

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

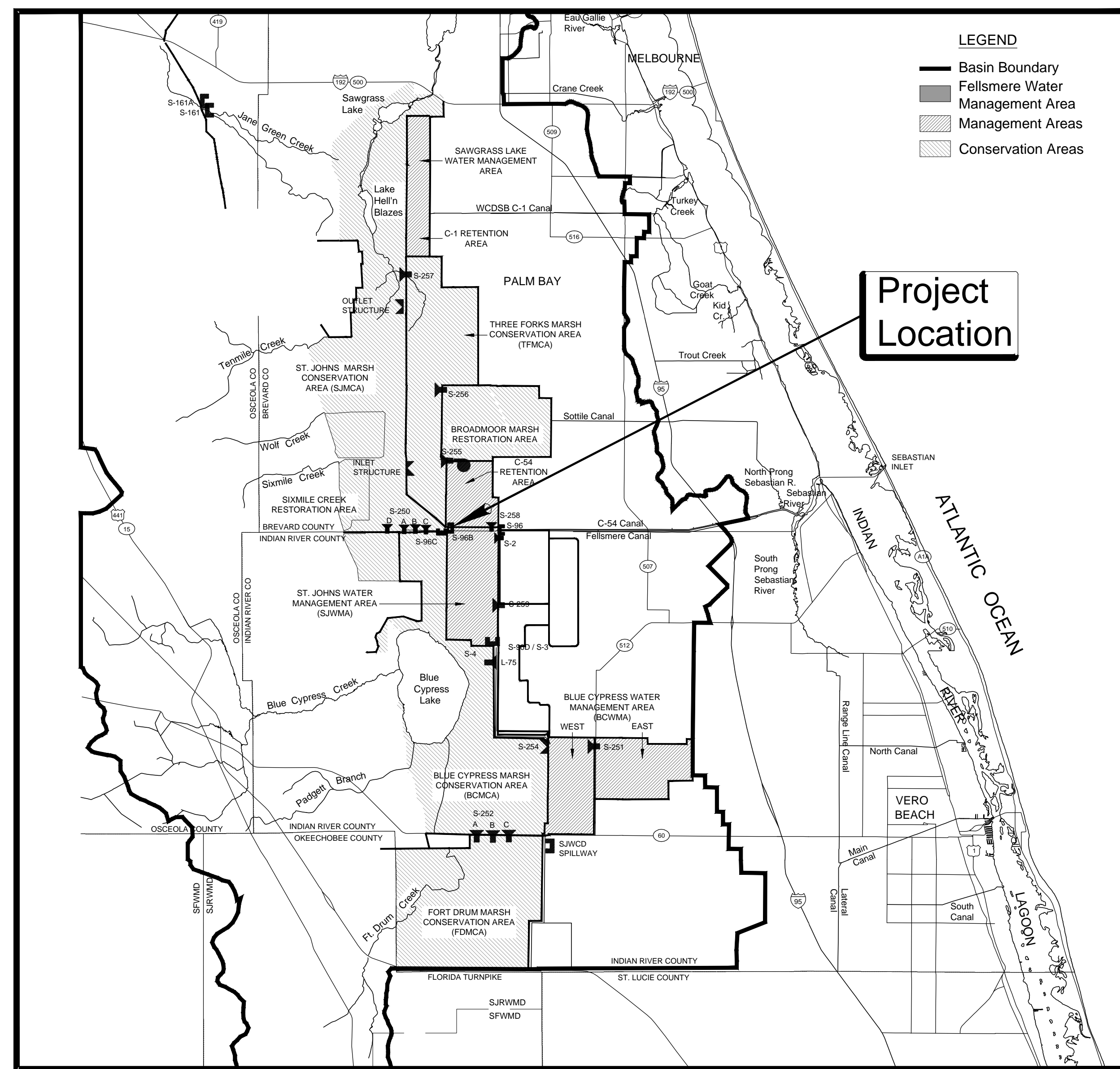
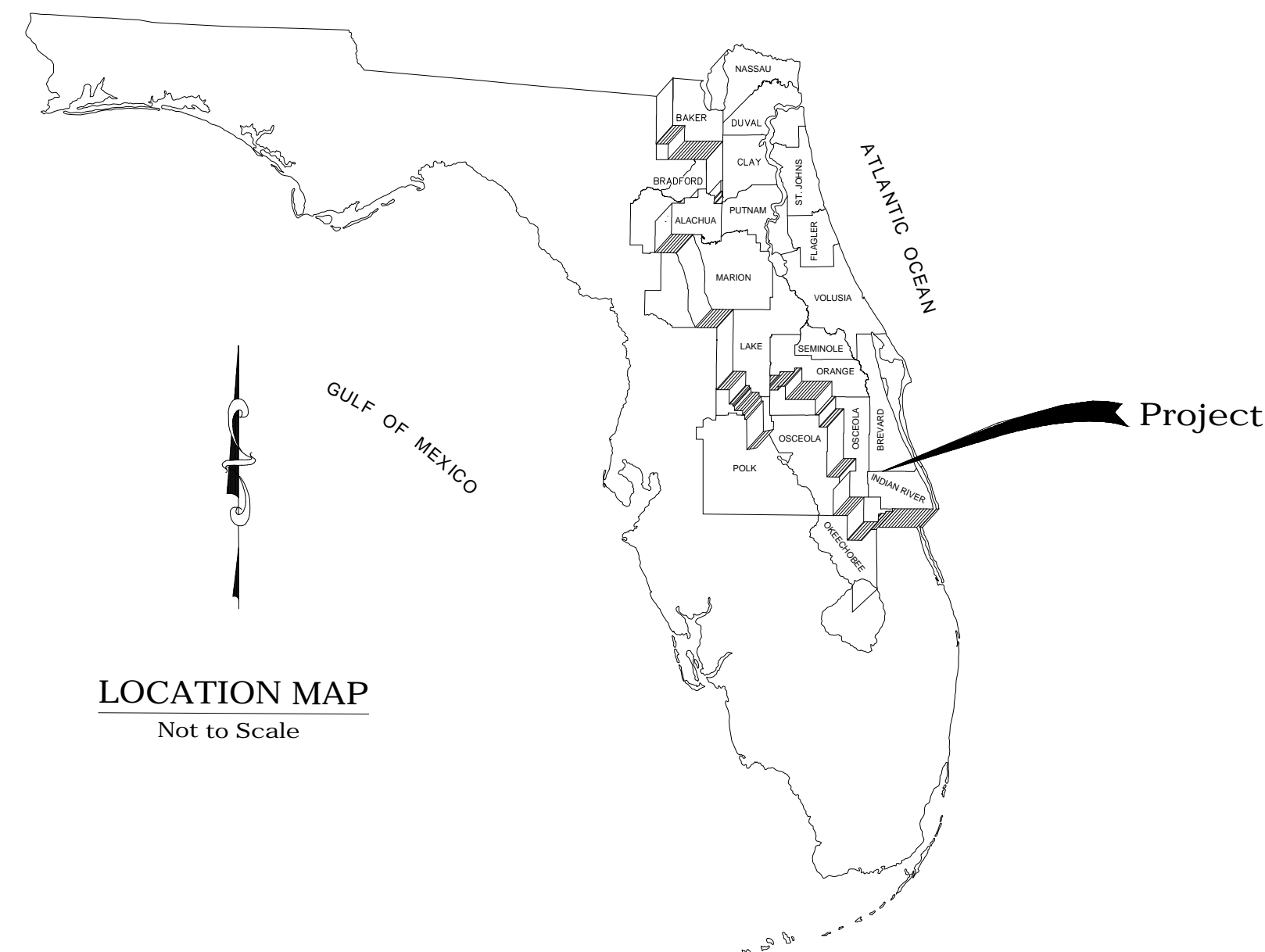
UPPER ST. JOHNS RIVER BASIN

STRUCTURE 96B REHABILITATION

INDIAN RIVER 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
NOT TO SCALE



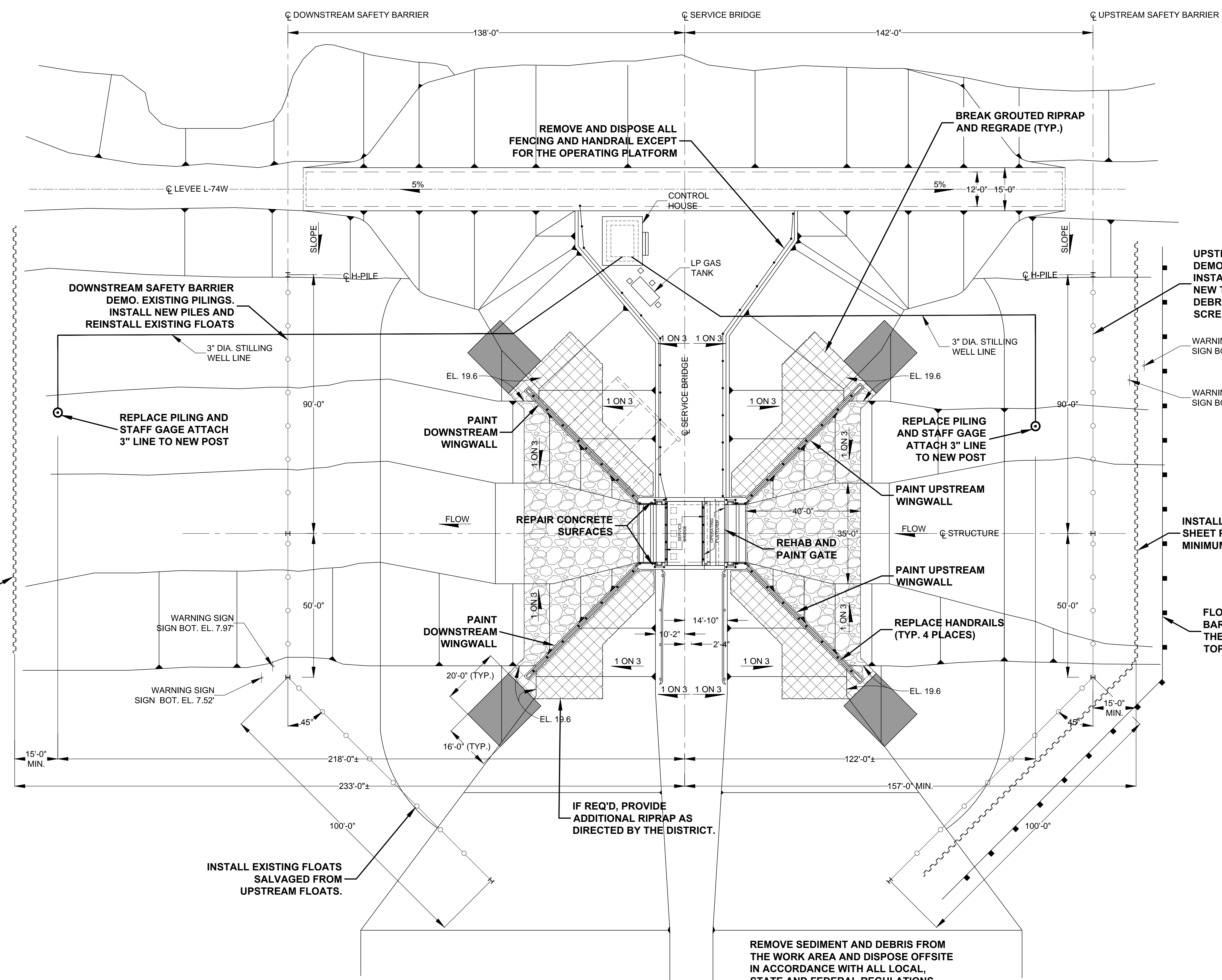
Sheet List Table

Sheet Number	Sheet Title
C1	COVER SHEET AND VICINITY MAP
C2	SITE PLAN
C3	SITE PLAN (WITH AERIAL)
C4	EROSION AND SEDIMENT CONTROL
S1	NOTE SPECIFICATIONS
S2	CONCRETE REPAIR - STRUCTURE PLAN
S3	CONCRETE REPAIR - NORTH WALL INSIDE
S4	CONCRETE REPAIR - SOUTH WALL INSIDE
S5	CONCRETE REPAIR - NORTH AND SOUTH WALLS OUTSIDE
S6	CONCRETE REPAIR - UPSTREAM AND DOWNSTREAM ELEVATION
S7	CONCRETE REPAIR - TYPICAL DETAILS
S8	SHEET PILING REPAIR - WINGWALL ELEVATION
S9	UPSTREAM DEBRIS BARRIER
S10	DOWNSTREAM SAFETY BARRIER
S11	NEW PILE GROUP DETAILS
S12	NEW STAFF GAUGES AND GATE POSITION GUIDE
S13	FENCE AND HANDRAIL REPLACEMENT PLAN
S14	NEW WALL FENCE AND HANDRAILS
S15	NEW WINGWALL HANDRAIL DETAILS
S16	NEW SERVICE BRIDGE FENCE
S17	NEW FENCE DETAILS
S18	GATE REHABILITATION
S19	WRI PLATFORM PLAN AND SECTION
S20	WRI PLATFORM DETAILS

NO.	REVISION	BY	DATE	APPROVED	DATE
1	ISSUED FOR BID	PLC	06/01/18	WRC	06/01/18

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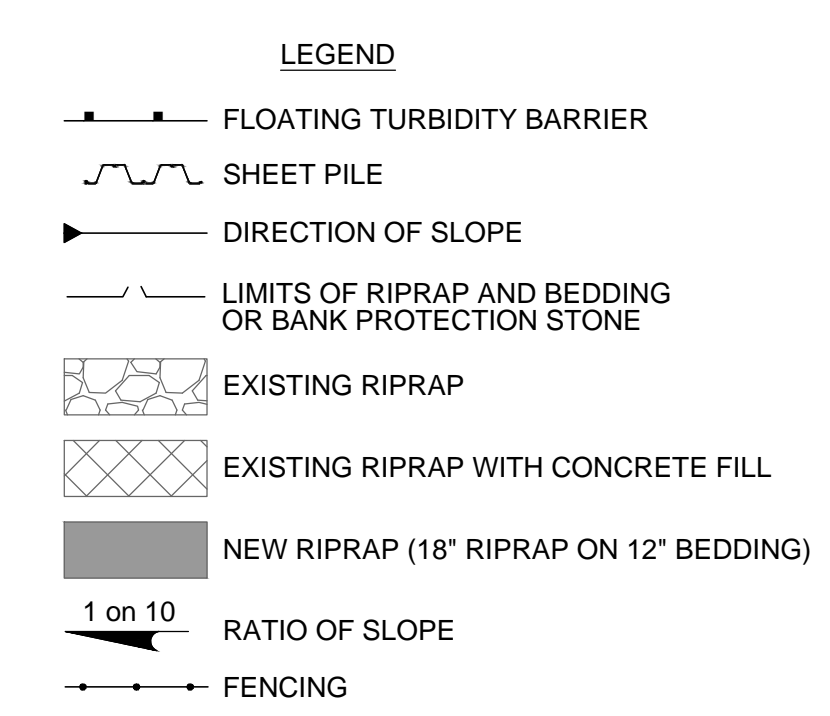
CERTIFICATION:	DRAWING FILENAME:
WILLIAM R. COTE	96-B PLAN.dwg
P.E. NUMBER: 53746	SHEET:
DATE: JUNE 1, 2018	C1



- SUMMARY OF WORK / CONSTRUCTION SEQUENCE:
1. MOBILIZE MEN AND EQUIPMENT TO THE SITE. ESTABLISH ON-SITE OFFICE AND STORAGE SPACES.
 2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES.
 3. INSTALL COFFERDAMS UPSTREAM AND DOWNSTREAM OF STRUCTURE.
 4. PUMP WATER FROM THE WORK AREA AND PROVIDE CONTINUOUS PUMPING TO KEEP THE WORK AREA DEWATERED.
 5. REMOVE SEDIMENT AND DEBRIS FROM THE STRUCTURE WORK AREA.
 6. 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 POWERWASHED.
 7. REMOVE FENCING FROM THE CONCRETE STRUCTURE AND SHEET PILING WALLS.
 8. INSPECT AND REPAIR CONCRETE SURFACES AS NEEDED.
 9. REMOVE CABLE DRUM HOIST AND STORE ON SITE.
 10. REMOVE ROLLER GATES, INSPECT AND REPAIR AS NEEDED, AND PAINT.
 11. REPAIR AND PAINT ALL EXPOSED SURFACES OF EMBEDDED STEEL COMPONENTS.
 12. REPLACE ALL REMOVABLE GALVANIZED ITEMS WITH STAINLESS STEEL.
 13. REPAIR AND PAINT ALL EXPOSED SURFACES OF EXISTING SHEET PILING.
 14. REPLACE UPSTREAM AND DOWNSTREAM SAFETY BARRIERS.
 15. BREAK GROUDED RIPRAP AND REGRADE.
 16. REINSTALL ROLLER GATES.
 17. REINSTALL CABLE DRUM HOIST.
 18. PERFORM DRY TEST OPERATION OF GATES AND OPERATORS.
 19. ALLOW WORK AREA TO FILL WITH WATER AND REMOVE COFFERDAMS.
 20. TEST OPERATION OF GATES AND OPERATORS UNDER NORMAL OPERATING CONDITIONS.
 21. INSTALL NEW ALUMINUM FENCING ON CONCRETE STRUCTURE AND SHEET PILING WALLS.
 22. DEMOBILIZE INCLUDING SITE CLEAN UP, RESTORATION OF FINAL GRADE AND GRASSING TO ORIGINAL CONDITION, AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROLS.

- COFFERDAMS:
1. 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.
 2. 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.
 3. 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. FILL IS AVAILABLE FROM THE SOUTH SIDE OF THE C-54 CANAL EAST OF THE FELLSMERE GRADE RECREATION AREA. 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.
 4. THE CONSTRUCTION AND MAINTENANCE OF ALL COFFERDAMS SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL PERMITS AND REGULATIONS.
 5. FOLLOWING COMPLETION OF THE COFFERDAMS, THE CONTRACTOR SHALL PUMP OUT THE AREA BEHIND THE COFFERDAMS IN A MANNER THAT WILL MINIMIZE SILTATION INTO THE RIVER.
 6. DURING INSTALLATION AND REMOVAL OF COFFERDAMS, CARE SHALL BE TAKEN NOT TO DISTURB OR OTHERWISE INJURE ANY ADJACENT STRUCTURES.

- GENERAL:
1. ALL PROPOSED WORK IS SHOWN IN BOLD.
 2. 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.
 3. ACCESS TO THE PROJECT SITE SHALL BE VIA THE L-74 EAST LEVEE BEGINNING AT THE FELLSMERE GRADE RECREATION AREA.
 4. 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.



**FOR BID PURPOSES ONLY
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C2 SITE PLAN
1
SCALE: 1" = 20'-0"

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INDIAN RIVER COUNTY, FLORIDA

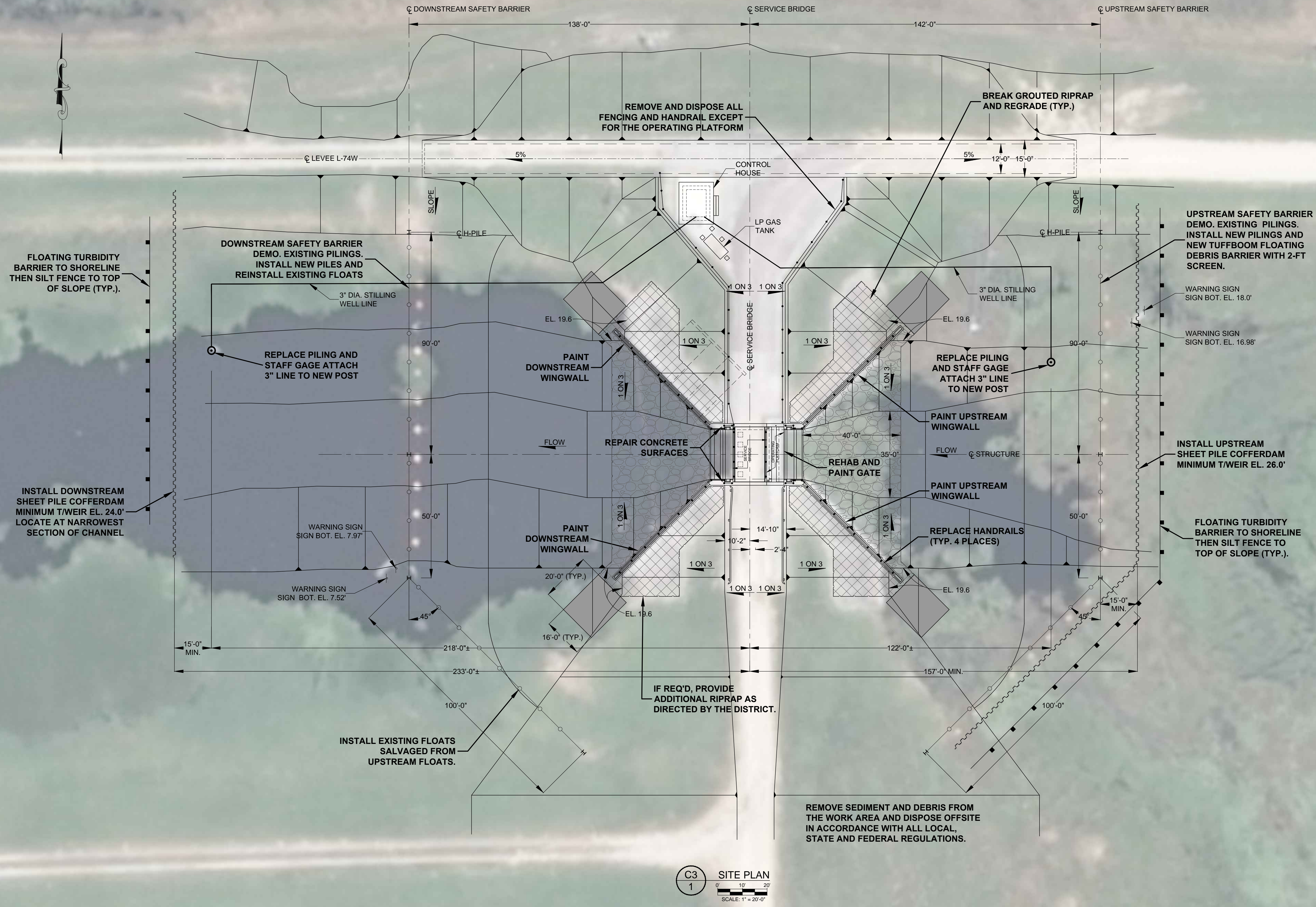
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: 1" = 20'-0" DESIGNER: WRC SECTION CHIEF: WRC

SITE PLAN

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B PLAN.dwg
PROJECT NO.:
SHEET:
C2



LEGEND

- FLOATING TURBIDITY BARRIER
- SHEET PILE
- DIRECTION OF SLOPE
- LIMITS OF RIPRAP AND BEDDING OR BANK PROTECTION STONE
- EXISTING RIPRAP
- EXISTING RIPRAP WITH CONCRETE FILL
- NEW RIPRAP (18" RIPRAP ON 12" BEDDING)
- RATIO OF SLOPE
- FENCING

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C3
1
SITE PLAN
SCALE: 1" = 20'-0"

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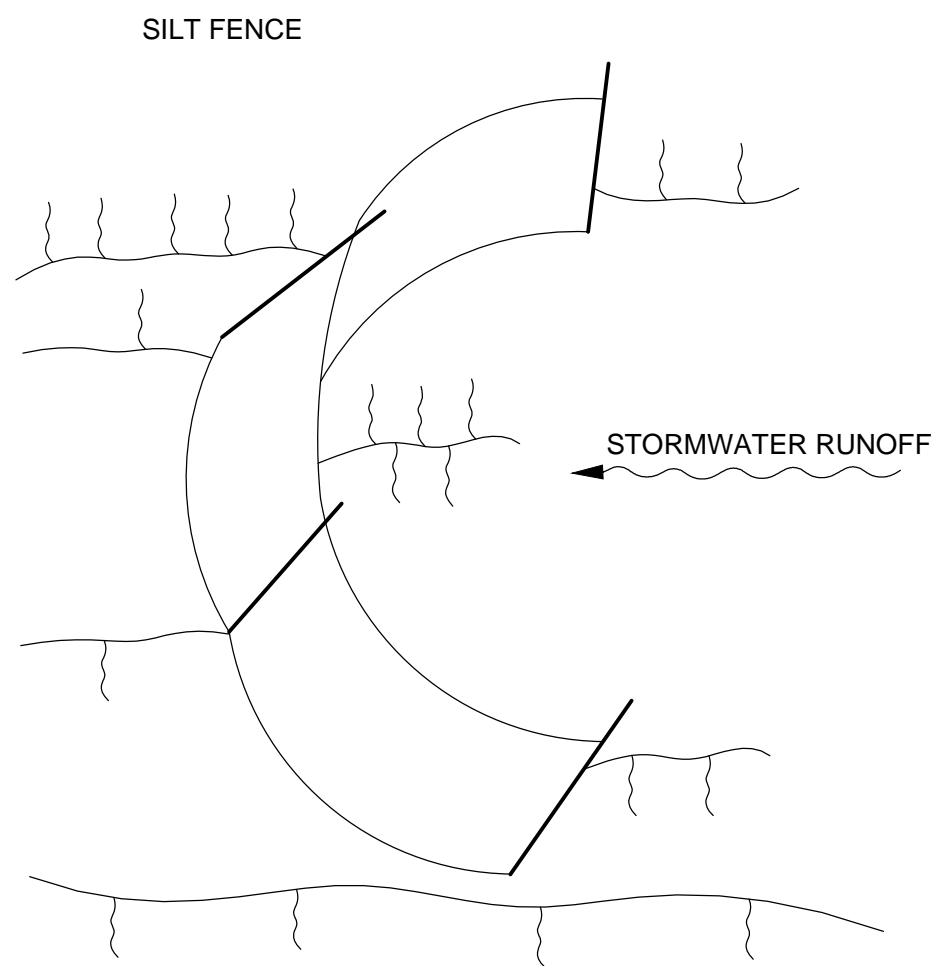
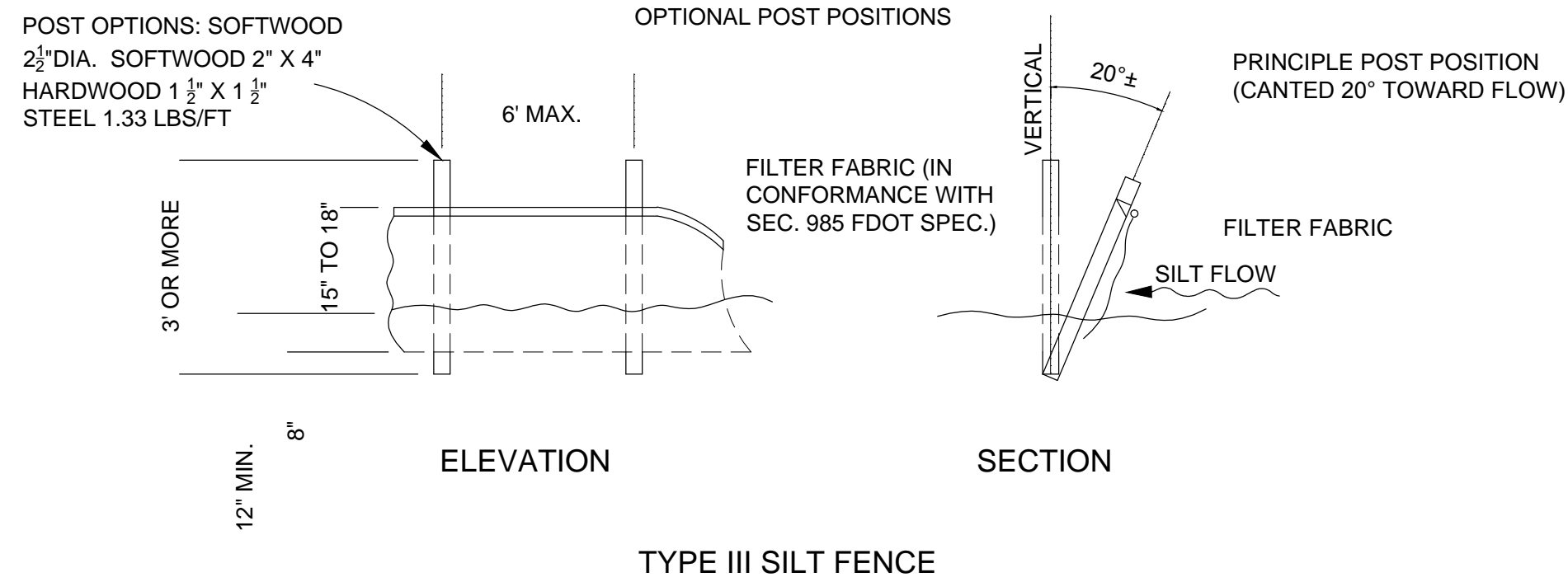
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SITE PLAN (WITH AERIAL)

