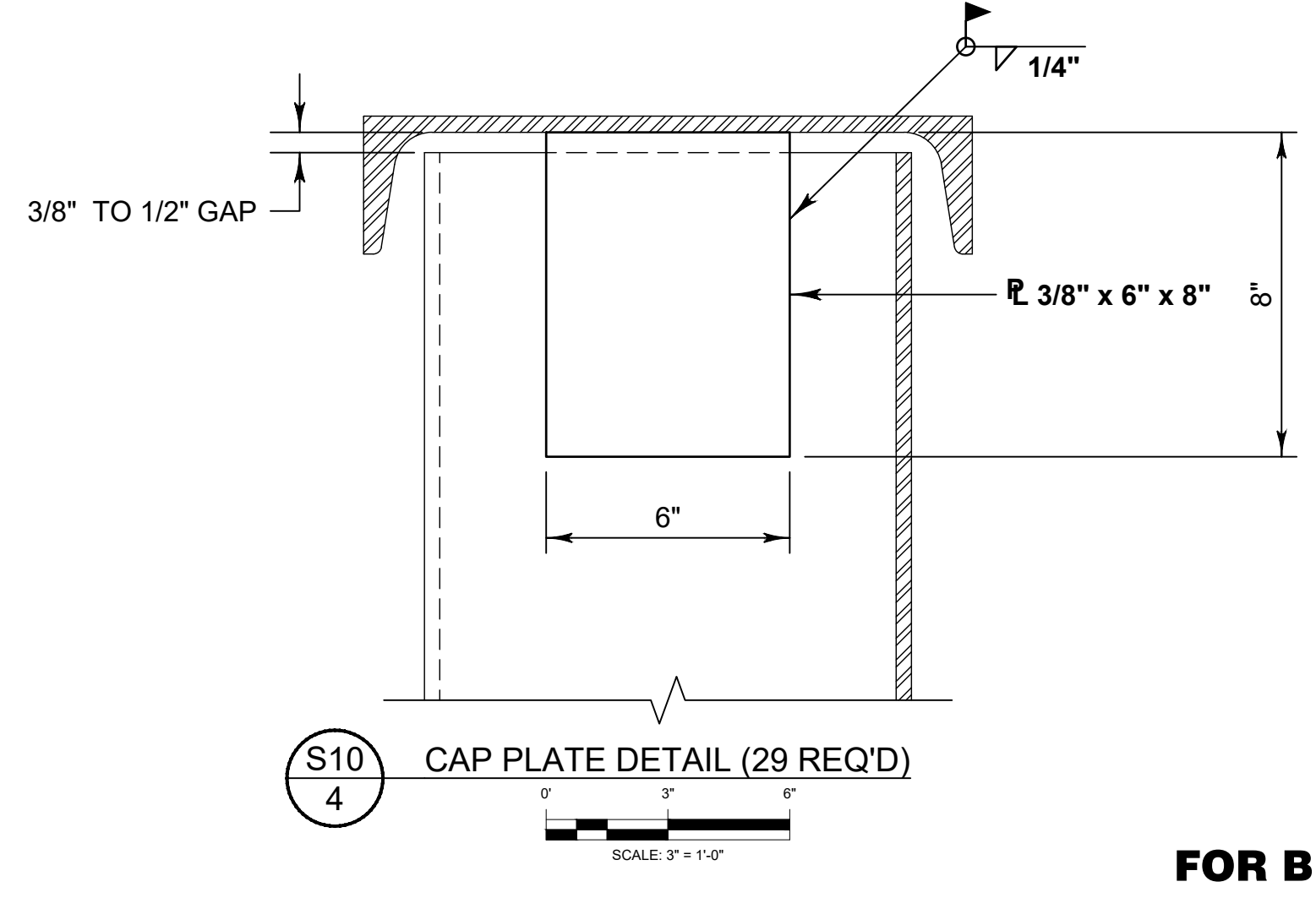
UPSTREAM SOUTH ELEVATION
UPSTREAM NORTH ELEVATION (OPP. HAND)



S10 TYPICAL SHEET PILING REPAIR DETAIL
2
SCALE: 1 1/2" = 1'-0"



S10 SHEET PILE BOLTED CONNECTION REPAIR (8 REQ'D)
3
SCALE: 3" = 1'-0"



S10 CAP PLATE DETAIL (29 REQ'D)
4
SCALE: 3" = 1'-0"

**FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION**

U:\Projects\CADD\US\RBIS-157\157 Production Drawings-157 STRUCTURE.dwg

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: AS NOTED DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

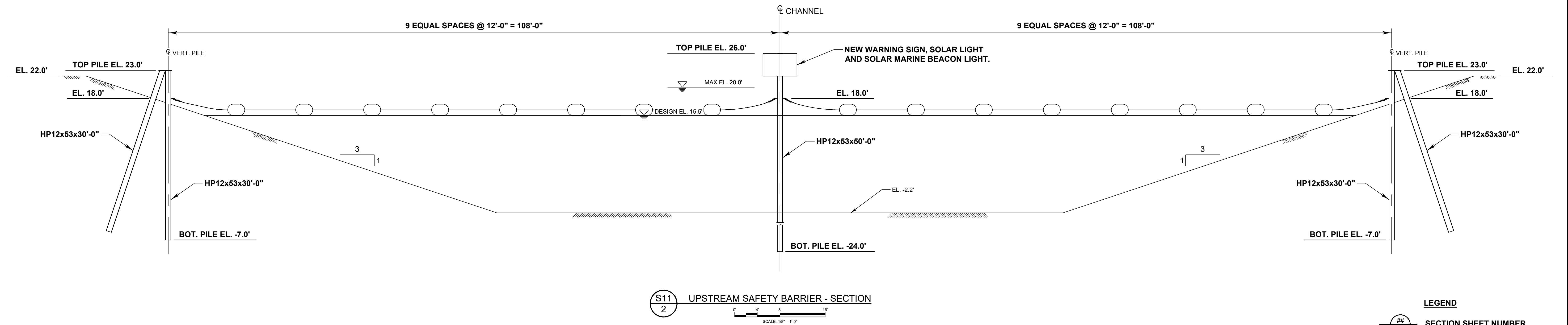
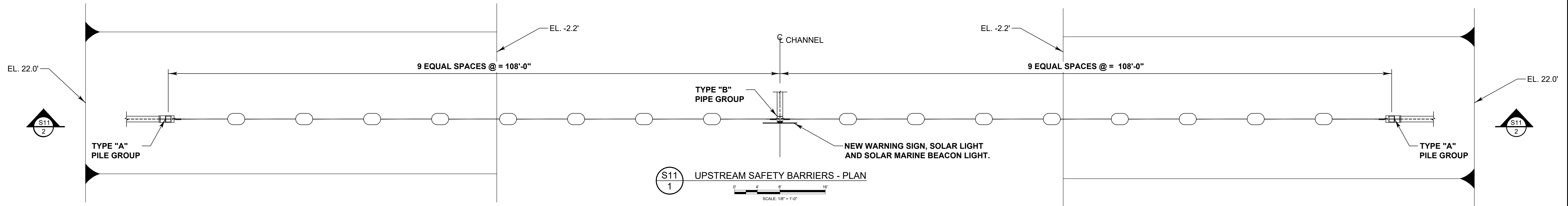
SHEET PILING REPAIR - WINGWALLS
ELEVATION AND DETAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET:
S10

NOTES:

1. REMOVE AND DISPOSE EXISTING TIMBER PILES AND REPLACE WITH STEEL PILES AS SHOWN.
2. REMOVE AND DISPOSE EXISTING SAFETY BARRIERS. NEW FLOATING SAFETY BARRIERS SHALL BE TUFFBUOY AS MANUFACTURED BY WORTHINGTON PRODUCTS, INC., OR EQUAL. FLOATS SHALL 24" X 36" OVAL TYPE PT THROUGH CABLE DESIGN, AND ORANGE COLOR WITH REFLECTIVE STRIPE. ALL METAL COMPONENTS SHALL BE STAINLESS STEEL.
3. SOLAR LIGHTS FOR THE WARNING SIGNS (2) SHALL BE MODEL SLBL-TR60-1000LM AS MANUFACTURED BY LEDLIGHTING SOLUTIONS (LEDLIGHTING-SOLUTIONS.COM), OR EQUAL.



LEGEND



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UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

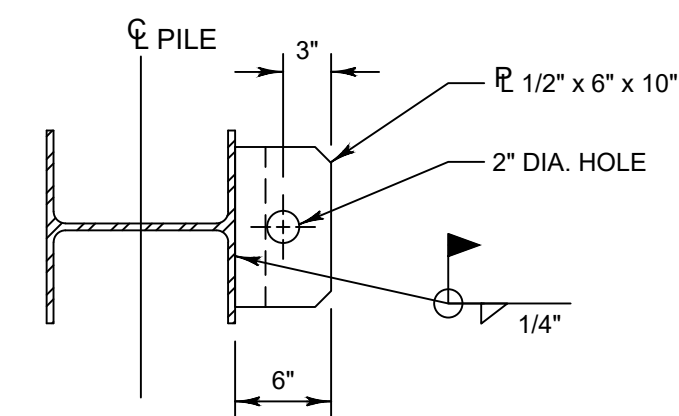
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.
SCALE: 1/8" = 1'-0"	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

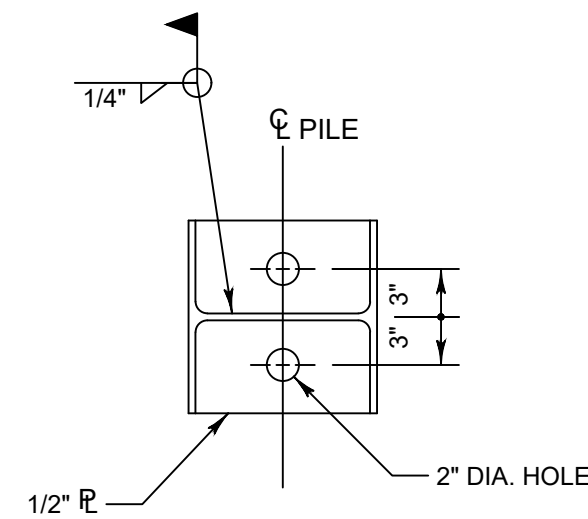
UPSTREAM SAFETY BARRIER

CERTIFICATION:	

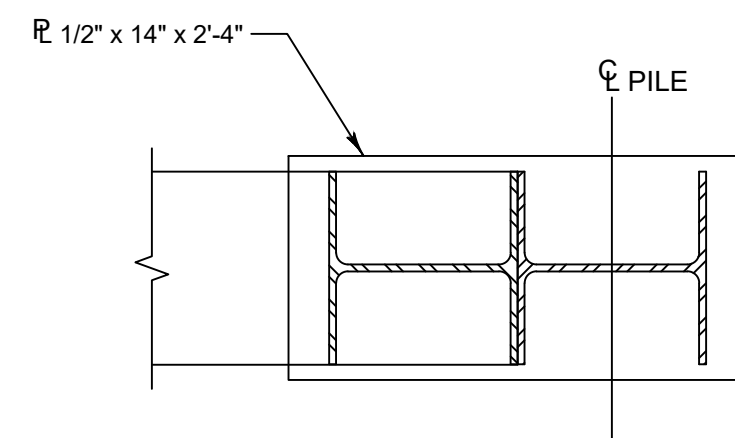
FILE NAME:	S-157 STRUCTURE.dwg
PROJECT NO.:	
SHEET:	S11



