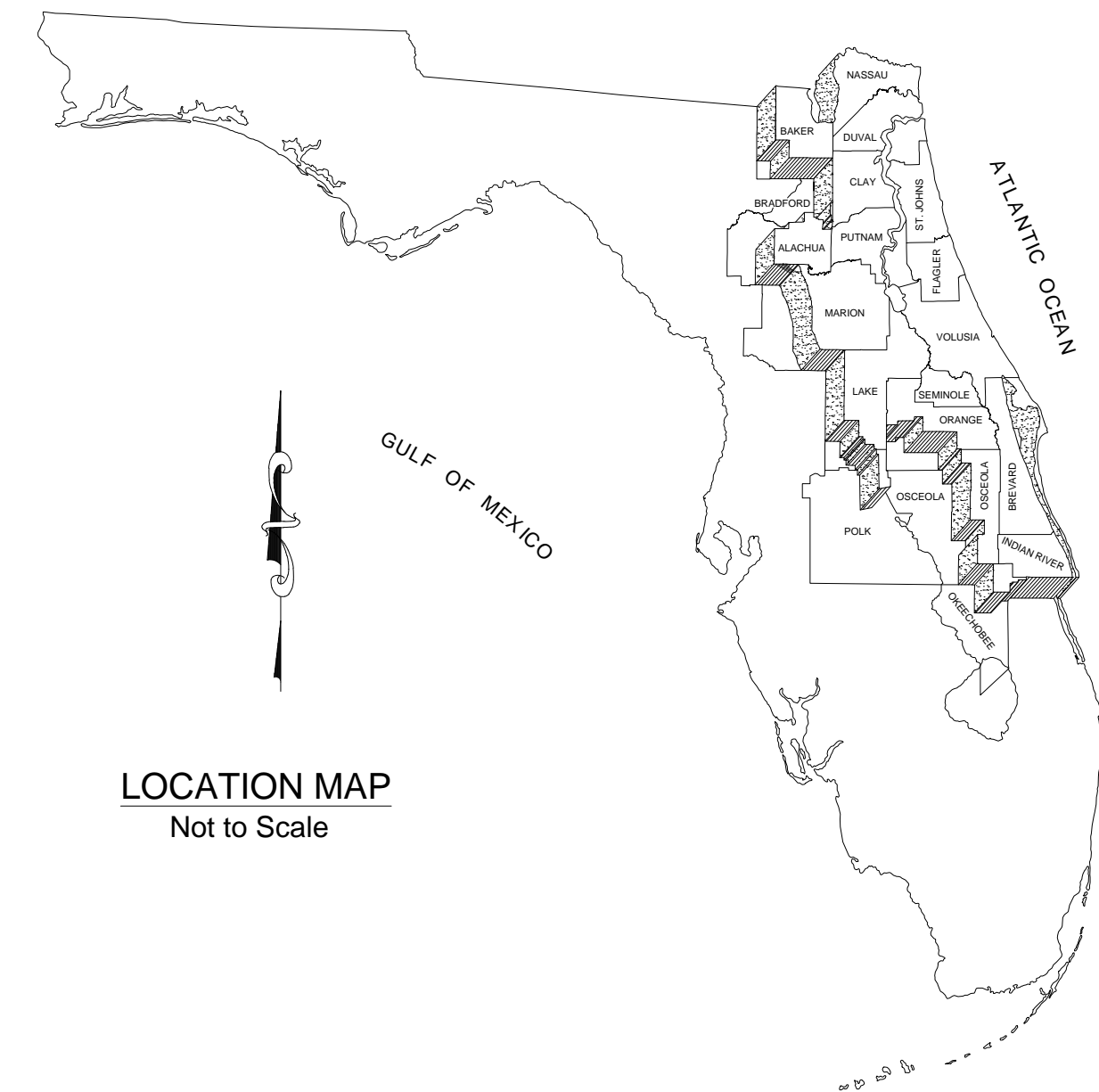


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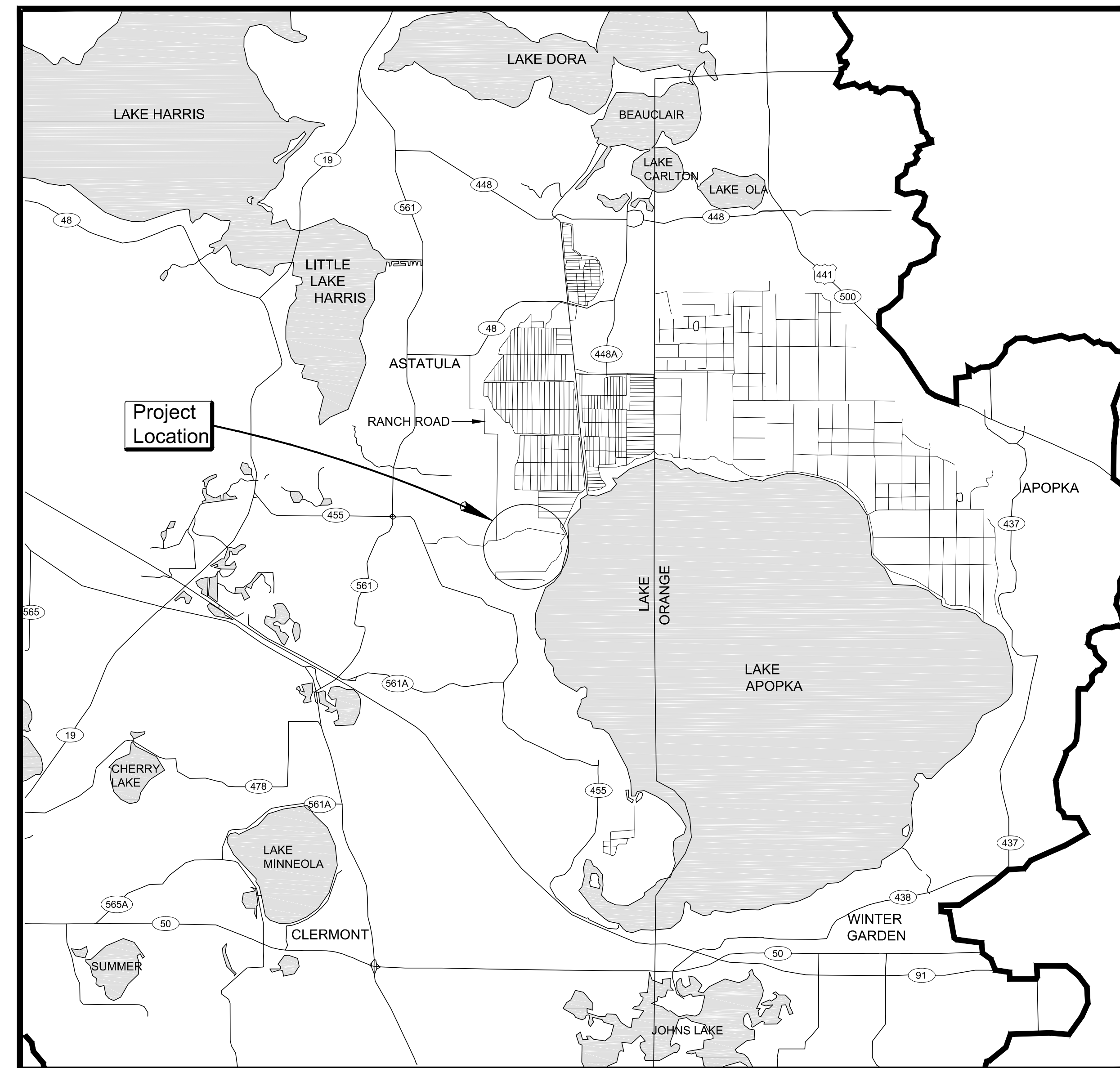
APOPKA MARSH FLOW-WAY