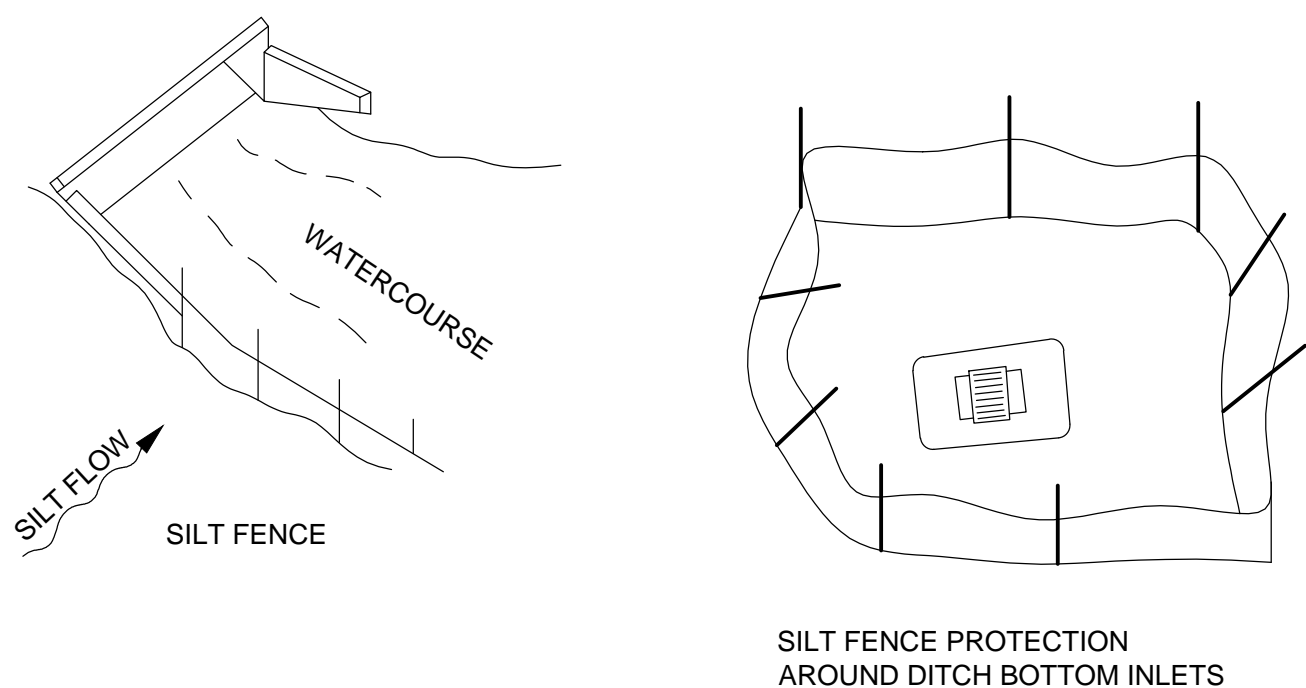
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SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW



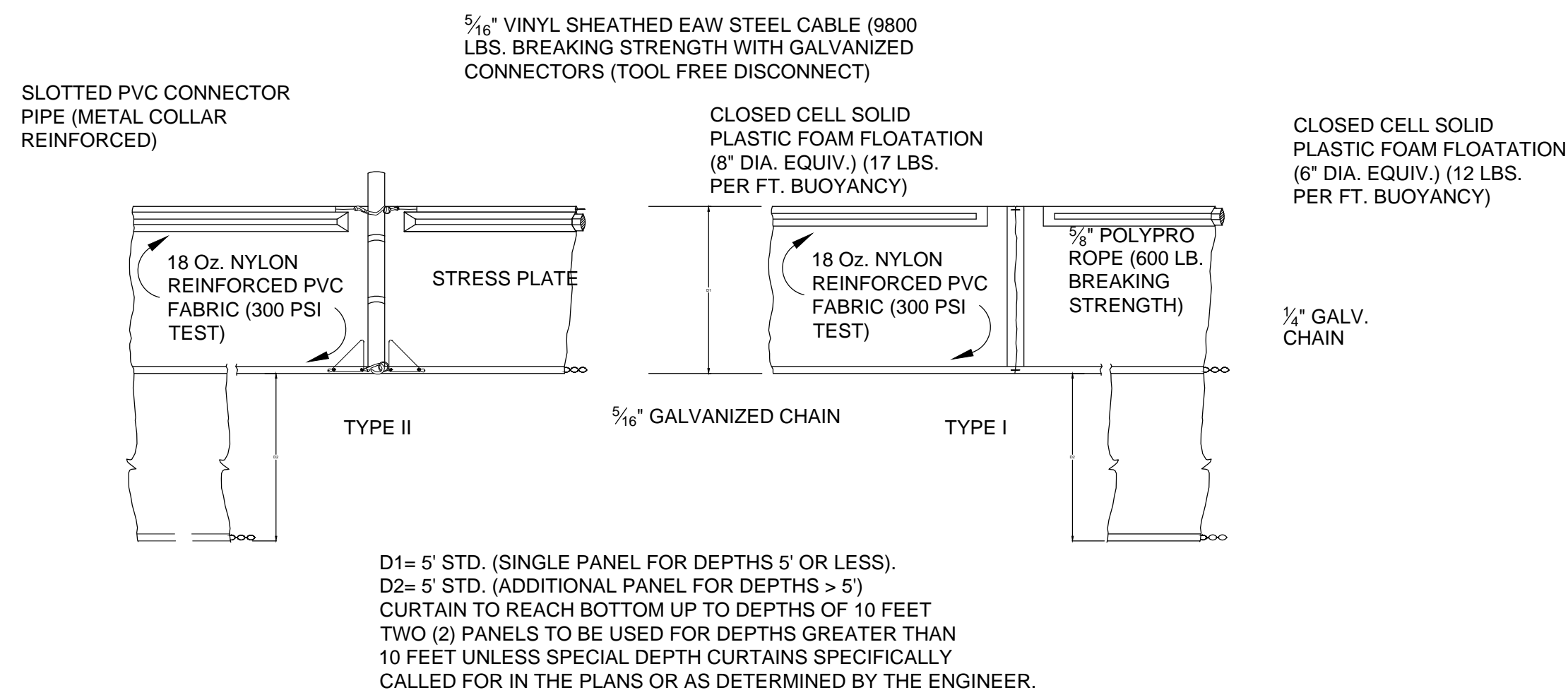
SILT FENCE APPLICATIONS

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 CHART 1, SHEET 1 (FDOT INDEX NO. 102).
- 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, (LF).

TEMPORARY SILT FENCE DETAIL

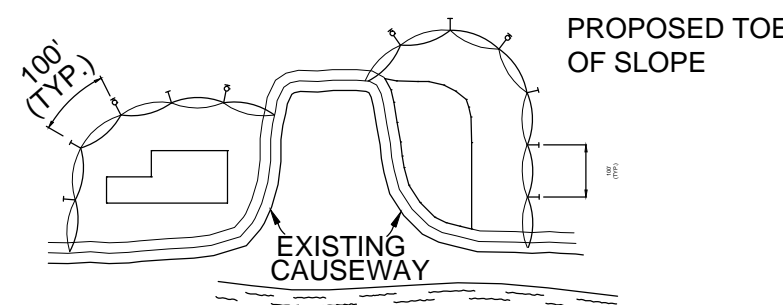
NOT TO SCALE



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.

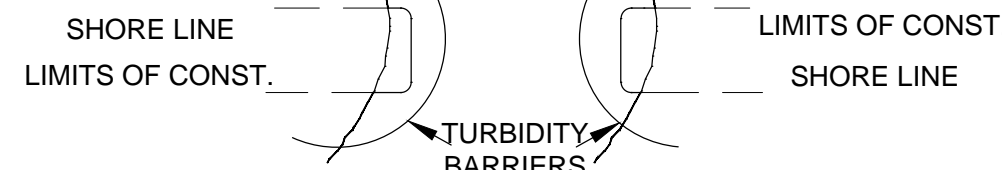
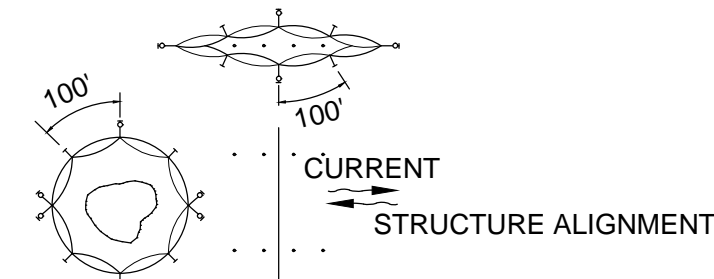
FLOATING TURBIDITY BARRIERS

NOT TO SCALE



GENERAL NOTES:

- FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, LF.
- STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, LF.

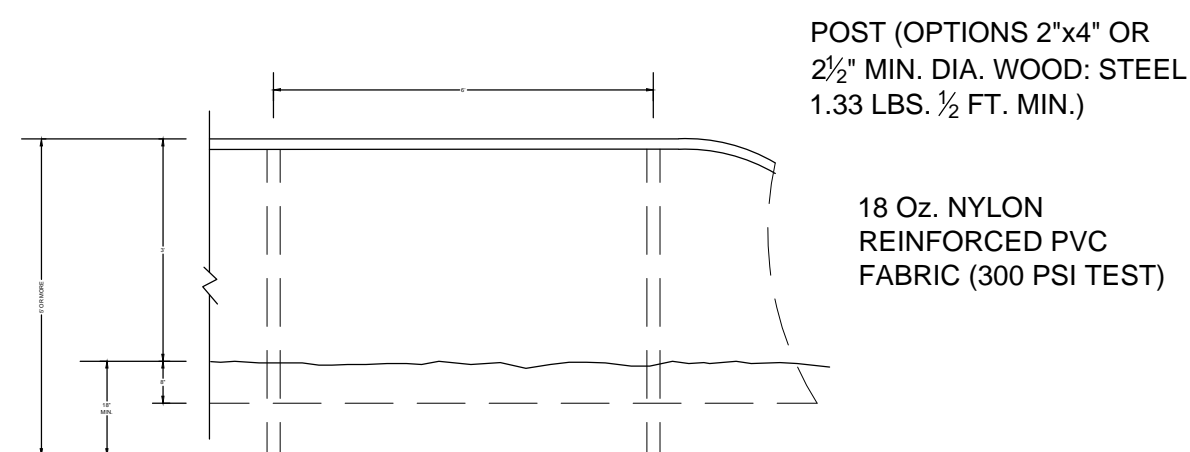


NOTES:

- 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 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

TURBIDITY BARRIER APPLICATIONS

NOT TO SCALE



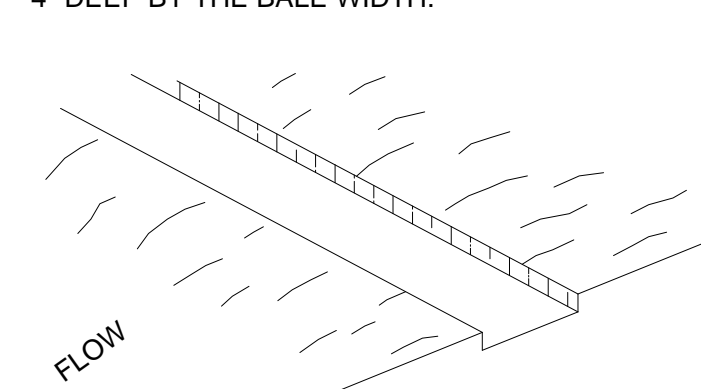
STAKED TURBIDITY BARRIER

NOT TO SCALE

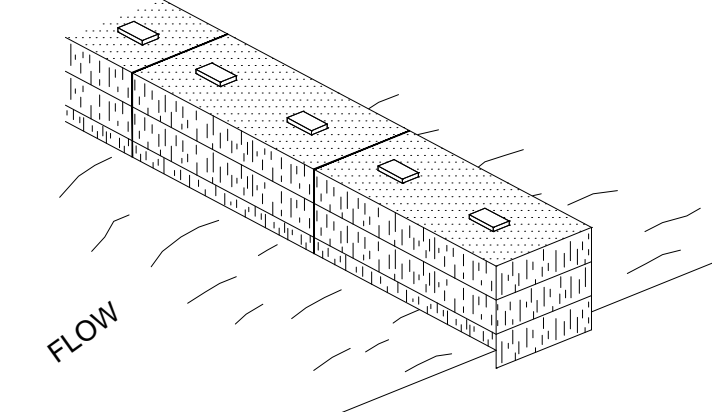
NOTES:

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 CONTRACTORS OPTIONS 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.

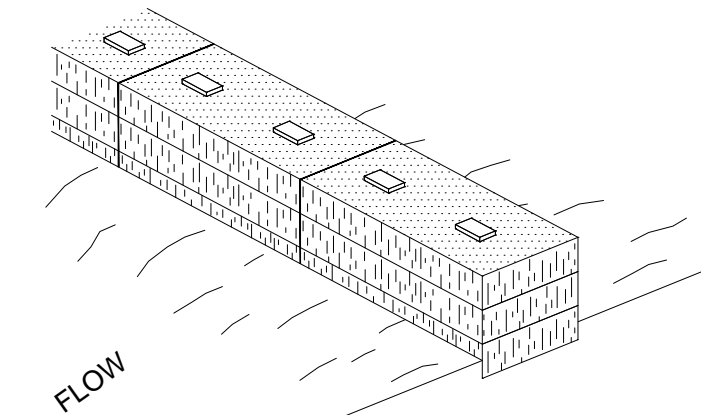
1. EXCAVATE THE TRENCH. 4" DEEP BY THE BALE WIDTH.



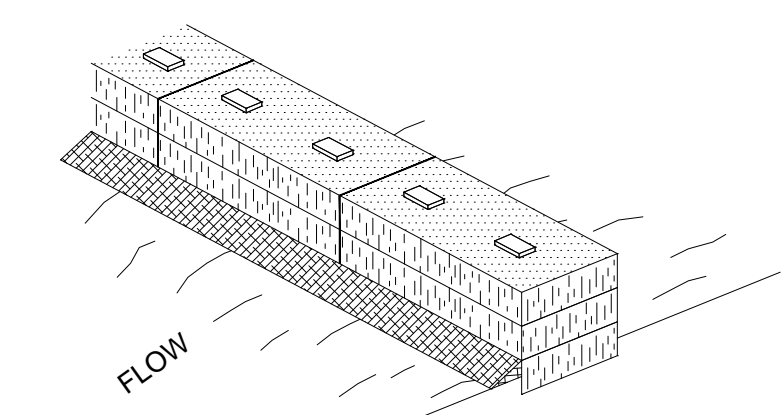
2. PLACE AND STAKE BALES.



3. WEDGE LOOSE STRAW BETWEEN THE BALES.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



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

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 THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6, 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 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITIONS. NOTE THAT OTHER GRASSING ALTERNATIVES MAY BE USED WITH PRIOR DISTRICT APPROVAL.

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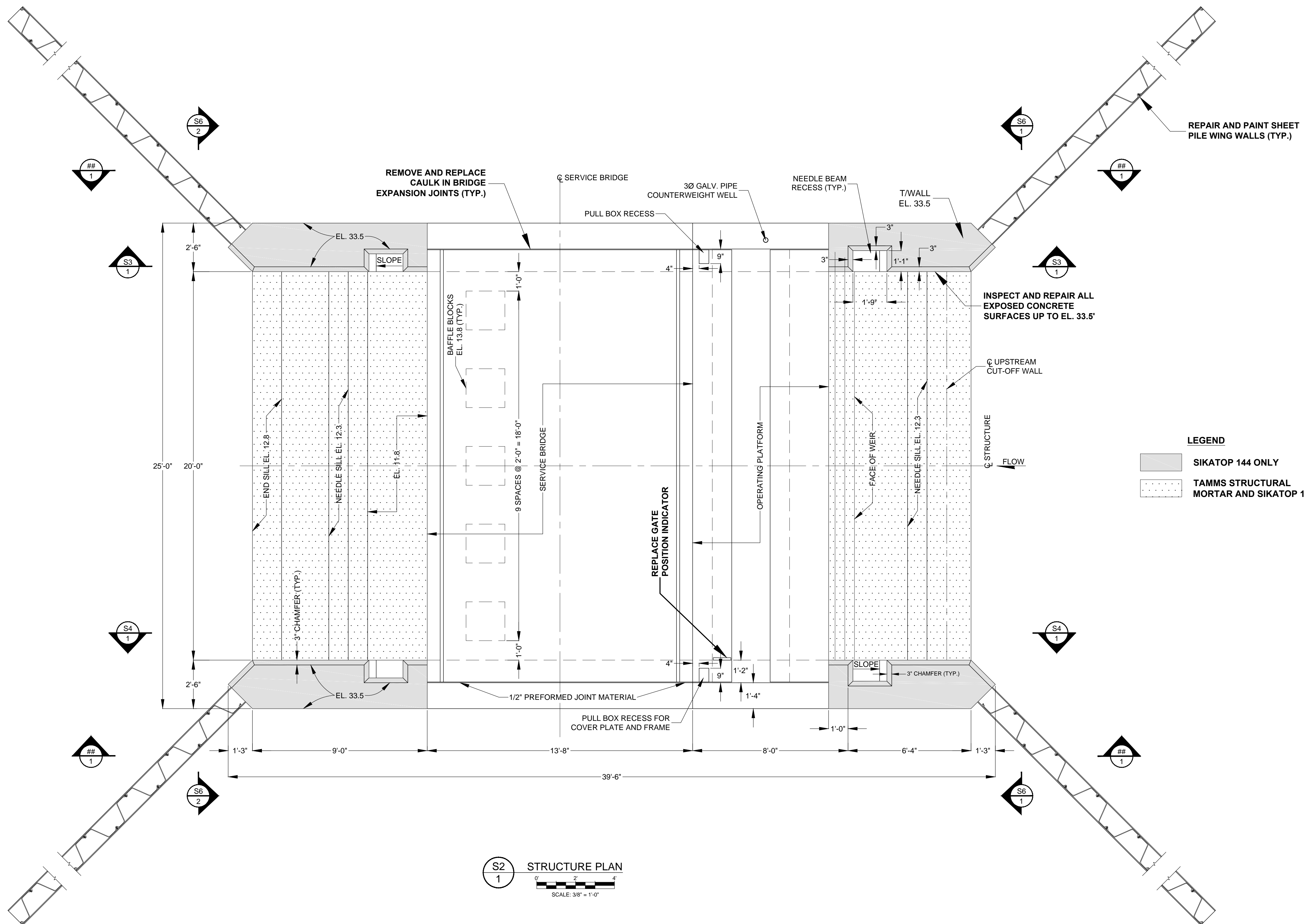
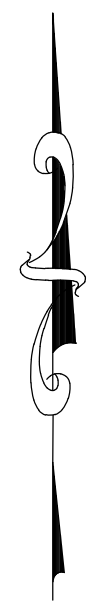
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SCALE: AS NOTED	DESIGNER: WRC	SECTION CHIEF: WRC

EROSION AND SEDIMENT CONTROL

CERTIFICATION:	
WILLIAM R. COTE	
P. E. NUMBER: 53746	
DATE: JUNE 1, 2018	

FILE NAME: 96-B PLAN.dwg
PROJECT NO.:
SHEET: C4



LEGEND

█ SIKATOP 144 ONLY

▨ TAMMS STRUCTURAL MORTAR AND SIKATOP 144

S2
1
STRUCTURE PLAN
SCALE: 3/8" = 1'-0"

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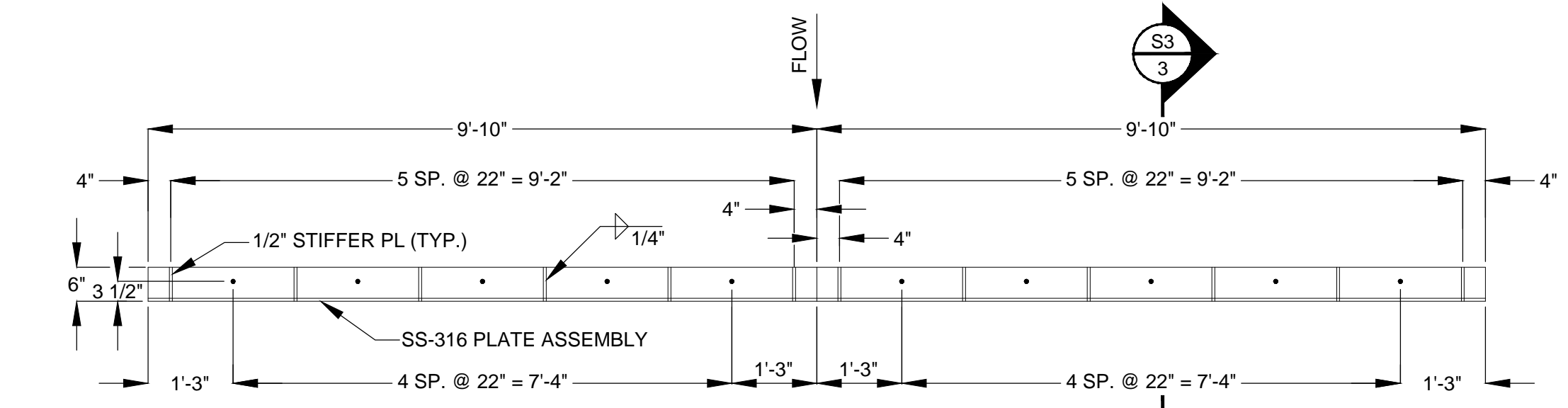
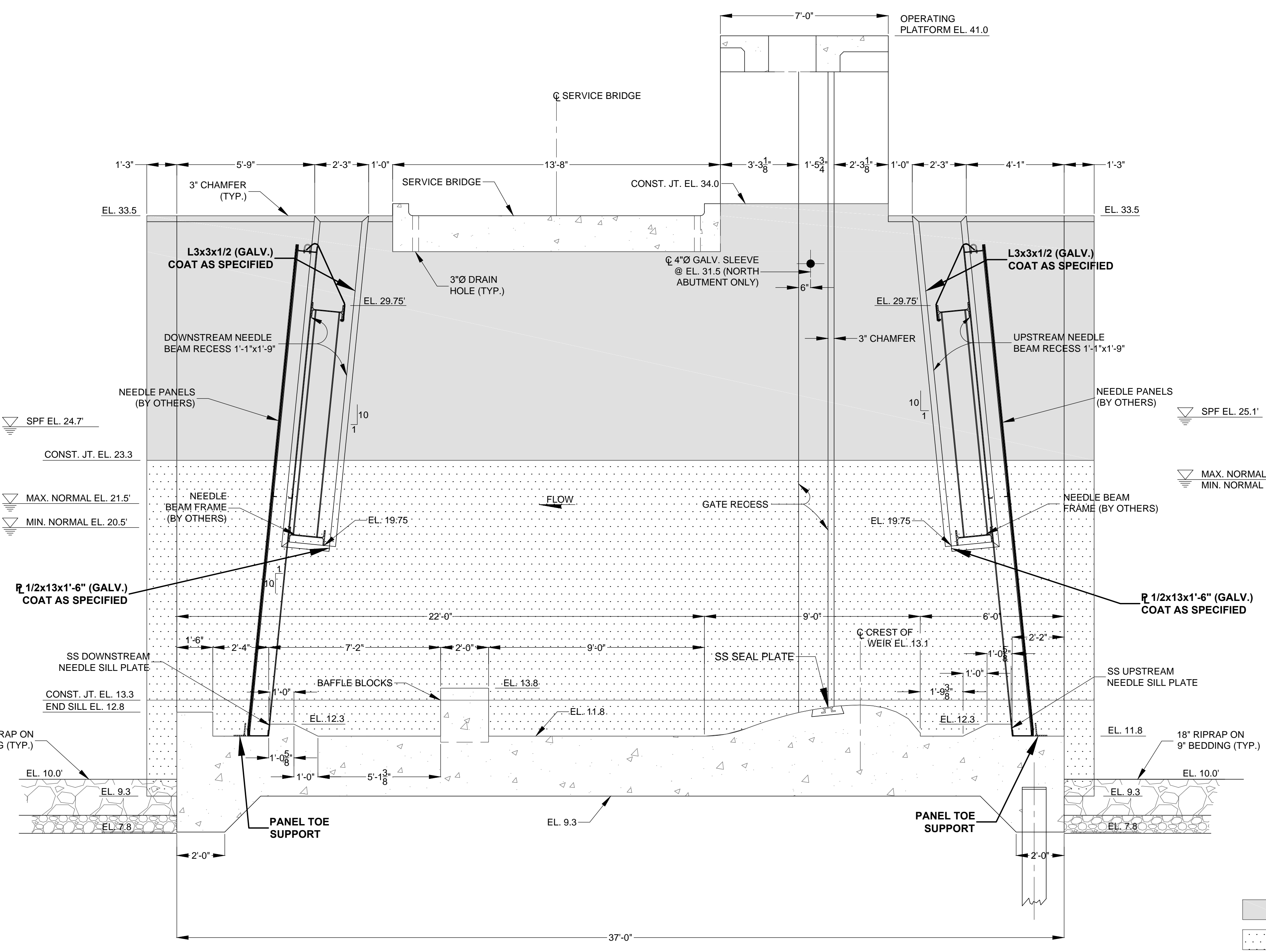
CONCRETE REPAIR - STRUCTURE PLAN

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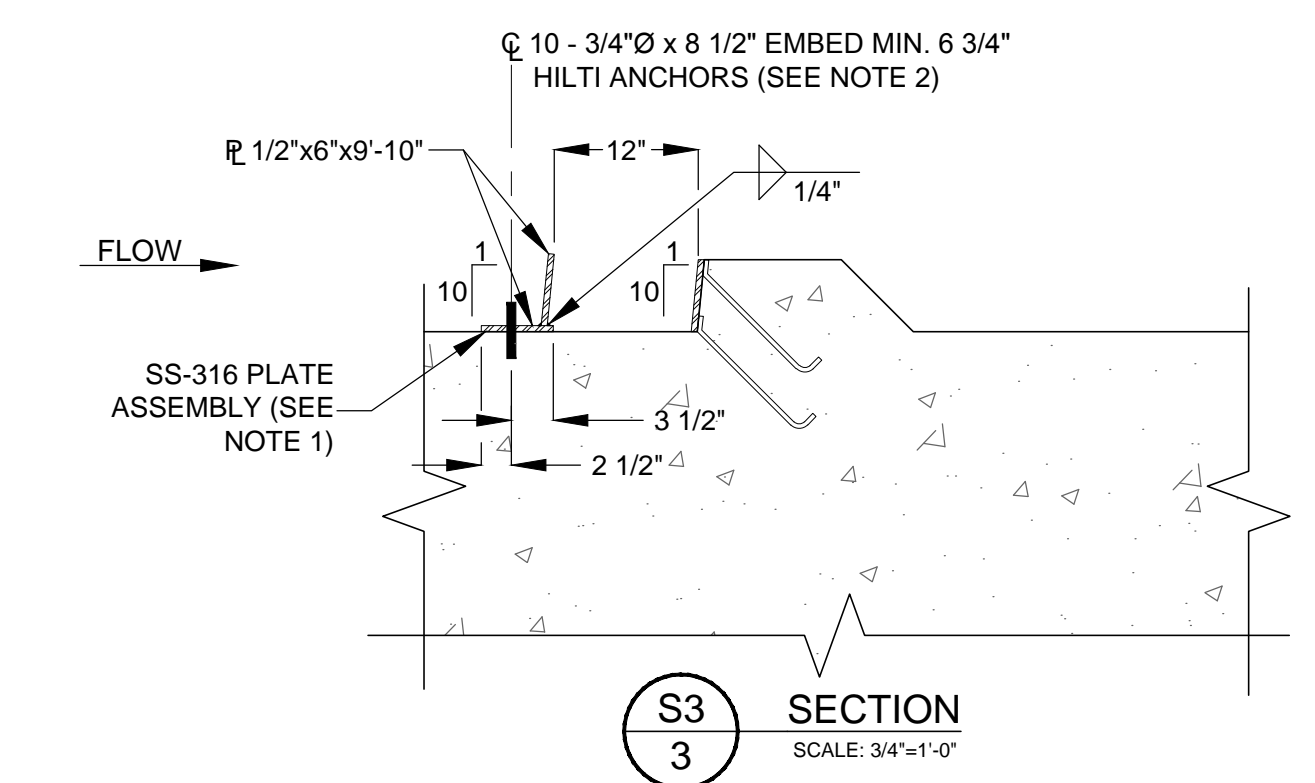
FILE NAME:
96-B STRUCTURE.dwg
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SHEET:
S2

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PLAN (2 REQ'D)
SCALE: 1/2"=1'-0"
S3/2 PANEL TOE SUPPORT



S3/3 SECTION
SCALE: 3/4"=1'-0"

1. THE PANEL TOE SUPPORT PLATE 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" DIA. X 8-1/2" LONG HAS-R 316 STAINLESS STEEL WITH A MINIMUM EMBEDMENT DEPTH OF 6-3/4". NUTS AND WASHERS SHALL ALSO BE SS-316.