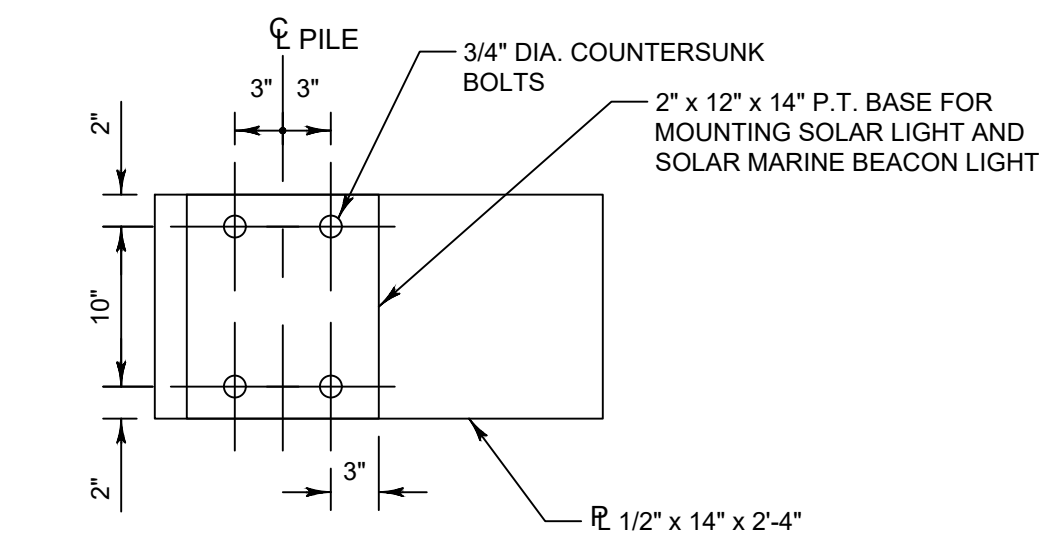
SECTION A-A



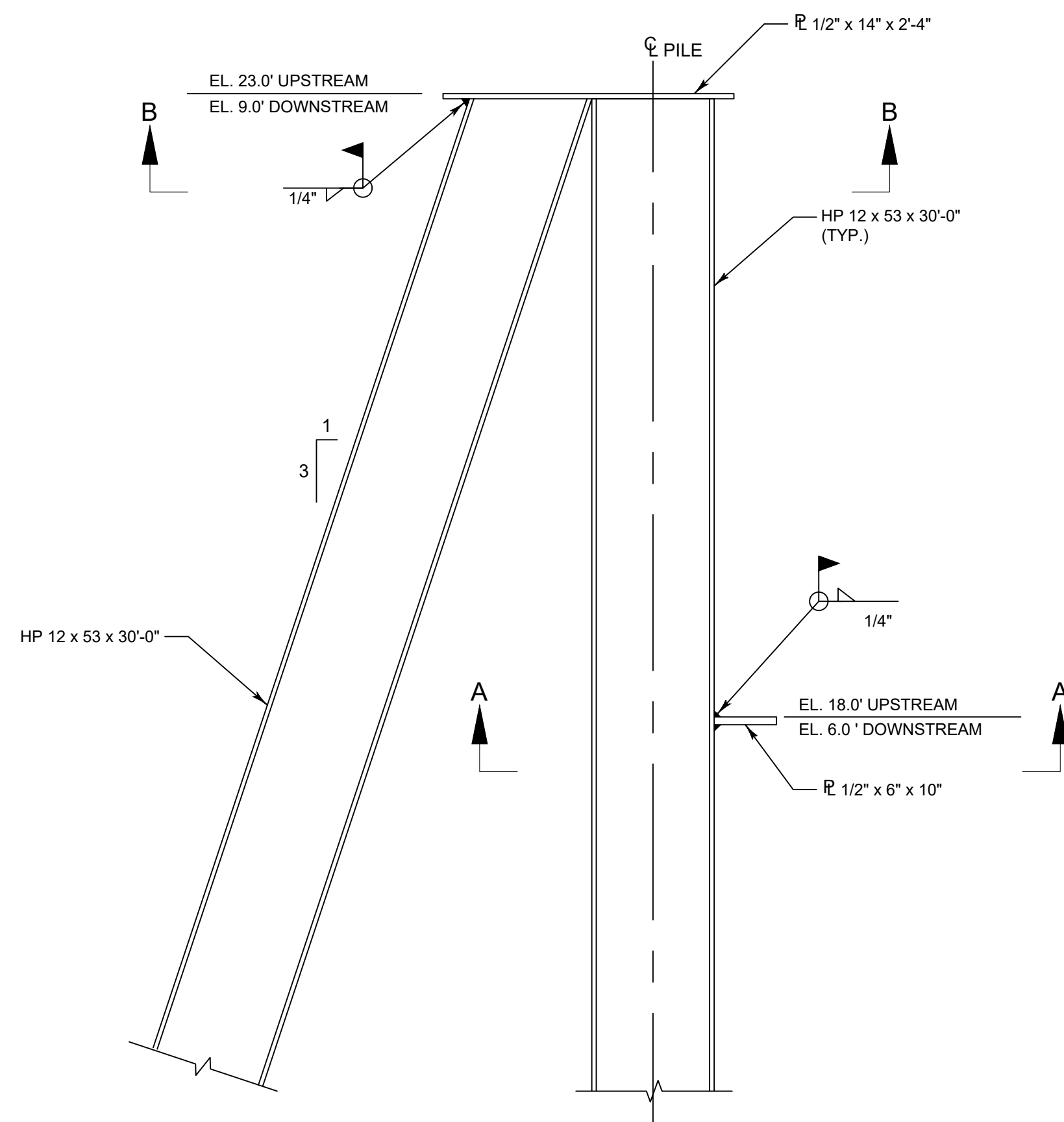
SECTION C-C



SECTION B-B

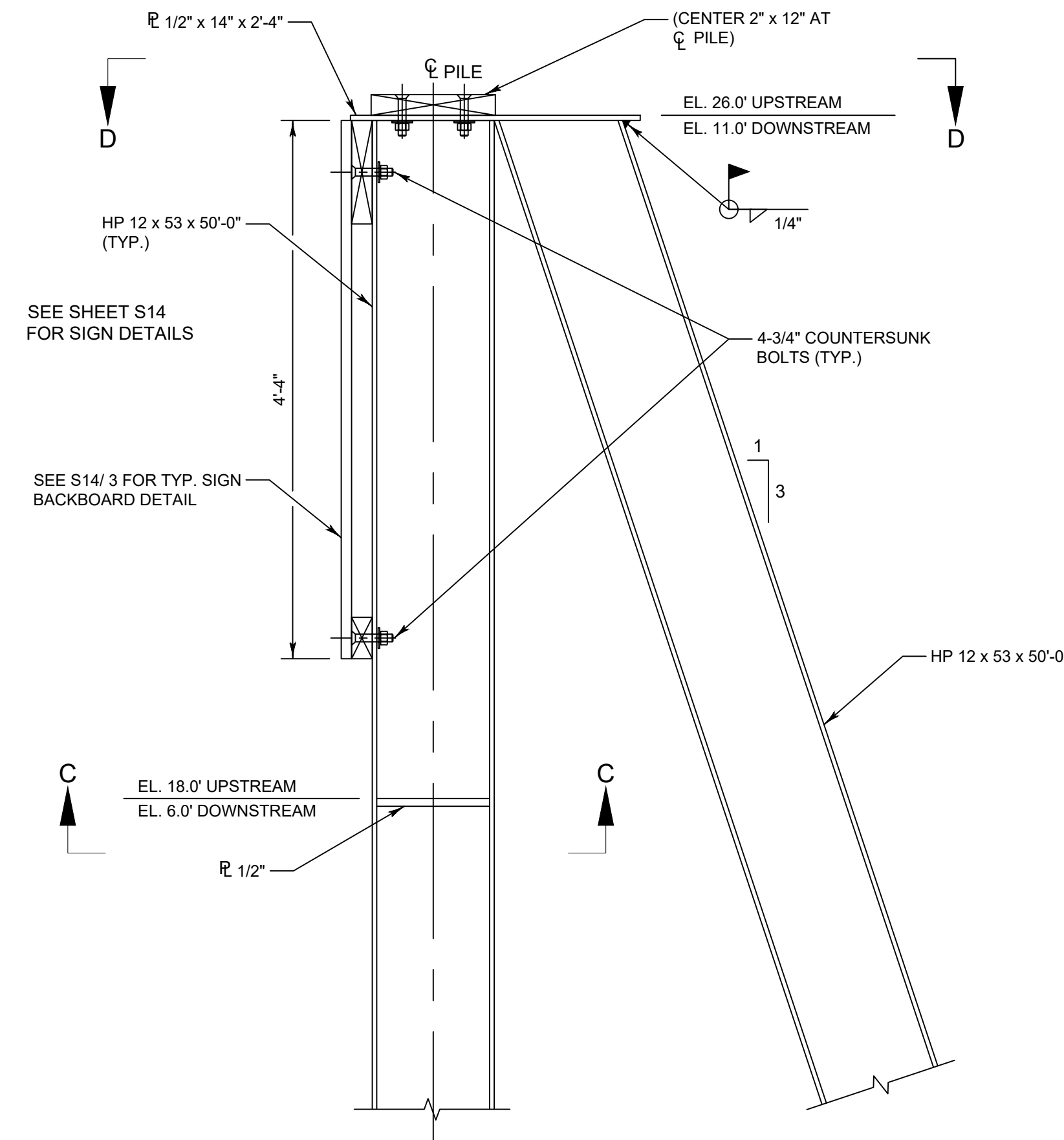
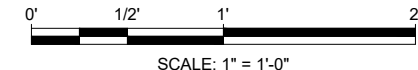


SECTION D-D



ELEVATION

S13 1 TYPE "A" PILE GROUP (4 REQ'D) (2 AS SHOWN), (2 OPP. HAND)



ELEVATION

S13 2 TYPE "B" PILE GROUP (2 REQ'D)



NOTE SPECIFICATIONS:

STRUCTURAL STEEL:

1. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
2. ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE NEW AND CONFORM TO THE REQUIREMENTS OF THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) STANDARD A36 UNLESS NOTED OTHERWISE.
3. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE" AWS D1.1. ALL WELDING SHALL UTILIZE E70XX ELECTRODES UNLESS NOTED OTHERWISE.

PAINTS AND PROTECTIVE COATINGS:

1. ALL STEEL SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL (SSPC) "STEEL STRUCTURES PAINTING MANUAL". STEEL SURFACE PREPARATION SHALL BE SSPC-10 NEAR WHITE BLAST CLEANING
2. PROTECTIVE COATING FOR STRUCTURAL STEEL SHALL BE AS MANUFACTURED BY SHERWIN-WILLIAMS, OR EQUAL, AS FOLLOWS:

FIRST COAT (PRIMER): DURA-PLATE 235, 4-8 MILS DFT
 SECOND COAT: DURA-PLATE 235, 4-8 MILS DFT
 THIRD (FINAL) COAT: DURA-PLATE 235, 4-8 MILS DFT
 COLOR: LIGHT GRAY

SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE PAINT MANUFACTURER SPECIFICATIONS.

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1	ISSUED FOR BID	N.J.G.	04/26/23	W.R.C.	04/26/23

UPPER ST. JOHNS RIVER BASIN
 STRUCTURE 157 REHABILITATION
 BREVARD COUNTY, FLORIDA

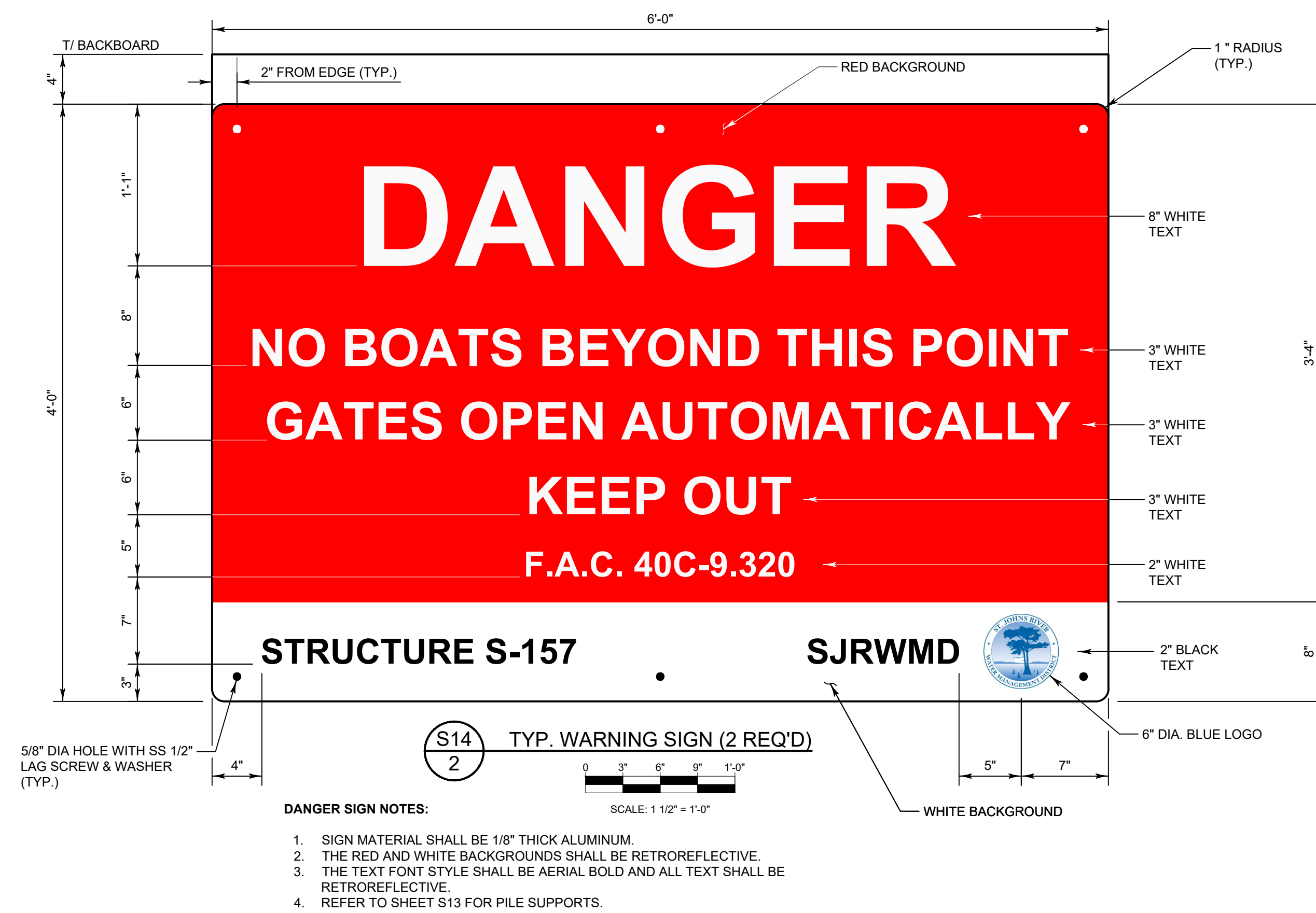
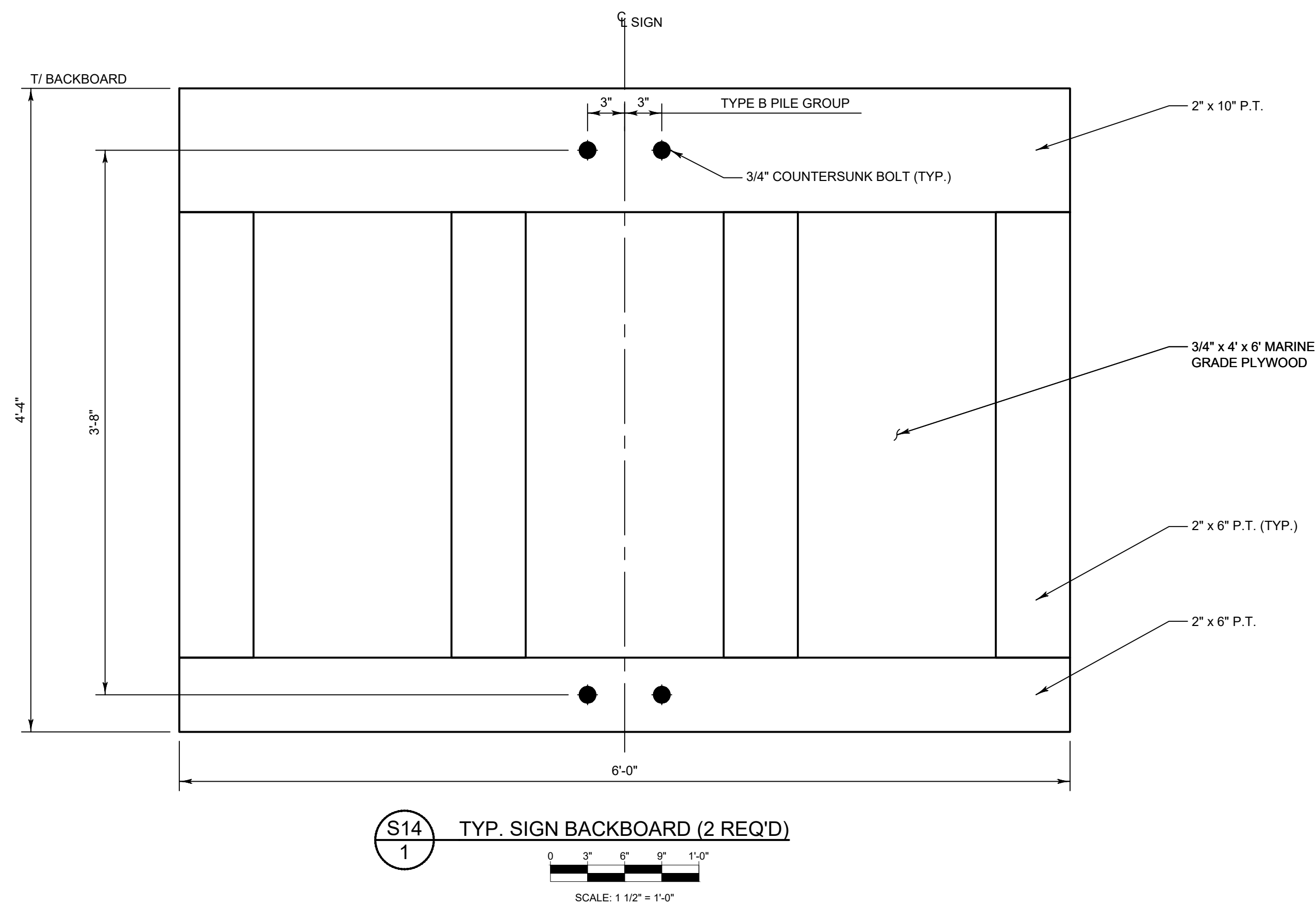
ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G.	DATE: APRIL 26, 2023	REVIEWER: W.R.C.
SCALE: ?	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

TYPE A AND TYPE B PILE
 GROUP DETAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME: S-157 STRUCTURE.dwg
PROJECT NO.:
SHEET: S13



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UPPER ST. JOHNS RIVER BASIN
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BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.

