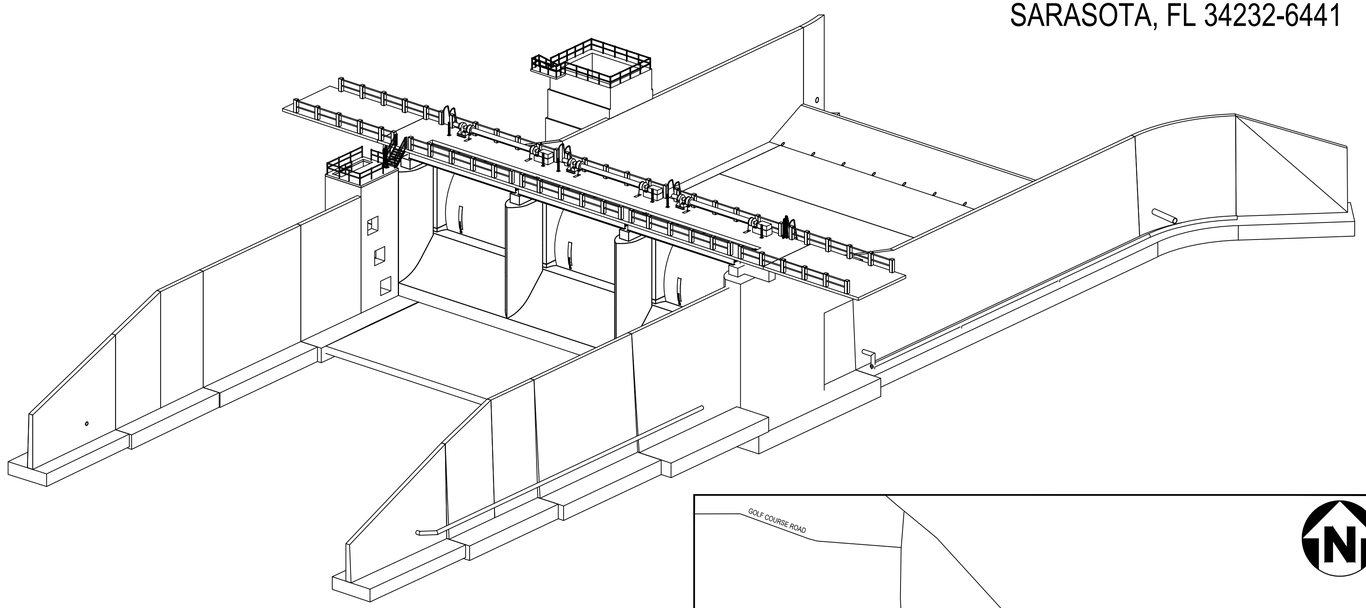
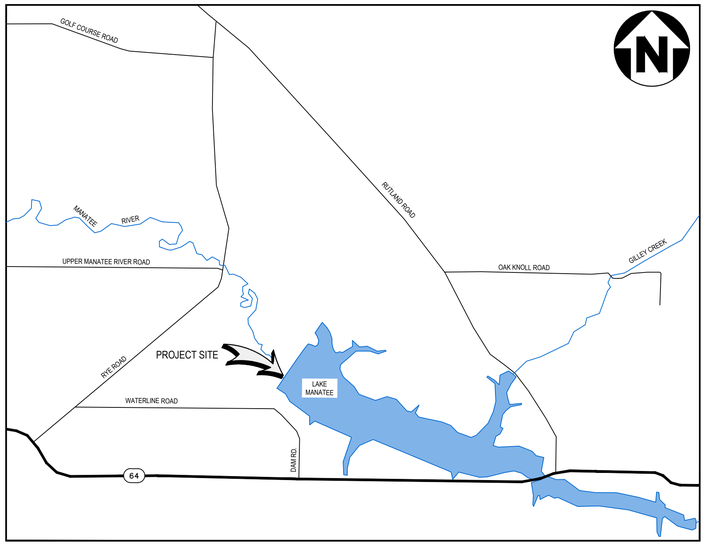
# PHASE II REPAIRS TO THE LAKE MANATEE DAM

PREPARED FOR:
CAROLLO ENGINEERS, INC.
301 N CATTLEMEN RD, SUITE 302
SARASOTA, FL 34232-6441



MANATEE COUNTY BOARD OF COMMISSIONERS

JAMES SATCHER, DISTRICT 1
REGGIE BELLAMY, DISTRICT - 3RD VICE CHAIR
KEVIN VAN OSTENBRIDGE, DISTRICT 3 - 2ND VICE CHAIR
MISTY SERVIA, DISTRICT 4
VANESSA BAUGH, DISTRICT 5 - CHAIR
CAROL WHITMORE, AT LARGE
GEORGE W. KRUSE, AT LARGE - 1ST VICE CHAIR




VICINITY MAP
N.T.S.

| DRAWING INDEX | | |
|---|---|---|
| SHEET | DRAWING | TITLE |
| GENERAL | | |
| 1 | G-001 | COVER SHEET |
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 3 | G-002 | GENERAL LOCATION MAP |
| 4 | G-003 | CONSTRUCTION ACCESS PLAN |
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| 6 | G-005 | GENERAL NOTES |
| 7 | G-101 | LAKE MANATEE DAM – SERVICE SPILLWAY COMPONENTS |
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| 8 | V-101 | SERVICE SPILLWAY EXISTING CONDITIONS |
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| 11 | C-001 | SURFACE WATER PLAN |
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| 14 | CU102 | UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 1 OF 2 |
| 15 | CU103 | UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 2 OF 2 |
| 16 | CU104 | UPSTREAM SPILLWAY REPAIRS - COFFERDAM AND COMBI-WALL PLAN |
| 17 | CU105 | STEP 1 - UPSTREAM SPILLWAY REPAIRS - INSTALL COMBI-WALL AND JET GROUT CELLS |
| 18 | CU106 | STEP 2 - UPSTREAM SPILLWAY REPAIRS - EXCAVATE TO BOTTOM OF PILE CAP 1 OF 2 |
| 19 | CU107 | STEP 2 - UPSTREAM SPILLWAY REPAIRS - EXCAVATE TO BOTTOM OF PILE CAP 2 OF 2 |
| 20 | CU108 | STEP 3 - UPSTREAM SPILLWAY REPAIRS - INSTALL SHEET PILE STRUCTURAL BRACING |
| 21 | CU109 | STEP 4 - UPSTREAM SPILLWAY REPAIRS INSTALL DEWATER WELL AND GROUT PLUG |
| 22 | CU110 | STEP 5 - UPSTREAM SPILLWAY REPAIR - PARTIAL DEWATER WITHIN CONTAINMENT |
| 23 | CU111 | STEP 6 - UPSTREAM SPILLWAY REPAIRS - REPAIRS TO APPROACH SLAB |
| 24 | CU112 | STEP 7 - FLOOD COFFERDAM AND CUT-OFF SHEET PILE WALL |
| 25 | CU113 | STEP 8 - UPSTREAM SPILLWAY REPAIRS INSTALL SECONDARY SEAL ON GROUT PLUG |
| 26 | CU114 | STEP 8 - UPSTREAM SPILLWAY REPAIRS PLUG TOP OF COMBI-WALL PIPE APPROACH |
| 27 | CU115 | STEP 8 - UPSTREAM SPILLWAY REPAIRS - CUT COMBI-WALL, INSTALL CONC. CAP, AND ARMOR GRADE |
| 28 | CU121 | UPSTREAM EMBANKMENT AND UPSTREAM GRADING PLAN |
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| 39 | CR402 | CONCRETE SLOPE PAVEMENT TEST SECTION |
| 40 | CR403 | SPOT REPAIR TEST SECTION |
| 41 | CR404 | FULL DEPTH SOIL CEMENT RECLAMATION TEST SECTION |
| 42 | CR405 | SPOT REPAIR AT END OF FLUME |
| 43 | CR501 | DETAILS |

| | | |
|---|---|---|
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| 49 | SD112 | OUTFALL APRON OVERLAY PLAN |
| 50 | SD301 | PROPOSED CUTOFF WALL CONFIGURATIONS |
| 51 | SD302 | JET GROUT AND DEEP SOIL MIX CUTOFF WALL ELEVATION |
| 52 | SD501 | OUTFALL APRON SECTIONS AND DETAILS |
| 53 | SD502 | PRESSURE RELIEF SYSTEM UPGRADES |
| 54 | SS211 | COARSE SCREEN CHAMBER REPAIR OPTIONS |
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| 56 | SS301 | SECTION THROUGH OGEE |
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| 58 | SS303 | NORTH APPROACH AND TRAINING WALL ELEVATIONS |
| 59 | SC101 | COFFERDAM OVERALL PLAN |
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| 62 | SC401 | ENLARGED PLAN AT NORTH APPROACH WALL |
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| 68 | ES-001 | GATE HOIST NO. 1 ELECTRICAL LADDER DIAGRAM |
| 69 | ES-002 | GATE HOIST NO. 2 ELECTRICAL LADDER DIAGRAM |
| 70 | ES-003 | GATE HOIST NO. 3 ELECTRICAL LADDER DIAGRAM |
| 71 | ES-004 | GATE HORN ELECTRICAL LADDER DIAGRAM |
| 72 | IED-001 | DAM INSTRUMENTATION NOTES AND ELEVATION |
| 73 | IED-002 | DAM INSTRUMENTATION NOTES AND ELEVATION |
| 74 | IED-003 | INCLINOMETER WIRING DIAGRAM |
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| 77 | CE101 | CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROL PLAN |
| 78 | CE102 | FINAL PHASE EROSION AND SEDIMENT CONTROL PLAN |
| 79 | CE501 | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS |

FIRM INFORMATION

FIRM COMMUNITY NUMBER 120153
FIRM PANEL 0355
FIRM SUFFIX E
FIRM MAP NUMBER 12081C0355E DATED MARCH 17, 2014
FIRM AE (EL 44)

24 HOUR EMERGENCY CONTACT
24 HOUR CONTACT 24 HOUR NUMBER

DRAWING NUMBER GUIDELINES

X X ###

3-DIGIT DRAWING SEQUENCE NUMBER
000 GENERAL
100 PLANS
200 ELEVATIONS
300 SECTIONS
400 LARGE SCALE VIEWS
500 DETAILS
600 SCHEDULES AND DIAGRAMS
700 SPECIAL USE
800 SPECIAL USE
900 3D VIEWS

1-LETTER AREA DESIGNATOR
- UNCATEGORIZED
U UPSTREAM
D DOWNSTREAM
S SPILLWAY
C COFFERDAM
R REVETMENT
E EROSION AND SEDIMENT CONTROL

DISCIPLINE DESIGNATOR
V (SURVEY)
G (GENERAL)
C (CIVIL)
D (DEMOLITION)
S (STRUCTURAL)
M (MECHANICAL)

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|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472x4

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

SUBJECT: COVER SHEET

PHASE II REPAIRS TO THE LAKE MANATEE DAM

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

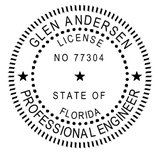
DRAWING NO. G-001 | REV D

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TAMPA, FL 33602
GLEN ROBERT ANDERSEN P.E. NO. 77304

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 1 | G-001 | COVER SHEET |
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 3 | G-002 | GENERAL LOCATION MAP |
| 4 | G-003 | CONSTRUCTION ACCESS PLAN |
| 5 | G-004 | ON-SITE ACCESS PLAN |
| 6 | G-005 | GENERAL NOTES |
| 7 | G-101 | LAKE MANATEE DAM SERVICE SPILLWAY COMPONENTS |



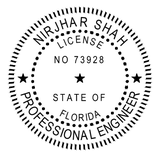

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1075 BIG SHANTY ROAD NW, SUITE 100
KENNESAW, GA 30144
PHILIP W. MARCUM P.E. NO. 69621

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 8 | V-101 | SERVICE SPILLWAY EXISTING CONDITIONS |
| 9 | D-101 | DEMOLITION PLAN |
| 10 | C-000 | SERVICE SPILLWAY SITE PLAN |
| 11 | C-001 | SURFACE WATER PLAN |
| 28 | CU121 | UPSTREAM EMBANKMENT AND UPSTREAM GRADING PLAN |
| 29 | CU401 | ENLARGED GRADING PLANS - UPSTREAM SOUTH EMBANKMENT |
| 30 | CU402 | ENLARGED GRADING PLANS - UPSTREAM NORTH EMBANKMENTS |
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| 77 | CE101 | CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROL PLAN |
| 78 | CE102 | FINAL PHASE EROSION AND SEDIMENT CONTROL PLAN |
| 79 | CE501 | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS |




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5015 S. FLORIDA AVENUE, STE 301
LAKELAND, FLORIDA 33813
NIRJHAR SHAH P.E. NO. 73928

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 12 | C-100 | GROUNDWATER PRESSURE RELIEF WELL LOCATION PLAN |
| 53 | SD502 | PRESSURE RELIEF SYSTEM UPGRADES |



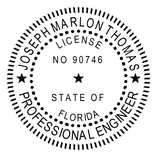

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4400 BAYOU BOULEVARD, SUITE 31A,
PENSACOLA, FL 32503
MARK A. LEON P.E. NO. 72832

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 13 | CU101 | UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS PLAN |
| 14 | CU102 | UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 1 OF 2 |
| 15 | CU103 | UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 2 OF 2 |
| 16 | CU104 | UPSTREAM SPILLWAY REPAIRS - COFFERDAM AND COMBI-WALL PLAN |
| 17 | CU105 | STEP 1 - UPSTREAM SPILLWAY REPAIRS - INSTALL COMBI-WALL AND JET GROUT CELLS |
| 18 | CU106 | STEP 2 - UPSTREAM SPILLWAY REPAIRS - EXCAVATE TO BOTTOM OF PILE CAP 1 OF 2 |
| 19 | CU107 | STEP 2 - UPSTREAM SPILLWAY REPAIRS - EXCAVATE TO BOTTOM OF PILE CAP 2 OF 2 |
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| 21 | CU109 | STEP 4 - UPSTREAM SPILLWAY REPAIRS INSTALL DEWATER WELL AND GROUT PLUG |
| 22 | CU110 | STEP 5 - UPSTREAM SPILLWAY REPAIR - PARTIAL DEWATER WITHIN CONTAINMENT |
| 23 | CU111 | STEP 6 - UPSTREAM SPILLWAY REPAIRS - REPAIRS TO APPROACH SLAB |
| 24 | CU112 | STEP 7 - FLOOD COFFERDAM AND CUT-OFF SHEET PILE WALL |
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| 26 | CU114 | STEP 8 - UPSTREAM SPILLWAY REPAIRS PLUG TOP OF COMBI-WALL PIPE APPROACH |
| 27 | CU115 | STEP 8 - UPSTREAM SPILLWAY REPAIRS - CUT COMBI-WALL, INSTALL CONC. CAP, AND ARMOR GRADE |
| 44 | S-001 | STRUCTURAL NOTES 1 OF 3 |
| 45 | S-002 | STRUCTURAL NOTES 2 OF 3 |
| 46 | S-003 | STRUCTURAL NOTES 3 OF 3 |
| 47 | S-101 | PROPOSED SPILLWAY SEEPAGE CUTOFF WALL SYSTEM |
| 48 | SD111 | OUTFALL APRON TRENCHING AND DEMOLITION PLAN |
| 49 | SD112 | OUTFALL APRON OVERLAY PLAN |
| 50 | SD301 | PROPOSED CUTOFF WALL CONFIGURATIONS |
| 51 | SD302 | JET GROUT AND DEEP SOIL MIX CUTOFF WALL ELEVATION |
| 52 | SD501 | OUTFALL APRON SECTIONS AND DETAILS |
| 54 | SS211 | COARSE SCREEN CHAMBER REPAIR OPTIONS |
| 55 | SS212 | SERVICE SPILLWAY REPAIRS AND UPGRADES |
| 56 | SS301 | SECTION THROUGH OGEE |
| 57 | SS302 | SOUTH APPROACH AND TRAINING WALL ELEVATIONS |
| 58 | SS303 | NORTH APPROACH AND TRAINING WALL ELEVATIONS |
| 59 | SC101 | COFFERDAM OVERALL PLAN |
| 60 | SC201 | COFFERDAM ELEVATIONS |
| 61 | SC301 | COFFERDAM SECTIONS |
| 62 | SC401 | ENLARGED PLAN AT NORTH APPROACH WALL |
| 63 | SC402 | ENLARGED PLAN AT SOUTH APPROACH WALL |
| 64 | SC403 | ENLARGED PLANS |
| 65 | SC501 | COFFERDAM DETAILS - 1 OF 2 |
| 66 | SC502 | COFFERDAM DETAILS - 2 OF 2 |




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4000 MEADOW LAKE DRIVE, SUITE 121
BIRMINGHAM, AL 35242
JOSEPH MARLON THOMAS P.E. NO. 90746

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 32 | CD101 | VOID FILLING PLAN |




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5015 S. FLORIDA AVENUE, STE 301
LAKELAND, FLORIDA 33813
TIMOTHY J. KELLY P.E. NO. 44721

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 37 | CR101 | TEST SECTION, LAYBY, AND TURNAROUND LOCATION MAP |
| 38 | CR401 | UNIFORM SECTION MAT TEST SECTION |
| 39 | CR402 | CONCRETE SLOPE PAVEMENT TEST SECTION |
| 40 | CR403 | SPOT REPAIR TEST SECTION |
| 41 | CR404 | FULL DEPTH SOIL CEMENT RECLAMATION TEST SECTION |
| 42 | CR405 | SPOT REPAIR AT END OF FLUME |
| 43 | CR501 | DETAILS |




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PENN PRO ENGINEERING
2830 PARKWAY STREET
LAKELAND, FL 33811
ERIC R. ENCARNACION P.E. NO. 85701

| SHEET NO | DRAWING NO. | SHEET DESCRIPTION |
|---|---|---|
| 2 | G-001A | REGISTERED PROFESSIONAL SIGNATURES |
| 67 | ILD-001 | GATE INSTRUMENTATION LOOP AND WIRING DIAGRAM |
| 68 | ES-001 | GATE HOIST NO. 1 ELECTRICAL LADDER DIAGRAM |
| 69 | ES-002 | GATE HOIST NO. 2 ELECTRICAL LADDER DIAGRAM |
| 70 | ES-003 | GATE HOIST NO. 3 ELECTRICAL LADDER DIAGRAM |
| 71 | ES-004 | GATE HORN ELECTRICAL LADDER DIAGRAM |
| 72 | IED-001 | DAM INSTRUMENTATION NOTES AND ELEVATION |
| 73 | IED-002 | DAM INSTRUMENTATION NOTES AND ELEVATION |
| 74 | IED-003 | INCLINOMETER WIRING DIAGRAM |
| 75 | M-101 | MECHANICAL PLAN AND SECTION |

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|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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APPROVED FOR _____

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE
ISSUED FOR BID

PROJECT NO.
300472x4

SCALE
AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE
LAKE MANATEE DAM

SUBJECT
REGISTERED PROFESSIONAL SIGNATURES

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
G-001A

REV
D

CAD FILE: W:\CAD\CIVIL\G-001 COVER SHEET.DWG

SAVED: 02-Aug-21 1:50 PM PLOTTED: 02-Aug-21 1:58 PM USER: LORENZ, MAX J

ANSI D 22X34

8 7 6 5 4 3 2 1

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| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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PROJECT NO.

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|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

SUBJECT: GENERAL LOCATION MAP

PHASE II REPAIRS TO THE LAKE MANATEE DAM

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: G-002 | REV: D

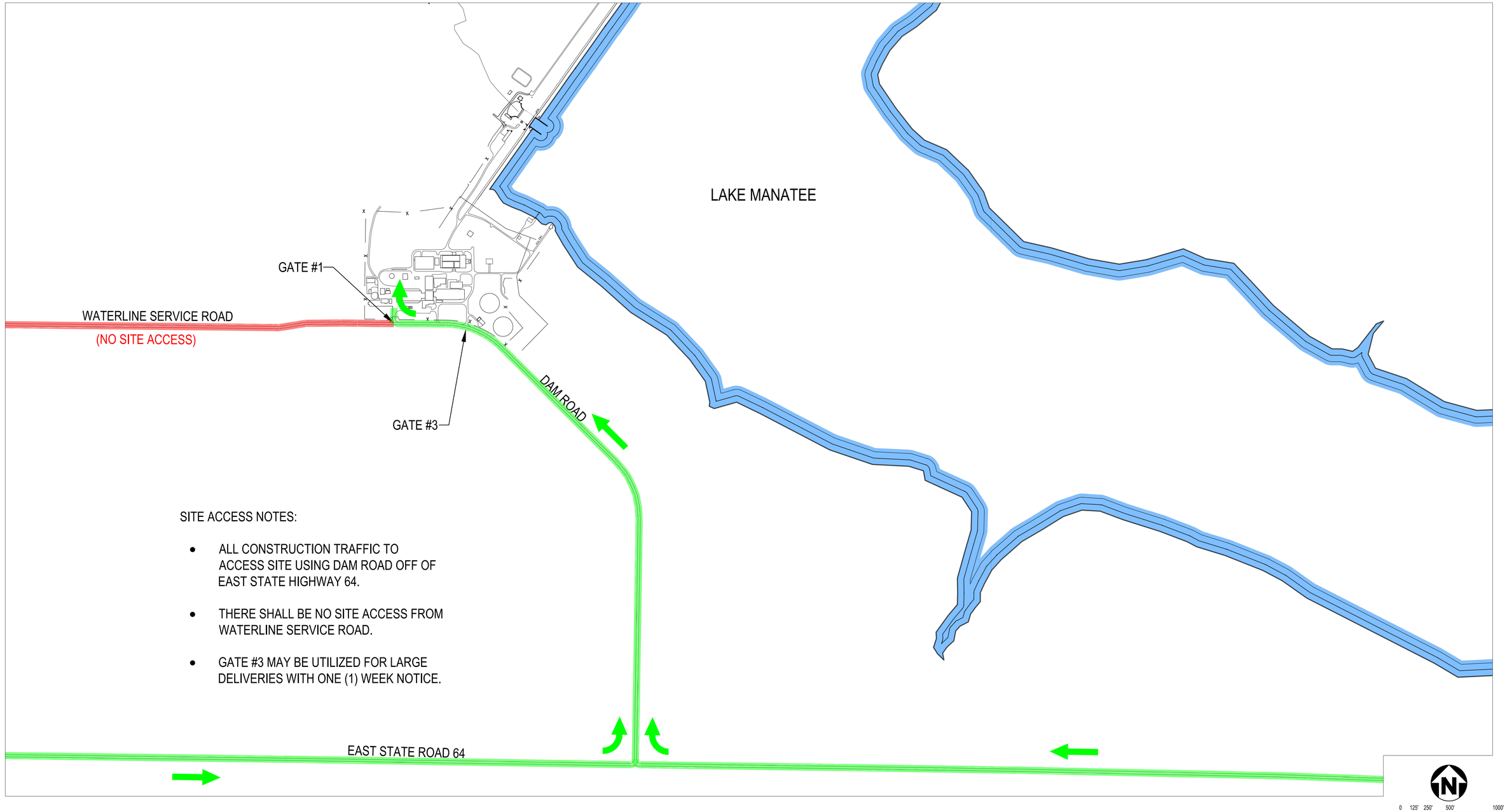
CAD FILE: W:\CAD\CIVIL\GENERAL LOCATION MAP.DWG

SAVED: 13-Jul-21 12:26 PM PLOTTED: 02-Aug-21 1:59 PM USER: LORENZ, MAX J

ANSI D-22X34

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

| REF | NUMBER | TITLE |
|---|---|---|
| REFERENCES | | |

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APPROVED FOR _____

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: CONSTRUCTION ACCESS PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

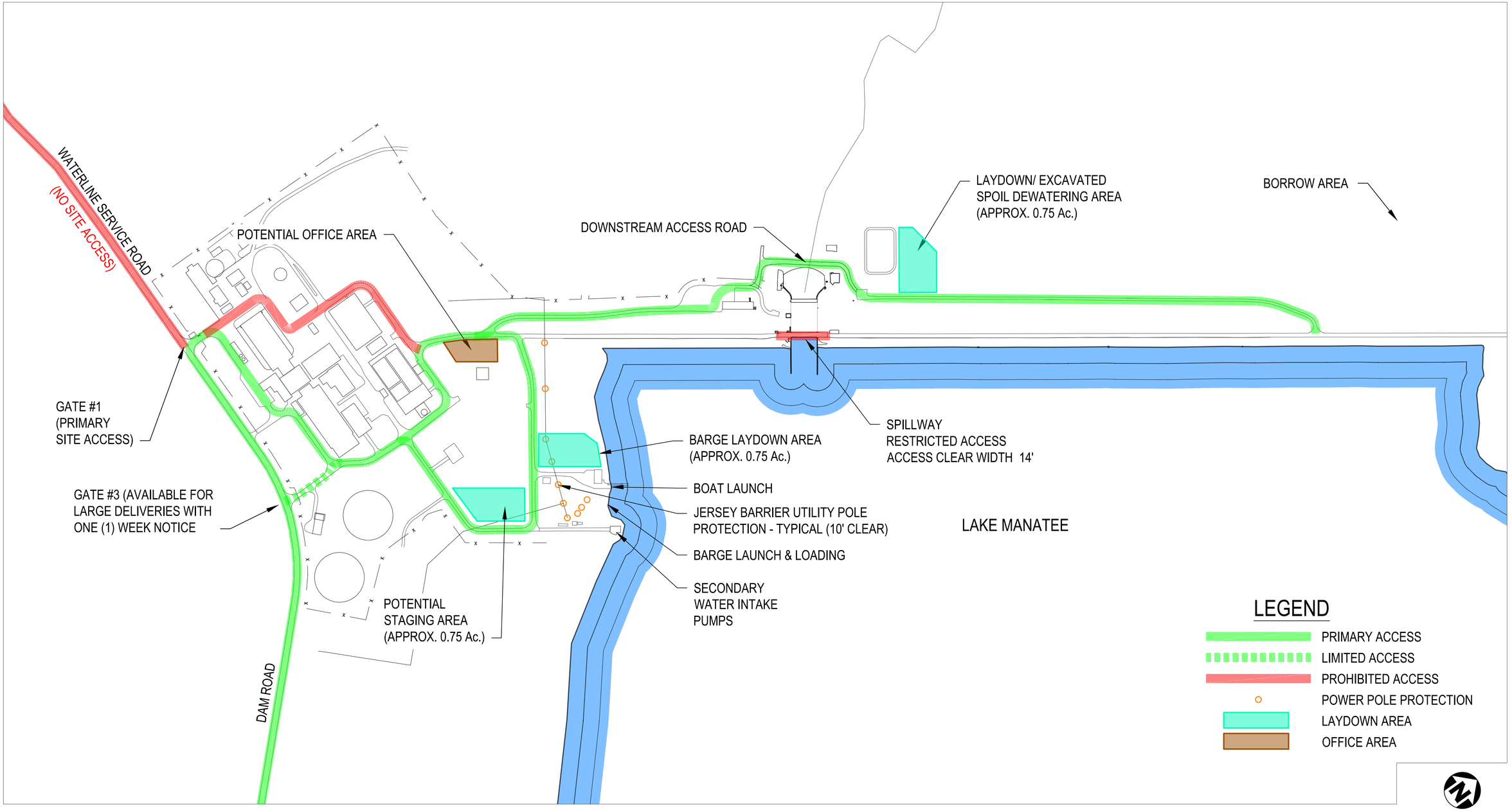
DRAWING NO.: G-003

REV: D

CAD FILE: W:\CAD\DWGS-003 CONSTRUCTION ACCESS PLAN.DWG

SAVED: 13-Jul-21 12:36 PM PLOTTED: 02-Aug-21 2:00 PM USER: LORENZ, MAX J

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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APPROVED FOR _____

A. ROSENSTEIN, CLIENT PROJECT MGR | G. ANDERSEN, TECHNICAL MGR | D. BUTCHER, PROJECT MGR

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

SUBJECT: ON-SITE ACCESS PLAN

PHASE II REPAIRS TO THE LAKE MANATEE DAM

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: G-004 | REV: D

SAVED: 13-Jul-21 12:37 PM PLOTTED: 02-Aug-21 2:00 PM USER: LORENZ, MAX J

CAD FILE: W:\CAD\CIVIL\G04 ON-SITE ACCESS PLAN.DWG

ANSI D 22X34

24-HOUR CONTACT:

Albert Rosenstein, PE, CPM

Project Engineer II

Manatee County Public Works

941-708-7450 EXT 7219 - Office

941-281-5573 - Mobile

albert.rosenstein@mymanatee.org

24-HOUR SECURITY CONTACT:

SCOPE OF WORK

1. PROVIDE ALL NECESSARY EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM PHASE II REPAIRS TO THE LAKE MANATEE DAM LOCATED IN MANATEE COUNTY, FLORIDA.
2. THE SCOPE OF WORK INDICATED ON THESE DRAWINGS GENERALLY INCLUDES VOID FILLING, UPSTREAM AND DOWNSTREAM REPAIRS, MECHANICAL UPGRADES AND MISCELLANEOUS SITE IMPROVEMENTS IN GENERAL ACCORDANCE WITH THE ATTACHED DOCUMENTS. THESE DOCUMENTS ARE BASED ON PRELIMINARY SITE OBSERVATIONS PERFORMED BY WOOD ENVIRONMENTAL & INFRASTRUCTURE, INC., (WOOD PLC) AND INFORMATION OBTAINED FROM THE ORIGINAL DESIGN DRAWINGS PROVIDED BY OUR CLIENT. THESE DRAWINGS ARE TO BE USED AS GENERAL GUIDELINES TO ACCOMPLISH THE NECESSARY WORK. ITEMS REQUIRING ADDITIONAL INPUT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF ANY RELATED WORK.

MOBILIZATION

100 PRE-MOBILIZATION ACTIVITIES (CONSTRUCTION SUBMITTALS….)
200 UTILITY LOCATES
300 LAYDOWN AND SETUP
400 OFFICE SET-UP, MAINTENANCE AND OPERATION
500 EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES
600 TEMPORARY DOWNSTREAM ACCESS ROAD
700 TEMPORARY BOAT/BARGE DOCK
800 GENERAL CONDITIONS
900 PERMITS, BONDING, ETC.

VOID FILLING (NICHOLSON)

100 DEMONSTRATION PROJECT
200 PRODUCTION

DOWNSTREAM CHANNEL REPAIRS

100 SITE PREPARATION (RIP RAP REMOVAL, EXCAVATION, ENGINEERED FILL)
200 EXISTING APRON SLAB PREPARATION
300 REINFORCEMENT, MISC METALS, EXPANSION JOINTS, SEALANT AND WATERSTOP
400 FORM, POUR AND CURE DOWNSTREAM CONCRETE APRON OVERLAY
500 CAST-IN-PLACE CONCRETE STAIRS
600 CONCRETE STILLING BASIN REPAIRS (SKIM COAT ON ENDSILL)
700 TRAINING WALL REPAIRS
800 DEMOLITION AND ABANDONMENT OF MISCELLANEOUS METALS AND DRAINS
900 OGEE REPAIRS (DOWNSTREAM AND UPSTREAM)

DOWNSTREAM PRESSURE RELIEF SYSTEM

100 VERTICAL RELIEF WELLS
200 END SILL RELIEF WELLS

ENCASE SPILLWAY WITH SEEPAGE BARRIER

100 CONSTRUCTION GRADING
200 SHEET PILING INCLUDING CONCRETE CAP AND HANDRAIL INSTALLATION
300 DEEP SOIL MIXING (TEST SECTIONS, FINAL DESIGN APPROVAL, F&I)
400 JET GROUTING (TEST SECTIONS, FINAL DESIGN APPROVAL, F&I)
500 CONCRETE SLAB ON GRADE INSTALLATION
600 FINAL GRADING AND RESTORATION

APPROACH CHANNEL REPAIRS

100 INSTALLATION OF COMBI-WALL NORTH AND SOUTH EMBANKMENTS
200 COMPLETE DEMOLITION AND REMOVAL OF SLOPE PAVING AND SOLDIER PILE WALL AND LAGGING
300 REMOVAL, ABANDONMENT AND GROUTING OF MONITORING WELLS AND DRAINS
400 CONSTRUCTION EXCAVATION AND FINAL GRADING AT THE NORTH AND SOUTH EMBANKMENTS AND APPROACH CHANNEL INCLUDING REMOVAL OF STEEL DEBRIS, JET GROUT SPOILS, ORGANICS AND OTHER DEBRIS WITHIN THE APPROACH CHANNEL AND AROUND THE APPROACH CHANNEL WALLS
500 REMOVAL OF GROUT SPOILS FROM APPROACH SLAB
600 INSTALL SHEET PILE AND COMBI WALL SYSTEM WITH STRUCTURAL BRACING
700 INSTALL DEWATERING WELLS AND GROUT PLUG AT APPROACH SLAB
800 PARTIAL DEWATER OF APPROACH SLAB AND APPROACH CHANNEL AREA. CONTRACTOR MAY FULLY DEWATER AT THEIR DISCRETION.
900 FULLY DEWATER FOR PRE-CONSTRUCTION INSPECTION
1000 COMPLETE APPROACH SLAB REPAIRS
1100 COMPLETE APPROACH WALL REPAIRS
1200 FULLY DEWATER FOR APPROACH SLAB REPAIRS INSPECTION
1300 FLOOD CONTAINMENT AREA AND CUT SHEET PILE ON APPROACH CHANNEL
1400 INSTALL SECONDARY SEAL ON APPROACH CHANNEL.
1500 CUT COMBI-WALL AT NORTH AND SOUTH ABUTMENTS AND RESTORE GRADE AND SLOPE PAVING
1600 CUT COMBI WALL AND INSTALL CONCRETE CAP AT APPROACH SLAB
1700 INSTALL RIPRAP TO FINAL GRADE
1800 PLACEMENT OF WATERTIGHT SLAB ON GRADE
1900 INSTALL HANDRAIL

STOPLOG GUIDE AND TAINTER GATE REHABILITATION

100 STOPLOG GUIDE REPAIRS
200 TAINTER GATE REPAIRS
300 THRESHOLD REPLACEMENT
400 COURSE SCREEN CHAMBER - CONCRETE REPAIRS
500 COURSE SCREEN CHAMBER MISCELLANEOUS METAL REMOVAL/REFURBISHMENT/COATING
600 48" PIPE INSPECTION

UPSTREAM SOIL CEMENT REFURBISHMENT

100 UNIFORM SECTION MAT TEST SECTION
200 CONCRETE SLOPE PAVEMENT TEST SECTION
300 SPOT REPAIR TEST SECTION
400 FULL DEPTH SOIL CEMENT TEST SECTION
500 SPOT REPAIR AT END OF FLUME

MECHANICAL UPGRADES

100 REPLACE ELECTRIC MOTORS
200 REPLACE GEAR BOXES
300 REPLACE INSTRUMENTATION AND CONTROLS

MISCELLANEOUS IMPROVEMENTS

100 LAYBYS
200 CONCRETE DECK REPAIRS
300 NEW DECK PAINT: SAND BLAST, REMOVE RUST, PRIMER AND PAINT
400 ADD SAFETY LADDERS
500 ADD/REPLACE HANDRAILS
600 SKIM COAT OVER PIERS
700 BOAT LAUNCH IMPROVEMENTS
800 BRIDGE REPAIRS

DEMOBILIZATION

100 FULL DEPTH ASPHALT MILLING AND ASPHALT PAVEMENT
200 PUNCHLIST INSPECTION
300 RESTORATION OF LAYDOWNS
400 FINAL CLEANUP
500 CLOSEOUT MANUALS / SUBMITTALS
600 RED-LINE CONSTRUCTION DRAWINGS
700 BORROW AREA RECLAMATION

Work not identified or described shall be completed in accordance with best industry standards.

GENERAL NOTES

3. ALL MATERIAL AND WORK SHALL CONFORM TO THE FLORIDA BUILDING CODE.
4. ALL WORK SHALL BE IN BASED ON THESE DRAWINGS AND SPECIFICATIONS (PROOF OF CONCEPT ONLY), ALL TO THE SATISFACTION OF THE ENGINEER AND OWNER. CONTRACTOR SHALL MAKE ENGINEER AND OWNER AWARE OF DISCREPANCIES BETWEEN PLANS AND/OR SPECIFICATIONS UPON DISCOVERY, IN WRITING.
5. ALL PERSONNEL INVOLVED SHALL FOLLOW THE REQUIREMENTS FOR EXCAVATION IN THE STATE OF FLORIDA.
6. HORIZONTAL COORDINATES ARE BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD83).
7. ELEVATIONS ARE BASED UPON NORTH GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
8. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS EXCEPT FOR SPECIFIED PERMITS SECURED BY MANATEE COUNTY OR THE ENGINEER.
9. CONTRACTOR SHALL KEEP PERMITS ON-SITE AND COMPLY WITH ALL PROVISIONS OF THE PERMITS AND PROVIDE A COPY TO THE ENGINEER AND OWNER PRIOR TO BEGINNING WORK. CONTRACTOR SHALL ARRANGE AND SCHEDULE ALL INSPECTIONS AND OBTAIN PERMIT APPROVALS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMIT RELATED INSPECTIONS.
11. CONTRACTOR SHALL HAVE COPIES OF THE PLANS, SPECIFICATIONS, AND PERMITS FOR THIS PROJECT ON THE SITE AT ALL TIMES, AND THEY SHALL BE FAMILIAR WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.
12. ALL WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND ORDINANCES.
13. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS AND COMPARE ALL PLANS FOR CONFORMANCE AS TO THE LAYOUT OF DIMENSIONS AND ELEVATIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES FOR CORRECTIVE ACTION PRIOR TO PROCEEDING WITH WORK.
14. ENGINEER SHALL BE NOTIFIED OF ANY UNANTICIPATED CONDITIONS THAT ARE ENCOUNTERED AND WILL DETERMINE WHETHER DESIGN CHANGES WILL BE REQUIRED.
15. CONTRACTOR SHALL SEQUENCE, COORDINATE, AND CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS SUCH AS TO MAINTAIN CONTINUOUS PUBLIC SAFETY, DRAINAGE, AND UTILITY SERVICES TO EXISTING FACILITIES REQUIRING THESE SERVICES. NOTIFY ENGINEER AND OWNER AT LEAST SEVEN (7) DAYS, WHEN FEASIBLE, UNLESS OTHERWISE APPROVED, IN ADVANCED OF INTERRUPTION OF ANY OF THESE SERVICES.

SAFETY NOTES

16. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE WITHIN LIMITS OF WORK AT ALL TIMES IN CONFORMANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
17. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT SHALL BE WORN IN ACCORDANCE WITH THE PROJECT APPROVED HEALTH AND SAFETY PLAN.
18. CONTRACTOR SHALL SUBMIT A PROJECT SPECIFIC HEALTH AND SAFETY PLAN FOR REVIEW BY THE ENGINEER AND MANATEE COUNTY.
19. CONTRACTOR SHALL SUBMIT A PROJECT DIVE PLAN FOR REVIEW BY THE ENGINEER AND MANATEE COUNTY.

DAM SAFETY OPERATIONS

20. DAM SAFETY SHALL NOT BE COMPRISED DURING CONSTRUCTION.
21. CONTRACTOR SHALL COORDINATE MANAGEMENT OF ALL DAM ACTIVITIES WITH THE OWNER.
22. CONTRACTOR IS MADE AWARE THAT THE OWNER RESERVES THE RIGHT TO TAKE POSSESSION OF THE DAM AND COORDINATE DAM OPERATIONS ACTIVITIES DURING CONSTRUCTION.

UTILITY NOTES

23. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH SUCH WHICH MAY RESULT IN INJURY TO PERSONNEL OR DAMAGE TO FACILITIES. THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF CONTRACTOR.THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES PRIOR TO CONSTRUCTION AS NEEDED.
24. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR COST OF REPAIRS FOR ANY DAMAGES CAUSED DURING CONSTRUCTION ACTIVITIES.
25. NO CONNECTION SHALL BE MADE TO ANY WATER MAIN, STORM DRAIN, ELECTRICAL SOURCE OR ANY OTHER UTILITY SYSTEM WITHOUT PRIOR APPROVAL FROM THE UTILITY AGENCY, THE ENGINEER, AND THE SITE ENGINEER/MANAGER OR THEIR DESIGNEE.
26. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (811) A MINIMUM OF 2 FULL BUSINESS DAYS PRIOR TO ANY WORK AND PROVIDE A COPY TO THE OWNER AND ENGINEER.
27. PRIOR TO ANY EXCAVATION IN THE VICINITY OF ANY EXISTING UNDERGROUND FACILITIES, INCLUDING ALL WATER, SEWER, STORM DRAIN, GAS, OR OTHER PIPELINES; ALL BURIED ELECTRICAL POWER, COMMUNICATIONS, OR TELEVISION CABLES; ALL TRAFFIC SIGNAL AND STREET LIGHTING FACILITIES; ALL ROADWAY, STATE HIGHWAY, AND RAILROAD RIGHTS-OF-WAY; THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE AUTHORITIES REPRESENTING THE OWNERS OR AGENCIES RESPONSIBLE FOR SUCH FACILITIES NOT LESS THAN 3 DAYS OR MORE THAN 7 DAYS PRIOR TO EXCAVATION SO THAT A REPRESENTATIVE OF SAID OWNERS OR AGENCIES CAN BE PRESENT DURING SUCH WORK IF THEY SO DESIRE.
28. OVERHEAD ELECTRICAL LINES: CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND MAINTAINING SAFE CLEARANCES FROM OVERHEAD ELECTRICAL LINES AT ALL TIMES AND, WHERE HAZARDOUS CONDITIONS EXIST, FOR TAKING THE NECESSARY PRECAUTIONS AGAINST INJURY AND DAMAGE.

STORMWATER, EROSION AND SEDIMENTATION NOTES

29. STORMWATER POLLUTION CONTROLS SHALL BE IMPLEMENTED TO MINIMIZE RUNOFF OF SEDIMENT IN STORM WATER IN COMPLIANCE WITH THE STATE OF FLORIDA NPDES PERMIT.
30. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE "FLORIDA EROSION AND SEIDMENT CONTROL MANAUAL" THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
31. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED.
32. ALL EROSION CONTROL DEVICES AND BMPS SHALL BE MAINTAINED AND PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION IN CONFORMANCE WITH THE NPDES PERMIT. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
33. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
34. FUEL THAT MAY BE KEPT ONSITE DURING CONSTRUCTION WILL BE STORED IN SUCH A MANNER THAT PREVENTS ACCIDENTAL SPILLS FROM IMPACTING STORM WATER. ANY STORM DRAIN INLETS WHERE FUEL MAY MOBILIZE SHALL BE PROTECTED USING HYDROCARBON SOCKS SECURED USING SANDBAGS.
35. STOCKPILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER, CONTRACTOR, AND A SITE REPRESENTATIVE PRIOR TO CONSTRUCTION. WHEN EARTHWORK ACTIVITIES OCCUR, DUST CONTROL MEASURES SHALL BE IMPLEMENTED TO MINIMIZE DUST GENERATION.
36. THE GRADING OPERATION SHALL TAKE PLACE AT A TIME AND IN A MANNER AS TO NOT ALLOW EROSION AND SEDIMENTATION. THE SLOPES SHALL BE LANDSCAPED AND HYDROSEEDED AS SOON AS POSSIBLE AFTER THE GRADING OPERATION CEASES. EROSION MEASURES SHALL BE IMPLEMENTED DURING ALL CONSTRUCTION PHASES IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN.
37. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL AT ALL TIMES, INCLUDING WEEKENDS, BREAKS IN CONSTRUCTION, AND DURING WORK ON ALL ACCESS ROADS, STOCKPILES, AND DISTURBED AREAS.

DEMOLITION NOTES

38. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING PERFORMANCE OF WORK, CONTRACTOR SHALL CONSULT THE UTILITY OWNER AND ENGINEER IMMEDIATELY FOR DIRECTION. CONTRACTOR SHALL COOPERATE WITH THE SITE REPRESENTATIVE AND UTILITY COMPANIES IN KEEPING RESPECTIVE FACILITIES IN OPERATION. CONTRACTOR SHALL REPAIR DAMAGED UTILITIES TO SATISFACTION OF THE UTILITY OWNER, SITE REPRESENTATIVE, AND THE COUNTY.
39. CONTRACTOR SHALL MANAGE ALL DEMOLITION WASTES IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND REQUIREMENTS.

GRADING AND EARTHWORK NOTES

40. ALL OF THE GRADING PROCEDURES, RECOMMENDATIONS, AND SPECIFICATIONS THAT ARE INDICATED ON THE "GEOTECHNICAL EVALUATION REPORT FOR PHASE 2 REPAIRS, LAKE MANATEE DAM" PROJECT NO. 300472x4, DATED JULY 2021, PREPARED BY WOOD.
41. THE USE OF CONSTRUCTION EQUIPMENT SHALL BE RESTRICTED TO WEEKDAYS BETWEEN THE HOURS OF 7:00 AM AND 7:00 PM OR AS APPROVED IN WRITING BY THE COUNTY.
42. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AIRBORNE DUST NUISANCE FROM THE CONSTRUCTION SITE BY WATERING AND/OR TREATING THE SITE IN SUCH A MANNER TO CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF WORK.
43. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SITE OR SURROUNDING AREA DUE TO DUST OR EROSION RESULTING FROM THE WORK DONE BY THE CONTRACTOR.
44. IF THERE IS ANY EXPORT OR IMPORT OF EARTHWORK, THE LOCATION WHERE SOIL IS TAKEN TO OR FROM IS SUBJECT TO THE COUNTY APPROVAL. NO GRADING PERMIT WILL BE ISSUED UNTIL THE COUNTY APPROVES THE SOIL IMPORTATION.
45. EXCAVATION, BACKFILL, AND GRADING SHALL BE PERFORMED IN COMPLIANCE WITH THE LINES AND GRADES SHOWN ON THE DRAWINGS. ALL DISTURBED, LOOSE, DESICCATED, SLAKED, OVERLY WET SOIL, DEBRIS ORGANIC MATERIAL, AND ANY OTHER UNDESIRABLE SOIL SHALL BE REMOVED. ADDITIONAL REMOVAL MAY BE REQUIRED IF LOOSE OR SOFT MATERIAL OR UNDOCUMENTED FILL IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATION.
46. ALL EXCAVATIONS, TEMPORARY CUT SLOPES, AND TEMPORARY SHORING SHALL ALSO COMPLY WITH FLORIDA OSHA STANDARDS FOR TRENCHING AND SHORING.
47. FOLLOWING SITE STRIPPING AND OVEREXCAVATION, THE SUBGRADE SHALL BE INSPECTED, PROBED AND TESTED BY A REPRESENTATIVE OF THE ENGINEER. PROOF ROLLING SHALL NOT PROCEED UNTIL THE ENGINEER HAS APPROVED THE SUBGRADE IN WRITING, AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.
48. AREAS TO RECEIVE FILL SHALL BE CLEARED AND STRIPPED OF ALL DEBRIS, DELETERIOUS MATERIAL, ORGANIC AND/OR VEGETATION, AND REMNANTS RESULTING FROM DEMOLITION OF EXISTING PAVEMENTS.
49. ALL FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES LOOSE DEPTH AND COMPACTED TO 95% OF THE MAXIMUM DRY DENISTY IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D1557.
50. TRENCHING AND BACKFILL MATERIAL WHICH DOES NOT MEET THE SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.
51. EACH LAYER OF EARTH FILL SHALL BE COMPACTED BY APPROVED METHODS PER THE PROJECT SPECIFICATIONS AND RECOMMENDATIONS OF THE GEOTECHNICAL REPORT
52. ALL FILL SHALL BE COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D1557.

BRIDGE DECK

53. WEIGHT RESTRICTIONS ARE INCLUDED IN THE SUPPLEMENTAL CONDITIONS

LAYDOWN AREAS

54. LAYDOWN AREAS HAVE BEEN DESIGNATED BY THE OWNER FOR THIS PROJECT. SHOULD THE CONTRACTOR REQUIRE ADDITIONAL AREAS TO BE USED DURING CONSTRUCTION, REQUESTS SHOULD BE MADE THROUGH THE OWNER'S SITE REPRESENTATIVE.
55. OWNER SHALL NOT BE RESPONSIBLE FOR THE SECURITY NOR THE SAFETY OF THESE AREAS.
56. CONTRACTOR SHALL PROTECT ALL WETLANDS AND ASSOCIATED BUFFERS IN ACCORDANCE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.

DOCK FACILITIES

57. COUNTY WILL PROVIDE ACCESS TO THE EXISTING DOCK FOR THE CONTRACTOR'S USE THROUGHOUT THE PROJECT SUBJECT TO THE FOLLOWING RESTRICTIONS:
58. CONTRACTOR RESPONSIBLE FOR PROVIDING ALL ADDITIONAL FACILITIES ASSOCIATED WITH WATER ACCESS AT NO ADDITIONAL COST TO THE OWNER
59. ADDITIONAL ACCESS REQUIREMENTS OR FACILITIES SHALL BE REQUESTED DURING OR PRIOR TO THE PRECONSTRUCTION KICKOFF MEETING
60. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS NOT OTHERWISE SUPPLIED BY OWNER FOR THE INSTALLATION OF TEMPORARY DOCK OR RAMP ACCESS FACILITIES DEEMED NECESSARY TO PERFORM CONSTRUCTION SERVICES
61. COUNTY DOCK CAN ONLY BE USED FOR TRANSPORTATION OF PERSONNEL AND HAND-PORTABLE EQUIPMENT
62. COUNTY DOCK WILL BE USED BY THE OWNER ON A DAILY BASIS AND CONTRACTOR MUST COORDINATE ALL USE WITH THE OWNER
63. CONTRACTOR SHALL NOT USE THE RESERVOIR FOR ANY RECREATIONAL ACTIVITIES

ENVIRONMENT

64. CONTRACTOR SHALL FOLLOW ALL BEST MANAGEMENT PRACTICES FOR SESC CONTROL AND ALL APPLICABLE PERMITS
65. CONTRACTOR IS MADE AWARE THAT THERE ARE DANGEROUS SPECIES PRESENT IN THE WORK AREA
66. CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ENDANGERED SPECIES IN ACCORDANCE WITH FDEP REQUIREMENTS
67. LEAST TERNS USE THE UPSTREAM SLOPE OF THE DAM AS A NESTING AREA
68. BALD EAGLES ARE COMMON TO THIS AREA

FEDERALLY LISTED SPECIES IN MANATEE COUNTY, FLORIDA

THE FOLLOWING TABLE LISTS THOSE FEDERALLY-LISTED SPECIES KNOWN TO BE PRESENT IN THE COUNTY.

CODE KEY: E = ENDANGERED, T = THREATENED, CH = CRITICAL HABITAT DESIGNATED, C = CANDIDATE NOTE 1

| CATEGORY | SPECIES COMMON NAME | SPECIES SCIENTIFIC NAME | CODE |
|---|---|---|---|
| MAMMALS | WEST INDIAN (FLORIDA) MANATEE | TRICHECHUS MANATUS LATIROSTRIS | E/CH |
| BIRDS | AUDUBON'S CRESTED CARACARA | POLYBORUS PLANCU AUDUBONII | T |
| | PIPING PLOVER | CHARADRIUS MELODUS | T |
| | FLORIDA SCRUB-JAY | APHELOCOMA COERULUSCENS | T |
| | WOOD STORK | MYCTERIA AMERICANA | E |
| | RED-COCKADED WOODPECKER | PICOIDES BOREALIS | E |
| FISH | GULF STURGEON | ACIPENSER OXYRHYNCHUS DESOTOI | T |
| REPTILES | GOPHER TORTOISE | GOPHERUS POLYPHEMUS | C |
| | EASTERN INDIGO SNAKE | DYMARCHON CORAIS COUPERI | T |
| PLANTS | FLORIDA PERFORATE CLADONIA | CLADONIA PERFORATA | E |

PROTECTION OF EXISTING STRUCTURES

69. CONTRACTOR SHALL PROTECT EMBANKMENTS ON BOTH SIDES OF THE DAM
70. CONTRACTOR SHALL PROTECT ALL LAKE MANATEE FACILITIES AND STRUCTURAL COMPONENTS INCLUDING BUT NOT LIMITED TO: APPROACH WALLS, TRAINING WALLS, OGEE SECTION, FRESHWATER INTAKE STRUCTURES, PUMP HOUSE, PRODUCT SILOS, AND ASSOCIATED APPURTENANCES, ETC.
71. CONTRACTOR IS MADE AWARE THAT LAKE MANATEE IS AN IMPORTANT POTABLE WATER SOURCE FOR THE MANATEE COUNTY AND ITS PROVIDERS. THE PRIMARY INTAKE STRUCTURE (INTAKE 1) ASSOCIATED WITH SUPPLYING WATER TO THE WATER TREATMENT PLANT WILL BE OFFLINE DURING CONSTRUCTION. THE SECONDARY INTAKE STRUCTURE (INTAKE 2) WILL BE USED BY THE COUNTY DURING CONSTRUCTION ACTIVITIES. CONTRACTOR IS MADE AWARE THAT INTAKE 2 SHALL NOT BE DISTURBED AT ANY TIME DURING CONSTRUCTION. CONTRACTOR SHALL INSTALL ALL NECESSARY MEASURES TO PROTECT INTAKE 2 AND ITS ABILITY TO PROVIDE WATER TO THE WATER TREATMENT PLANT.