10-PACK STRUCTURES A & B REHAB

LAKE COUNTY, FLORIDA



LOCATION MAP
Not to Scale



VICINITY MAP



Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET & VICINITY MAP
C2	OVERALL SITE PLAN
C3	SITE PLAN - STRUCTURE A
C4	PLAN & SECTION - STRUCTURE A
C5	SITE PLAN - STRUCTURE B
S1	WALKWAY PLAN AND ELEVATION
S2	WALKWAY DETAILS

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CERTIFICATION:	DRAWING FILENAME:
ROYCE CLIFTON GANDY	10-PACKS REHAB.dwg
P.E. NUMBER: 23017	SHEET:
DATE: MARCH 8, 2017	C1

TOPOGRAPHIC SURVEY

A PARCEL OF LAND LOCATED IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA.

▲ BM SJRWMD 00-12-022-0
ELEVATION = 66.607' NAVD (88) FT.

RANCH ROAD

STRUCTURE A

OVERVIEW

LAKE AOPKA

STRUCTURE B

- NOTES:
1. ALL ELEVATIONS SHOWN HERE ON ARE REFERENCED TO NAVD(88) FT.
 2. ALL COORDINATES SHOWN HERE ON ARE REFERENCED TO HPGN AND PROJECTED TO FLORIDA ZONE (901) EAST.

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NO.	REVISION	BY	DATE	APPROVED	DATE

APOPKA MARSH FLOW-WAY
10-PACK STRUCTURES A & B REHAB
LAKE COUNTY, FLORIDA

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

DRAWN: _____ DATE: MARCH 8, 2017 REVIEWER: _____

SCALE: AS NOTED DESIGNER: RCG SECTION CHIEF: _____

OVERALL SITE PLAN

CERTIFICATION:
ROYCE CLIFTON GANDY
P.E. NUMBER: 23017
DATE: MARCH 8, 2017

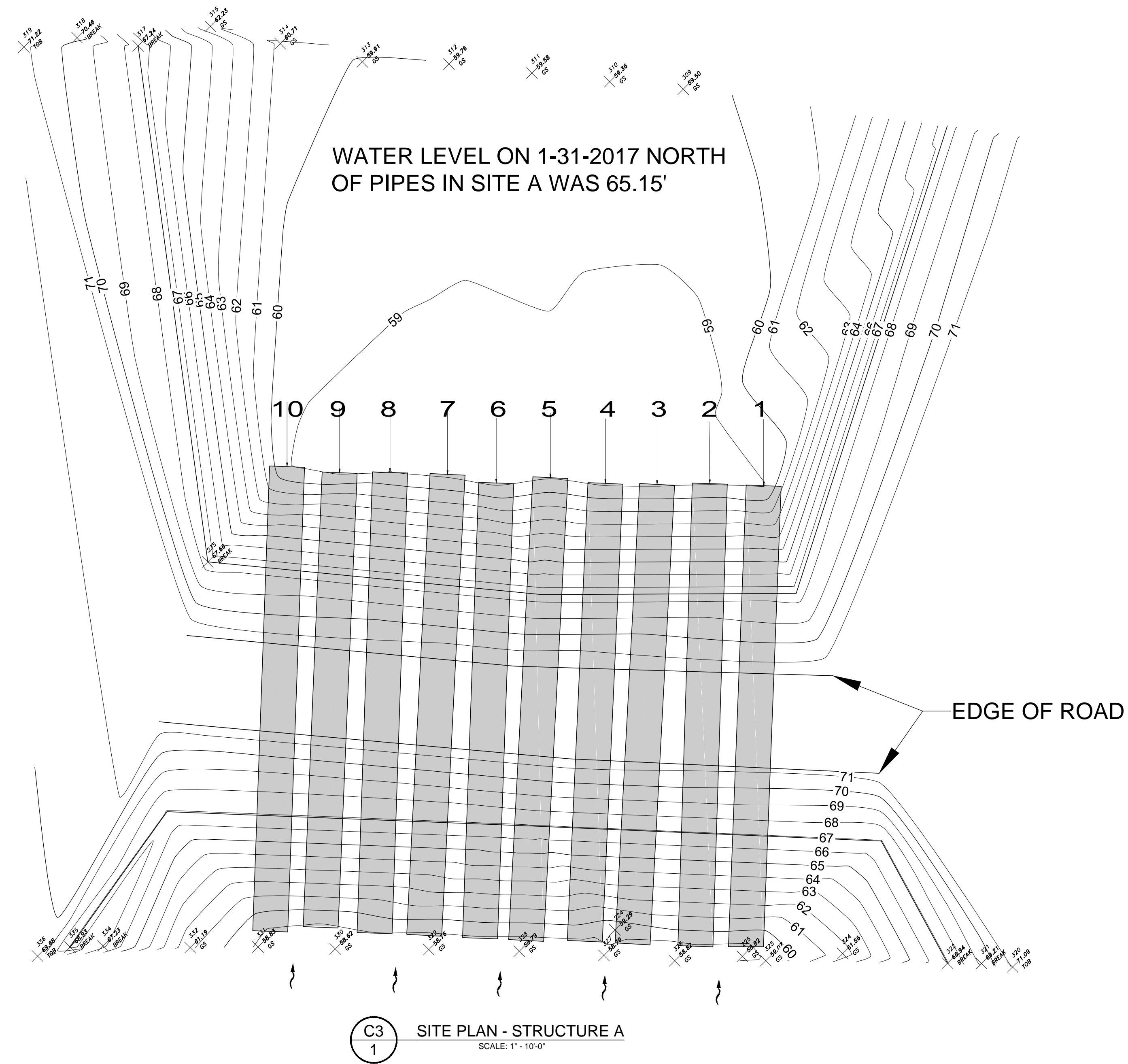
FILE NAME:
10-PACKS REHAB.dwg
PROJECT NO.:
SHEET:
C2

TOPOGRAPHIC SURVEY

A PARCEL OF LAND LOCATED IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA.