SCALE: AS NOTED DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

SIGN DETAILS

CERTIFICATION:

WILLIAM R. COTE

P.E. NUMBER: 53746

DATE: APRIL 26, 2023

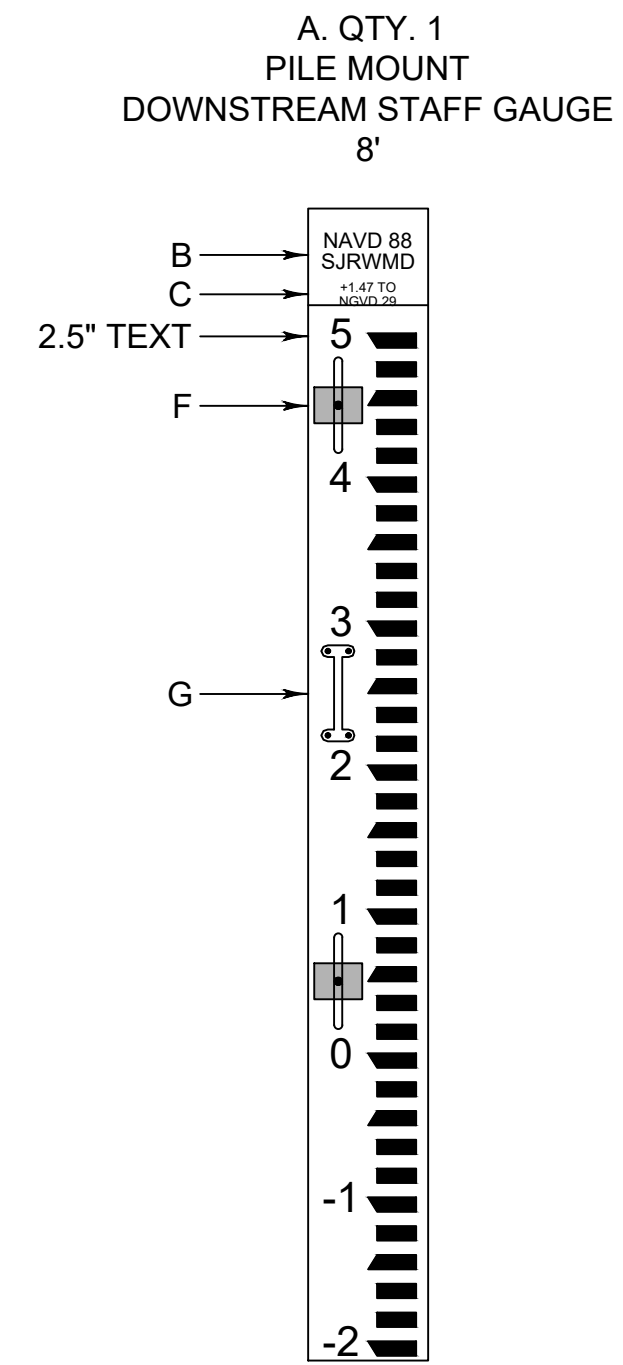
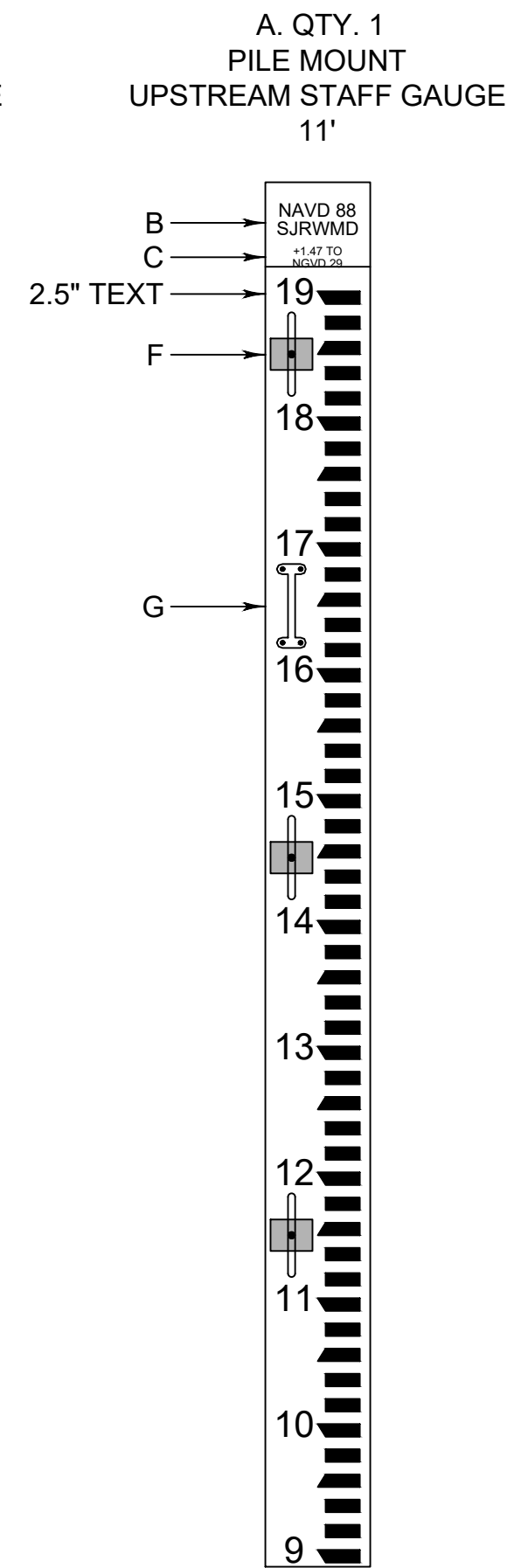
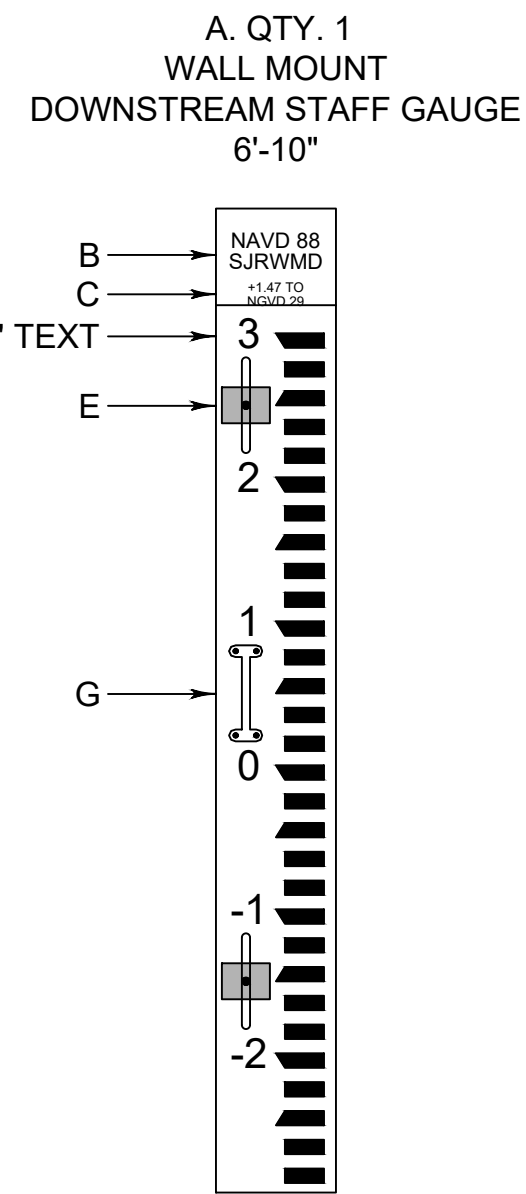
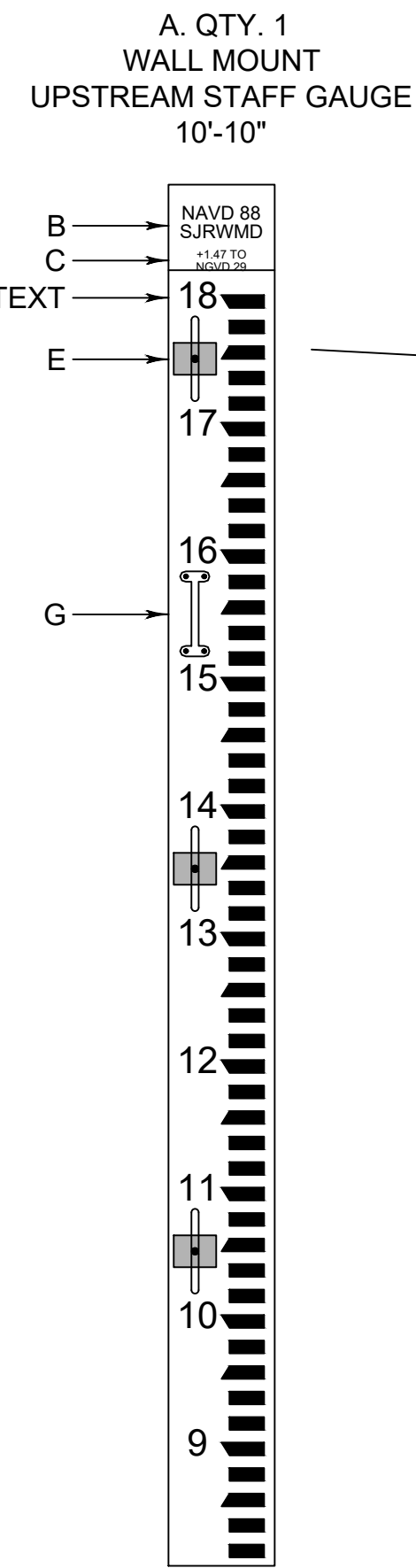
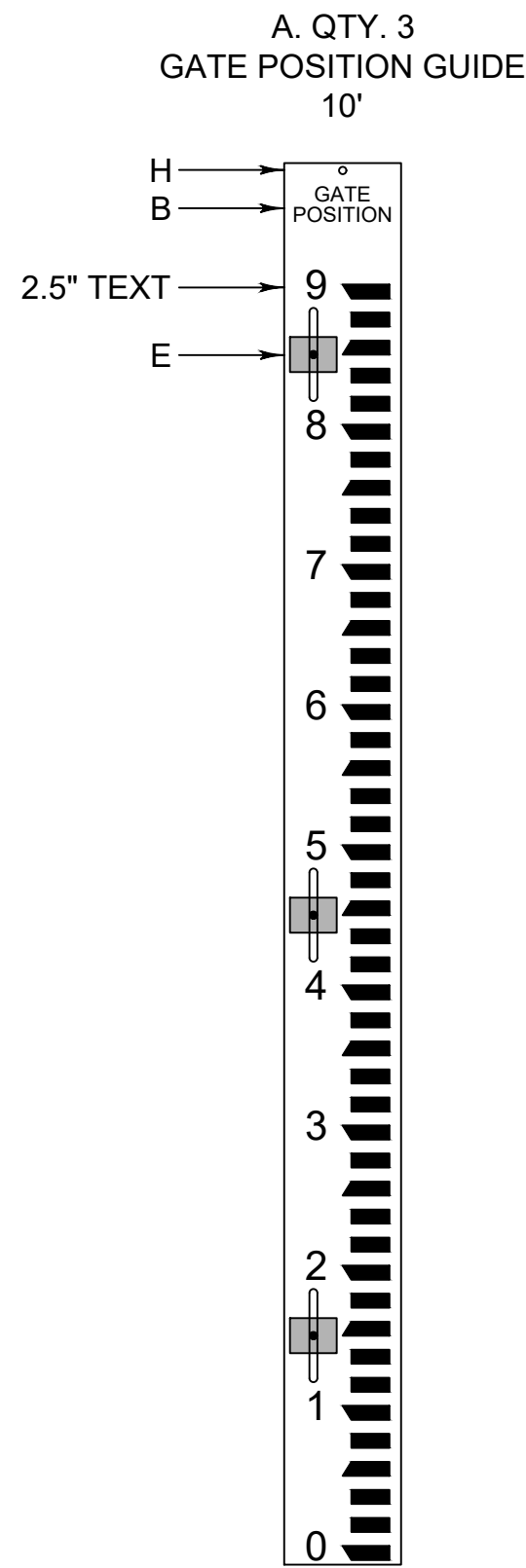
FILE NAME:
S-157 FENCING.dwg

PROJECT NO.:

SHEET:
S14

ALL HASH MARKS ARE
1.2" IN HEIGHT

4" WIDE
3.25" WIDE



STAFF GAGE NOTES:

MATERIALS KEY:

- A. STAFF GAUGES AND GATE POSITION GUIDES:
2"x10" (1.5"x9.5") MADE FROM TANGENT TECHNOLOGIES POLYFORCE RECYCLED PLASTIC LUMBER, WHITE OVER BLACK, OR EQUAL.
- B. TITLE PLAQUE INSERT:
WHITE WITH RED LETTERING.
- C. NGVD29 OFFSET = +1.47
- D. STAFF GAUGE SPLICE LINES (IF REQUIRED).
- E. WALL MOUNTED STAFF GAUGES AND GATE POSITION GUIDES:
ALL SLOTS ARE 0.6875"x7.3125". THRU HOLES ARE 5/8" DIAMETER. PROVIDE SS WASHERS 1/2"x3"x4" AND SS EPOXY ANCHORS.
- F. PILE MOUNTED STAFF GAUGES:
ALL SLOTS ARE 0.6875"x7.3125". THRU HOLES ARE 5/8" DIAMETER. PROVIDE SS WASHERS 1/2"x3"x4" AND SS HEX HEAD THRU-BOLT 5/8"x4" FOR MOUNTING TO H-PILES.
- G. 8" SS HANDLE MOUNTED WITH THREADED INSERTS.
- H. 5/16" DIAMETER THRU HOLE WITH CONCRETE SCREW.

HARDWARE:

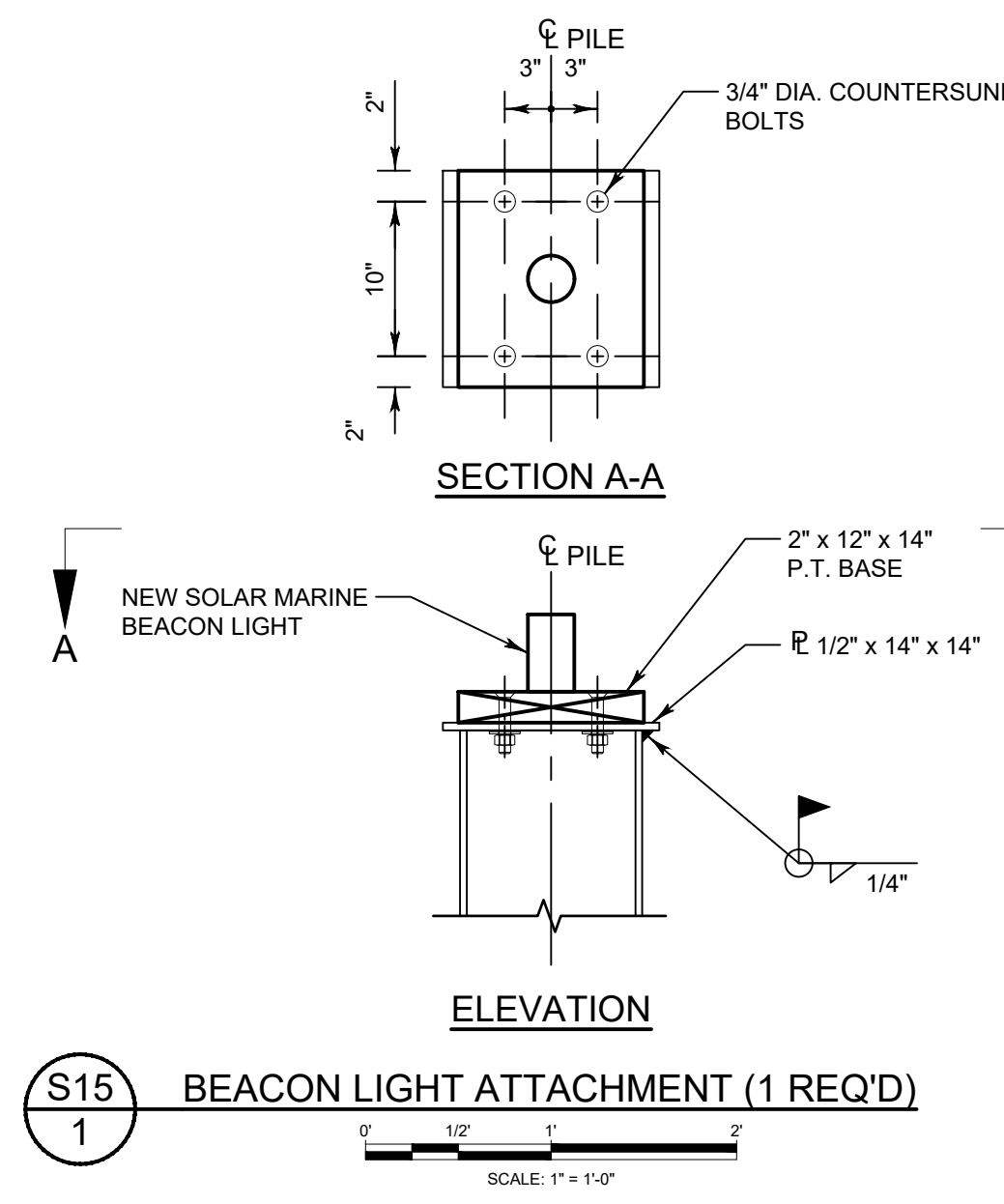
ALL HARDWARE SHALL BE STAINLESS STEEL.