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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: GENERAL NOTES

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

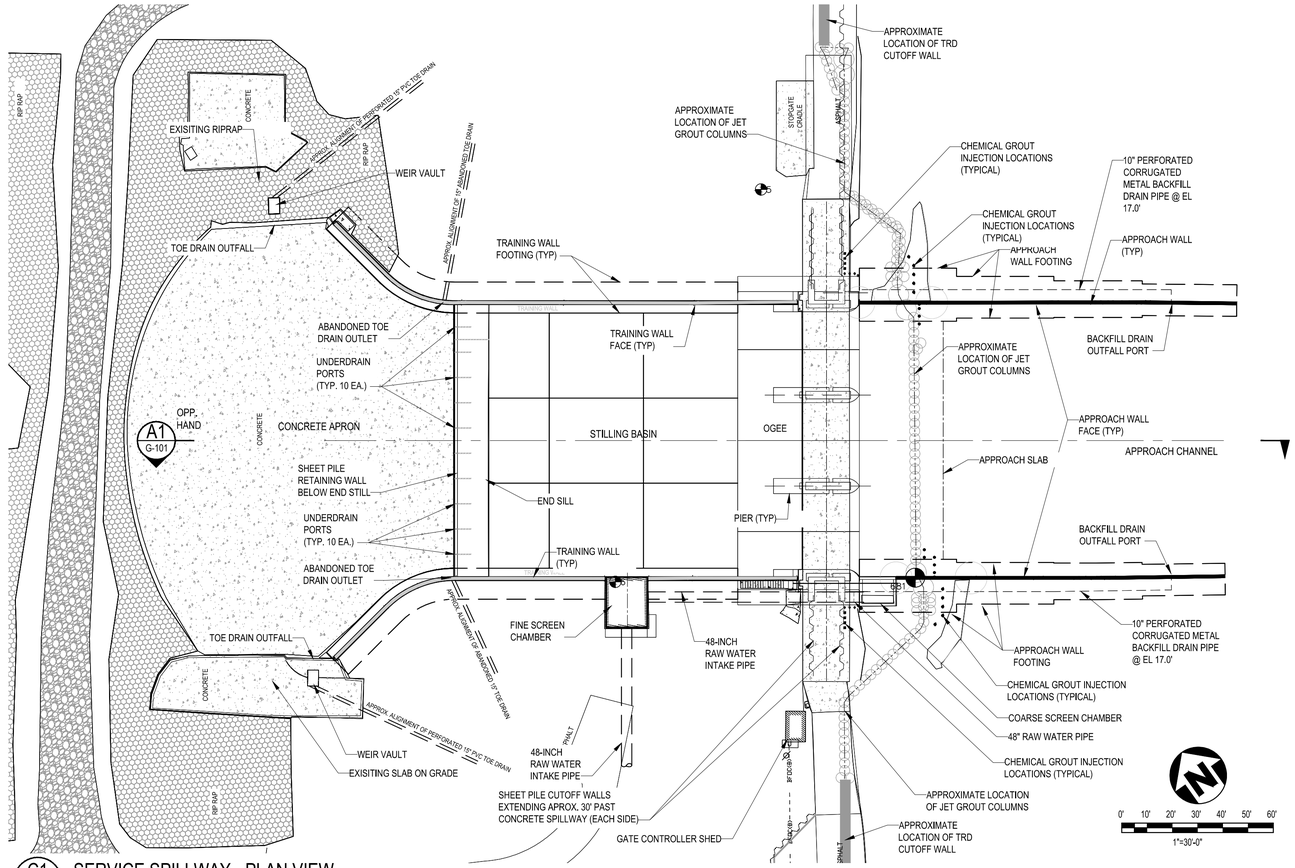
DRAWING NO. G-005 | REV D

CAD FILE: W:\CAD\CIVIL\G-005 GENERAL NOTES.DWG

SAVED: 13-Jul-21 12:37 PM PLOTTED: 02-Aug-21 2:00 PM USER: LORENZ, MAX J

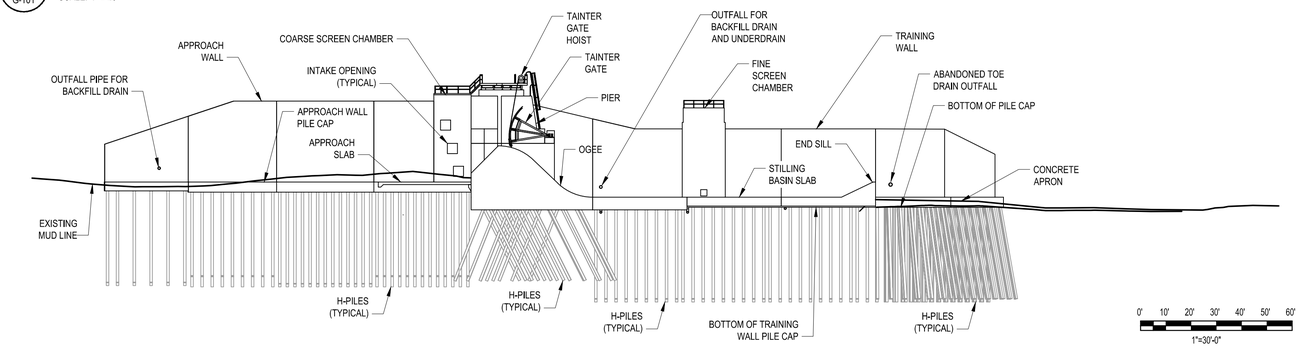
ANSI D 22X34

8 7 6 5 4 3 2 1



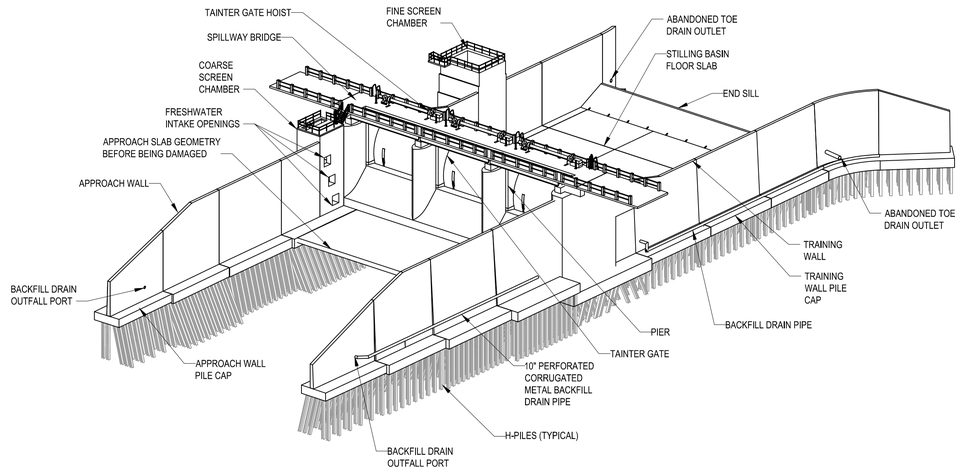

C1 G-101 SERVICE SPILLWAY - PLAN VIEW

SCALE: 1" = 40'



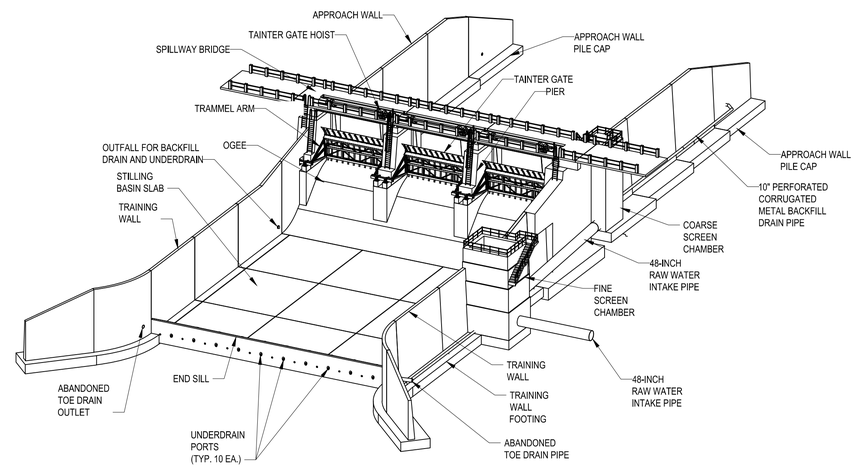

A1 G-101 SERVICE SPILLWAY - LONGITUDINAL SECTION

SCALE: 1" = 40'




D4 G-101 SERVICE SPILLWAY - UPSTREAM VIEW

SCALE: N.T.S.




A4 G-101 SERVICE SPILLWAY - DOWNSTREAM VIEW

SCALE: N.T.S.

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: LAKE MANATEE DAM – SERVICE SPILLWAY COMPONENTS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

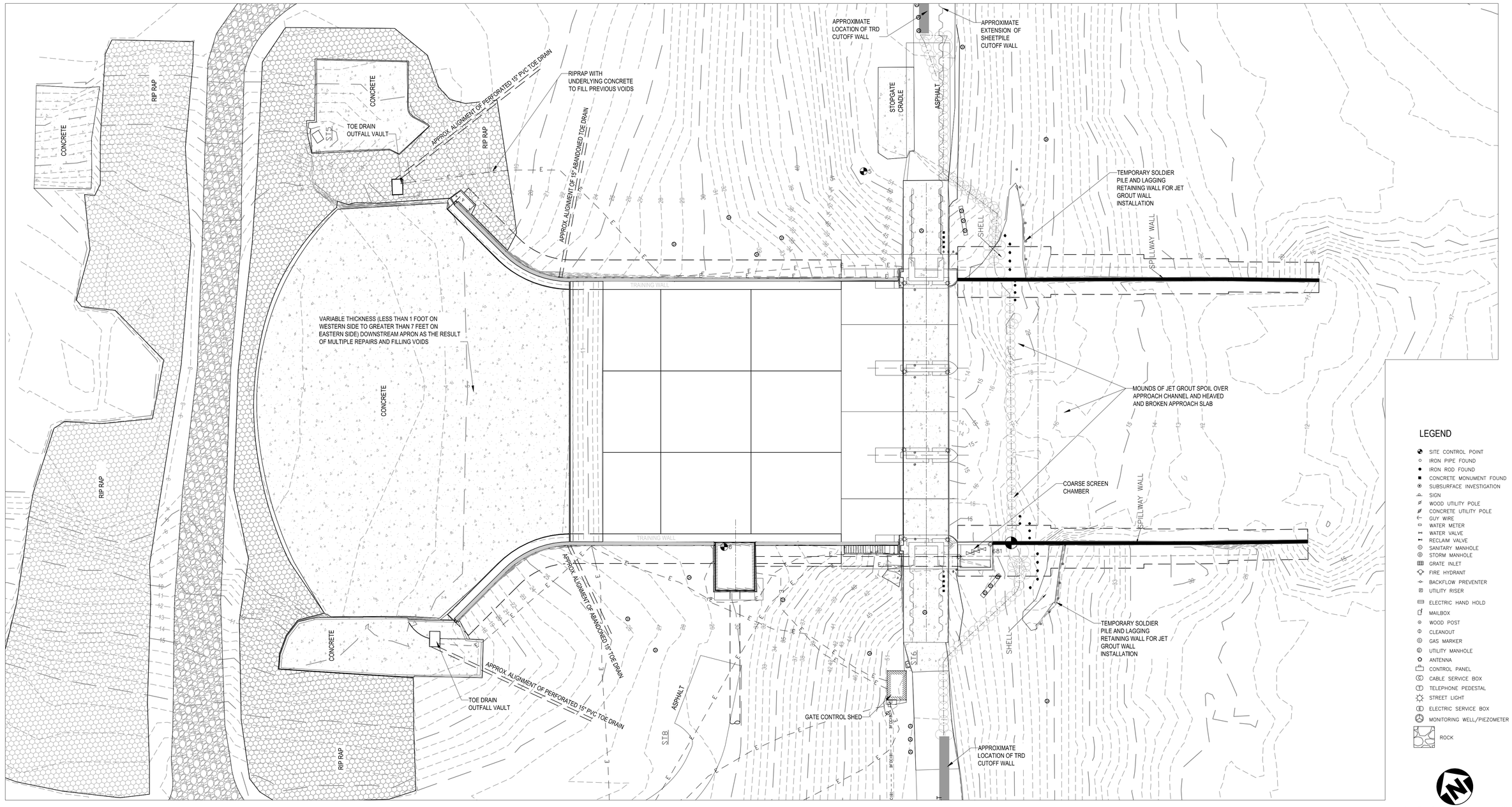
CLIENT DWG NO.

DRAWING NO.: G-101 | REV: D

CAD FILE: W:\02\MANATEE\MANATEE\MAP\PROJ\SPILLWAY\PRINCIPAL SPILLWAY.DWG

SAVED: 13-Jul-21 12:38 PM PLOTTED: 02-Aug-21 2:02 PM USER: LORENZ, MAX J

ANSI D 22X34




## LEGEND

- SITE CONTROL POINT
- IRON PIPE FOUND
- IRON ROD FOUND
- CONCRETE MONUMENT FOUND
- SUBSURFACE INVESTIGATION
- SIGN
- WOOD UTILITY POLE
- CONCRETE UTILITY POLE
- GUY WIRE
- WATER METER
- WATER VALVE
- RECLAIM VALVE
- SANITARY MANHOLE
- STORM MANHOLE
- GRATE INLET
- FIRE HYDRANT
- BACKFLOW PREVENTER
- UTILITY RISER
- ELECTRIC HAND HOLD
- MAILBOX
- WOOD POST
- CLEANOUT
- GAS MARKER
- UTILITY MANHOLE
- ANTENNA
- CONTROL PANEL
- CABLE SERVICE BOX
- TELEPHONE PEDESTAL
- STREET LIGHT
- ELECTRIC SERVICE BOX
- MONITORING WELL/PIEZOMETER
- ROCK

0 5' 10' 20' 40'
1"=20'-0"

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|---|---|---|---|---|---|---|---|---|
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PROJECT NO.

SCALE
AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
SERVICE SPILLWAY EXISTING CONDITIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
V-101

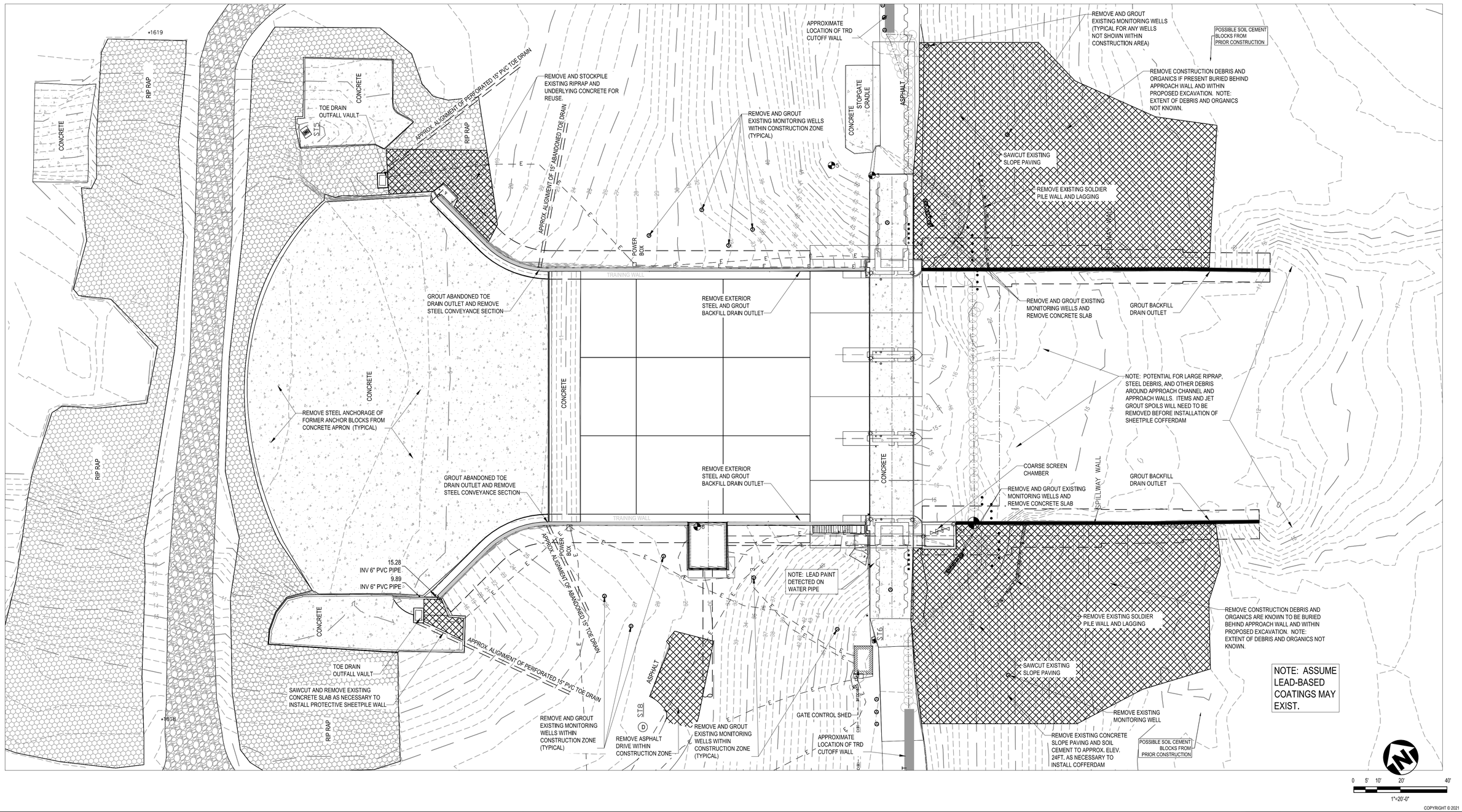
REV
D

CAD FILE: W:\CAD\CIVIL\01 SERVICE SPILLWAY EXISTING CONDITIONS.DWG

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ANSI D 22X34

8 7 6 5 4 3 2 1




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PROJECT NO.

SCALE
AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
DEMOLITION PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

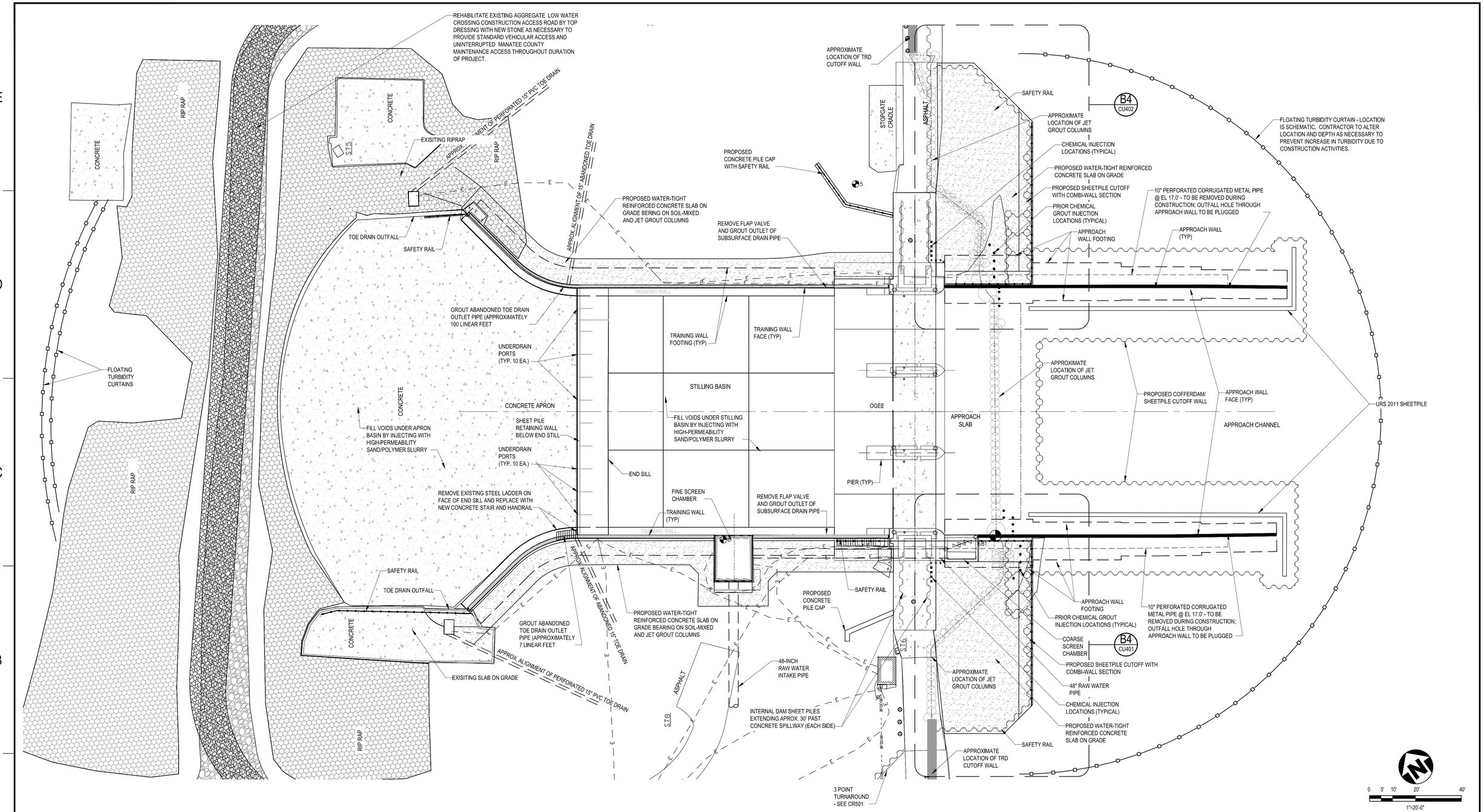
CLIENT DWG NO.

DRAWING NO. D-101
REV D

SAVED: 13-Jul-21 12:49 PM PLOTTED: 02-Aug-21 2:03 PM USER: LORENZ, MAX J

CAD FILE W:\CAD\CIVD\101\DEMOLITION PLAN.DWG

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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: SERVICE SPILLWAY SITE PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

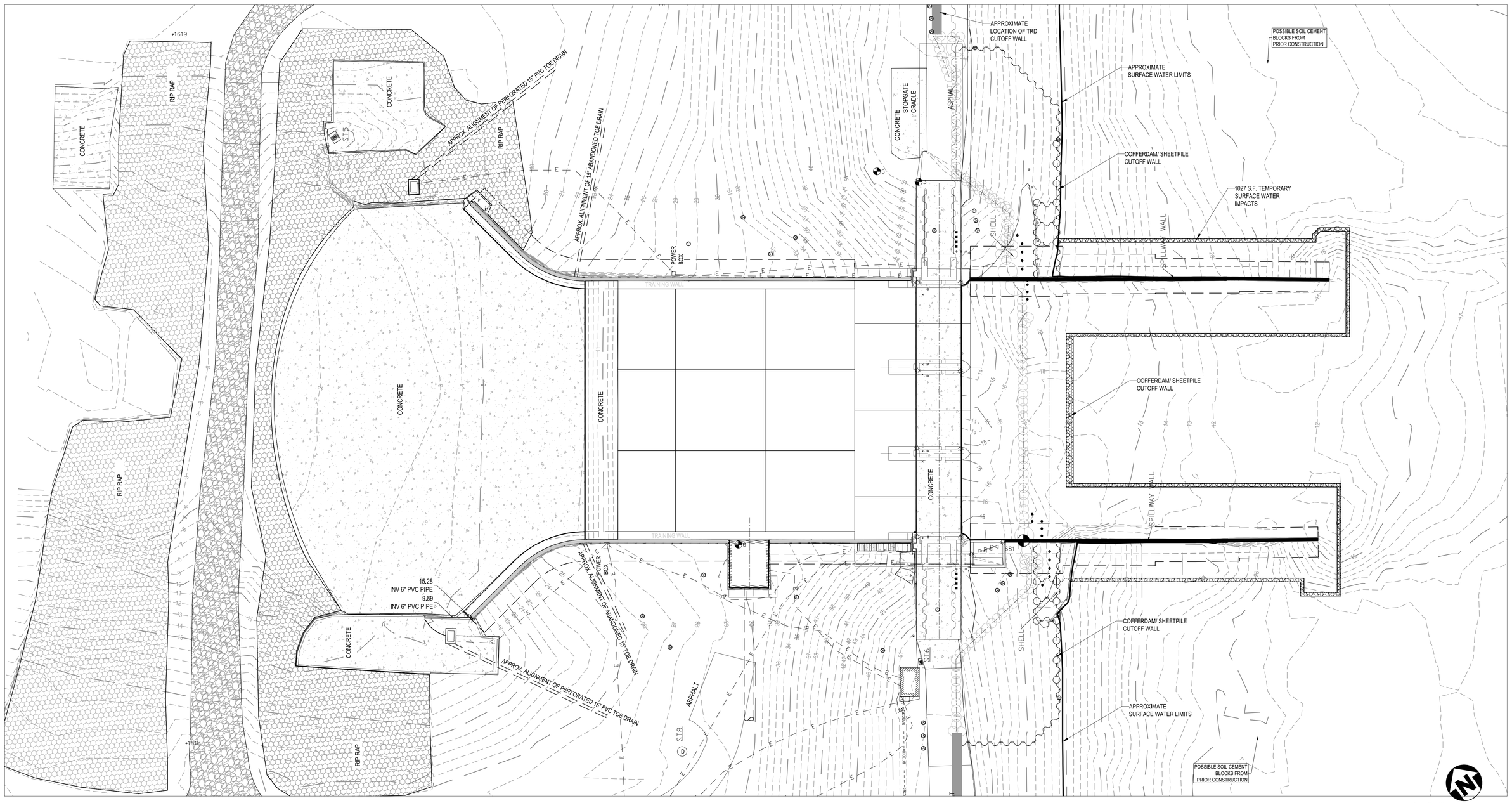
CLIENT DWG NO.

DRAWING NO.: C-000 | REV: D

CAD FILE: W:\CAD\CIVIL\C-000 SERVICE SPILLWAY SITE PLAN.DWG

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
SURFACE WATER PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
C-001

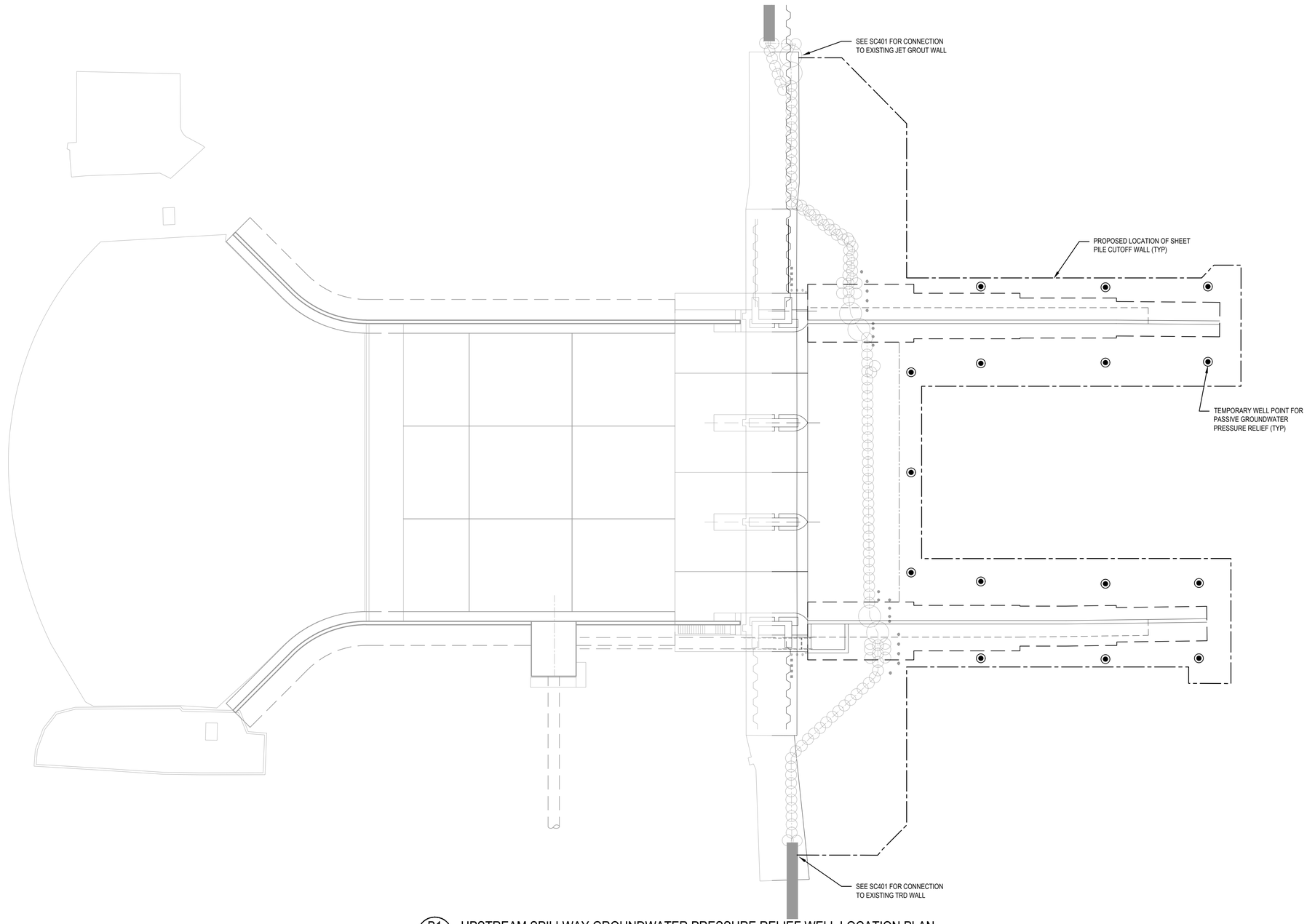
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D

CAD FILE: W:\CAD\CIVIL\C001 SURFACE WATER PLAN.DWG

SAVED: 15-Jul-21 10:00 PM PLOTTED: 02-Aug-21 2:05 PM USER: LORENZ, MAX J

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8 7 6 5 4 3 2 1




B1 / C-100 UPSTREAM SPILLWAY GROUNDWATER PRESSURE RELIEF WELL LOCATION PLAN

SCALE: SCALE 1/6" =1'-0"

GENERAL NOTES

1) TIP ELEVATION -1FT NGVD
2) 2" DIAMETER WELL SCREEN AND RISER PIPE
3) 5-FOOT SCREEN AT BOTTOM TO BOTTOM OF PILE CAP
4) FILTER PACK AROUND OUTSIDE TO ELEVATION 9FT NGVD
5) GROUT ANNULUS ABOVE FILTER PACK TO TOP OF FOOTING
6) LAYOUT, SCREEN CONFIGURATION, AND DEPTH ARE FOR CONCEPTUAL PURPOSES ONLY.
7) CONTRACTOR RESPONSIBLE FOR DESIGNING AND INSTALLING PRESSURE RELIEF SYSTEM.

0 5' 10' 20' 40'

1"=20'-0"

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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: GROUNDWATER PRESSURE RELIEF WELL LOCATION PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

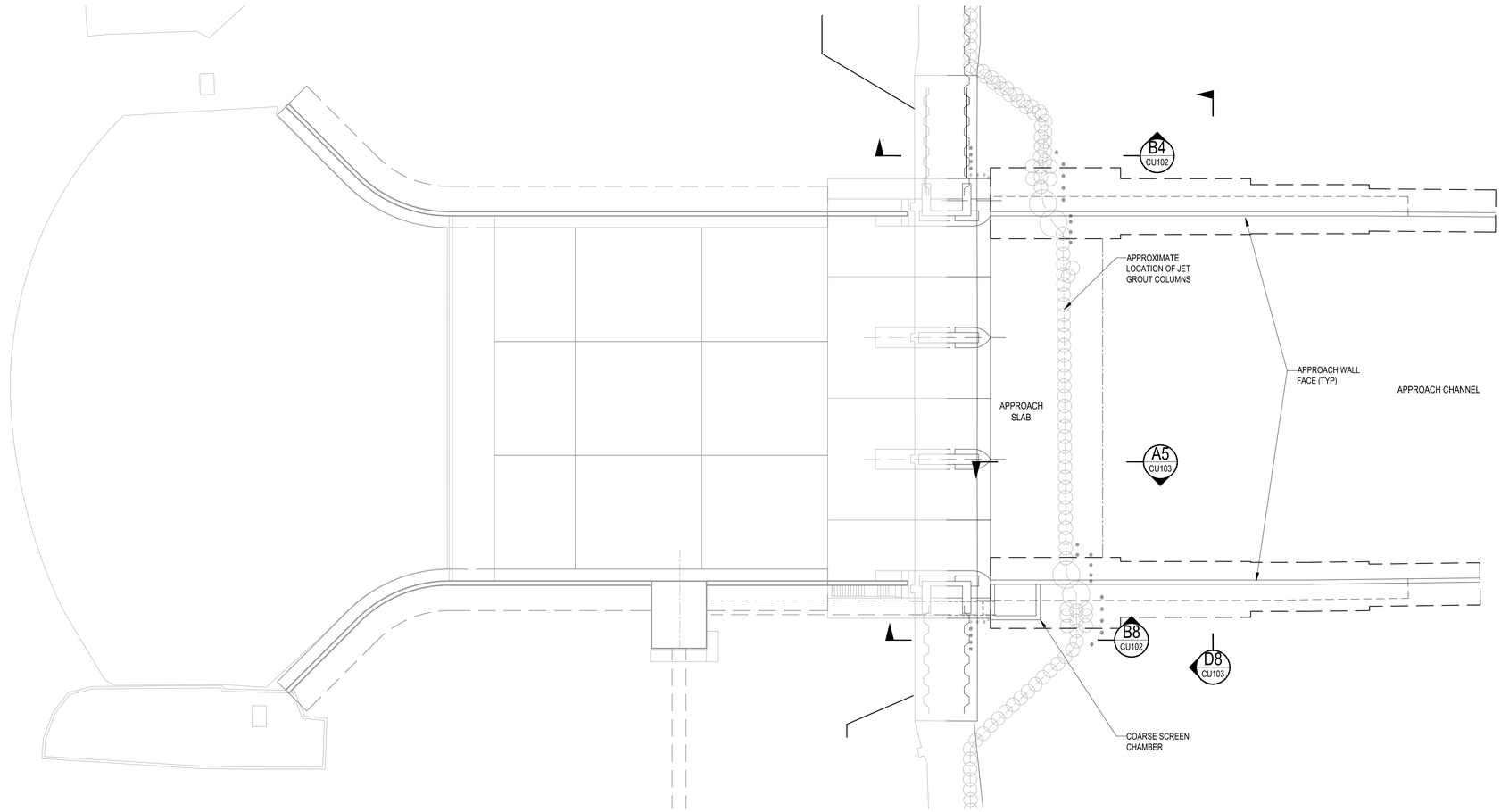
CLIENT DWG NO.

DRAWING NO.: C-100 | REV: D

SAVED: 15-Jul-21 10:02 PM PLOTTED: 02-Aug-21 2:06 PM USER: LORENZ, MAX J

CAD FILE: W:\CAD\CIVIC\100 DEWATERING PLAN.DWG

ANSI D 22X34




A1 CU101 **SPILLWAY PLAN**
SCALE: SCALE 1/6" =1'-0"

0' 5' 10' 15' 20' 25' 30'
1/16"=1'-0"

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| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

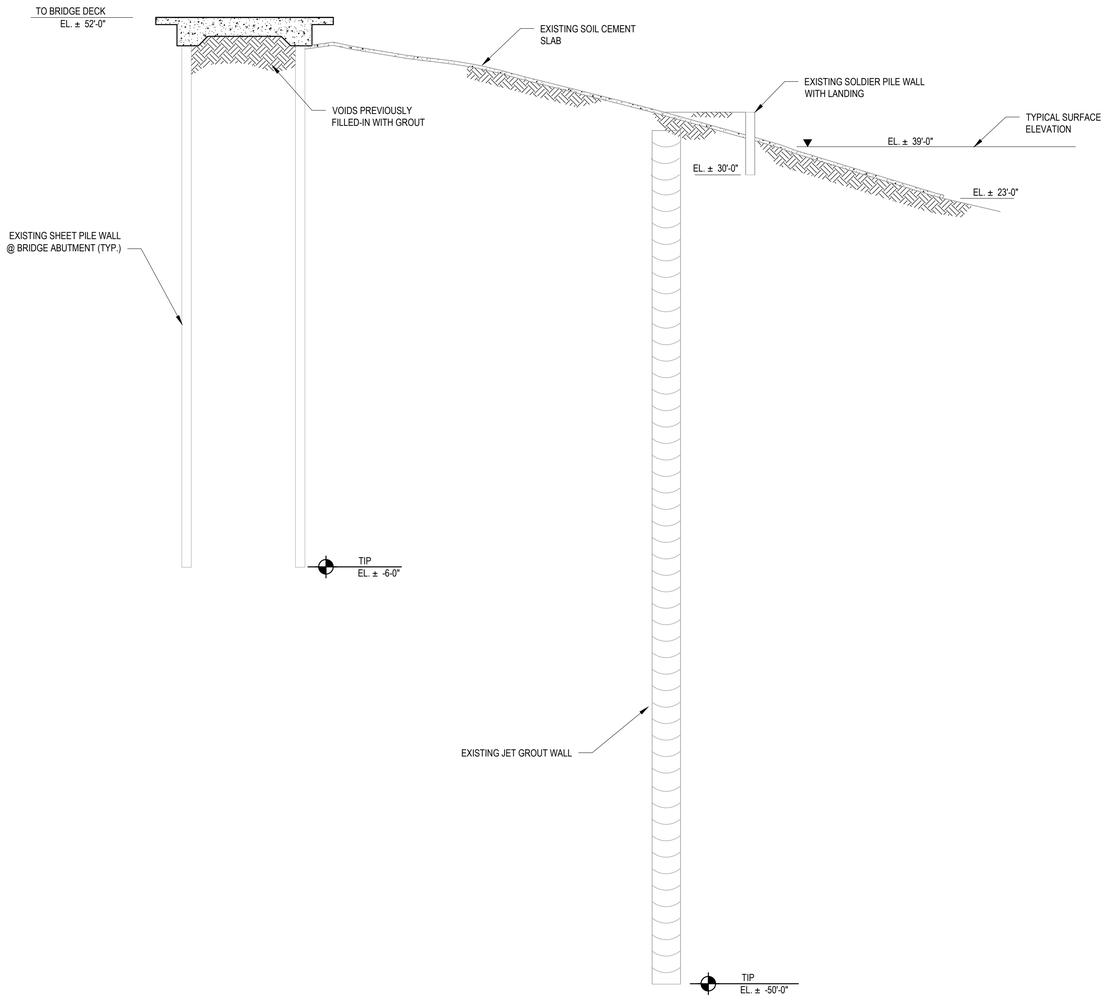
DRAWING NO.: CU101 | REV: D

CAD FILE: W:\CAD\STRCU101 UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS PLAN.DWG

SAVED: 15-Jul-21 10:04 PM PLOTTED: 02-Aug-21 2:06 PM USER: LORENZ, MAX J

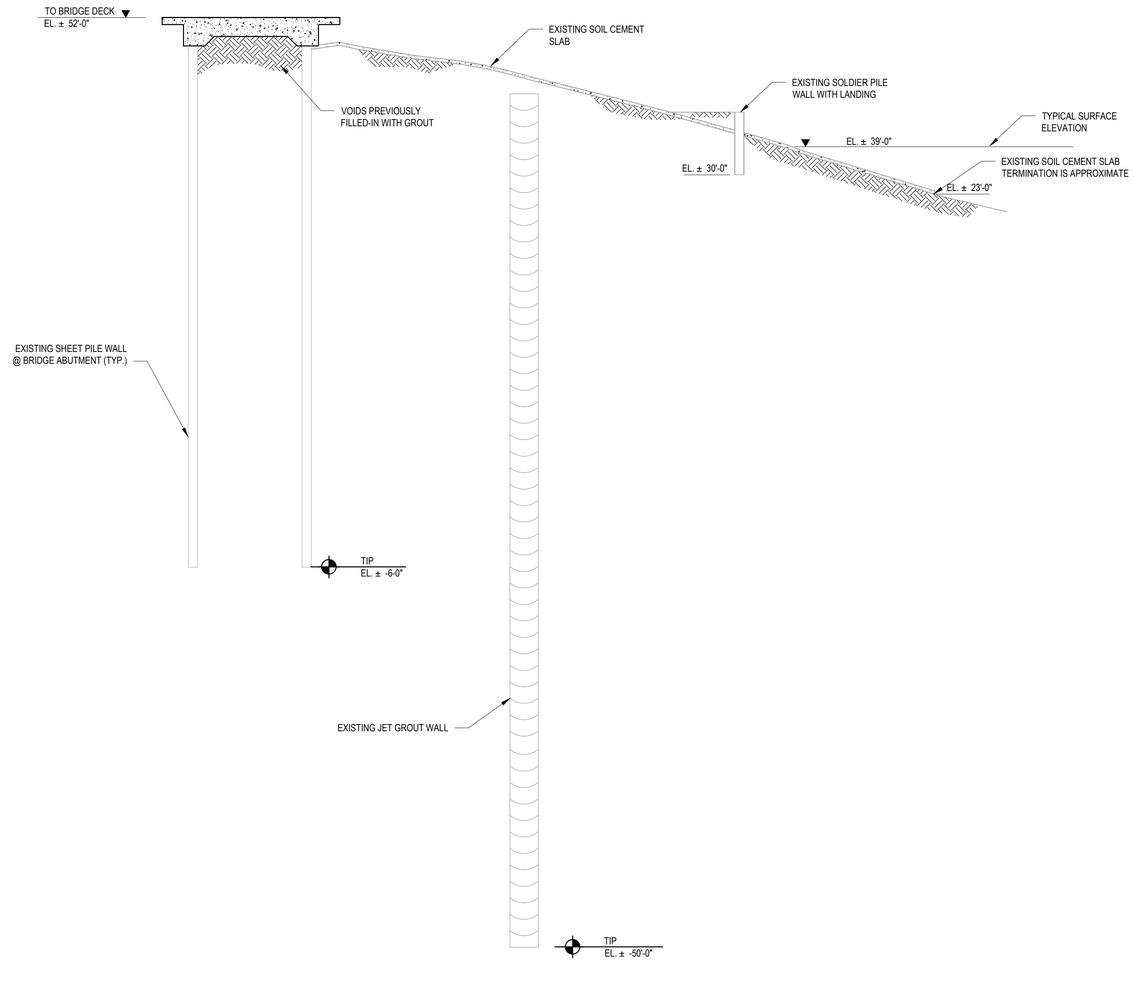
ANSI D 22X34

## UPSTREAM SPILLWAY REPAIRS
## EXISTING CONDITION - SOUTH EMBANKMENT




B8 / CU101 — **SECTION @ SOUTH EMBANKMENT**
SCALE: SCALE 1/8" =1'-0"

## UPSTREAM SPILLWAY REPAIRS
## EXISTING CONDITION - NORTH EMBANKMENT




B4 / CU101 — **SECTION @ NORTH EMBANKMENT**
SCALE: SCALE 1/8" =1'-0"

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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 1 OF 2

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

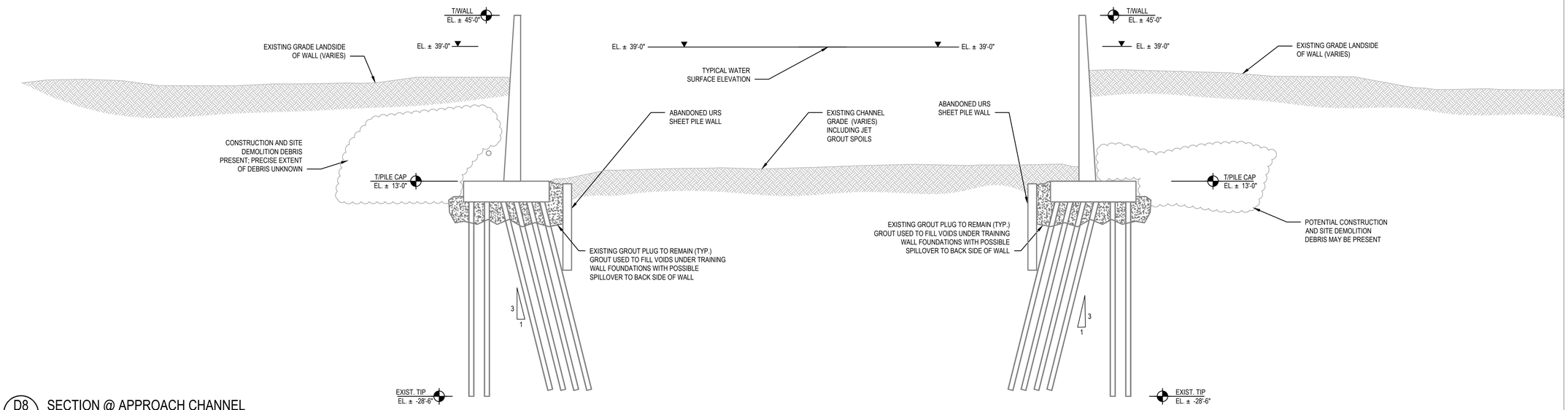
DRAWING NO.: CU102 | REV: D

CAD FILE: W:\CAD\STRCU102 UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 1 OF 2.DWG

SAVED: 13-Jul-21 12:56 PM PLOTTED: 02-Aug-21 2:06 PM USER: LORENZ, MAX J

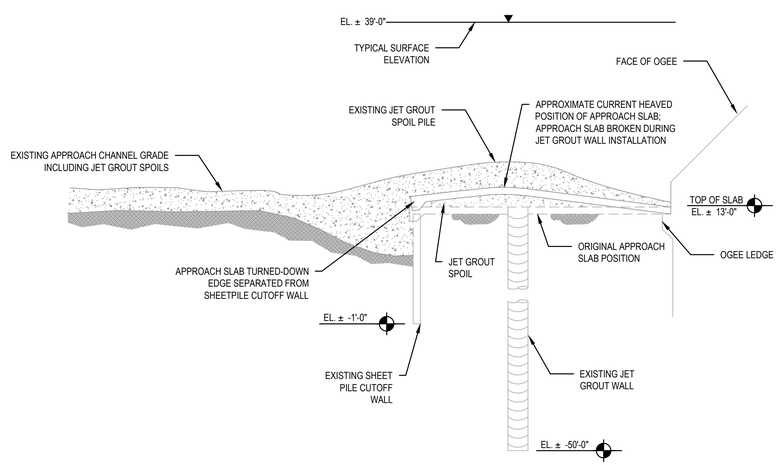
ANSI D 22X34

## UPSTREAM SPILLWAY REPAIRS
## EXISTING CONDITIONS - APPROACH CHANNEL




D8 / CU103 — SECTION @ APPROACH CHANNEL
SCALE: 3/32" = 1'-0"

## UPSTREAM SPILLWAY REPAIRS
## EXISTING CONDITIONS - APPROACH SLAB




A5 / CU101 — SECTION @ APPROACH SLAB
SCALE: 3/32" = 1'-0"

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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 2 OF 2

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

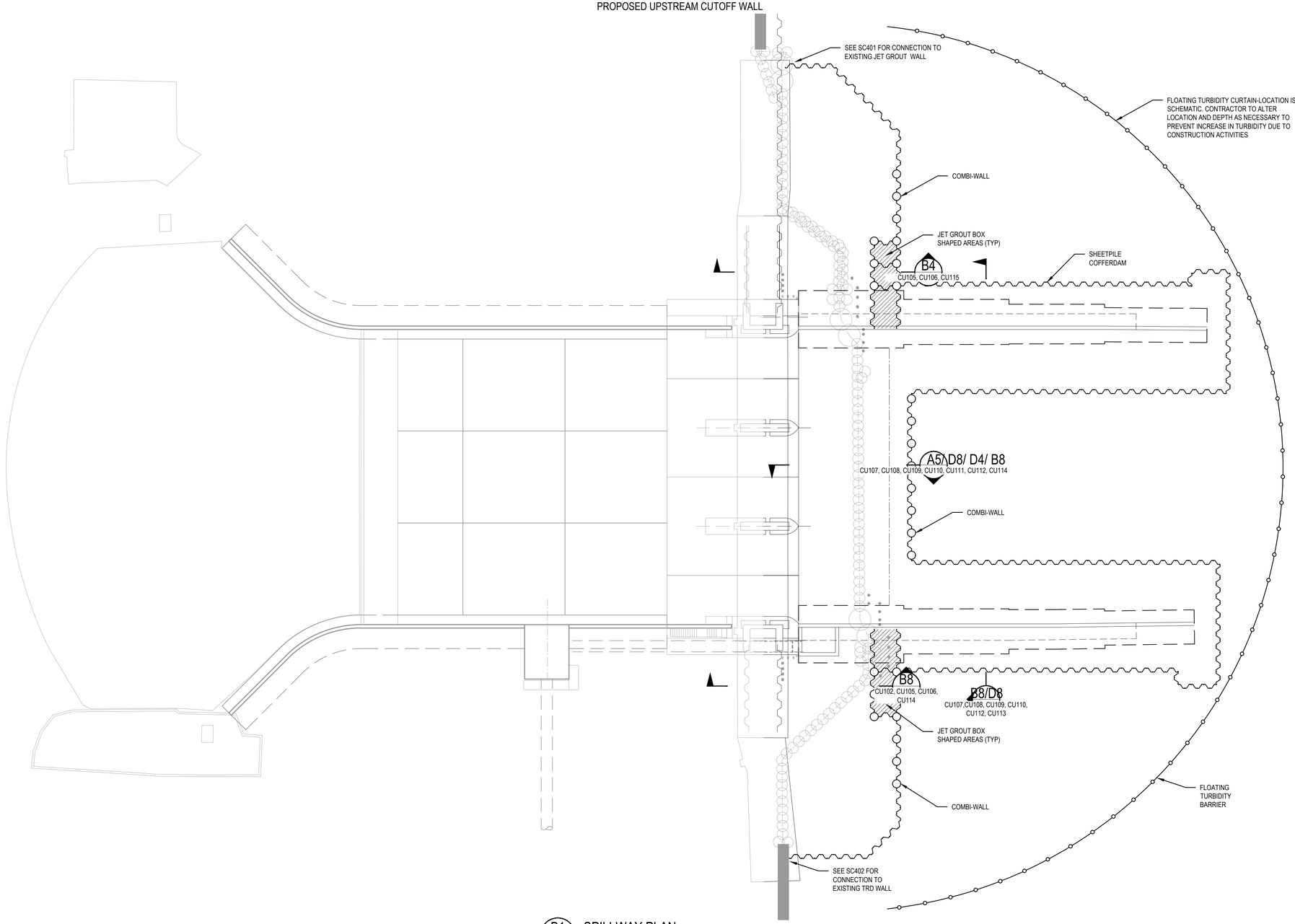
DRAWING NO.: CU103 | REV: D

CAD FILE: W:\CAD\STRCU103 UPSTREAM SPILLWAY REPAIRS - EXISTING CONDITIONS SECTIONS 2 OF 2.DWG

SAVED: 13-Jul-21 12:57 PM PLOTTED: 02-Aug-21 2:07 PM USER: LORENZ, MAX J

ANSI D 22X34

UPSTREAM SPILLWAY REPAIRS
PROPOSED UPSTREAM CUTOFF WALL




B1 / CU104 SPILLWAY PLAN
SCALE: SCALE 1/16" =1'-0"

0' 5' 10' 15' 20' 25' 30'
1/16"=1'-0"

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PROJECT NO.