LEGEND

SIKATOP 144 ONLY
 TAMMS STRUCTURAL MORTAR AND SIKATOP 144

S3/1 NORTH WALL INSIDE
SCALE: 3/8" = 1'-0"

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CONCRETE REPAIR - NORTH WALL INSIDE

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P.E. NUMBER: 53746

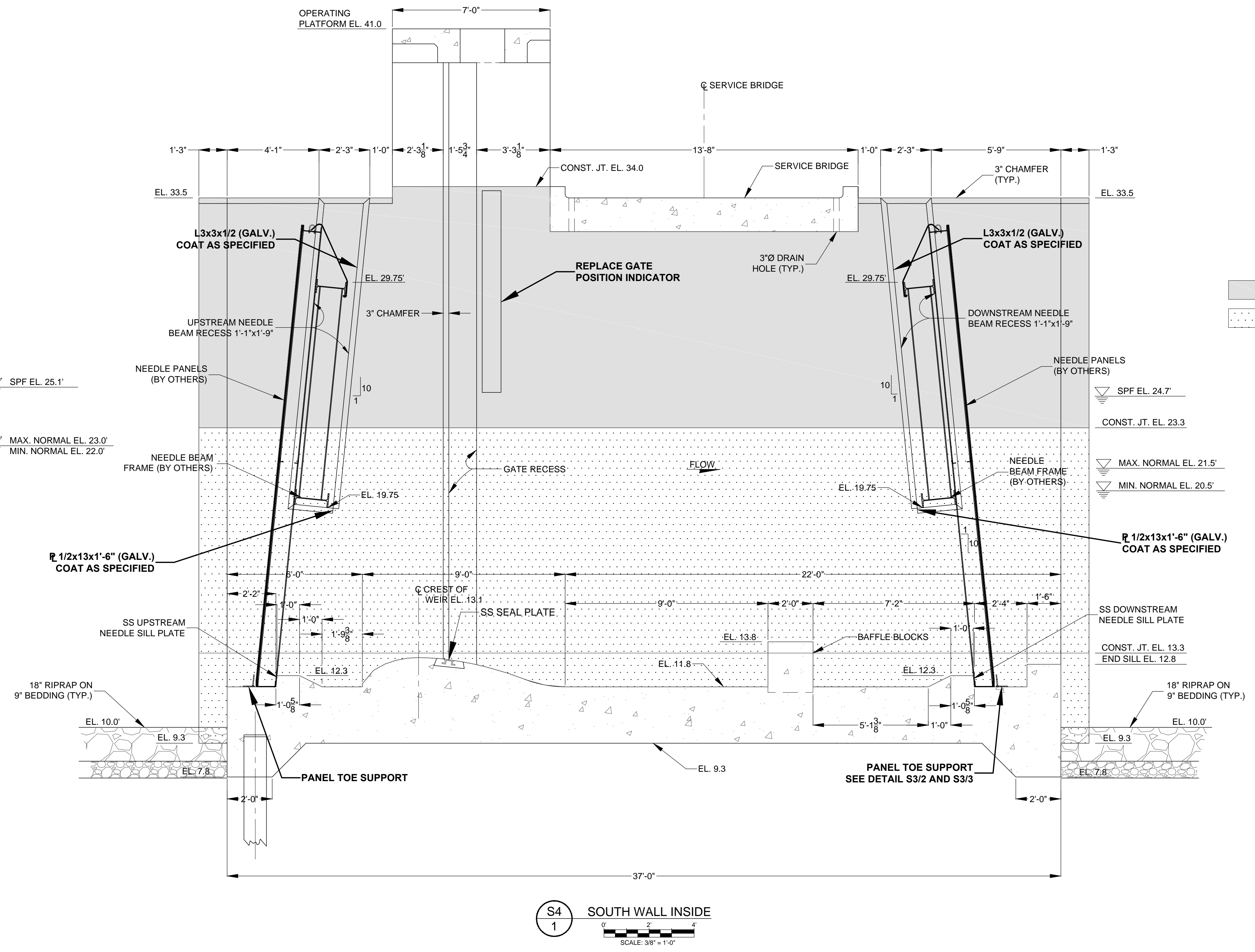
DATE: JUNE 1, 2018

FILE NAME:
96-B STRUCTURE.dwg

PROJECT NO.:

SHEET:
S3

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LEGEND
 SIKATOP 144 ONLY
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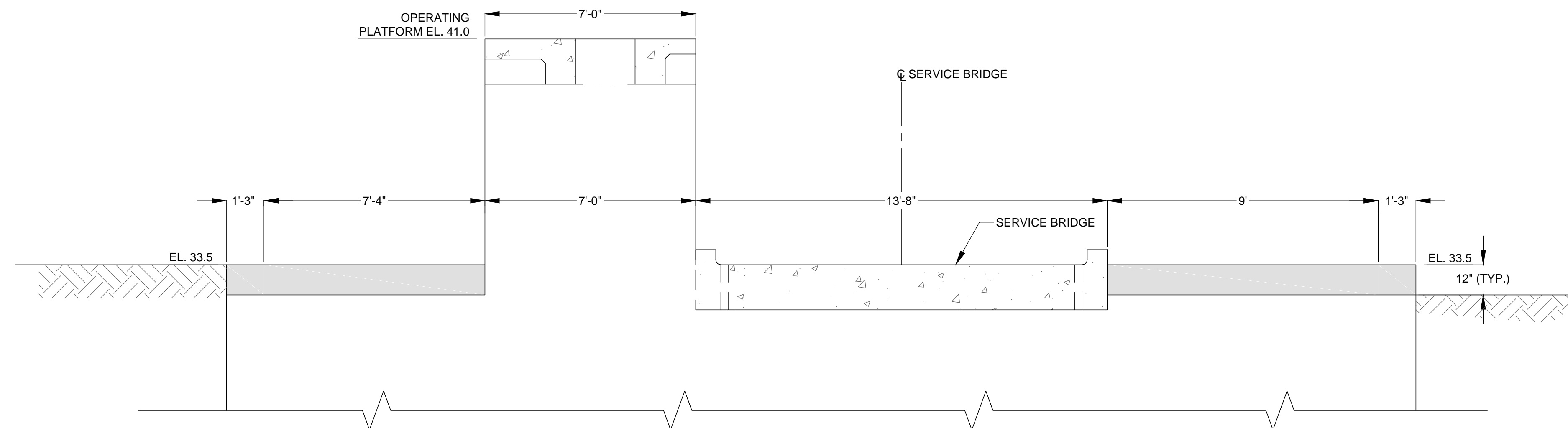
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CONCRETE REPAIR - SOUTH WALL INSIDE

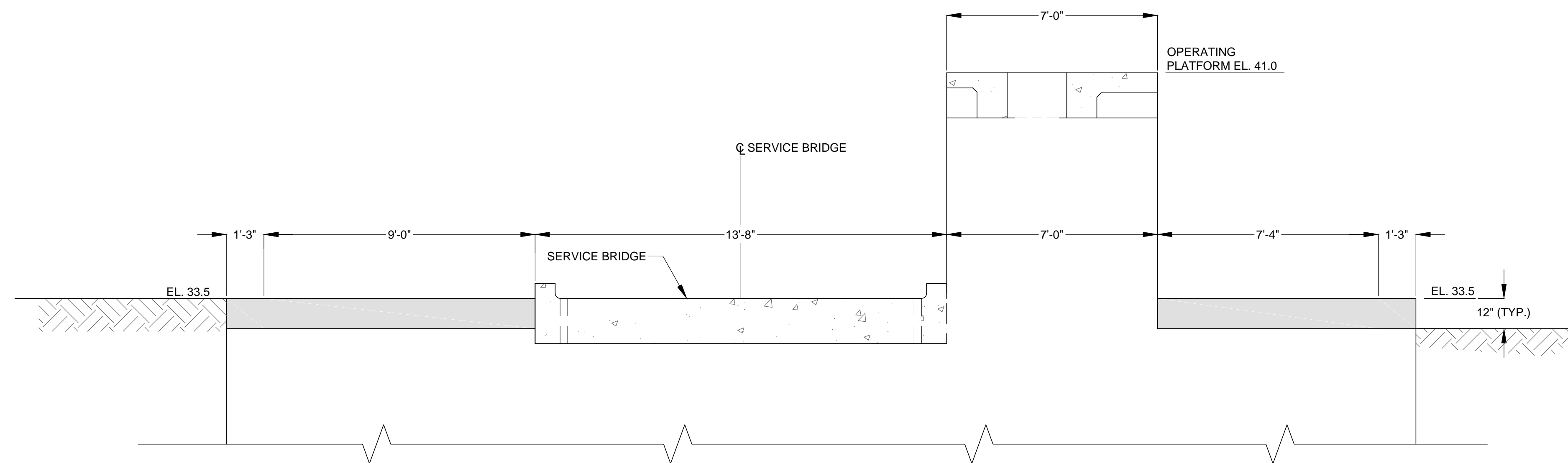
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S4



NORTH WALL OUTSIDE
1
SCALE: 3/8" = 1'-0"

LEGEND
 SIKATOP 144 ONLY
 TAMMS STRUCTURAL MORTAR AND SIKATOP 144



SOUTH WALL OUTSIDE
2
SCALE: 3/8" = 1'-0"

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STRUCTURE 96B REHABILITATION
INDIAN RIVER COUNTY, FLORIDA

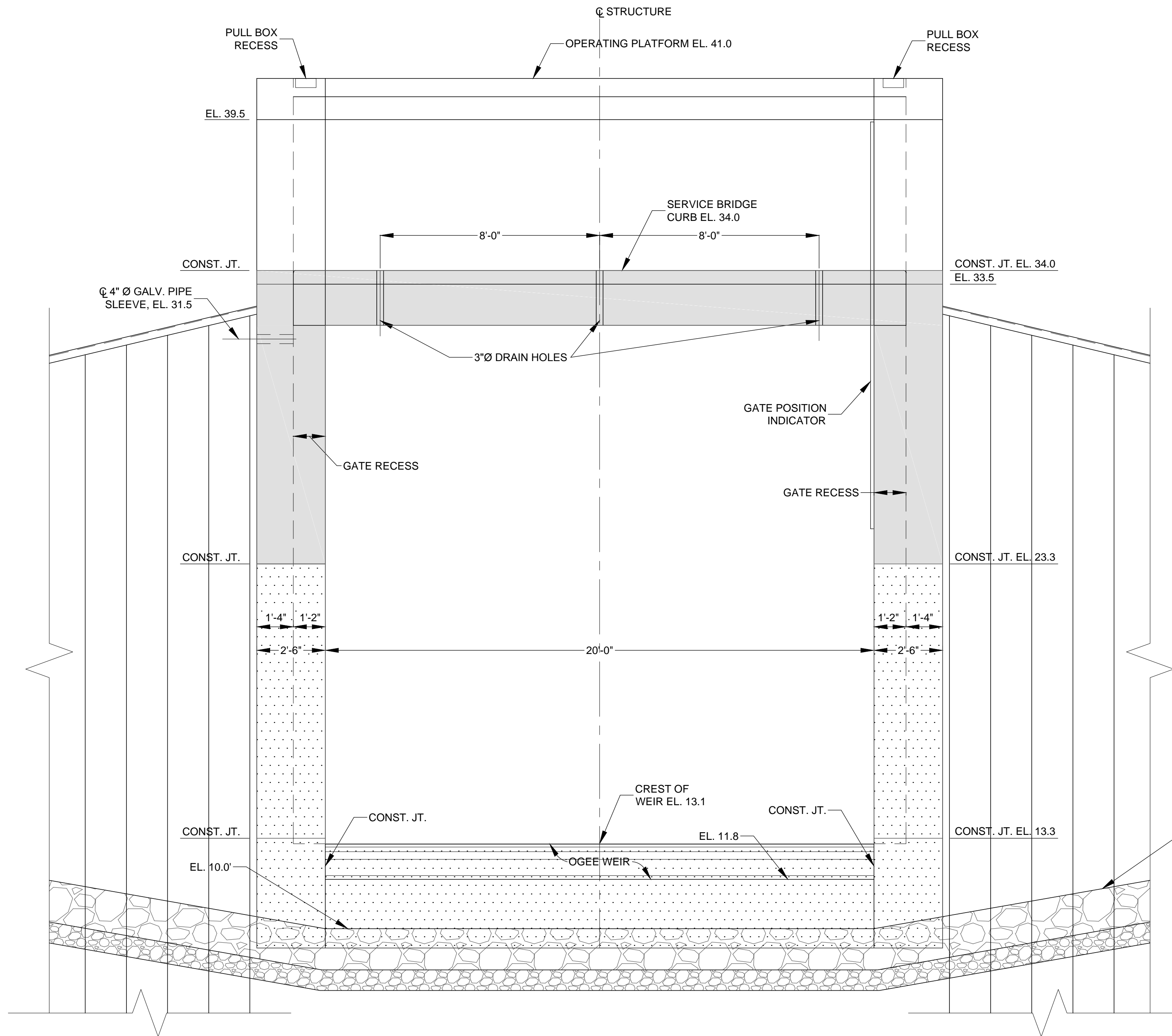
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
 SCALE: AS NOTED DESIGNER: WRC SECTION CHIEF: WRC

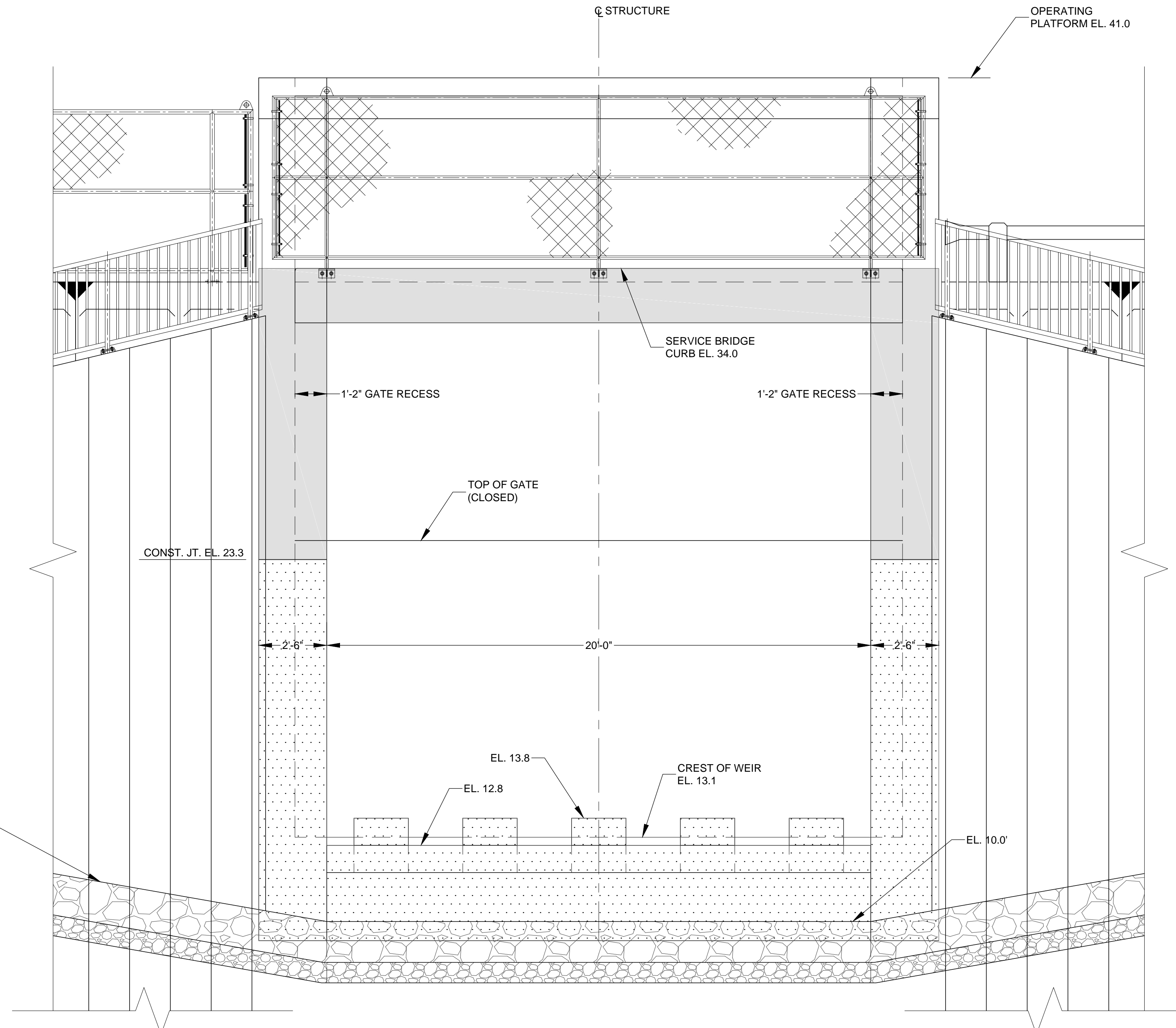
CONCRETE REPAIR - NORTH AND SOUTH WALLS OUTSIDE

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: JUNE 1, 2018

FILE NAME:
96-B STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S5



S6
1
UPSTREAM - ELEVATION
SCALE: 3/8" = 1'-0"



S6
2
DOWNSTREAM - ELEVATION
SCALE: 3/8" = 1'-0"

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
	ISSUED FOR BID	PLC	06/01/18	WRC	06/01/18

UPPER ST. JOHNS RIVER BASIN
 STRUCTURE 96B REHABILITATION
 INDIAN RIVER COUNTY, FLORIDA

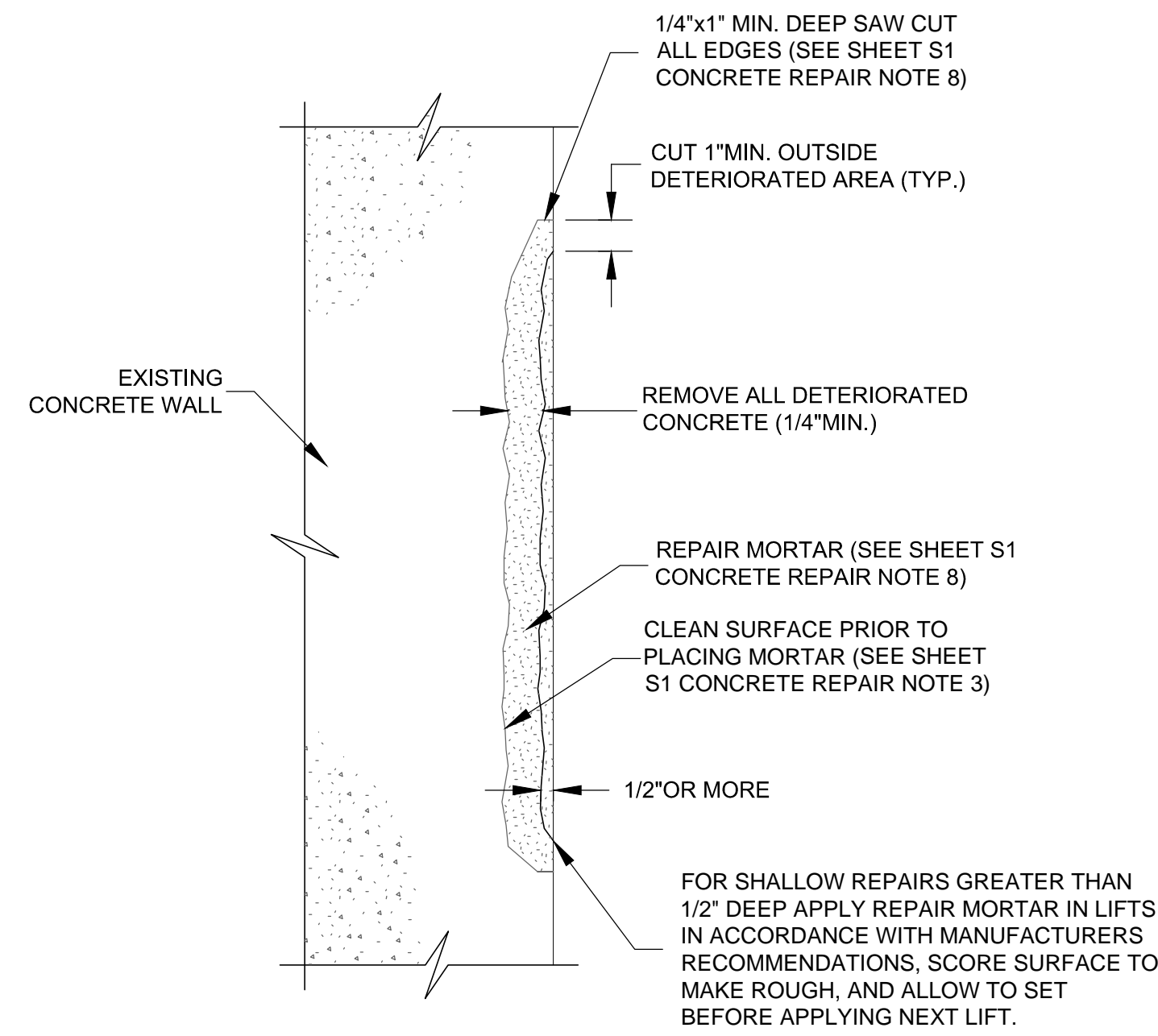
**ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
 SCALE: 3/8" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

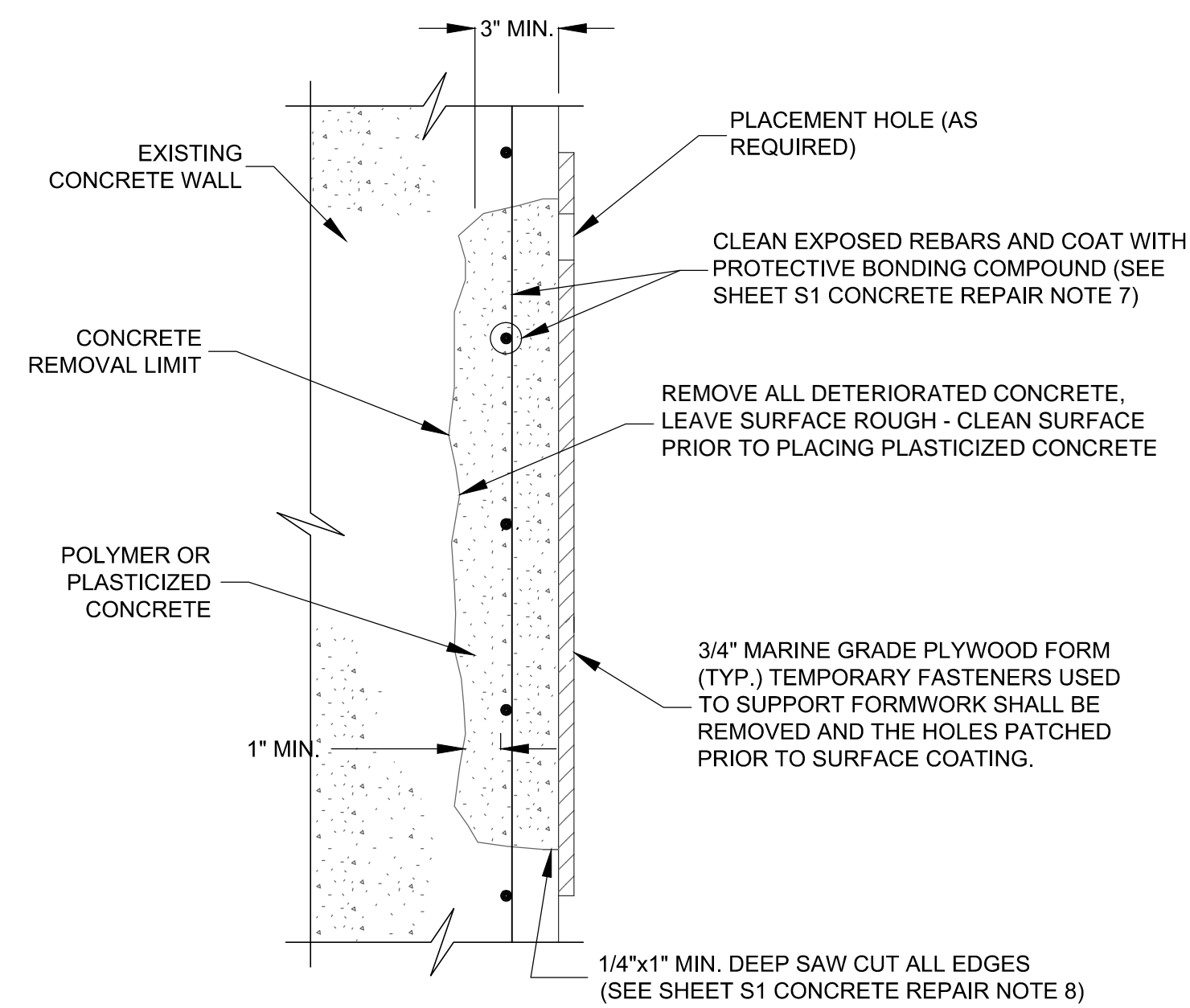
CONCRETE REPAIR
 UPSTREAM AND DOWNSTREAM ELEVATION

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: JUNE 1, 2018

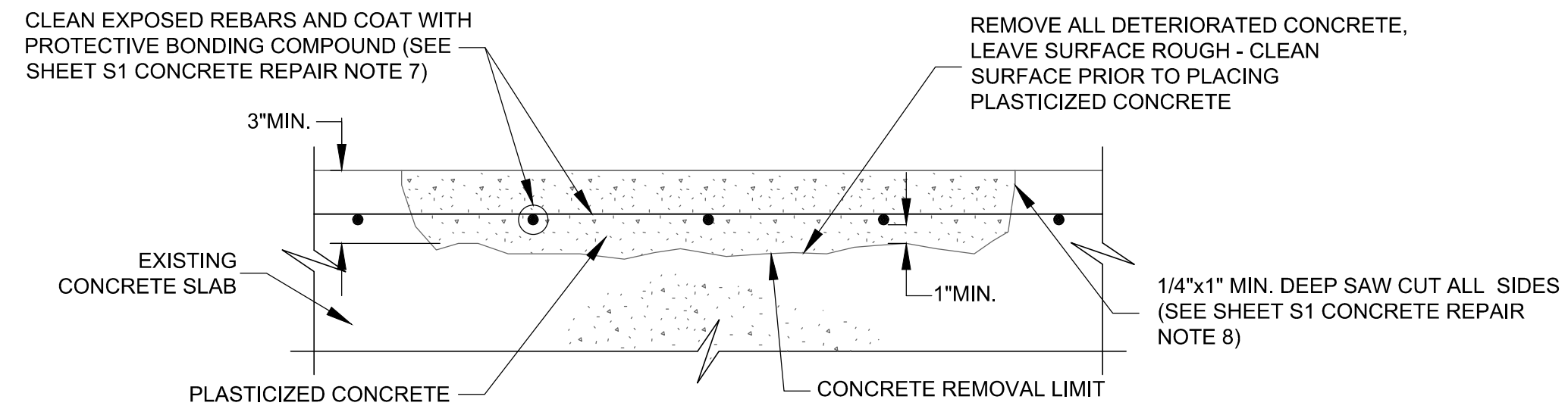
FILE NAME:
 96-B STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S6



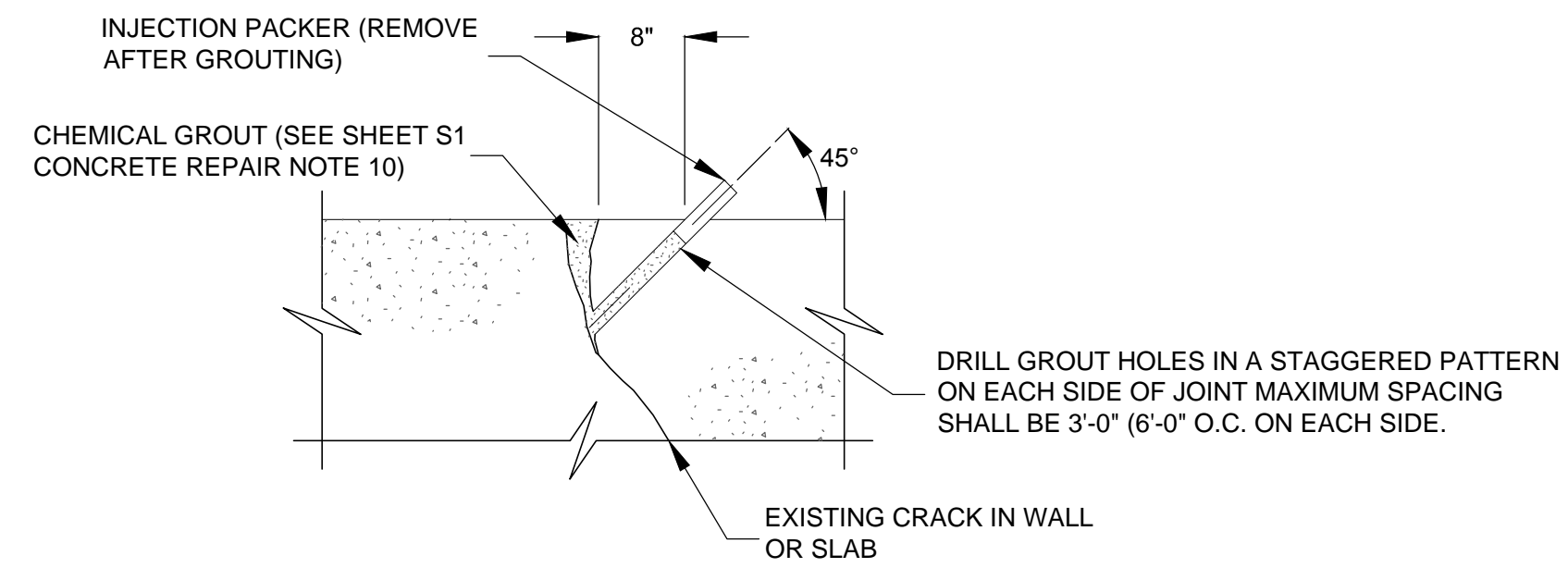
**S7
1**
SHALLOW MORTAR REPAIR
FOR WALL / SLAB
CONCRETE SURFACES
NOT TO SCALE



**S7
2**
DEEP CONCRETE
REPAIR FOR WALLS
NOT TO SCALE



**S7
3**
DEEP CONCRETE REPAIR FOR SLABS
NOT TO SCALE



**S7
4**
CHEMICAL GROUTING DETAIL FOR
CONCRETE CRACKS WITH FLOWING WATER
NOT TO SCALE

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 ACCORDING TO DETAIL S8/4 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 DE NEEF CONSTRUCTION CHEMICALS, INC., OR APPROVED EQUAL.