SOLAR LIGHTS:

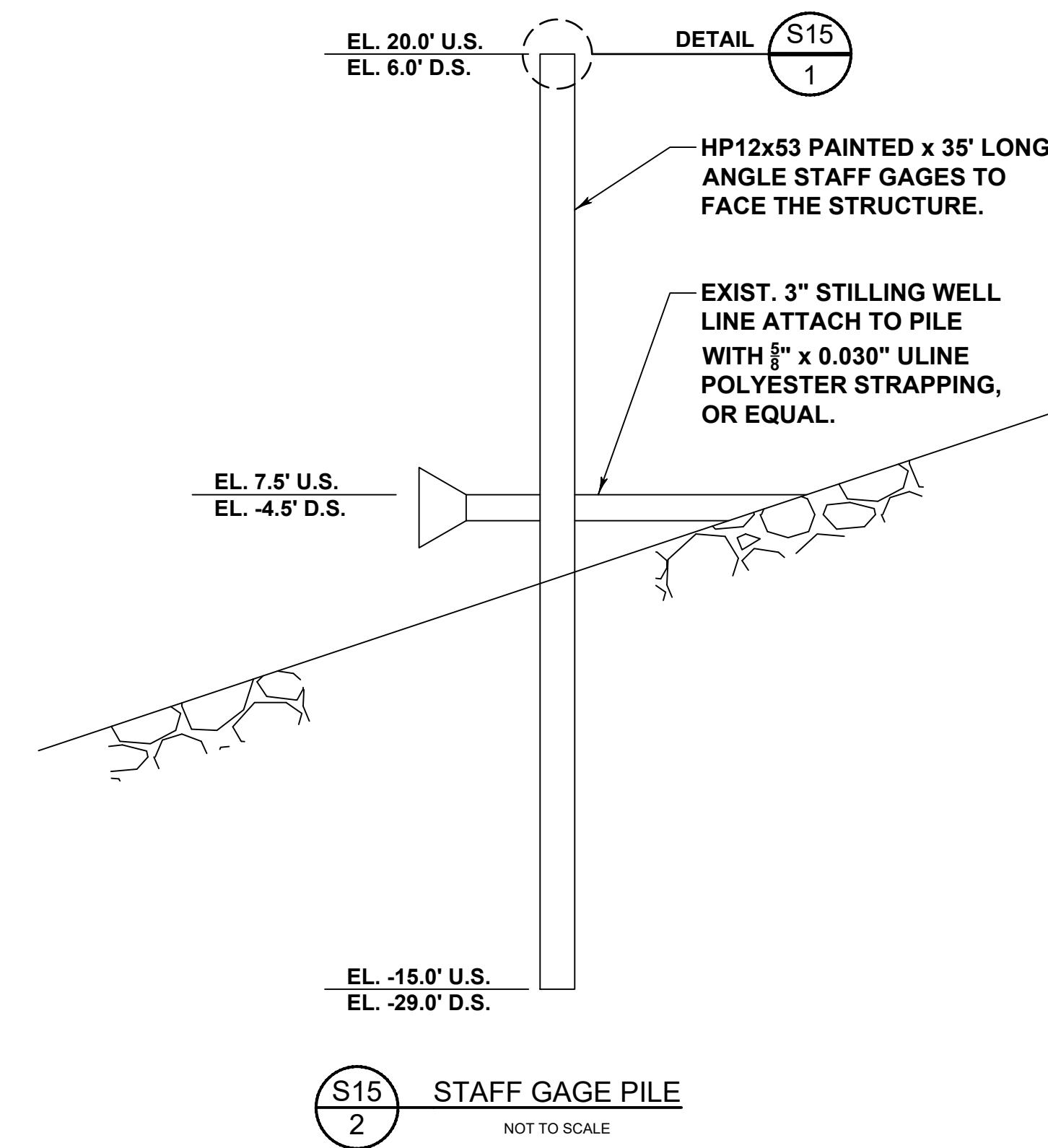
SOLAR MARINE BEACON LIGHTS (2) FOR THE STAFF GAUGE PILES SHALL BE MODEL SNL-003 WHITE COLOR AS MANUFACTURED BY BRITTA PRODUCTS INC., OR EQUAL. THIS PRODUCT IS AVAILABLE AT PILOTLIGHT.NET.

DATUM:

**ELEVATIONS ON THIS SHEET ARE IN NAVD88.
NAVD88 = NGVD29 -1.47 FEET.**



S15
1 BEACON LIGHT ATTACHMENT (1 REQ'D)
SCALE: 1" = 1'-0"



S15
2 STAFF GAGE PILE
NOT TO SCALE

**FOR BID PURPOSES ONLY
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UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

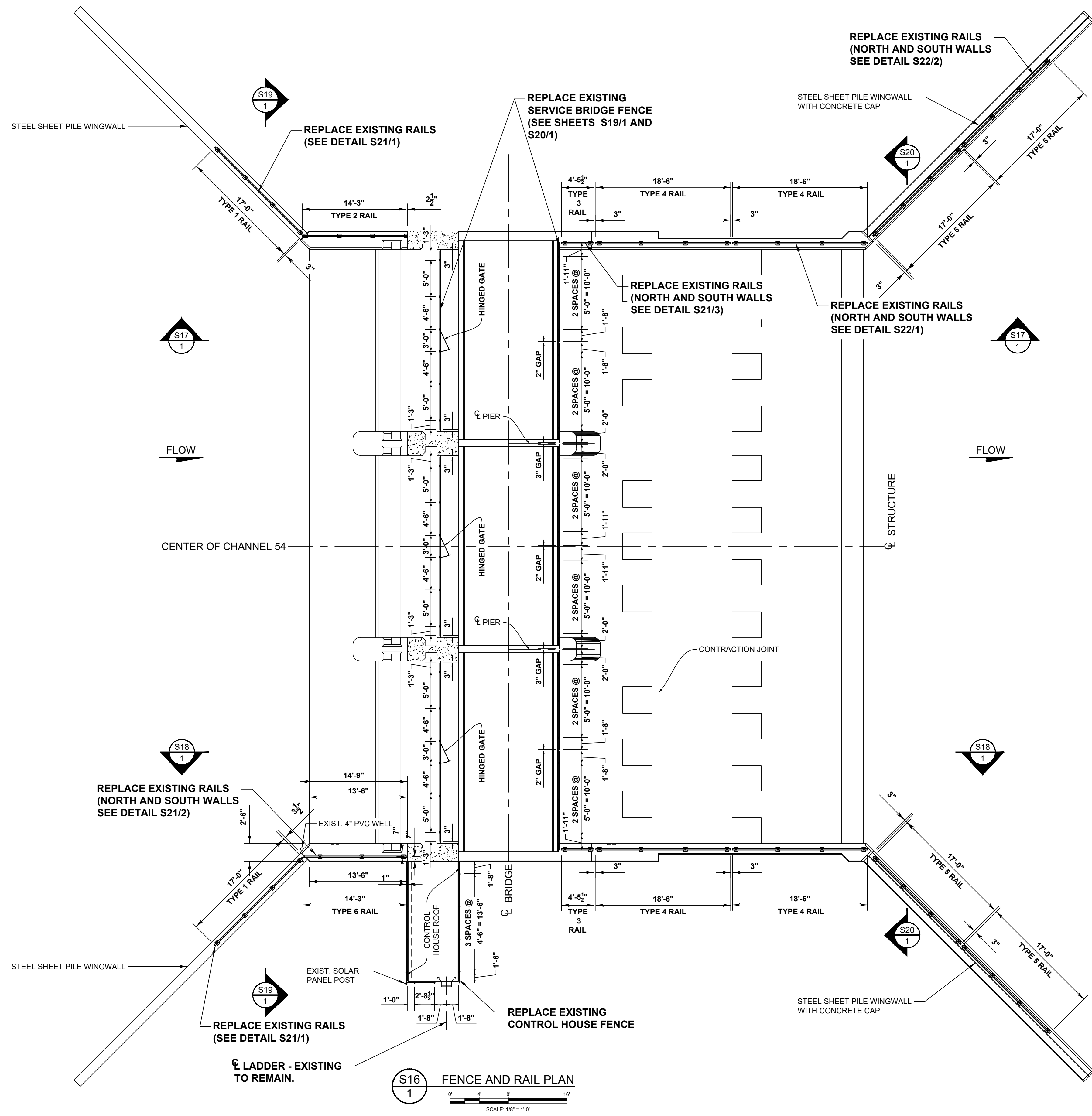
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: AS NOTED DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

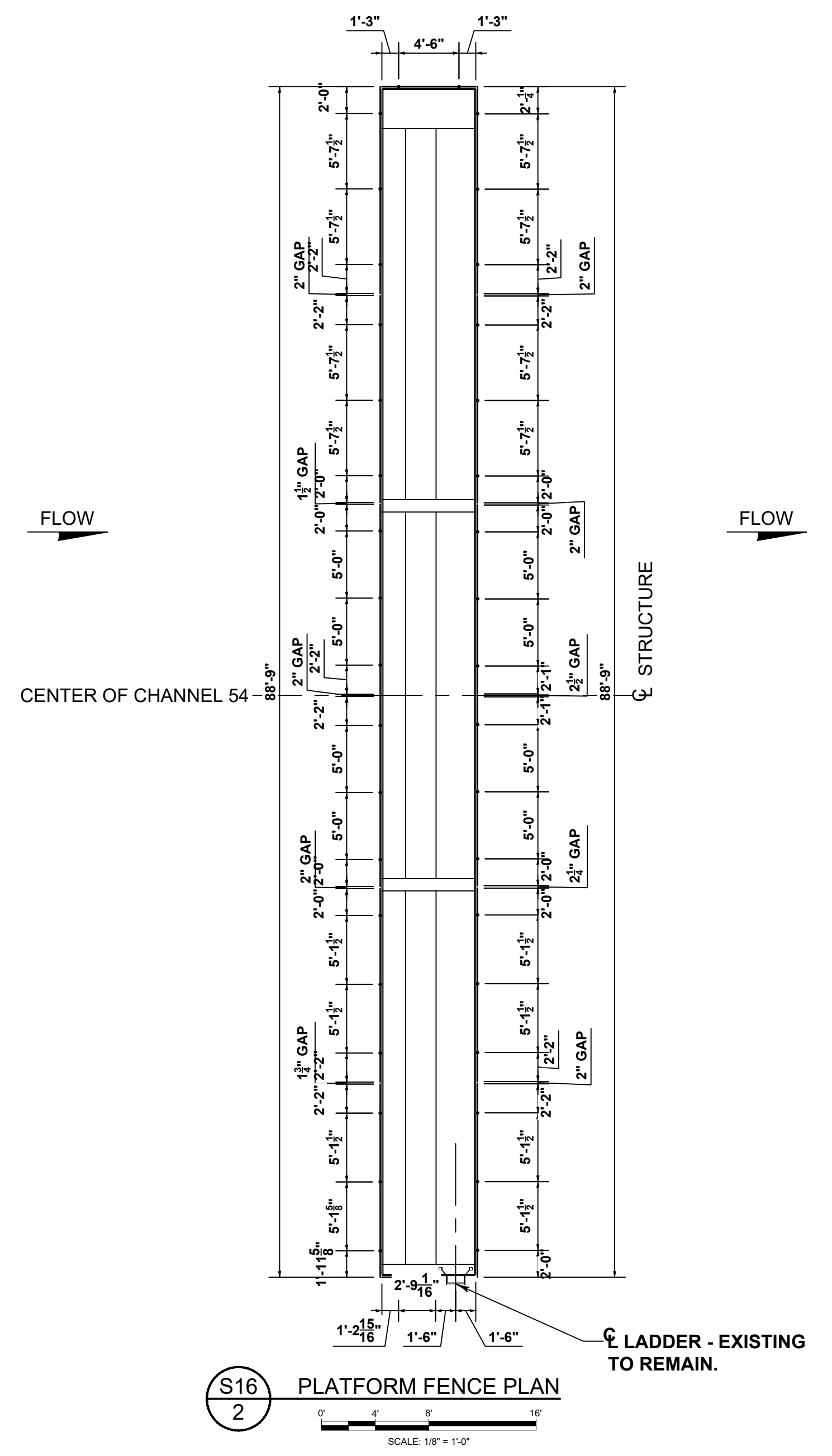
NEW STAFF GAUGES & GATE POSITION GUIDES

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 FENCING.dwg
PROJECT NO.:
SHEET:
S15



- NOTE:**
- SEE SHEET S21 FOR ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS.
 - SEE SHEET S23 FOR FENCE NOTE SPECIFICATIONS.



LEGEND

##
1 SECTION SHEET NUMBER
SECTION LABEL

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BREVARD COUNTY, FLORIDA

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WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.