SCALE
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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
UPSTREAM SPILLWAY REPAIRS - COFFERDAM AND COMBI-WALL PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
CU104

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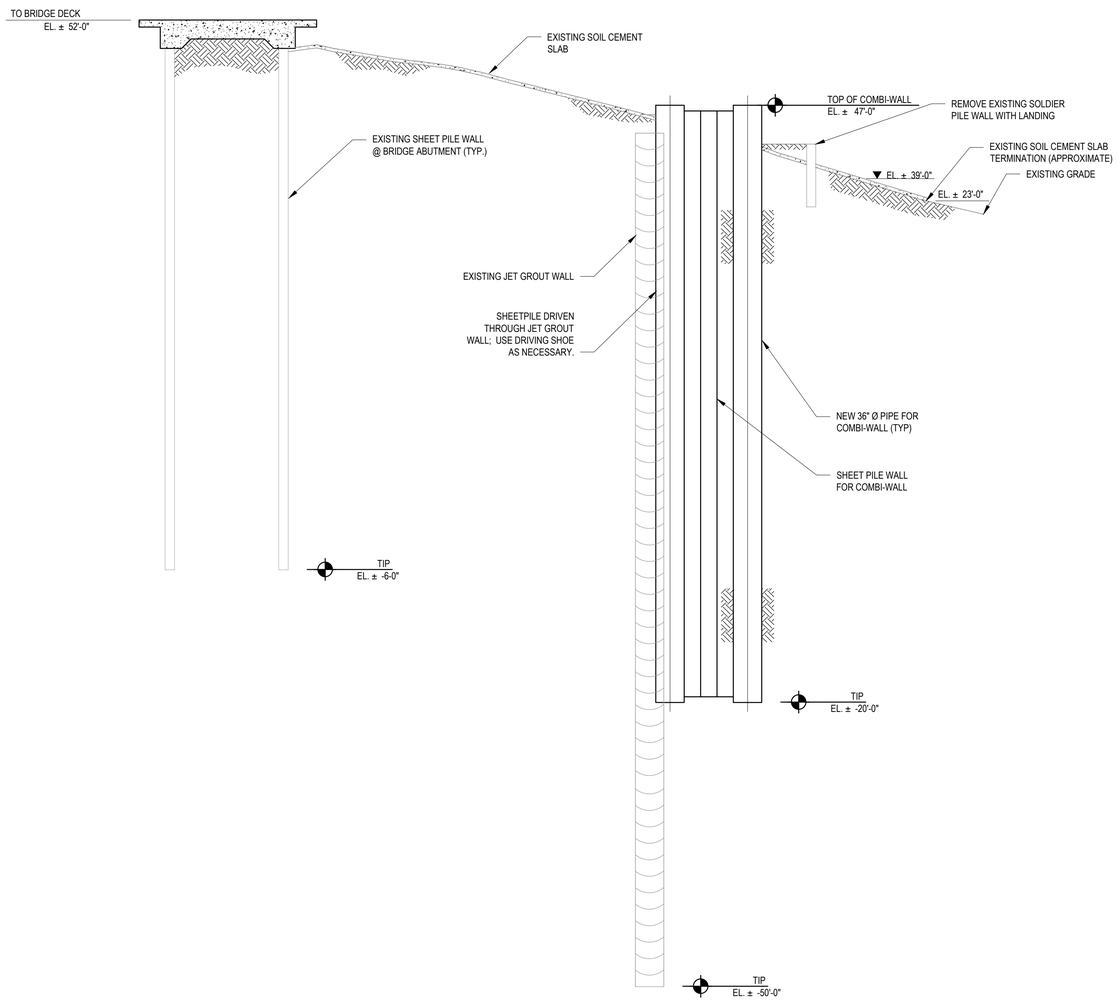
CAD FILE: W:\CAD\STRCU\104 UPSTREAM SPILLWAY REPAIRS - COFFERDAM AND COMBI-WALL PLAN.DWG

SAVED: 15-Jul-21 10:05 PM PLOTTED: 02-Aug-21 2:07 PM USER: LORENZ, MAX J

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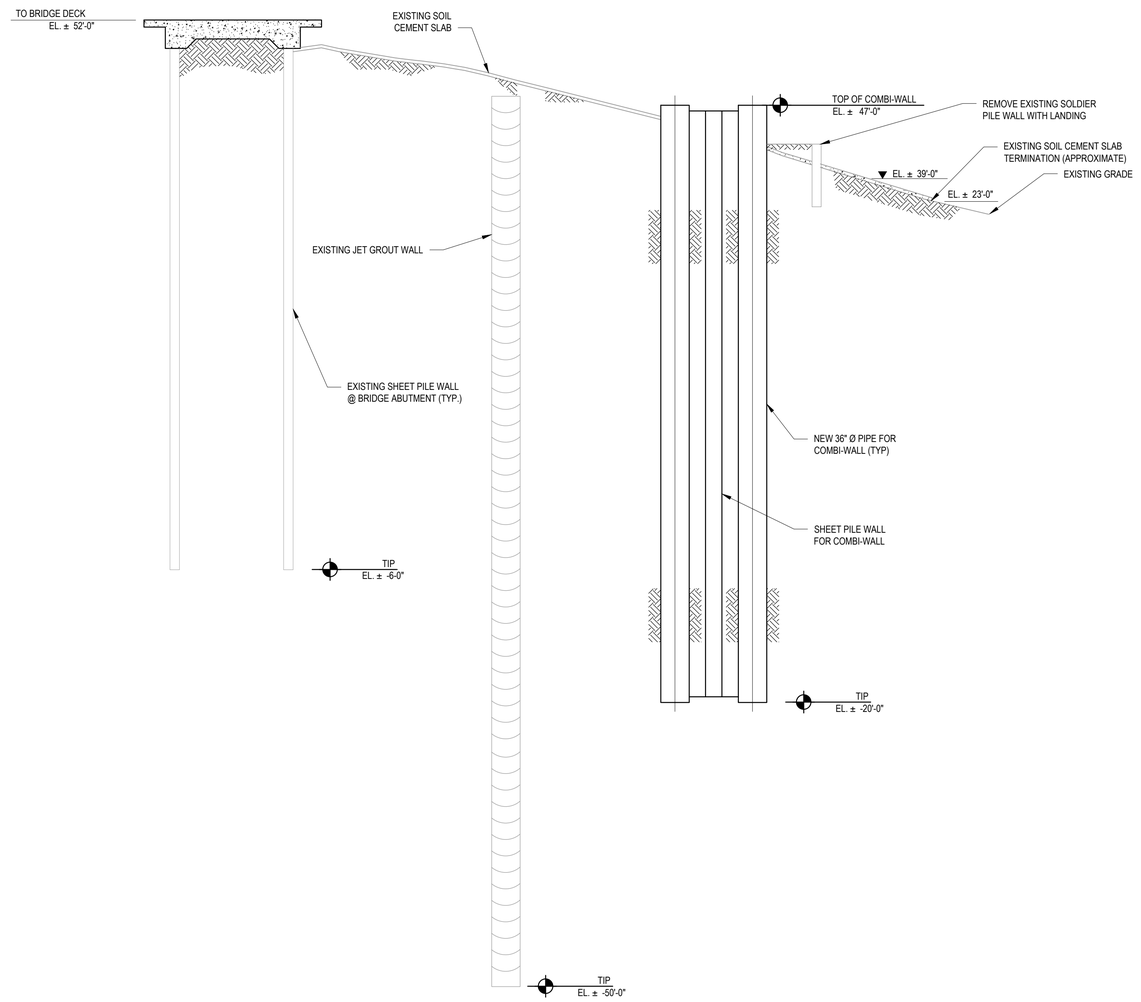
# UPSTREAM SPILLWAY REPAIRS

## STEP 1A AND STEP 1B - INSTALL COMBI-WALL ON SOUTH AND NORTH EMBANKMENTS AND JET GROUT BOX SHAPED SECTIONS ALONG EMBANKMENT




B8 CU104 INSTALL COMBI-WALL SOUTH EMBANKMENT

SCALE: SCALE 1/8" =1'-0"




B4 CU104 INSTALL COMBI-WALL NORTH EMBANKMENT

SCALE: SCALE 1/8" =1'-0"

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G. ANDERSEN, TECHNICAL MGR
D. BUTCHER, PROJECT MGR

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PROJECT NO.

SCALE: AS SHOWN

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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 1 - UPSTREAM SPILLWAY REPAIRS - INSTALL COMBI-WALL AND JET GROUT CELLS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CU105

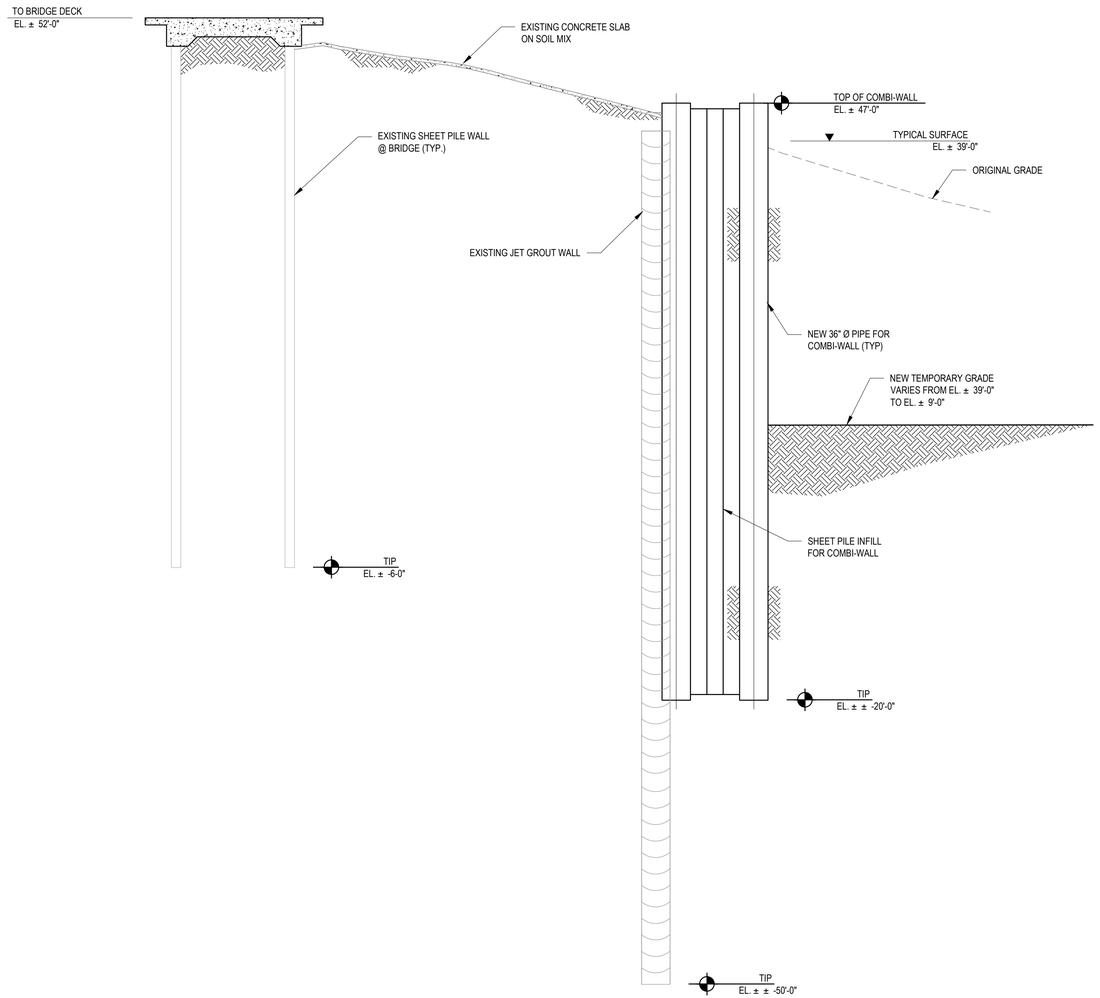
REV: D

CAD FILE: W:\CAD\STRCT\193 STEP 1 - UPSTREAM SPILLWAY REPAIRS - INSTALL COMBI-WALL.DWG

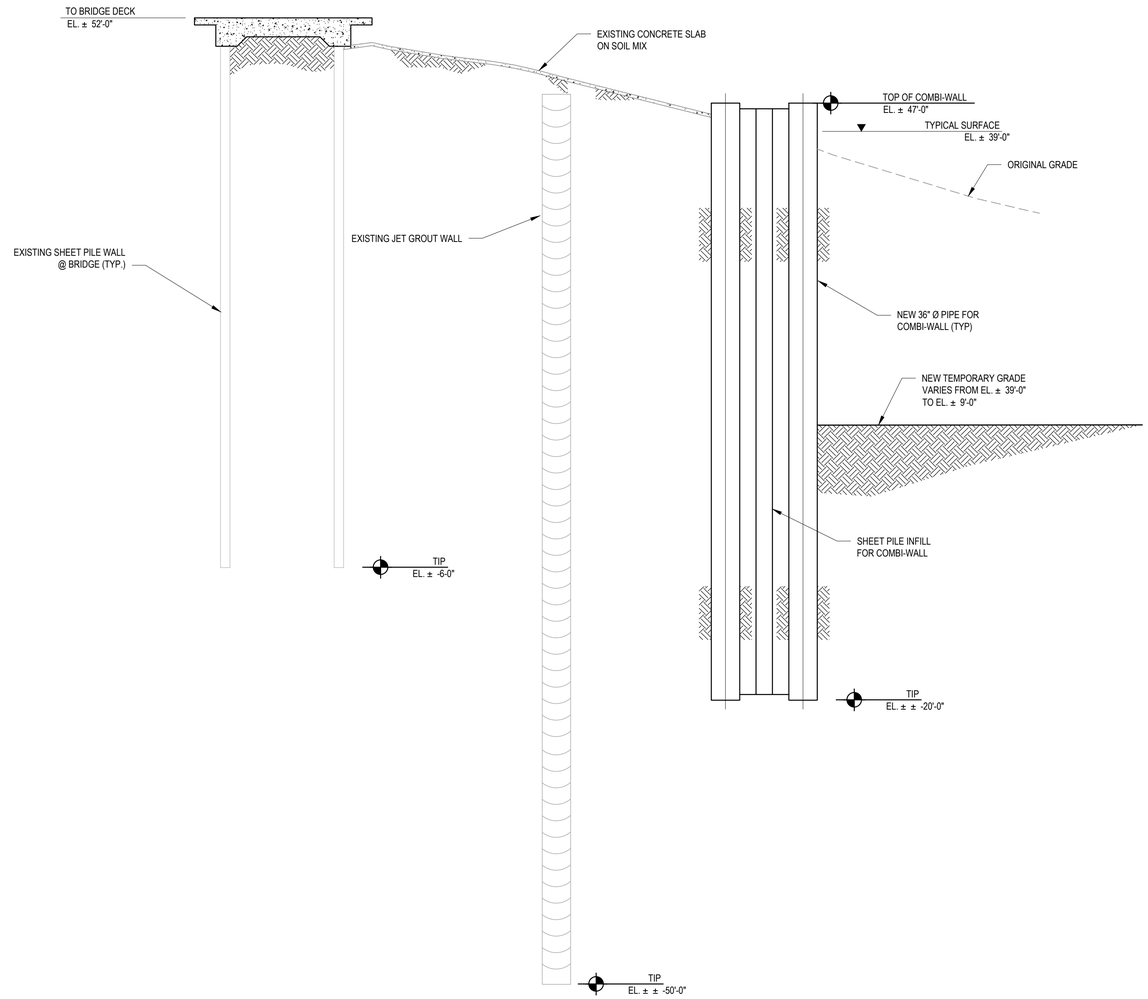
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ANSI D-22X34

# UPSTREAM SPILLWAY REPAIRS
## STEP 2A - EXCAVATE TO BOTTOM OF PILE CAP - SOUTH EMBANKMENT
## STEP 2B - EXCAVATE TO BOTTOM OF PILE CAP - NORTH EMBANKMENT




B8 / CU104 EXCAVATE TO BOTTOM OF PILE CAP - S0UTH EMBANKMENT
SCALE: SCALE 1/8" =1'-0"




B4 / CU104 EXCAVATE TO BOTTOM OF PILE CAP - NORTH EMBANKMENT
SCALE: SCALE 1/8" =1'-0"

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PROJECT NO.

SCALE
AS SHOWN

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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE
LAKE MANATEE DAM

SUBJECT
STEP 2 - UPSTREAM SPILLWAY REPAIRS -
EXCAVATE TO BOTTOM OF PILE CAP 1 OF 2

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
CU106

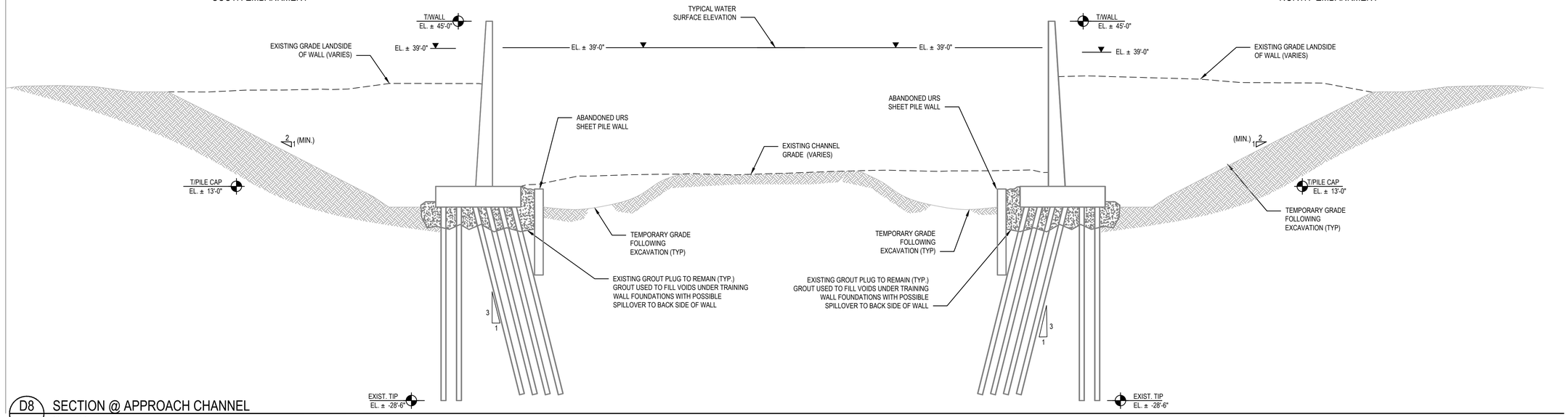
REV
D

CAD FILE: W:\CAD\STRUP\STREAM SP LLWAY REPAIR - EXCAVATE TO BOTTOM OF PILE CAP 1 OF 2.DWG

SAVED: 13-Jul-21 12:58 PM PLOTTED: 02-Aug-21 2:08 PM USER: LORENZ, MAX J

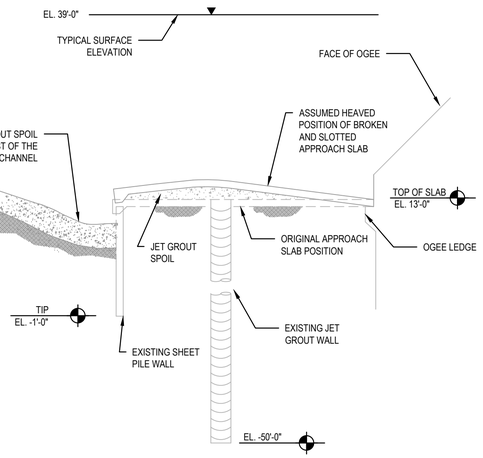
ANSI D 22X34

## UPSTREAM SPILLWAY REPAIRS
## STEP 2C - EXCAVATE TO BOTTOM OF PILE CAP - APPROACH CHANNEL




D8 / CU104 SECTION @ APPROACH CHANNEL
SCALE: 3/32" = 1'-0"

## UPSTREAM SPILLWAY REPAIRS
## STEP 2D - REMOVE GROUT SPOIL FROM APPROACH SLAB




A5 / CU104 SECTION @ APPROACH CHANNEL
SCALE: 3/32" = 1'-0"

| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 2 - UPSTREAM SPILLWAY REPAIRS - EXCAVATE TO BOTTOM OF PILE CAP 2 OF 2


wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750


AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CU107 | REV: D


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CAD FILE: W:\CAD\STRUP\STREAM SPILLWAY REPAIR - EXCAVATE TO BOTTOM OF PILE CAP 2 OF 2.DWG

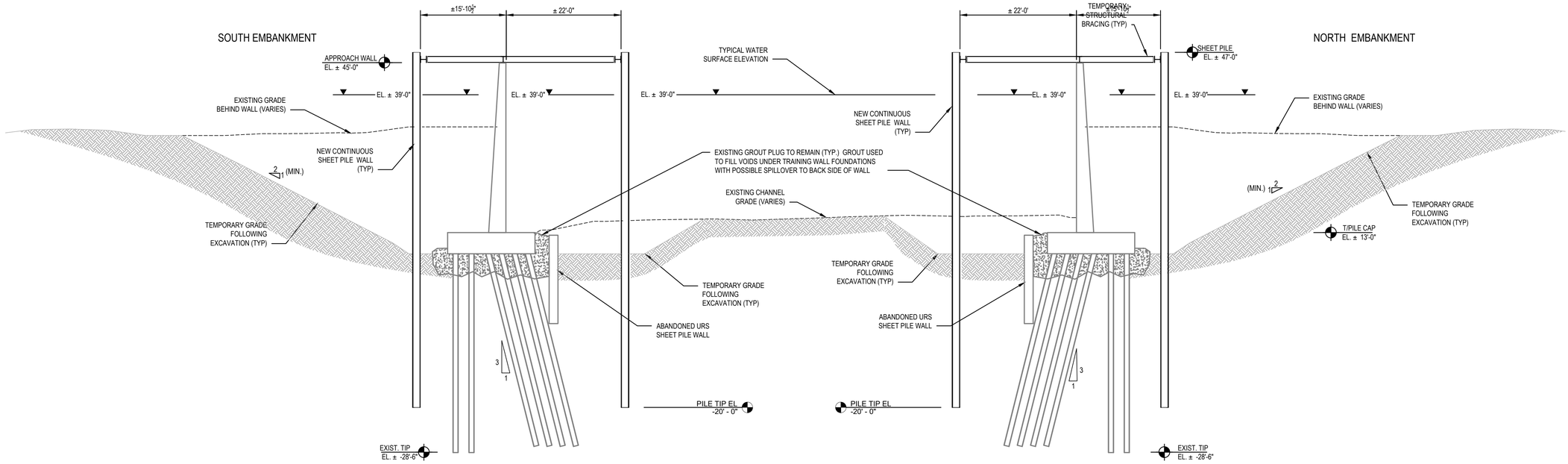
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ANSI D 22X34

UPSTREAM SPILLWAY REPAIRS

STEP 3A - INSTALL SHEET PILE WITH STRUCTURAL BRACING

APPROACH CHANNEL

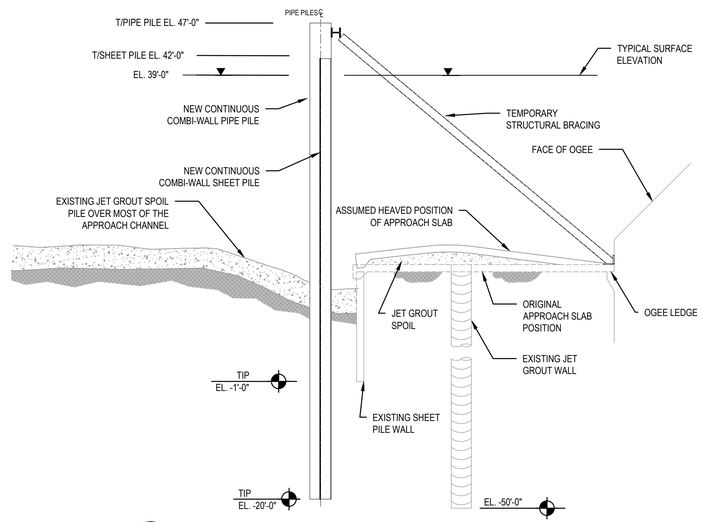



D8 CU104 SECTION @ APPROACH CHANNEL

SCALE: 3/32" = 1'-0"

UPSTREAM SPILLWAY REPAIRS

STEP 3B - INSTALL COMBI-WALL WITH STRUCTURAL BRACING - APPROACH SLAB




A5 CU104 SECTION @ APPROACH SLAB

SCALE: 3/32" = 1'-0"

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G. ANDERSEN, TECHNICAL MGR
D. BUTCHER, PROJECT MGR

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 3 - UPSTREAM SPILLWAY REPAIRS - INSTALL SHEET PILE STRUCTURAL BRACING

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

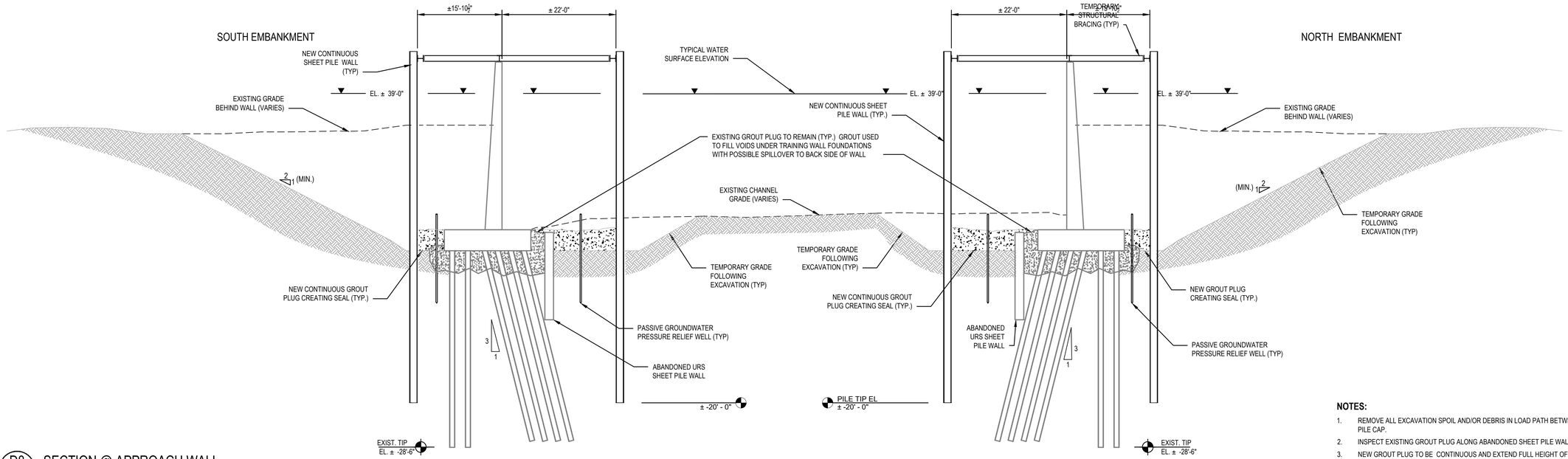
DRAWING NO.: CU108 | REV: D

CAD FILE: W:\CAD\STRS_...\5 UPSTREAM SPILLWAY REPAIR - INSTALL SHEET PILE STRUCTURAL BRACING.DWG

SAVED: 13-Jul-21 12:59 PM PLOTTED: 02-Aug-21 2:09 PM USER: LORENZ, MAX J

ANSI D (22X34)

UPSTREAM SPILLWAY REPAIRS
STEP 4A - INSTALL DEWATERING WELLS AND GROUT PLUG
APPROACH CHANNEL

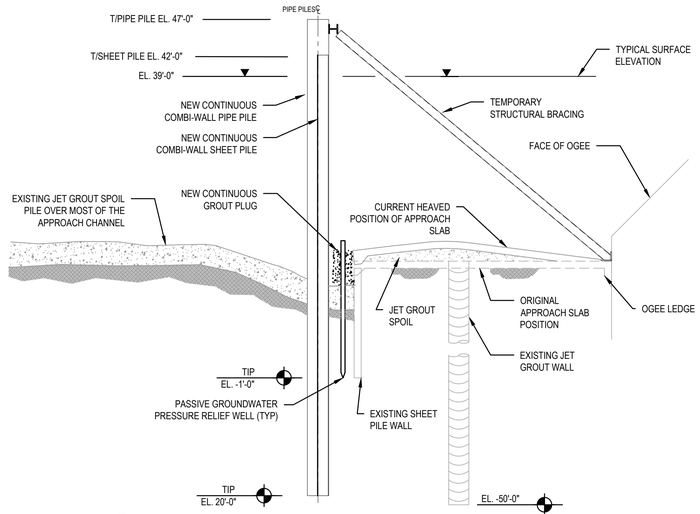



D8 CU104 SECTION @ APPROACH WALL
SCALE: 3/32" = 1'-0"

**NOTES:**

1. REMOVE ALL EXCAVATION SPOIL AND/OR DEBRIS IN LOAD PATH BETWEEN SHEET PILE WALL AND PILE CAP.
2. INSPECT EXISTING GROUT PLUG ALONG ABANDONED SHEET PILE WALL; REPAIR ACCORDINGLY.
3. NEW GROUT PLUG TO BE CONTINUOUS AND EXTEND FULL HEIGHT OF PILE CAP THICKNESS.

UPSTREAM SPILLWAY REPAIRS
STEP 4B - INSTALL DEWATERING WELLS AND GROUT PLUG - APPROACH SLAB




A5 CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

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| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
STEP 4 - UPSTREAM SPILLWAY REPAIRS
INSTALL DEWATER WELL AND GROUT PLUG

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
CU109

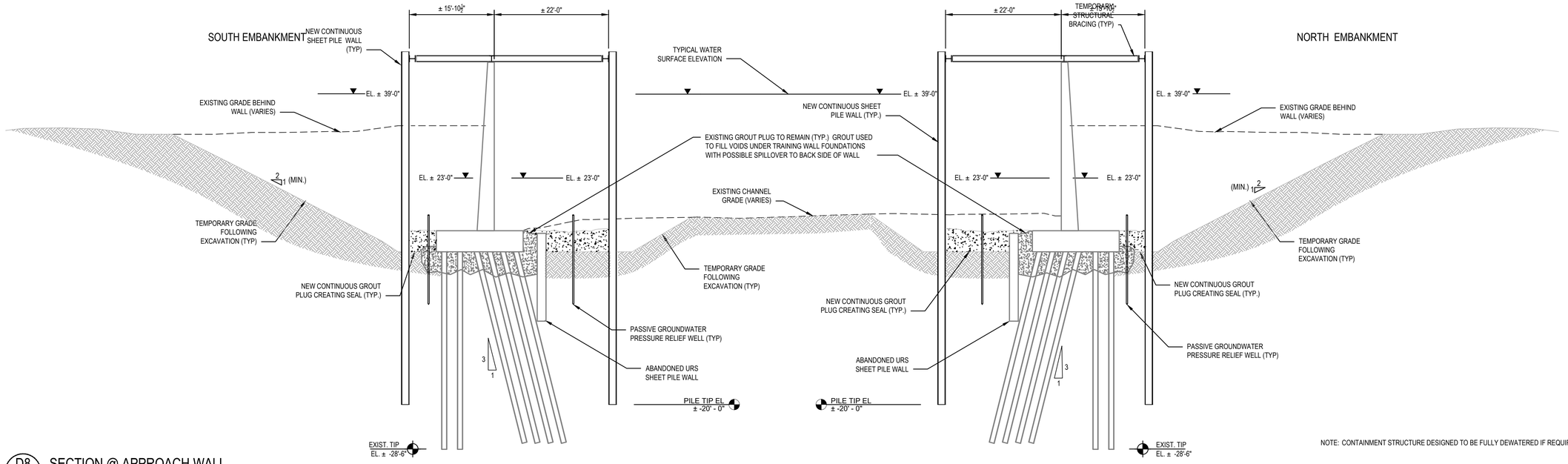
REV
D

DATA FILE: W:\CAD\TRS - 9 UPSTREAM SPILLWAY REPAIR INSTALL DEWATER WELL AND GROUT PLUG.DWG

SAVED: 13-Jul-21 1:00 PM PLOTTED: 02-Aug-21 2:09 PM USER: LORENZ, MAX J

ANSI D 22X34

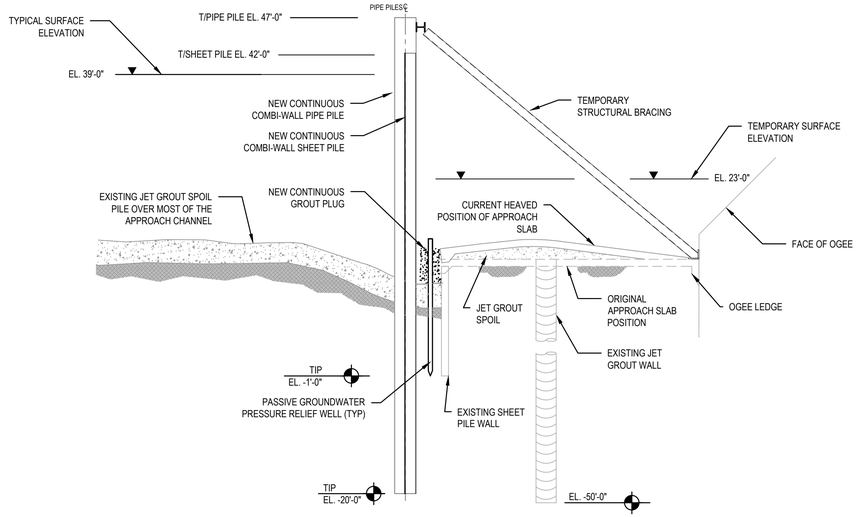
UPSTREAM SPILLWAY REPAIRS
STEP 5A - PARTIAL DEWATER WITHIN CONTAINMENT
APPROACH CHANNEL




NOTE: CONTAINMENT STRUCTURE DESIGNED TO BE FULLY DEWATERED IF REQUIRED

D8 CU104 SECTION @ APPROACH WALL
SCALE: 3/32" = 1'-0"

UPSTREAM SPILLWAY REPAIRS
STEP 5B - PARTIAL DEWATER WITHIN CONTAINMENT - APPROACH SLAB




NOTE: CONTAINMENT STRUCTURE DESIGNED TO BE FULLY DEWATERED IF REQUIRED

A5 CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 5 - UPSTREAM SPILLWAY REPAIR - PARTIAL DEWATER WITHIN CONTAINMENT

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

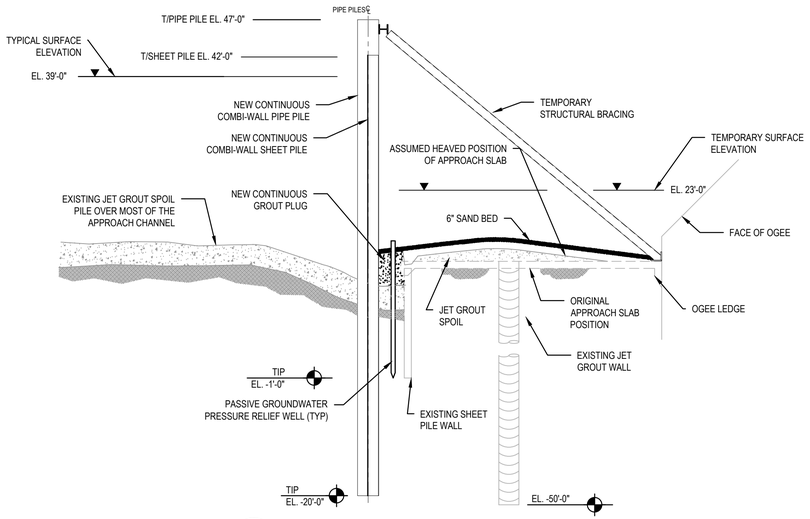
DRAWING NO.: CU110 | REV: D

CAD FILE: W:\CAD\STRS - 10 UPSTREAM SPILLWAY REPAIR - PARTIAL DEWATER WITHIN CONTAINMENT.DWG

SAVED: 13-Jul-21 1:01 PM PLOTTED: 02-Aug-21 2:09 PM USER: LORENZ, MAX J

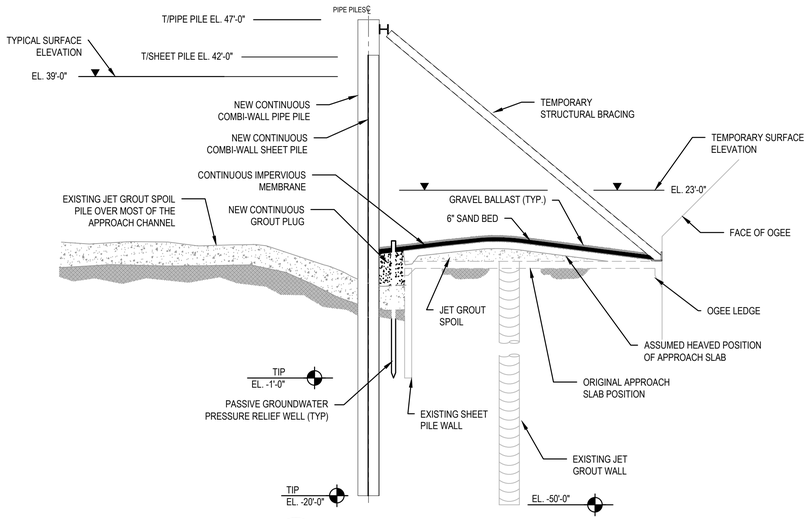
ANSI D 22X34

## UPSTREAM SPILLWAY REPAIRS
## STEP 6A - REPAIRS TO APPROACH SLAB INSTALL SAND BED



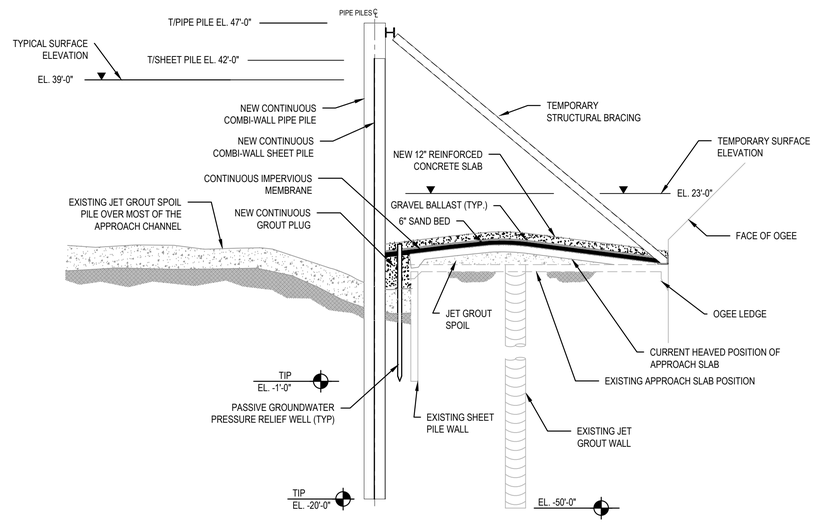

D8 CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

## UPSTREAM SPILLWAY REPAIRS
## STEP 6B - REPAIRS TO APPROACH SLAB-INSTALL IMPERVIOUS MEMBRANE AND GRAVEL BALLAST




D4 CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

## UPSTREAM SPILLWAY REPAIRS
## STEP 6C - REPAIRS TO APPROACH SLAB-TOPPING SLAB




A5 CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

NOTE: CONTAINMENT STRUCTURE DESIGNED TO BE FULLY DEWATERED IF REQUIRED

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| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 6 - UPSTREAM SPILLWAY REPAIRS - REPAIRS TO APPROACH SLAB

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

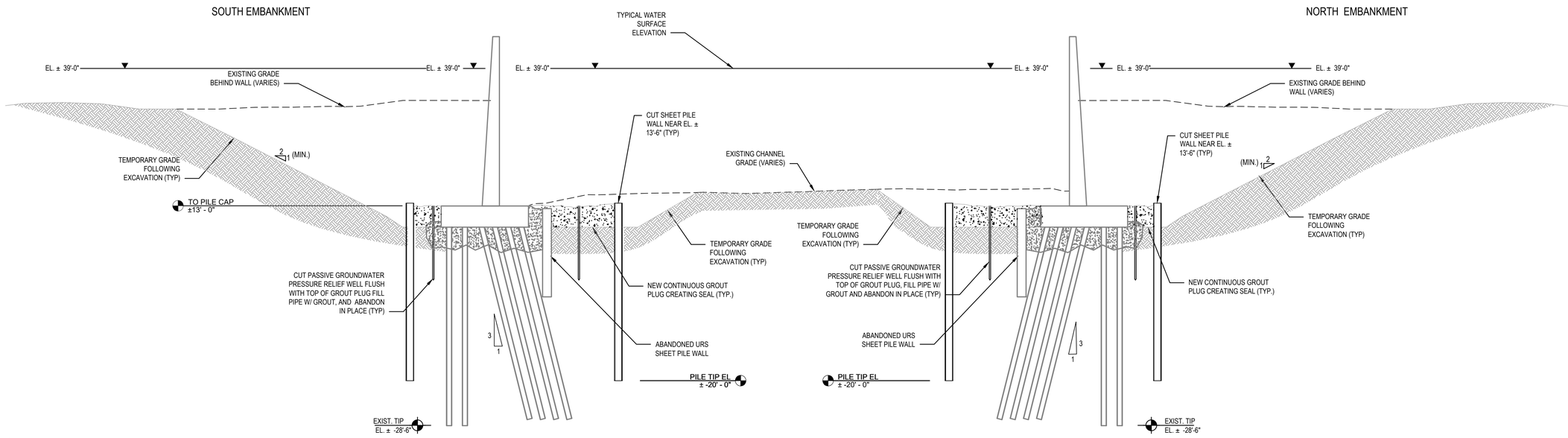
DRAWING NO.: CU111 | REV: D

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SAVED: 13-Jul-21 1:01 PM PLOTTED: 02-Aug-21 2:10 PM USER: LORENZ, MAX J

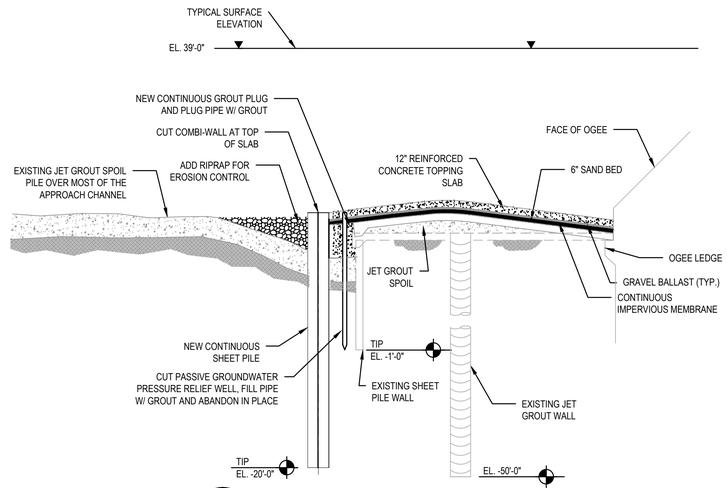
ANSI D-22X34

UPSTREAM SPILLWAY REPAIRS
STEP 7A - FLOOD COFFERDAM AND CUT OFF SHEET
PILE WALL - APPROACH CHANNEL




D8 / CU104 SECTION @ APPROACH WALL
SCALE: 3/32" = 1'-0"

UPSTREAM SPILLWAY REPAIRS
STEP 7B - FLOOD COFFERDAM AND CUT OFF COMBI-WALL




A5 / CU104 SECTION AT APPROACH SLAB
SCALE: 3/32" = 1'-0"

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| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 7 - FLOOD COFFERDAM AND CUT-OFF SHEET PILE WALL

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CU112 | REV: D

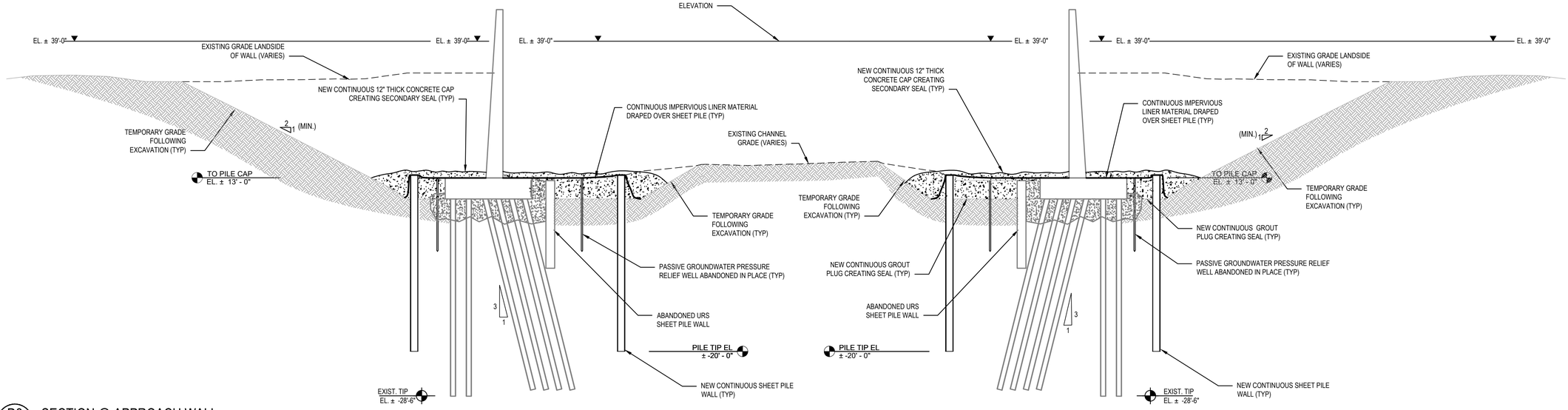
CAD FILE: W:\CAD\STRS - 12 STEP 7 - FLOOD CONTAINMENT AND CUT-OFF SHEET PILE WALL.DWG

SAVED: 13-Jul-21 1:02 PM PLOTTED: 02-Aug-21 2:10 PM USER: LORENZ, MAX J

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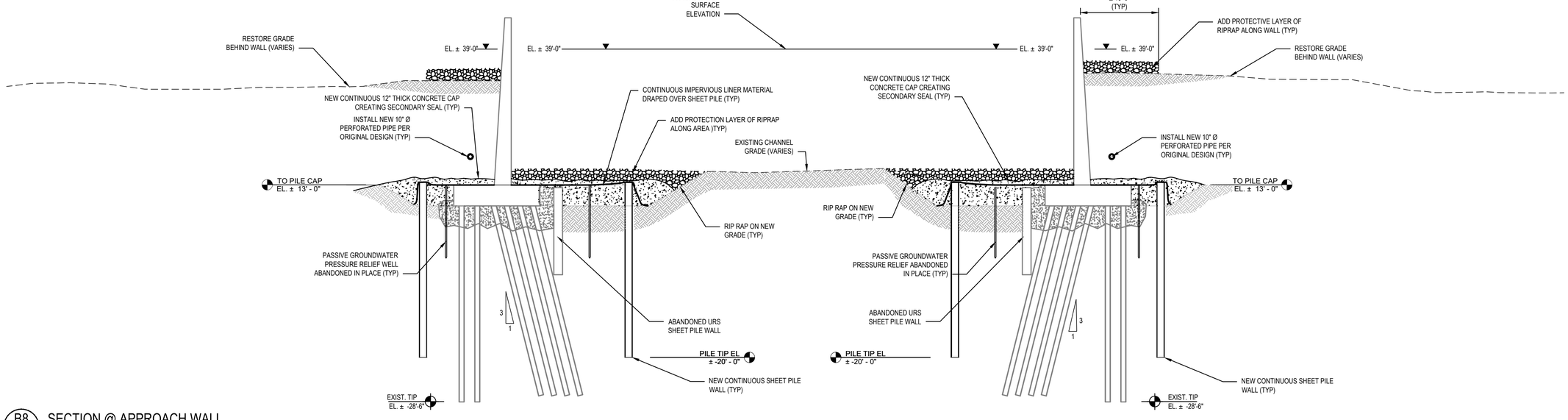
8 7 6 5 4 3 2 1

UPSTREAM SPILLWAY REPAIRS
STEP 8A - INSTALL SECONDARY SEAL ON GROUT PLUG AND PILE CAPS
APPROACH CHANNEL




D8 CU104 SECTION @ APPROACH WALL
SCALE: 3/32" = 1'-0"

UPSTREAM SPILLWAY REPAIRS
STEP 8B - RESTORE GRADE AND ADD RIPRAP APPROACH CHANNEL




B8 CU104 SECTION @ APPROACH WALL
SCALE: 3/32" = 1'-0"

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| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE
LAKE MANATEE DAM

SUBJECT
STEP 8 - UPSTREAM SPILLWAY REPAIRS
INSTALL SECONDARY SEAL ON GROUT PLUG

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
CU113

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CAD FILE: W:\CAD\STRC\2013 STEP 8 - UPSTREAM SPILLWAY REPAIRS\INSTALL SECONDARY SEAL ON GROUT\DWG

SAVED: 13-Jul-21 1:03 PM PLOTTED: 02-Aug-21 2:11 PM USER: LORENZ, MAX J

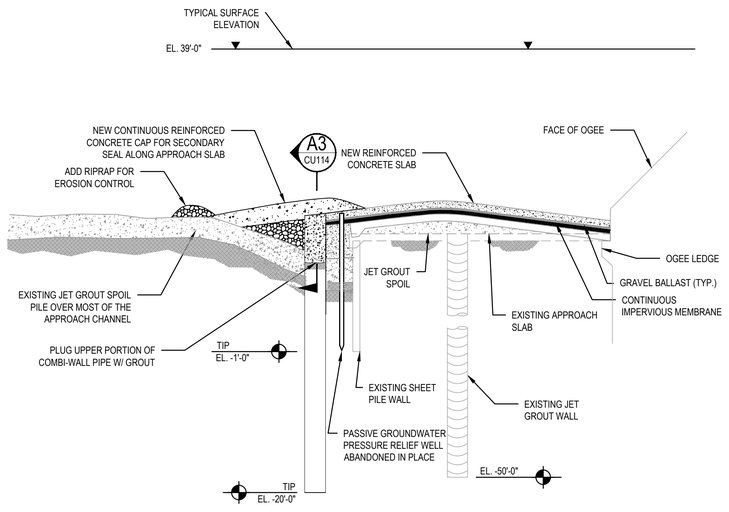
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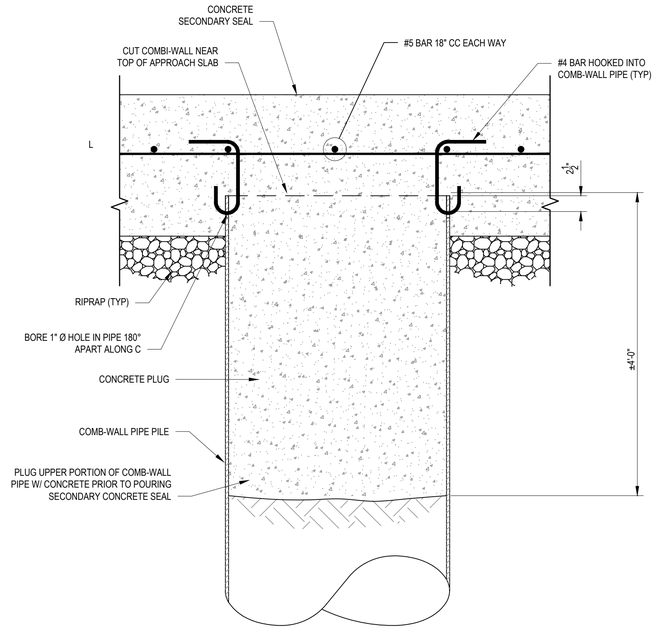
NOTES

1) CUT COMBI-WALL FLUSH WITH TOP OF REPAIR SLAB.
2) PLUG UPPER 4 FT OFF PIPE PILE WITH CONCRETE.
3) BORE 1" Ø HOLES IN PIPE AND INSTALL HOOK BARS AS SHOWN
4) INSTALL CONTINUOUS IMPERVIOUS LINER MATERIAL ALONG UPSTREAM EDGE OF APPROACH SLAB.
5) POUR CONTINUOUS 12" THICK REINFORCED CAPPING SLAB ALONG EDGE OF APPROACH SLAB.

## UPSTREAM SPILLWAY REPAIRS
## STEP 8C - GROUT COMBI-WALL PIPE, AND INSTALL CONCRETE CAP ALONG APPROACH SLAB EDGE, AND ARMOR WI/ RIPRAP




A5 CU104 SECTION @ APPROACH SLAB
SCALE: 3/32" = 1'-0"




NOTE: SHEET PILE NOT SHOWN FOR CLARITY.