NOTE: ALL PIPES IN STRUCTURE "A" ARE 54" C.M.P. AS PER ENGINEER, AND NOT FIELD MEASURED (PIPES UNDERWATER)

PIPE ELEVATIONS AND LENGTHS NAVD (88) FT			
PIPE #	LENGTH	TOP OF PIPE (SOUTH)	TOP OF PIPE (NORTH)
1	59.26	63.31	63.44
2	59.53	63.37	63.43
3	59.18	63.36	63.36
4	58.95	63.36	63.33
5	58.95	63.24	63.42
6	58.59	63.38	63.32
7	59.36	63.31	63.25
8	59.30	63.46	63.51
9	58.52	63.26	63.37
10	59.81	63.31	63.59



WATER LEVEL ON 1-31-2017 SOUTH OF PIPES IN SITE AWAS 65.45'

NOTE: SEE C4 FOR MORE DETAIL

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10-PACK STRUCTURES A & B REHAB
LAKE COUNTY, FLORIDA

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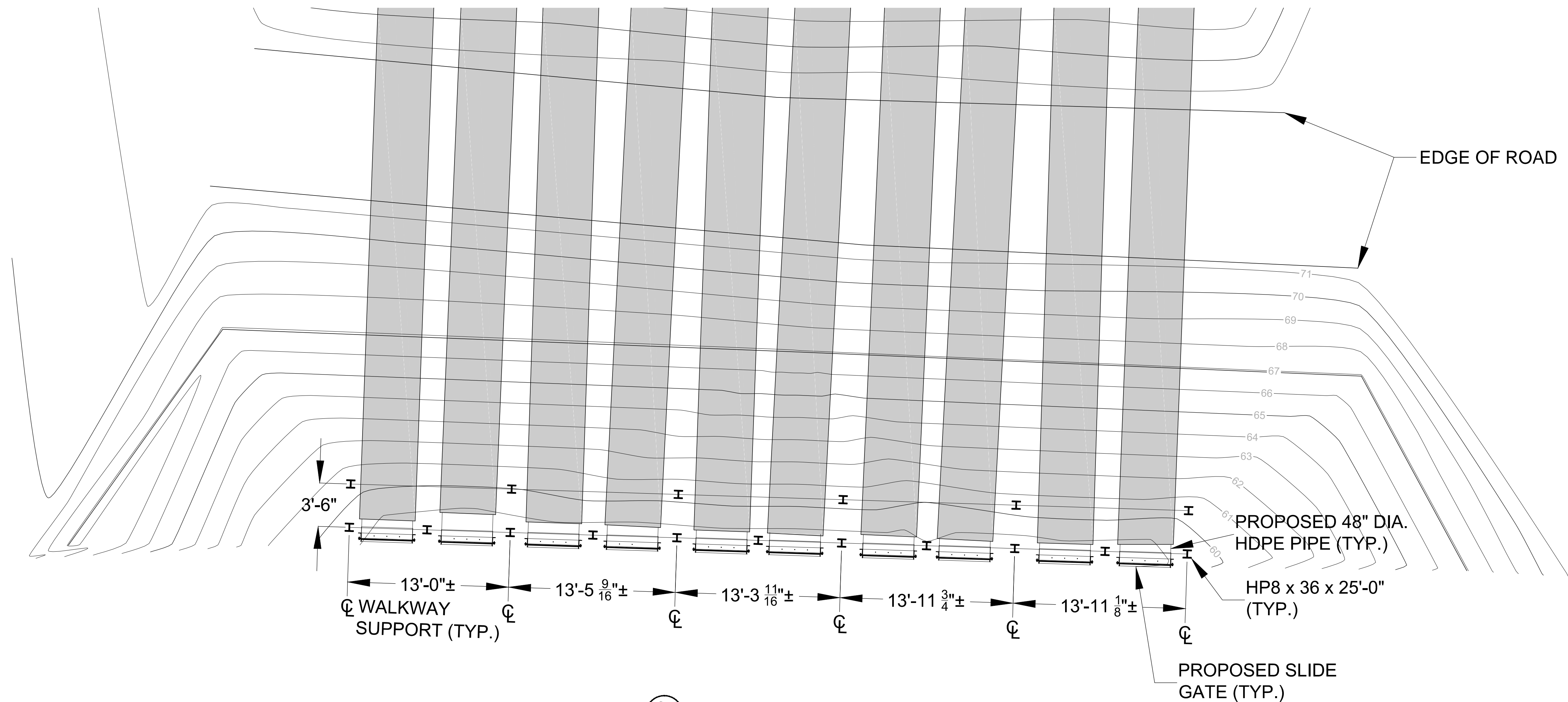
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SCALE: 1" = 10' - 0" DESIGNER: RCG SECTION CHIEF: _____

SITE PLAN - STRUCTURE A

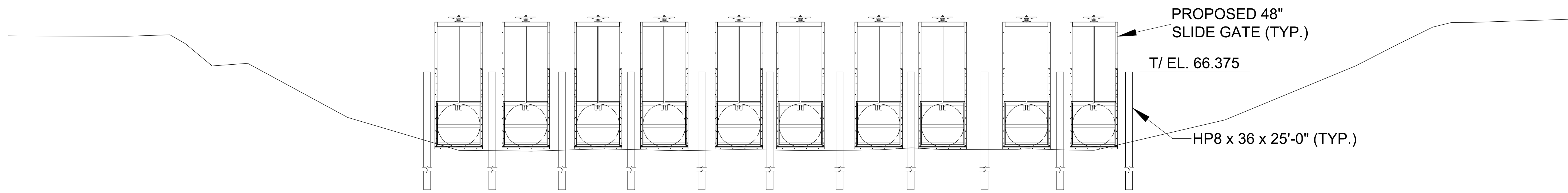
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ROYCE CLIFTON GANDY
P.E. NUMBER: 23017
DATE: MARCH 8, 2017