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INDIAN RIVER COUNTY, FLORIDA

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

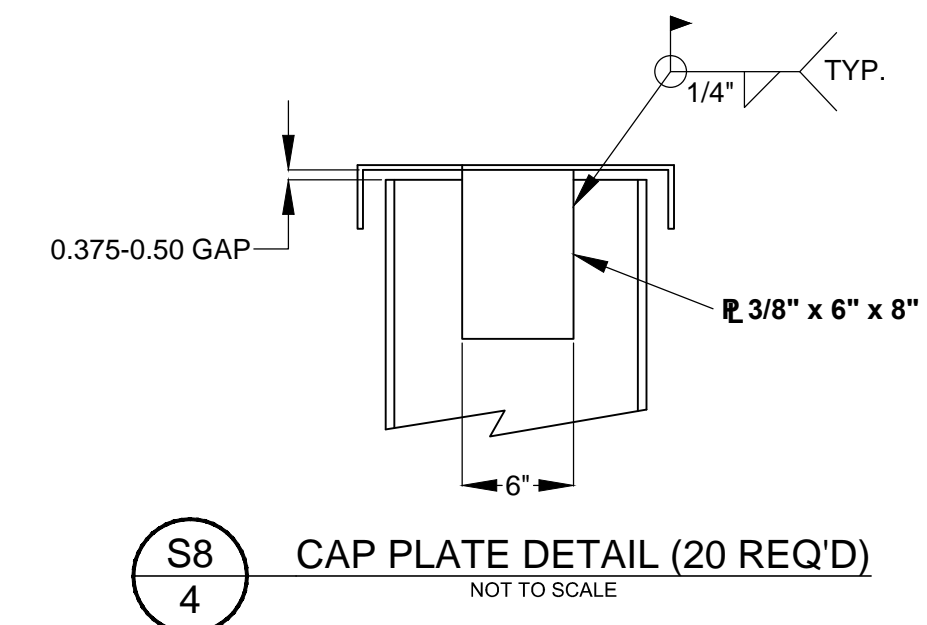
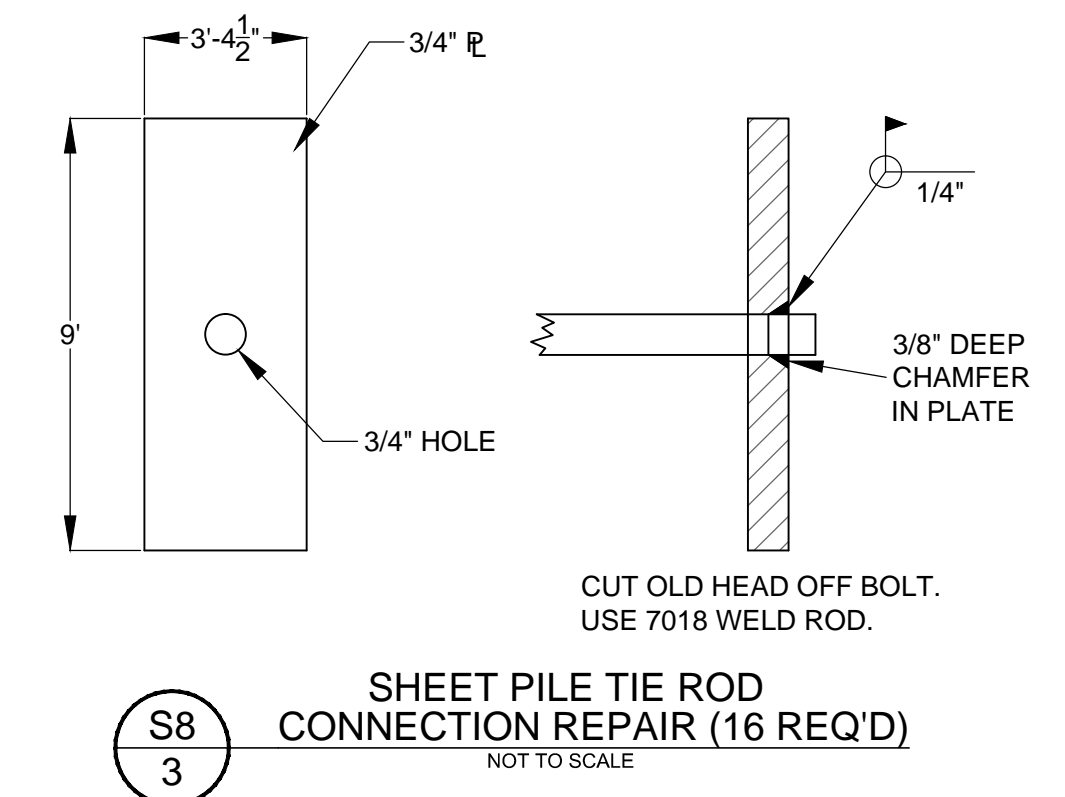
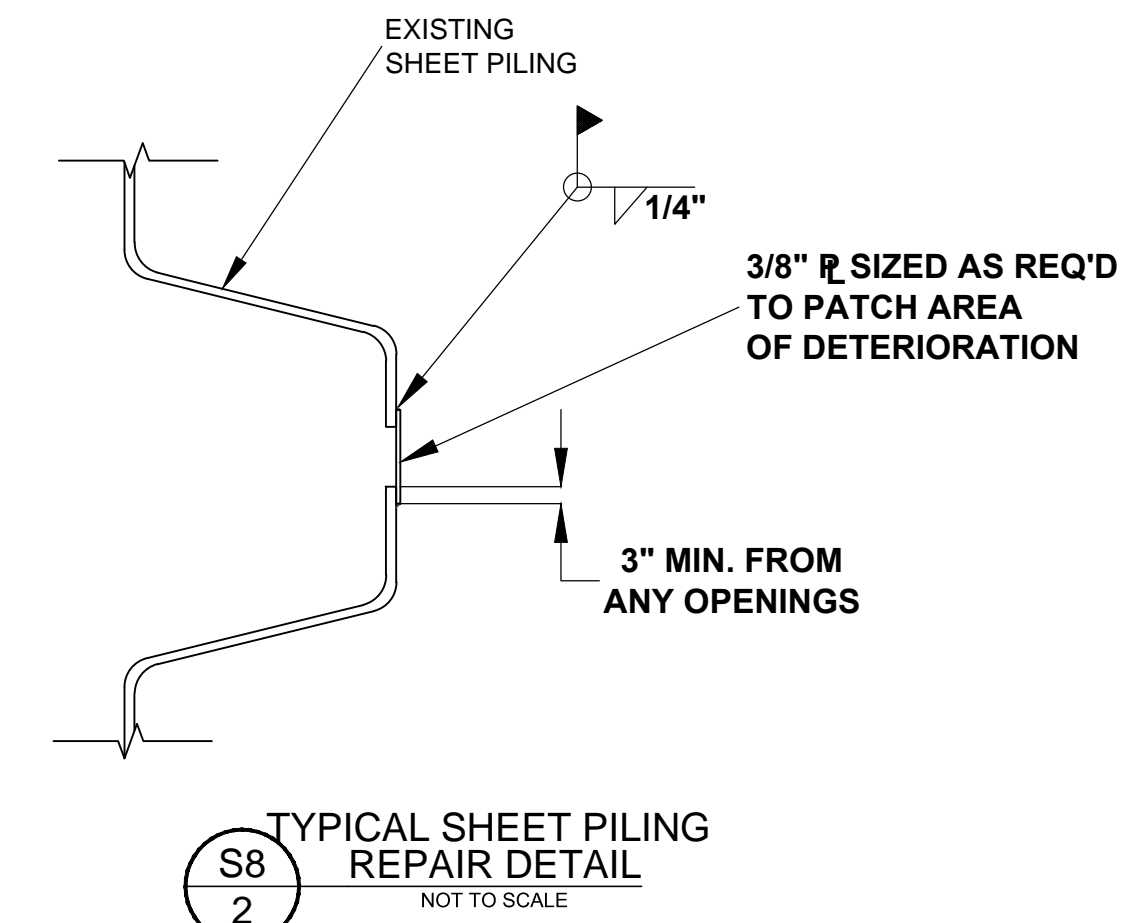
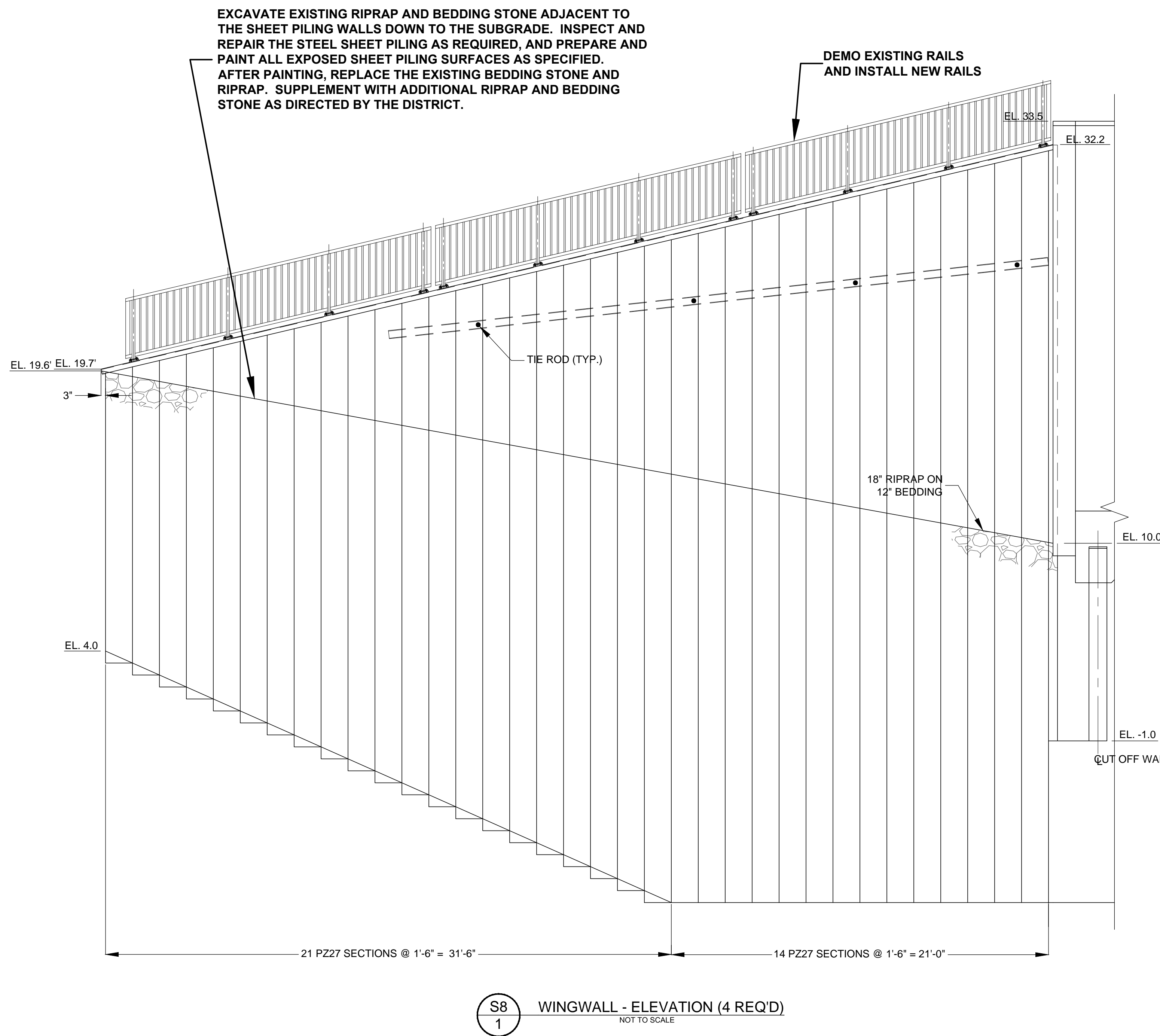
DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: AS NOTED DESIGNER: WRC SECTION CHIEF: WRC

CONCRETE REPAIR - TYPICAL DETAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B STRUCTURE.dwg
PROJECT NO.:
SHEET:
S7

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UPPER ST. JOHNS RIVER BASIN
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INDIAN RIVER COUNTY, FLORIDA

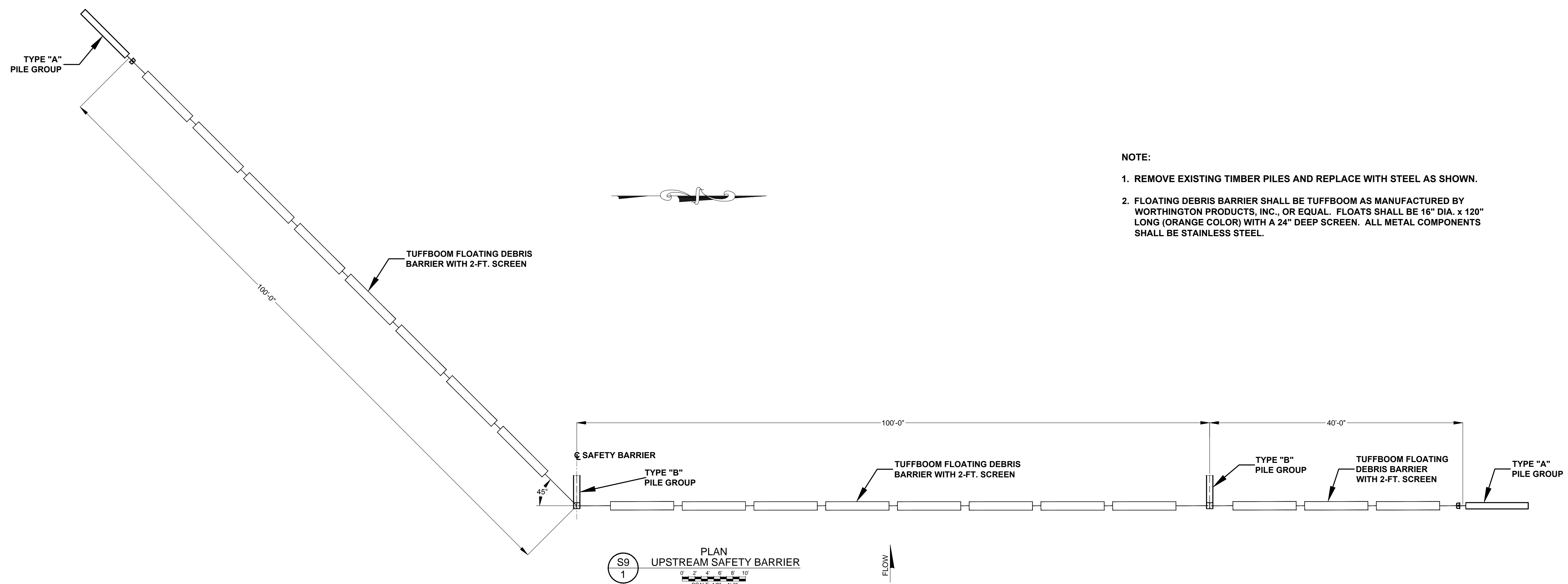
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: AS NOTED DESIGNER: WRC SECTION CHIEF: WRC

SHEET PILING REPAIR - WINGWALL ELEVATION

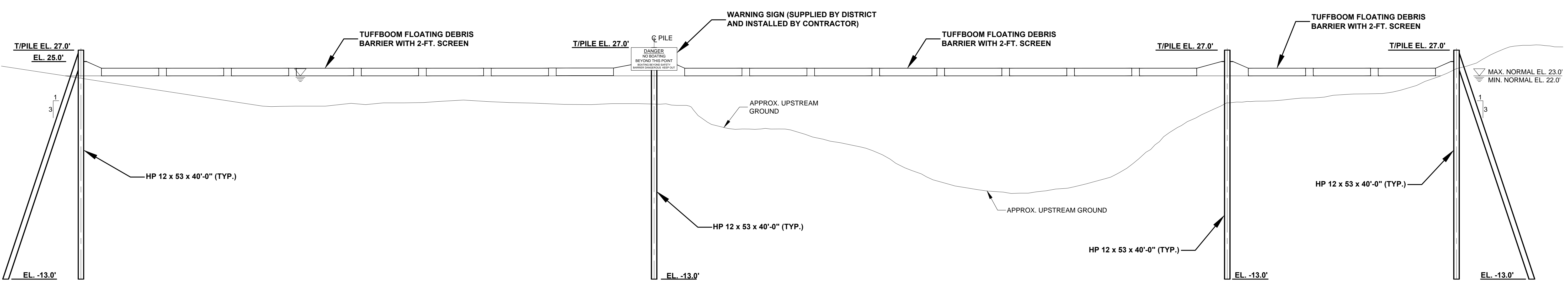
CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B STRUCTURE.dwg
PROJECT NO.:
SHEET:
S8



- NOTE:**
1. REMOVE EXISTING TIMBER PILES AND REPLACE WITH STEEL AS SHOWN.
 2. FLOATING DEBRIS BARRIER SHALL BE TUFFBOOM AS MANUFACTURED BY WORTHINGTON PRODUCTS, INC., OR EQUAL. FLOATS SHALL BE 16" DIA. x 120" LONG (ORANGE COLOR) WITH A 24" DEEP SCREEN. ALL METAL COMPONENTS SHALL BE STAINLESS STEEL.

S9 1
 PLAN
 UPSTREAM SAFETY BARRIER
 SCALE: 1/8" = 1'-0"



- FLOATING SAFETY BARRIERS:**
1. THE FLOATING SAFETY BARRIERS SHALL BE TUFFBOUY AS MANUFACTURED BY WORTHINGTON PRODUCTS, INC., OR EQUAL. FLOATS SHALL BE 24-INCH DIAMETER, ORANGE COLOR, WITH A THROUGH CABLE DESIGN. ALL METAL COMPONENTS SHALL BE STAINLESS STEEL.

S9 2
 ELEVATION
 UPSTREAM SAFETY BARRIER
 SCALE: 1/8" = 1'-0"

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UPPER ST. JOHNS RIVER BASIN
 STRUCTURE 96B REHABILITATION
 INDIAN RIVER COUNTY, FLORIDA

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

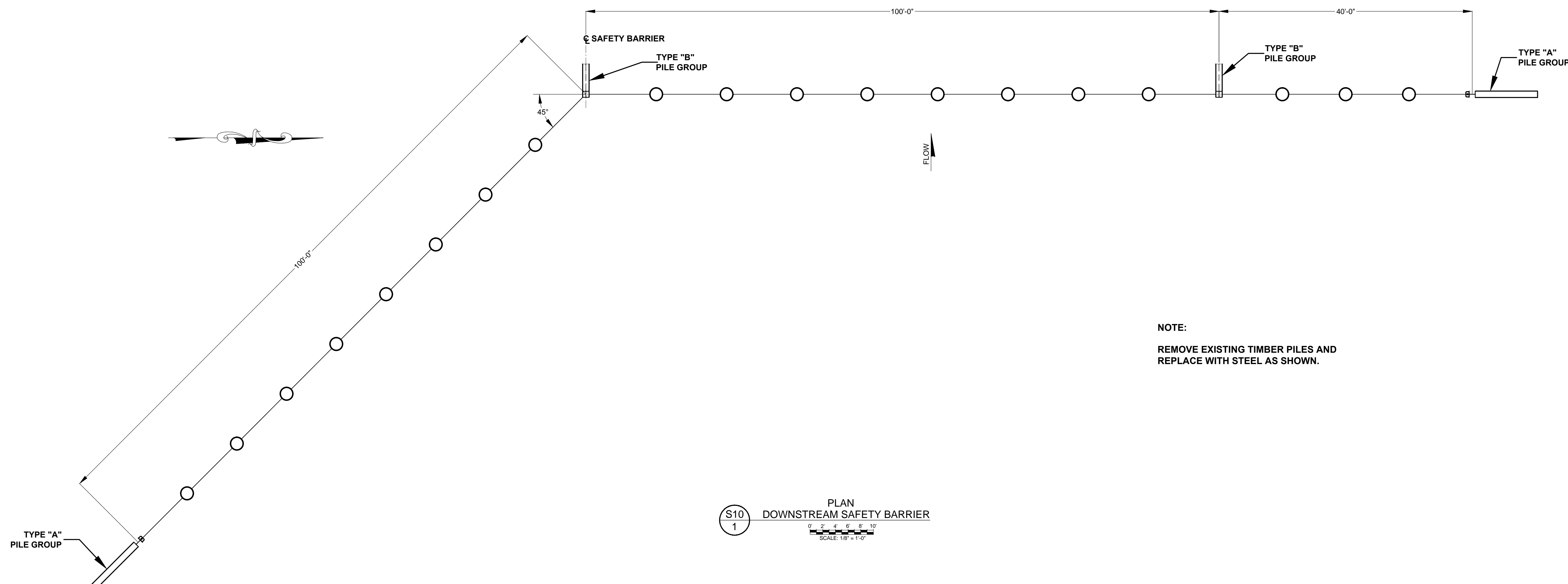
DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
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UPSTREAM DEBRIS BARRIER

CERTIFICATION:

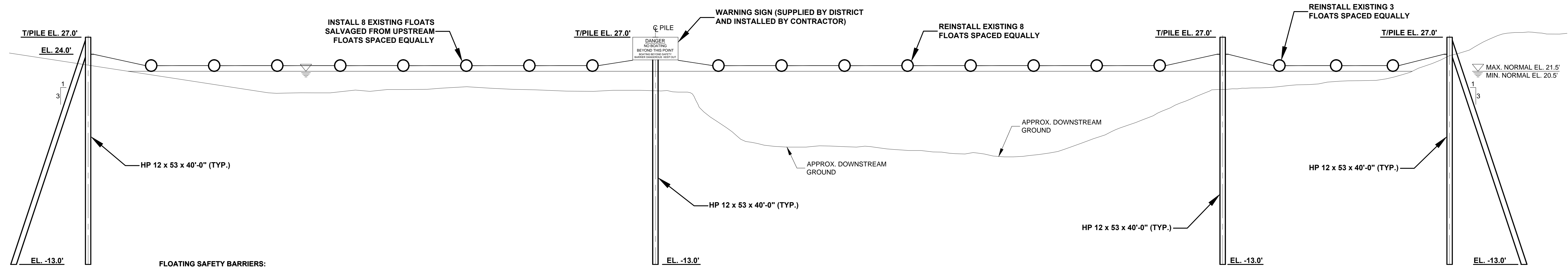
WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: JUNE 1, 2018

FILE NAME:
 96-B STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S9



NOTE:
 REMOVE EXISTING TIMBER PILES AND
 REPLACE WITH STEEL AS SHOWN.

S10
1
 PLAN
 DOWNSTREAM SAFETY BARRIER
 SCALE: 1/8" = 1'-0"



FLOATING SAFETY BARRIERS:
 1. THE FLOATING SAFETY BARRIERS SHALL BE TUFFBUOY AS MANUFACTURED BY WORTHINGTON PRODUCTS, INC., OR EQUAL. FLOATS SHALL BE 24-INCH DIAMETER, ORANGE COLOR, WITH A THROUGH CABLE DESIGN. ALL METAL COMPONENTS SHALL BE STAINLESS STEEL.

S10
2
 ELEVATION
 DOWNSTREAM SAFETY BARRIER
 SCALE: 1/8" = 1'-0"

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UPPER ST. JOHNS RIVER BASIN
 STRUCTURE 96B REHABILITATION
 INDIAN RIVER COUNTY, FLORIDA

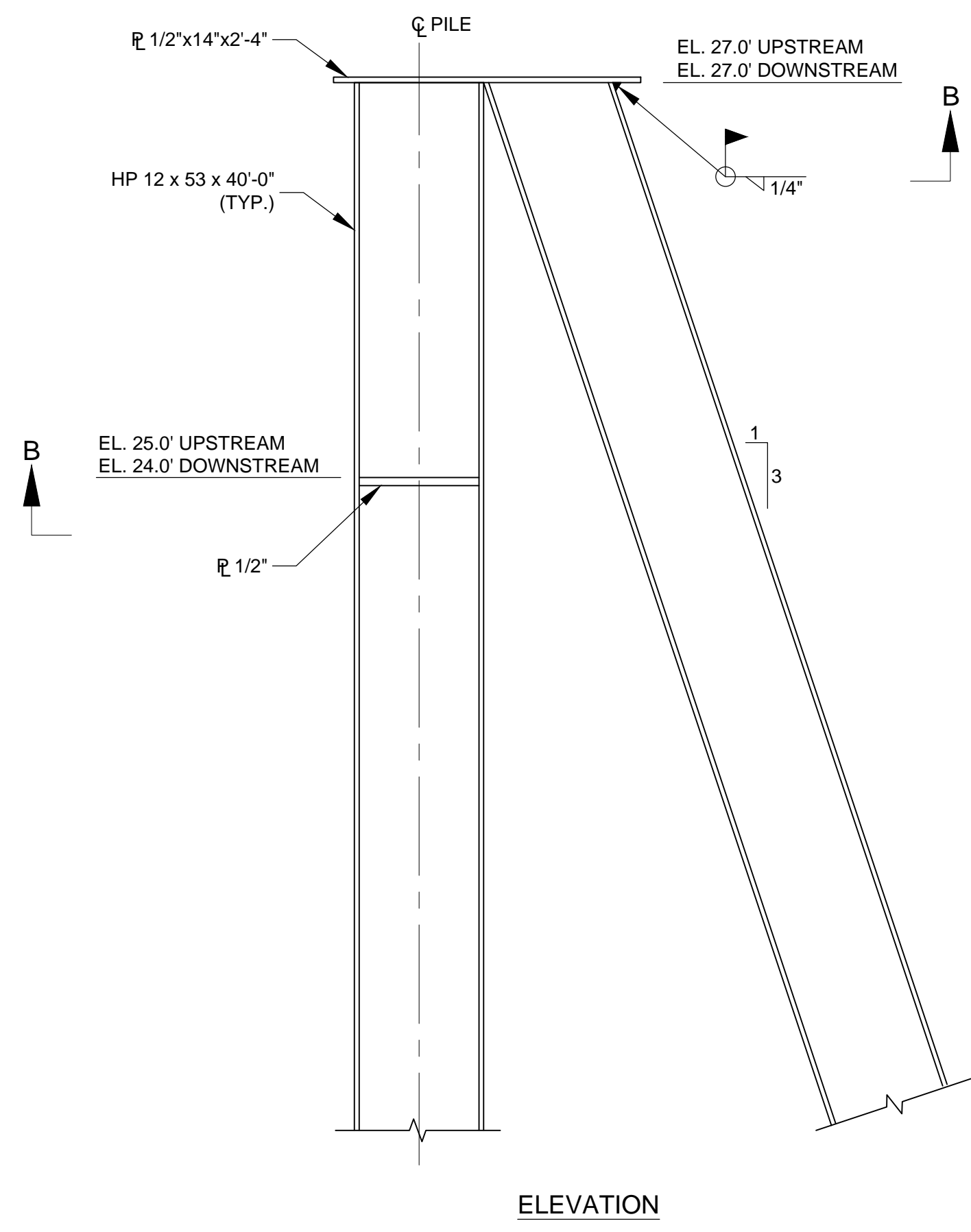
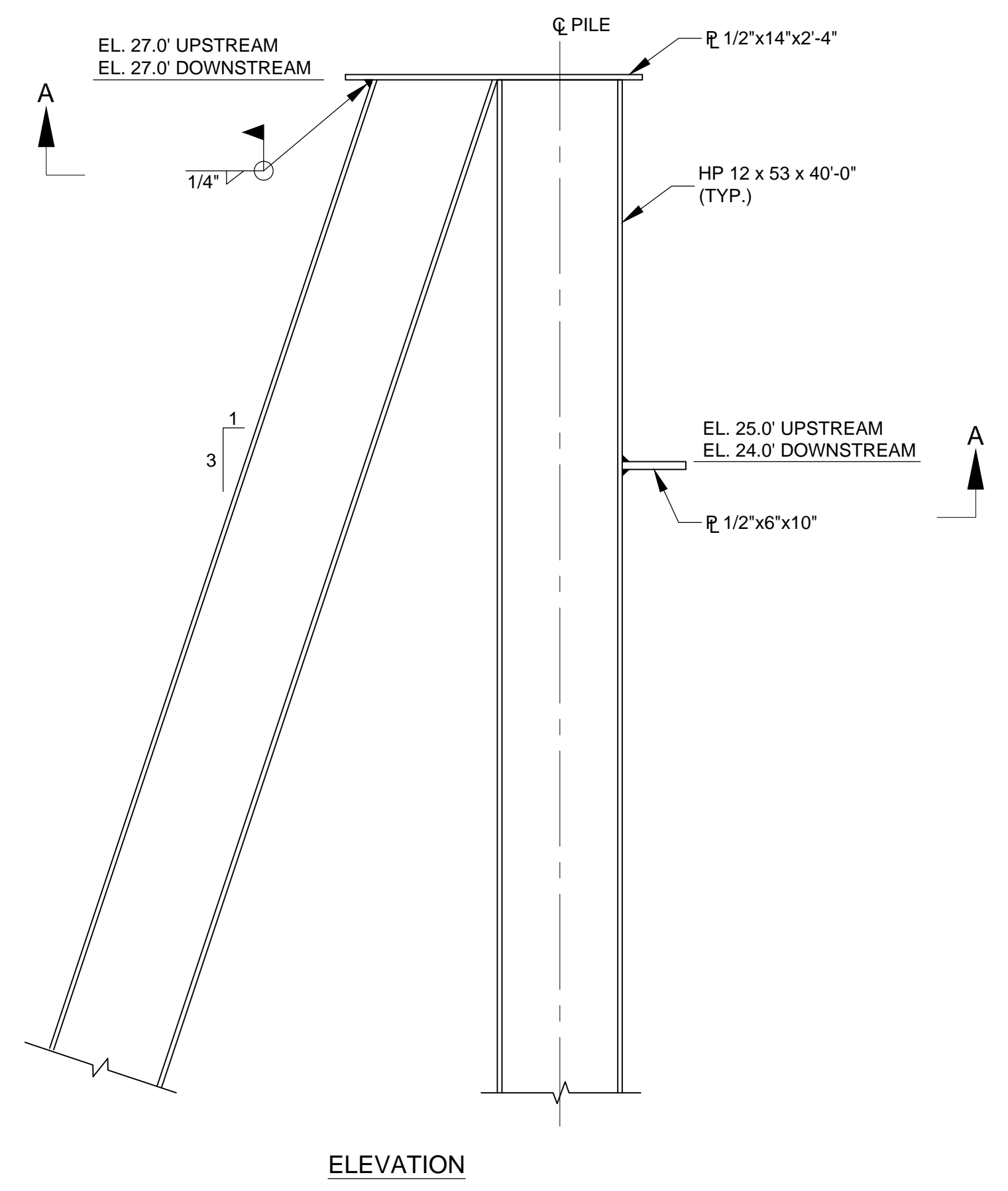
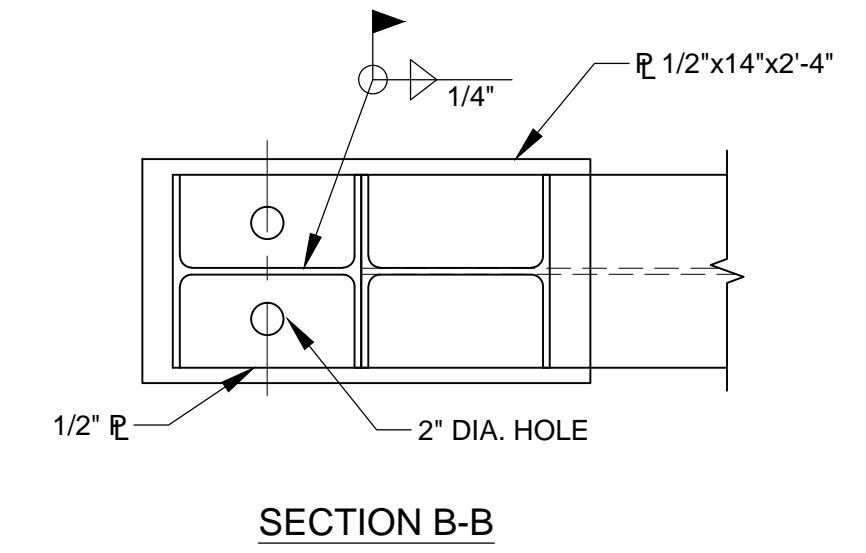
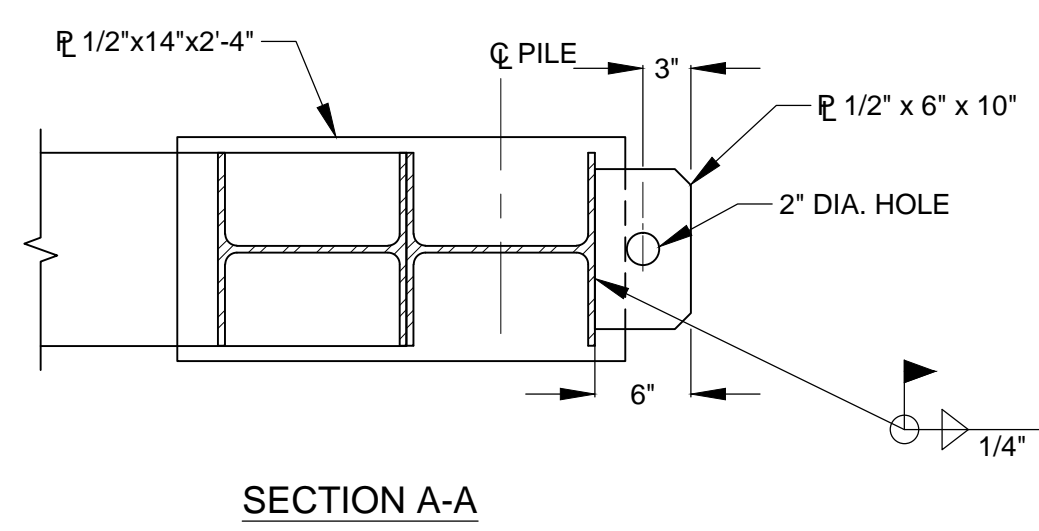
**ST. JOHNS RIVER
 WATER MANAGEMENT DISTRICT**
 P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
 SCALE: 1/8" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