B3 CU114 A3
SCALE: 1" = 1'-0"

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| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

SUBJECT: STEP 8 - UPSTREAM SPILLWAY REPAIRS PLUG TOP OF COMBI-WALL PIPE APPROACH

PHASE II REPAIRS TO THE LAKE MANATEE DAM

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. CU114 REV D

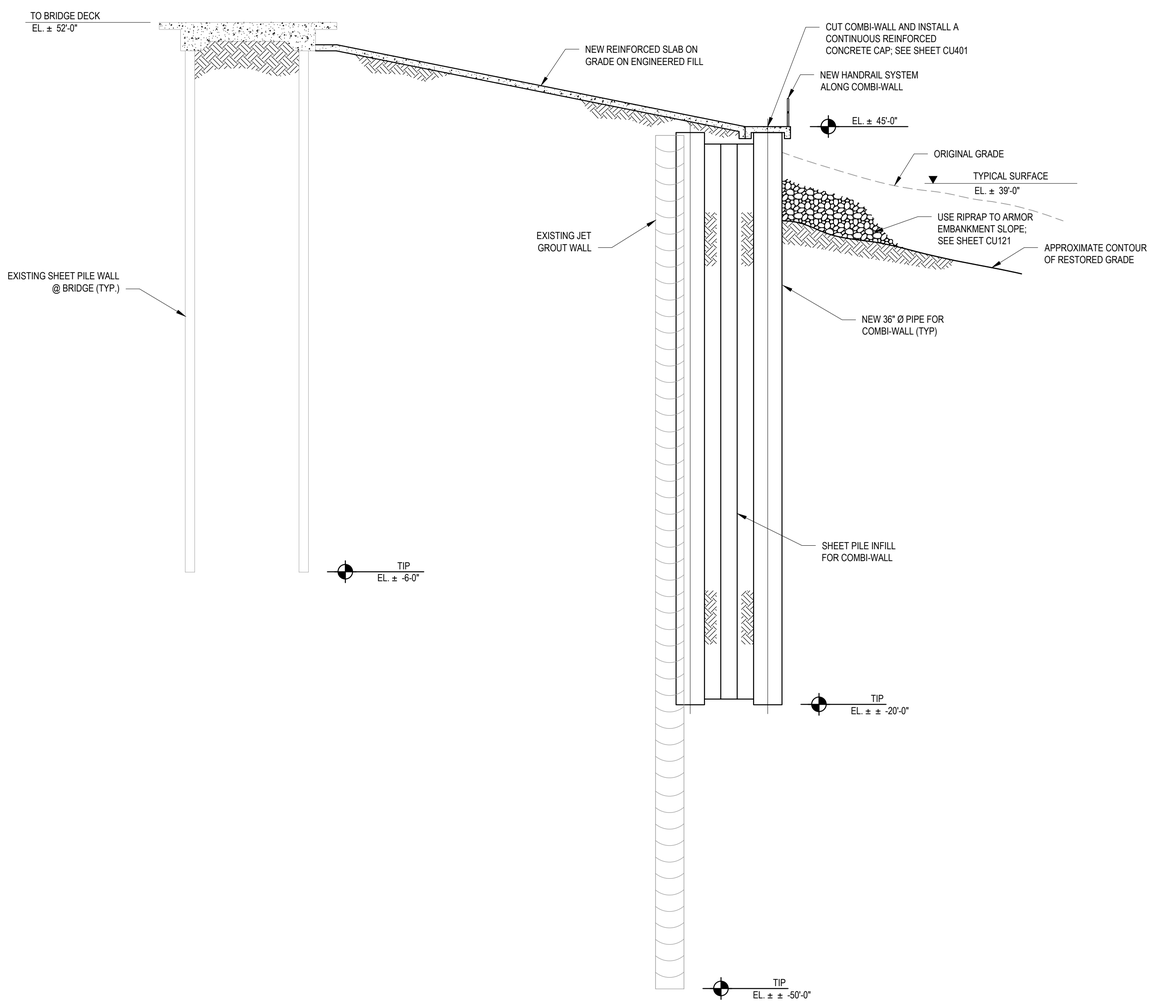
DATA FILE: W:\CADSTRC-215 UPSTREAM SPILLWAY REPAIRS PLUG TOP OF COMBI-WALL PIPE APPROACH.DWG

SAVED: 13-Jul-21 1:03 PM PLOTTED: 02-Aug-21 2:11 PM USER: LORENZ, MAX J

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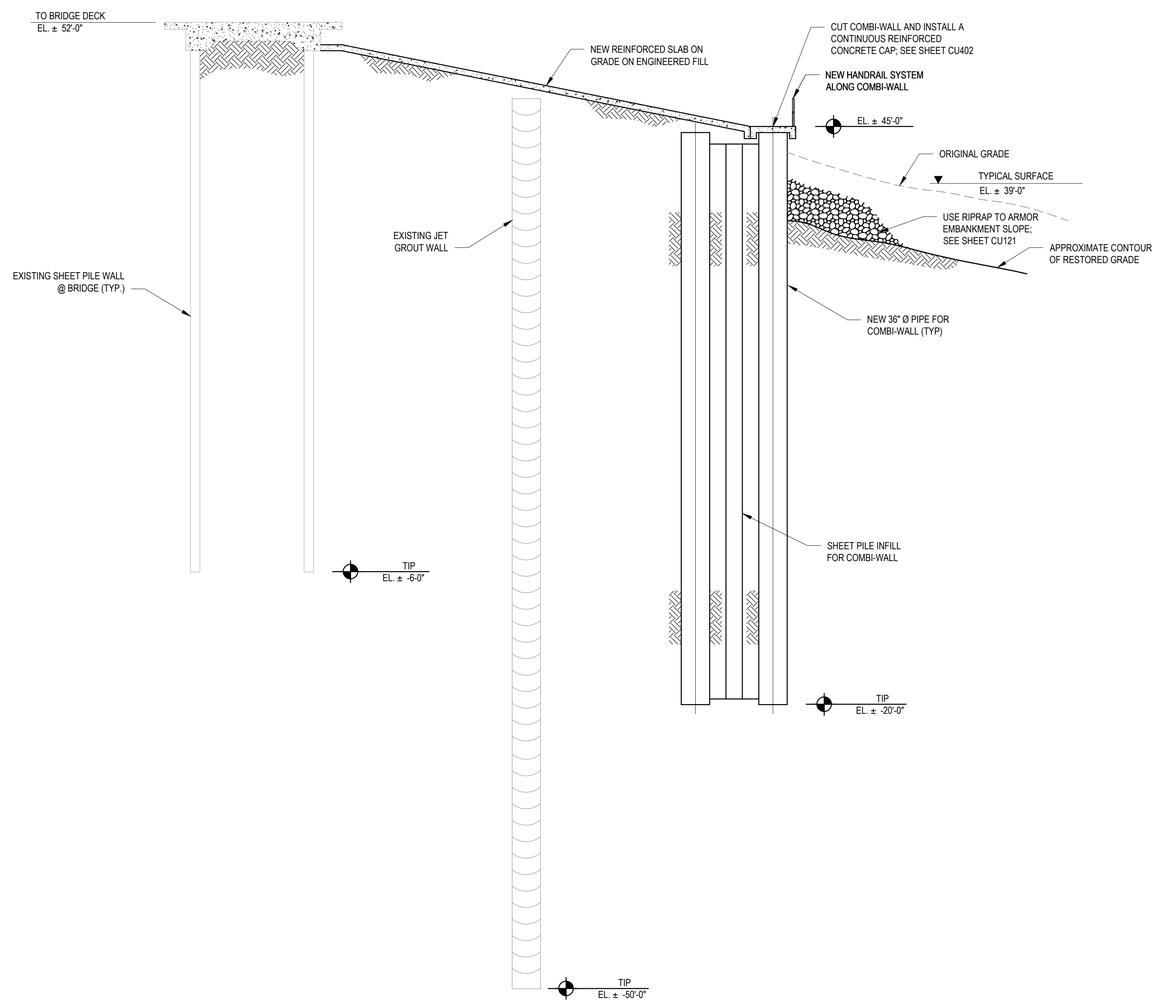
# UPSTREAM SPILLWAY REPAIRS

## STEP 8D AND 8E - CUT COMBI-WALL, INSTALL REINFORCED CONCRETE CAP, PARTIALLY RESTORE GRADE AND ARMOR EMBANKMENT




B8 / CU104 — CUT COMBI-WALL, INSTALL REINFORCED CONCRETE CAP, RESTORE AND ARMOR GRADE ALONG SOUTH EMBANKMENT

SCALE: SCALE 1/8" =1'-0"




B4 / CU104 — CUT COMBI-WALL, INSTALL REINFORCED CONCRETE CAP, RESTORE AND ARMOR GRADE ALONG NORTH EMBANKMENT

SCALE: SCALE 1/8" =1'-0"

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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STEP 8 - UPSTREAM SPILLWAY REPAIRS - CUT COMBI-WALL, INSTALL CONC. CAP, AND ARMOR GRADE

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

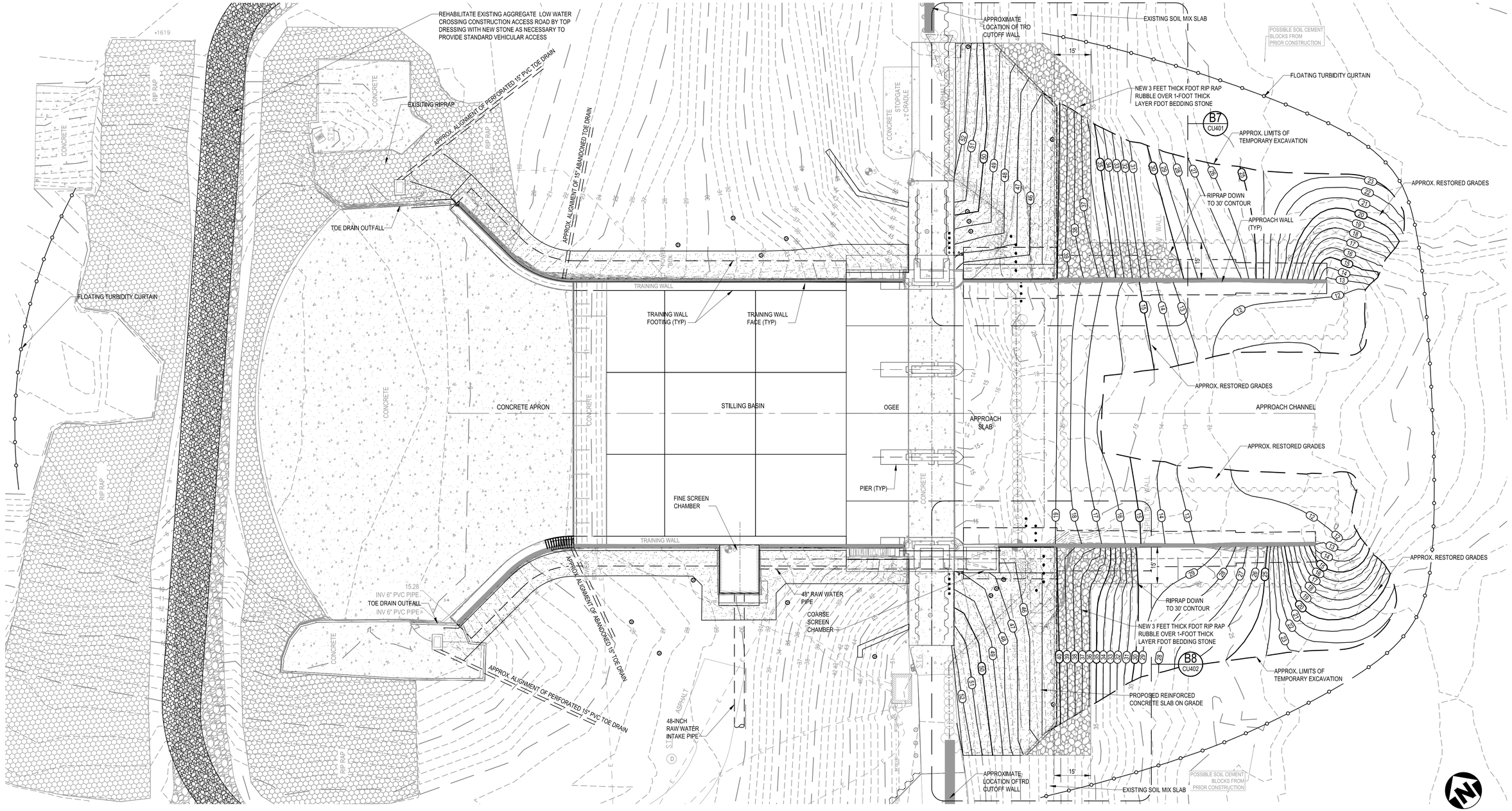
CLIENT DWG NO.

DRAWING NO. CU115 | REV D

CAD FILE: W:\CAD\TRC-214 STEP 8 UPSTREAM SPILLWAY REPAIRS RESTORE GRADE AND PLUG COMBI-WALL.DWG

SAVED: 13-Jul-21 1:04 PM PLOTTED: 02-Aug-21 2:11 PM USER: LORENZ, MAX J

ANSI D 22X34




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| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
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| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UPSTREAM EMBANKMENT AND UPSTREAM GRADING PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

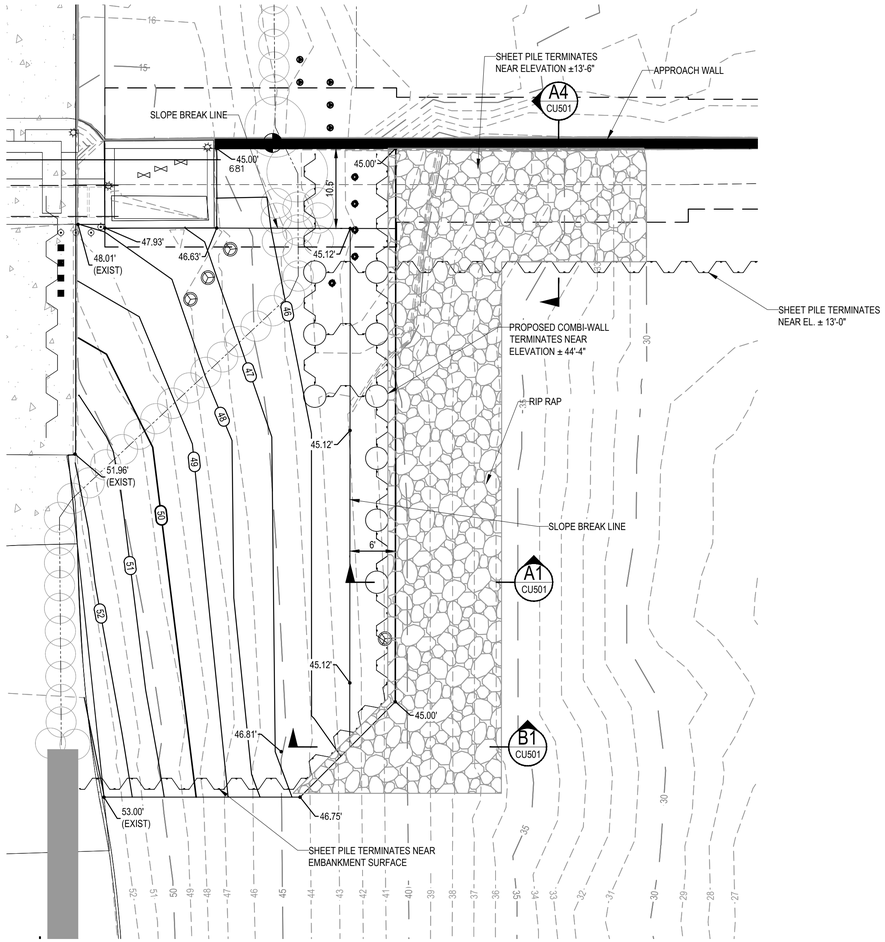
CLIENT DWG NO.

DRAWING NO.: CU121 | REV: D

CAD FILE: W:\CAD\CVO\21 UPSTREAM EMBANKMENT GRADING PLAN.DWG

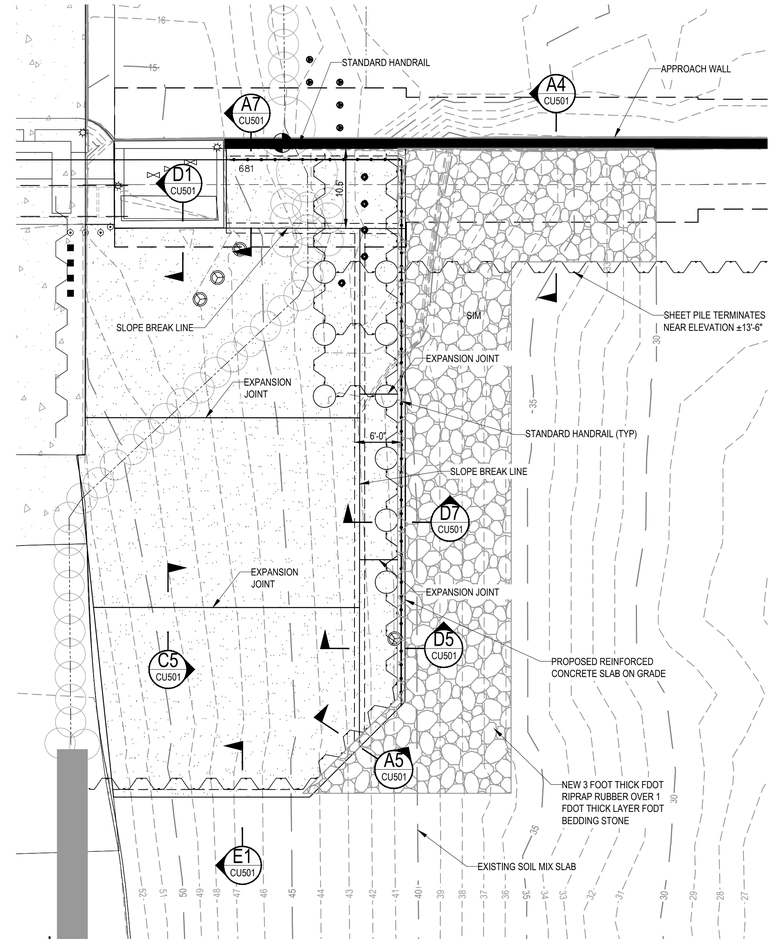
SAVED: 13-Jul-21 1:05 PM PLOTTED: 02-Aug-21 2:13 PM USER: LORENZ, MAX J

ANSI D 22X34




B7 CU121 ENLARGED GRADING PLAN - SOUTH EMBANKMENT

SCALE: 1" = 10'




B4 CU401 PROPOSED SLAB PLAN - SOUTH EMBANKMENT

SCALE: 1" = 10'

0 2' 5' 10' 20'

1"=10'-0"

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| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: ENLARGED GRADING PLANS - UPSTREAM SOUTH EMBANKMENT

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

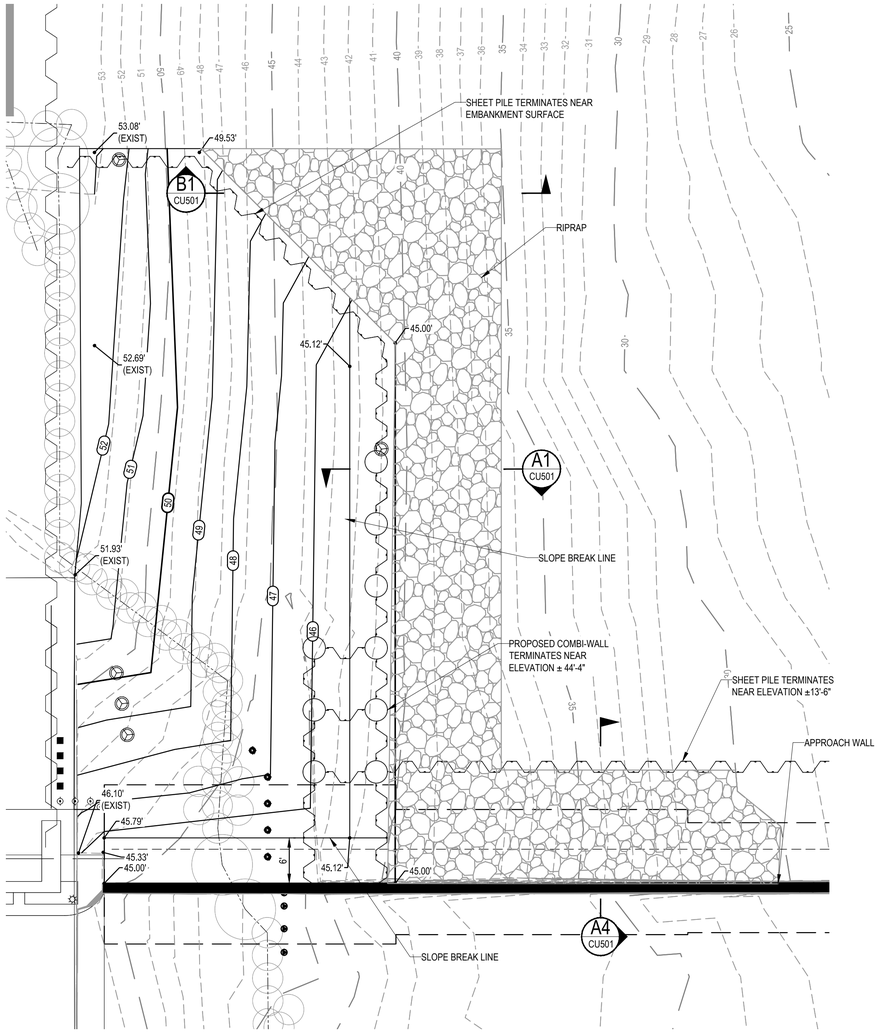
CLIENT DWG NO.

DRAWING NO.: CU401 | REV: D

CAD FILE: W:\CAD\CU401 ENLARGED GRADING PLANS - UPSTREAM EMBANKMENTS.DWG

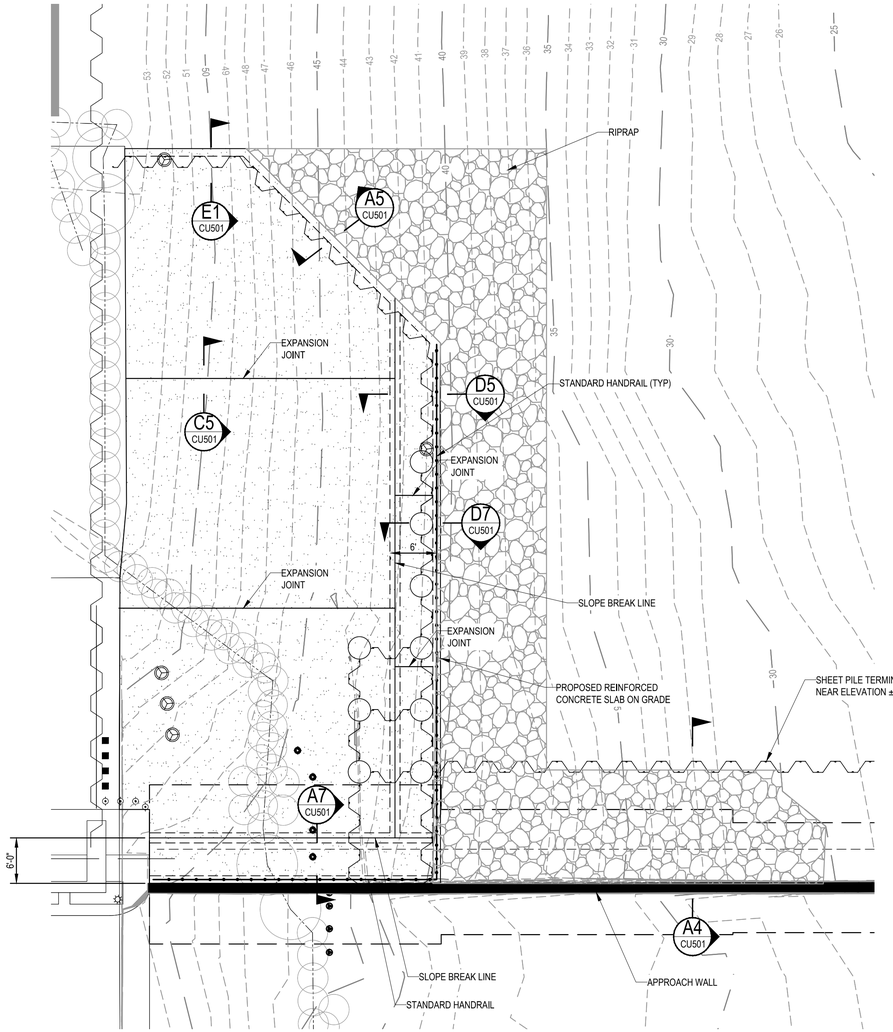
SAVED: 13-Jul-21 1:06 PM PLOTTED: 02-Aug-21 2:14 PM USER: LORENZ, MAX J

ANSI D 22X34




B7 CU402 ENLARGED GRADING PLAN - NORTH EMBANKMENT

SCALE: 1" = 10'




B4 CU402 PROPOSED SLAB PLAN - NORTH EMBANKMENT

SCALE: 1" = 10'

0 2' 5' 10' 20'

1"=10'-0"

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SCALE: AS SHOWN

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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: ENLARGED GRADING PLANS - UPSTREAM NORTH EMBANKMENTS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

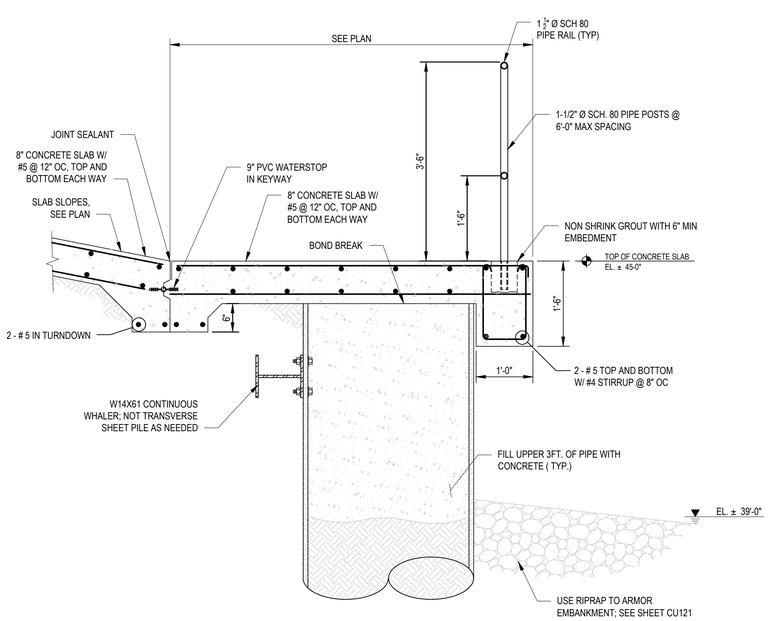
CLIENT DWG NO.

DRAWING NO. CU402 | REV D

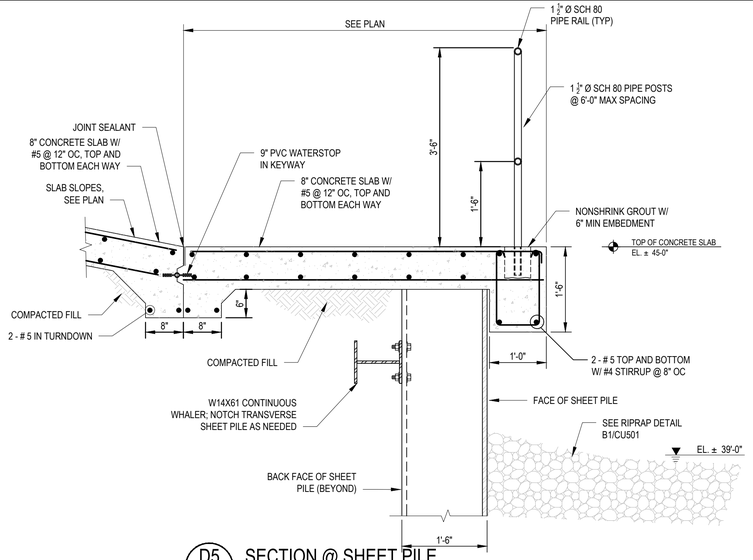
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SAVED: 13-Jul-21 1:07 PM PLOTTED: 02-Aug-21 2:16 PM USER: LORENZ, MAX J

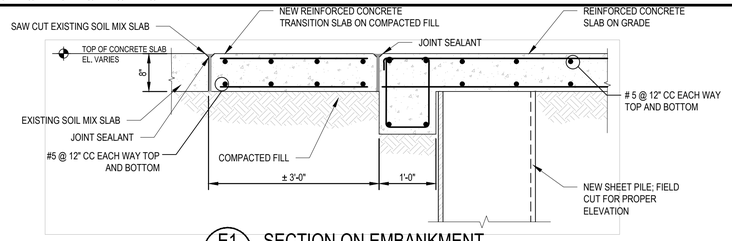
ANSI D 22X34



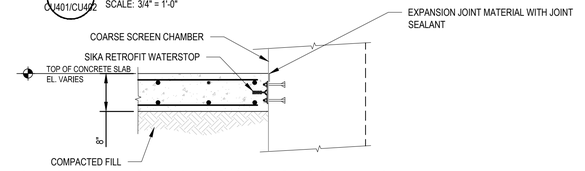

D7 CU401 TYPICAL SECTION AT COMBI-WALL PIPE
SCALE: 3/4" =1'-0"



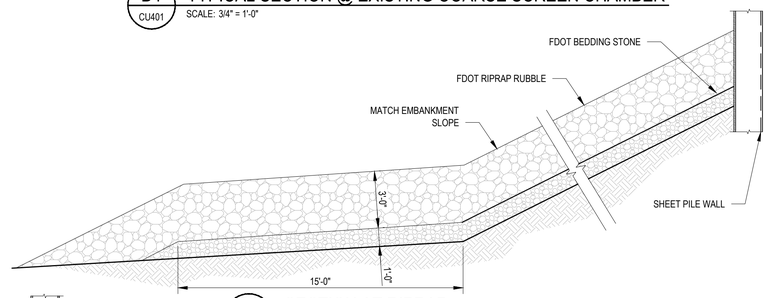

D5 CU401 SECTION @ SHEET PILE
SCALE: 3/4" =1'-0"



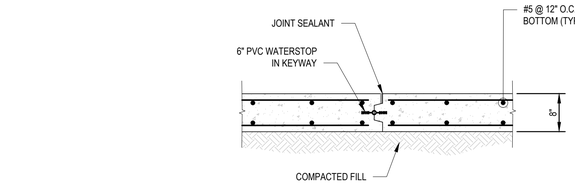

E1 CU401/CU402 SECTION ON EMBANKMENT
SCALE: 3/4" = 1'-0"



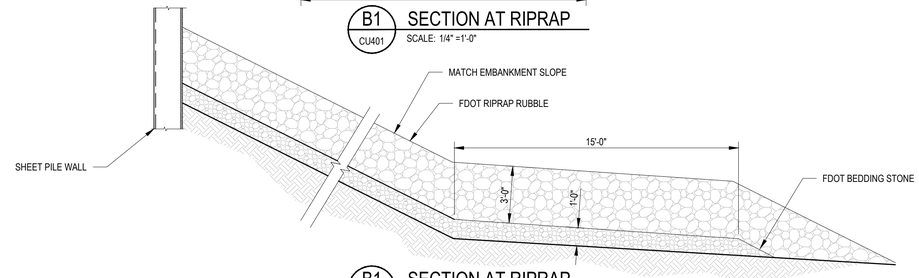

D1 CU401 TYPICAL SECTION @ EXISTING COARSE SCREEN CHAMBER
SCALE: 3/4" = 1'-0"



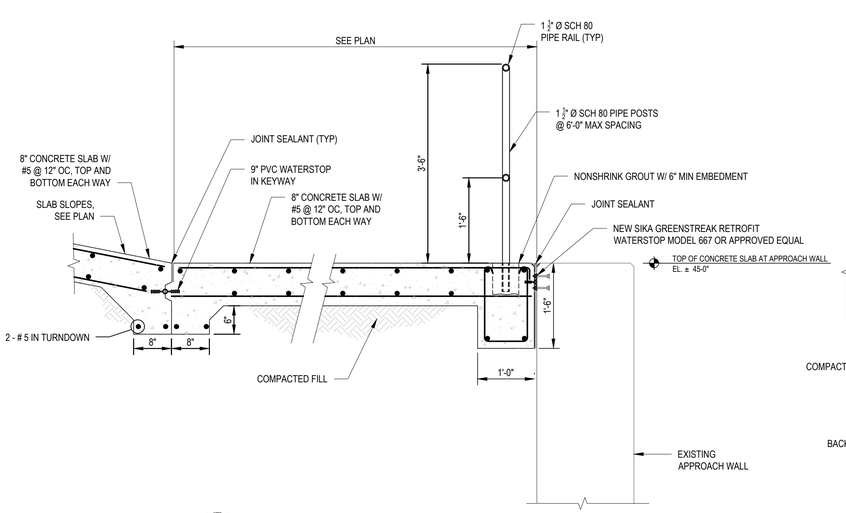

B1 CU401 SECTION AT RIPRAP
SCALE: 1/4" =1'-0"



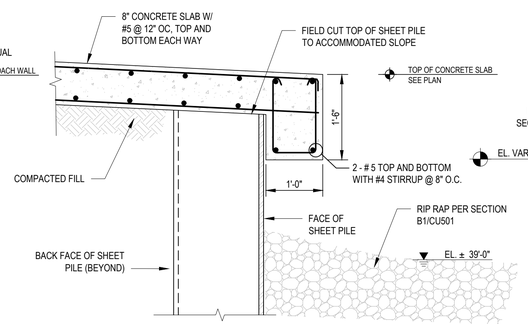

C5 CU401/CU402 SECTION @ SLAB EXPANSION JOINT
SCALE: 3/4" = 1'-0"



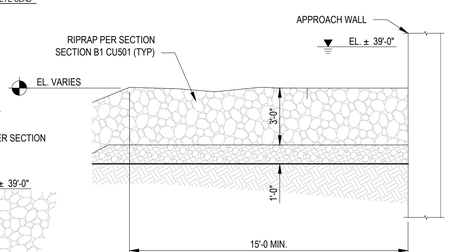

B1 CU402 SECTION AT RIPRAP
SCALE: 1/4" =1'-0"



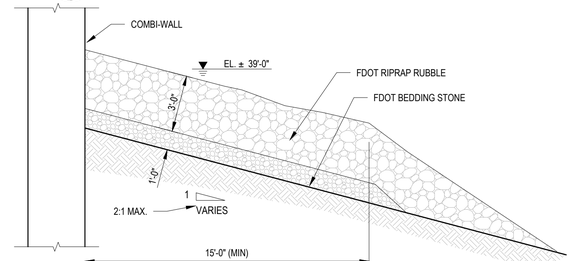

A7 CU401 SECTION AT APPROACH WALL
SCALE: 3/4" =1'-0"




A5 CU401/CU402 SECTION @ ANGLED WALL
SCALE: 3/4" =1'-0"




A4 CU401/CU402 SECTION AT APPROACH WALL
SCALE: 1/4" =1'-0"




A1 CU401/CU402 SECTION AT RIPRAP
SCALE: 1/4" =1'-0"

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| B | 20 MAY 2021 | 90% DESIGN |
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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UPSTREAM EMBANKMENT DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

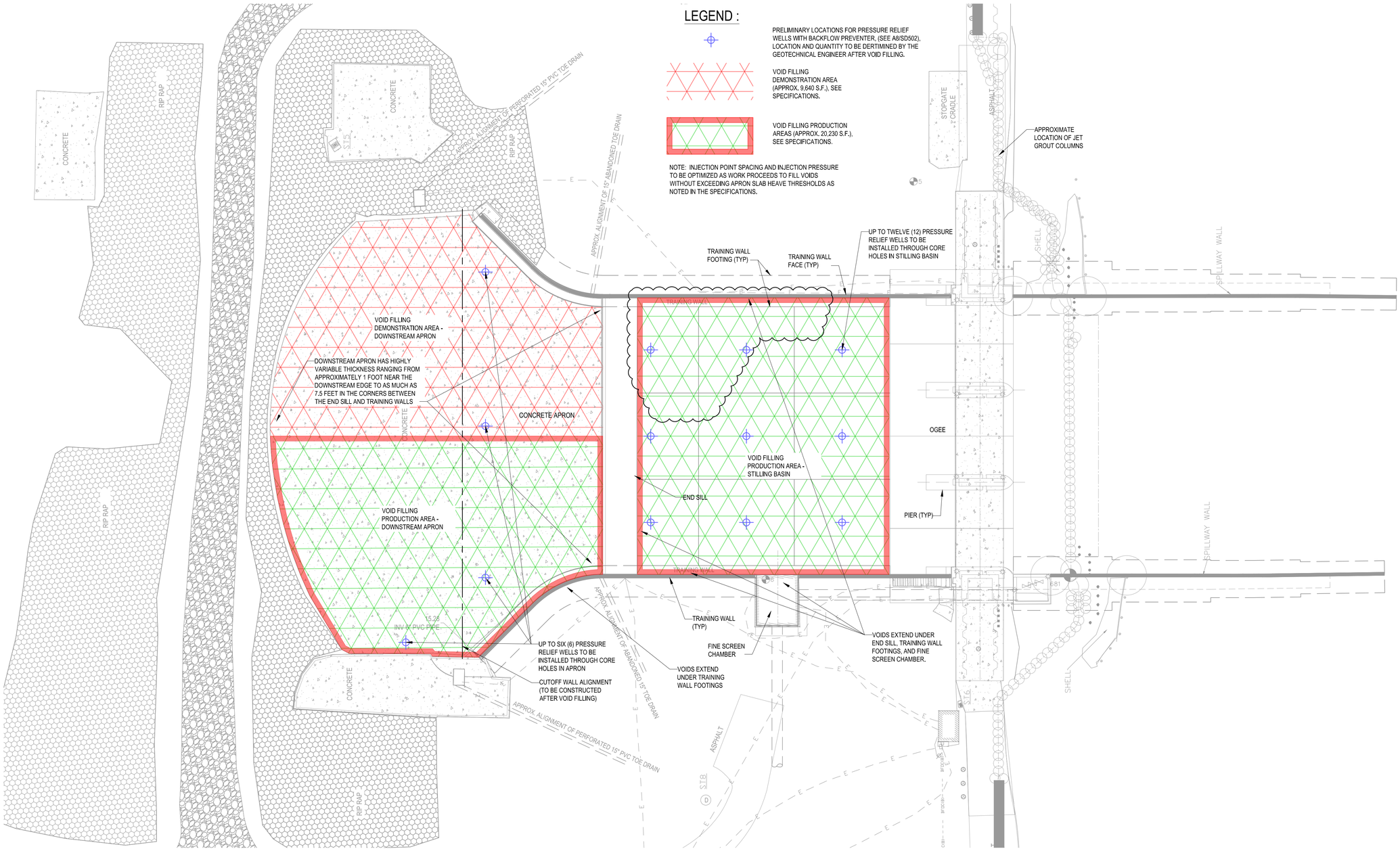
CLIENT DWG NO.

DRAWING NO.: CU501 | REV: D

CAD FILE: W:\CAD\CVU\501 UPSTREAM EMBANKMENT DETAILS.DWG

SAVED: 13-Jul-21 1:07 PM PLOTTED: 02-Aug-21 2:16 PM USER: LORENZ, MAX J

ANSI D 22X34




NOTES

1) CORE DIAMETER 4.5 INCHES
2) INITIAL CORE SPACING 7 FT TO BE REFINED DURING DEMONSTRATION PROJECT
3) WATER STOPS SHALL BE AVOIDED DURING SLAB CORING.
4) CORE HOLES TO BE PLUGGED WITH REMOVABLE CAPS UNTIL FILLING AND SUBSEQUENT JET GROUTING FOR CUTOFF WALL IS COMPLETED. THESE SHOULD THEN BE REMOVED.
5) NINE (9) OF THESE CORE HOLES IN STILLING BASIN AND FOUR (4) IN APRON TO BE RETROFITTED WITH PRESSURE RELIEF WELLS (SEE DETAIL ON SHEET S-502 B3), ENGINEER TO MAKE DECISION ON WHICH HOLES TO RETROFIT BASED ON PORE PRESSURE MONITORING SUBSEQUENT TO INSTALLING THE SOIL MIXED / JET GROUT COLUMNS
6) SAND IN REMAINING CORE HOLES SHOULD BE COMPLETELY REMOVED TO THE BOTTOM OF THE CONCRETE AND FILLED WITH NEAT CEMENT GROUT TO THE FULL HEIGHT OF THE EXISTING CONCRETE.
7) CONCRETE CORES ARE TO BE REMOVED FROM THE STILLING BASIN AND FROM THE DOWNSTREAM APRON

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|---|---|---|---|---|---|---|---|---|

| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: VOID FILLING PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CD101 | REV: D

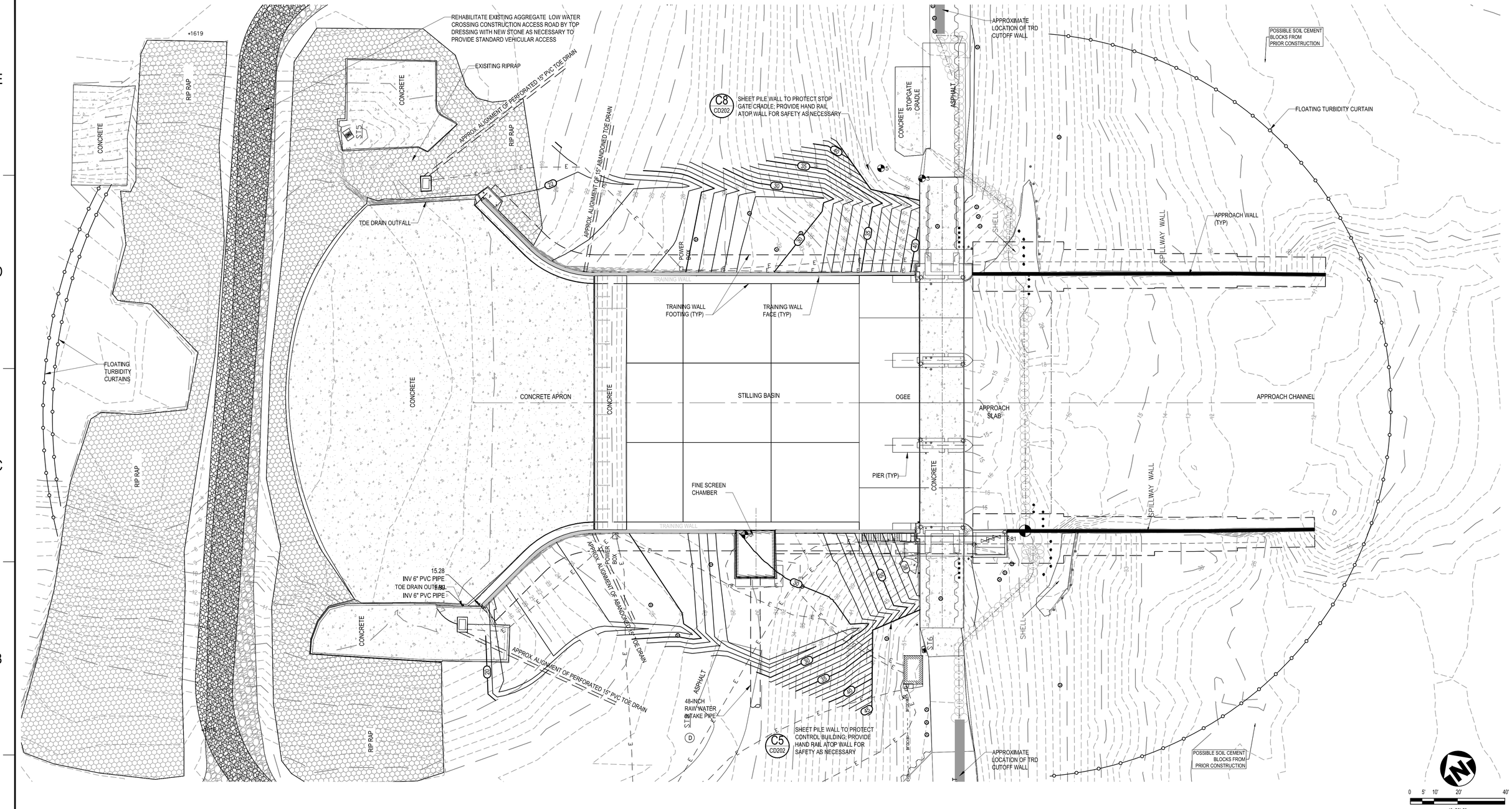
SAVED: 15-Jul-21 11:25 AM PLOTTED: 02-Aug-21 2:17 PM USER: LORENZ, MAX J

CAD FILE: W:\CAD\CVI\2101 VOID FILLING PLAN.DWG

ANSI D 22X34

8 7 6 5 4 3 2 1

A B C D E




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|---|---|---|---|---|---|---|---|---|
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PROJECT NO.

SCALE: AS SHOWN

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|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: CONSTRUCTION PHASE DOWNSTREAM GRADING PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. CD111

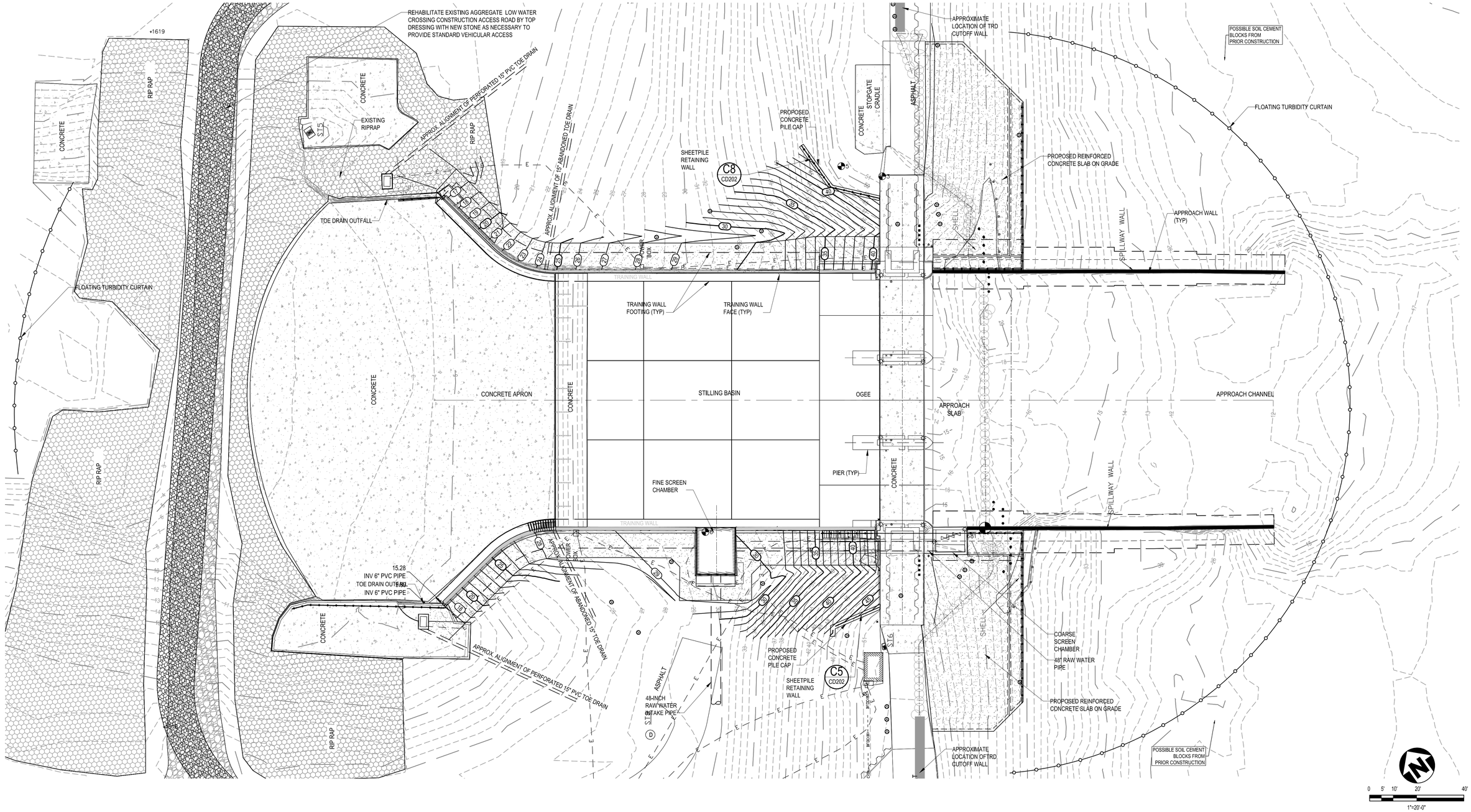
REV D

CAD FILE: W:\CAD\CIVIL\111 CONSTRUCTION PHASE DOWNSTREAM GRADING PLAN.DWG

SAVED: 13-Jul-21 1:09 PM PLOTTED: 02-Aug-21 2:18 PM USER: LORENZ, MAX J

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| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: FINAL PHASE DOWNSTREAM GRADING PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CD112 | REV: D

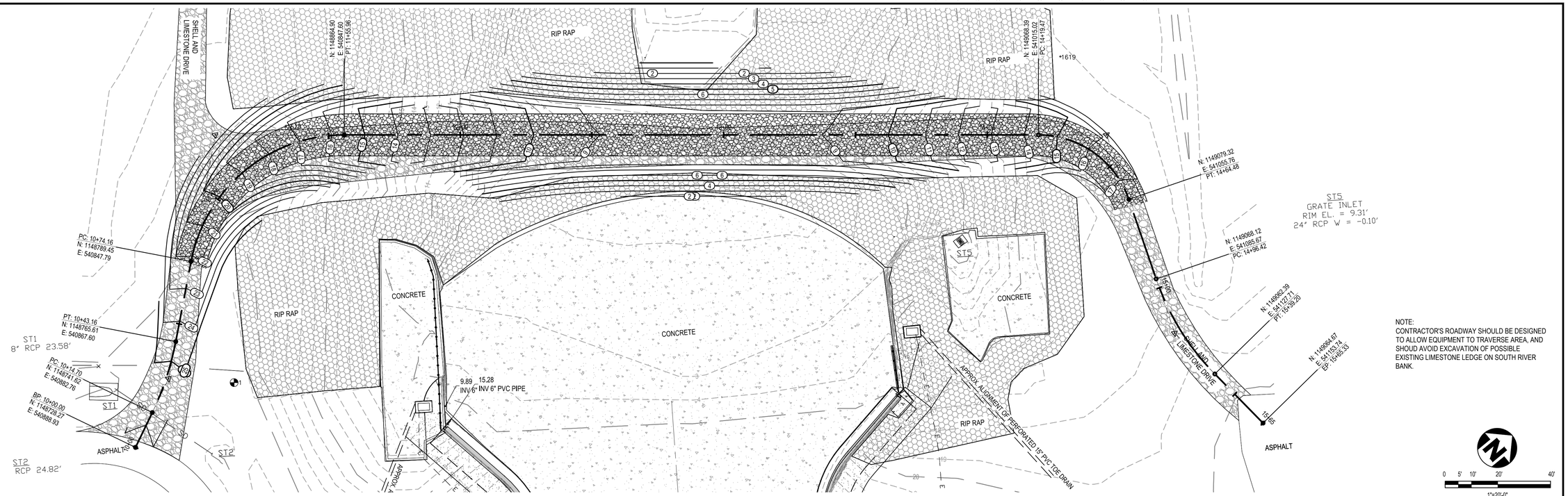
CAD FILE: W:\CAD\CIVIL\112 FINAL PHASE GRADING PLAN.DWG

SAVED: 13-Jul-21 1:10 PM PLOTTED: 02-Aug-21 2:20 PM USER: LORENZ, MAX J

ANSI D 22X34

8 7 6 5 4 3 2 1

A B C D E

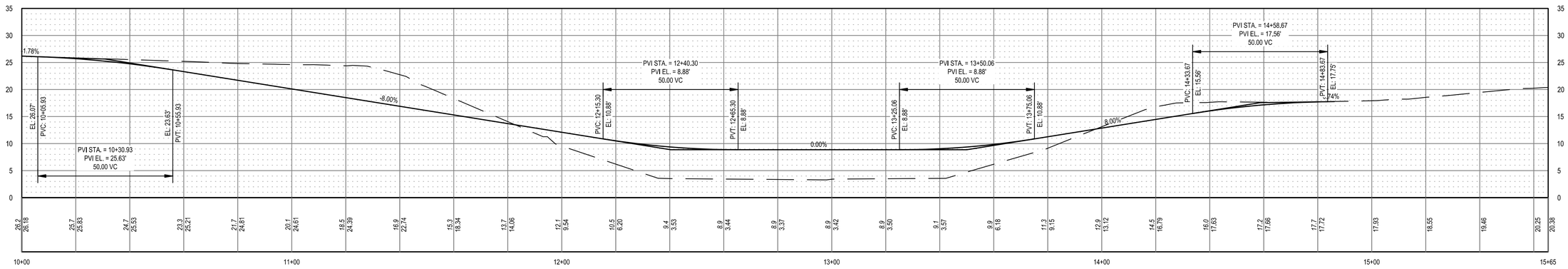



NOTE:
CONTRACTOR'S ROADWAY SHOULD BE DESIGNED TO ALLOW EQUIPMENT TO TRAVERSE AREA, AND SHOUD AVOID EXCAVATION OF POSSIBLE EXISTING LIMESTONE LEDGE ON SOUTH RIVER BANK.