FILE NAME:
10-PACKS REHAB.dwg
PROJECT NO.:
SHEET:
C3

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C4
1 STRUCTURE A - SITE PLAN
SCALE: 1" = 5'-0"



C4
1 STRUCTURE A - SECTION
SCALE: 1" = 5'-0"

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APOPKA MARSH FLOW-WAY
10-PACK STRUCTURES A & B REHAB
LAKE COUNTY, FLORIDA

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

DRAWN: _____ DATE: MARCH 8, 2017 REVIEWER: _____

SCALE: AS NOTED DESIGNER: RCG SECTION CHIEF: _____

PLAN & SECTION - STRUCTURE A

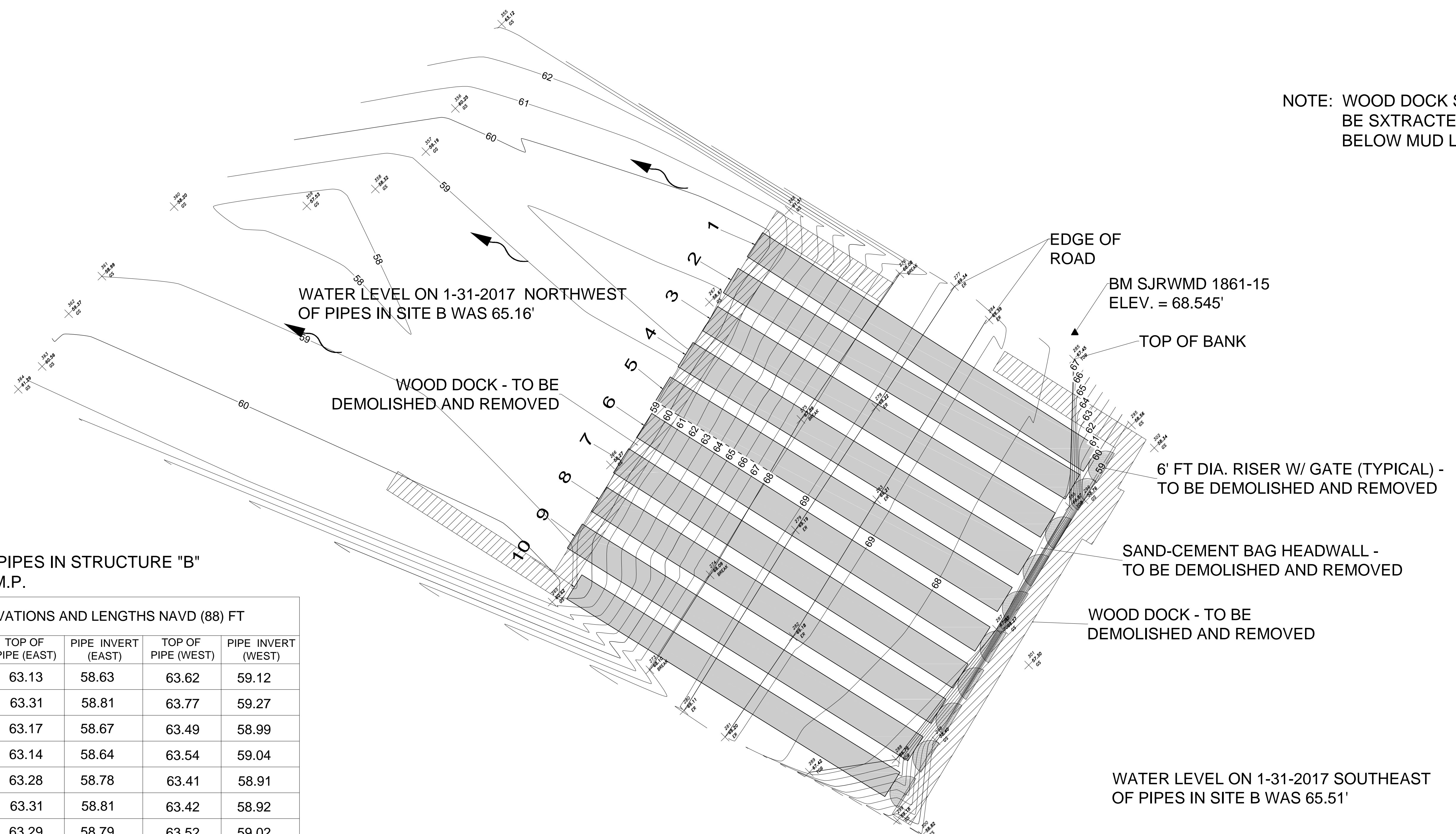
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P.E. NUMBER: 23017
DATE: MARCH 8, 2017

FILE NAME:
10-PACKS REHAB.dwg
PROJECT NO.:
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C4

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TOPOGRAPHIC SURVEY

A PARCEL OF LAND LOCATED IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA.



NOTE: WOOD DOCK SUPPORT PILES TO BE SXTRACTED OR CUT OFF AT OR BELOW MUD LINE.

NOTE: ALL PIPES IN STRUCTURE "B" ARE 54" C.M.P.

PIPE ELEVATIONS AND LENGTHS NAVD (88) FT					
PIPE #	LENGTH	TOP OF PIPE (EAST)	PIPE INVERT (EAST)	TOP OF PIPE (WEST)	PIPE INVERT (WEST)
1	70.19	63.13	58.63	63.62	59.12
2	70.28	63.31	58.81	63.77	59.27
3	69.67	63.17	58.67	63.49	58.99
4	70.16	63.14	58.64	63.54	59.04
5	70.67	63.28	58.78	63.41	58.91
6	70.43	63.31	58.81	63.42	58.92
7	70.73	63.29	58.79	63.52	59.02
8	70.45	63.22	58.72	63.40	58.90
9	70.66	63.16	58.66	63.24	58.74
10	65.90	63.36	58.86	63.31	58.81

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APOPKA MARSH FLOW-WAY
10-PACK STRUCTURES A & B REHAB
LAKE COUNTY, FLORIDA

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

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SCALE: 1" = 10' - 0" DESIGNER: RCG SECTION CHIEF: _____

SITE PLAN - STRUCTURE B

CERTIFICATION:
ROYCE CLIFTON GANDY
P.E. NUMBER: 23017
DATE: MARCH 8, 2017

FILE NAME:
10-PACKS REHAB.dwg
PROJECT NO.:
SHEET:
C5

NOTE SPECIFICATIONS:

CONCRETE:

- 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.
- 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.
- REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A-615.
- THE MINIMUM CLEAR CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES FOR CONCRETE CAST AGAINST EARTH AND 2 INCHES ELSEWHERE, UNLESS OTHERWISE NOTED.
- 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.