SCALE: 1/8" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

FENCE AND HANDRAIL
REPLACEMENT PLAN

CERTIFICATION:

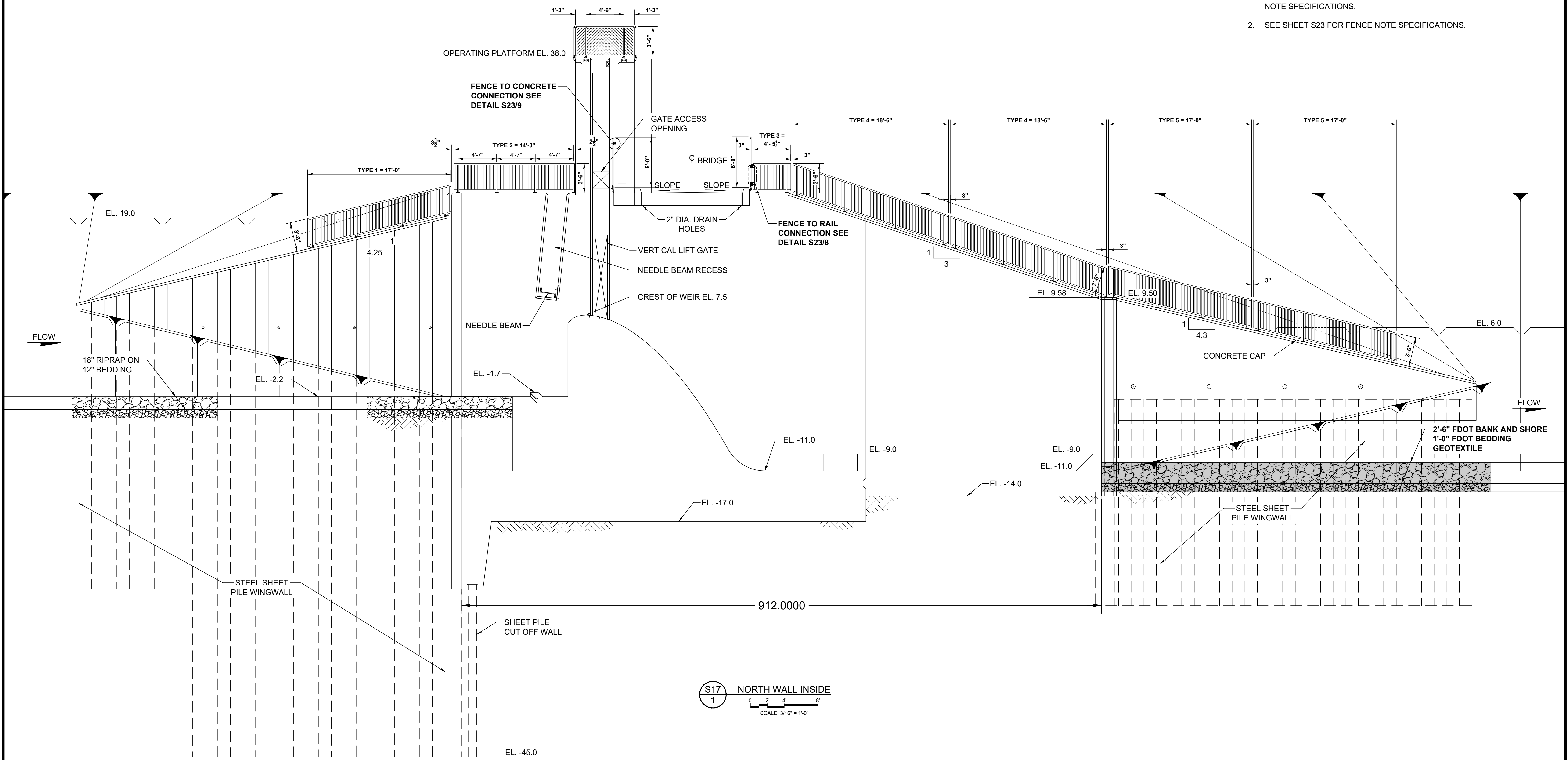
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 FENCING.dwg

PROJECT NO.:

SHEET:
S16

- NOTE:**
- SEE SHEET S21 FOR ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS.
 - SEE SHEET S23 FOR FENCE NOTE SPECIFICATIONS.



(S17) NORTH WALL INSIDE
 1
 SCALE: 3/16" = 1'-0"

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 STRUCTURE 157 REHABILITATION
 BREVARD COUNTY, FLORIDA

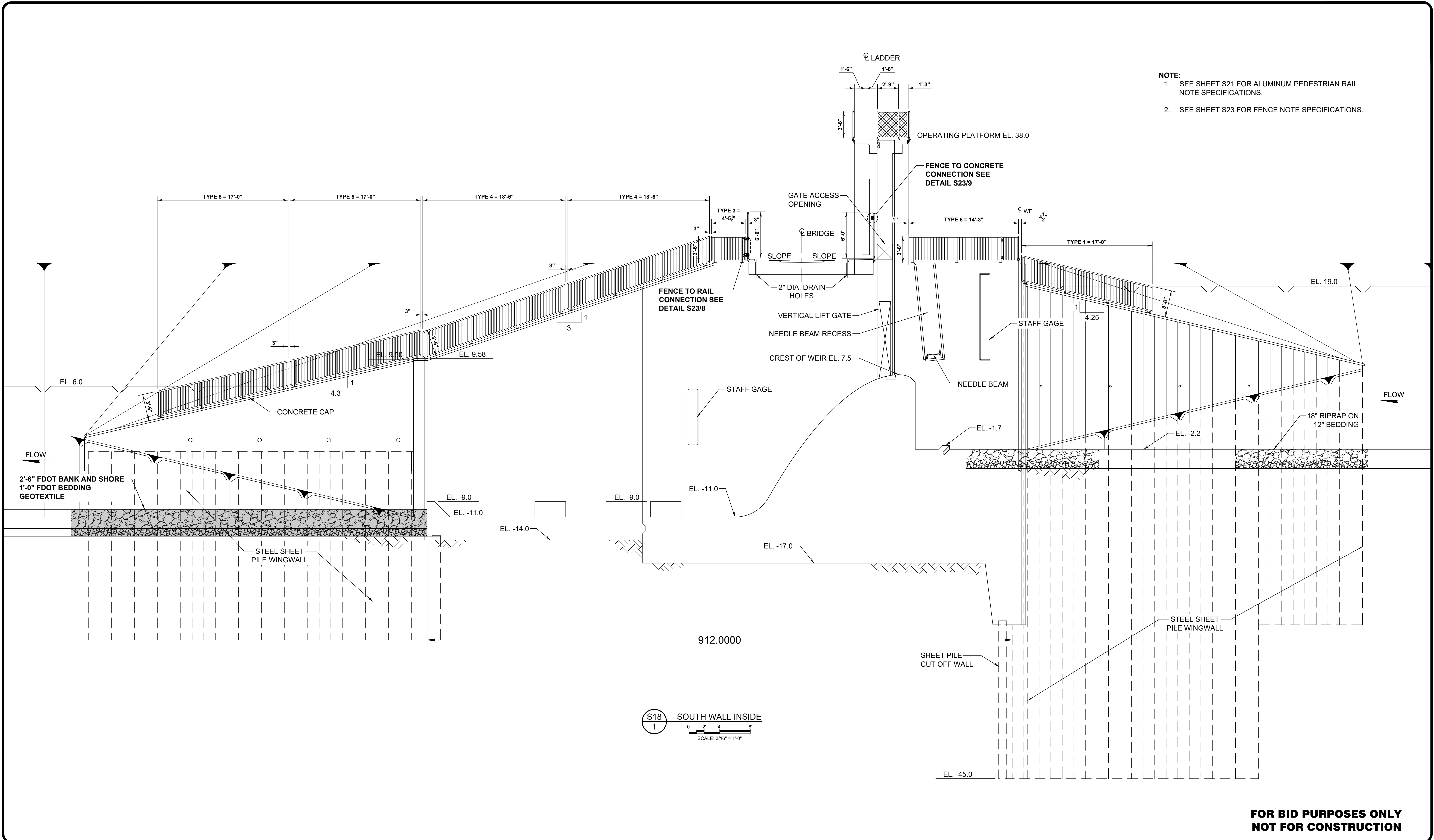
ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
 SCALE: 3/16" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

NEW NORTH WALL FENCE AND HANDRAILS

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: APRIL 26, 2023

FILE NAME:
 S-157 FENCING.dwg
 PROJECT NO.:
 SHEET:
 S17



NOTE:
 1. SEE SHEET S21 FOR ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS.
 2. SEE SHEET S23 FOR FENCE NOTE SPECIFICATIONS.

S18 SOUTH WALL INSIDE
 1
 SCALE: 3/16" = 1'-0"

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ST. JOHNS RIVER
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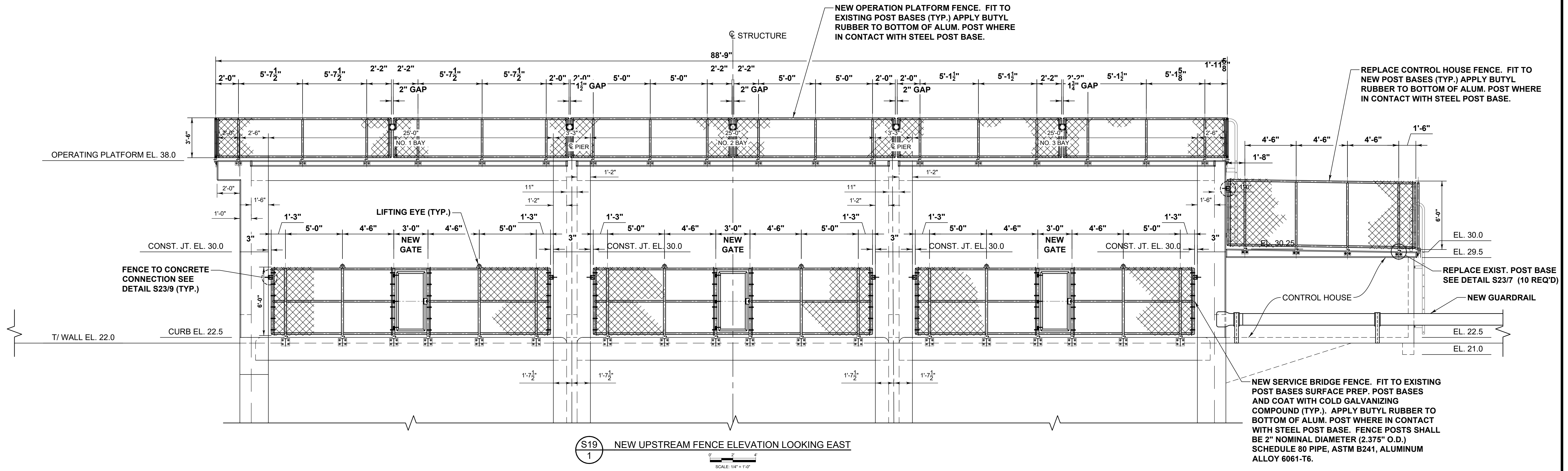
NEW SOUTH WALL FENCE AND HANDRAILS

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: APRIL 26, 2023

FILE NAME:
 S-157 FENCING.dwg
 PROJECT NO.:
 SHEET:
 S18

NOTE:

1. SEE SHEET S23 FOR FENCE NOTE SPECIFICATIONS.



S19
1
NEW UPSTREAM FENCE ELEVATION LOOKING EAST
SCALE: 1/4" = 1'-0"

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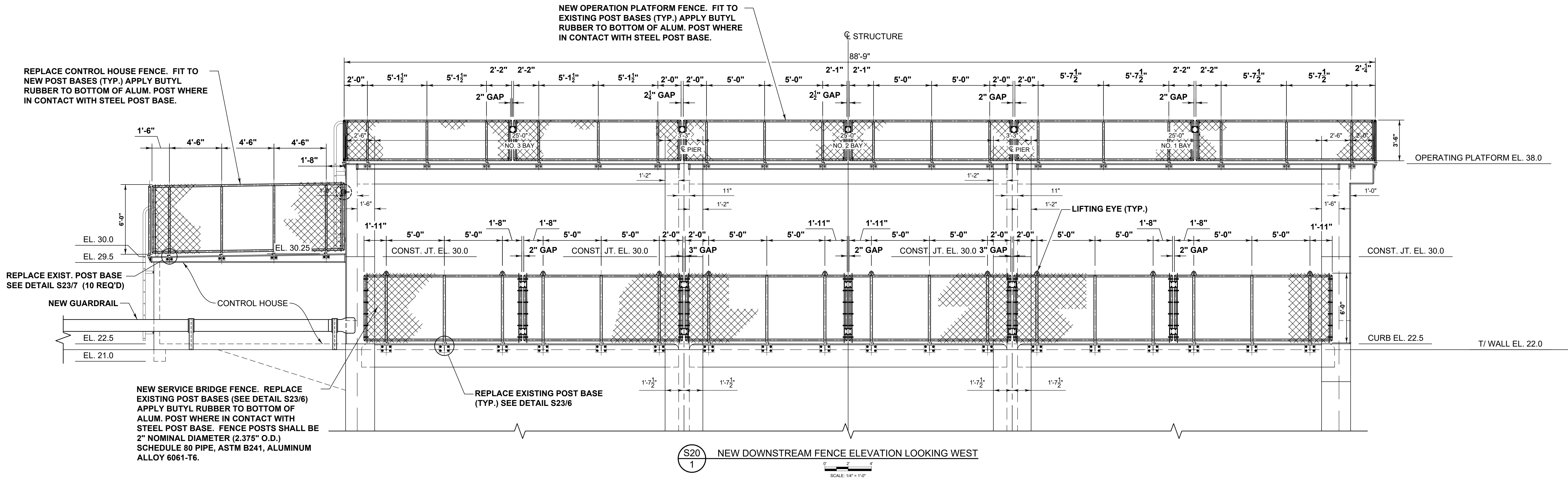
NEW UPSTREAM FENCE ELEVATION

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 FENCING.dwg
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S19

NOTE:

- SEE SHEET S23 FOR FENCE NOTE SPECIFICATIONS.



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UPPER ST. JOHNS RIVER BASIN
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BREVARD COUNTY, FLORIDA