0 5' 10' 20' 40'
1"=20'-0"

## C8 CONSTRUCTION ACCESS ROAD PLAN

CD201 SCALE: 1" = 20'




## A8 CONSTRUCTION ACCESS ROAD PROFILE

CD201 SCALE: 1" = 20' (HORIZ) 1" = 10' (VERT)

0 2' 5' 10' 20'
1"=10'-0" (VERT)
0 5' 10' 20' 40'
1"=20'-0" (HORIZ)

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| A | 3/12/2021 | 60% REVIEW SET |

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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: CONSTRUCTION ACCESS ROAD PLAN AND PROFILE

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

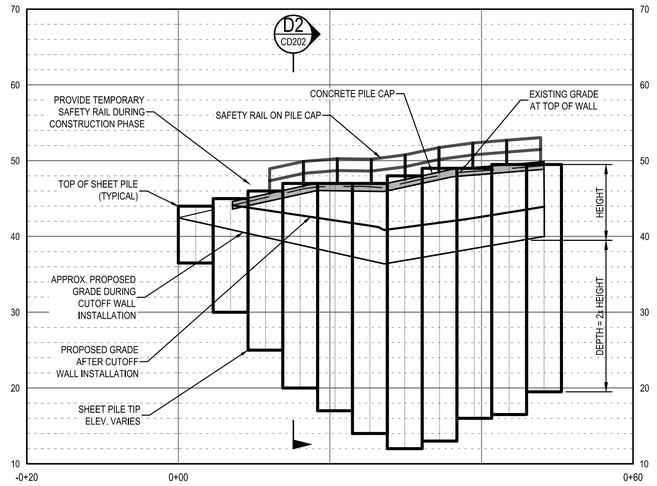
DRAWING NO.: CD201 | REV: D

SAVED: 13-Jul-21 1:11 PM PLOTTED: 02-Aug-21 2:22 PM USER: LORENZ, MAX J

CAD FILE: W:\CAD\CIV\CD01 CONSTRUCTION ACCESS ROAD PLAN AND PROFILE.DWG

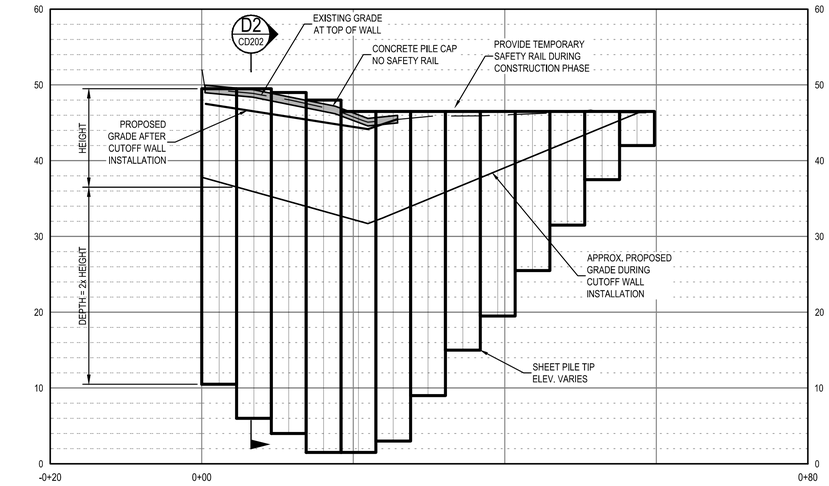
ANSI D 22X34

8 7 6 5 4 3 2 1



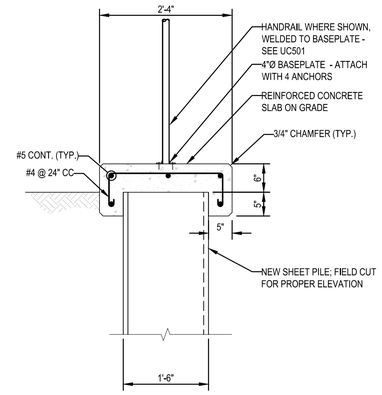

C8 CD111 CD112 ELEVATION - NORTH SHEETPILE RETAINING WALL

SCALE: 1" = 10'




C5 CD111 CD112 ELEVATION - SOUTH SHEETPILE RETAINING WALL

SCALE: 1" = 10'




D2 CD202 SECTION - SHEET PILE CAP

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

0 2' 5' 10' 20'

1"=10'-0"

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|---|---|---|---|---|---|---|---|---|
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

SUBJECT: SHEETPILE RETAINING WALL ELEVATIONS

PHASE II REPAIRS TO THE LAKE MANATEE DAM

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA

CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

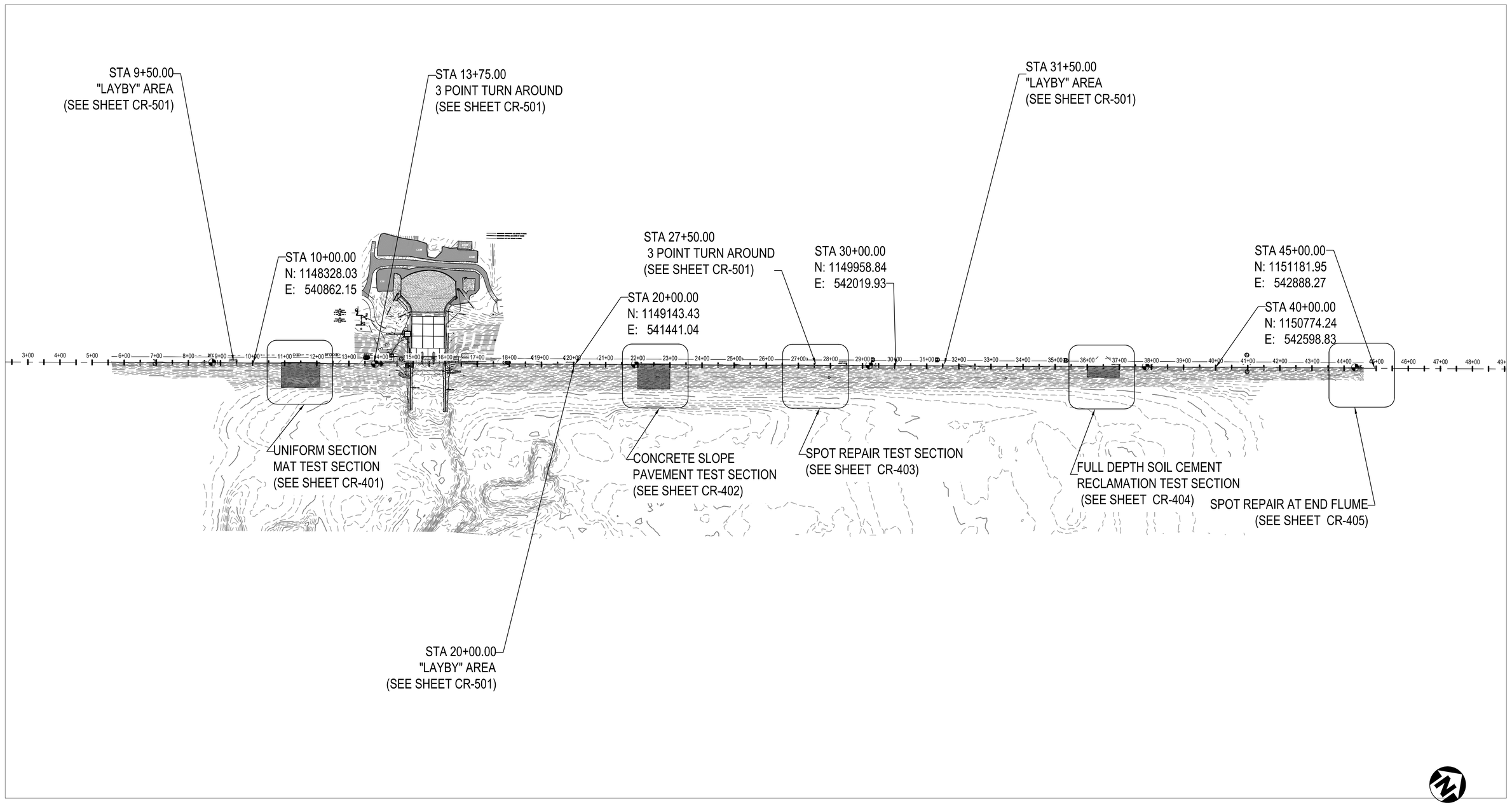
DRAWING NO. CD202

REV D

CAD FILE: W:\CAD\CIVIL\2021\SHEETPILE RETAINING WALL ELEVATIONS.DWG

SAVED: 15-Jul-21 10:14 PM PLOTTED: 02-Aug-21 2:24 PM USER: LORENZ, MAX J

ANSI D 22X34




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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: TEST SECTION, LAYBY, AND TURNAROUND LOCATION MAP

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

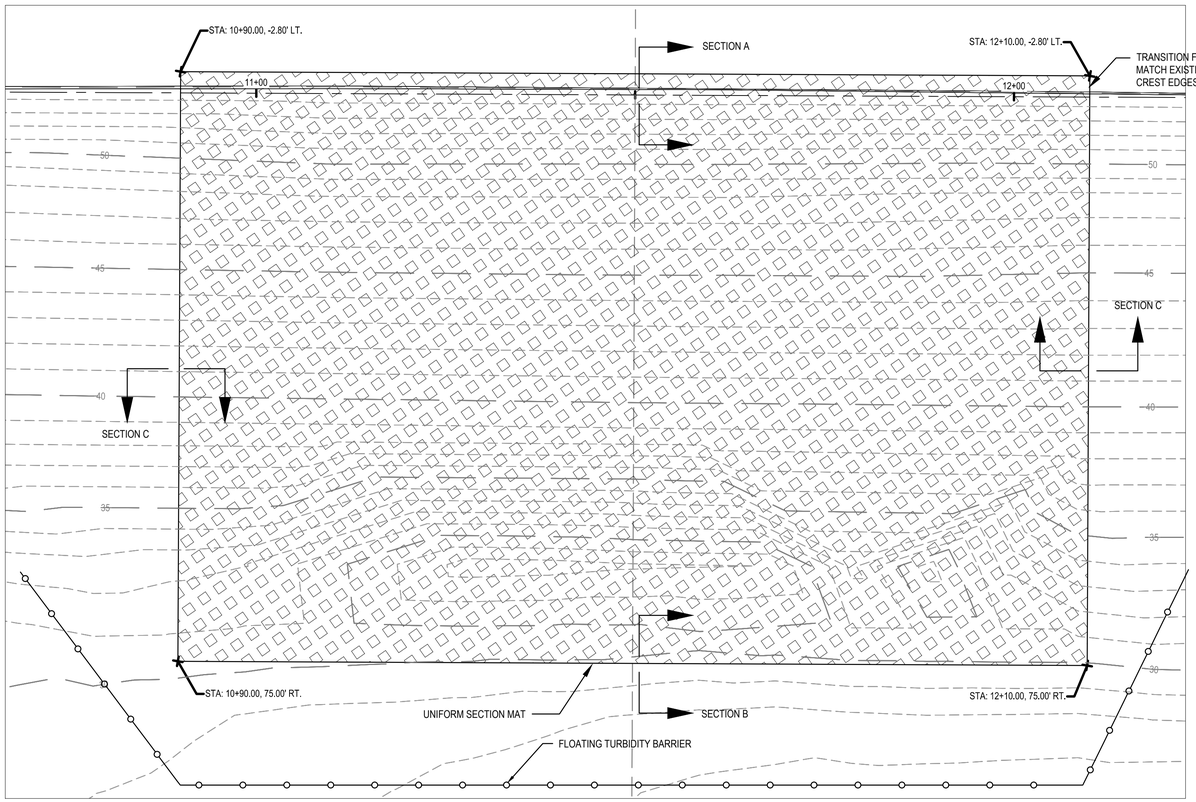
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DRAWING NO. CR101 | REV D

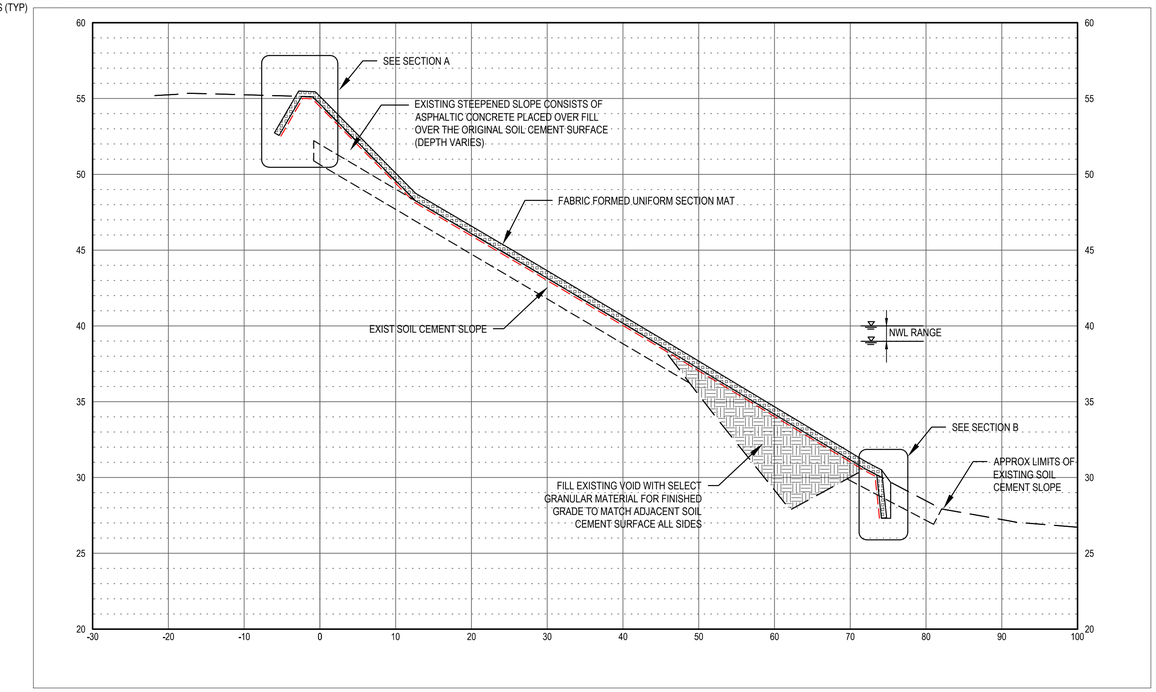
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SAVED: 13-Jul-21 1:25 PM PLOTTED: 02-Aug-21 2:26 PM USER: LORENZ, MAX J

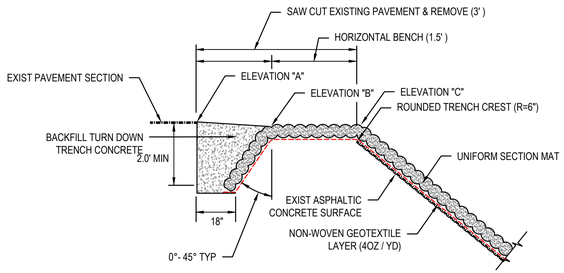
ANSI D-22X34




PLAN VIEW



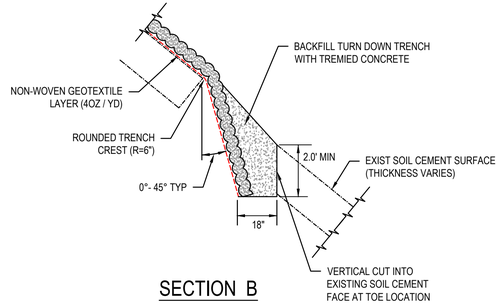

TYPICAL SECTION



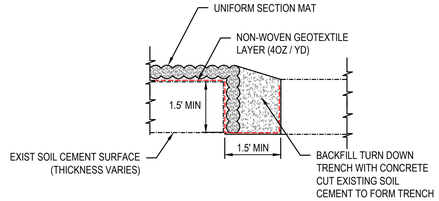

GRADING FOR TOP OF SLOPE

ELEVATION "A" = EXISTING GRADE
ELEVATION "B" = EL "A" MINUS 0.12'
ELEVATION "C" = EL "B" MINUS 0.12'

SECTION A




SECTION B




SECTION C

0 2' 5' 10' 20'

1"=10'-0"

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|---|---|---|---|---|---|---|---|---|
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| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: UNIFORM SECTION MAT TEST SECTION

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

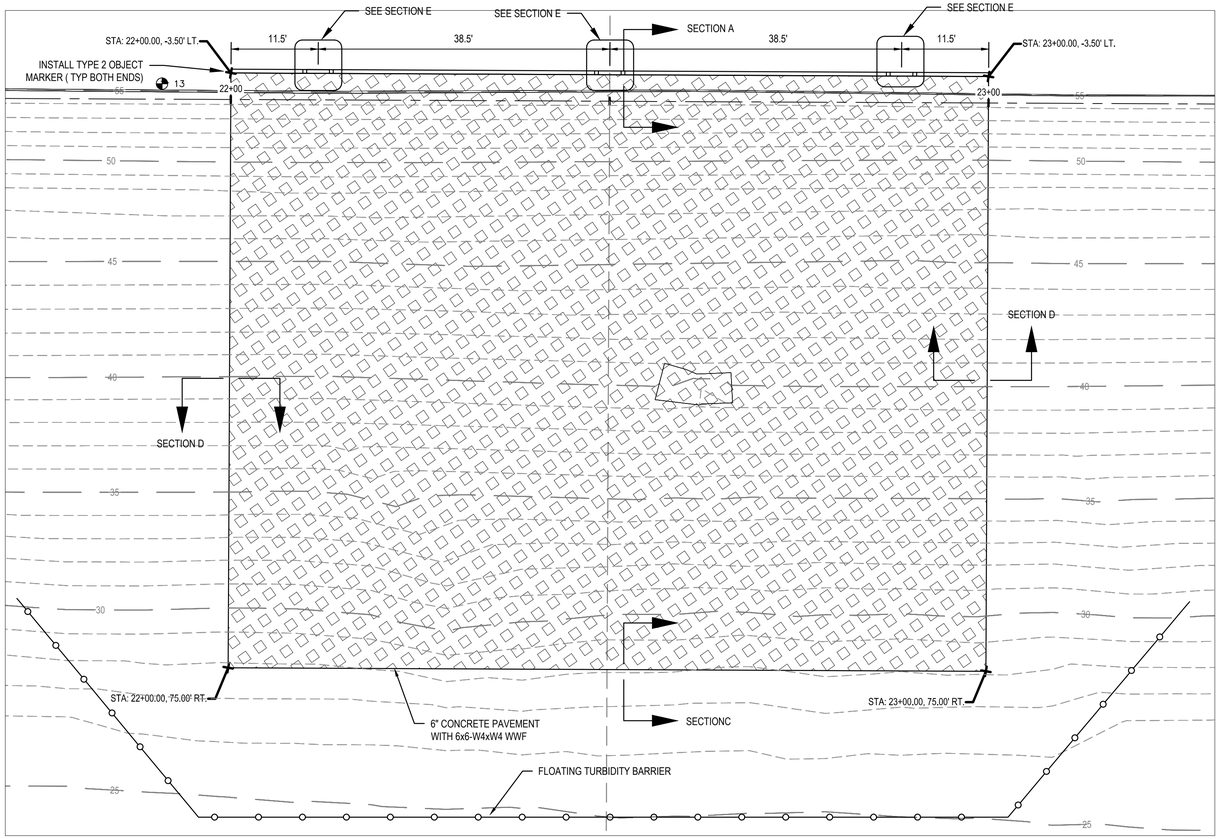
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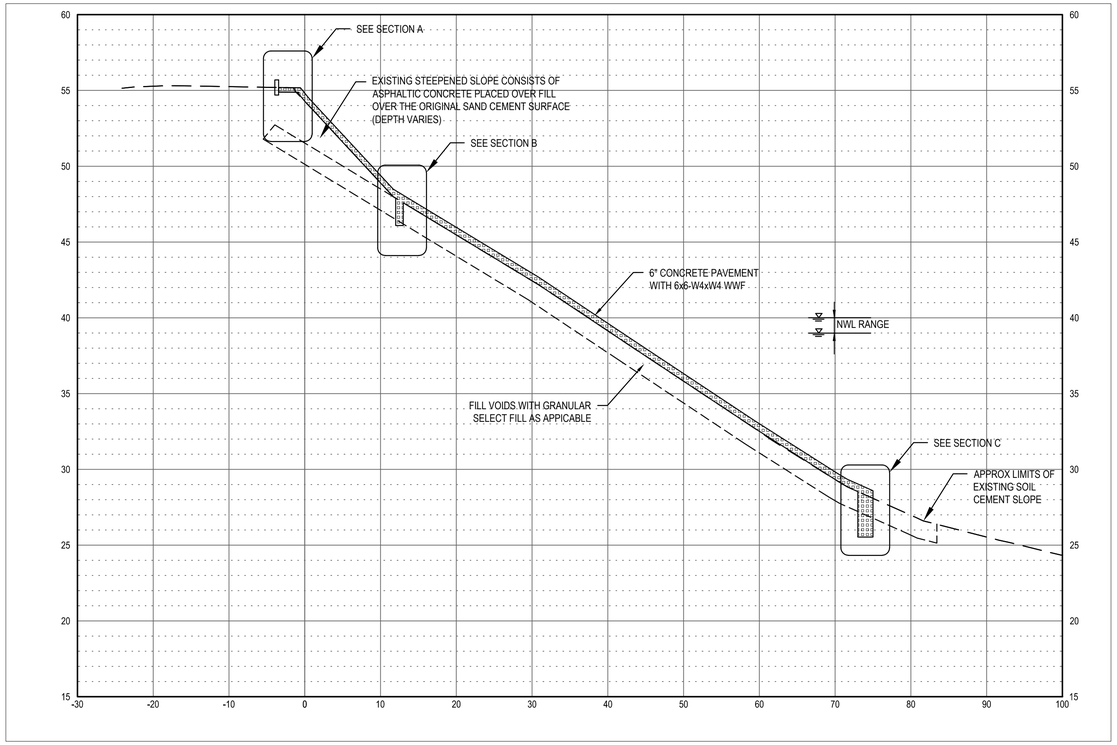
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ANSI D 22X34

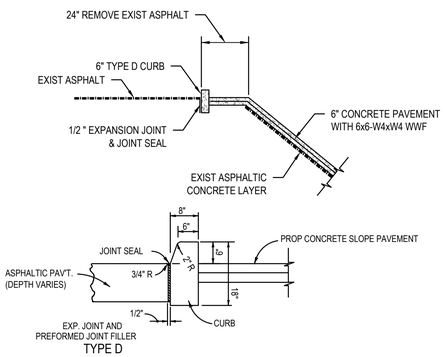
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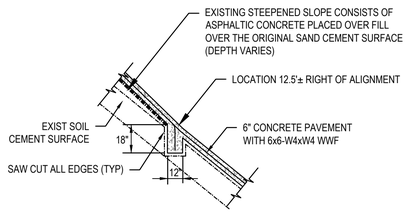

PLAN VIEW




TYPICAL SECTION

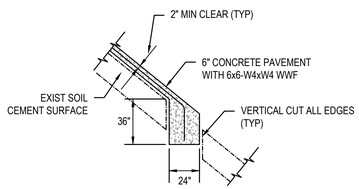



SECTION A

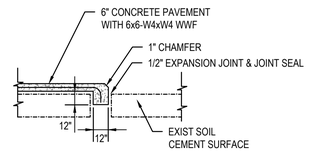



SECTION B
MID KEY TRENCH

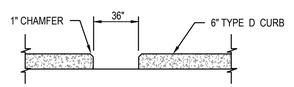
MID KEY TRENCH TO BE LOCATED NEAR ERODING BOTTOM OF STEEPENED SLOPE




SECTION C
BOTTOM KEY TRENCH




SECTION D
SIDE KEY TRENCH




SECTION E
DRAINAGE CURB OPENING

0 2' 5' 10' 20'

1"=10'-0"

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|---|---|---|---|---|---|---|---|---|
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: CONCRETE SLOPE PAVEMENT TEST SECTION

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CR402 | REV: D

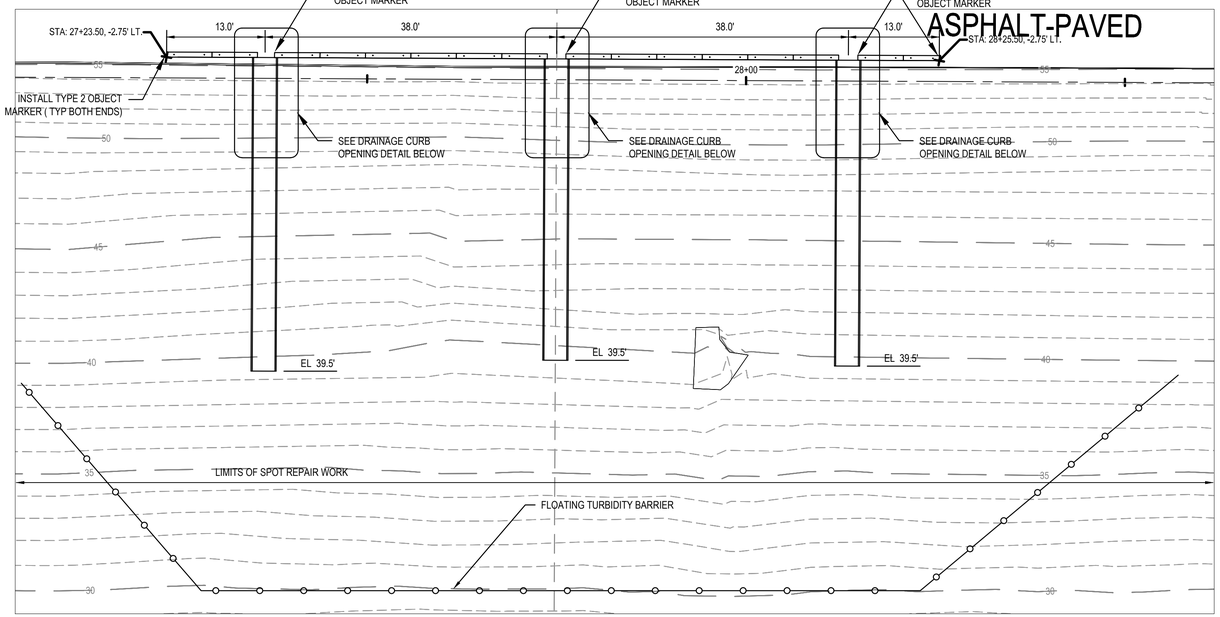
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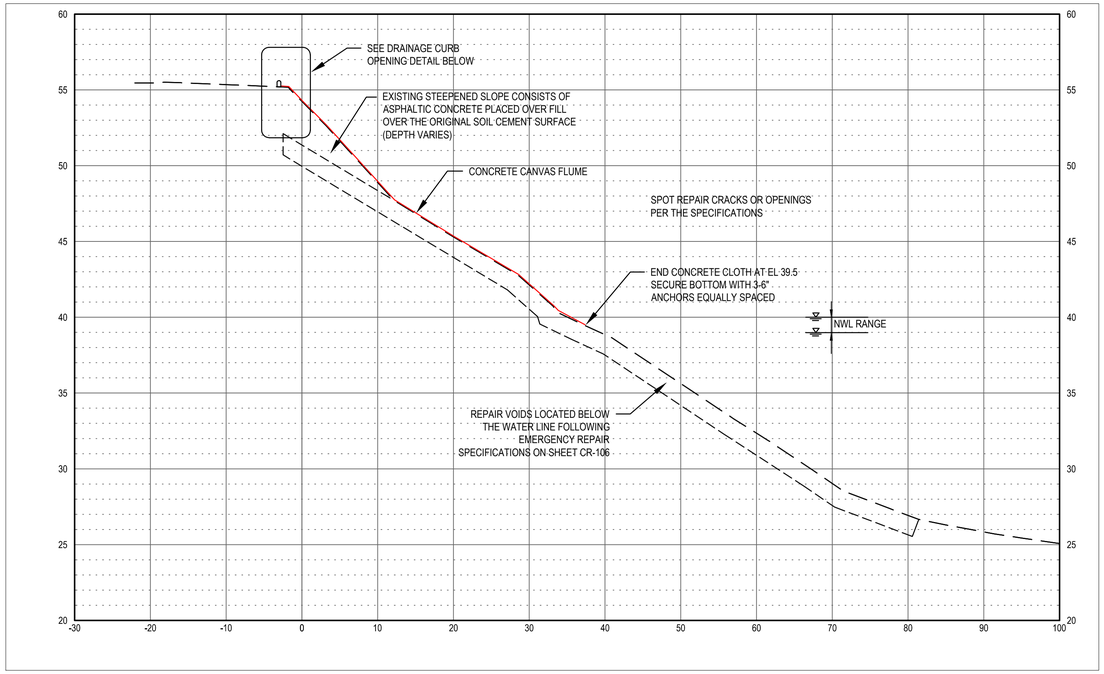
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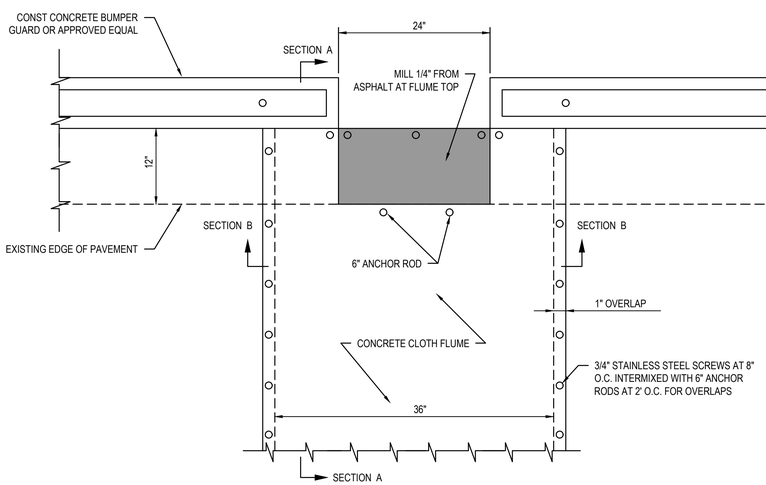
E D C B A



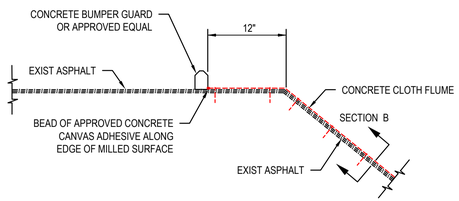

PLAN VIEW



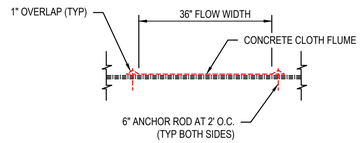

TYPICAL SECTION



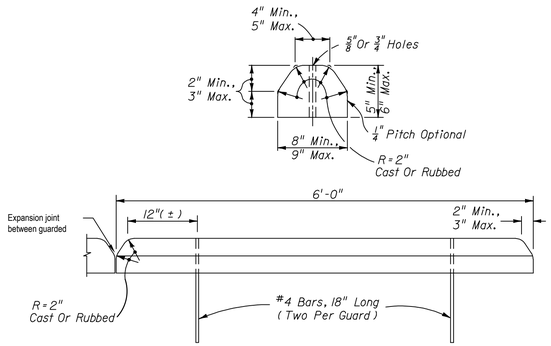

DRAINAGE CURB OPENING DETAIL




SECTION A




SECTION B




CONCRETE BUMPER GUARD DETAIL

0 2' 5' 10' 20'

1"=10'-0"

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| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: SPOT REPAIR TEST SECTION

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

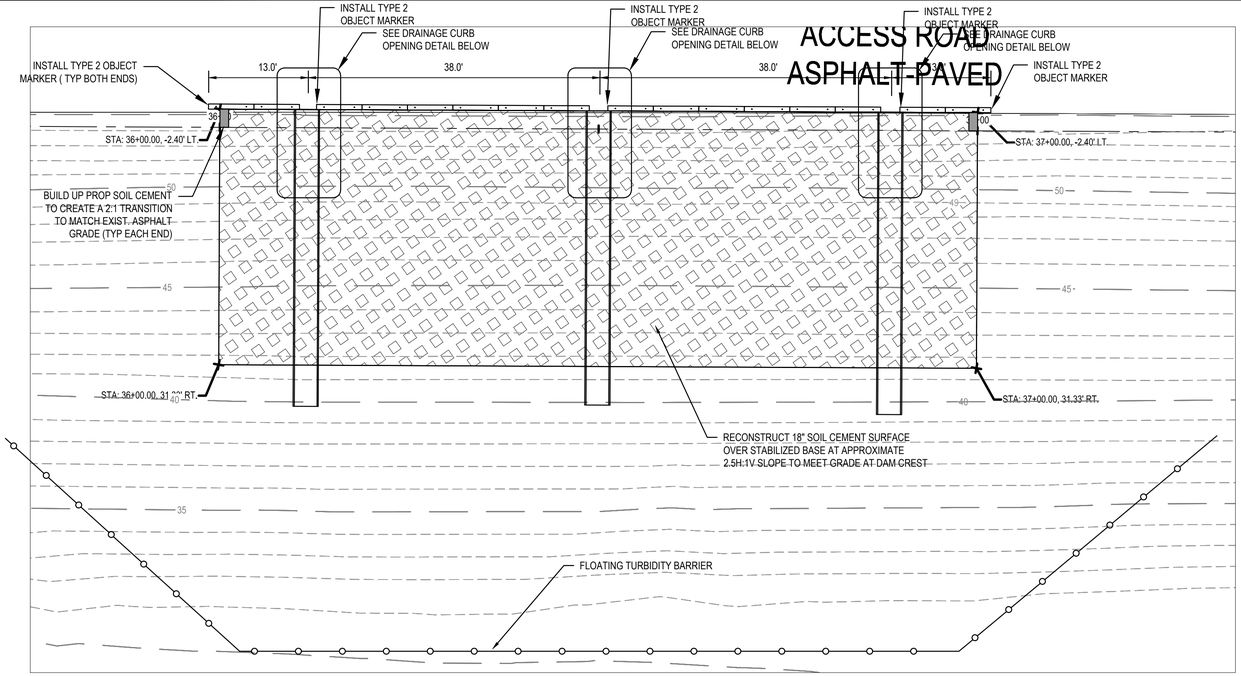
CLIENT DWG NO.

DRAWING NO.: CR403 | REV: D

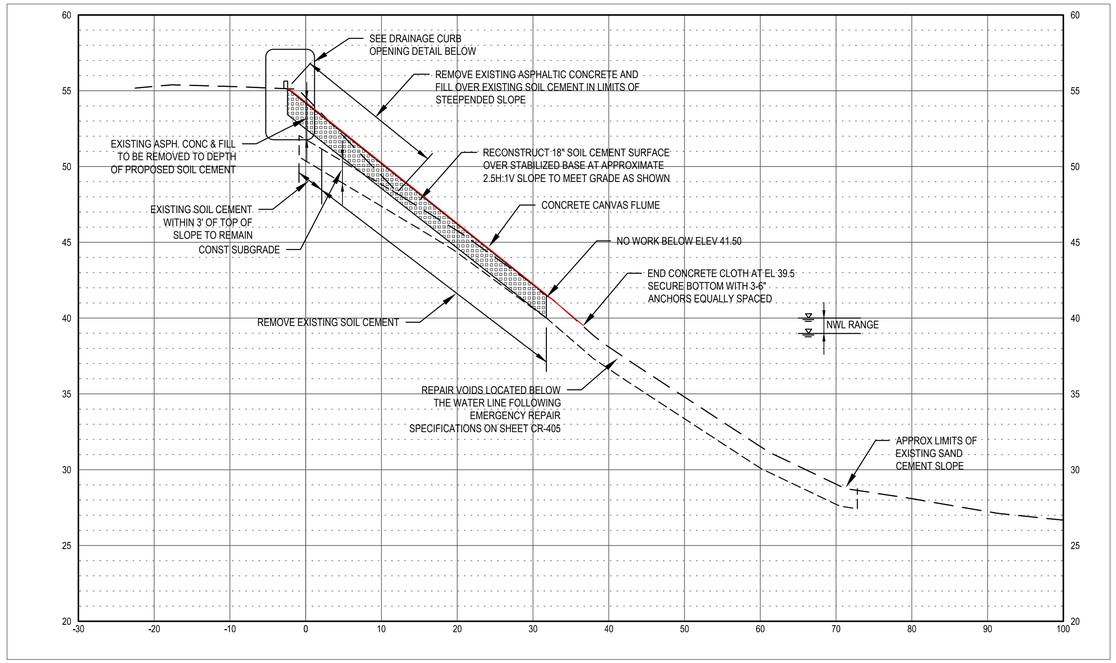
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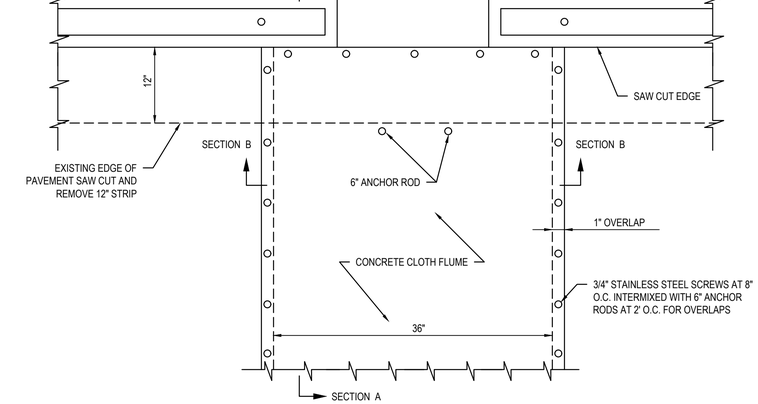
ANSI D 22X34




PLAN VIEW

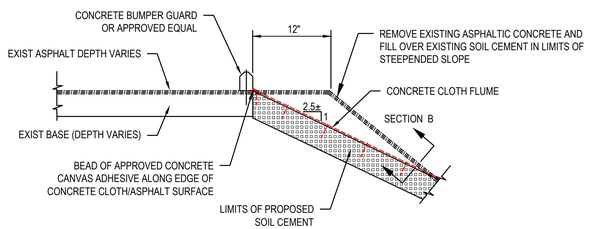



TYPICAL SECTION



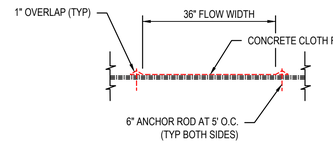

PLAN VIEW

DRAINAGE CURB OPENING DETAIL

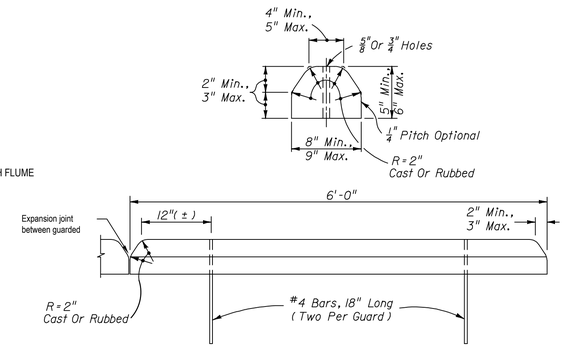



NOTE:
CONTRACTOR TO RECONSTRUCT CREST ASPHALT ROADWAY IF DAMAGED DURING CONSTRUCTION. SAWCUT ASPHALT 12" MIN. BEYOND LIMITS OF RECONSTRUCTION TO OFFSET NEW ASPHALT EDGE FROM RECONSTRUCTED BASE LIMITS. TYPICAL SECTION SHALL MATCH ASPHALT DEPTH AND CONC. BASE SHALL BE 8" (MIN) LBR 100.

SECTION A




SECTION B




CONCRETE BUMPER GUARD DETAIL

0 2' 5' 10' 20'
1"=10'-0"

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A. ROSENSTEIN, CLIENT PROJECT MGR
G. ANDERSEN, TECHNICAL MGR
D. BUTCHER, PROJECT MGR

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: FULL DEPTH SOIL CEMENT RECLAMATION TEST SECTION

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

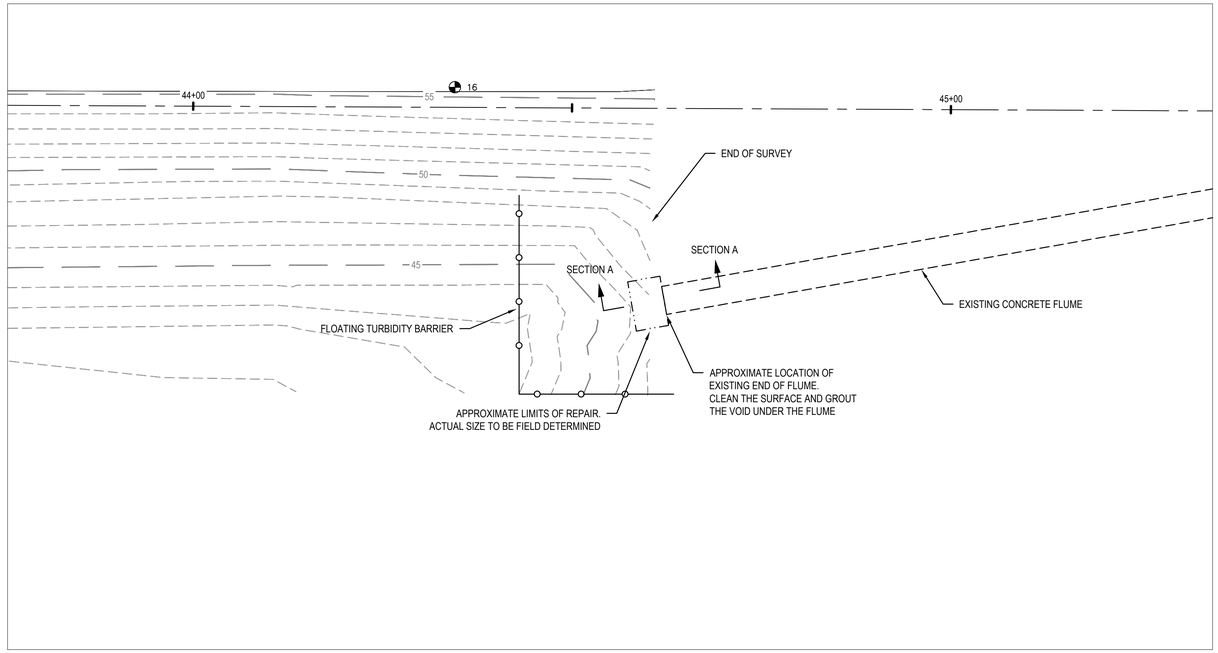
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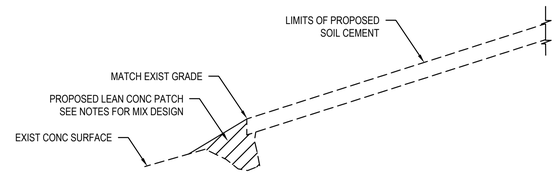
ANSI D 22X34

8 7 6 5 4 3 2 1




EMERGENCY REPAIR SPECIFICATIONS FOR REPAIRS LOCATED BELOW WATER LINE

1. PLACE PRESSURE ON EDGE OF UPPER SURFACE OF VOID IF EROSION IS OBSERVED UNDER SLAB-JUST ENOUGH TO EXPOSE CAVITY WALLS.
2. THE SOIL-CEMENT SURFACE IMMEDIATELY SURROUNDING (VARIES FROM 2-4') THE VOID SHALL BE CLEANED TO REMOVE AND SEDIMENT, VEGETATION, AND LOOSE DEBRIS USING HAND TOOLS OR LOW-PRESSURE WASHING.
3. ERECT TEMPORARY BREAKWATER / STILL WATER TO PROVIDE QUIESCENT CONDITIONS AT VOID WITH NO WATER MOVEMENT THROUGHOUT ENTIRE REPAIR LOCATION. SUBMIT SHOP DRAWING OF PROPOSED BREAKWATER TO ENGINEER FOR APPROVAL.
4. REMOVE BREAKWATER FORMS ONCE CONCRETE HAS HARDENED.
5. CONCRETE MIX TO GENERALLY HAVE 1:4:8 (CEMENT; FINE AGGREGATE; COARSE AGGREGATE) RATIO WITH A CEMENT % OF 7+/- % AND ADMIXTURES FOR ANTI-WASHOUT AND INCREASED COHESION. MAXIMUM SIZE COARSE AGGREGATE SHALL BE 89 STONE.




SECTION A

0 2' 5' 10' 20'

1"=10'-0"

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

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|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: SPOT REPAIR AT END OF FLUME

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA

CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

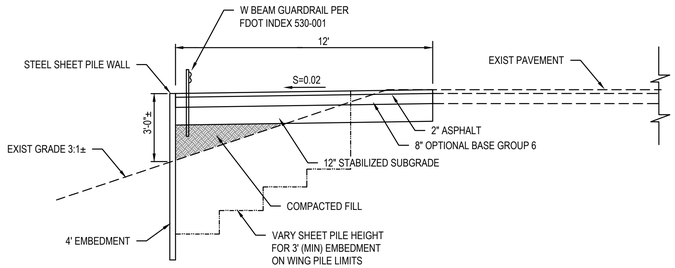
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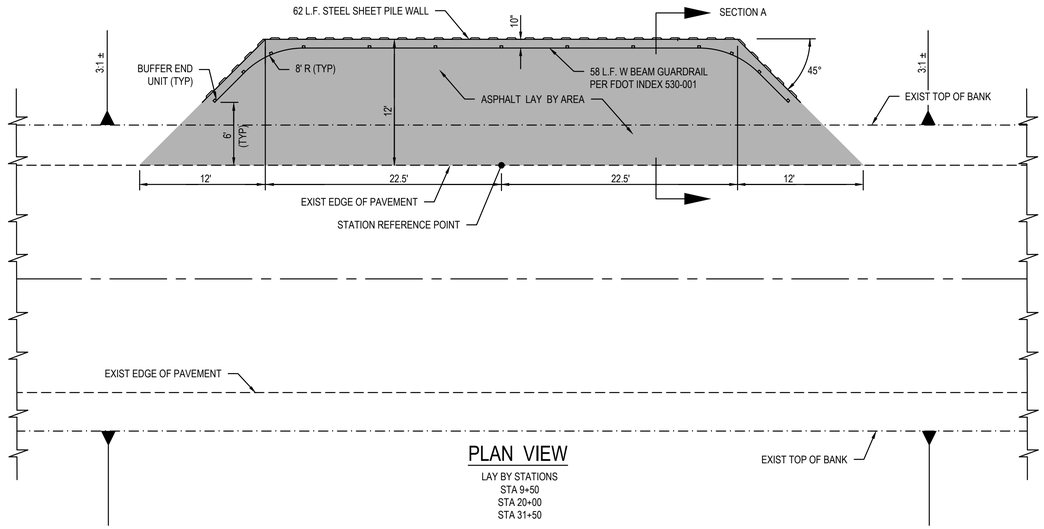
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SECTION A




PLAN VIEW

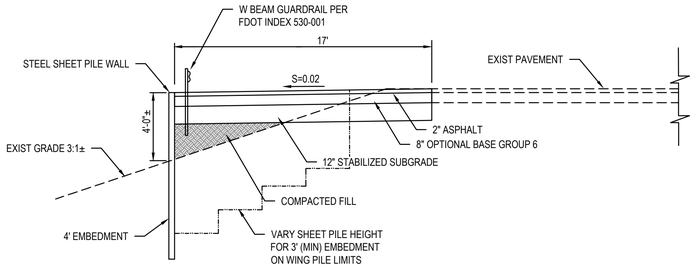
LAY BY STATIONS
STA 9+50
STA 20+00
STA 31+50

TEMPORARY
LAY BY DETAIL

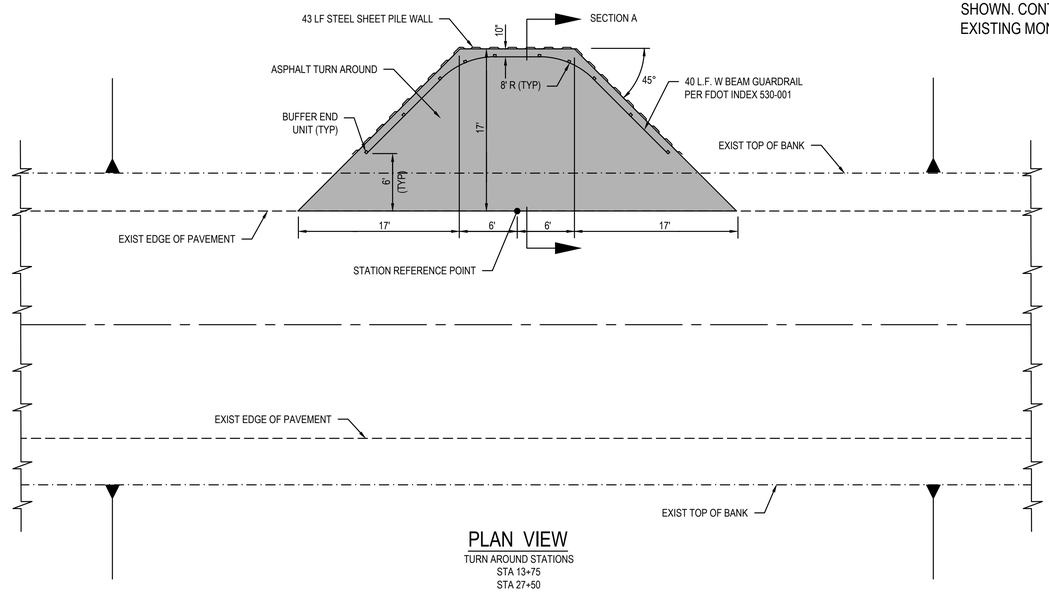
N.T.S.

NOTES

1. TEMPORARY TURN AROUND AND LAYBY AREA TO BE PLACED AT STATIONS SHOWN. CONTRACTOR TO ADJUST LOCATIONS TO PROVIDE NO IMPACT TO THE EXISTING MONITOR WELL LOCATIONS




SECTION A




PLAN VIEW

TURN AROUND STATIONS
STA 13+75
STA 27+50

TEMPORARY
TURN AROUND
DETAIL

N.T.S.

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PROJECT NO.

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| DES | MAL | 11NOV20 |
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| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: CR501 | REV: D

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ANSI D (22X34)

## STRUCTURAL NOTES

### DESIGN CRITERIA:

| | |
|---|---|
| IBC 2015 | 2015 INTERNATIONAL BUILDING CODE |
| AISC 303-10 | CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES |
| AISC 360-10 | SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS |
| ASCE 7-10 | MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES |
| ASCE 37-14 | DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION |
| ACI 318-14 | BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE |
| AWS D1.1 | 2010 STRUCTURAL WELDING CODE - STEEL |

DESIGN GRAVITY LOADS:

| | |
|---|---|
| STRUCTURAL STEEL, ETC. | SELF WEIGHT |

DESIGN LIVE LOADS:

| | | |
|---|---|---|
| 1. | DOWNSTREAM STRUCTURAL SLAB ADJACENT TO TRAINING WALL, UNIFORM | 100PSF |
| 2. | DOWNSTREAM STRUCTURAL SLAB ADJACENT TO TRAINING WALL, CONCENTRATED | 3 KIPS |
| 3. | HANDRAIL, UNIFORM ON TOP/ MID RAIL | 200 PLF |
| 4. | HANDRAIL, CONCENTRATED AT TOP RAIL | 200 POUNDS |

HYDRAULIC LOADS:

| | | |
|---|---|---|
| 1. | COFFERDAM DESIGN WATER ELEVATION | 40 FT (NGVD29) |
| 2. | COFFERDAM DESIGN DEWATERING ELEVATION | 9 FT (NGVD29) |

NOTE: (3) PLUGS FROM THE EMERGENCY SPILLWAY WILL BE REMOVED FOR THE DURATION OF DEWATERING. THE SILL ELEVATION OF THE EMERGENCY SPILLWAY IS 38 FT (NGVD29). THE COFFERDAM IS DESIGNED TO FLOOD AT ELEVATION 42 FT (NGVD29). FROM ELEVATION 40 FT TO ELEVATION 42 FT THE COFFERDAM WILL FUNCTION WITH A REDUCED FACTOR OF SAFETY.