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", LATEST EDITION.
- 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.
- BOLTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM F593, TYPE 316. SIZE OF BOLT SHALL 3/4-INCH MINIMUM UNLESS NOTED OTHERWISE.
- 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:

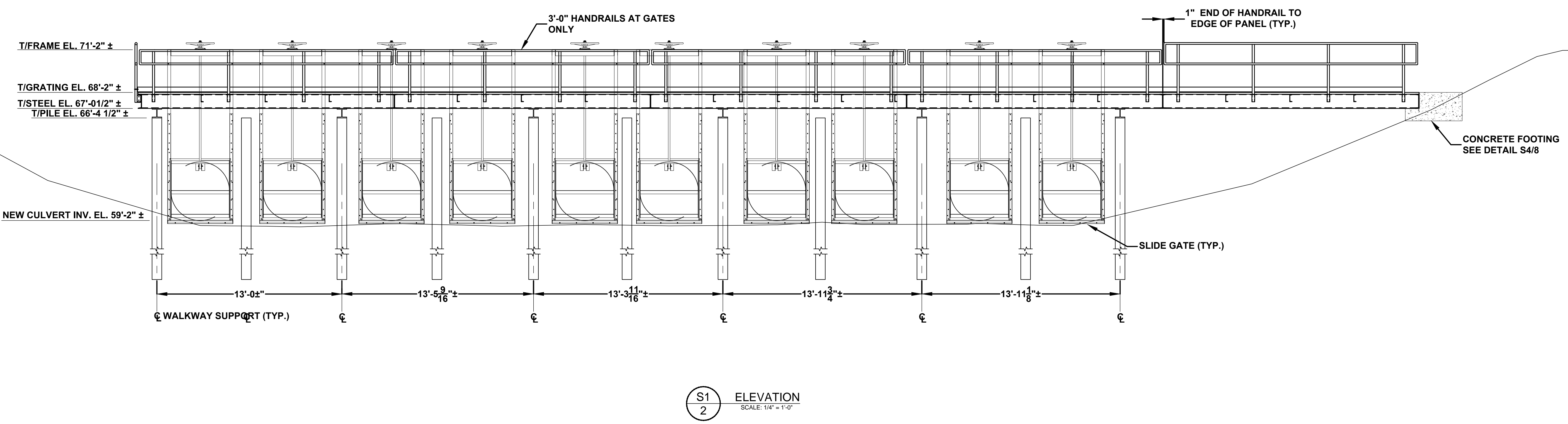
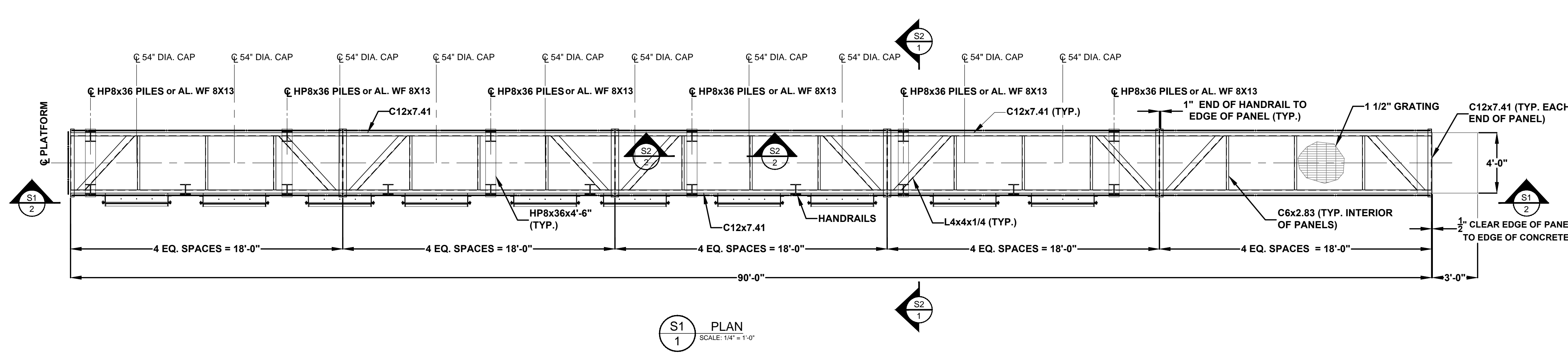
- ALL STEEL SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL (SSPC) "STEEL STRUCTURES PAINTING MANUAL". STEEL SURFACE PREPARATION SHALL BE SSPC-10 NEAR WHITE BLAST CLEANING
- PROTECTIVE COATING FOR STRUCTURAL STEEL SHALL BE AS MANUFACTURED BY SHERWIN-WILLIAMS, OR EQUAL,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

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.
- 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.