DOWNSTREAM SAFETY BARRIER

CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: JUNE 1, 2018

FILE NAME:
 96-B STRUCTURE.dwg
 PROJECT NO.:
 SHEET:
S10



(S11) 1 TYPE "A" PILE GROUP (4 REQ'D)
SCALE: 1"=1'-0"

(S11) 2 TYPE "B" PILE GROUP (4 REQ'D)
SCALE: 1"=1'-0"

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UPPER ST. JOHNS RIVER BASIN
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INDIAN RIVER COUNTY, FLORIDA

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

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: 1" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

NEW PILE GROUP DETAILS

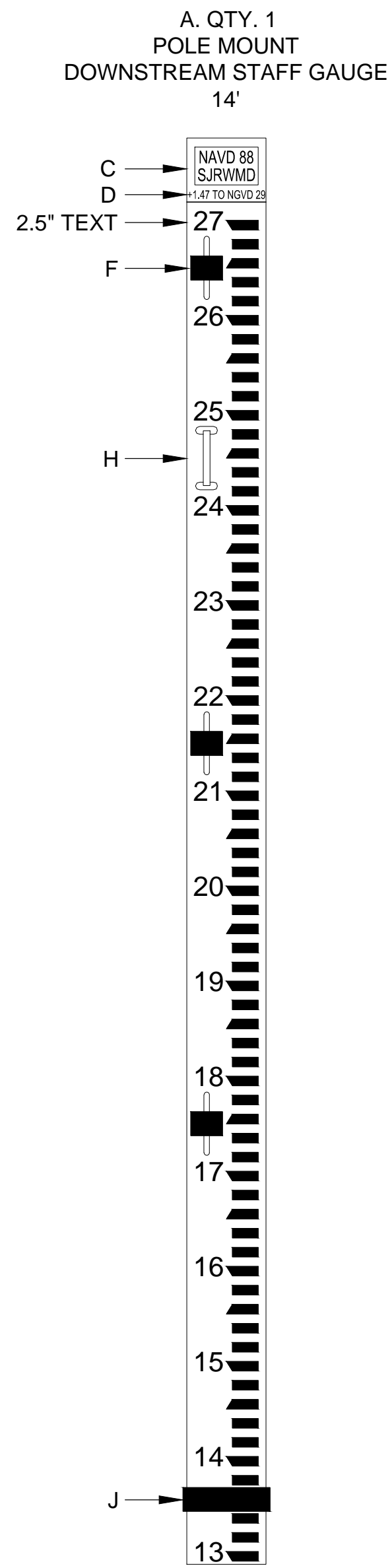
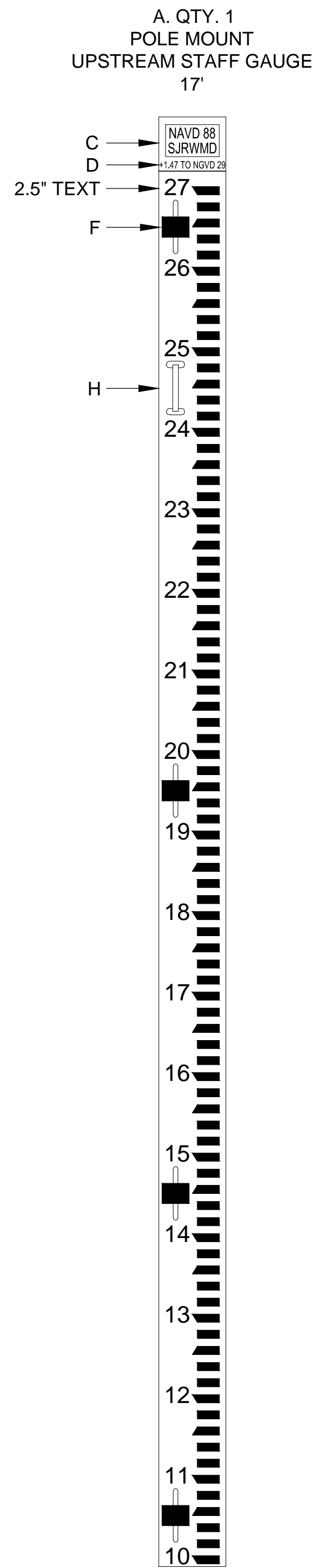
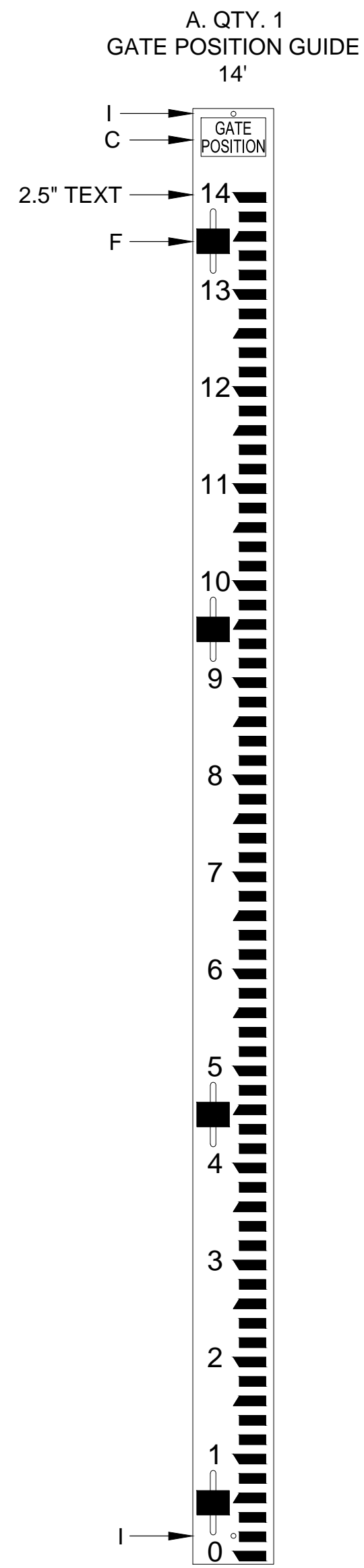
CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B STRUCTURE.dwg
PROJECT NO.:
SHEET:
S11

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ALL HASH MARKS ARE
1.2" IN HEIGHT

4" WIDE
3.25" WIDE



MATERIALS KEY:

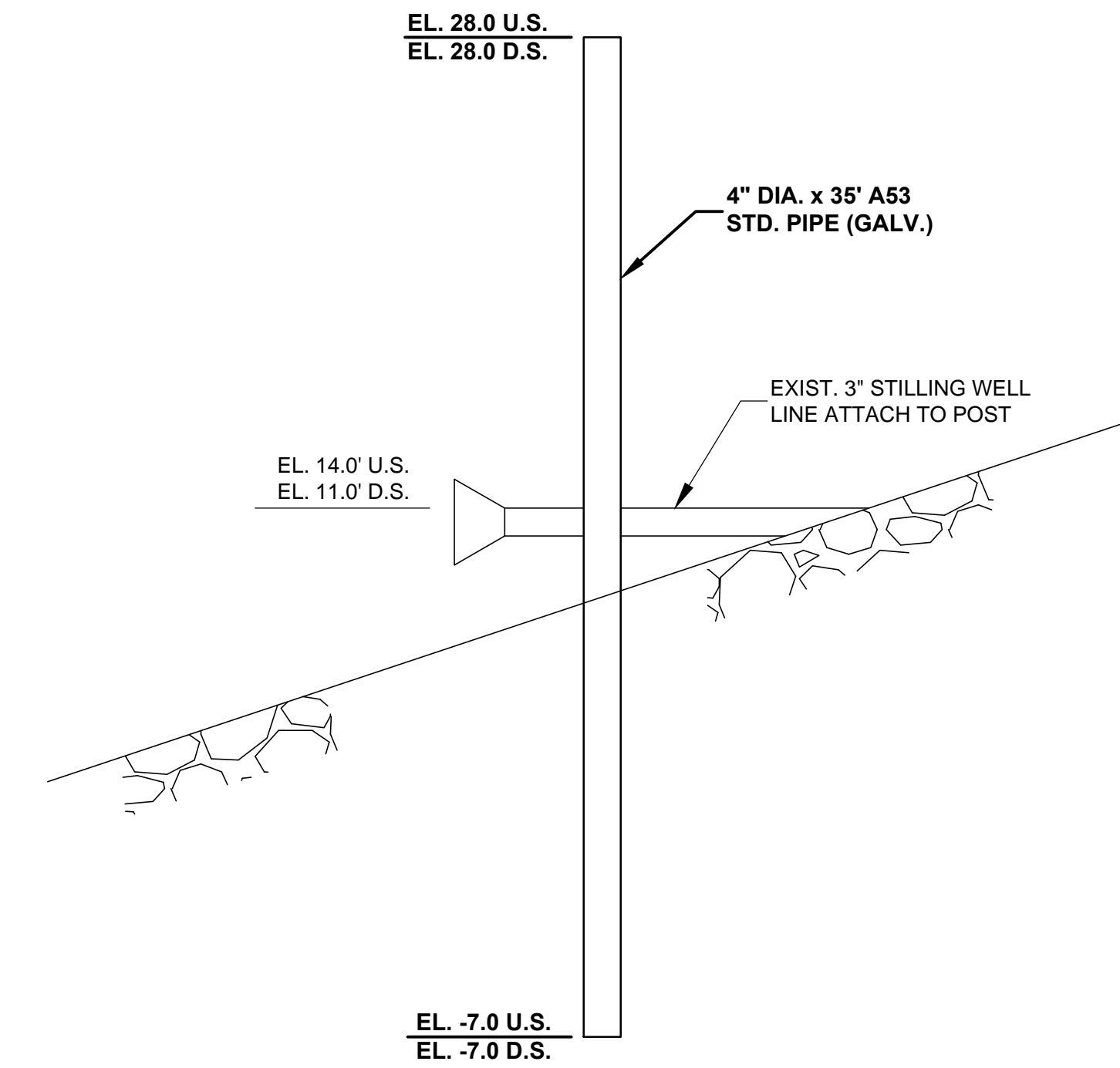
- A. STAFF GAUGES & GATE POSITION GUIDES 2"x10" (1.5"x9.5") MADE FROM TANGENT TECHNOLOGIES POLYFORCE RECYCLED PLASTIC LUMBER, WHITE OVER BLACK, OR EQUAL.
- B. BACKBOARDS: SOLID BLACK POLYFORCE 2"x12" BY TANGENT TECHNOLOGIES. (1.5" THICK x 11.75" WIDE), OR EQUAL.
- C. TITLE PLAQUE INSERT, WHITE WITH RED LETTERING.
- D. NGVD29 OFFSET: +1.47
- E. STAFF GAUGE SECTION LINES.
- F. SLOTS ARE .8875" x 7.3125" AND ARE SUPPLIED WITH SS WASHERS AT: 1/4" x 3" x 4". PROVIDE MOUNTING BOLTS/ANCHORS.
- G. THRU HOLES ARE 5/8" DIAMETER AND ARE SUPPLIED WITH SS WASHERS AT: 1/4" x 3" x 4". PROVIDE MOUNTING BOLTS/ANCHORS.
- H. 8" SS CLEAT MOUNTED WITH THREADED INSERTS.
- I. THRU HOLES ARE 5/16" DIAMETER. PROVIDE MOUNTING BOLTS/ANCHORS.
- J. ABS BRACKET WITH SS SCREWS. MOUNTS OVER STAFF GAUGE TO BACKBOARDS.

HARDWARE:

ALL HARDWARE SHALL BE STAINLESS STEEL.

DATUM:

ELEVATIONS ON THIS SHEET ARE IN NAVD88.



STAFF GAGE POLE

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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96B REHABILITATION
INDIAN RIVER COUNTY, FLORIDA

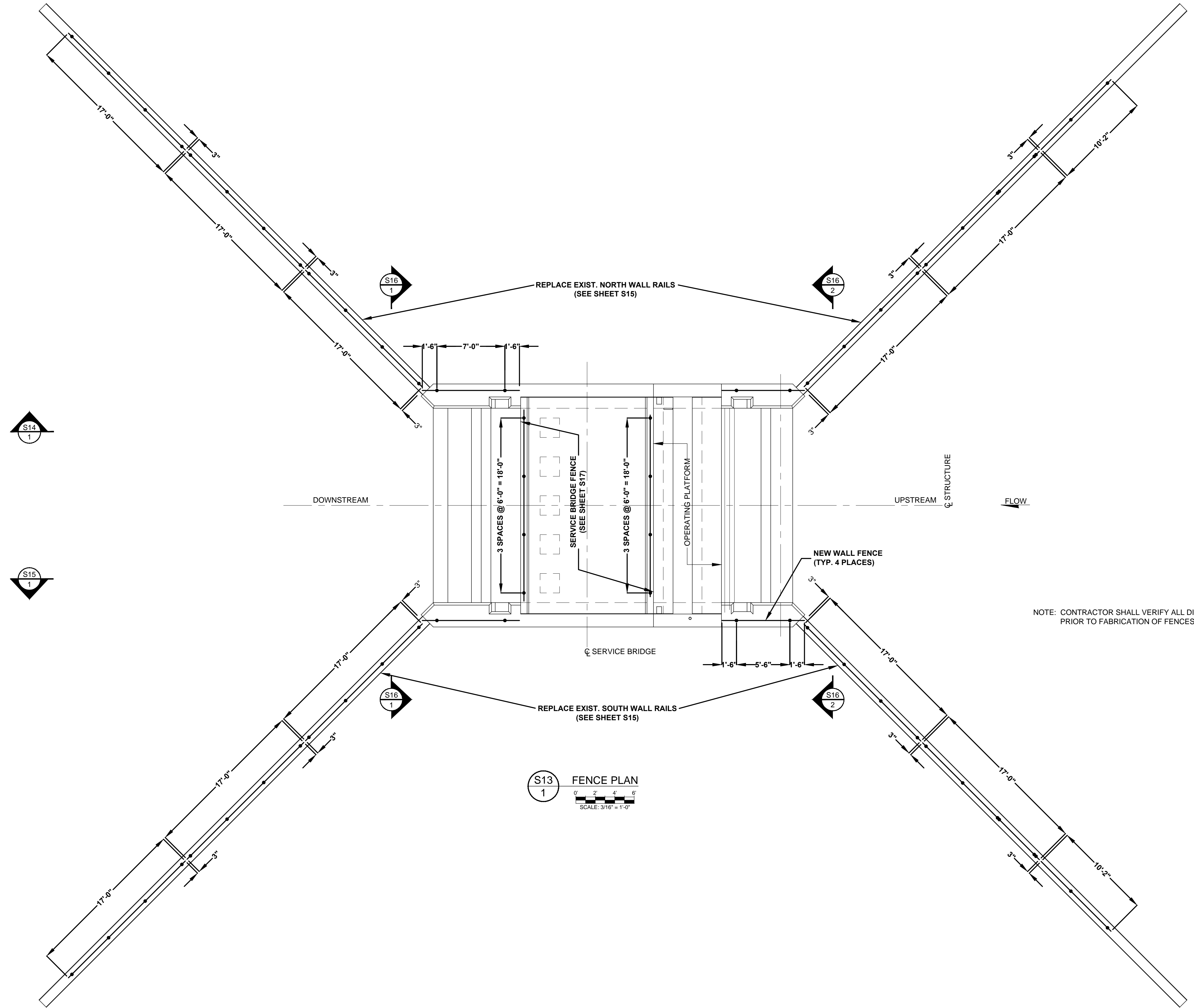
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
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NEW STAFF GAUGES AND GATE POSITION GUIDE

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WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B FENCING.dwg
PROJECT NO.:
SHEET:
S12



FENCE NOTE SPECIFICATIONS:

ALL NEW FENCING COMPONENTS SHALL BE AS FOLLOWS:

1. POSTS: 2" NOMINAL DIAMETER SCHEDULE 80 PIPE, ASTM B241, ALUMINUM ALLOY 6061-T6.
2. VEHICULAR GATE POSTS: 3.5" NOMINAL DIAMETER SCHEDULE 40 PIPE, ASTM B241, ALUMINUM ALLOY 6061-T6.
3. FENCE RAIL: 2" NOMINAL DIAMETER SCHEDULE 40 PIPE, ASTM B241, ALUMINUM ALLOY 6061-T6.
4. CHAIN LINK FABRIC: 2" x 9 GAGE x 6'-0" NOMINAL, ASTM F1183, ALUMINUM ALLOY 6061-T94.
5. TENSION WIRE: MINIMUM 3/16" DIAMETER, ASTM B211, ALUMINUM ALLOY 5056-H38 OR 5056-H192.
6. TIE WIRE AND HOG RINGS: MINIMUM 9 GAGE, ASTM B211, ALUMINUM ALLOY 5056-H38 OR 5056-H192.
7. TENSION BARS: 1/4" x 3/4", ASTM B210, ALUMINUM ALLOY 6061 T-6.
8. TENSION POST CONNECTORS AND FENCING TIES SHALL BE ALUMINUM.
9. ALL HINGES, LATCH ASSEMBLIES, POST BASE PLATES, AND LIFTING EYES: ASTM B209, ALUMINUM ALLOY 6061 T-6.
10. ALL CONNECTION HARDWARE: 316 STAINLESS STEEL.
11. PROVIDE 1/4" NEOPRENE GASKET UNDER ALL FENCE POST FOOT PLATES. NEOPRENE PADS SHALL BE IN ACCORDANCE WITH ASTM D2000 AND SHALL HAVE A DUROMETER HARDNESS BETWEEN 60 AND 80.
12. ALL FENCING SHALL BE CONNECTED TO THE EXISTING GROUNDING SYSTEM.

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF FENCES.

S13
1
FENCE PLAN
SCALE: 3/16" = 1'-0"

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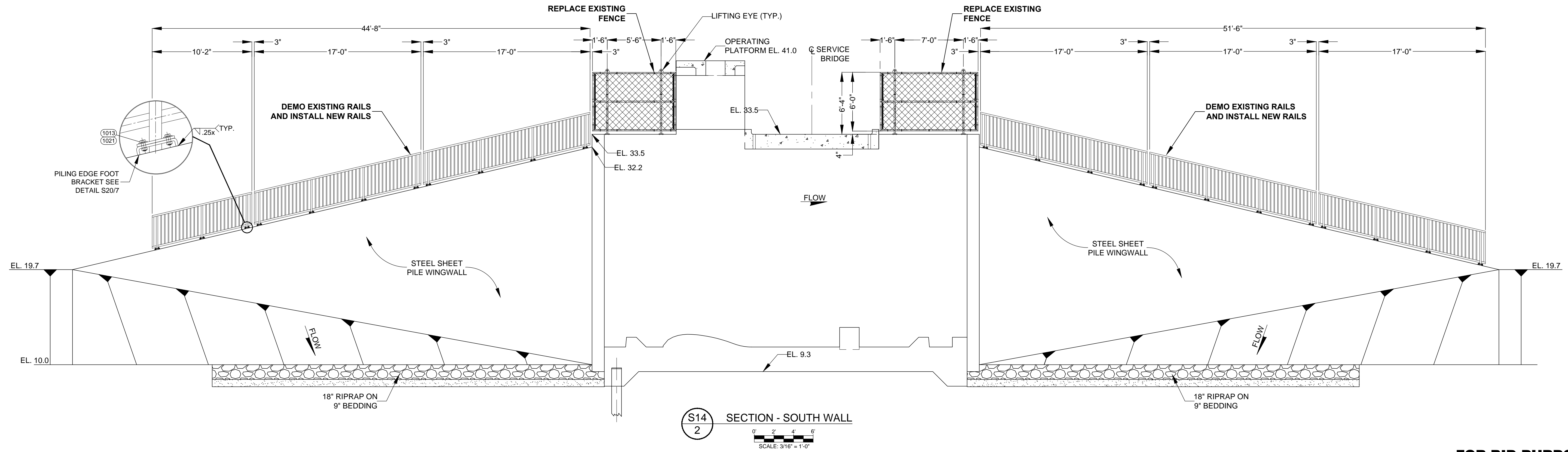
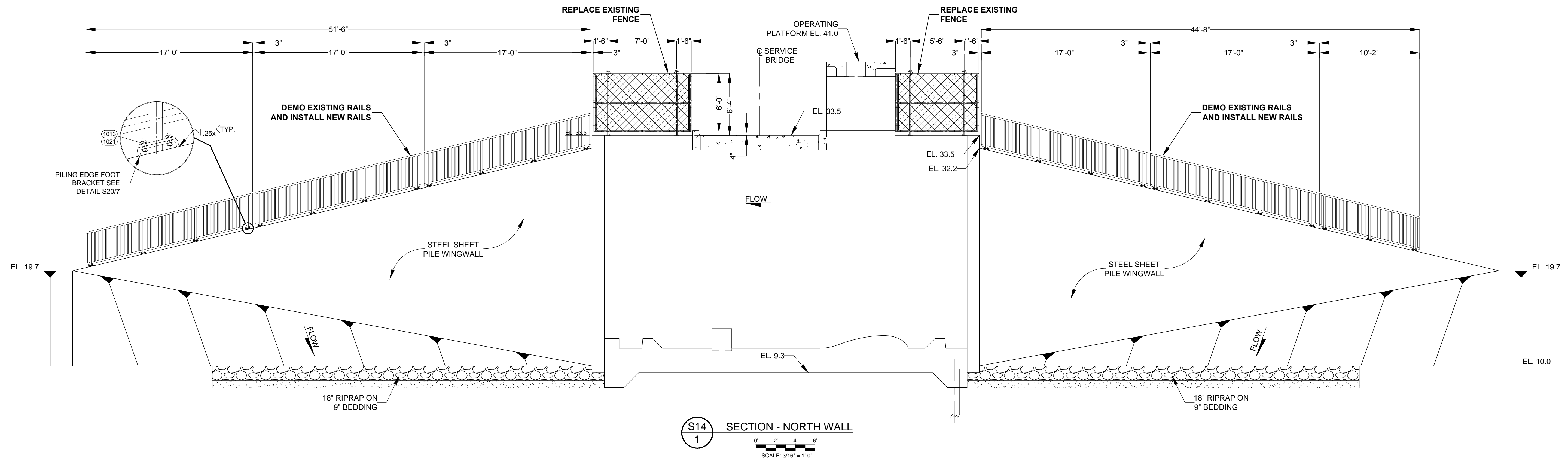
DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: 3/16" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

FENCE AND HANDRAIL REPLACEMENT PLAN

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B FENCING.dwg
PROJECT NO.:
SHEET:
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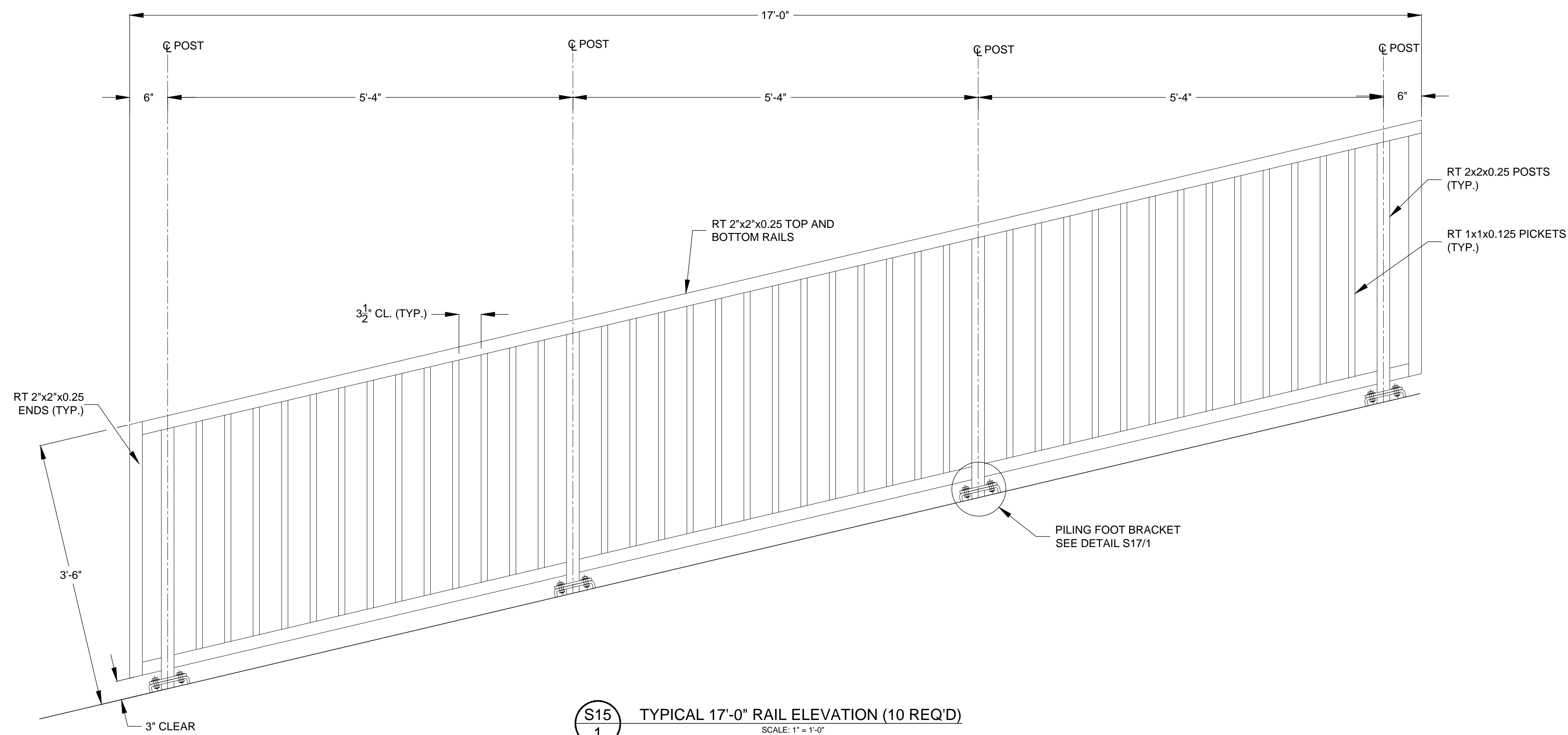
SCALE: 3/16" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