CRANE SURCHARGE LOADS ON TRAINING WALLS

MAXIMUM CRANE SIZE ON DOWNSTREAM WALLS--LIEBHERR LRB 355(MAX OPERATIONAL WT. 224 KIPS, CENTER OF TRACKS NO LESS THAN 20 FEET FROM VERTICAL FACE OF WALL)

WIND LOADS:

| | | |
|---|---|---|
| 1. | WIND SPEED | 159 MPH |
| 2. | EXPOSURE CATEGORY | D |
| 3. | RISK CATEGORY | IV |

SEISMIC LOADS:

| | | |
|---|---|---|
| 1. | Ss | 0.051 |
| 2. | S1 | 0.028 |
| 3. | IMPORTANCE FACTOR | 1.5 |
| 4. | SITE CLASS | D (ASSUMED) |
| 5. | SEISMIC DESIGN CATEGORY | A |

GENERAL REQUIREMENTS

1. THE SCOPE OF WORK PERTAINING TO THE STRUCTURAL ITEMS INDICATED ON THESE DRAWINGS GENERALLY INCLUDES:
   - a. UPSTREAM PORTION OF SPILLWAY STRUCTURE
     - i. INSTALL PROPOSED COFFERDAM SHEET PILE & COMBINATION WALL (COMBI-WALL) CUT OFF WALL SYSTEM ADJACENT TO EXISTING APPROACH WALLSAND APPROACH SLAB
     - ii. INSTALL PROPOSED SHEET PILE AND COMBINATION WALL SYSTEM ALONG PORTIONS OF NORTH AND SOUTH EMBANKMENTS
     - iii. GRADE EMBANKMENT AND INSTALL SLAB ON GRADE WITH INTEGRAL HANDRAIL ALONG COMBI-WALLS
     - iv. INSTALL REINFORCED CONCRETE SLAB OVER EXISTING APPROACH SLAB
     - v. REPAIRS TO COARSE SCREEN CHAMBER GATE COMPONENTS
     - vi. INSPECT AND REPAIR EXISTING EXPANSION JOINTS IN EXPOSED PORTIONS OF APPROACH WALLS
   - b. OGEE PORTION OF SPILLWAY STRUCTURE
     - i. REPAIRS TO STOPLOG GUIDE SLOTS
     - ii. REPAIRS TO TAINTER GATES
     - iii. OVERLAY THE CONCRETE FOR THE OGEE AND PIERS
     - iv. INSTALL ACCESS LADDER TO SOUTH PIER
   - c. DOWNSTREAM PORTION OF SPILLWAY STRUCTURE
     - i. INSTALL STRUCTURAL SLAB AND GRADE BEAMS ON LAND SIDE OF TRAINING WALLS
     - ii. INSTALL REINFORCED CONCRETE TOPPING SLAB OVER EXISTING APRON
     - iii. INSTALL HANDRAIL SYSTEM ALONG EXISTING STEPS SOUTH TRAINING WALL AND ALONG EXISTING STEEL SHEET PILE WALL DOWNSTREAM AND TRAINING
2. COORDINATE WORK ACTIVITIES WITH MANATEE COUNTY PERSONNEL.
3. CONTRACTOR SHALL OBTAIN ALL NECESSARY LICENSES AND PERMITS REQUIRED TO COMPLETE THE WORK INCLUDED IN THE CONTRACT DOCUMENTS AT THE CONTRACTOR'S EXPENSE.
4. REFER TO THE ORIGINAL EARTH DAM AND GATED SPILLWAY DRAWINGS PREPARED BY RUSSELL & AXON CONSULTING ENGINEERS INCORPORATED, ENTITLED "MANATEE COUNTY, FLA; WATER WORKS PROJECT; SECTION I; EARTH DAM & GATED SPILLWAY PART B", DATED MAY 1965 FOR INFORMATION NOT CONTAINED HEREIN.
5. DIMENSIONS, ELEVATIONS, AND OTHER PERTINENT ITEMS SHOWN ON THESE DRAWINGS WERE OBTAINED FROM PREVIOUS DRAWINGS AND LIMITED FIELD SURVEYS. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION, ERECTION, AND RELATED WORK.
6. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL, OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF CONTRACTING OFFICER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE ENGINEER OR ANY OF THE ENGINEER'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.
7. CONTRACT DOCUMENTS INCLUDE BUT ARE NOT LIMITED TO THE STRUCTURAL DOCUMENTS (DRAWINGS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.
8. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE CONTRACT DATE, UNLESS SPECIFICALLY STATED OTHERWISE.
9. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF AISC, ASTM, AWS, OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.
10. WHERE A SECTION OR DETAIL IS SHOWN OR DETAILED FOR ONE CONDITION, IT SHALL APPLY TO SIMILAR AND LIKE CONDITIONS. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR. THE CONTRACTOR SHALL CONSIDER ALL OF THE CONTRACT DOCUMENTS IN DETERMINING SIMILAR AND LIKE CONDITIONS.
11. ENGINEER IS NOT RESPONSIBLE FOR THE DESIGN OF TEMPORARY WORK PLATFORMS, SHORING, BRACING, LIFTING PROCEDURES, LIFTING DEVICES, OR OTHER RELATED ITEMS THAT MAY BE REQUIRED TO ACCOMPLISH THE WORK OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS. THE DESIGN OF SUCH SYSTEMS, MATERIALS, AND INSTALLATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. CONTRACTOR SHALL PLAN ACCORDINGLY AND ENSURE THAT NO EXTERNAL LOADING WILL BE APPLIED TO THE SPILLWAY STRUCTURAL SYSTEM THAT EXCEEDS THE CURRENT AS-LOADED CONDITION OF SAID COMPONENTS DURING AND FOLLOWING CONSTRUCTION ACTIVITIES. BRACING OF TEMPORARY STRUCTURAL COMPONENTS TO THE OGEE AND OTHER EXISTING STRUCTURAL COMPONENTS DURING CONSTRUCTION AS INDICATED ON THE DRAWINGS.
13. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
14. THE CONTRACTOR SHALL ADHERE TO ALL SAFETY REQUIREMENTS OF OSHA, AND OTHER APPLICABLE AGENCIES.
15. THE CONTRACTOR SHALL VERIFY ALL PHYSICAL CONDITIONS, PROPERTY LINES, UTILITIES, DRAWINGS AND DIMENSIONS REQUIRED FOR CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK. NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY CONFLICT PRIOR TO CONSTRUCTION OR FABRICATION OF THAT PORTION OF THE WORK IN QUESTION.
16. THE CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES AND SHALL REVIEW ALL OTHER SITE IMPROVEMENT DRAWINGS TO VERIFY THAT THE WORK PROPOSED IN THESE CONSTRUCTION DOCUMENTS IS NOT IN CONFLICT WITH OTHER PHASES OF PROPOSED AND/OR COMPLETED WORK.

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MARK A LEON P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 72832.
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APPROVED FOR _____

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
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| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STRUCTURAL NOTES 1 OF 3

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: S-001 | REV: D

SAVED: 13-Jul-21 1:26 PM PLOTTED: 02-Aug-21 2:31 PM USER: LORENZ, MAX J

CAD FILE: W:\ACAD\STRS-90\ STRUCTURAL NOTES 1 OF 3.DWG

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A B C D E

## GEOTECHNICAL PARAMETERS

1. GEOTECHNICAL PARAMETERS BASED OFF THE GEOTECHNICAL REPORT PREPARED BY WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. ENTITLED "GEOTECHNICAL EVALUATION REPORT FOR PHASE 2 REPAIRS, LAKE MANATEE DAM" PROJECT NO. 300472x4, DATED JULY 2021, PREPARED BY WOOD.
2. CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT, READ AND UNDERSTAND THE REQUIREMENTS CONTAINED THEREIN PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

## REINFORCED CONCRETE

1. BATCHING, TRANSPORTING, PLACEMENT, CURING, AND SEALING SHALL BE IN GENERAL ACCORDANCE WITH ACI 360 "DESIGN OF SLABS-ON-GROUND", ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST REVISIONS.
2. CONCRETE PARAMETERS SHALL INCLUDE THE FOLLOWING CRITERIA UNLESS NOTED OTHERWISE ON DRAWINGS:
   a. 28-DAY COMPRESSIVE STRENGTH 4000 PSI
   b. WATER/CEMENT RATIO 0.45
   c. SLUMP 4 INCHES +/- 1 INCH
   d. MAXIMUM AGGREGATE SIZE 1-1/2 INCHES
3. CONCRETE MIXES SHALL BE DESIGNED AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. CONCRETE MIX DESIGNS SHALL INCLUDE A MINIMUM OF 5 SACKS OF TYPE II PORTLAND CEMENT MODIFIED PER YARD, UNLESS NOTED OTHERWISE.
4. CONTRACTOR SHALL SUBMIT PROPOSED MATERIALS, METHODS, AND PROCEDURES FOR PLACING CONCRETE ELEMENTS UNDERWATER IN GENERAL ACCORDANCE WITH ACI 304R. SUBMIT UNDERWATER CONCRETE PLACEMENT PLAN TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. PLAN SHOULD INDICATE THE FOLLOWING, AS APPLICABLE: TREMIE TUBE SIZE AND CONCRETE FLOW CONTROL METHOD, TREMIE PIPE SPACING, CONCRETE MIXTURE DESIGN, CONCRETE ADMIXTURES, CONSTRUCTION JOINT LOCATIONS, CONTINGENCY PLANS FOR LOSS OF SEAL, DIVER INSPECTION, AND PREPARATION/ CLEANING METHODS FOR EXISTING UNDERWATER CONCRETE ADJACENT TO PLACEMENT.
5. UNDERWATER CONCRETE TEST PLACEMENTS
   a. PREPARE A 14 FOOT BY 20 FOOT BY 4 FOOT DEEP TEST PLACEMENT IN A LOCATION SELECTED BY THE OWNER. THE DEPTH SHALL BE SIMILAR TO THE PLACEMENT DEPTH AT THE STRUCTURE. THE PLACEMENT SHALL BE MADE IN GENERAL ACCORDANCE WITH THE APPROVED UNDERWATER CONCRETE PLACEMENT PROCEDURE AND CONCRETE MIXTURE. PICTURE/ VIDEO MONITORING OF THE PLACEMENT SHALL BE PROVIDED TO DEMONSTRATE SPREADING CHARACTERISTICS OF THE CONCRETE DURING THE PLACEMENT. CONTROL OF CONCRETE PLACEMENT THICKNESS SHALL BE DEMONSTRATED. A DIVER INSPECTION OF THE SAMPLE SECTION WILL BE CONDUCTED AFTER STRIPPING FORMWORK. PICTURES OF THE COMPLETED SAMPLE SECTION WILL BE MADE AVAILABLE IN A REPORT. THE ENGINEER OF RECORD, OR DESIGNEE, SHALL BE PRESET FOR THE TEST PLACEMENT.
   b. THREE ADDITIONAL 2 FOOT BY 2 FOOT BY 2 FOOT SECTIONS SHALL BE PLACED IN FORMWORK WHICH WILL PERMIT REMOVAL AFTER A 7 DAY CURE TIME. SAMPLES WILL BE REMOVED, CORE SAMPLES OBTAINED IN ACCORDANCE WITH ASTM C42 AND TESTED IN ACCORDANCE WITH ASTM C39. TWO CORES WILL BE TAKEN FROM ONE SAMPLE AND WILL BE TESTED AT 7 DAYS. THREE CORES WILL BE TAKEN FROM THE REMAINING SAMPLES AND TESTED AT 28 DAYS.
6. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TEST FOR REVIEW PRIOR TO USE IN ACCORDANCE WITH ACI 318 PROCEDURES. MIX SHALL BE IDENTIFIED BY A UNIQUE MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.
7. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED 90 MINUTES. IT IS THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE BATCH TIMES. CURING COMPOUNDS AND OTHER APPROPRIATE MEANS SHALL BE UTILIZED TO ENSURE SLAB SECTIONS ARE CURED UNIFORMLY AND EVENLY TO MINIMIZE CRACKING AND OTHER POTENTIAL ADVERSE ISSUES.
8. CONCRETE MIX DESIGNS, PLACEMENT AND CURING PARAMETERS, REINFORCING STEEL SHOP DRAWINGS, WATER STOPS, JOINT SEALANT, AND OTHER SIMILAR ITEM SUBMITTALS TO BE PROVIDED TO THE OWNERS REPRESENTATIVE FOR REVIEW AND CONSULTATION WITH THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF RELATED WORK.
9. CONCRETE FOR SLAB AND WALL SECTIONS TO BE PLACED IN COMPLETE PANEL UNITS THAT EXTEND FROM EXPANSION JOINT TO EXPANSION JOINT WITH CONTINUOUS WATERSTOPS. THE INTENT IS TO MINIMIZE THE NUMBER OF CONSTRUCTION JOINTS AS A POTENTIAL MECHANISM FOR SURFACE RUNOFF TO MIGRATE THROUGH THE CONCRETE. SLAB DOWELS AT EXPANSION JOINTS TO BE ADEQUATELY SECURED TO DEDICATED CHAIRS TO ENSURE THAT THE DOWELS REMAIN STABLE AND IN THE APPROPRIATE CONFIGURATION THROUGHOUT THE CONCRETE PLACEMENT ACTIVITIES.
10. ALL EXPOSED CONCRETE EDGES SHALL INCLUDE A ¾ INCH 45 DEGREE CHAMFER UNLESS NOTED OTHERWISE. PROVIDE A BROOM FINISH ON ALL EXPOSED FLAT CONCRETE WORK LOCATED ON THE UPSTREAM AND DOWNSTREAM PORTIONS OF THE SPILLWAY STRUCTURE.
11. COMPLY WITH ACI 305 AND ACI 306 HOT AND COLD WEATHER CONCRETE PLACEMENT REQUIREMENTS IN THE EVENT THAT WEATHER CONDITIONS DICTATE.
12. NOTIFY OWNER'S REPRESENTATIVE A MINIMUM OF 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. OWNER'S REPRESENTATIVE TO INSPECT WORK IN PREPARATION FOR CONCRETE PLACEMENT INCLUDING, AS A MINIMUM, THE FORMED DIMENSIONS, REINFORCING STEEL SIZE AND ARRANGEMENT, BEARING MATERIAL, WATER STOPS, AND OTHER RELEVANT ITEMS FOR COMPLIANCE WITH THE APPROVED PROJECT DOCUMENTS.
13. AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:
   a. ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."
   b. ASTM C30 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY.
   c. REQUIRED CYLINDER QUANTITIES AND TEST AGE ARE AS FOLLOWS:
   i. 1 AT 3 DAYS
   ii. 1 AT 7 DAYS
   iii. 2 AT 28 DAYS
   iv. 1 RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDERS MAY BE DISCARDED.

## REINFORCING STEEL

1. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. DETAILING SHALL BE IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD RACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", AND ACI STANDARD 318.
2. REINFORCING STEEL SHALL BE ADEQUATELY TIED, CHAIRED AT THE APPROPRIATE HEIGHT, AND SECURED ACCORDINGLY TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT. PROVIDE MINIMUM LAP SPLICES OF 36 BAR DIAMETERS UNLESS NOTED OTHERWISE.
3. PROVIDE JOINT REINFORCING STEEL AND INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AS SPECIFIED HEREIN.
4. CONCRETE FOR FOOTINGS, WALL SECTIONS, SLABS, AND OTHER ITEMS SHALL BE PLACED IN PRE-DETERMINED FORMED MONOLITH SECTIONS THAT INCLUDE WATERSTOPS AT ALL CONCRETE JOINTS AS SHOWN ON THE CONTRACT DOCUMENTS AND OTHER LOCATIONS TO INCLUDE NEW CONCRETE TO EXISTING CONCRETE AND NEW CONCRETE TO STEEL SHEET PILES. WATERSTOPS TO BE DESIGNED FOR THE APPLICABLE USE AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
5. CLEAR COVERAGE OF CONCRETE OVER REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
   a. CONCRETE POURED DIRECTLY AGAINST EARTH 3" CLEAR
   b. FORMED CONCRETE AGAINST EARTH 2" CLEAR
   c. UPPER SURFACE CONCRETE SLAB 2" CLEAR

## ANCHORS: EXPANSION AND EPOXY GROUTED

1. EPOXY FOR REINFORCING BARS SHALL BE HILTI HIT-RE-500-V3. PROPOSED ALTERNATIVES MUST BE APPROVED IN WRITING BY THE ENGINEER OF RECORD. PROPOSED ALTERNATIVES MUST HAVE AN EVALUATION REPORT FROM ICC-ES OR IAPMO-ES AND BE TESTED PER THE MOST CURRENT, APPLICABLE ACCEPTABLE CRITERIA. PRODUCTS MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. EPOXY FOR ANCHORS SHALL BE HILTI HIT-HY-200-SD. PROPOSED ALTERNATIVES MUST BE APPROVED IN WRITING BY THE ENGINEER OF RECORD. PROPOSED ALTERNATIVES MUST HAVE AN EVALUATION REPORT FROM ICC-ES OR IAPMO-ES AND BE TESTED PER THE MOST CURRENT, APPLICABLE ACCEPTABLE CRITERIA. PRODUCTS MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. DRILLED HOLES SHALL BE 1/8" LARGER THAN THE ANCHOR, THOROUGHLY CLEANED WITH THE FOLLOWING PROCEDURE OR AS DIRECTED BY THE EPOXY MANUFACTURER:
   a. BLOW OUT ALL DUST AND LOOSE MATERIAL WITH COMPRESSED AIR.
   b. CLEAN HOLE SURFACES WITH A BRUSH, SIZE AND DIAMETER PER MANUFACTURER'S RECOMMENDATIONS. THEN USE A DOWEL WRAPPED WITH A SLIGHTLY MOIST RAG TO REMOVE REMAINING DUST.
   c. BLOW OUT HOLE WITH COMPRESSED AIR.
   d. REPEAT PROCEDURE AS REQUIRED UNTIL ALL SURFACES ARE CLEAN.
4. EPOXY SHALL BE INSTALLED INTO THE BACK OF THE HOLE WITH A CAULKING GUN EQUIPPED WITH AN EXTENSION NOZZLE.
5. DO NOT DAMAGE REINFORCING. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT FOR REVIEW PRIOR TO PROCEEDING WITH WORK.
6. ALL ANCHORS SHALL BE CLEAN AND FREE FROM GREASE AND OIL. THREADED ROD ANCHORS SHALL BE THREADED FOR FULL LENGTH.
7. CONTRACTOR TO PROVIDE HILTI REPRESENTATIVE ON SITE TO PROVIDE CONTINUOUS INSPECTION DURING INSTALLATION OF EPOXIED REINFORCING BARS AND ANCHORS.

## SHEET PILING AND COMBINED WALL SYSTEM

1. MATERIAL SHALL MEET THE FOLLOWING PARAMETERS UNLESS NOTED OTHERWISE ON THE DRAWINGS:
   a. HOT ROLLED SHEET PILE ASTM A572, GR. 60
   b. PIPE PILE ASTM A252 GRADE 3
2. SECTION PROPERTIES FOR SHEET PILING AND PIPE PILES INDICATED ON THE DRAWINGS SHALL MEET OR EXCEED THOSE AS PRODUCED BY MEEVER USA.
3. SHEET PILE CONNECTORS SHALL BE PRODUCED BY THE FOLLOWING MANUFACTURER'S OR APPROVED EQUAL:
   a. MEEVER AND MEEVER
   b. NUCOR SKYLINE

## STRUCTURAL STEEL

1. THE STRUCTURAL FRAMING IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR AS NEEDED. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSEWORK, TEMPORARY BRACING, ETC.
2. ALL STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF AISC 360-16 AND SHALL BE FABRICATED AND ERECTED PER THE REQUIREMENTS OF AISC 303-16.
3. DETAILING OF STEEL AND ASSOCIATED CONNECTIONS SHALL BE PERFORMED USING RECOGNIZED DETAILING METHODS SUCH AS THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

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PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STRUCTURAL NOTES 2 OF 3

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: S-002 | REV: D

CAD FILE: W:\ACAD\STRS-002 STRUCTURAL NOTES 2 OF 3.DWG

SAVED: 13-Jul-21 1:27 PM PLOTTED: 02-Aug-21 2:31 PM USER: LORENZ, MAX J

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4. STRUCTURAL STEEL MATERIAL SHALL MEET THE FOLLOWING PARAMETERS UNLESS NOTED OTHERWISE ON THE DRAWINGS:
   a. PLATE MATERIAL — ASTM A572, GR. 50
   b. ROLLED W & WT SHAPES — ASTM A992
   c. OTHER ROLLED SHAPES (ANGLES, CHANNELS, BAR) — ASTM A36
   d. HSS MEMBERS — ASTM A500, GRADE C, Fy = 46 KSI
   e. ANCHOR RODS — ASTM F1554 GRADE 55 HEADED (UNO)
5. BOLTING PATTERNS SHALL BE SYMMETRICAL ABOUT THE BEAM WEB, UNLESS NOTED OTHERWISE.
6. BOLTED CONNECTIONS MAY BE FIELD DRILLED. FLAME CUT HOLES SHALL NOT BE PERMITTED.
7. "SAW", "SMAW", AND "FCAW" WELDING PROCESSES SHALL BE PERMITTED USING 70 KSI LOW HYDROGEN ELECTRODES.
8. ALL WELDING AND INSPECTIONS SHALL COMPLY TO AWS D1.1, AS APPLICABLE, LATEST EDITION. CONTRACTOR SHALL SUBMIT WELD PROCEDURE SPECIFICATIONS FOR EACH TYPE OF WELD JOINT TO ENGINEER OF RECORD AND SPECIAL INSPECTOR FOR REVIEW PRIOR TO START OF WORK.
9. WELDING SYMBOLS SHOWN ARE THOSE ADOPTED BY AWS AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAIL INFORMATION (WPS, PQR, AND WELDER CERTIFICATIONS) SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL.
10. CONTRACTOR'S SPECIFICATIONS ACCOMPANYING WORKING DRAWINGS SHALL BE SPECIFIC WITH REGARD TO FILLER METAL AND OTHER FEATURES OF THE TECHNIQUE.
11. WELDING SHALL BE DONE IN ACCORDANCE WITH A WELDING SEQUENCE PLAN DESIGNED TO MINIMIZE RESIDUAL STRESSES AND DISTORTION.
12. SHOP DRAWINGS SHALL CLEARLY DISTINGUISH BETWEEN SHOP AND FIELD WELDS. LENGTH OF WELD CALLED FOR ON THE DRAWINGS SHALL BE THE EFFECTIVE LENGTH.
13. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325. CUT THREAD AND HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325. BOLT HOLES SHALL BE 1/16" LARGER IN DIAMETER THAN THE BOLT UNO ON THE DRAWINGS. HOLES FOR ANCHOR RODS SHALL BE 1/8" MAX LARGER THAN ROD.
14. ALL STRUCTURAL WELDS SHALL BE CERTIFIED BY A TESTING AGENCY ACCEPTABLE TO THE ENGINEER OF RECORD. CERTIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD.
15. TORCH CUTTING OF STRUCTURAL STEEL IS PROHIBITED WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE STRUCTURAL ENGINEER.
16. CONNECTIONS SHOWN ON DRAWINGS ARE TO BE CONSTRUED AS MINIMUM CONNECTION REQUIREMENTS AND CONNECTION TYPES. THE CONTRACTOR IS RESPONSIBLE FOR THE ANALYSIS AND DESIGN OF THE CONNECTIONS FOR THE INDICATED MEMBER FORCES.
17. CONTRACTOR IS TO PROVIDE CONNECTION DESIGN TO LOADS SHOWN FOR DESIGN INTENT DETAILS, SIGNED AND SEALED BY LICENSED FLORIDA PE AS PART OF DELEGATED DESIGN REQUIREMENTS.

**SHOP DRAWINGS**

1. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS.
2. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED. AN ELECTRONIC SET OF DRAWING FILES CAN BE PROVIDED TO THE CONTRACTOR UPON REQUEST.
3. CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS PRIOR TO FABRICATION OF STRUCTURAL STEEL.
4. CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTAL FOR APPROVAL. SHOP DRAWINGS REVIEWED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND A STAMPED REVIEWED SET RECEIVED PRIOR TO FABRICATION. FABRICATION AND INSTALLATION SHALL BE MADE FROM APPROVED SHOP DRAWINGS ONLY. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
   a. STEEL SHOP DRAWINGS
   b. CONCRETE MIX DESIGN(S)
   c. UNDERWATER CONCRETE PLACEMENT PLAN
   d. APPLICABLE WELD PROCEDURE SPECIFICATIONS (WPS)
   e. APPLICABLE WELDER PERFORMANCE QUALIFICATION RECORDS (PQR) TO WPSS
   f. WELDER CERTIFICATION
   g. OTHER SUBMITTALS REQUIRED BY PROJECT SPECIFICATIONS 03 30 00 AND 05 12 00
5. FABRICATOR SHALL HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS WHICH DEVIATE WITH THE DESIGN DRAWINGS AND RECEIVE APPROVAL FROM THE ENGINEER OF RECORD PRIOR TO COMMENCING WITH FABRICATION OF SAID ITEMS.
6. REVIEW OF SHOP DRAWINGS SHALL BE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT, SIZES OF MEMBERS, MATERIAL PARAMETERS, THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS, AND CONTRACT DOCUMENT DETAILS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS AND QUANTITIES ASSOCIATED WITH THE FABRICATION OF MATERIAL. MEANS AND METHODS ASSOCIATED WITH FABRICATION OF MATERIAL SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR AS SHALL THE RESPONSIBILITY FOR THE COORDINATION AND SEQUENCING OF THE INSTALLATION.
7. SHOP DRAWING APPROVAL SHALL NOT CONSTITUTE ACCEPTANCE OF FABRICATOR CHANGES TO THE CONTRACT DOCUMENTS. FABRICATOR CHANGES THAT RESULT IN MODIFICATIONS TO THE CONTRACT SCOPE MUST BE APPROVED IN ACCORDANCE WITH PROVISIONS CONTAINED IN THE OWNER-CONTRACTOR AGREEMENT.
8. SHOP DRAWINGS MARKED "APPROVED" OR "APPROVED AS NOTED" MAYBE RELEASED FOR FABRICATION. SHOP DRAWINGS WITH ANY OTHER MARKINGS MUST BE REVISED ACCORDINGLY AND AN APPROVED COPY RECEIVED BY THE FABRICATOR PRIOR TO FABRICATION. MATERIAL FABRICATED WITHOUT PROPER APPROVAL IS SUBJECT TO REJECTION.
9. CONTRACTOR SHALL MAINTAIN A MASTER SET OF APPROVED DESIGN DRAWINGS, SHOP DRAWINGS, AND PROJECT SPECIFICATIONS. MAINTAIN A SET OF APPROVED DOCUMENTS FOR RECORD KEEPING OF AS-BUILT FIELD CONDITIONS THROUGHOUT THE EXECUTION OF THE PROJECT. RETURN AS-BUILTS DRAWINGS TO THE ENGINEER UPON COMPLETION OF THE PROJECT.

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PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: STRUCTURAL NOTES 3 OF 3

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

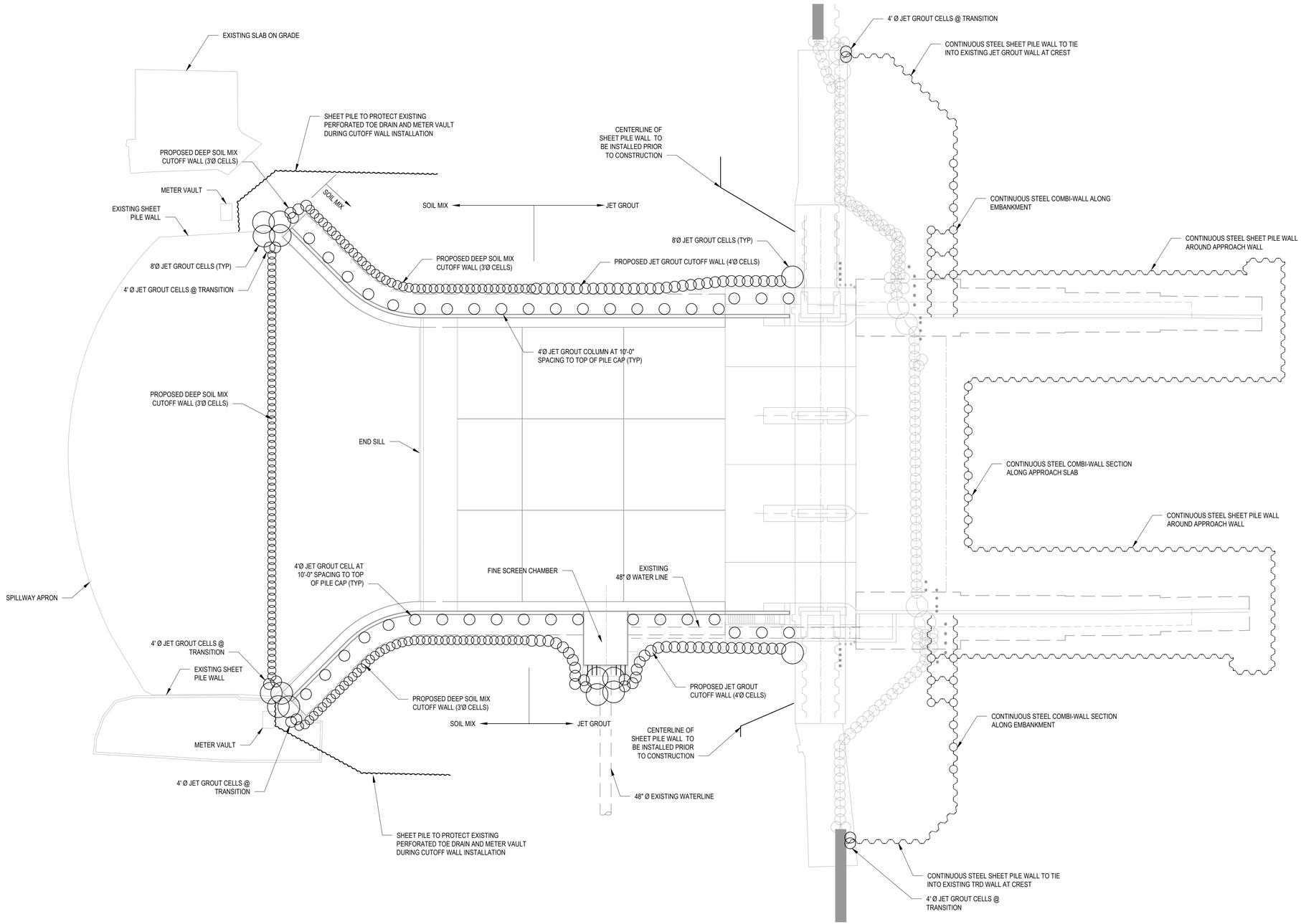
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SAVED: 13-Jul-21 1:27 PM PLOTTED: 02-Aug-21 2:32 PM USER: LORENZ, MAX J

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B1 / S-101 PLAN - PROPOSED SPILLWAY SEEPAGE CUTOFF WALL SYSTEM

SCALE: SCALE 1/6" =1'-0"

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PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: PROPOSED SPILLWAY SEEPAGE CUTOFF WALL SYSTEM

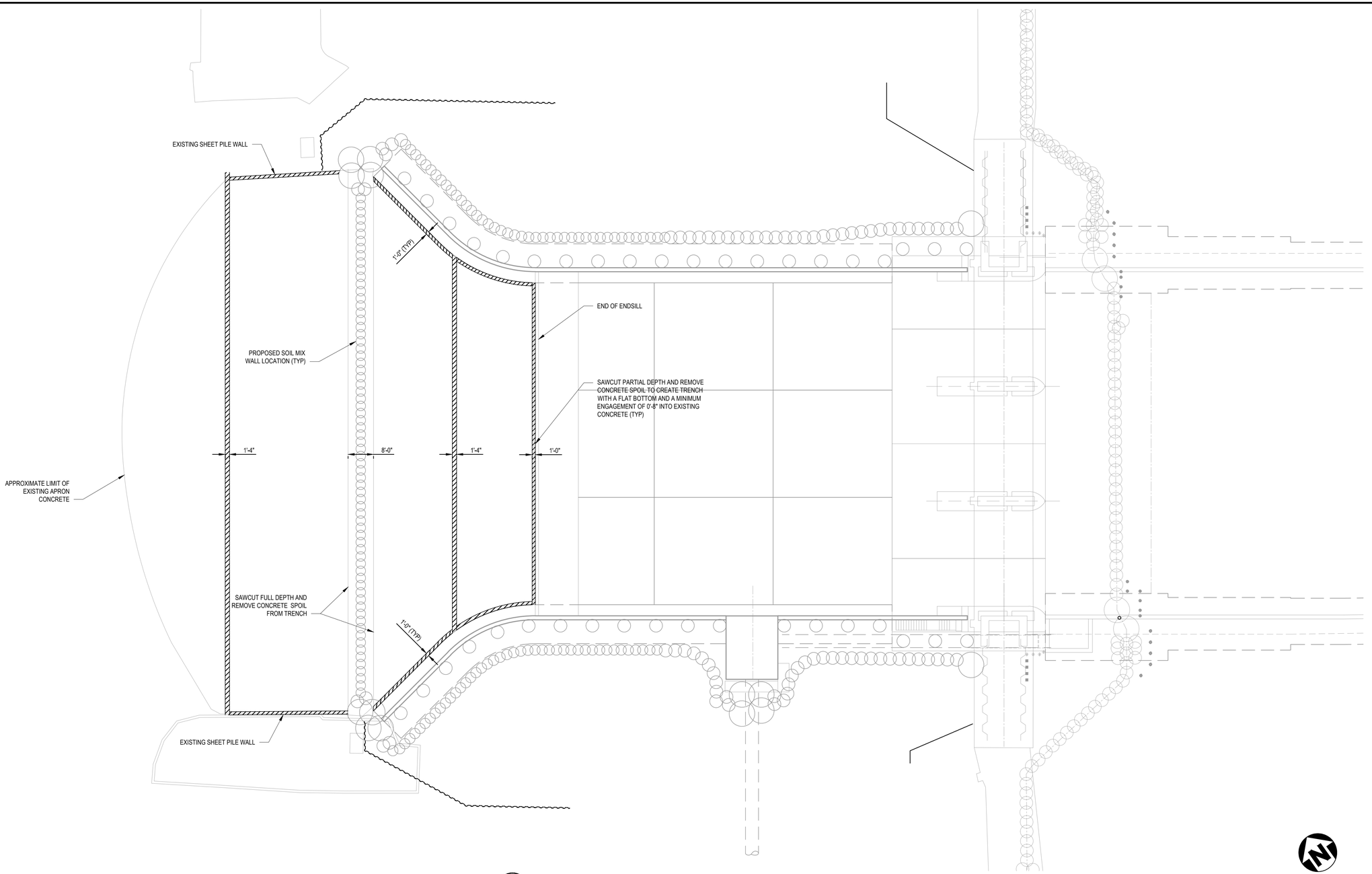
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1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: S-101 | REV: D

SAVED: 13-Jul-21 1:28 PM PLOTTED: 02-Aug-21 2:32 PM USER: LORENZ, MAX J
CAD FILE: W:\CAD\STRS-101 PROPOSED SPILLWAY SEEPAGE CUTOFF WALL SYSTEM.DWG
ANSI D 22X34




B1 / SD111 — SPILLWAY APRON - TRENCHING PLAN

SCALE: SCALE 1/6" =1'-0"

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| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: OUTFALL APRON TRENCHING AND DEMOLITION PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

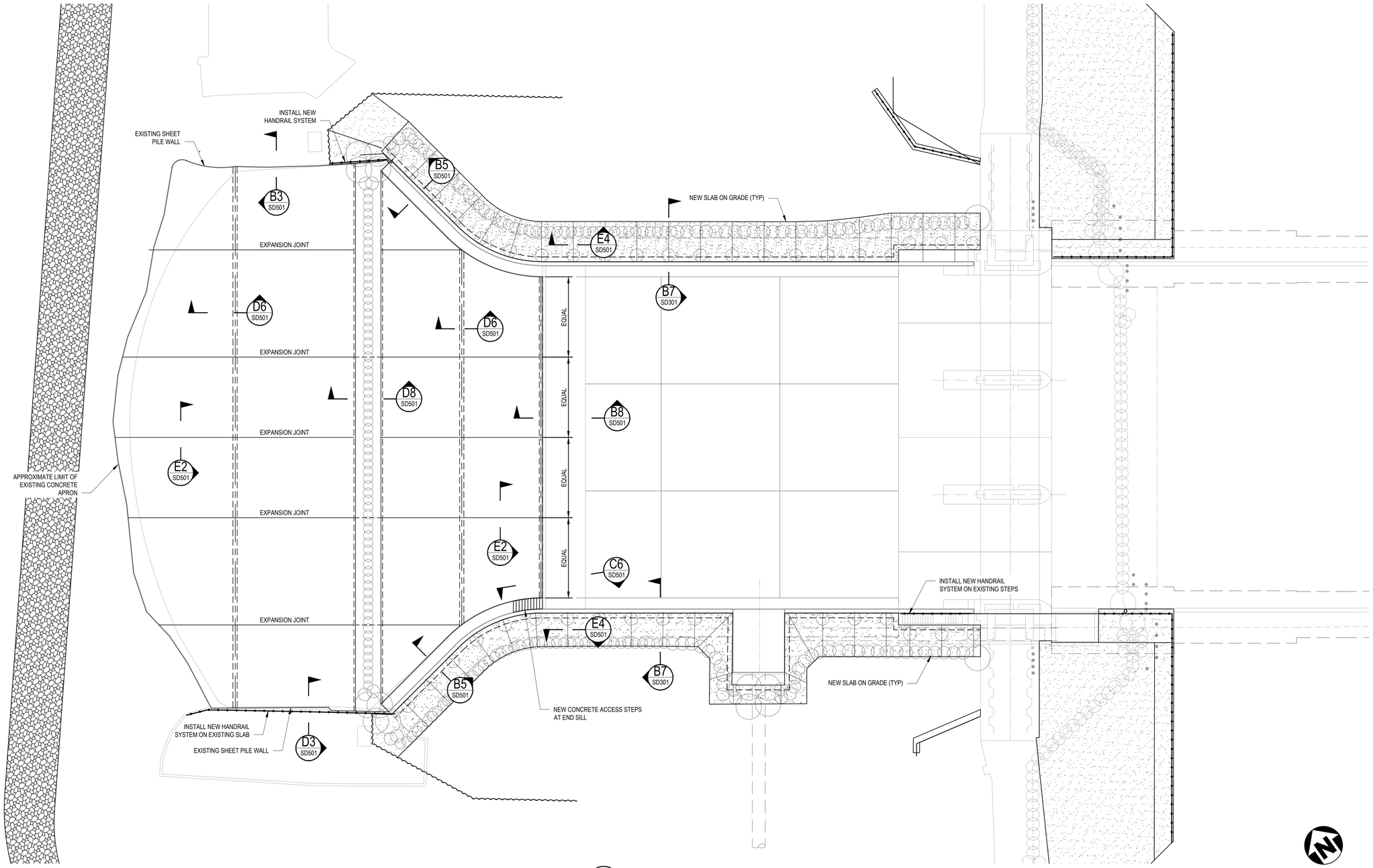
CLIENT DWG NO.

DRAWING NO.: SD111 | REV: D

CAD FILE: W:\CAD\STRS-111 OUTFALL APRON TRENCHING AND DEMOLITION PLAN.DWG

SAVED: 13-Jul-21 1:29 PM PLOTTED: 02-Aug-21 2:33 PM USER: LORENZ, MAX J

ANSI D 22X34




A4 / SD112 APRON OVERLAY PLAN

SCALE: SCALE 1/6" =1'-0"

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: OUTFALL APRON OVERLAY PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. SD112

REV D

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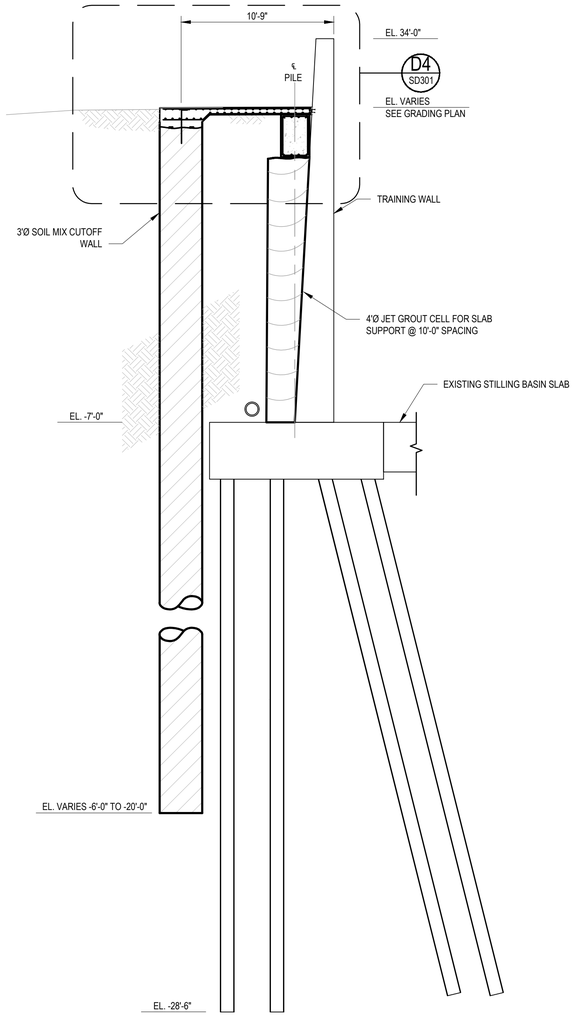
W:\CAD\STRS\112 OUTFALL APRON OVERLAY PLAN.DWG

CAD FILE

ANSI D 22X34

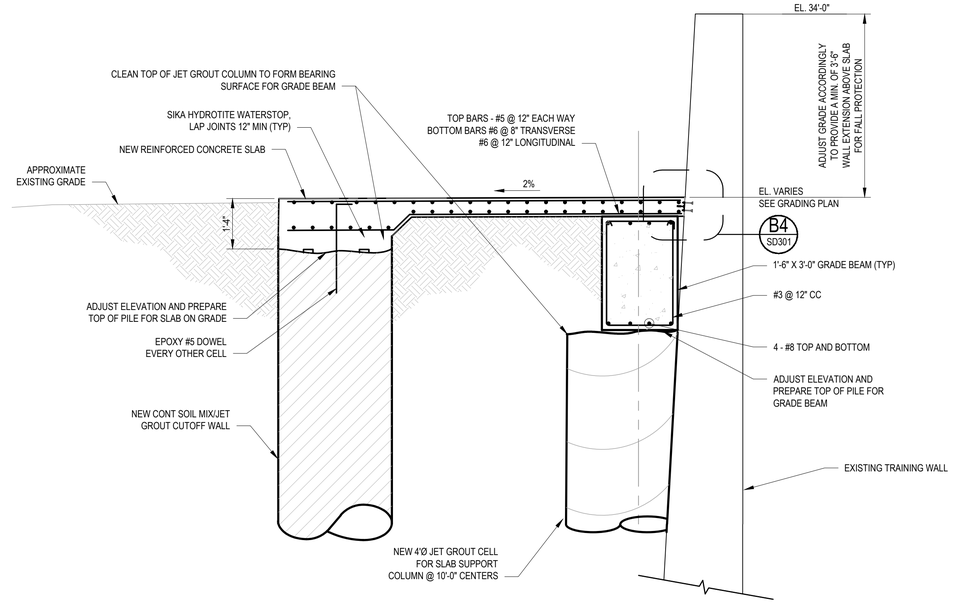
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A B C D E



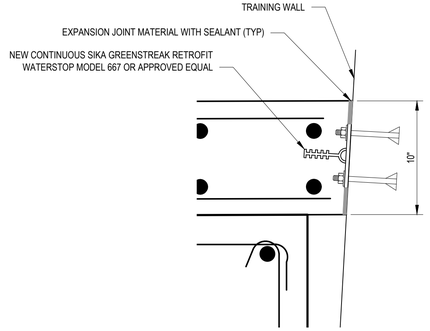

B7 SD112 TYPICAL SECTION @ TRAINING WALL SLAB

SCALE: SCALE 3/16" =1'-0"




D4 SD301 SLAB TO EXISTING WALL INTERFACE

SCALE: SCALE 1/2" =1'-0"




B4 SD301 TYPICAL WATERSTOP DETAIL @ EXISTING CONCRETE

SCALE: 3" =1'-0"

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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: PROPOSED CUTOFF WALL CONFIGURATIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

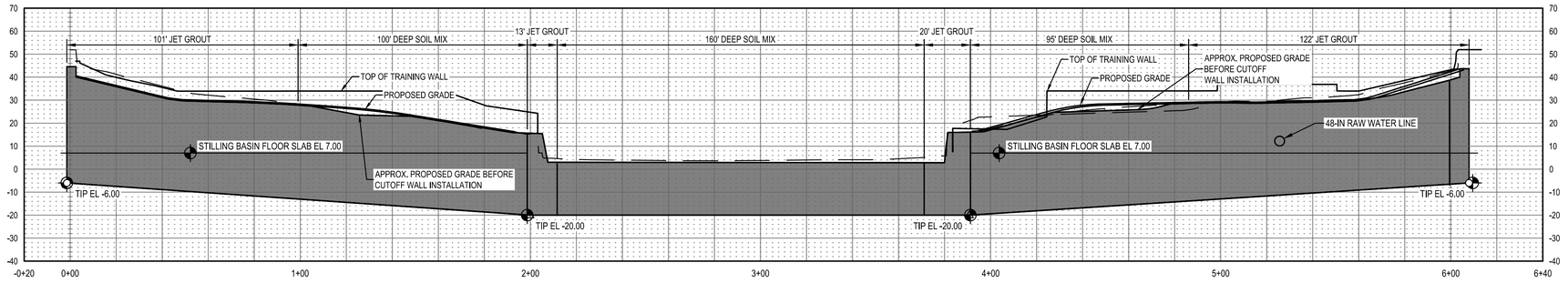
DRAWING NO. SD301 | REV D

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CAD FILE: W:\ACAD\STRS-JAX\PROPOSED CUTOFF WALL CONFIGURATIONS.DWG

SAVED: 13-Jul-21 2:00 PM PLOTTED: 02-Aug-21 2:33 PM USER: LORENZ, MAX J

ANSI D 22X34




D7 / SD302

## JET GROUT CUTOFF WALL ELEVATION

SCALE: 1" = 30'

0' 10' 20' 30' 40' 50' 60'

1"=30'-0"

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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: JET GROUT AND DEEP SOIL MIX CUTOFF WALL ELEVATION

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

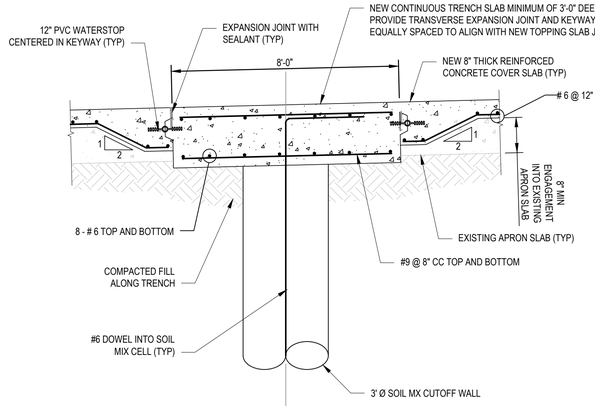
CLIENT DWG NO.

DRAWING NO.: SD302 | REV: D

CAD FILE: W:\CAD\STRS\SD\JET GROUT AND DEEP SOIL MIX CUTOFF WALL ELEVATION.DWG

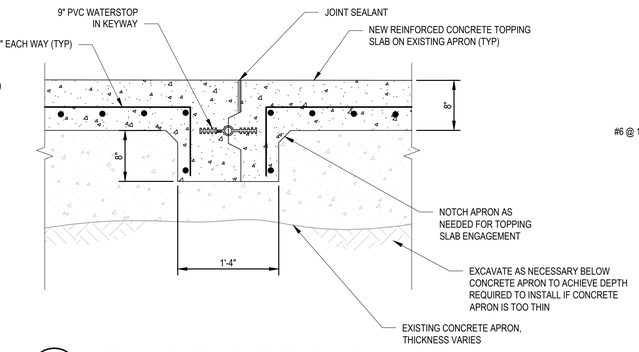
SAVED: 13-Jul-21 2:01 PM PLOTTED: 02-Aug-21 2:35 PM USER: LORENZ, MAX J

ANSI D 22X34

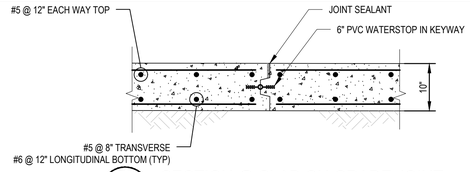



NOTE: EXISTING APRON SLAB ASSUMED O BE APPROXIMATELY 2 FEET THICK ALONG PROPOSED TRENCH LOCATION. ACTUAL SLAB THICKNESS MAY VARY

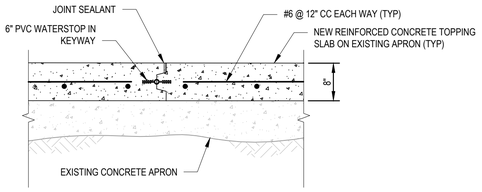
**D8 / SD112 — SECTION @ SOIL MIX WALL**
SCALE: SCALE 3/8" =1'-0"



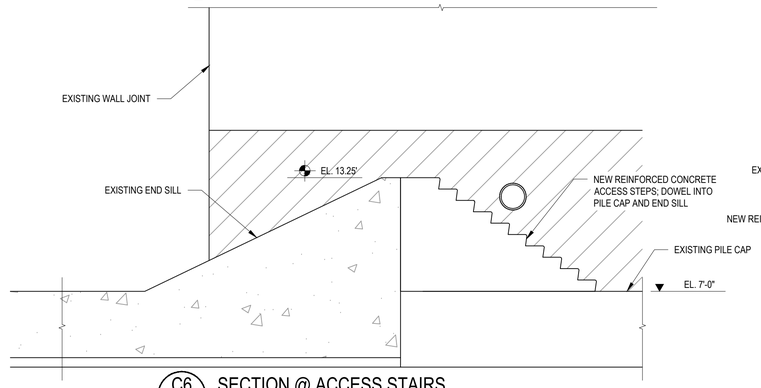

**D6 / SD112 — SECTION @ TRANSVERSE JOINTS**
SCALE: SCALE 1" =1'-0"



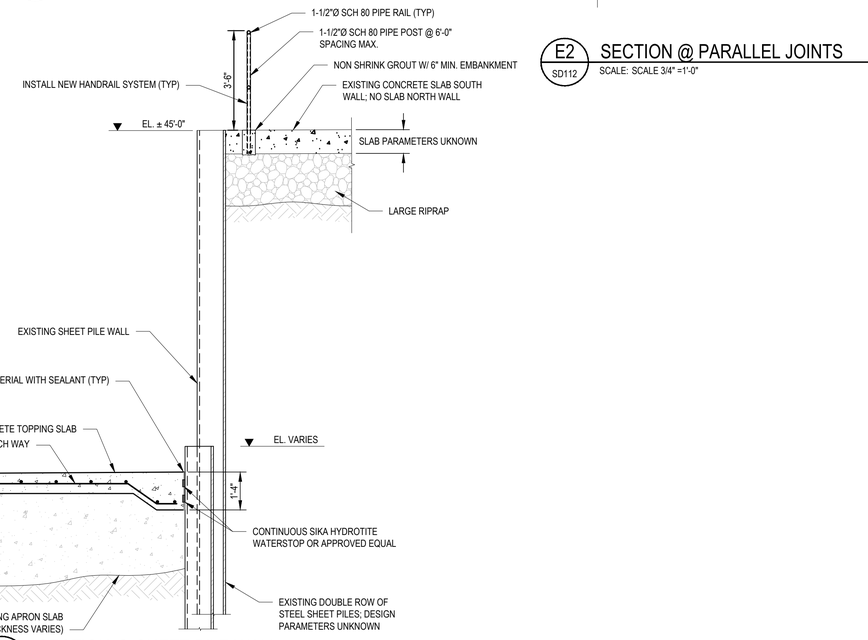

**E4 / SD112 — SECTION @ SLAB ON GRADE JOINT**
SCALE: SCALE 3/8" =1'-0"



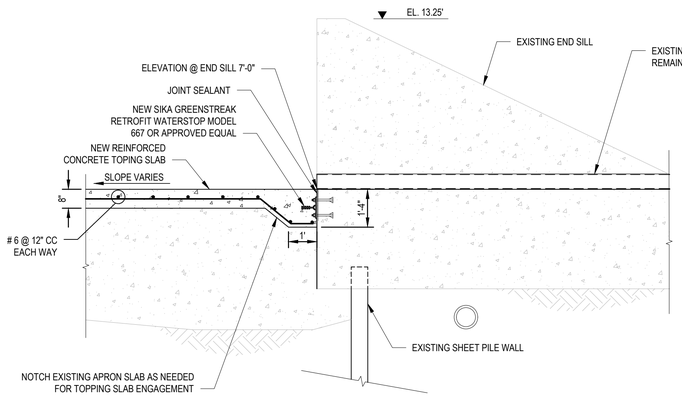

**E2 / SD112 — SECTION @ PARALLEL JOINTS**
SCALE: SCALE 3/4" =1'-0"



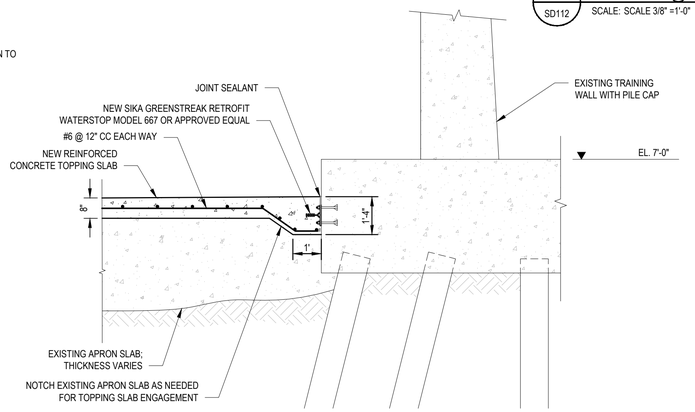

**C6 / SD112 — SECTION @ ACCESS STAIRS**
SCALE: SCALE 1/4" =1'-0"




**D4 / SD112 — SECTION @ SHEET PILE WALL**
SCALE: SCALE 3/8" =1'-0"




**B8 / SD112 — SECTION @ END SILL**
SCALE: SCALE 3/8" =1'-0"




**B5 / SD112 — SECTION @ EXISTING PLE CAP**
SCALE: SCALE 3/8" =1'-0"

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: OUTFALL APRON SECTIONS AND DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

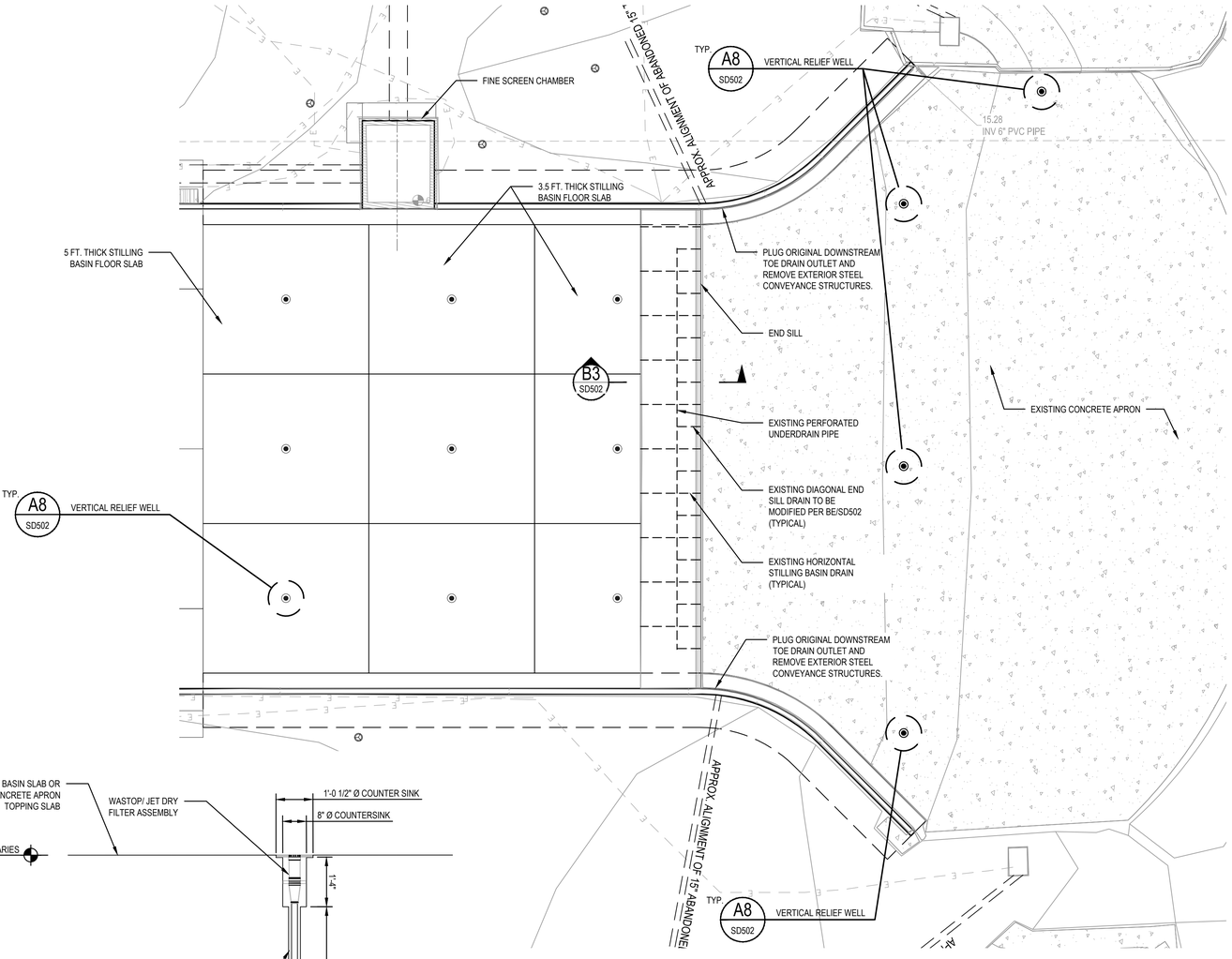
CLIENT DWG NO.