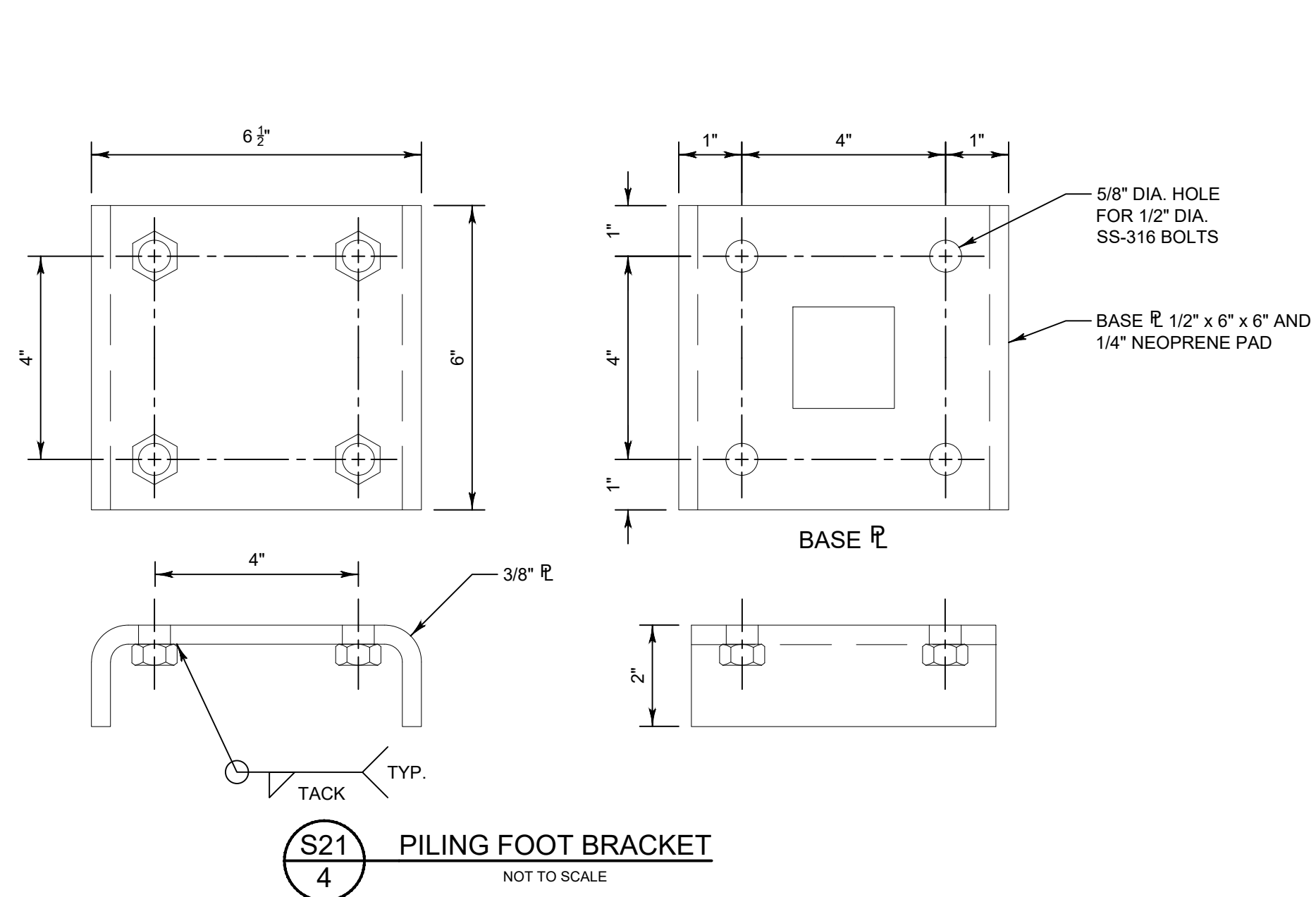
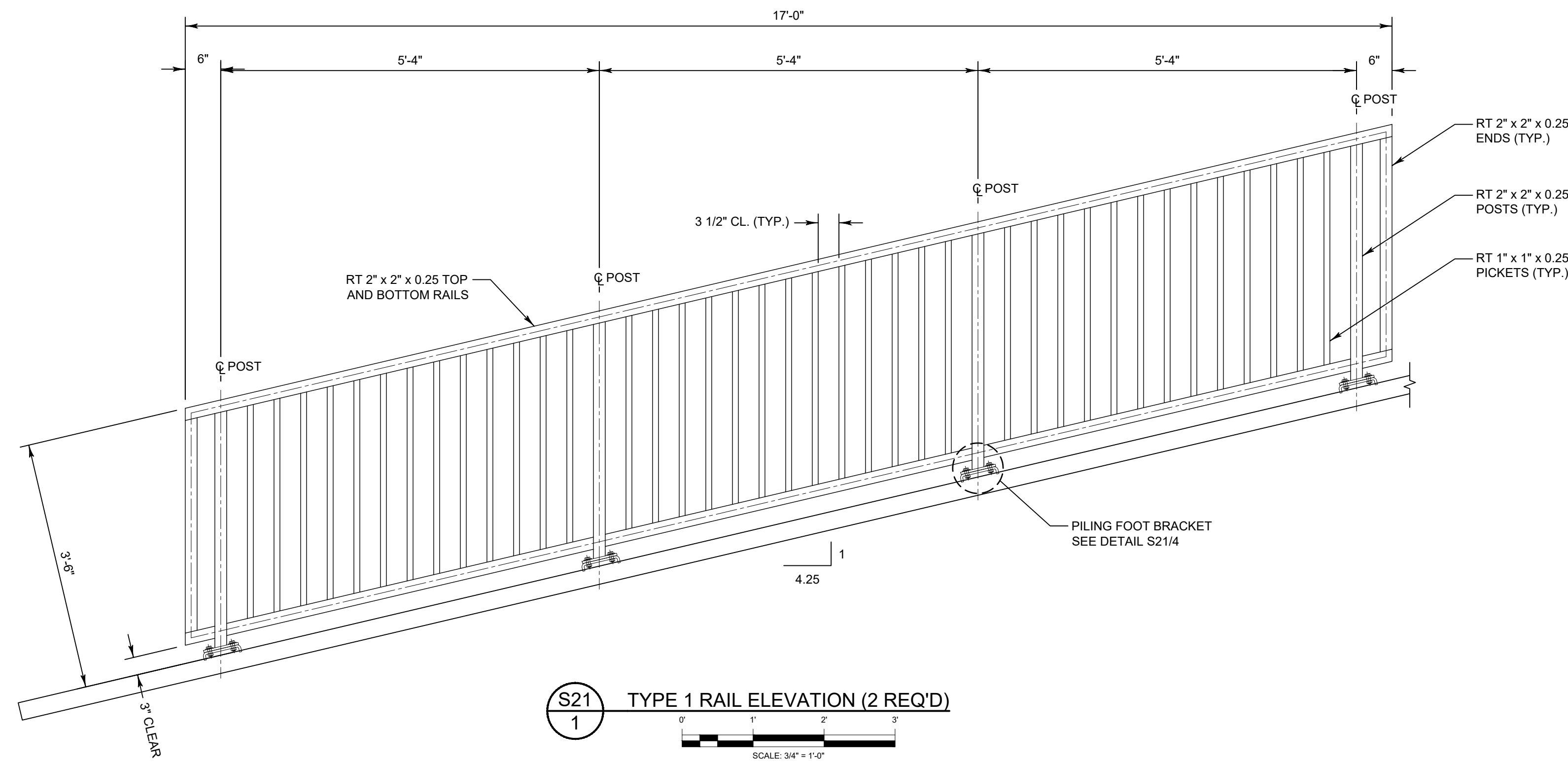
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 3/16" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

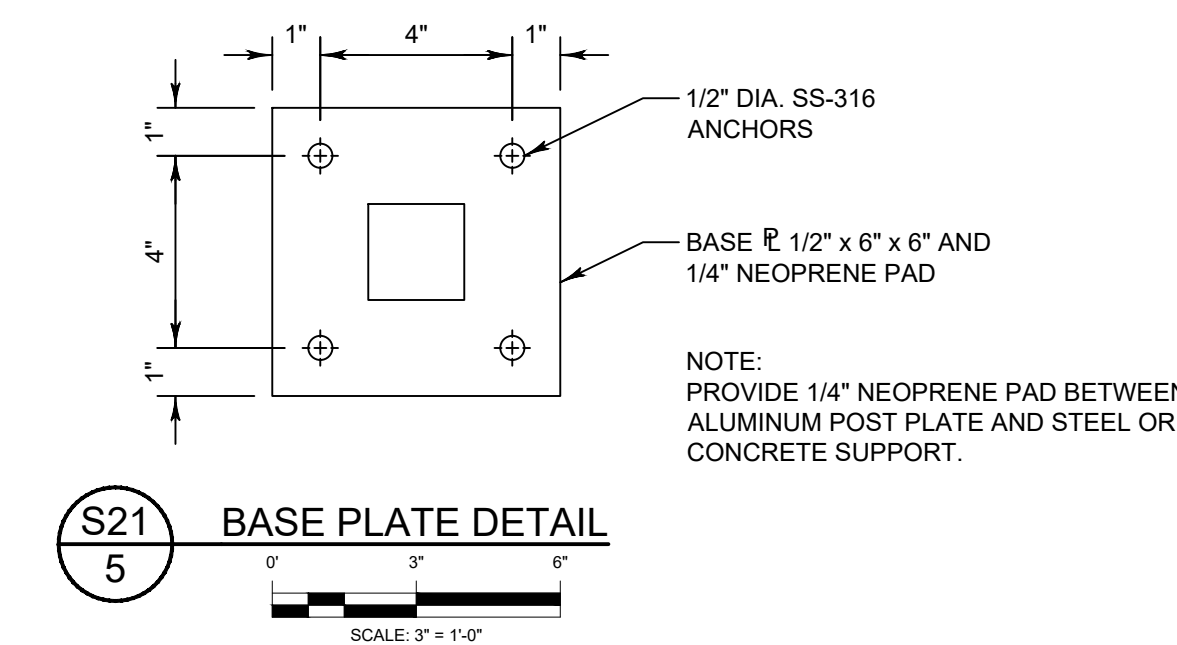
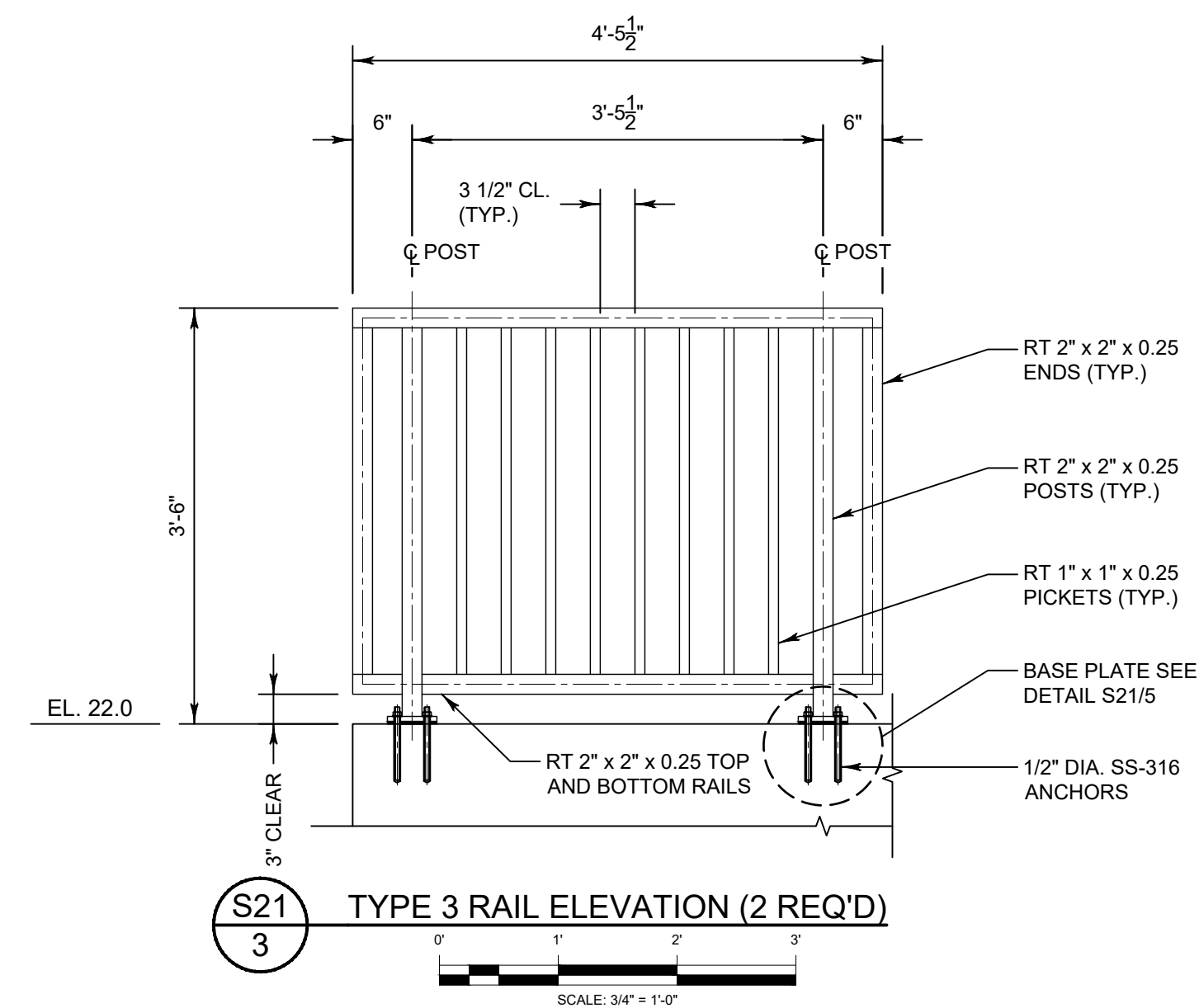
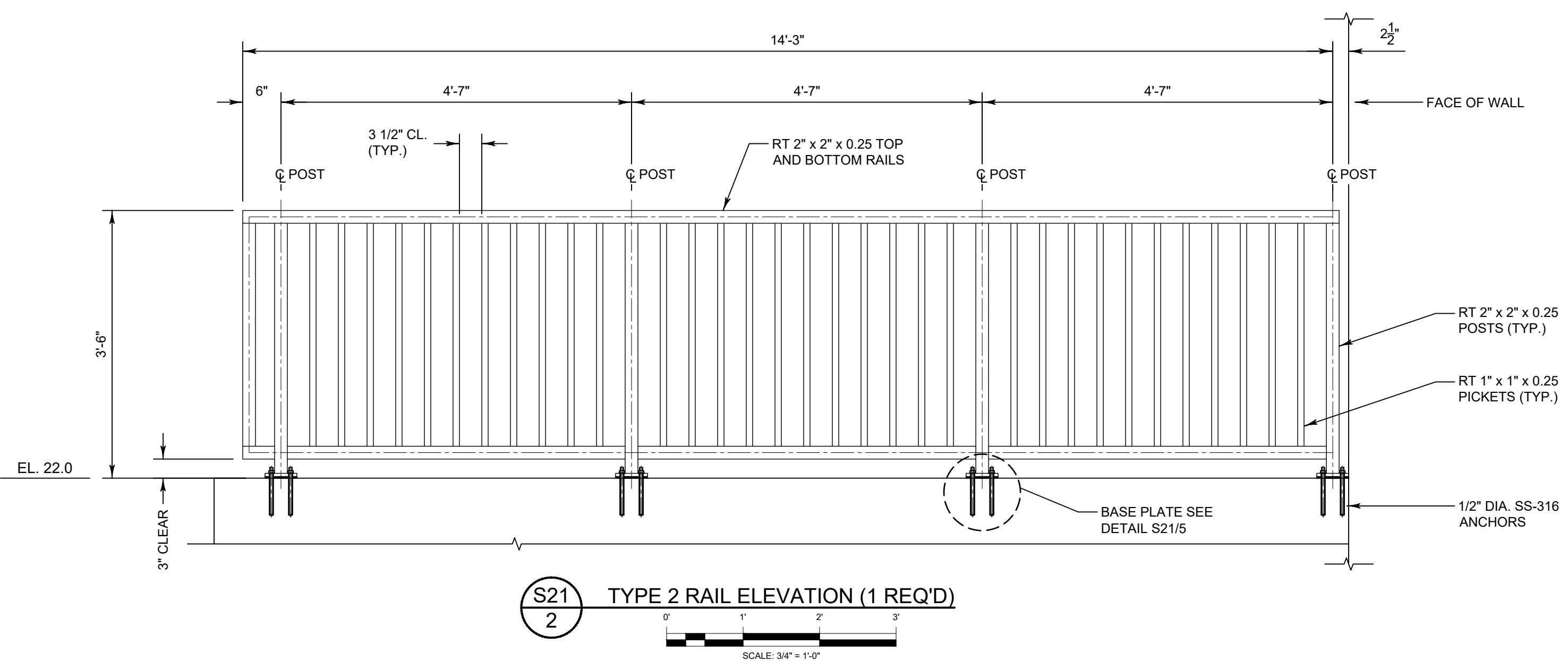
NEW DOWNSTREAM FENCE ELEVATION

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 FENCING.dwg
PROJECT NO.:
SHEET:
S20



- ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS:**
- STRUCTURAL ALUMINUM DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION, INC. "SPECIFICATIONS FOR ALUMINUM STRUCTURES", LATEST EDITION.
 - WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE - ALUMINUM" AWS D1.2.
 - ALUMINUM STRUCTURAL SHAPES SHALL BE NEW AND CONSIST OF ALLOY 6061-T6 CONFORMING TO THE REQUIREMENTS OF THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) STANDARD B308.
 - ALUMINUM BARS, RODS, AND WIRE SHALL BE NEW AND CONSIST OF ALLOY 6061-T6 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B211.
 - ALUMINUM PLATE SHALL BE NEW AND CONSIST OF ALLOY 5052-H32 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B209.
 - ALL BOLTS, NUTS, AND WASHERS SHALL CONSIST OF SS316 STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM STANDARDS F593 AND F594.
 - ALL WELDING SHALL UTILIZE ER4043 FILLER ALLOY AND SHALL BE SHOP WELDED TO THE GREATEST EXTENT POSSIBLE.
 - ALL WELDED JOINTS SHALL BE GROUND SMOOTH.
 - THE ALUMINUM RAILING SHALL BE MILL FINISH.
 - PROVIDE 1/4-INCH NEOPRENE PADS UNDER ALL RAIL POST BASE PLATES. NEOPRENE PADS SHALL BE IN ACCORDANCE WITH ASTM D2000 AND SHALL HAVE A DUROMETER HARDNESS BETWEEN 60 AND 80.
 - ALL RAILS SHALL BE CONNECTED TO THE EXISTING GROUNDING SYSTEM. ANY ADDITIONAL GROUNDING WIRES THAT ARE REQUIRED SHALL MATCH THE EXISTING.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF THE RAILS.