NEW WALL FENCE AND HANDRAILS

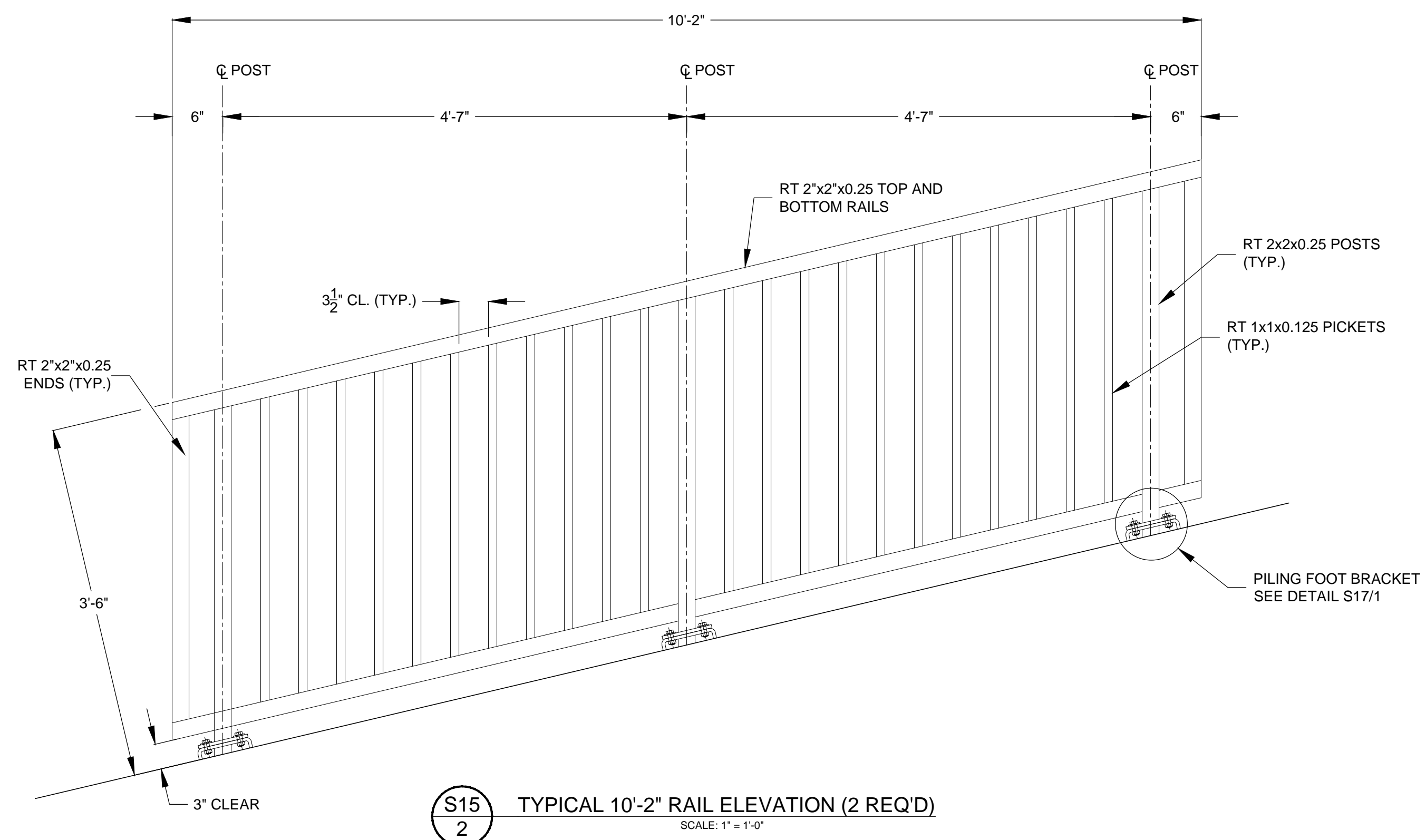
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FILE NAME:
96-B FENCING.dwg
PROJECT NO.:
SHEET:
S14

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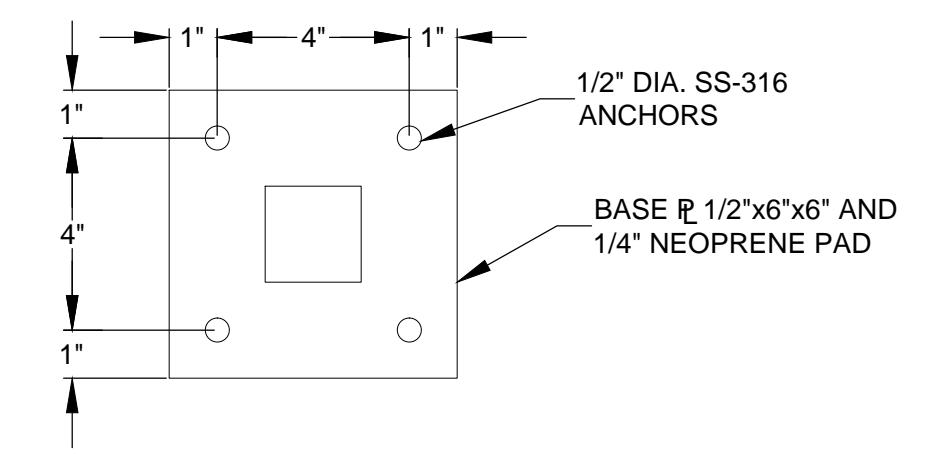
S15
1 TYPICAL 17'-0" RAIL ELEVATION (10 REQ'D)
SCALE: 1" = 1'-0"



S15
2 TYPICAL 10'-2" RAIL ELEVATION (2 REQ'D)
SCALE: 1" = 1'-0"

ALUMINUM PEDESTRIAN RAIL NOTE SPECIFICATIONS:

1. STRUCTURAL ALUMINUM DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION, INC. "SPECIFICATIONS FOR ALUMINUM STRUCTURES", LATEST EDITION.
2. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE - ALUMINUM" AWS D1.2.
3. 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.
4. ALUMINUM BARS, RODS, AND WIRE SHALL BE NEW AND CONSIST OF ALLOY 6061-T6 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B211.
5. ALUMINUM PLATE SHALL BE NEW AND CONSIST OF ALLOY 5052-H32 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B209.
6. ALL BOLTS, NUTS, AND WASHERS SHALL CONSIST OF SS316 STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM STANDARDS F593 AND F594.
7. ALL WELDING SHALL UTILIZE ER4043 FILLER ALLOY AND SHALL BE SHOP WELDED TO THE GREATEST EXTENT POSSIBLE.
8. ALL WELDED JOINTS SHALL BE GROUND SMOOTH.
9. THE ALUMINUM RAILING SHALL BE MILL FINISH.
10. PROVIDE 1/4" NEOPRENE PADS UNDER ALL RAIL POST FOOT PLATES. NEOPRENE PADS SHALL BE IN ACCORDANCE WITH ASTM D2000 AND SHALL HAVE A DUROMETER HARDNESS BETWEEN 60 AND 80.



S15
3 BASE PLATE DETAIL
SCALE: 3" = 1'-0"

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ISSUED FOR BID	PLC	06/01/18	WRC	06/01/18
NO.	REVISION	BY	DATE	APPROVED

UPPER ST. JOHNS RIVER BASIN
STRUCTURE 96B REHABILITATION
INDIAN RIVER COUNTY, FLORIDA

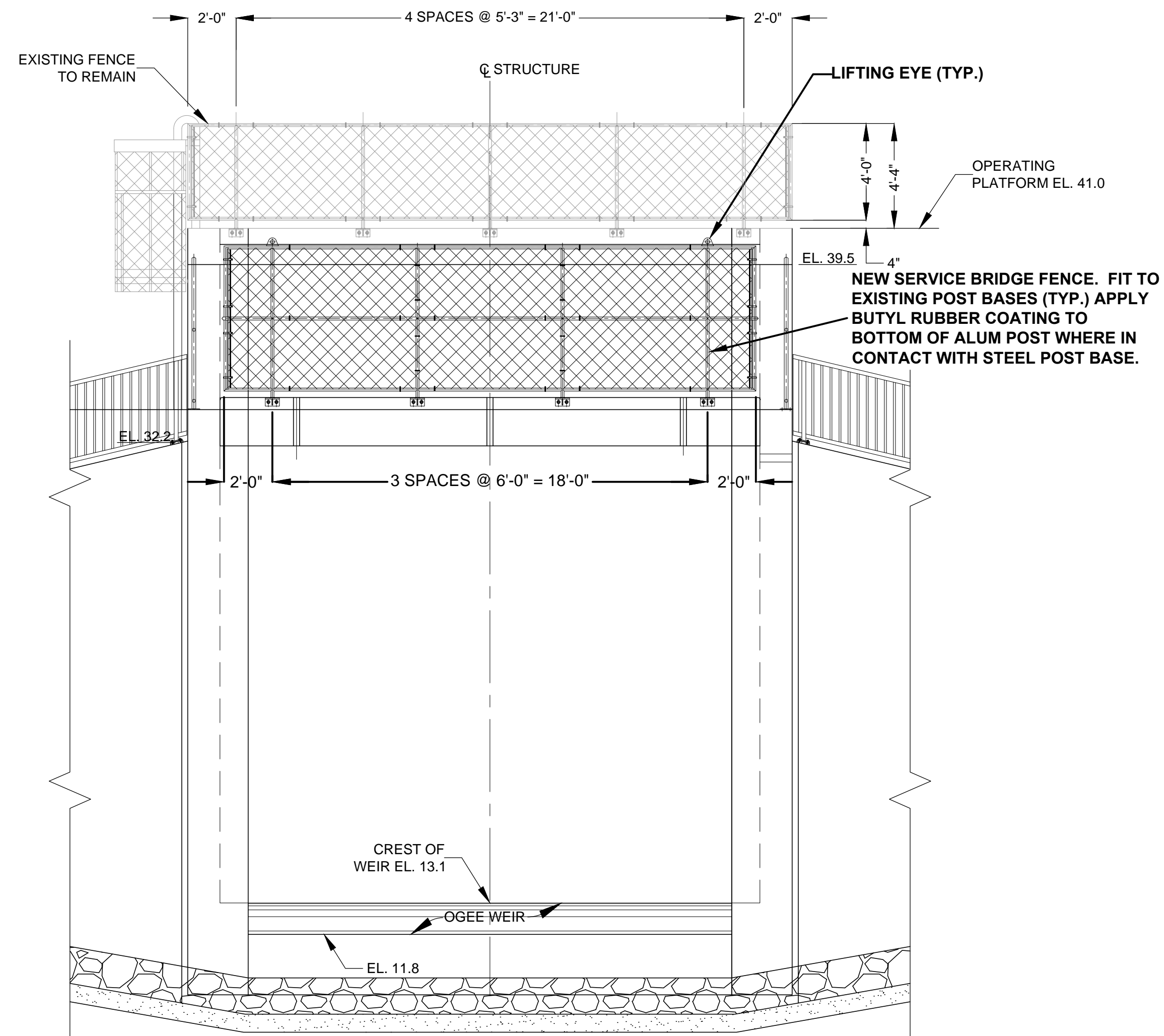
**ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT**
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: PLC DATE: JUNE 1, 2018 REVIEWER: WRC
SCALE: 3/16" = 1'-0" DESIGNER: WRC SECTION CHIEF: WRC

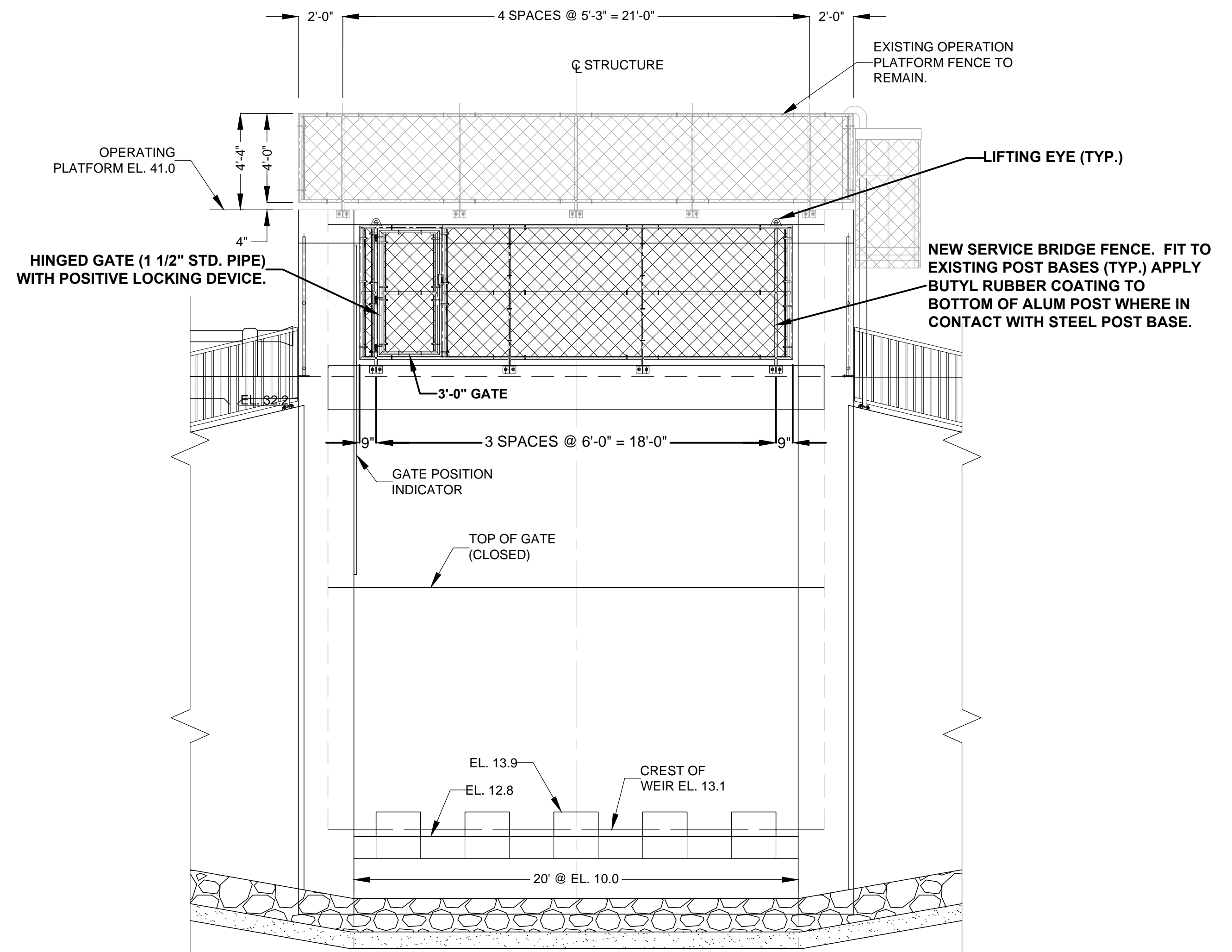
NEW WINGWALL HANDRAIL DETAILS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: JUNE 1, 2018

FILE NAME:
96-B FENCING.dwg
PROJECT NO.:
SHEET:
S15



S16 UPSTREAM ELEVATION
1
SCALE: 1/4" = 1'-0"



S16 DOWNSTREAM ELEVATION
3
SCALE: 1/4" = 1'-0"

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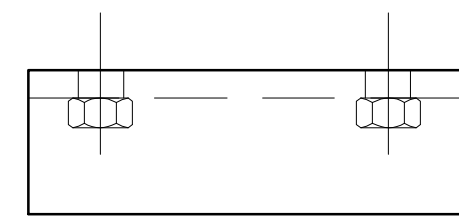
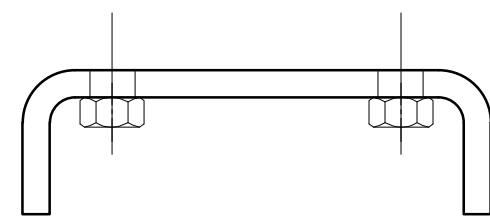
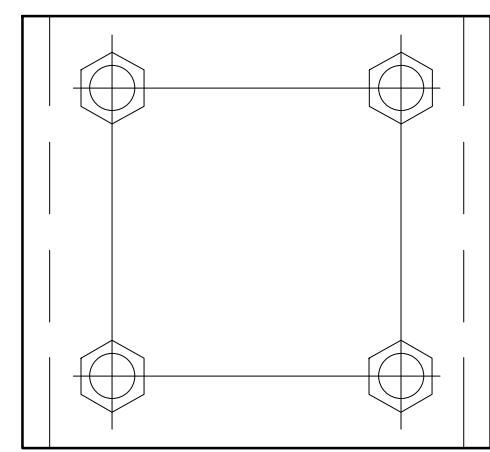
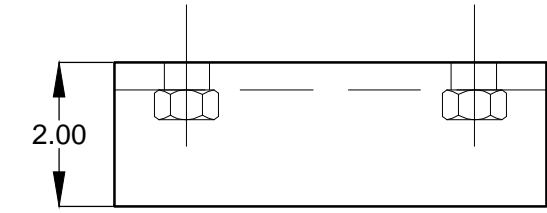
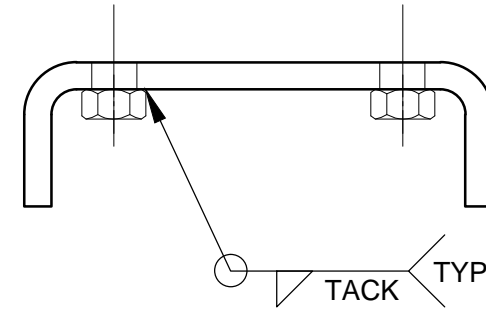
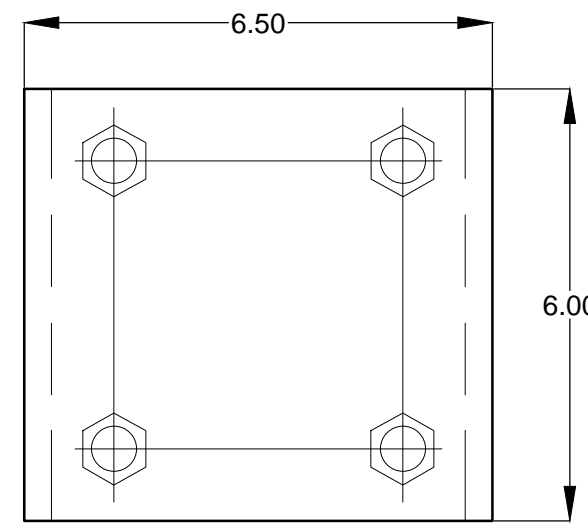
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

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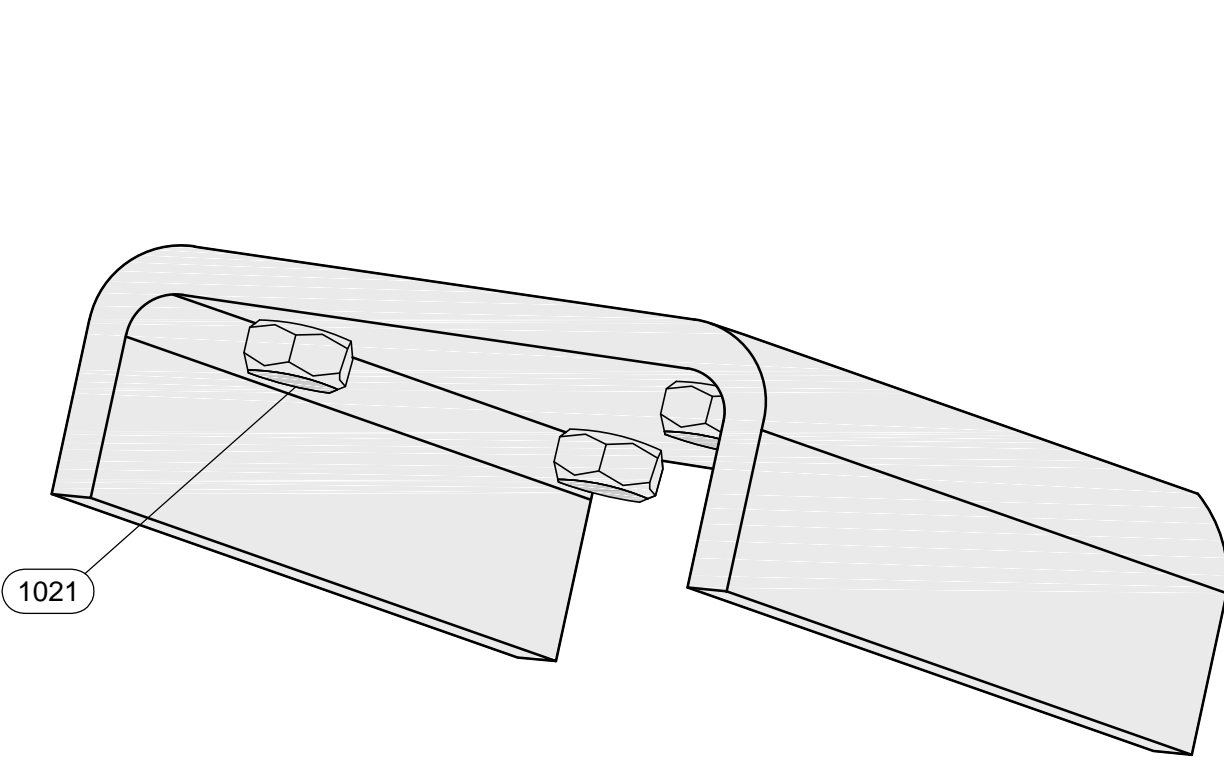
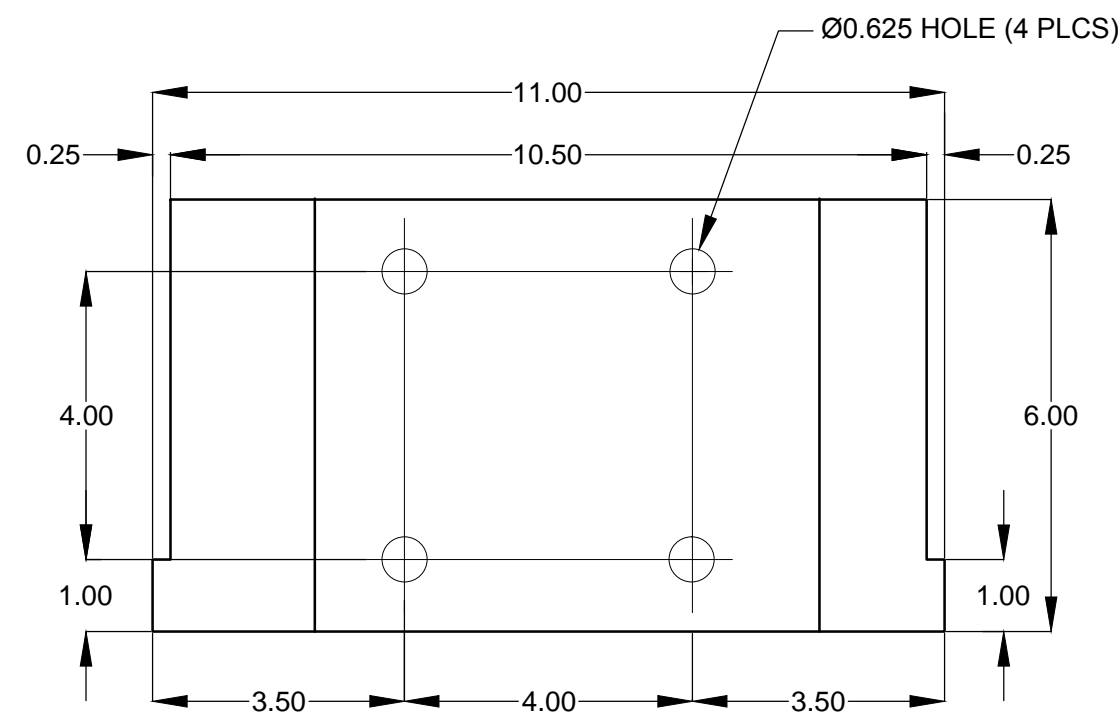
NEW SERVICE BRIDGE FENCE

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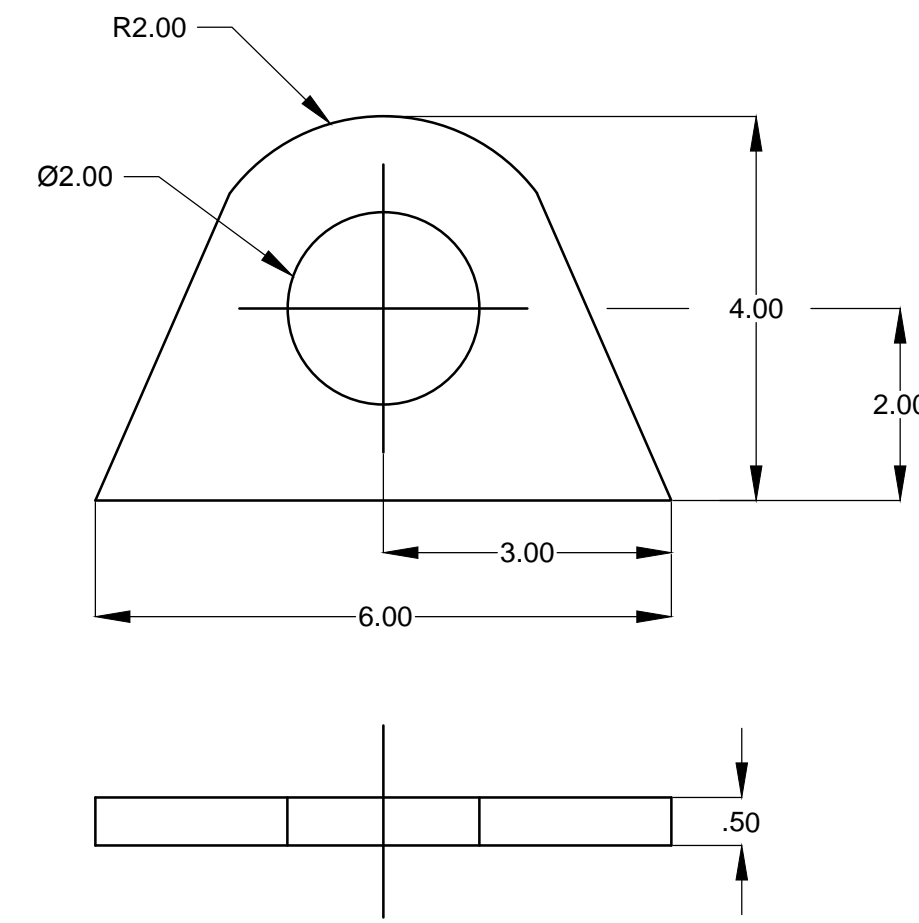
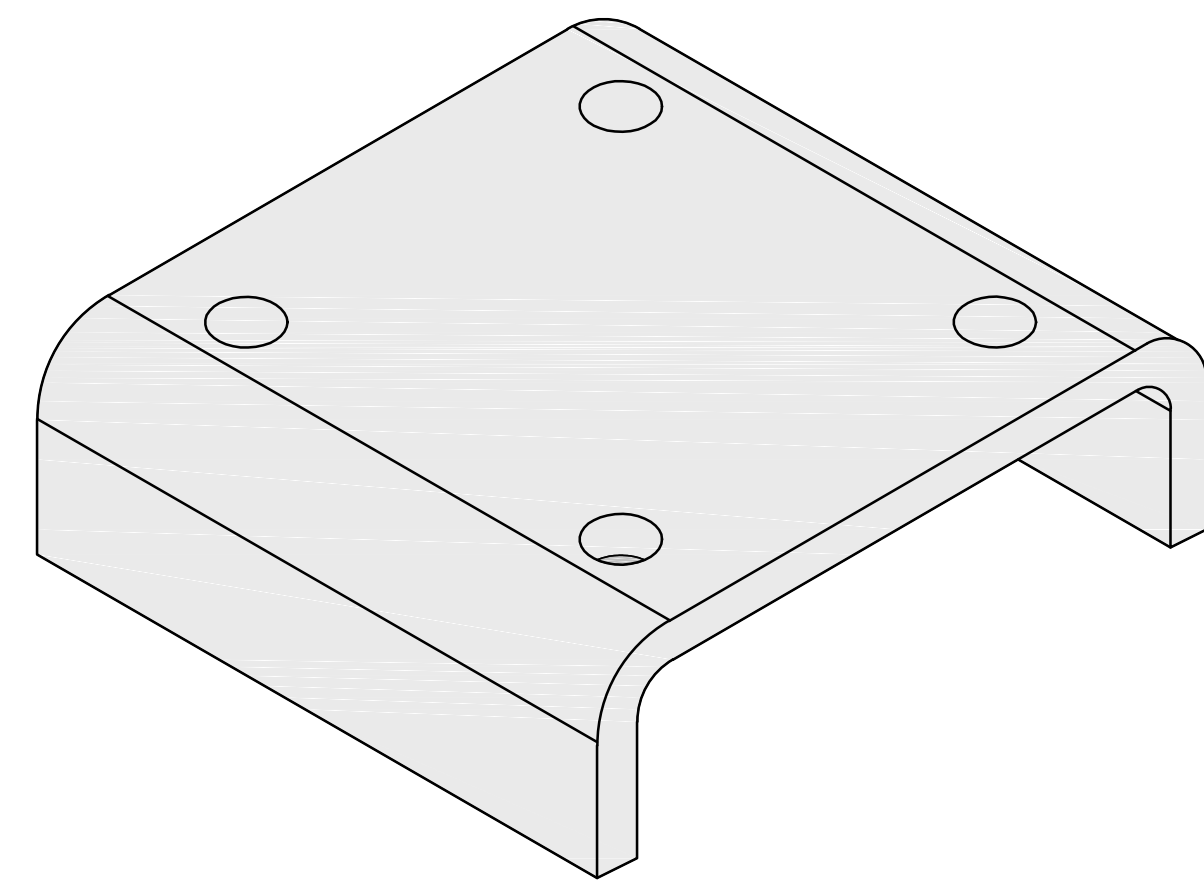
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S16