DRAWING NO.: SD501 | REV: D

CAD FILE: W:\CAD\STRS-SD\ OUTFALL APRON SECTIONS AND DETAILS.DWG

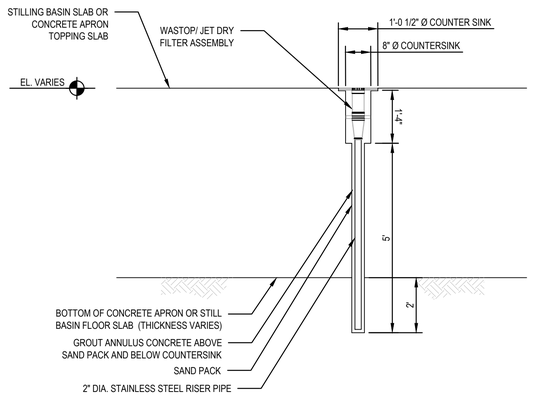
SAVED: 13-Jul-21 2:02 PM PLOTTED: 02-Aug-21 2:35 PM USER: LORENZ, MAX J

ANSI D 22X34

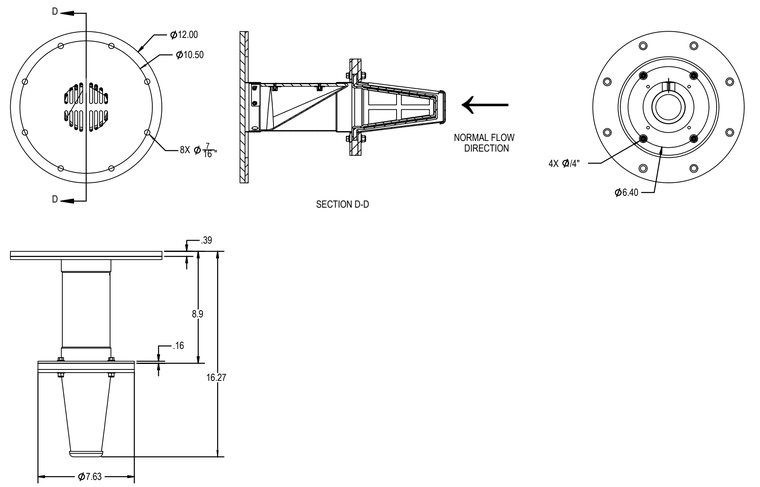



C7 SD502 **PRESSURE RELIEF WELL PLAN**
SCALE: SCALE 1/16" =1'-0"

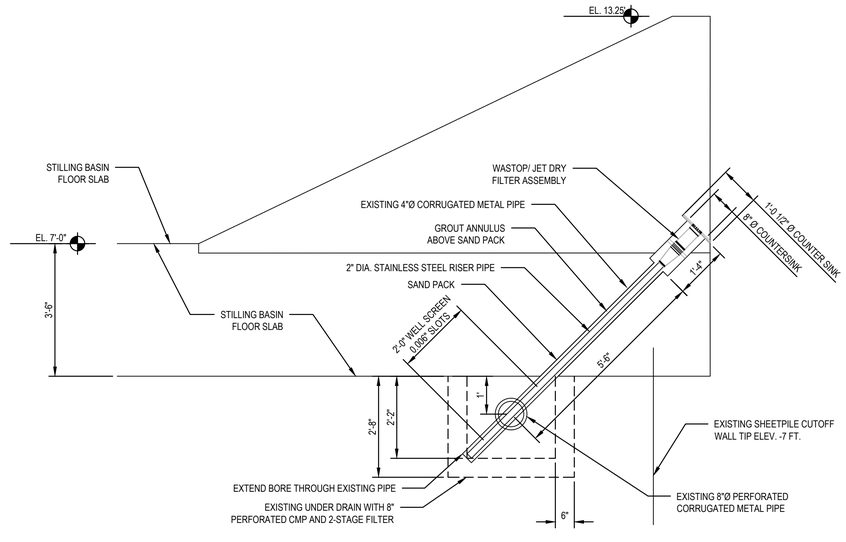
NOTE:
PRESSURE RELIEF WELLS IN STILLING BASIN SHOULD BE CONSTRUCTED USING THE PREVIOUSLY INSTALLED CORE HOLES FOR THE VOID FILLING.




A8 SD502 **VERTICAL RELIEF WELL**
SCALE: 1/2" = 1'-0"




D3 SD502 **4" WASTOP WITH JET FILTER VALVE**
SCALE: SCALE 2" = 1'-0"




B3 SD502 **TYPICAL PRESSURE RELIEF UNDER STILLING BASIN**
SCALE: SCALE 1/2" =1'-0"

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|---|---|---|---|---|---|---|---|---|
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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: PRESSURE RELIEF SYSTEM UPGRADES

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

DRAWING NO.: SD502 | REV: D

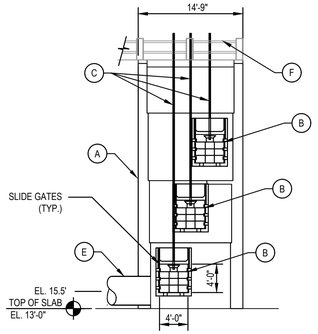
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SAVED: 15-Jul-21 10:20 PM PLOTTED: 02-Aug-21 2:37 PM USER: LORENZ, MAX J

ANSI D-22X34

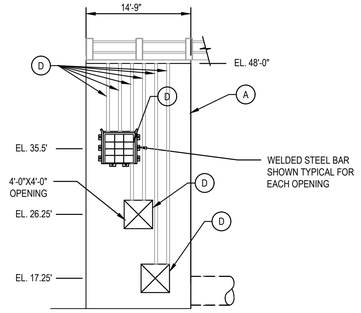
8 7 6 5 4 3 2 1

## FULL DEWATER OPTION




D7 SS211 COARSE SCREEN CHAMBER SECTION

SCALE: SCALE 3/32" =1'-0"




D5 SS211 COARSE SCREEN CHAMBER CHANNEL SIDE ELEVATION

SCALE: SCALE 3/32" =1'-0"

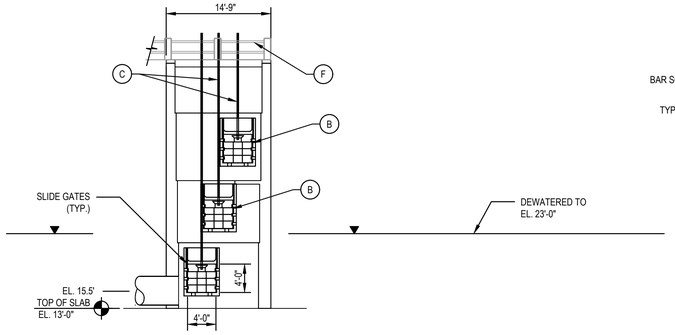
### SCOPE OF WORK - COARSE SCREEN CHAMBER

**FULL DEWATER OPTION**

- (A) CLEAN, INSPECT, AND PROPERLY REFURBISH LOCALIZED SURFACE DETERIORATION NOTED ON THE INTERIOR AND THE EXTERIOR OF THE COARSE SCREEN CHAMBER STRUCTURE.
- (B) REFURBISH SLIDING GATE, GUIDES, ATTACHMENT HARDWARE, GASKETS/SEALS, AND ASSOCIATED ANCILLARY GATE COMPONENTS.
- (C) REFURBISH SHAFTS, SHAFT GUIDES, MOUNTING BRACKETS, ATTACHMENT HARDWARE, BEARINGS/SEALS, AND ASSOCIATED ANCILLARY COMPONENTS.
- (D) REMOVE EXISTING SURFACE MOUNTED FRAMING, BAR SCREENS, WIRE ROPE, MOUNTING BRACKETS, ATTACHMENT HARDWARE, AND ASSOCIATED ANCILLARY COMPONENTS AND REPLACE WITH NEW MATERIAL IN LIKE KIND.
- (E) INSPECT THE 48" DIAMETER GALVANIZED WROUGHT IRON (GWI) PIPE INLET CONNECTION AND THE OUTLET CONNECTION AT THE FINE SCREEN CHAMBER FOR EVIDENCE OF DISTRESS AND PROPERLY REPAIR. INSPECT THE LENGTH OF RUN OF THE PIPE FOR EVIDENCE OF DETERIORATION AND/OR SECTION LOSS. REPORT FINDINGS TO OWNER'S REPRESENTATIVE FOR FURTHER DIRECTION.
- (F) INSPECT, REFURBISH, AND PROPERLY COAT HANDRAIL SYSTEM, HANDRAIL ANCHORAGE, AND ASSOCIATED ANCILLARY COMPONENTS.

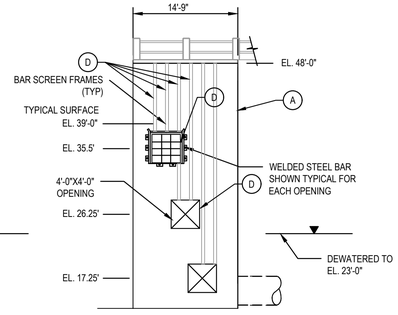
NOTE: ASSUME LEAD-BASED COATINGS MAY EXIST.

## PARTIAL DEWATER OPTION




A7 SS211 COARSE SCREEN CHAMBER SECTION

SCALE: SCALE 3/32" =1'-0"




A5 SS211 COARSE SCREEN CHAMBER CHANNEL SIDE ELEVATION

SCALE: SCALE 3/32" =1'-0"

### SCOPE OF WORK - COARSE SCREEN CHAMBER

**PARTIAL DEWATER OPTION**

- (A) CLEAN, INSPECT, AND PROPERLY REFURBISH LOCALIZED SURFACE DETERIORATION NOTED ON THE INTERIOR AND THE ACCESSIBLE PORTION OF THE EXTERIOR OF THE COARSE SCREEN CHAMBER STRUCTURE.
- (B) REFURBISH UPPER AND MIDDLE SLIDING GATES, GUIDES, ATTACHMENT HARDWARE, GASKETS/SEALS, AND ASSOCIATED ANCILLARY GATE COMPONENTS.
- (C) REFURBISH UPPER AND MIDDLE GATE SHAFTS, SHAFT GUIDES, MOUNTING BRACKETS, ATTACHMENT HARDWARE, BEARINGS/SEALS, AND ASSOCIATED ANCILLARY COMPONENTS.
- (D) REMOVE EXISTING SURFACE MOUNTED FRAMING FOR UPPER AND MIDDLE BAR SCREENS, MOUNTING BRACKETS, ATTACHMENT HARDWARE, WIRE ROPE AND ASSOCIATED ANCILLARY COMPONENTS AND REPLACE WITH NEW MATERIAL IN LIKE KIND.
- (F) INSPECT, REFURBISH, AND PROPERLY COAT HANDRAIL SYSTEM, HANDRAIL ANCHORAGE, AND ASSOCIATED ANCILLARY COMPONENTS.

NOTE: ASSUME LEAD-BASED COATINGS MAY EXIT.

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| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: COARSE SCREEN CHAMBER REPAIR OPTIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

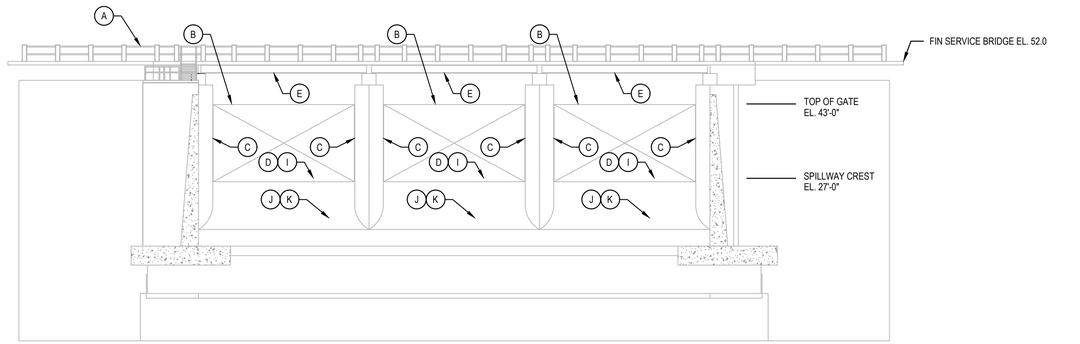
CLIENT DWG NO.

DRAWING NO.: SS211 | REV: D

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SAVED: 13-Jul-21 2:03 PM PLOTTED: 02-Aug-21 2:37 PM USER: LORENZ, MAX J

ANSI D 22X34




D6 / SS212 — UPSTREAM ELEVATION

SCALE: 1/16" =1'-0"

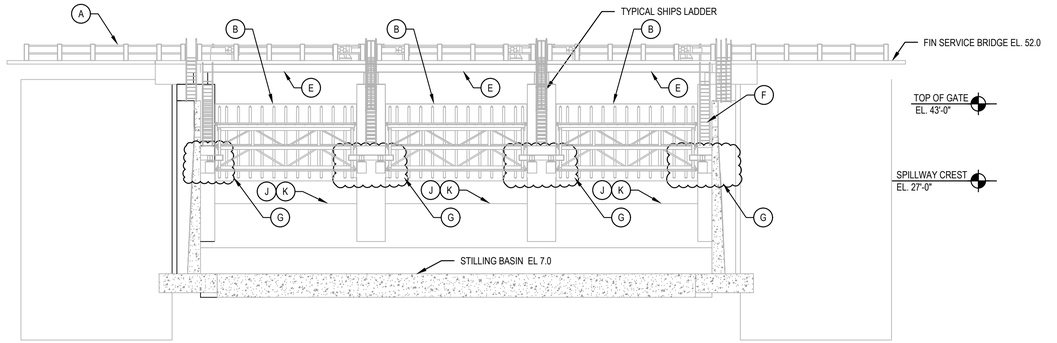
0' 5' 10' 15' 20' 25' 30'

1/16"=1'-0"

## SCOPE OF WORK * - UPSTREAM FACE OF OGEE

- (A) RECOAT EXISTING HANDRAIL SYSTEM PER PROJECT SPECIFICATIONS.
- (B) RECOAT TAINTER GATE, ASSOCIATED FRAMING, PIER ATTACHMENTS, ANCILLARY FRAMING, AND ACCESS LADDERS PER PROJECT SPECIFICATIONS. COMPLETE ANY LOCALIZED REPAIRS TO GATE AND ASSOCIATED FRAMING THAT MAY BE REQUIRED PRIOR TO RECOATING.
- (C) REPLACE EXISTING GATE SIDE SEALS, RETAINING BARS, AND BOLTING MATERIAL WITH NEW MATERIAL IN LIKE KIND.
- (D) REPLACE EXISTING GATE BOTTOM SEAL, RETAINING BARS, AND BOLTING MATERIAL WITH NEW MATERIAL IN LIKE KIND.
- (E) RECOAT STRUCTURAL BRIDGE DECK FRAMING PER PROJECT SPECIFICATIONS.
- (I) VISUALLY INSPECT AND PERFORM SOUNDINGS OF EXISTING THRESHOLD AND SURROUNDING GROUT POCKET FOR EVIDENCE OF VOIDS, MISALIGNMENT, AND/OR OTHER SIGNS OF DETERIORATION. REPLACE DAMAGED EMBED COMPONENTS IN LIKE KIND AS NECESSARY. HYDRO BLAST CHIP OUT AND FILL VOIDS NOTED WITH WATER TOLERANT GROUT IN GENERAL ACCORDANCE WITH THE PROJECT SPECIFICATIONS..
- (J) CLEAN, REPAIR IF REQUIRED, AND PROPERLY SEAL EXISTING EXPANSION JOINTS, CONSTRUCTION JOINTS, CONTROL JOINTS, PREVIOUS REPAIRS, FORM TIE POCKETS, AND OTHER SURFACE OPENINGS ON THE OGEE AND THE ASSOCIATED PIER AND ABUTMENT SECTIONS PER PROJECT SPECIFICATIONS.
- (K) APPLY SKIM COAT TO OGEE AND ASSOCIATED PIER AND ABUTMENT SECTIONS WITH EVIDENCE OF SURFACE EROSION PER PROJECT SPECIFICATIONS.
- (S) POWER WASH EXPOSED CONCRETE ON PIER AND ABUTMENT SECTIONS ABOVE THE NORMAL WATERLINE TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.

NOTE: ASSUME LEAD-BASED COATINGS MAY EXIST.




C6 / SS212 — DOWNSTREAM ELEVATION

SCALE: 1/16" =1'-0"

0' 5' 10' 15' 20' 25' 30'

1/16"=1'-0"

## SCOPE OF WORK * - DOWNSTREAM FACE OF OGEE

- (A) RECOAT EXISTING HANDRAIL SYSTEM PER PROJECT SPECIFICATIONS.
- (B) RECOAT TAINTER GATE, ASSOCIATED FRAMING, PIER ATTACHMENTS, ANCILLARY FRAMING, AND ACCESS LADDERS PER PROJECT SPECIFICATIONS. COMPLETE ANY LOCALIZED REPAIRS TO GATE AND ASSOCIATED FRAMING THAT MAY BE REQUIRED PRIOR TO RECOATING.
- (E) RECOAT STRUCTURAL BRIDGE DECK FRAMING PER PROJECT SPECIFICATIONS.
- (F) INSTALL AN OSHA COMPLIANT LADDER TO PROVIDE ACCESS TO THE LOWER LANDING ON THE SOUTH PIER SIMILAR TO THE ACCESS PROVIDED FOR THE NORTH PIER.
- (G) REMOVE ORGANICS AND DEBRIS ACCUMULATION ON PIER AND ABUTMENT LANDINGS AND DRILL WEEP HOLES IN APPLICABLE FRAMING MEMBERS TO PREVENT PONDING PRIOR TO RECOATING ACTIVITIES.
- (J) CLEAN, REPAIR IF REQUIRED, AND PROPERLY SEAL EXISTING EXPANSION JOINTS, CONSTRUCTION JOINTS, CONTROL JOINTS, PREVIOUS REPAIRS, FORM TIE POCKETS, AND OTHER SURFACE OPENINGS ON THE OGEE AND THE ASSOCATED PIER AND ABUTMENT SECTIONS PER PROJECT SPECIFICATIONS.
- (K) APPLY SKIM COAT TO OGEE AND ASSOCIATED PIER AND ABUTMENT SECTIONS WITH EVIDENCE OF SURFACE EROSION PER PROJECT SPECIFICATIONS.
- (S) POWER WASH EXPOSED CONCRETE ON PIER AND ABUTMENT SECTIONS ABOVE THE NORMAL WATERLINE TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.

NOTE: ASSUME LEAD-BASED COATINGS MAY EXIST.

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| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
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PROJECT NO.

SCALE: AS SHOWN

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: SERVICE SPILLWAY REPAIRS AND UPGRADES

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. SS212

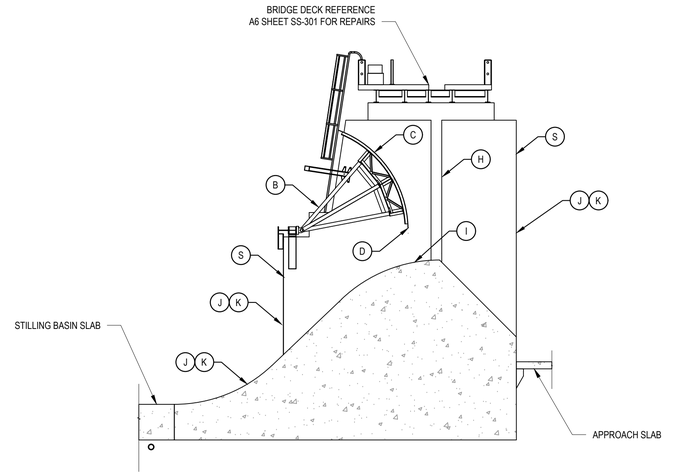
REV D

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CAD FILE: W:\CAD\STRS_05 SERVICE SPILLWAY REPAIRS AND UPGRADES.DWG

SAVED: 15-Jul-21 10:21 PM PLOTTED: 02-Aug-21 2:37 PM USER: LORENZ, MAX J

ANSI D-22X34




D8 SS301 TYPICAL SECTION THROUGH OGEE

SCALE: 3/32" =1'-0"

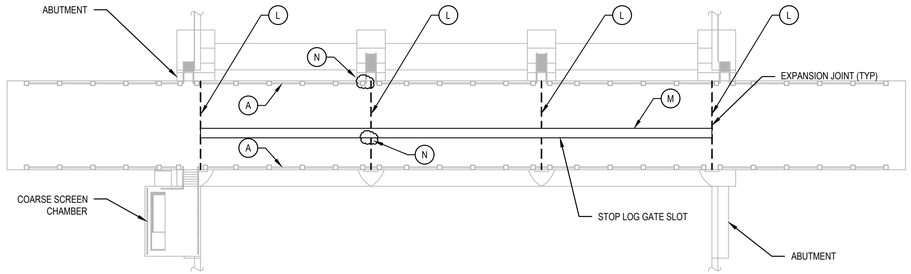
0' 5' 10' 15' 20'

3/32"=1'-0"

**SCOPE OF WORK * - OGEE SECTION**

- (B) RECOAT TAINTER GATE, ASSOCIATED FRAMING, PIER ATTACHMENTS, ANCILLARY FRAMING, AND ACCESS LADDERS PER PROJECT SPECIFICATIONS. COMPLETE ANY LOCALIZED REPAIRS TO GATE AND ASSOCIATED FRAMING THAT MAY BE REQUIRED PRIOR TO RECOATING.
- (C) REPLACE EXISTING SIDE SEALS, RETAINING BARS, AND BOLTING MATERIAL WITH NEW MATERIAL IN LIKE KIND.
- (D) REPLACE EXISTING BOTTOM SEAL, RETAINING BARS, AND BOLTING MATERIAL WITH NEW MATERIAL IN LIKE KIND.
- (H) CLEAN, INSPECT, AND REFURBISH STOP LOG SLOT, ASSOCIATED BEARING PLATE, AND EMBED FRAMING COMPONENTS TO ORIGINAL CONDITION.
- (I) VISUALLY INSPECT AND PERFORM SOUNDINGS OF EXISTING THRESHOLD AND SURROUNDING GROUT POCKET FOR EVIDENCE OF VOIDS, MISALIGNMENT, AND/OR OTHER SIGNS OF DETERIORATION. REPLACE DAMAGED EMBED COMPONENTS IN LIKE KIND AS NECESSARY. HYDRO BLAST CHIP OUT AND FILL VOIDS NOTED WITH WATER TOLERANT GROUT IN GENERAL ACCORDANCE WITH THE PROJECT SPECIFICATIONS..
- (J) CLEAN, REPAIR IF REQUIRED, AND PROPERLY SEAL EXISTING EXPANSION JOINTS, CONSTRUCTION JOINTS, CONTROL JOINTS, PREVIOUS REPAIRS, FORM TIE POCKETS, AND OTHER SURFACE OPENINGS ON THE OGEE AND THE ASSOCIATED PIER AND ABUTMENT SECTIONS PER PROJECT SPECIFICATIONS.
- (K) APPLY SKIM COAT TO OGEE AND ASSOCIATED PIER AND ABUTMENT SECTIONS WITH EVIDENCE OF SURFACE EROSION PER PROJECT SPECIFICATIONS.
- (S) POWER WASH EXPOSED CONCRETE ON PIER AND ABUTMENT SECTIONS ABOVE THE NORMAL WATERLINE TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.

NOTE: ASSUME LEAD-BASED COATINGS MAY EXIST.




A6 SS301 SPILLWAY BRIDGE PLAN

SCALE: 1/16" =1'-0"

0' 5' 10' 15' 20' 25' 30'

1/16"=1'-0"

**SCOPE OF WORK * - SPILLWAY BRIDGE PLAN**

- (A) RECOAT EXISTING HANDRAIL SYSTEM PER PROJECT SPECIFICATIONS.
- (L) REMOVE EXISTING EXPANSION JOINT SEALANT MATERIAL AND INSTALL NEW MATERIAL PER MANUFACTURER'S RECOMMENDATIONS AT ALL BRIDGE DECK LOCATIONS.
- (M) CLEAN, REPAIR, AND RECOAT STOP LOG SLOT OPENING EMBED ANGLES, COVER PLATES, AND OTHER ASSOCIATED COMPONENTS PER PROJECT SPECIFICATIONS.
- (N) PERFORM LOCALIZED REPAIRS OF CONCRETE DECK WITH EVIDENCE CHIPPING, SPALLING, OR OTHER SIGNS OF DISTRESS PER PROJECT SPECIFICATIONS. TYPICAL REPAIR AREAS SHOWN. OTHER AREAS OF DISTRESS PRESENT ON THE TOPSIDE AND UNDERSIDE OF DECK TO BE LOCATED BY CONTRACTOR AND REPAIRED ACCORDINGLY.

NOTE: ASSUME LEAD-BASED COATINGS MAY EXIST.

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| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: DETAILS AND SECTIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION: CA-5392

CLIENT DWG NO.

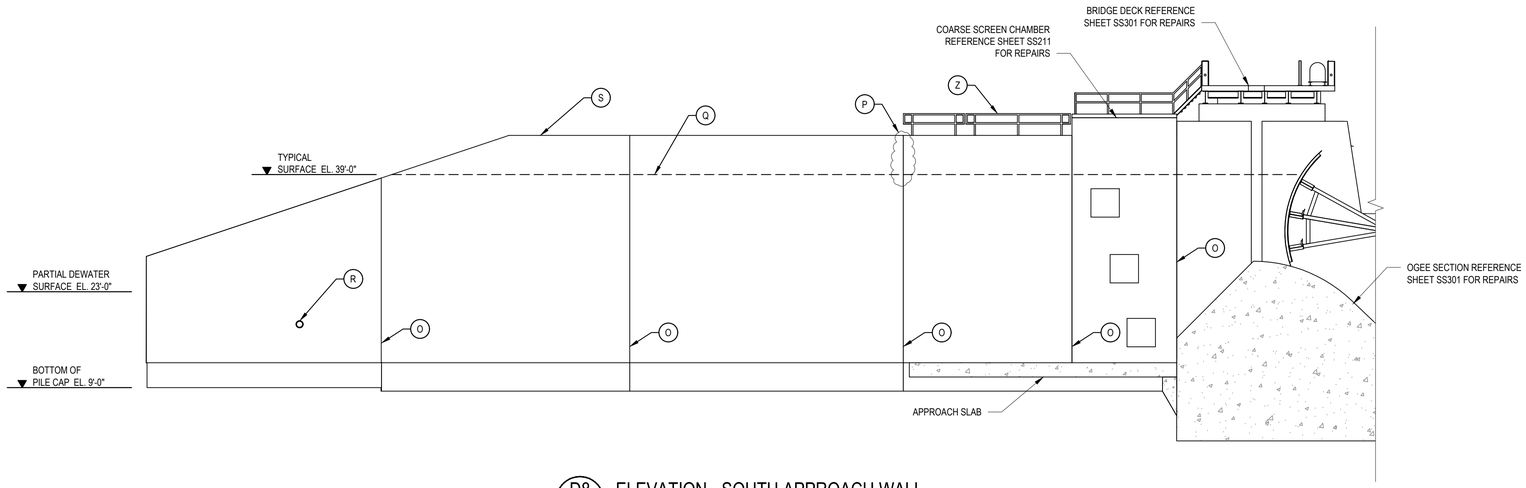
DRAWING NO.: SS301 | REV: D

CAD FILE: W:\CAD\STRS\SS301 SECTION THROUGH OGEE.DWG

SAVED: 13-Jul-21 2:08 PM PLOTTED: 02-Aug-21 2:38 PM USER: LORENZ, MAX J

ANSI D 22X34

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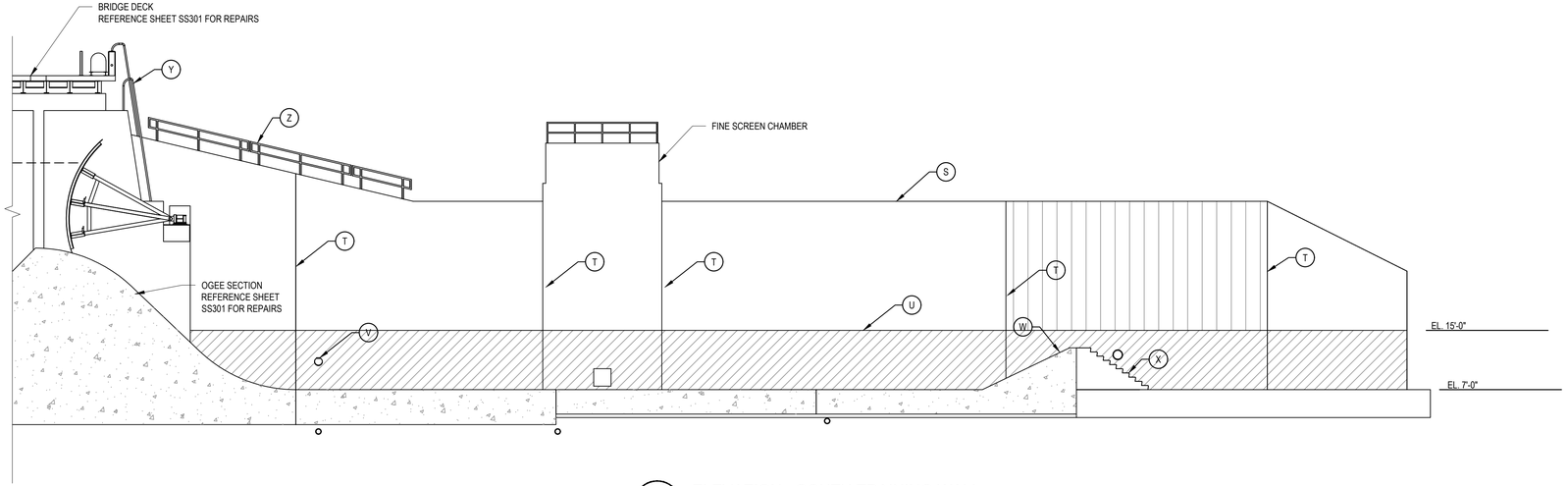



D8 / SS302 — ELEVATION - SOUTH APPROACH WALL

SCALE: 3/32" =1'-0"

### SCOPE OF WORK - SOUTH APPROACH WALL

- (O) CLEAN, INSPECT, REPAIR IF REQUIRED, AND INSTALL JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS OF ACCESSIBLE PORTIONS OF NEAR SIDE AND FAR SIDE OF WALL JOINTS.
- (P) PERFORM LOCALIZED CONCRETE REPAIR AT JOINT AND OTHER LOCATIONS THAT MAY BE EXPOSED DURING THE DEWATERING PROCESS.
- (Q) APPLY A UNIFORM SEAL COATING PER PROJECT SPECIFICATIONS ALONG THE NORMAL WATERLINE ON THE NEAR SIDE AND FAR SIDE OF THE APPROACH WALL. EXTEND THE COATING FROM ELEVATION 37'-0" TO TOP OF WALL.
- (R) ABANDON EXISTING 10" Ø CORRUGATED METAL PIPE ALONG APPROACH WALL. INSTALL NEW 10" Ø PERFORATED PVC PIPE IN GRAVEL BED ALONG FULL LENGTH OF WALL AT ELEVATION 18'-6". EXTEND NEW PIPE THRU EXISTING WALL PENETRATION PER ORIGINAL DESIGN.
- (S) POWER WASH PORTIONS OF EXPOSED CONCRETE EXTENDING ABOVE THE NORMAL WATERLINE ON NEAR SIDE AND FAR SIDE TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.
- (Z) INSTALL A NEW HANDRAIL SYSTEM ON NEW SLAB ON GRADE ADJACENT TO APPROACH WALL.




A8 / SS302 — ELEVATION - SOUTH TRAINING WALL

SCALE: 3/32" =1'-0"

### SCOPE OF WORK - SOUTH TRAINING WALL

- (S) POWER WASH PORTIONS OF EXPOSED CONCRETE ON NEAR SIDE AND FAR SIDE OF TRAINING WALL TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.
- (T) CLEAN, INSPECT, REPAIR IF REQUIRED, AND INSTALL JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS OF ACCESSIBLE PORTIONS OF NEAR SIDE AND FAR SIDE OF TRAINING WALL JOINTS AND END SILL JOINTS.
- (U) INSTALL A NEW CONTINUOUS COATING SYSTEM PER THE PROJECT SPECIFICATIONS ALONG THE LOWER TRAINING WALL EXTENDING VERTICALLY FROM PILE CAP TO ELEVATION 15 FEET.
- (V) REMOVE EXISTING PLUG, PORTIONS OF STEEL PIPE COMPONENTS PENETRATING WALL, AND PERMANENTLY SEAL WALL AND OPENING WITH GROUT.
- (W) APPLY SKIM COAT SURFACING TO EXPOSED PORTIONS OF CONCRETE END SILL PER PROJECT SPECIFICATIONS.
- (X) REMOVE EXISTING ACCESS LADDER AT END SILL AND INSTALL REINFORCED CONCRETE STEPS ON EXPOSED PORTION OF PILE CAP PER PROJECT DOCUMENTS.
- (Y) INSTALL AN OSHA COMPLIANT LADDER TO PROVIDE ACCESS TO THE LOWER LANDING ON THE SOUTH PIER SIMILAR TO THE ACCESS PROVIDED FOR THE NORTH PIER.
- (Z) REMOVE EXISTING HANDRAIL AND INSTALL NEW HANDRAIL SYSTEM ADJACENT TO RETAINING WALL ON EXISTING STEPS.

0' 5' 10' 15' 20'
3/32"=1'-0"

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| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: SOUTH ELEVATION - UPSTREAM APPROACH AND DOWNSTREAM TRAINING WALL

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

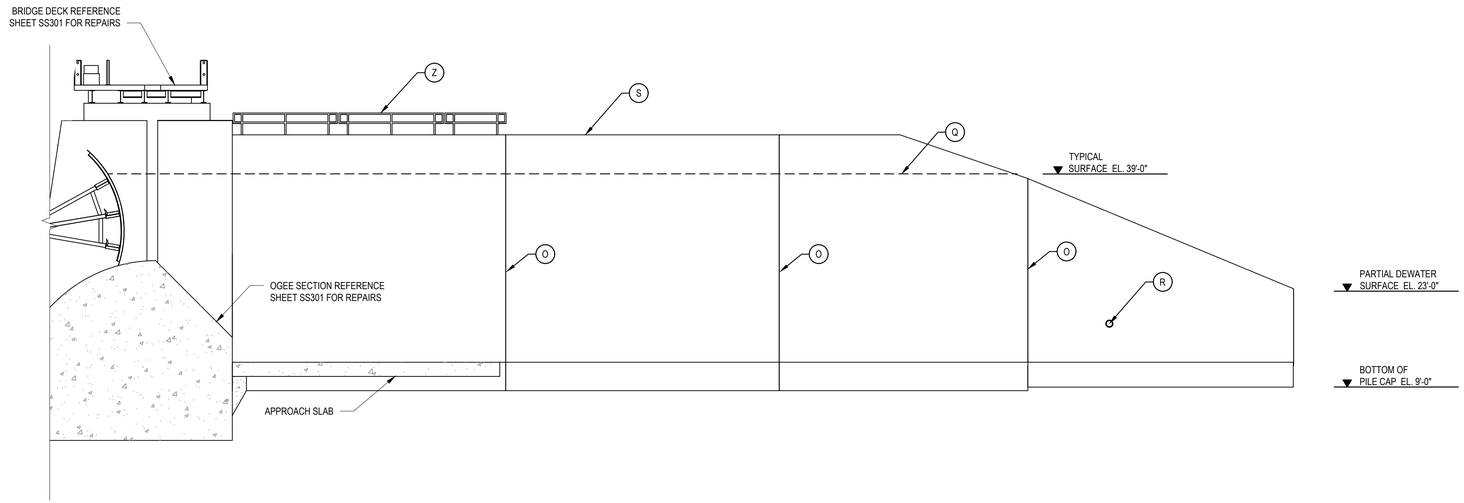
AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. SS302

REV D

SAVED: 13-Jul-21 2:17 PM PLOTTED: 02-Aug-21 2:38 PM USER: LORENZ, MAX J
CAD FILE: W:\CAD\STRS\SS302 SOUTH APPROACH AND TRAINING WALL ELEVATIONS.DWG
ANSI D (22X34)

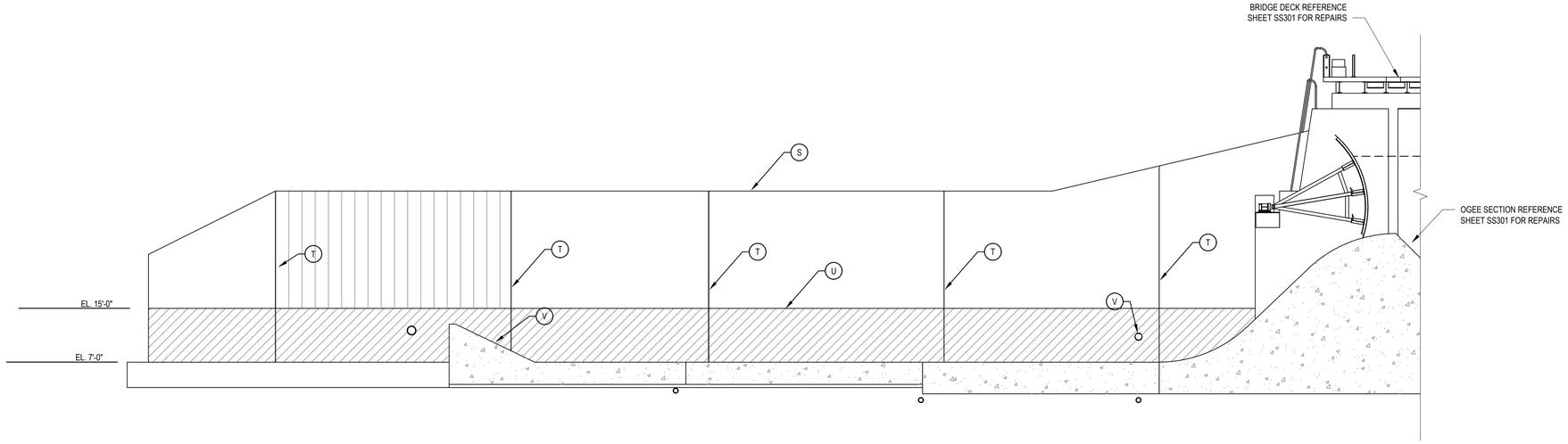



D8 SS303 ELEVATION - NORTH APPROACH WALL

SCALE: 3/32" =1'-0"

**SCOPE OF WORK - NORTH APPROACH WALL**

- (O) CLEAN, INSPECT, REPAIR IF REQUIRED, AND INSTALL JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS OF ACCESSIBLE PORTIONS OF NEAR SIDE AND FAR SIDE OF WALL JOINTS.
- (P) PERFORM LOCALIZED CONCRETE REPAIR AT JOINT AND OTHER LOCATIONS THAT MAY BE EXPOSED DURING THE DEWATERING PROCESS.
- (Q) APPLY A UNIFORM SEAL COATING PER PROJECT SPECIFICATIONS ALONG THE NORMAL WATERLINE ON THE NEAR SIDE AND FAR SIDE OF THE APPROACH WALL. EXTEND THE COATING FROM ELEVATION 37'-0" TO TOP OF WALL.
- (R) ABANDON EXISTING 10" Ø CORRUGATED METAL PIPE ALONG APPROACH WALL. INSTALL NEW 10" Ø PERFORATED PVC PIPE IN GRAVEL BED ALONG FULL LENGTH OF WALL AT ELEVATION 18'-6". EXTEND NEW PIPE THRU EXISTING WALL PENETRATION PER ORIGINAL DESIGN.
- (S) POWER WASH PORTIONS OF EXPOSED CONCRETE EXTENDING ABOVE THE NORMAL WATERLINE ON NEAR SIDE AND FAR SIDE TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.
- (V) REMOVE EXISTING PLUG AND PERMANENTLY SEAL PIPE PENETRATING WALL WITH GROUT.
- (Z) INSTALL A NEW HANDRAIL SYSTEM ON NEW SLAB ON GRADE ADJACENT TO APPROACH WALL.




A8 SS303 ELEVATION - NORTH TRAINING WALL

SCALE: 3/32" =1'-0"

**SCOPE OF WORK - NORTH TRAINING WALL**

- (S) POWER WASH PORTIONS OF EXPOSED CONCRETE ON NEAR SIDE AND FAR SIDE OF TRAINING WALL TO REMOVE ACCUMULATION AND OTHER FOREIGN MATERIAL.
- (T) CLEAN, INSPECT, REPAIR IF REQUIRED, AND INSTALL JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS OF ACCESSIBLE PORTIONS OF NEAR SIDE AND FAR SIDE OF TRAINING WALL JOINTS AND END SILL JOINTS.
- (U) INSTALL A NEW CONTINUOUS COATING SYSTEM PER THE PROJECT SPECIFICATIONS ALONG THE LOWER TRAINING WALL EXTENDING VERTICALLY FROM PILE CAP TO ELEVATION 15 FEET.
- (V) REMOVE EXISTING PLUG, PORTIONS OF STEEL PIPE COMPONENTS PENETRATING WALL, AND PERMANENTLY SEAL WALL OPENING WITH GROUT.
- (W) APPLY SKIM COAT SURFACING TO EXPOSED PORTIONS OF CONCRETE END SILL PER PROJECT SPECIFICATIONS.

0' 5' 10' 15' 20'

3/32"=1'-0"

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| REV | DD/MM/YY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

| REF | NUMBER | TITLE |
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APPROVED FOR _____

A. ROSENSTEIN, CLIENT PROJECT MGR
C. ANDERSEN, TECHNICAL MGR
D. BUTCHER, PROJECT MGR

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.:

SCALE: AS SHOWN

| | BY | DD/MM/YY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: NORTH ELEVATION - UPSTREAM APPROACH AND DOWNSTREAM TRAINING WALL

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.:

DRAWING NO.: SS303

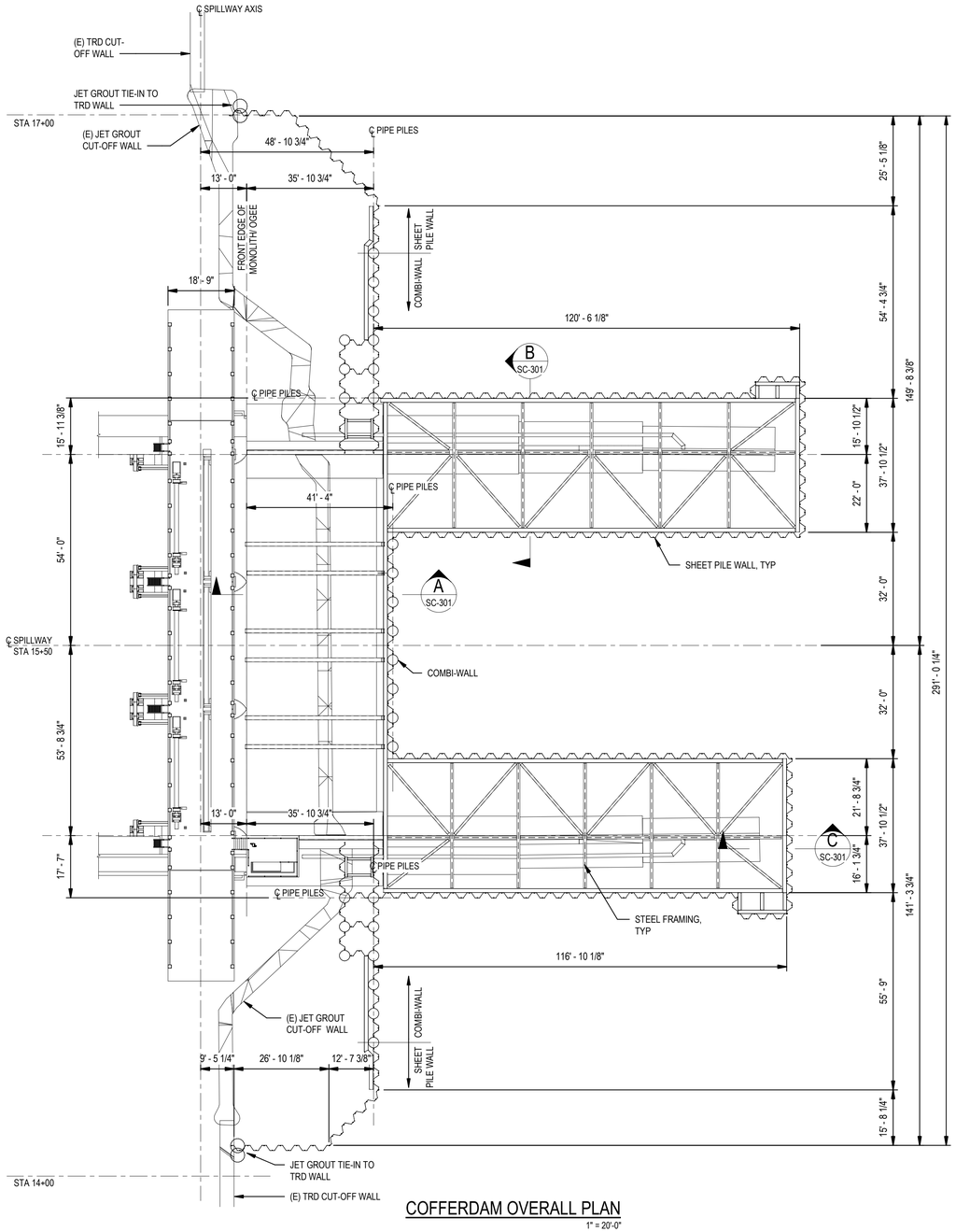
REV: D

CAD FILE: W:\CAD\STR\SS303 NORTH APPROACH AND TRAINING WALL ELEVATIONS.DWG

SAVED: 15-Jul-21 4:57 PM PLOTTED: 16-Aug-21 1:59 PM USER: GOSLEE, MARK D

ANSI D 22X34

8 7 6 5 4 3 2 1




## COFFERDAM OVERALL PLAN

1" = 20'-0"

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

0 5' 10' 20' 40'
1"=20'-0"

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|---|---|---|---|---|---|---|---|---|
| D | 7/9/2021 | ISSUED FOR BID | | | | | | |
| C | 7/1/2021 | 100% DESIGN | | | | | | |
| B | 5/20/2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

| REF | NUMBER | TITLE |
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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: 1" = 20'-0"

| | BY | DDMMMYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: COFFERDAM OVERALL PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

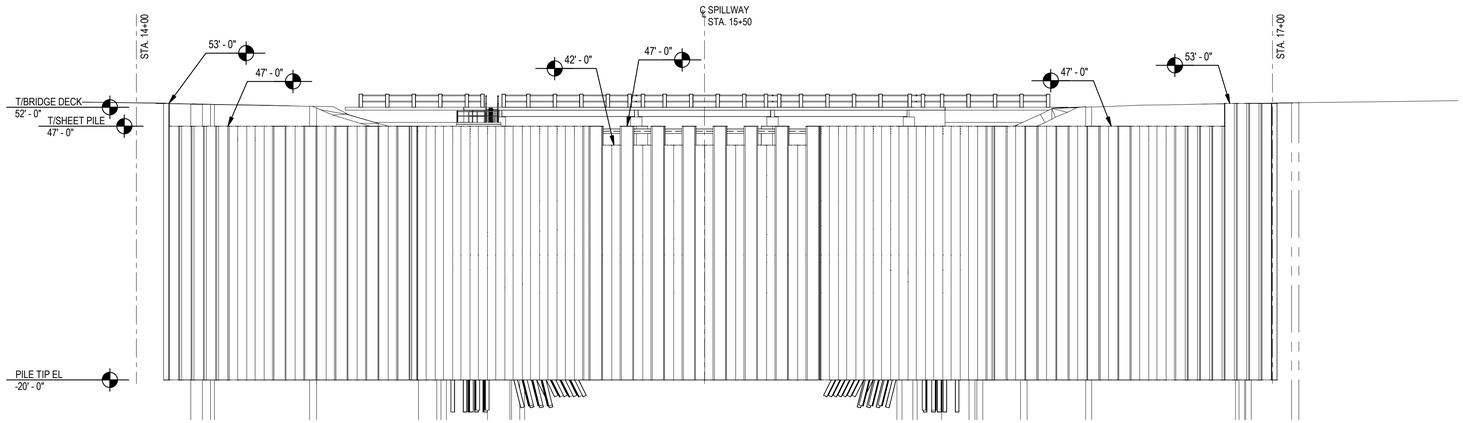
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REV: D

PLOTTED: 7/9/2021 1:36:00 PM

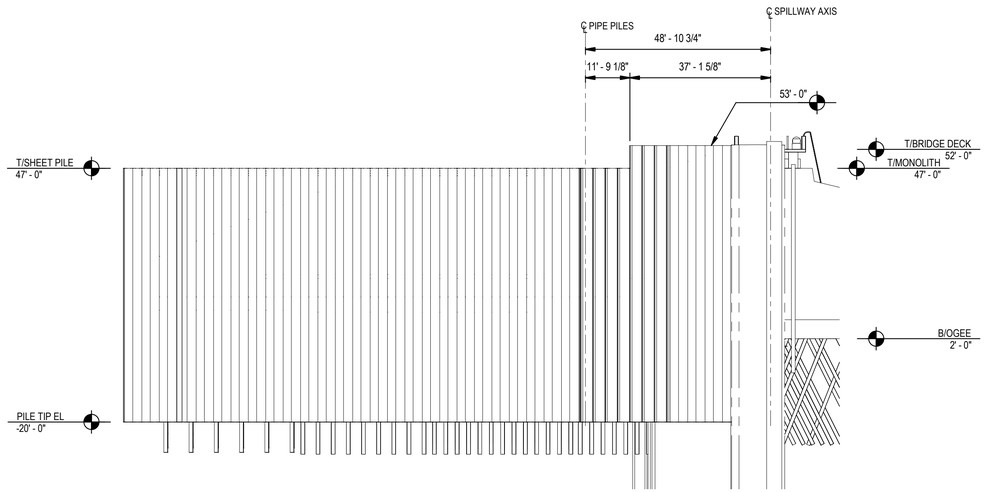
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ANSI D 22x34