**FOR BID PURPOSES ONLY
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UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

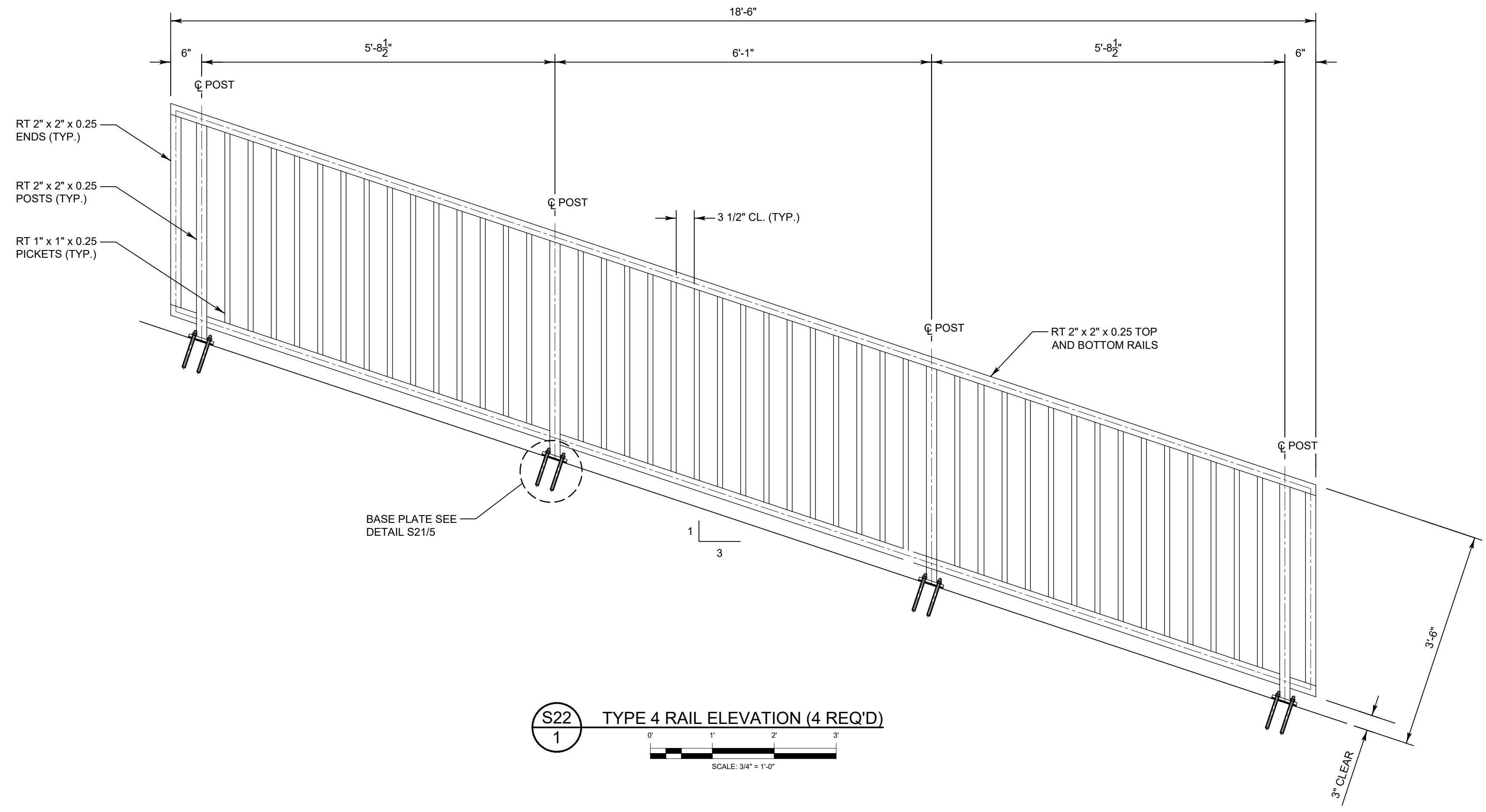
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023 REVIEWER: W.R.C.
SCALE: 3/16" = 1'-0" DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

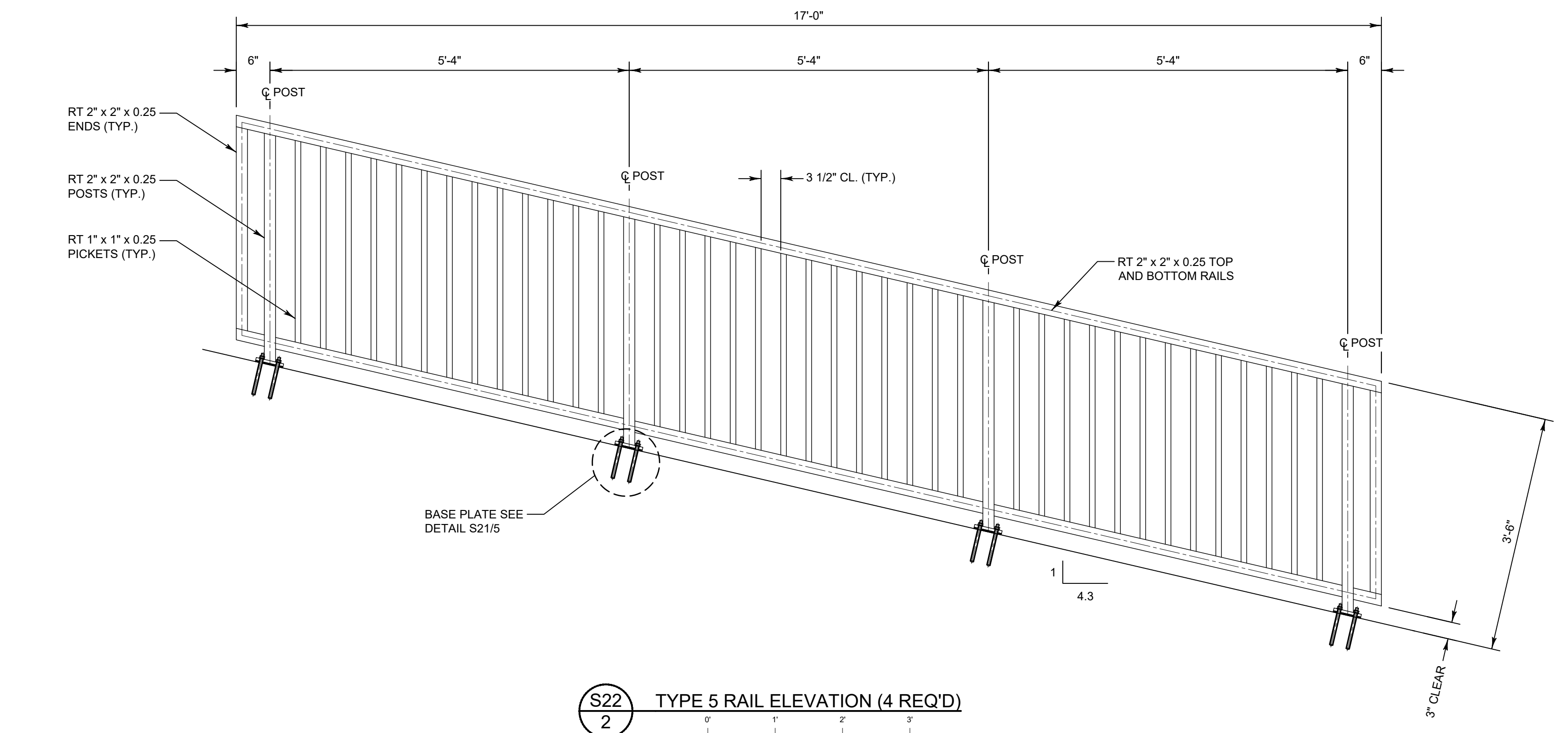
TYPE 1, TYPE 2, AND TYPE 3 HANDRAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

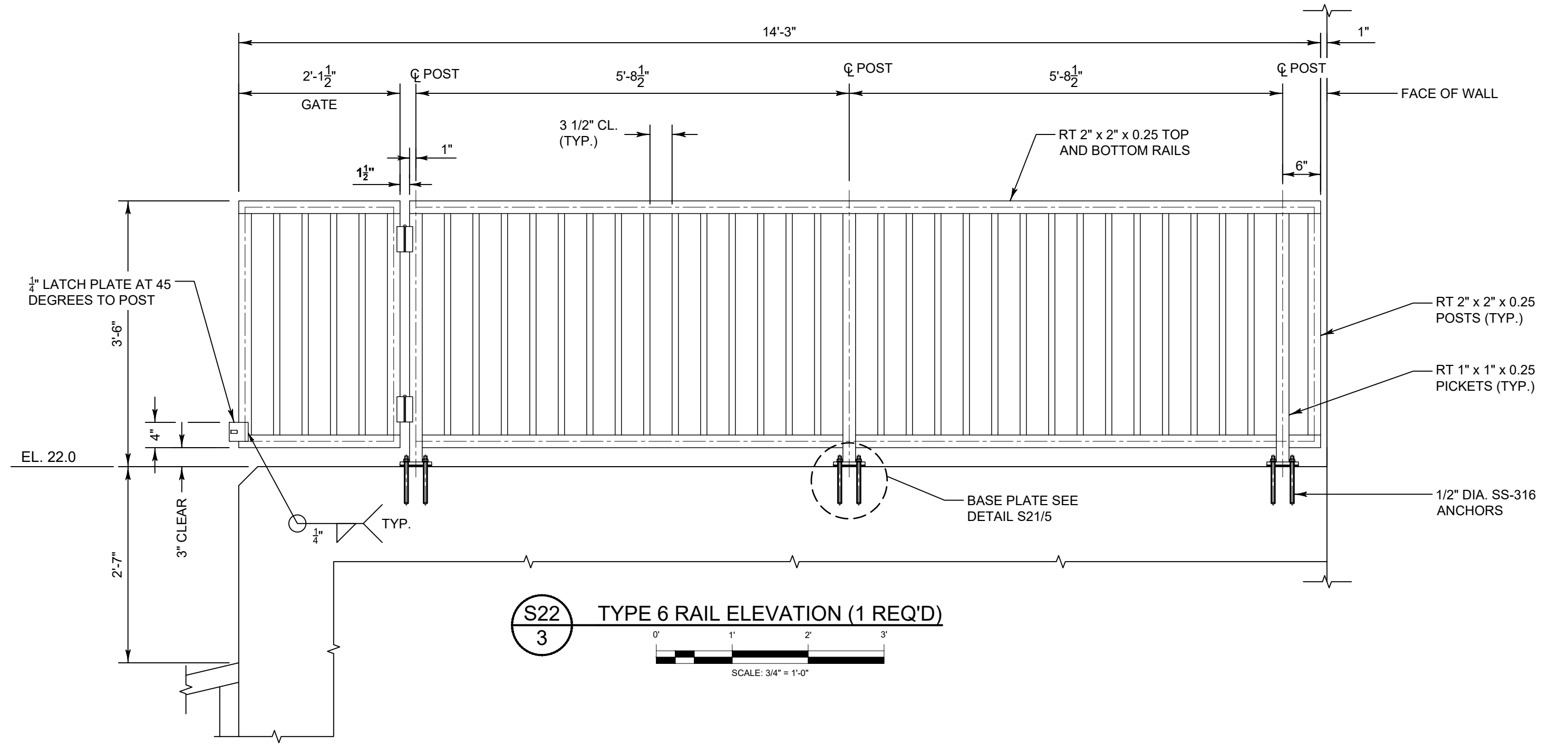
FILE NAME:
S-157 FENCING.dwg
PROJECT NO.:
SHEET:
S21



S22
1
TYPE 4 RAIL ELEVATION (4 REQ'D)
SCALE: 3/4" = 1'-0"



S22
2
TYPE 5 RAIL ELEVATION (4 REQ'D)
SCALE: 3/4" = 1'-0"



S22
3
TYPE 6 RAIL ELEVATION (1 REQ'D)
SCALE: 3/4" = 1'-0"

NOTE:
1. SEE SHEET S21 FOR ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS.

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ISSUED FOR BID	N.J.G.	04/26/23	W.R.C.	04/26/23
NO.	REVISION	BY	DATE	APPROVED

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

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TYPE 4, TYPE 5, AND TYPE 6 HANDRAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: APRIL 26, 2023

FILE NAME:
S-157 FENCING.dwg
PROJECT NO.:
SHEET:
S22

**GATE REHABILITATION
STRUCTURAL STEEL:**

1. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", NINTH EDITION.
2. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE" AWS D1.1.
3. ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE NEW AND CONFORM TO THE REQUIREMENTS OF THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) STANDARD A36 UNLESS NOTED OTHERWISE.
4. ALL BOLTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM A276, TYPE 304. THE SIZE AND LOCATION OF REPLACEMENT BOLTS SHALL MATCH EXISTING UNLESS NOTED OTHERWISE.
5. ALL WELDING SHALL UTILIZE E70XX LOW-HYDROGEN ELECTRODES UNLESS NOTED OTHERWISE.
6. FIELD CORRECTING OF FABRICATED STEEL SHALL NOT BE PERMITTED ON MAJOR STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL OF THE DISTRICT.