0.375" A36 CARBON STEEL PLATE

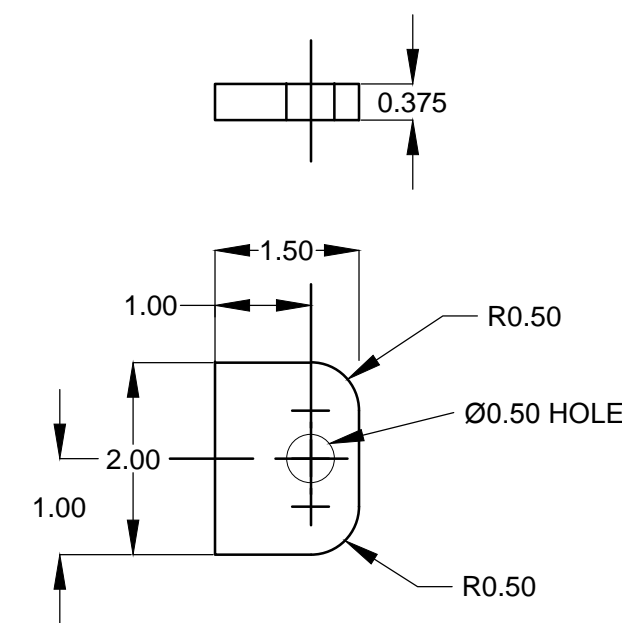


S17 1 PILING FOOT BRACKET
NOT TO SCALE



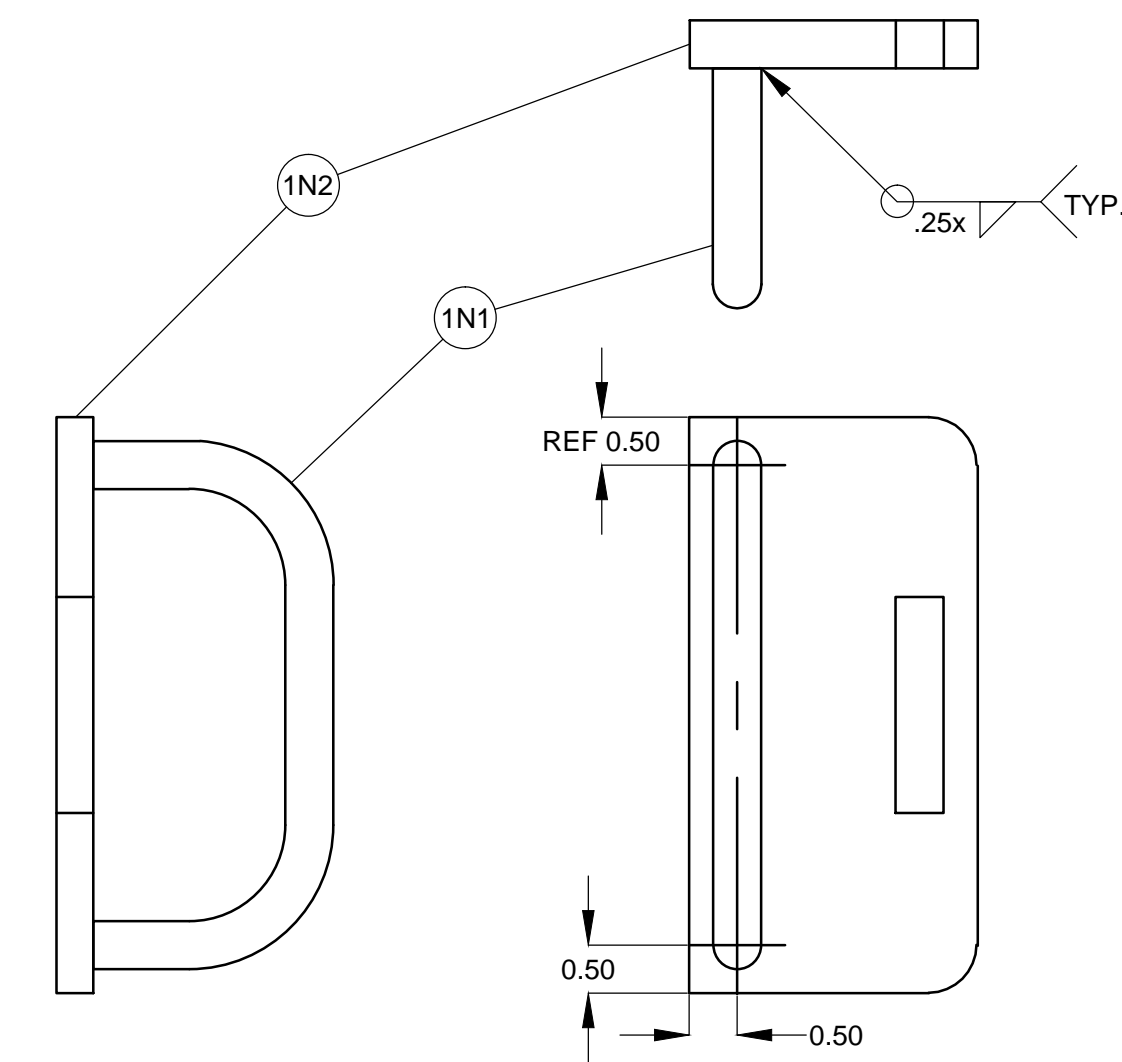
ASTM B210 6061 ALUMINUM PLATE

S17 2 LIFTING EYE
NOT TO SCALE



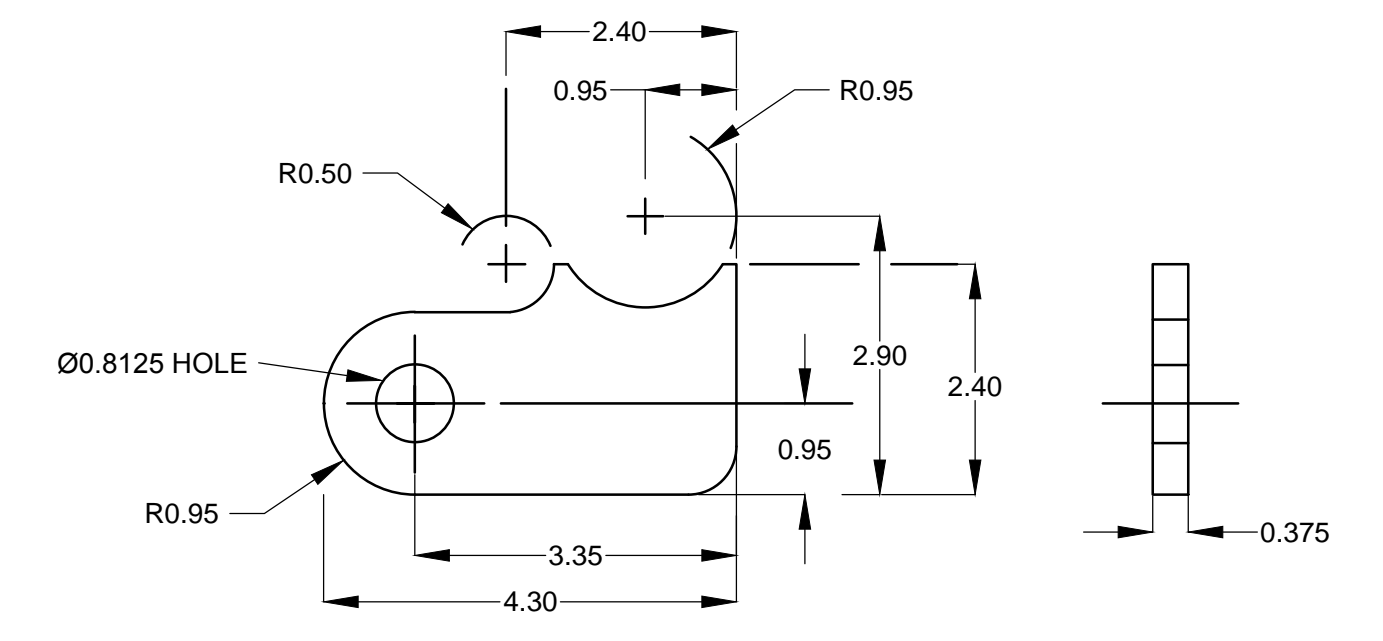
ASTM B210 6061 ALUMINUM

S17 4 LOCKING EYELET
NOT TO SCALE



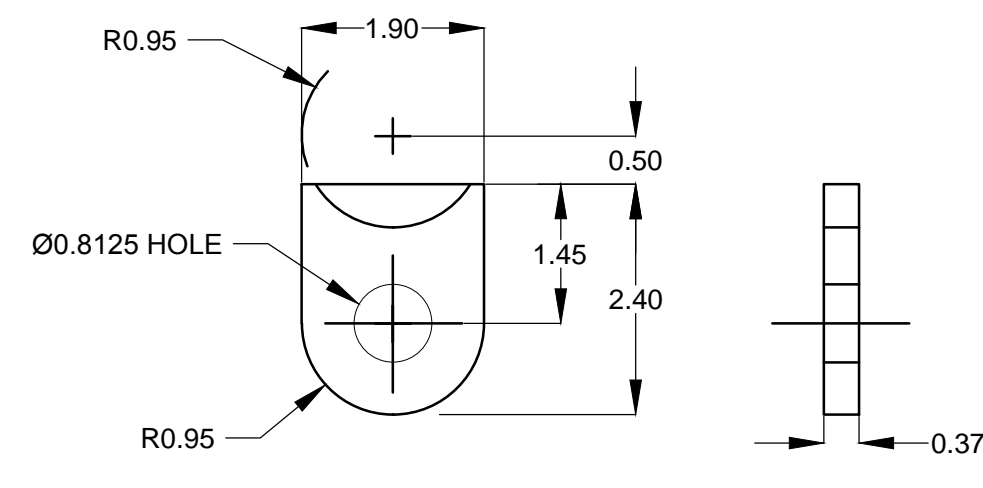
ASTM B210 6061 ALUMINUM

S17 3 LATCH ASSEMBLY
NOT TO SCALE



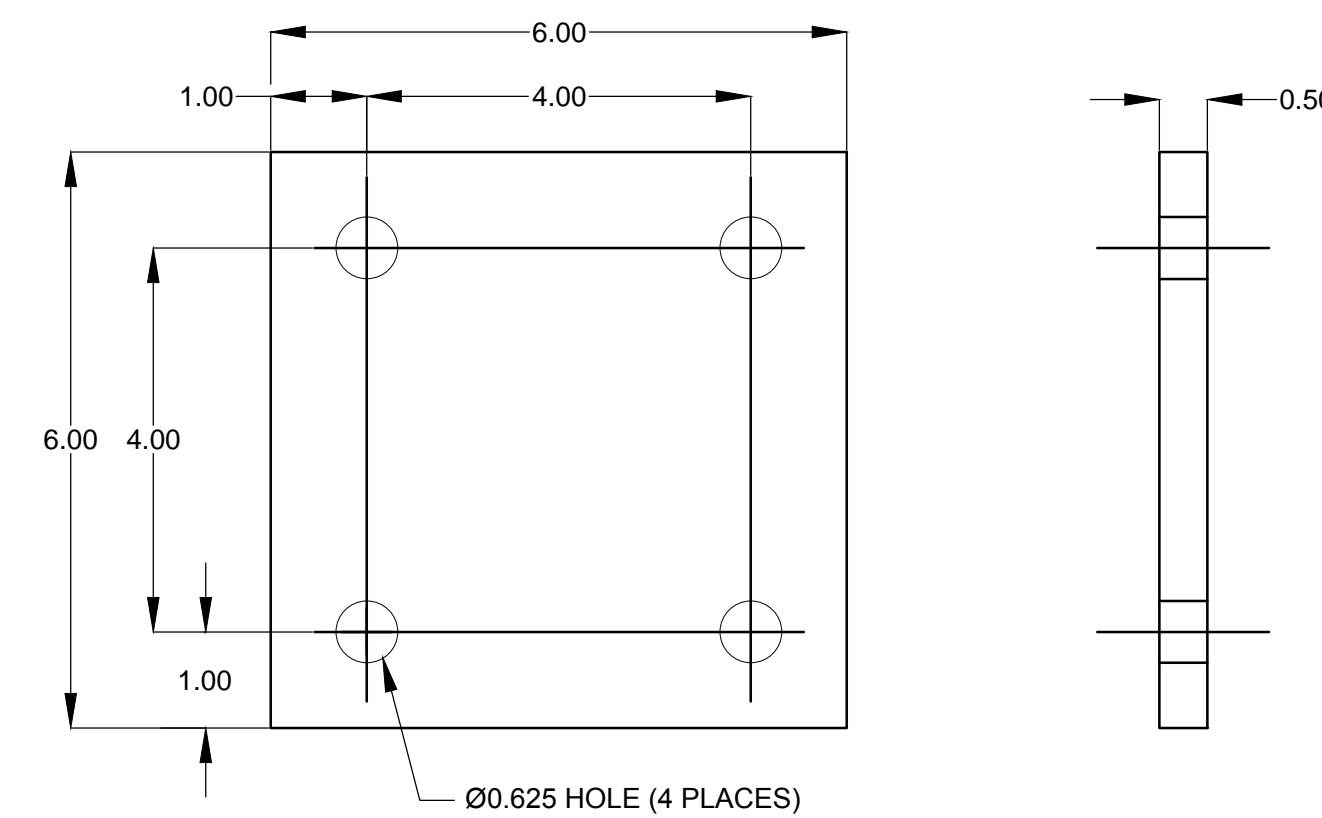
ASTM B210 6061 ALUMINUM

S17 6 HINGE HALF - FENCE SIDE
NOT TO SCALE



ASTM B210 6061 ALUMINUM

S17 5 HINGE HALF - DOOR SIDE
NOT TO SCALE



ASTM 6061 ALUMINUM PLATE

S17 7 POST FOOT PLATE
NOT TO SCALE

NOTE:
PROVIDE 1/4" NEOPRENE PAD BETWEEN
ALUMINUM POST PLATE AND STEEL
BRACKET.

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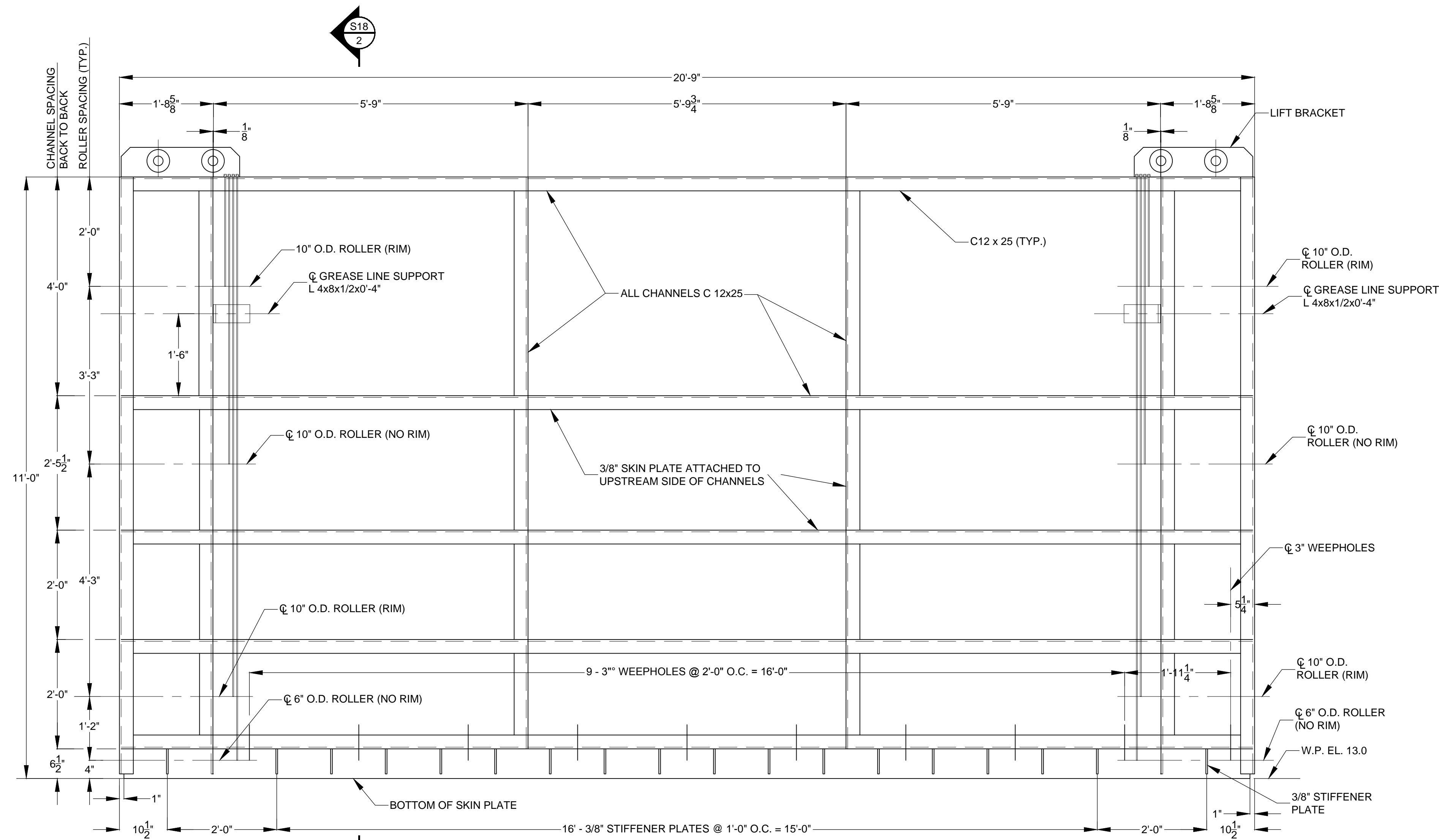
ST. JOHNS RIVER
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P.O. BOX 1429 PALATKA, FLORIDA

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NEW FENCE DETAILS

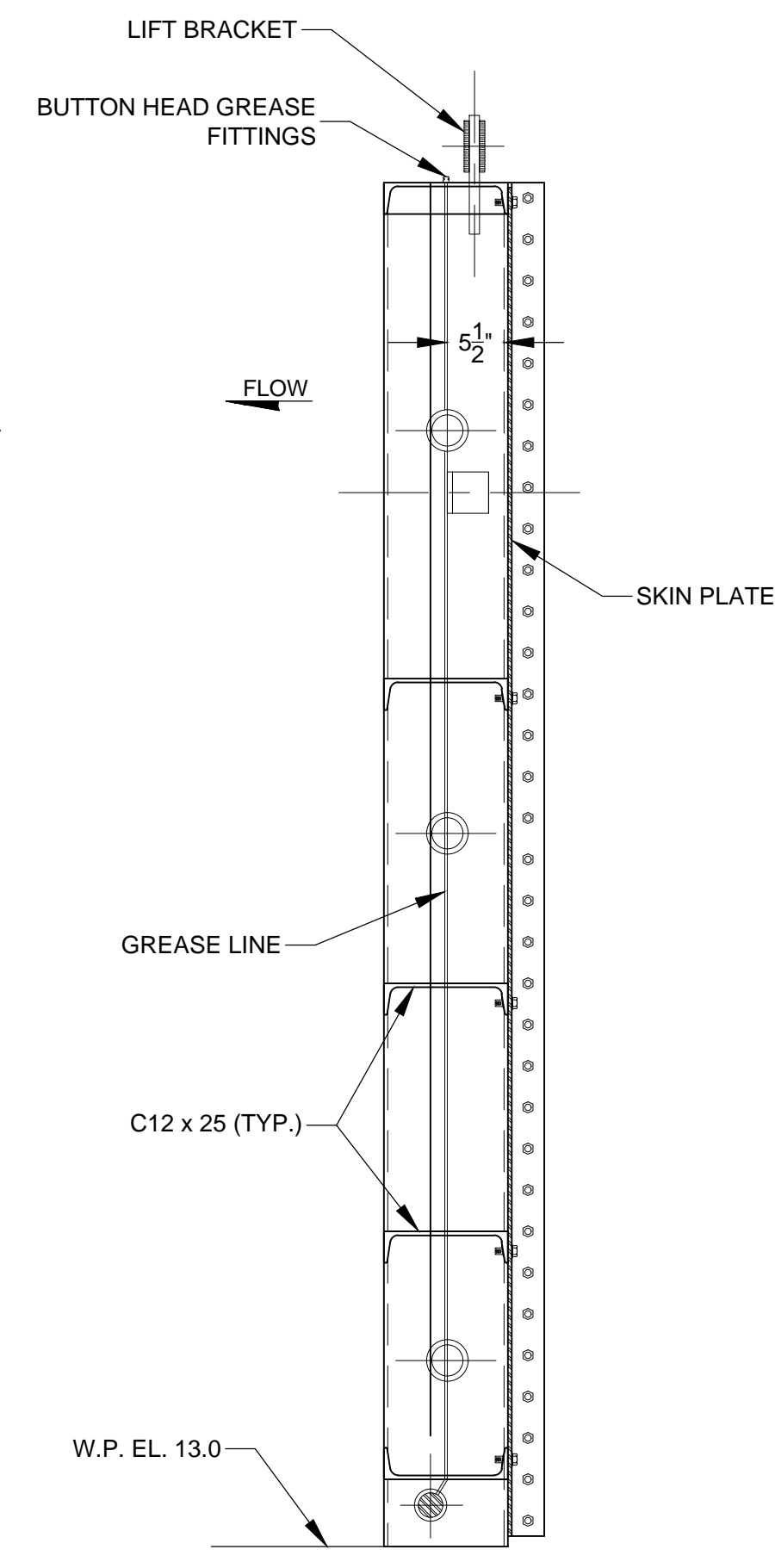
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S17



S18 1
DOWNSTREAM GATE ELEVATION
SCALE: 3/4" = 1'-0"

NOTE: PROPOSED GATE MODIFICATIONS AS SHOWN IN BOLD.



S18 2
SECTION
SCALE: 3/4" = 1'-0"

GATE REHABILITATION NOTES:

STRUCTURAL STEEL:

- 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.
- WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE" AWS D1.1.
- 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.
- 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.
- ALL WELDING SHALL UTILIZE E70XX LOW-HYDROGEN ELECTRODES UNLESS NOTED OTHERWISE.
- FIELD CORRECTING OF FABRICATED STEEL SHALL NOT BE PERMITTED ON MAJOR STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL OF THE DISTRICT.

GATE OVERHAUL:

- PRESSURE WASH THE GATES TO REMOVE ALL ORGANIC GROWTH, LOOSE PARTICLES, AND OTHER EXTRANEOUS MATERIALS.
- MARK ALL GATE COMPONENTS PRIOR TO REMOVAL FOR EASE OF REASSEMBLY.
- REMOVE GREASE LINES AND FITTINGS FROM THE ROLLER GATE.
- REMOVE ALL SHEAVE HANGERS, SHEAVES, AND SHEAVE PINS FROM THE CABLE DRUM HOIST.
- REMOVE THE CABLE DRUM HOIST AND ROLLER GATES FROM THE STRUCTURE.
- REMOVE RAILS AND SPLICE BARS AS REQUIRED. WHEN REMOVING RAILS, CARE SHALL BE TAKEN TO MEASURE AND DOCUMENT SHIM THICKNESS AT EACH LOCATION AND TO REPLACE WITH SS-304 SAME SIZE AND NUMBER OF SHIMS.
- REMOVE ALL BOLTS, RETAINING PLATES, AND SEALS FROM THE ROLLER GATES.
- REMOVE WHEELS FROM THE ROLLER GATE.
- 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.
- INSPECT WHEELS, COLLARS, AXLES, AND BEARINGS AND REPAIR AS NEEDED.
- 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.
- 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.
- AXLES AND WHEELS SHALL BE MEASURED FOR "THORDON THORPLAS" BEARING FABRICATION. THE "THORDON THORPLAS" BEARINGS SHALL BE INSERTED AND THE WHEELS BLASTED AND PAINTED.
- 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.
- INSPECT ALL COMPONENTS TO ENSURE THEY ARE CLEAN OF DEBRIS AND GREASE.
- 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.
- REASSEMBLE THE ROLLER GATES, INCLUDING THE WHEELS, SEALS, RETAINING PLATES, AND HARDWARE.
- PROVIDE CATHODIC PROTECTION AS REQUIRED FOR THE SIZE OF THE ROLLER GATES.
- 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.
- REINSTALL THE COMPLETED ROLLER GATES AND HOIST SYSTEMS.
- REINSTALL THE ROLLER GATE GREASE LINES AND FITTINGS.
- PERFORM DRY TEST OPERATION OF GATES.
- TEST OPERATION OF GATES UNDER NORMAL OPERATING CONDITIONS.

PAINTS AND PROTECTIVE COATINGS:

- 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 AS FOLLOWS:
SSPC-10 NEAR WHITE BLAST CLEANING.
- PAINT SHALL BE BY THE WASSER CORPORATION, OR EQUAL, AS FOLLOWS:
FIRST COAT: MC-ZINC 100 GRAY, 6 MILS DFT MINIMUM
SECOND COAT: MC-TAR 100 RED, 6 MILS DFT MINIMUM
THIRD COAT: MC-LUSTER 100 SILVER, 6 MILS DFT MINIMUM

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

RUBBER SEALS:

- THE EXISTING J-SEALS SHALL BE REPLACED WITH SOLID BULB TYPE J-SEAL NO. 2514 (1-3/4"X5"X9/16") AS MANUFACTURED BY SEALS UNLIMITED, INC., OR EQUAL. DRILL HOLES TO CONFORM WITH THE SIZE AND SPACING ON THE GATE.
- THE NEW 4"X1" BOTTOM SEAL SHALL BE BLACK NEOPRENE SHEET COMMERCIAL GRADE 60 DURO PLATE FINISH IN ACCORDANCE WITH ASTM D2000 1BC605, AS MANUFACTURED BY TAMPA RUBBER AND GASKET COMPANY, INC., OR EQUAL. DRILL HOLES TO CONFORM WITH THE SIZE AND SPACING ON THE GATE.