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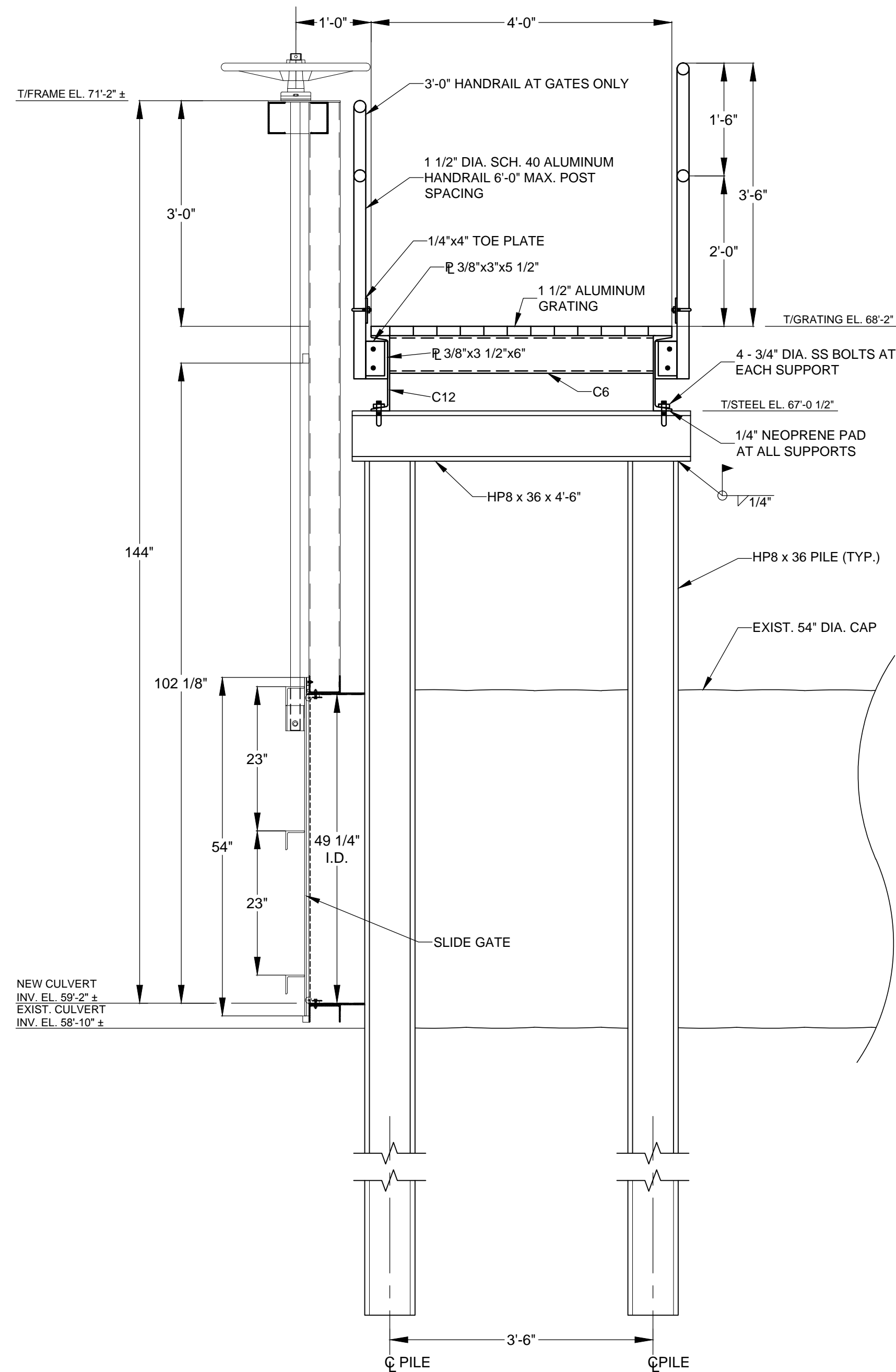
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 SCALE: AS NOTED DESIGNER: WRC SECTION CHIEF: ...

WALKWAY PLAN AND ELEVATION

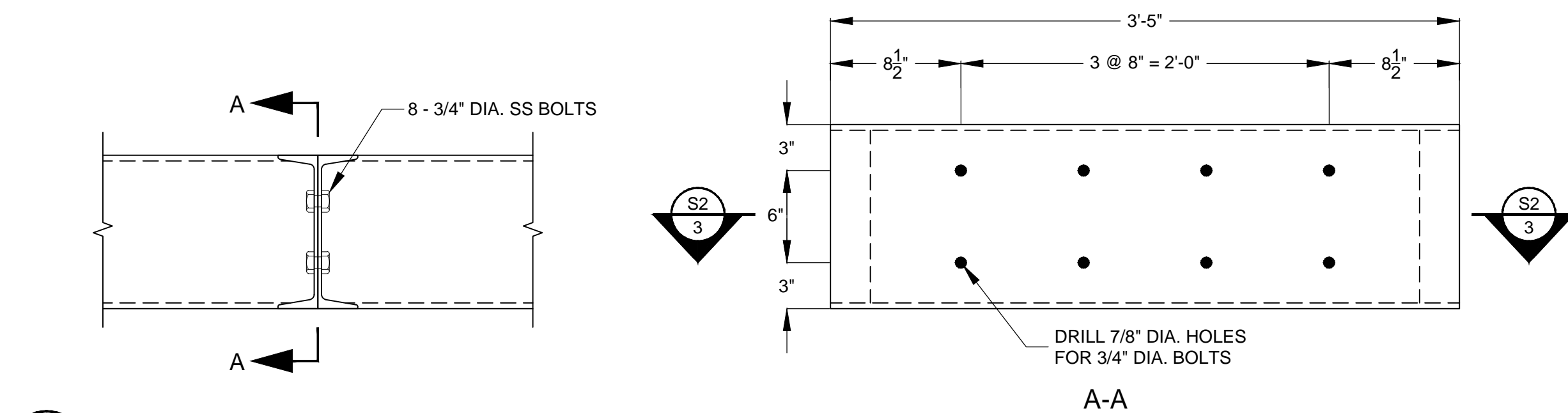
CERTIFICATION:
 WILLIAM R. COTE
 P.E. NUMBER: 53746
 DATE: MARCH 8, 2017

FILE NAME:
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 PROJECT NO.:
 SHEET:
S1