GATE OVERHAUL:

1. DISCONNECT POWER. PRESSURE WASH THE GATES AND GATE RAILS TO REMOVE ALL ORGANIC GROWTH, LOOSE PARTICLES, AND OTHER EXTRANEOUS MATERIALS.
2. MARK ALL GATE COMPONENTS PRIOR TO REMOVAL FOR EASE OF REASSEMBLY.
3. REMOVE ALL SHEAVE HANGERS, SHEAVES, AND SHEAVE PINS FROM HOIST COFFINS. DISASSEMBLE THE HOIST LIFT SYSTEMS.
4. REMOVE THE HOIST SYSTEMS AND ROLLER GATES FROM THE STRUCTURE. AT THE CONTRACTOR'S OPTION, THE DISTRICT'S REWORK SITE AND/OR GATE SUPPORT BRACING MAY BE USED FOR THE GATE REHABILITATION. THE REWORK SITE IS LOCATED AT 9555 BABCOCK STREET, FELLSMERE, FL. 32948. THE CONTRACTOR SHALL PROVIDE A PORTABLE TOILET IF THE REWORK SITE IS UTILIZED.
5. REMOVE RAILS AND SPLICE BARS AS REQUIRED. WHEN REMOVING RAILS, CARE SHALL BE TAKEN TO MEASURE AND DOCUMENT SHIM THICKNESS AT EACH LOCATION. CLEAN OR REPLACE WITH SS-304 SAME SIZE AND NUMBER OF SHIMS, AS NEEDED. REPLACE RAILS AND RAIL CLIPS USING ASCE 60# RAIL AND NO. 106 RAIL CLIPS, IF REQUIRED. REPLACE ALL NUTS WITH SILICON BRONZE NUTS CONFORMING TO ASTM F467. REPLACE ANCHOR BOLTS AS NEEDED.
6. REMOVE ALL BOLTS, RETAINING PLATES, AND SEALS FROM THE ROLLER GATES.
7. REMOVE WHEELS FROM THE ROLLER GATE.
8. PRESS OUT SHAFTS WITH PORTA POWER WHILE MAKING SURE NOT TO DAMAGE GATE STRUCTURE. IF SHAFTS ARE NOT MOVING, USE HEAT ON COLLARS WHILE PRESSING OUT.
9. INSPECT WHEELS, COLLARS, AXLES, AND BEARINGS AND REPAIR AS NEEDED.
10. ALL GATE COLLARS SHALL BE INSPECTED AND REPLACED IF NECESSARY. IF COLLARS NEED TO BE REPLACED, ABRASIVE BLASTING AROUND THE COLLAR IS REQUIRED TO PREPARE FOR INSTALLATION OF THE NEW COLLAR.
11. WHEELS SHALL BE BLASTED, INSPECTED, AND TURNED DOWN IF NECESSARY FOR BANDING. IF REQUIRED, THE BANDS SHALL BE SIZED AND THE WHEEL PLACED IN AN OVEN OVERNIGHT IN PREPARATION OF THE WELDING PROCESS. AFTER WELDING, THE WHEEL SHALL BE COOLED SLOWLY TO PREVENT FRACTURING OF THE WELDS AND THEN MACHINED TO THE REQUIRED DIAMETER.
12. AXLES AND WHEELS SHALL BE MEASURED FOR "THORDON THORPLAS" BEARING FABRICATION. THE "THORDON THORPLAS" BEARINGS SHALL BE INSERTED AND THE WHEELS BLASTED AND PAINTED. THE CONTRACTOR SHALL COORDINATE WITH THE BEARING MANUFACTURER IN DETERMINING THE PROPER SIZING OF THE BEARINGS.
13. AXLES SHALL BE ABRASIVE BLASTED (EXCEPT FOR STAINLESS STEEL) AND INSPECTED FOR SERVICEABILITY. IF NECESSARY, THE AXLES SHALL BE REPAIRED. UPON COMPLETION, AXLES SHALL BE BLASTED AND PAINTED.
14. INSPECT ALL COMPONENTS TO ENSURE THEY ARE CLEAN OF DEBRIS AND GREASE.
15. MARK THE WEIGHT OF THE GATE ON THE TOP CHANNEL USING A FILLET WELD.
16. ALL STEEL COMPONENTS (EXCEPT FOR STAINLESS STEEL ITEMS) SHALL BE BLASTED AND PAINTED. ITEMS TO BE PAINTED SHALL INCLUDE THE ROLLER GATES, WHEELS, SEAL RETAINING PLATES, AND RAILS.
17. REASSEMBLE THE ROLLER GATES, INCLUDING THE WHEELS, SEALS, RETAINING PLATES, AND ALL NEW HARDWARE.
18. PROVIDE AND INSTALL CATHODIC PROTECTION ANODES AT THE LOCATIONS SHOWN. ANODES SHALL BE ASS-10 CONFORMING TO MIL SPEC A-24779. THE ANODE MOUNTING STRAP SHALL HAVE 5/8" DRILLED HOLES AND SHALL BE BOLTED TO THE UPSTREAM FACE OF THE GATE WITH 1/2" DIAMETER SS-304 BOLTS. THE CONTACT SURFACES BETWEEN THE GATE AND THE ANODES SHALL BE BARE METAL. THE ANODES SHALL NOT BE PAINTED.
19. REINSTALL RAILS. REPLACE SHIMS OF SAME SIZE WITH SS-304 PLATES AS REQUIRED. REPLACE ANCHOR BOLTS OF SAME SIZE WITH SS-304 BOLTS AS REQUIRED.
20. REINSTALL THE COMPLETED ROLLER GATES AND HOIST SYSTEMS. RECONNECT POWER.
21. PERFORM DRY TEST OPERATION OF GATES. ADJUST AS NEEDED.
22. TEST OPERATION OF GATES UNDER NORMAL OPERATING CONDITIONS. LEAKAGE SHALL NOT EXCEED 0.1 GPM/ FT OF WETTED SEAL PERIMETER. ADJUST AS NEEDED.

PAINTS AND PROTECTIVE COATINGS:

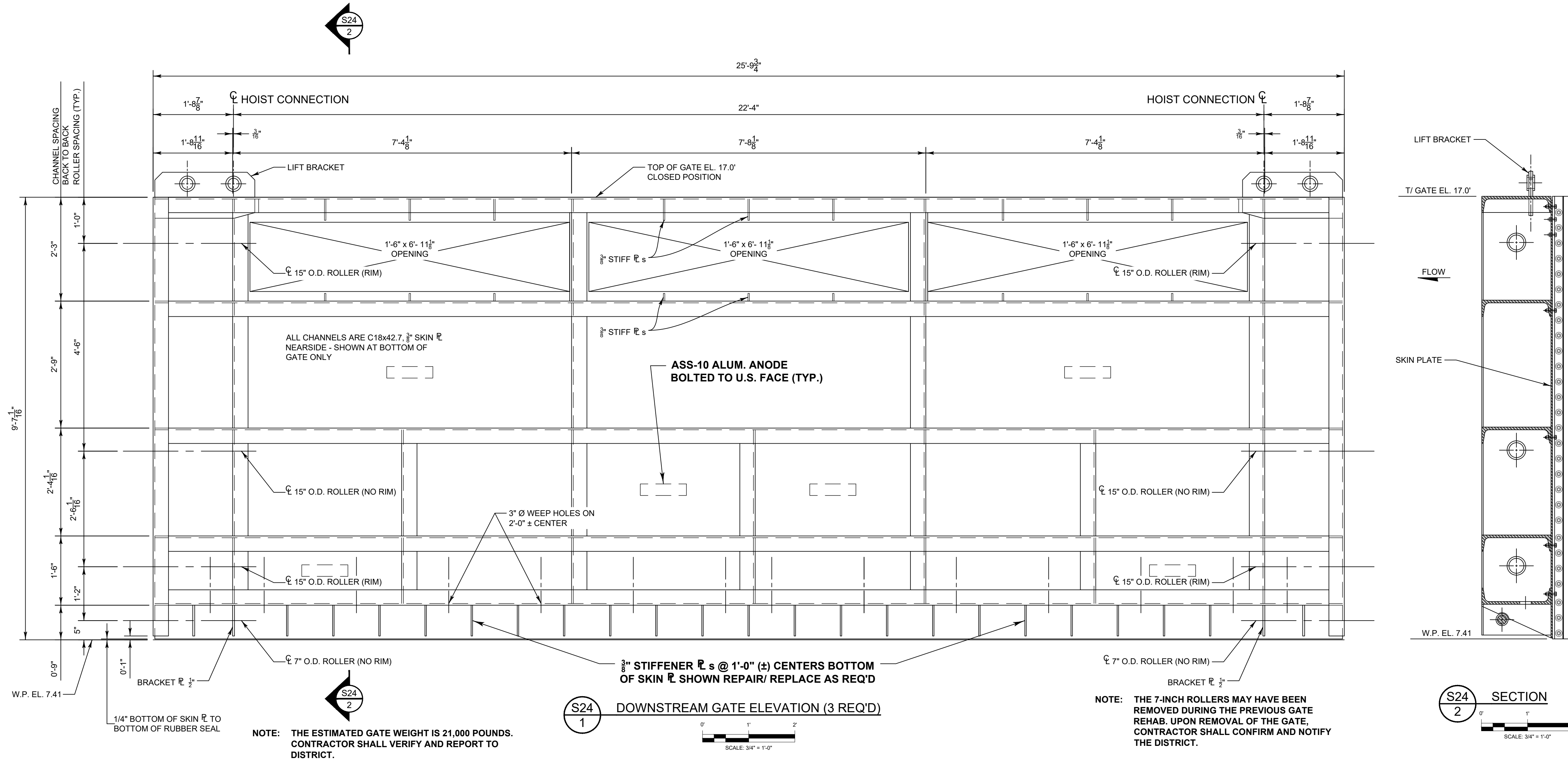
1. ALL STEEL SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL (SSPC) "STEEL STRUCTURES PAINTING MANUAL".
2. STEEL SURFACE PREPARATION SHALL BE AS FOLLOWS:

SSPC-10 NEAR WHITE BLAST CLEANING. ALL BLAST MEDIA AND PAINT CHIPS SHALL BE CAPTURED, REMOVED, AND PROPERLY DISPOSED.
3. PAINT SHALL BE BY THE WASSER CORPORATION, OR EQUAL, AS FOLLOWS:

FIRST COAT: MC-ZINC 100 GRAY 3-5 MILS DFT MINIMUM
SECOND COAT: MC-TAR 100 RED 5-7 MILS DFT MINIMUM
THIRD COAT: MC-TAR 100 BLACK 5-7 MILS DFT MINIMUM
FOURTH COAT: MC-LUSTER 100 SILVER 2-4 MILS DFT MINIMUM

SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE PAINT MANUFACTURER SPECIFICATIONS.

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**GATE REHABILITATION
RUBBER SEALS:**

1. THE EXISTING J-SEALS SHALL BE REPLACED WITH SOLID BULB TYPE J-SEAL NO. 2514 (1-3/4"X5X9/16") AS MANUFACTURED BY SEALS UNLIMITED, INC., OR EQUAL. DRILL HOLES TO CONFORM WITH THE SIZE AND SPACING ON THE GATE.
2. THE NEW 4"X1" BOTTOM SEAL SHALL BE BLACK NEOPRENE SHEET COMMERCIAL GRADE 60 DURO PLATE FINISH IN ACCORDANCE WITH ASTM D2000 18C605, AS MANUFACTURED BY TAMPA RUBBER AND GASKET COMPANY, INC., OR EQUAL. DRILL HOLES TO CONFORM WITH THE SIZE AND SPACING ON THE GATE.
3. REPLACE ALL SEAL FASTENERS. BOLTS SHALL CONFORM TO ASTM A276, TYPE SS-304 AND SILICON BRONZE NUTS SHALL CONFORM TO ASTM F467.
4. GAPS BETWEEN J-SEALS AND BOTTOM SEALS SHALL BE FILLED WITH 3M 5200 MARINE CAULK, OR EQUAL.

LEGEND

##
1 SECTION SHEET NUMBER
SECTION LABEL

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 157 REHABILITATION
BREVARD COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: N.J.G. DATE: APRIL 26, 2023. REVIEWER: W.R.C.

SCALE: AS NOTED DESIGNER: W.R.C. SECTION CHIEF: W.R.C.

GATE REHABILITATION ELEVATION,
SECTIONS, DETAILS & NOTES

CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
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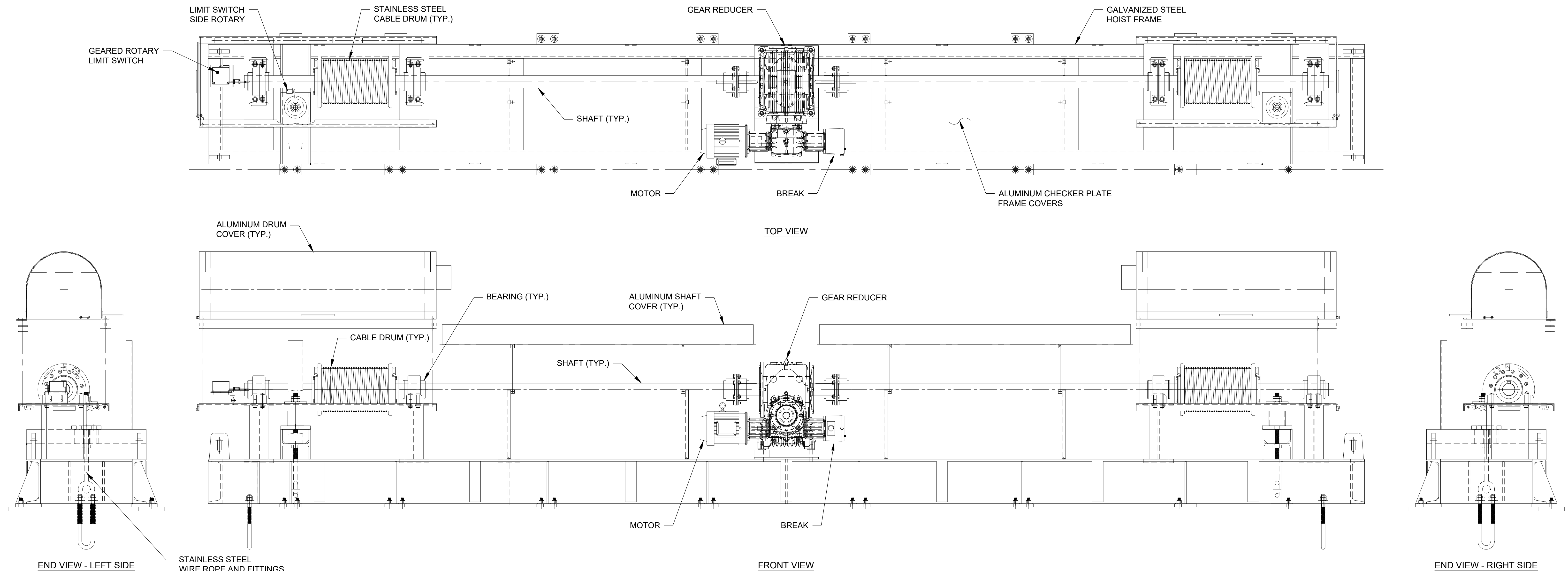
FILE NAME:
S-157 GATE REPAIR.dwg

PROJECT NO.:

SHEET:
S24

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NO.	REVISION	BY	DATE	APPROVED	DATE
		N.J.G.	04/26/23	W.R.C.	04/26/23



S25
1
EXISTING CABLE HOIST ASSEMBLY
NOT TO SCALE

CABLE DRUM HOIST

1. THE PLAN AND ELEVATION SHOWN ARE A GENERAL ARRANGEMENT FOR THE CABLE DRUM HOIST SYSTEM. CONTRACTOR SHALL REMOVE AND REPLACE THE EXISTING HOIST SYSTEMS TO A FULLY OPERATIONAL CONDITION AFTER THE REINSTALLATION OF THE ROLLER GATES.
2. THE DEAD LOAD OF THE ROLLER GATES ARE ESTIMATED AT 21,000 POUNDS EACH.
3. THE REQUIRED LIFTING HEIGHT OF THE ROLLER GATES IS 12.5 FEET ABOVE THE SPILLWAY CREST.
4. FOR HOIST POWER SUPPLY, CONTRACTOR SHALL DISCONNECT AND RECONNECT TO THE ELECTRICAL PANEL LOCATED IN THE CONTROL HOUSE ADJACENT TO THE STRUCTURE. THE EXISTING SERVICE IS 100 AMP, SINGLE PHASE 120/240 VOLTS.

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UPPER ST. JOHNS RIVER BASIN
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SCALE: N.T.S.	DESIGNER: W.R.C.	SECTION CHIEF: W.R.C.

EXISTING CABLE DRUM HOIST

CERTIFICATION:	WILLIAM R. COTE
P.E. NUMBER:	53746
DATE:	APRIL 26, 2023

FILE NAME:	S-157 CABLE DRUM HOIST.dwg
PROJECT NO.:	
SHEET:	S25