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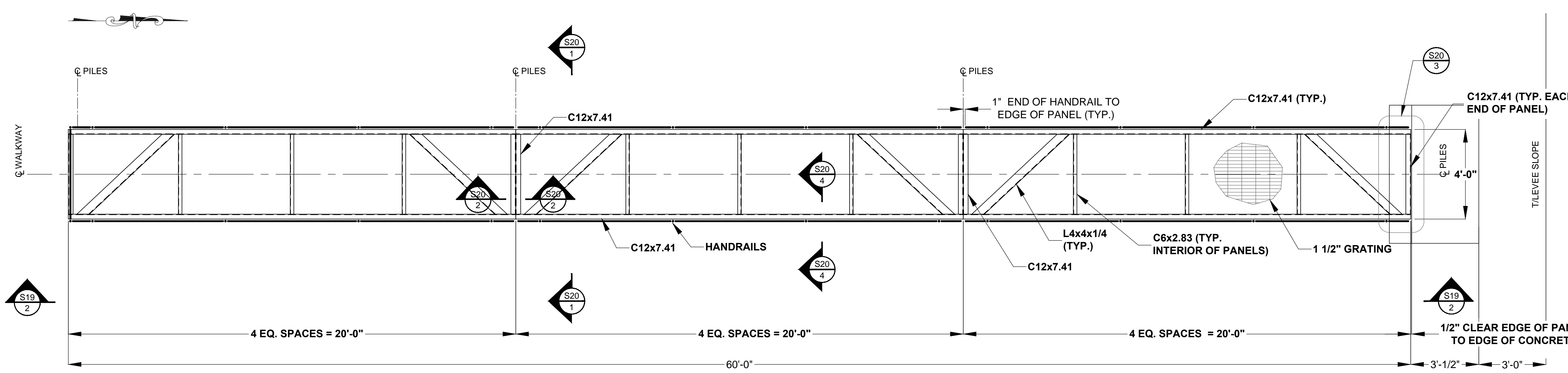
ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
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GATE REHABILITATION

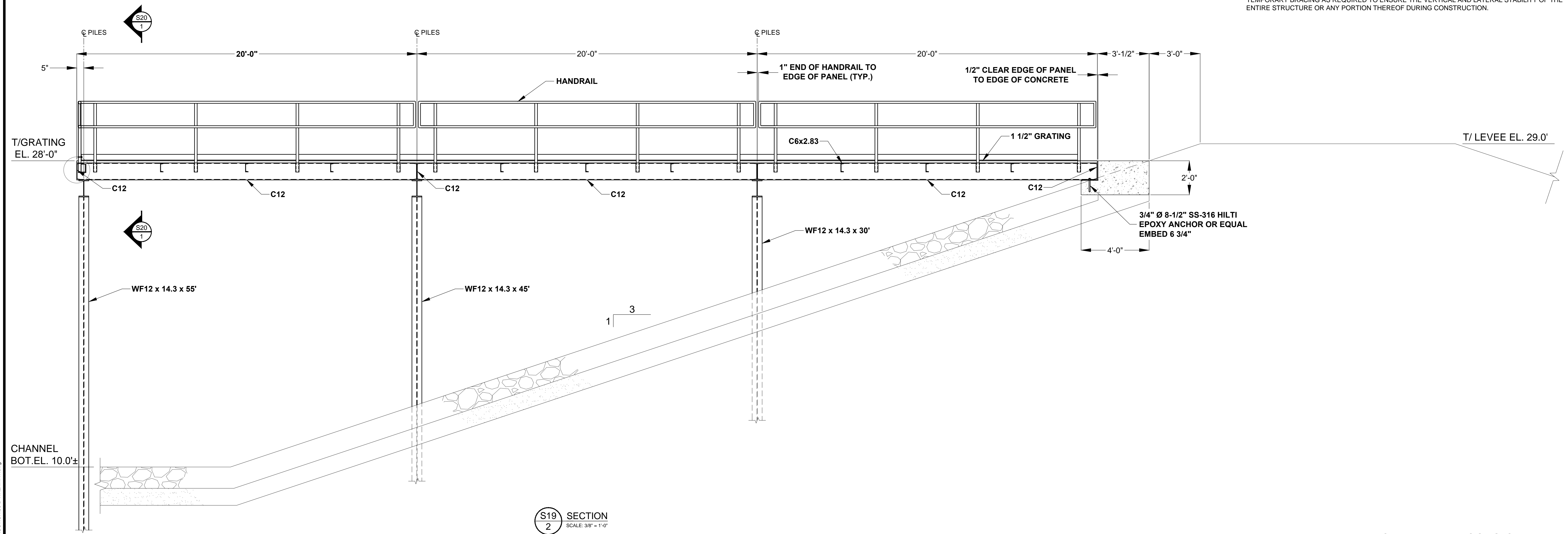
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WILLIAM R. COTE
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FILE NAME:
96-B FENCING.dwg
PROJECT NO.:
SHEET:
S18



S19
1 PLAN
SCALE: 3/8" = 1'-0"

- NOTE SPECIFICATIONS:**
- STRUCTURAL ALUMINUM:**
- 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. MINIMUM BOLT SIZE SHALL BE 3/4-INCH UNLESS OTHERWISE NOTED.
 - ALL WELDING SHALL UTILIZE ER4043 FILLER ALLOY AND SHALL BE SHOP WELDED TO THE GREATEST EXTENT POSSIBLE.
 - THE MINIMUM THICKNESS OF ALL CONNECTION ANGLES AND GUSSET PLATES SHALL BE 1/4-INCH UNLESS NOTED OTHERWISE.
 - FIELD CORRECTING OF FABRICATED COMPONENTS SHALL NOT BE PERMITTED ON STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
 - ALUMINUM GRATING SHALL BE RECTANGULAR BAR TYPE (SERRATED), SWAGE-LOCKED, AND CONSIST OF ALUMINUM ALLOY 6063-T6. THE BEARING BARS SHALL BE 1-1/2" X 3/16" AT 1-3/16" ON CENTER. RECTANGULAR CROSS BARS SHALL BE 4" ON CENTER.
 - THE HANDRAIL POSTS AND RAILS SHALL BE 1-1/2 INCH DIAMETER SCHEDULE 40 PIPE FORMED FROM EXTRUDED 6063-T6 ALUMINUM EXCEPT THAT FORMED ELBOWS SHALL BE 6063-T4 ALUMINUM. THE MAXIMUM POST SPACING SHALL BE 6'-0" CENTER TO CENTER.
 - THE STRUCTURES ARE DESIGNED AS STABLE UNITS AFTER ALL COMPONENTS, INCLUDING BRACING, ARE IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AS REQUIRED TO ENSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR ANY PORTION THEREOF DURING CONSTRUCTION.



S19
2 SECTION
SCALE: 3/8" = 1'-0"

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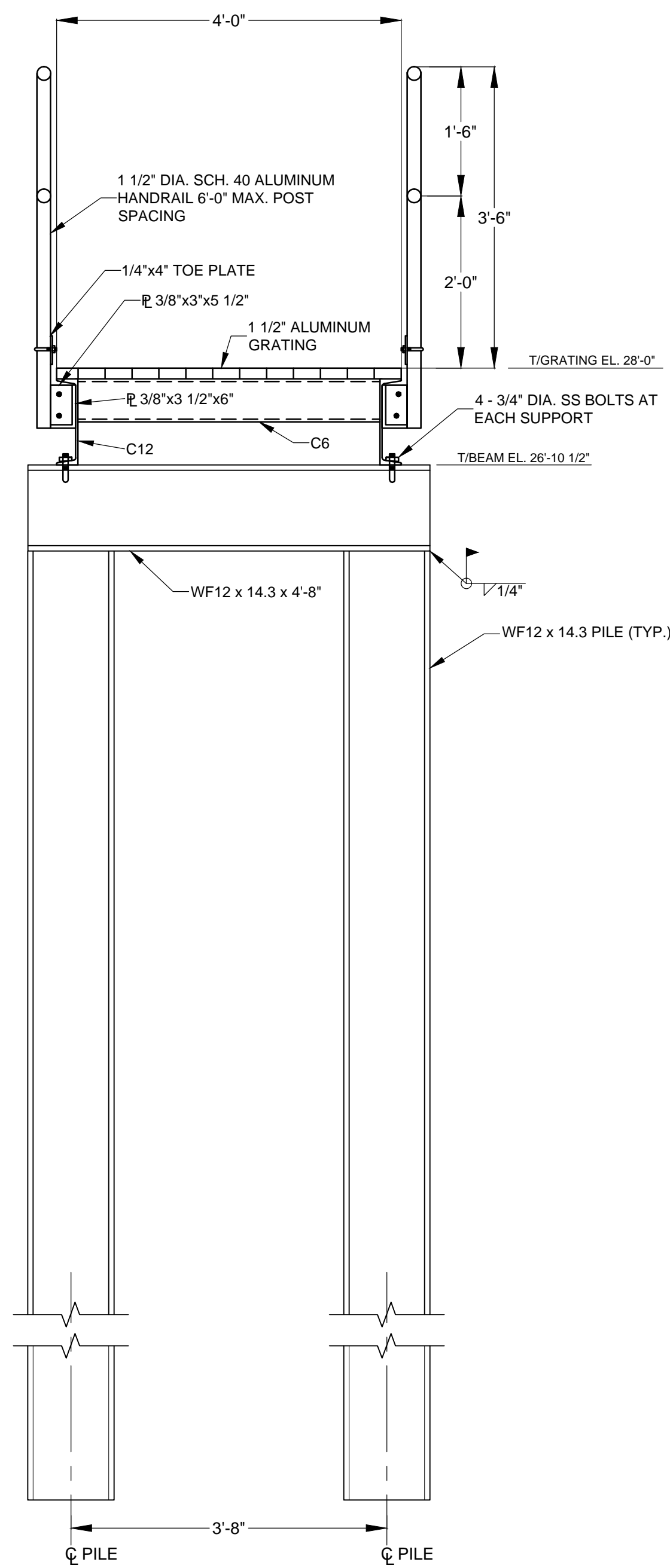
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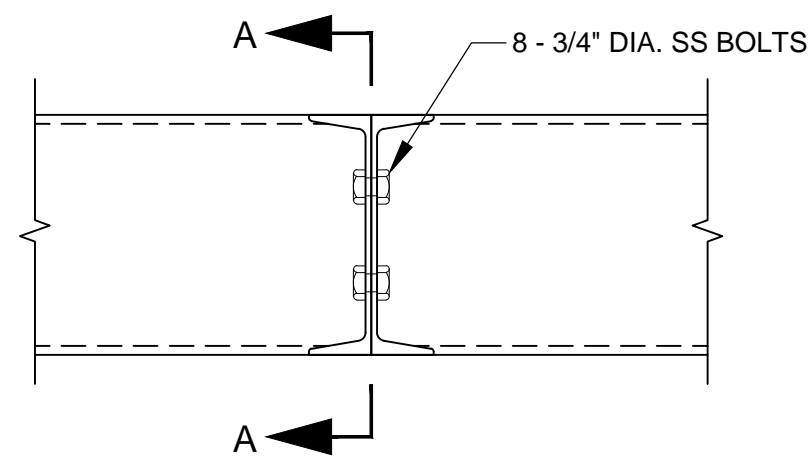
WRI PLATFORM PLAN AND SECTION

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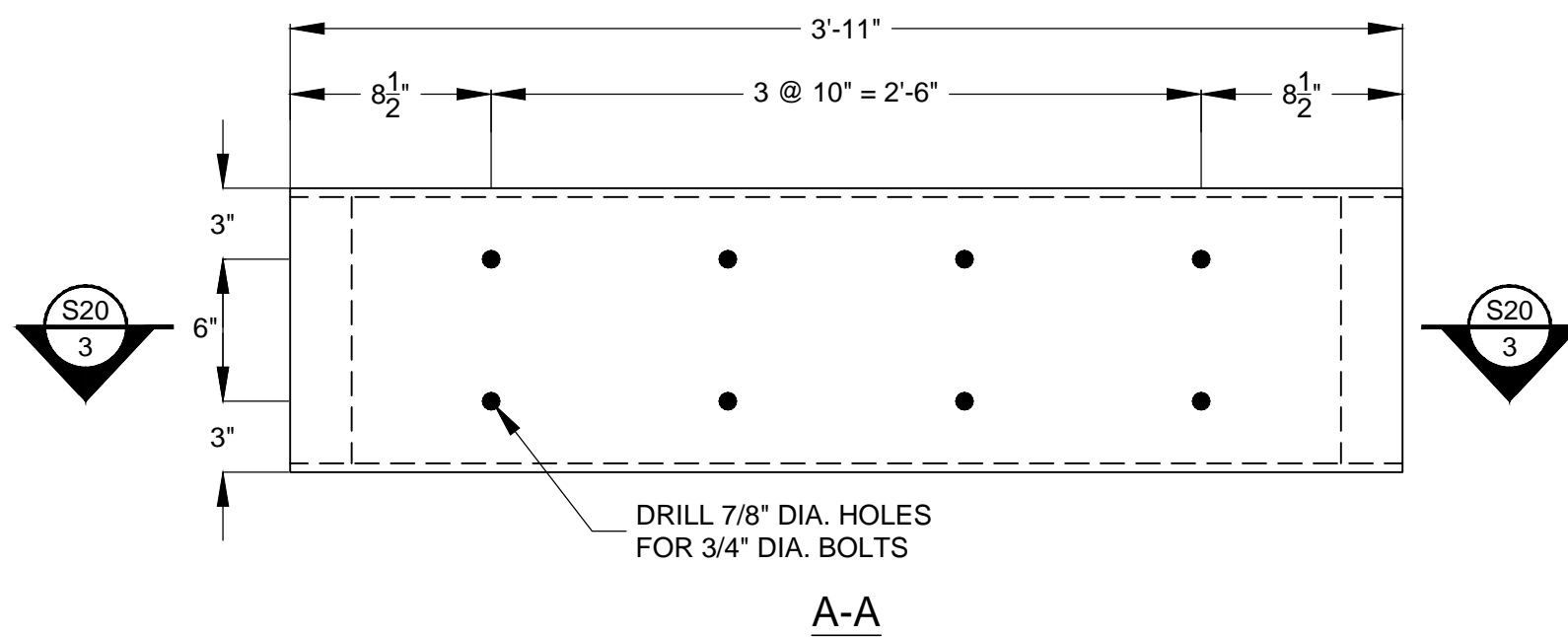
FILE NAME:
96-B WALKWAY.dwg
PROJECT NO.:
SHEET:
S19



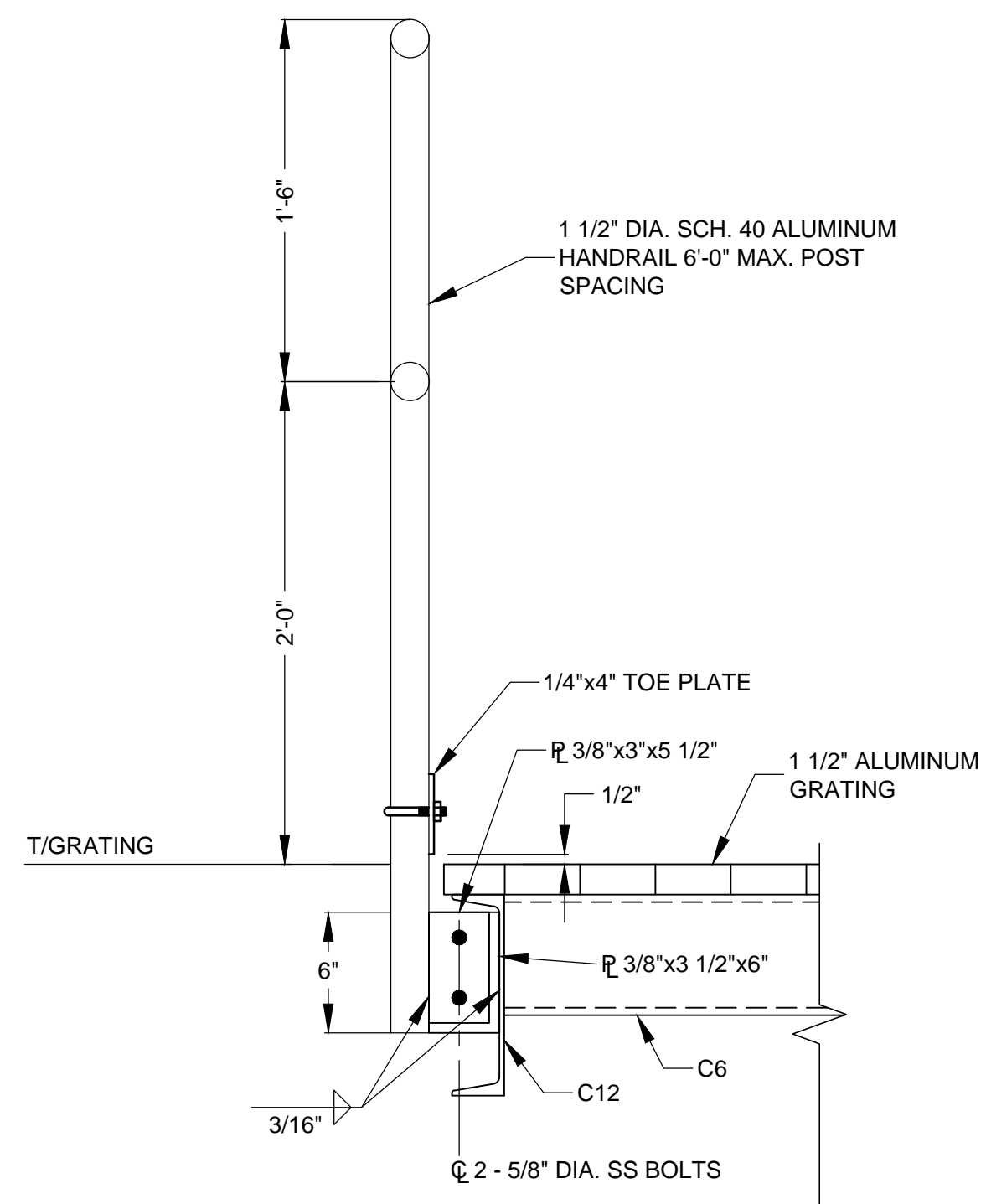
S20 1 TYPICAL SECTION
SCALE: 3/4"=1'-0"



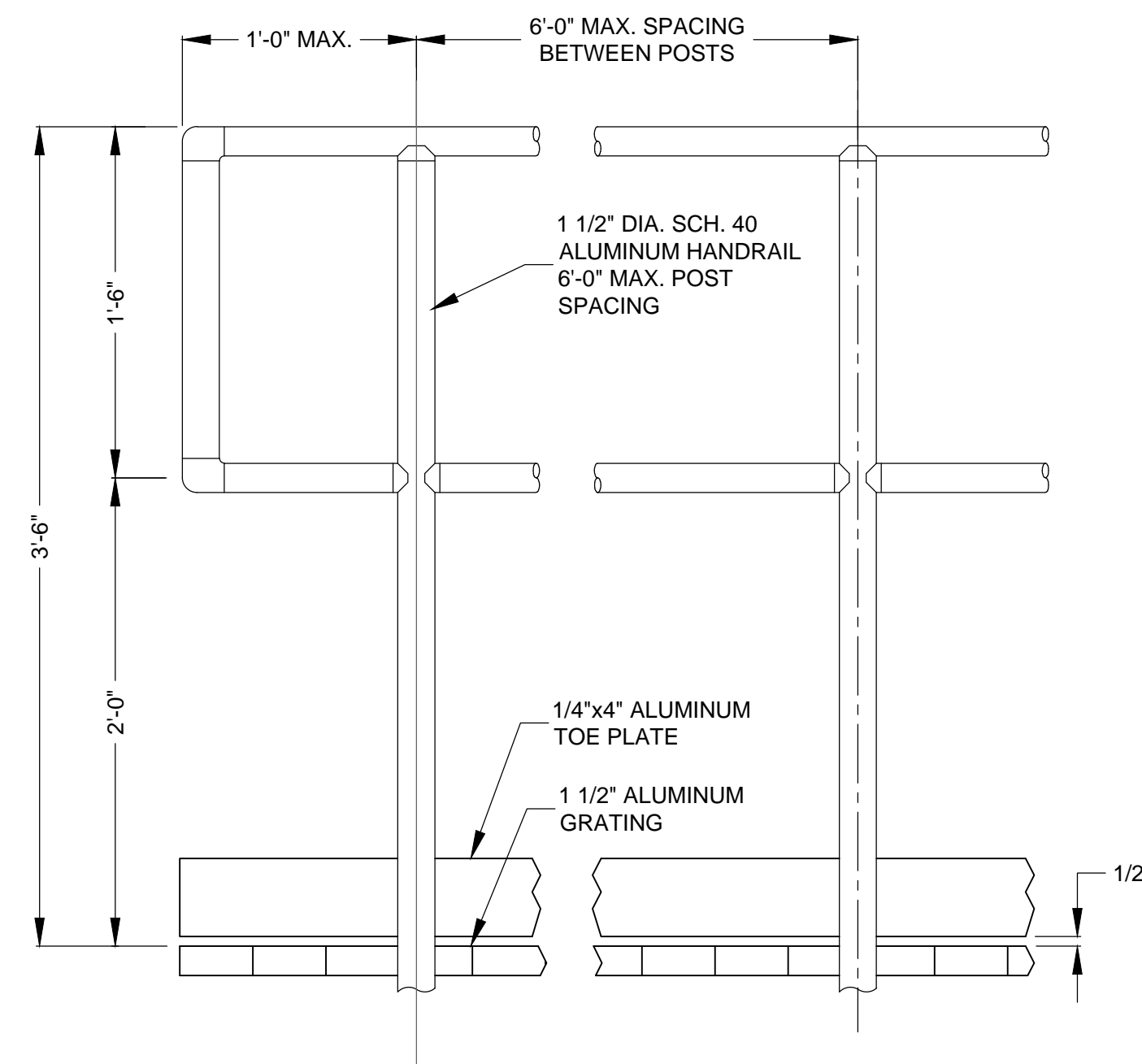
S20 2 TYPICAL WALKWAY PANEL CONNECTION
SCALE 1 1/2"=1'-0"



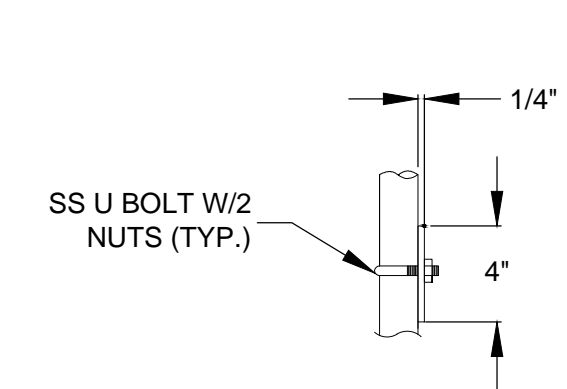
S20 3 END PANEL DETAIL AT CONCRETE FOOTING ONLY
SCALE 1 1/2"=1'-0"



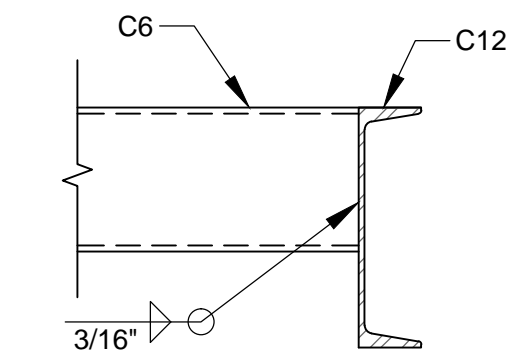
S20 4 HANDRAIL DETAIL
SCALE 1 1/2"=1'-0"



S20 5 TYPICAL HANDRAIL END DETAIL
SCALE 1 1/2"=1'-0"



S20 6 TOE PLATE DETAIL
SCALE 1 1/2"=1'-0"

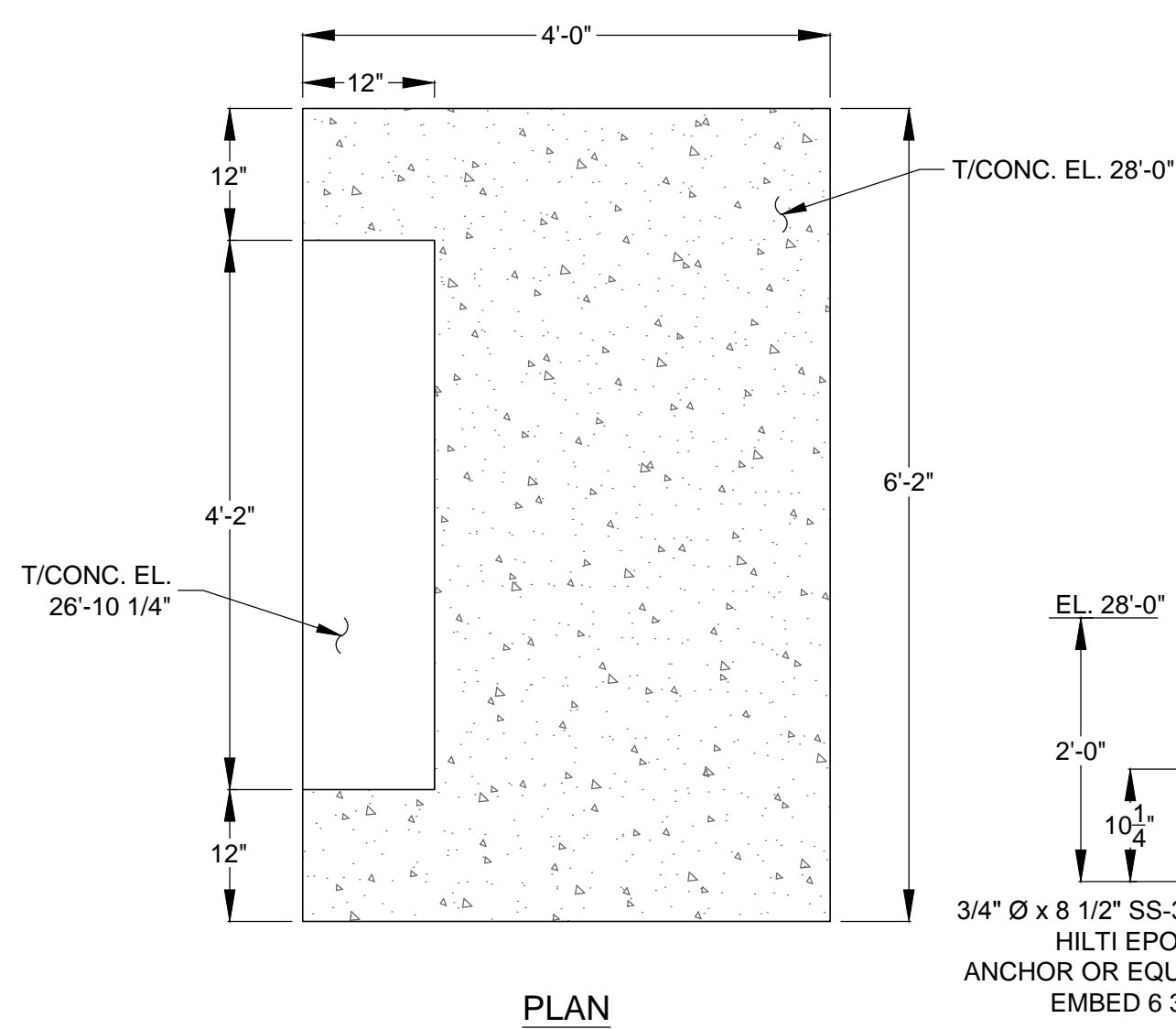


S20 7 TYPICAL C6 BEAM CONNECTION
SCALE 1 1/2"=1'-0"

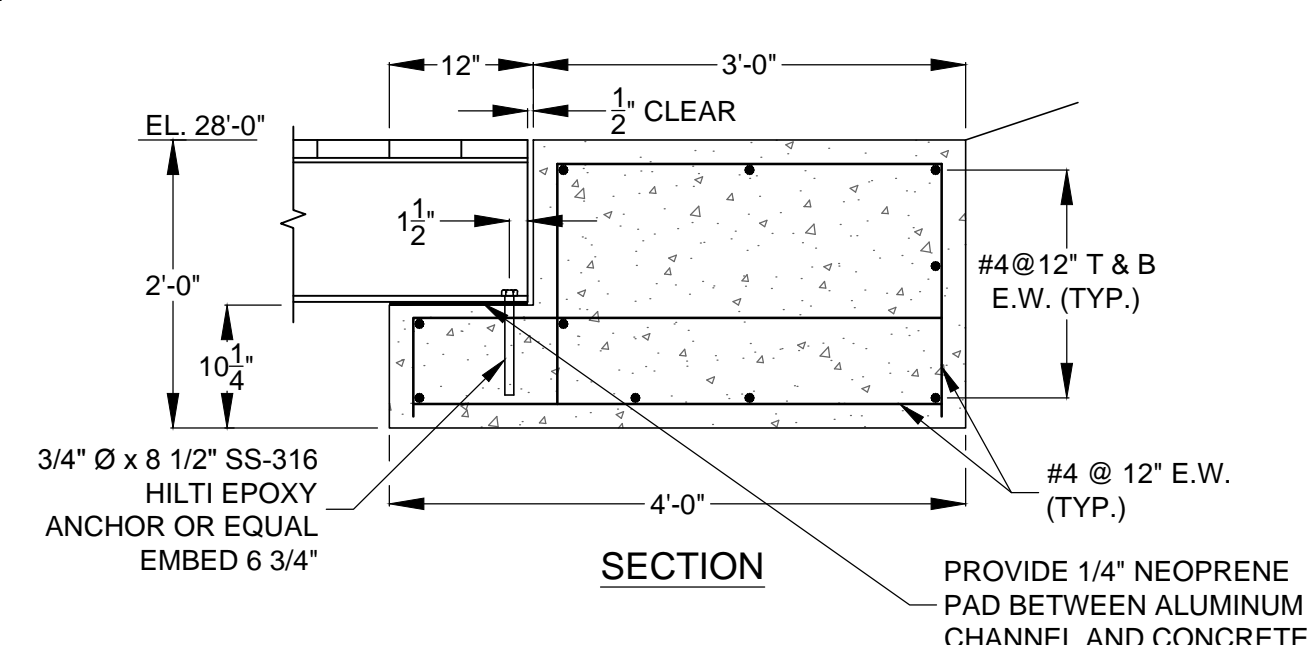
NOTE SPECIFICATIONS:

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 BE FDOT CLASS 1 WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI. PORTLAND CEMENT SHALL BE TYPE II IN ACCORDANCE WITH ASTM C-150. 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 CONCRETE CAST AGAINST EARTH AND 2 INCHES ELSEWHERE, UNLESS OTHERWISE NOTED.
5. CONCRETE ANCHORS SHALL UTILIZE THE HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM, OR EQUAL. THREADED ANCHOR RODS, SHALL BE 3/4" DIA. X 8-1/2" LONG HAS-R 316 STAINLESS STEEL WITH A MINIMUM EMBEDMENT DEPTH OF 6-3/4". NUTS AND WASHERS SHALL ALSO BE SS-316.



S20 8 WALKWAY FOOTING DETAIL
SCALE 3/4"=1'-0"



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