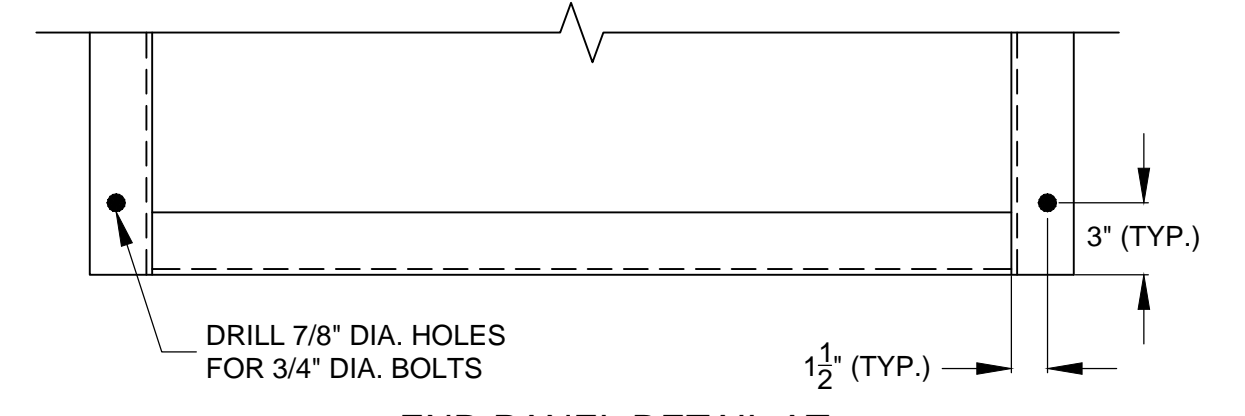
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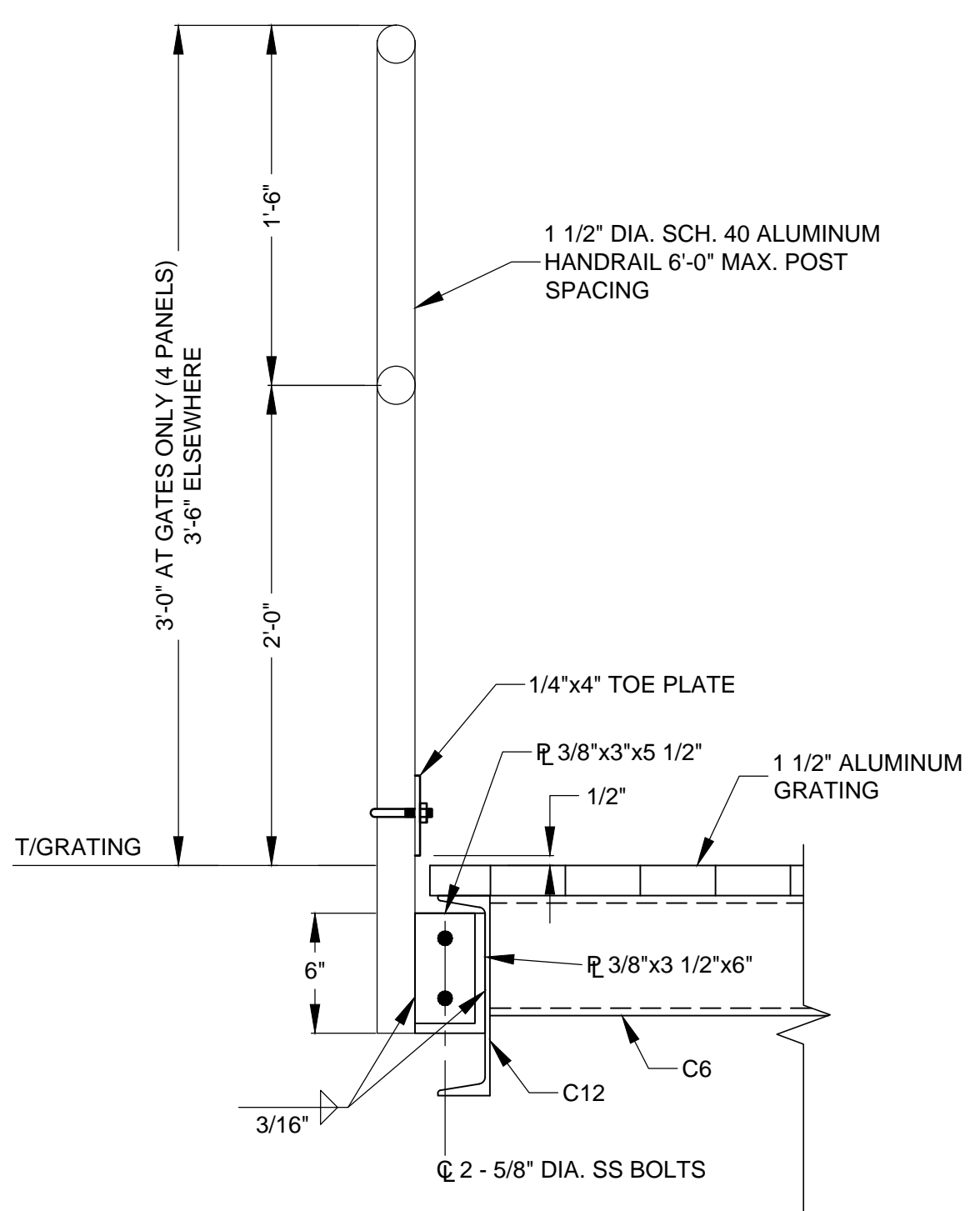
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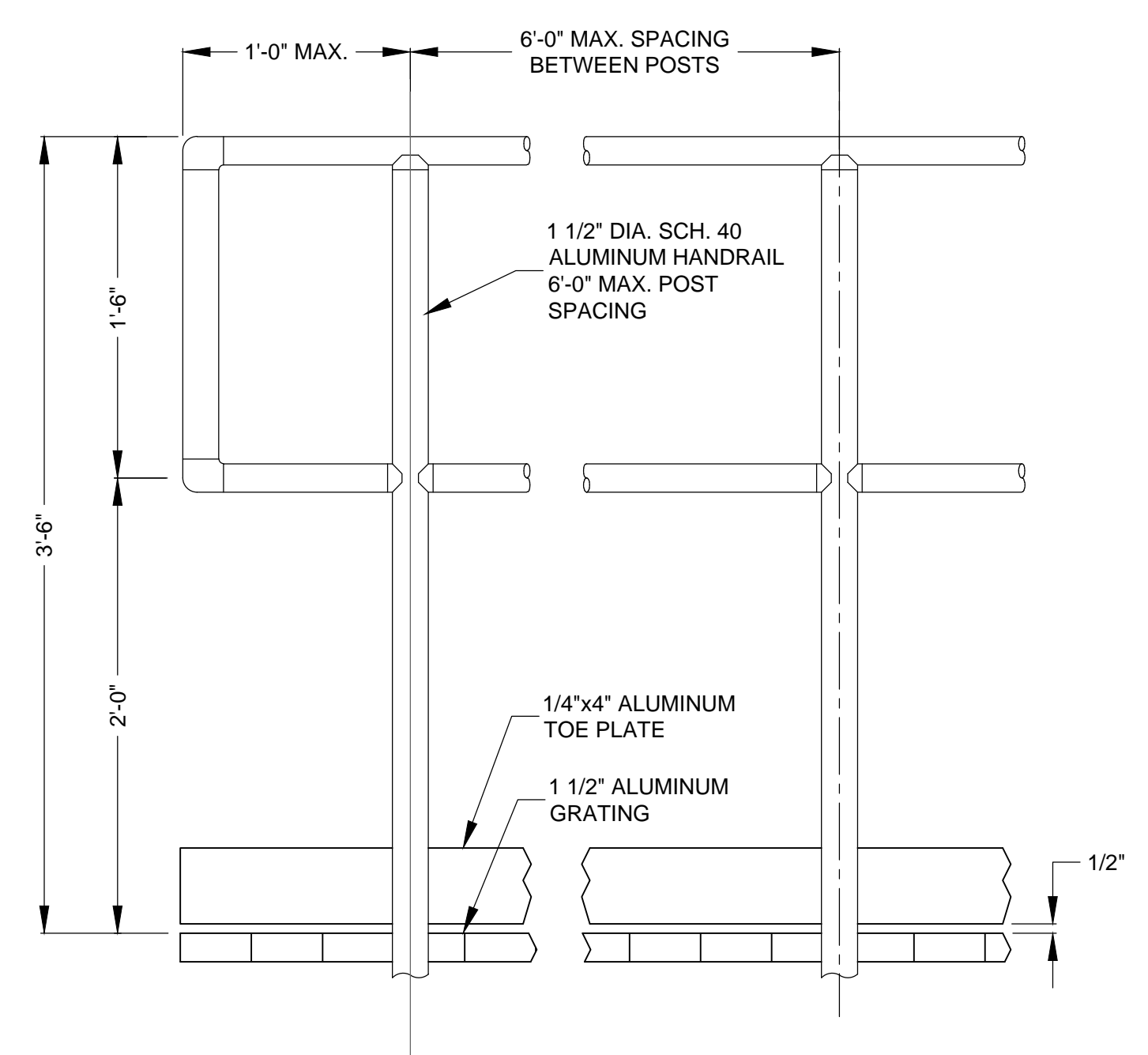
S2 2 TYPICAL WALKWAY PANEL CONNECTION
SCALE 1 1/2"=1'-0"



S2 3 END PANEL DETAIL AT CONCRETE FOOTING ONLY
SCALE 1 1/2"=1'-0"



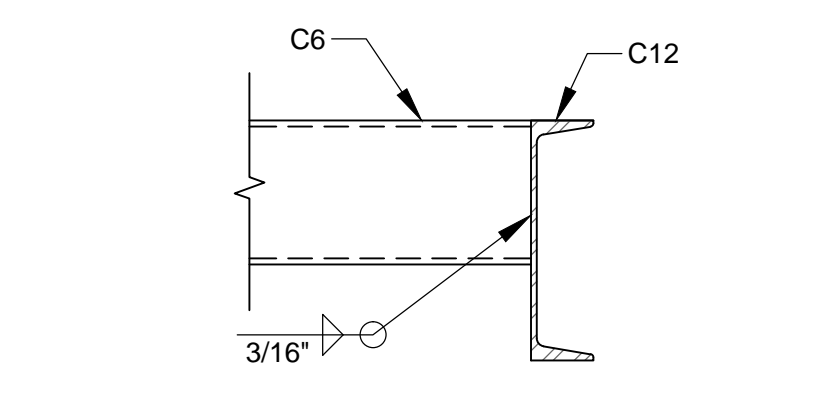
S2 4 HANDRAIL DETAIL
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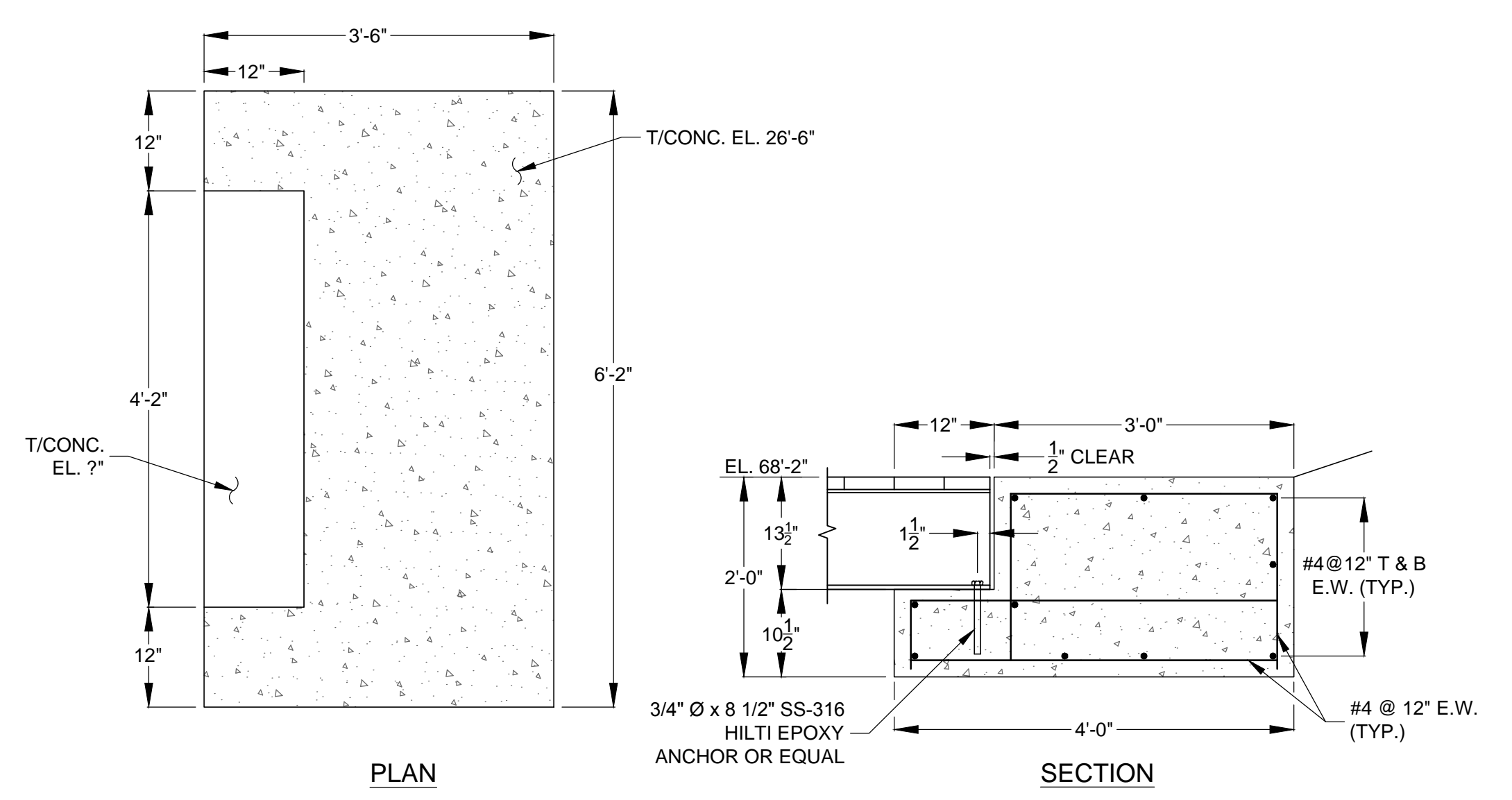
S2 5 TYPICAL HANDRAIL END DETAIL
SCALE 1 1/2"=1'-0"



S2 6 TOE PLATE DETAIL
SCALE 1 1/2"=1'-0"



S2 7 TYPICAL C6 BEAM CONNECTION
SCALE 1 1/2"=1'-0"



S2 8 WALKWAY FOOTING DETAIL
SCALE 3/4"=1'-0"

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WALKWAY DETAILS

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