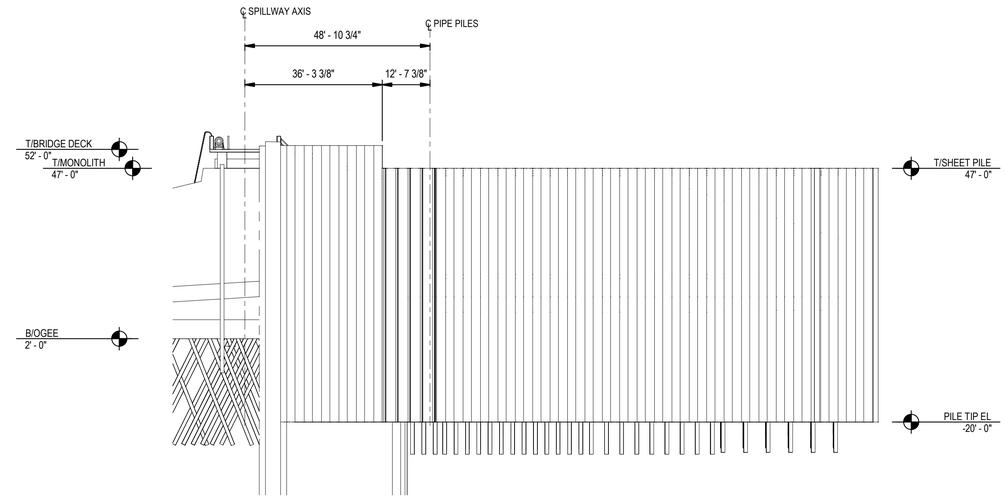

## OVERALL ELEVATION

1" = 20'-0"




## NORTH ELEVATION

1" = 20'-0"




## SOUTH ELEVATION

1" = 20'-0"

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

0 5' 10' 20' 40'
1"=20'-0"

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|---|---|---|---|---|---|---|---|---|
| D | 7/9/2021 | ISSUED FOR BID | | | | | | |
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| B | 5/20/2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

| REF | NUMBER | TITLE |
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| | | REFERENCES |

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| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: 1" = 20'-0"

| | BY | DDMMMYYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: COFFERDAM ELEVATIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

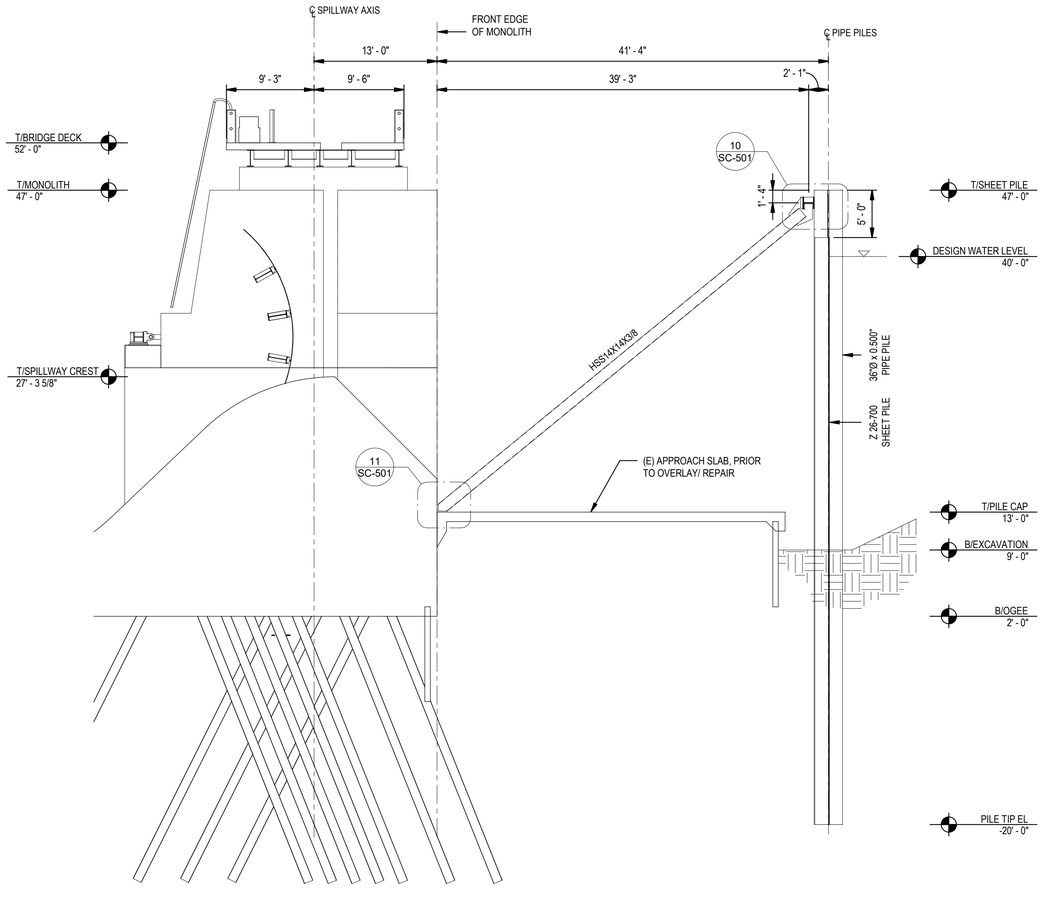
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REV: D

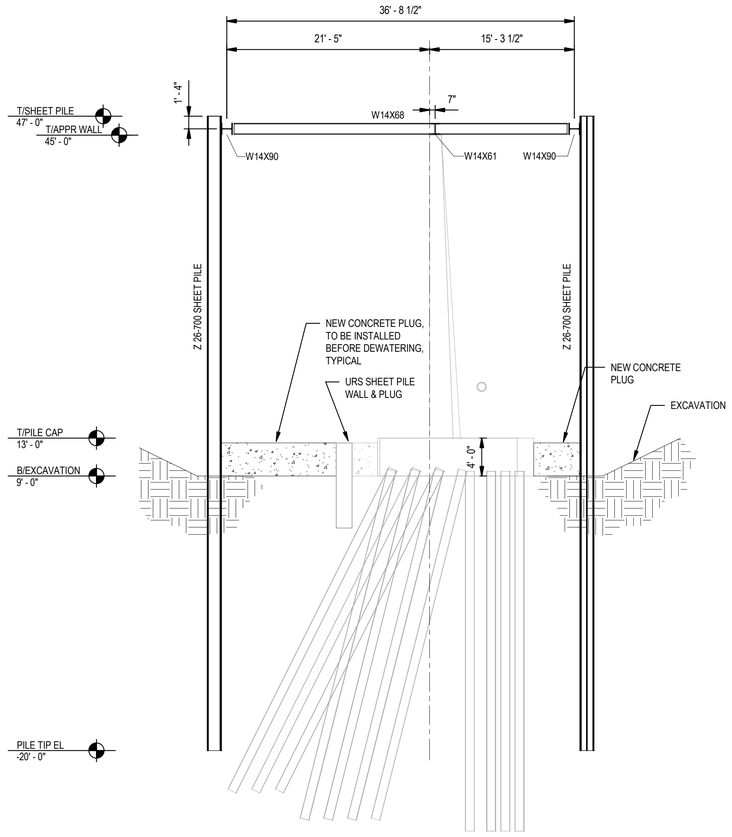
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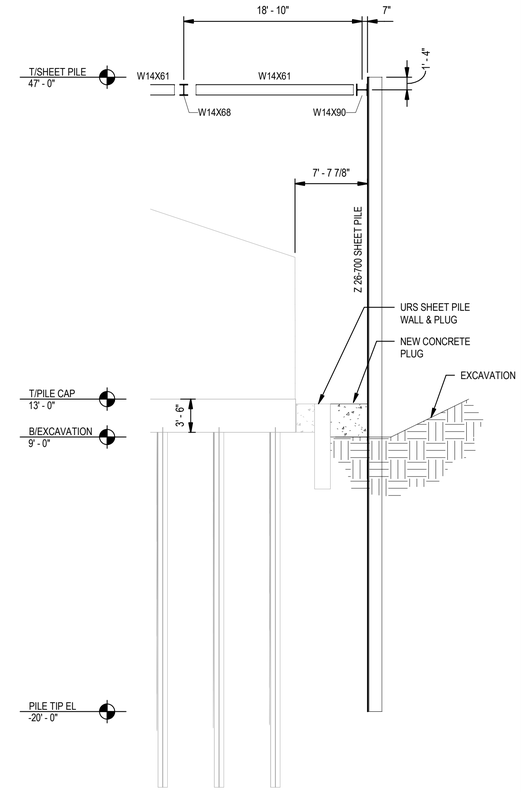
ANSI D-22x34




SECTION A 1/8" = 1'-0" SC-101




SECTION B 1/8" = 1'-0" SC-101




SECTION C 1/8" = 1'-0" SC-101

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

0 5' 10' 15'
1/8"=1'-0"

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|---|---|---|---|---|---|---|---|---|
| D | 7/9/2021 | ISSUED FOR BID | | | | | | |
| C | 7/1/2021 | 100% DESIGN | | | | | | |
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| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: 1/8" = 1'-0"

| | BY | DDMMMYYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: COFFERDAM SECTIONS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No:

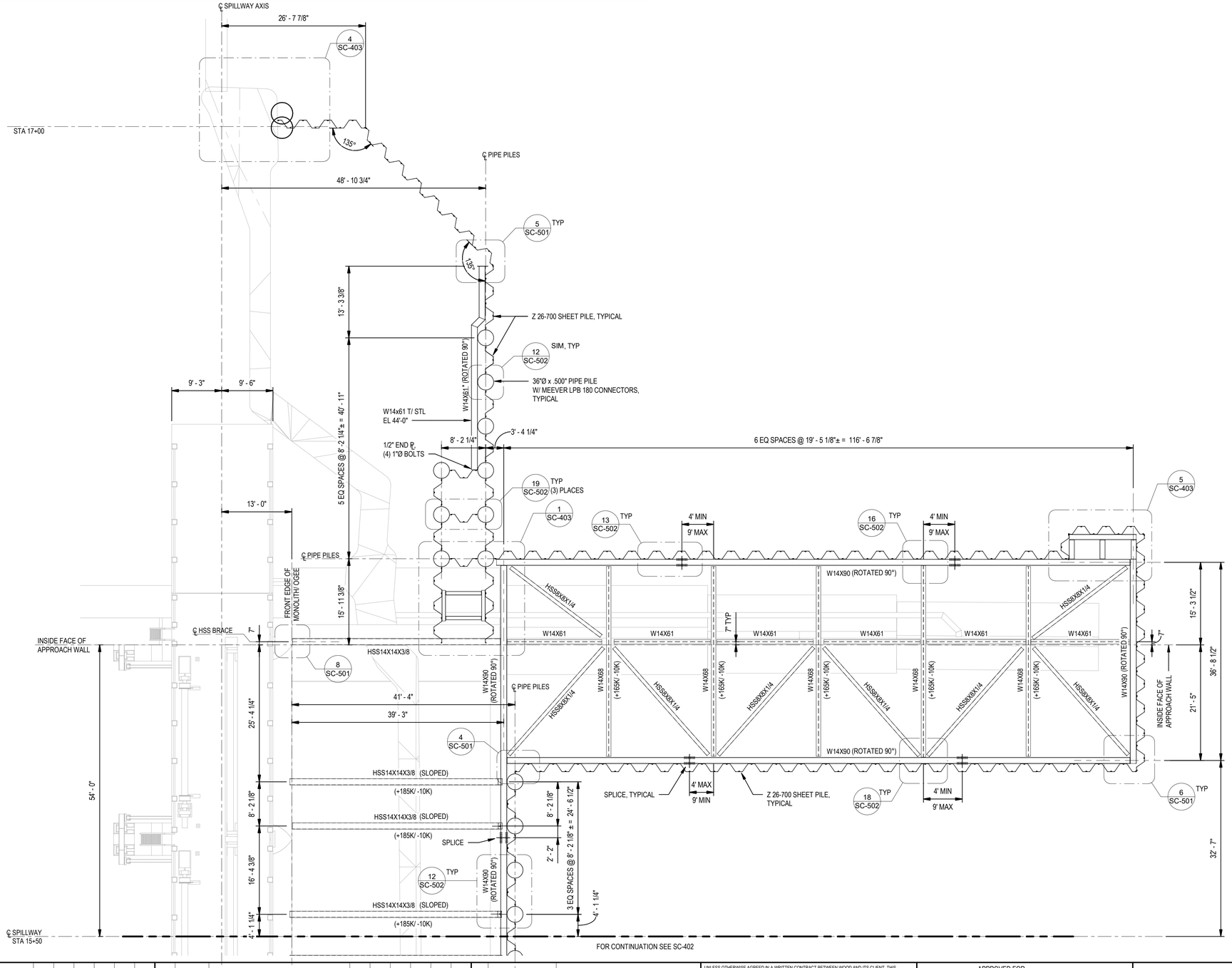
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REV: D

PLOTTED: 7/9/2021 1:36:06 PM

REVIT FILE: C:\Users\pjbutcher\Documents\300472X4-Coffercam_pjbutcher.rvt

ANSI D-22x34




DRAWING NOTES:

1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES
2. THE CENTERLINE OF STRUCTURAL STEEL SHOWN ON PLAN IS ELEVATION 45'-8", UNLESS NOTED OTHERWISE
3. CONTRACTOR IS RESPONSIBLE FOR THE FINAL SHEET PILE AND FRAMING LAYOUT AND SHALL PROVIDE SHOP DRAWINGS INDICATING SHEET PILE LAYOUT, STEEL FRAMING AND CONNECTIONS.
4. DEVIATIONS FROM THE SHEET PILING/ FRAMING LAYOUT GREATER THAN 6" SHALL BE CLEARLY NOTED ON SHOP DRAWINGS.
5. CONNECTIONS SHALL BE DESIGNED FOR THE FOLLOWING SERVICE LEVEL FORCES, UNLESS NOTED OTHERWISE:
   - A. HSS8x8x1/4 +/- 98 K AXIAL
   - B. HSS14x14x3/8 + 260 K/ -10 K AXIAL
   - C. W14x68 + 260 K/ -10 K AXIAL
   - D. W14x90 + 95 K/ -10 K AXIAL
   - E. W14x90 SPLICE +/- 190 K-FT MOMENT, +95 K AXIAL
   - F. VERTICAL SHEAR FORCE IN CONNECTIONS SHALL BE BASED UPON MEMBER DEAD LOADS PLUS A 100 PLF UNIFORM MEMBER LIVE LOAD.
6. PIPE PILES ARE 36"Ø x 0.500" GRADE 60 PIPE PILES WITH LPB 180 CONNECTORS (REF. MEEVER & MEEVER PILING PRODUCTS)
7. SHEET PILING SHALL BE A HOT ROLLED Z26-700 GRADE 60 SECTION.
8. SHEET PILING CONNECTORS/ CORNER PILES REFERENCED MAY BE PRODUCED BY THE FOLLOWING MANUFACTURERS:
   - A. MEEVER & MEEVER
   - B. NUCOR SKYLINE
   - C. NOTE: CONTRACTOR IS NOT RESTRICTED TO THE ABOVE-LISTED PILING PRODUCTS MANUFACTURERS.
9. ALL COFFERDAM JOINTS SHALL BE INSTALLED WITH A JOINT SEALANT SYSTEM RATED FOR A MAXIMUM HEAD PRESSURE OF 60 FEET.
10. (*) INDICATES THAT MEMBER AND CONNECTION(S) SHALL BE HOT DIPPED GALVANIZED.

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| D | 7/9/2021 | ISSUED FOR BID |
| C | 7/1/2021 | 100% DESIGN |
| B | 5/20/2021 | 90% DESIGN |
| A | 3/12/2021 | 60% REVIEW SET |

| REF | NUMBER | TITLE |
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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: 1" = 10'-0"

| | BY | DDMMMYYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: ENLARGED PLAN AT NORTH APPROACH WALL

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

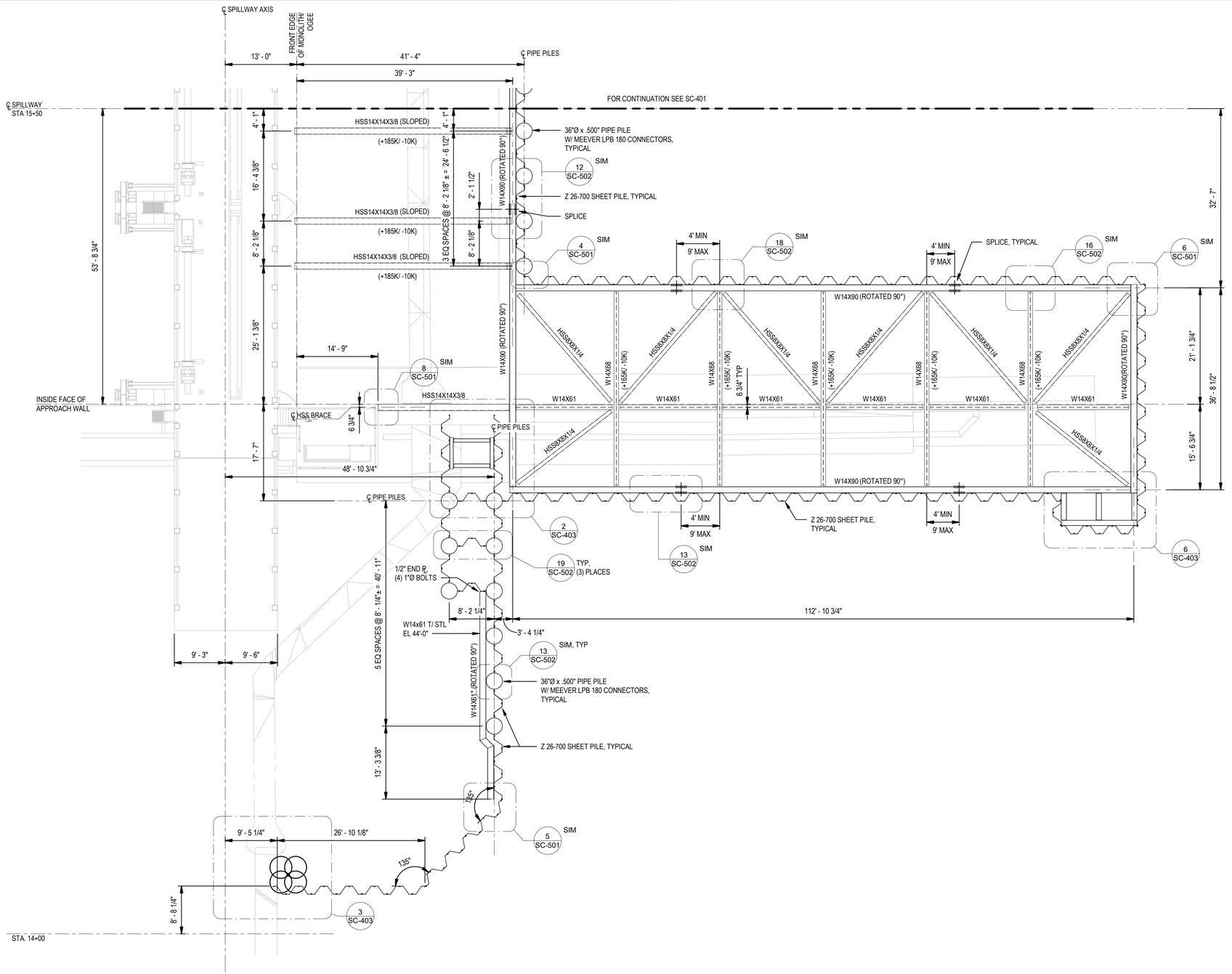
DRAWING No: SC-401

REV: D

PLOTTED: 7/9/2021 1:36:07 PM

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AXIS D 22x34




DRAWING NOTES:

1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES
2. THE CENTERLINE OF STRUCTURAL STEEL SHOWN ON PLAN IS ELEVATION 45'-8", UNLESS NOTED OTHERWISE
3. CONTRACTOR IS RESPONSIBLE FOR THE FINAL SHEET PILE AND FRAMING LAYOUT AND SHALL PROVIDE SHOP DRAWINGS INDICATING SHEET PILE LAYOUT, STEEL FRAMING AND CONNECTIONS.
4. DEVIATIONS FROM THE SHEET PILING/ FRAMING LAYOUT GREATER THAN 6" SHALL BE CLEARLY NOTED ON SHOP DRAWINGS.
5. CONNECTIONS SHALL BE DESIGNED FOR THE FOLLOWING SERVICE LEVEL FORCES, UNLESS NOTED OTHERWISE:
   - A. HSS8x8x1/4 +/- 98 K AXIAL
   - B. HSS14x14x3/8 + 260 K/ -10 K AXIAL
   - C. W14x68 + 260 K/ -10 K AXIAL
   - D. W14x90 + 95 K/ -10 K AXIAL
   - E. W14x90 SPLICE +/- 190 K-FT MOMENT, + 95 K AXIAL
   - F. VERTICAL SHEAR FORCE IN CONNECTIONS SHALL BE BASED UPON MEMBER DEAD LOADS PLUS A 100 PLF UNIFORM MEMBER LIVE LOAD.
   - G. (+) INDICATES A COMPRESSIVE AXIAL FORCE
   - H. (-) INDICATES A TENSILE AXIAL FORCE
6. PIPE PILES ARE 36"Ø x 0.500" GRADE 60 PIPE PILES WITH LPB 180 CONNECTORS (REF. MEEVER & MEEVER PILING PRODUCTS)
7. SHEET PILING SHALL BE A HOT ROLLED Z26-700 GRADE 60 SECTION.
8. SHEET PILING CONNECTORS/ CORNER PILES REFERENCED MAY BE PRODUCED BY THE FOLLOWING MANUFACTURERS:
   - A. MEEVER & MEEVER
   - B. NUCOR SKYLINE
   - C. NOTE: CONTRACTOR IS NOT RESTRICTED TO THE ABOVE-LISTED PILING PRODUCTS MANUFACTURERS.
9. ALL COFFERDAM JOINTS SHALL BE INSTALLED WITH A JOINT SEALANT SYSTEM RATED FOR A MAXIMUM HEAD PRESSURE OF 60 FEET.
10. (*) INDICATES THAT MEMBER AND CONNECTION(S) SHALL BE HOT DIPPED GALVANIZED.

0 5' 10' 20'
1"=10'-0"

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|---|---|---|---|---|---|---|---|---|
| D | 7/9/2021 | ISSUED FOR BID | | | | | | |
| C | 7/1/2021 | 100% DESIGN | | | | | | |
| B | 5/20/2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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| | | REFERENCES |

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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: 1" = 10'-0"

| | BY | DDMMMYYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: ENLARGED PLAN AT SOUTH APPROACH WALL

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

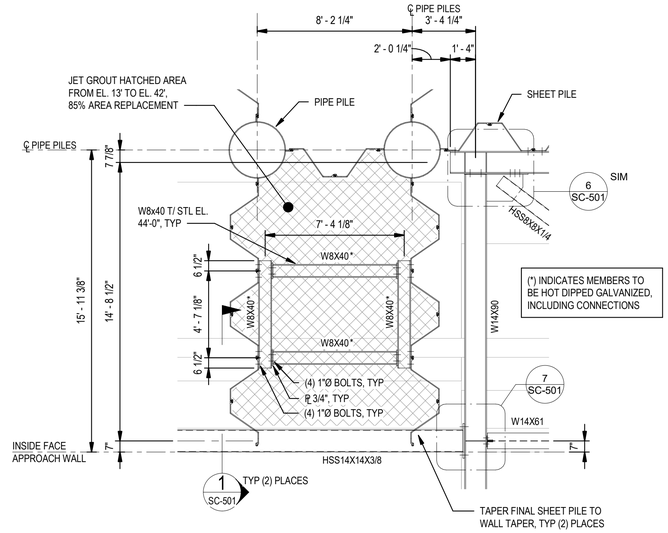
DRAWING No: SC-402

REV: D

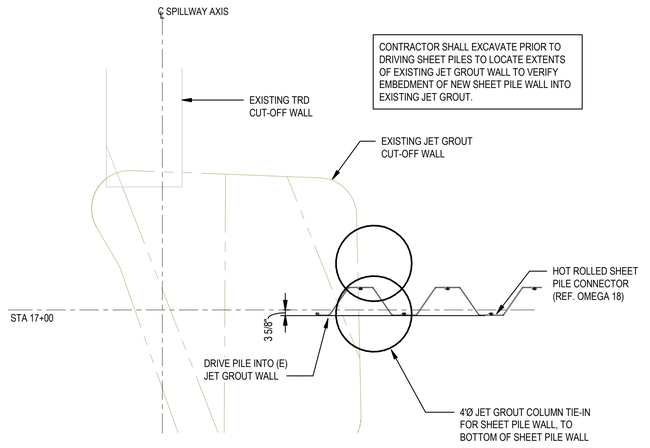
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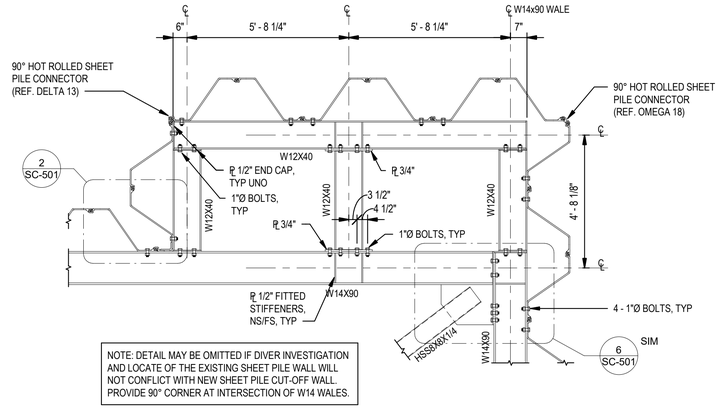
ANSI D-22x34



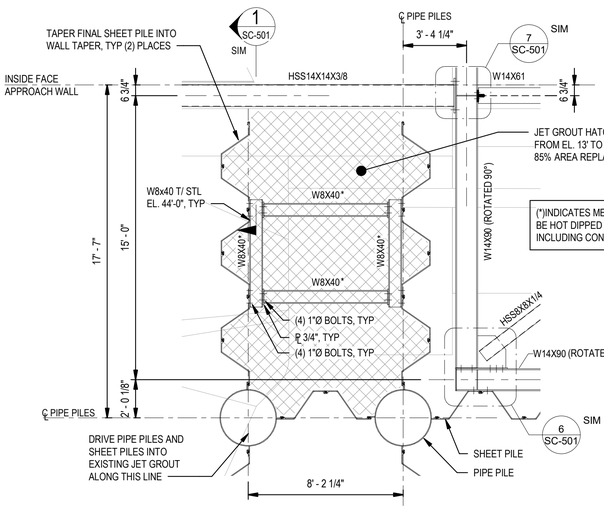

ENLARGED PLAN 1 — 1/4" = 1'-0" — SC-401




ENLARGED PLAN 4 — 1/4" = 1'-0" — SC-401




ENLARGED PLAN 5 — 3/8" = 1'-0" — SC-401




ENLARGED PLAN 2 — 1/4" = 1'-0" — SC-402




ENLARGED PLAN 3 — 1/4" = 1'-0" — SC-402




ENLARGED PLAN 6 — 3/8" = 1'-0" — SC-402

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

0 1' 5' 10'
1/4"=1'-0"

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 7/9/2021 | ISSUED FOR BID | | | | | | |
| C | 7/1/2021 | 100% DESIGN | | | | | | |
| B | 5/20/2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: As indicated

| | BY | DDMMMYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: ENLARGED PLANS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

DRAWING No: SC-403

REV: D

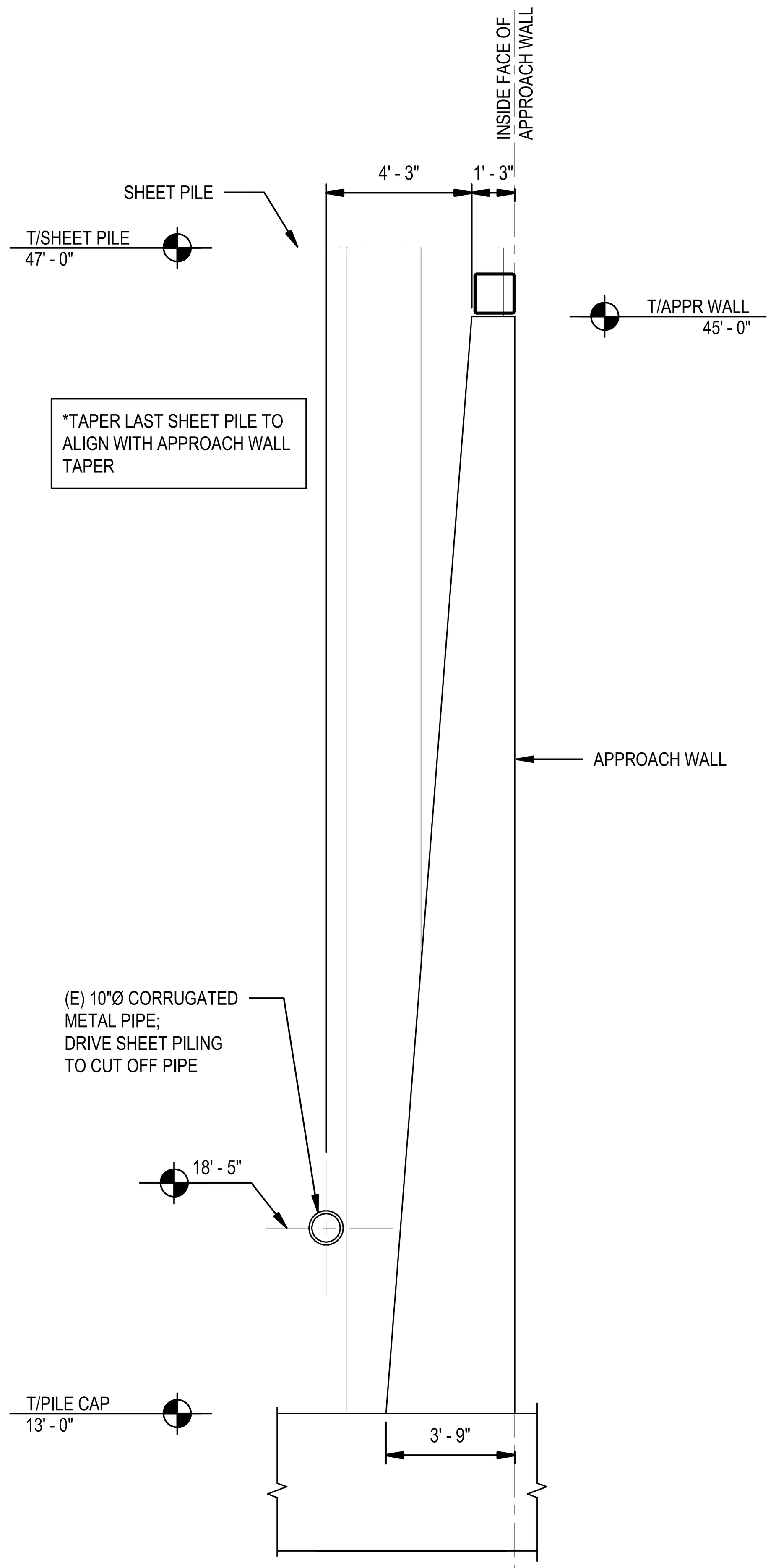
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ANSI D 22x34

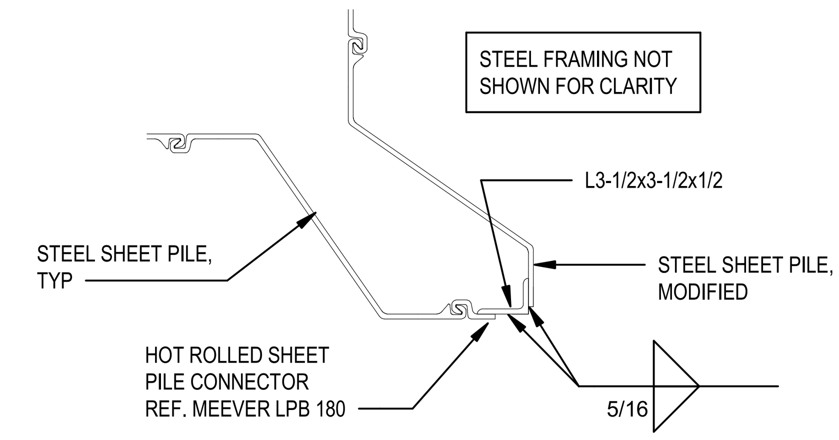
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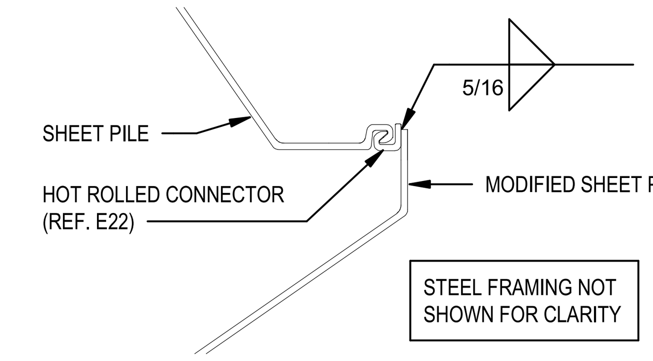
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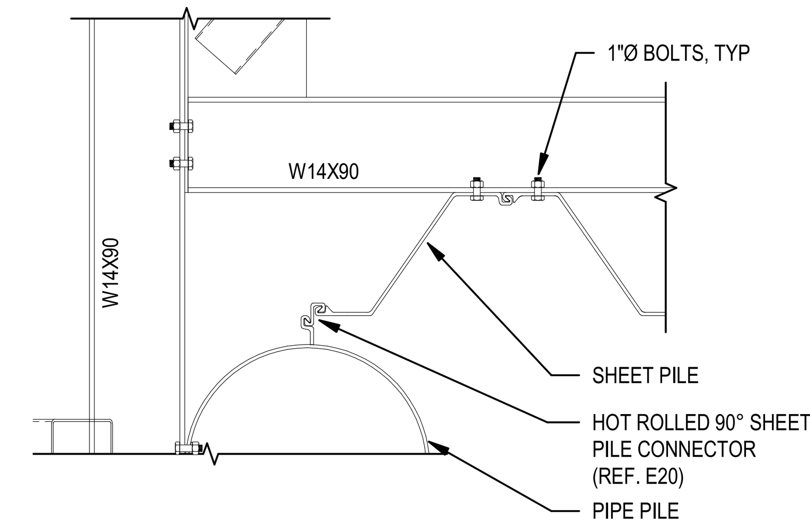

DETAIL 1
1/4" = 1'-0" SC-403



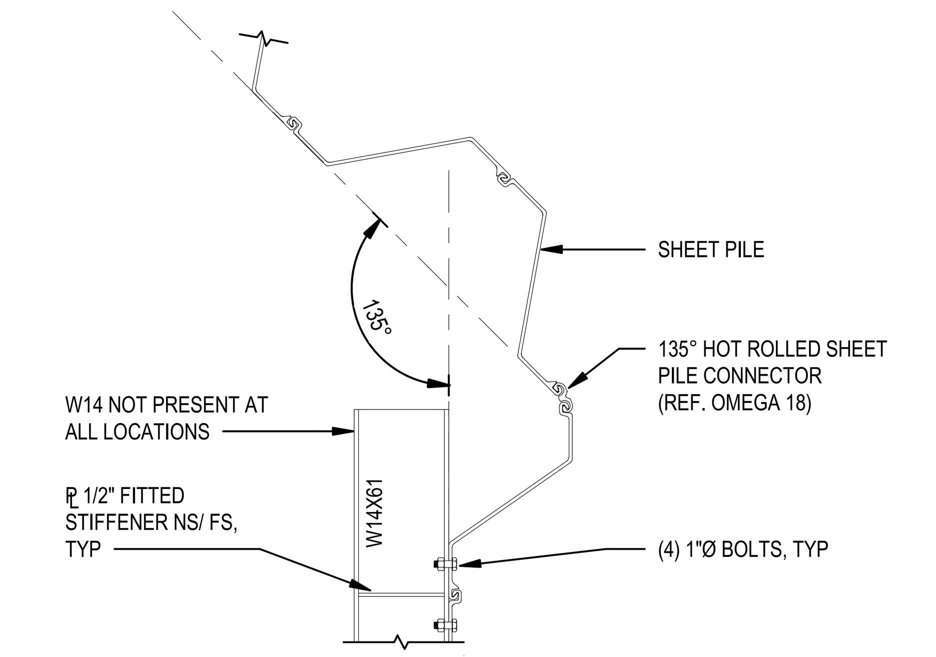

DETAIL 2
3/4" = 1'-0" SC-403



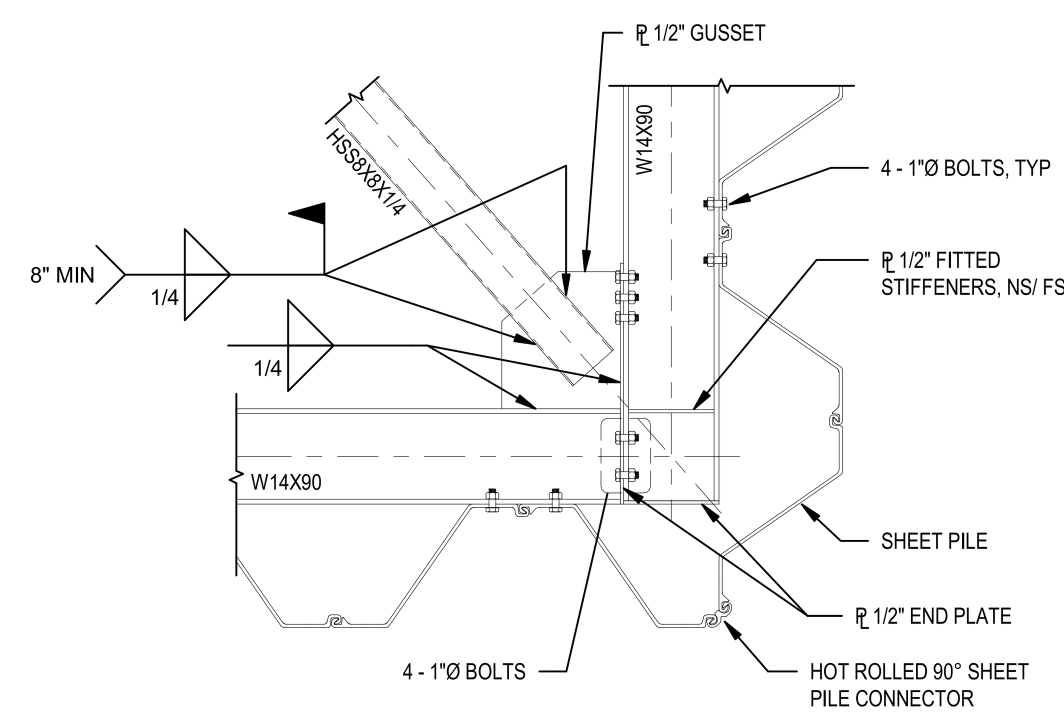

DETAIL 3
1" = 1'-0" SC-403



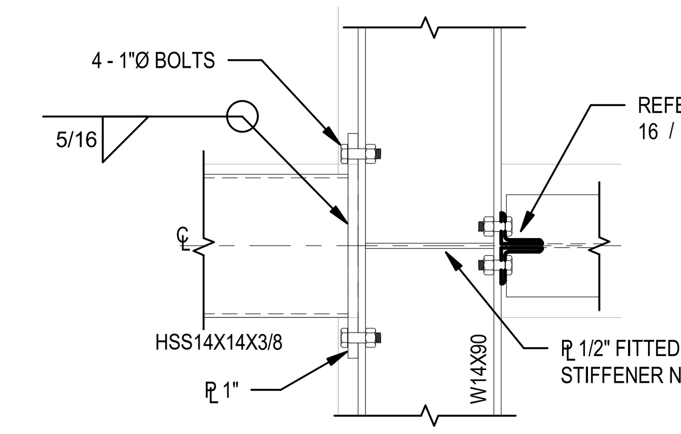

DETAIL 4
1/2" = 1'-0" SC-401



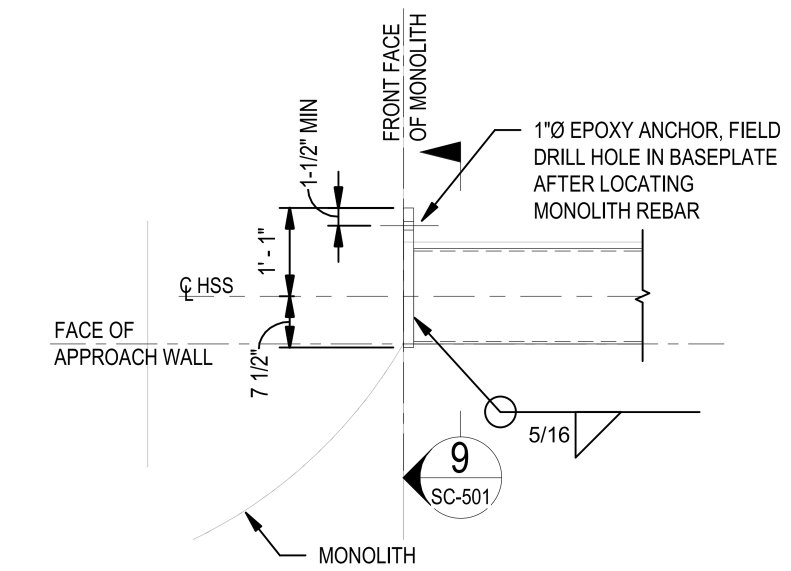

DETAIL 5
1/2" = 1'-0" SC-401



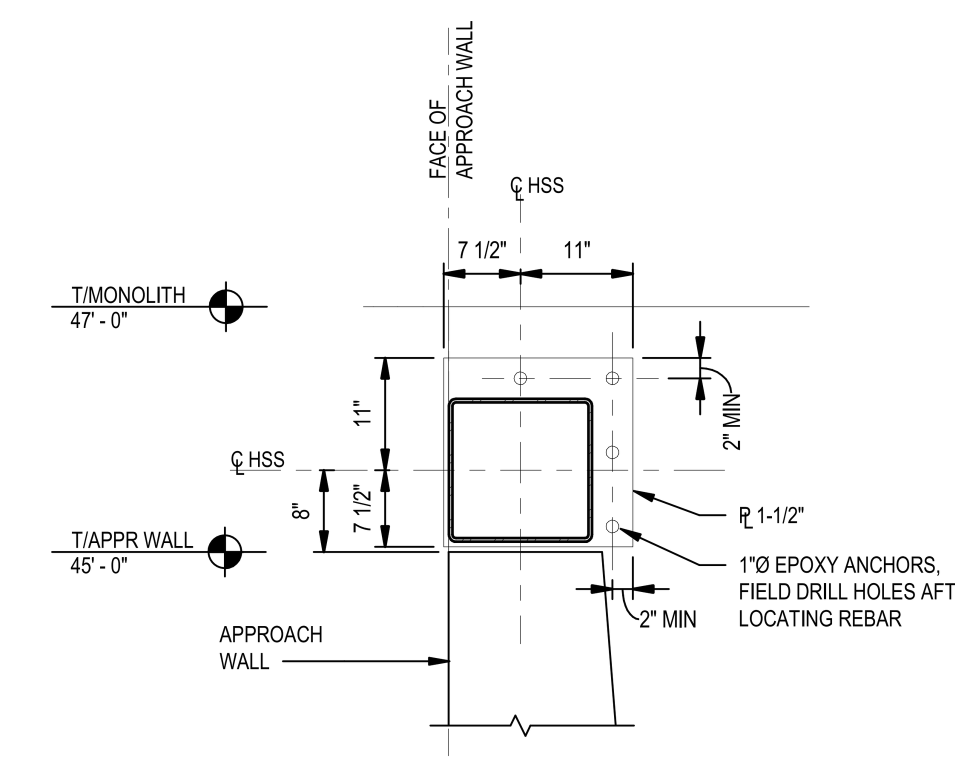

DETAIL 6
1/2" = 1'-0" SC-401



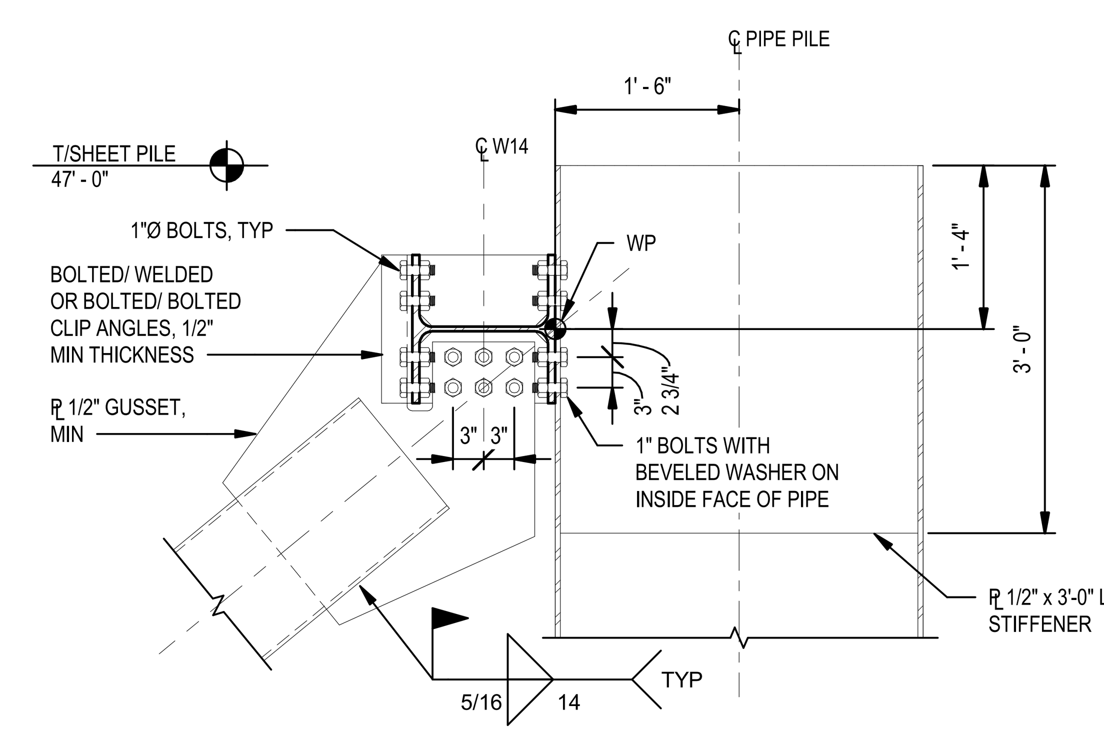

DETAIL 7
3/4" = 1'-0" SC-403



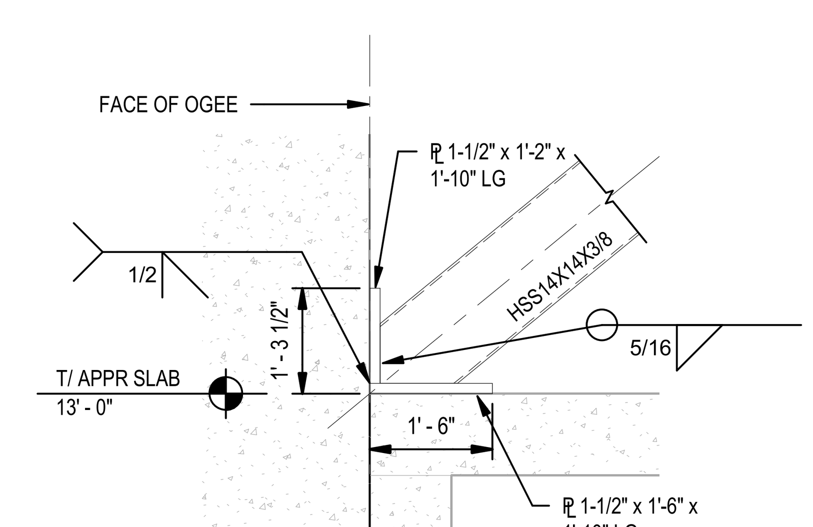

DETAIL 8
1/2" = 1'-0" SC-401




DETAIL 9
3/4" = 1'-0" SC-501




DETAIL 10
3/4" = 1'-0" SC-301




DETAIL 11
1/2" = 1'-0" SC-301

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

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|---|---|---|---|---|---|---|---|---|
| C | 7/9/2021 | ISSUED FOR BID | | | | | | |
| B | 7/1/2021 | 100% DESIGN | | | | | | |
| A | 5/20/2021 | 90% DESIGN | | | | | | |

| REF | NUMBER | TITLE |
|---|---|---|

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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: As indicated

| | BY | DDMMMYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

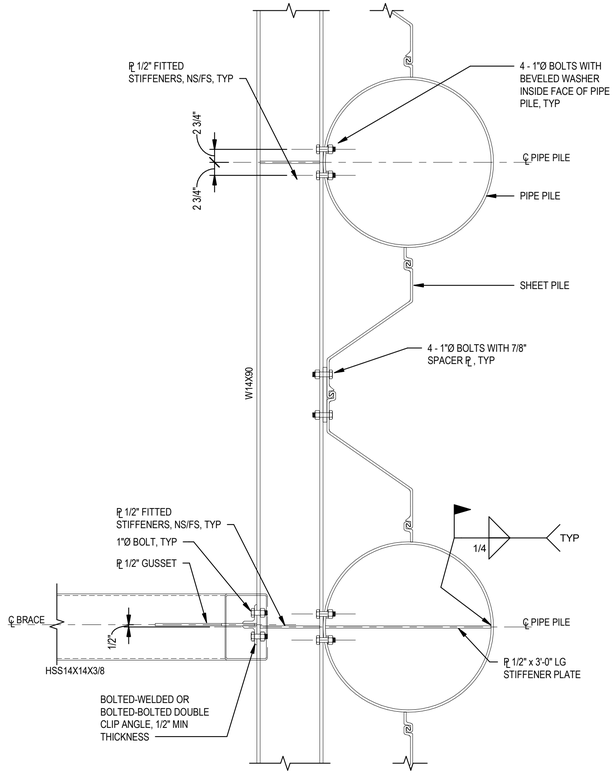
AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No

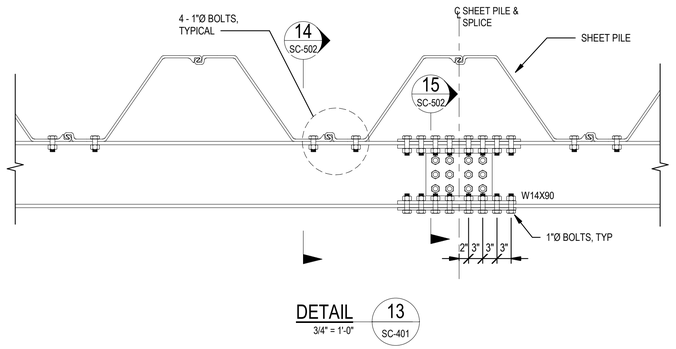
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REV: C

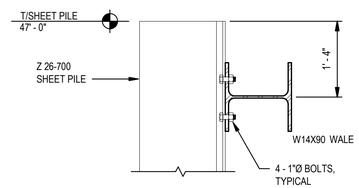
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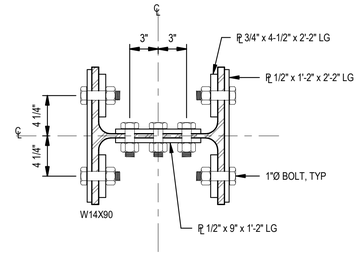

DETAIL 12 — 3/4" = 1'-0" — SC-401



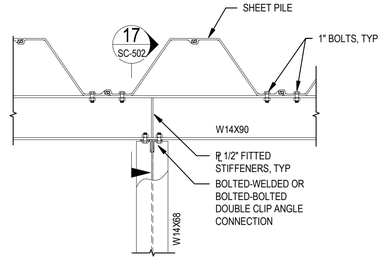

DETAIL 13 — 3/4" = 1'-0" — SC-401



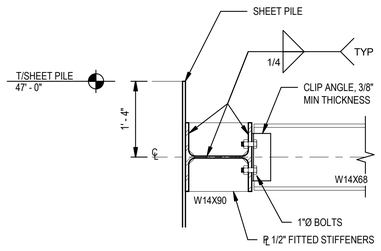

DETAIL 14 — 3/4" = 1'-0" — SC-502



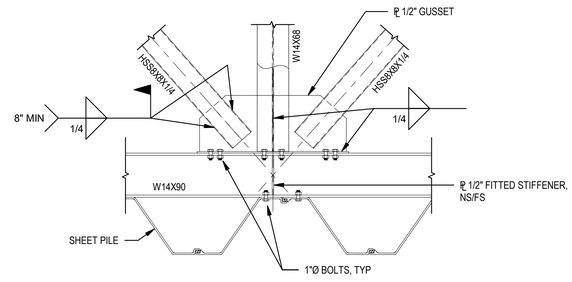

DETAIL 15 — 1 1/2" = 1'-0" — SC-502



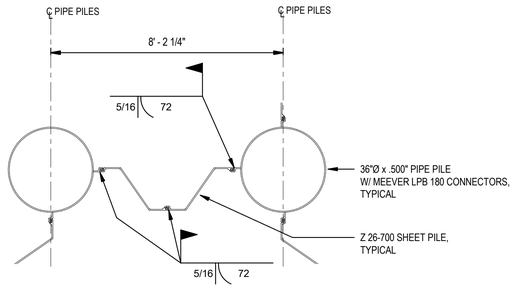

DETAIL 16 — 1/2" = 1'-0" — SC-401




DETAIL 17 — 3/4" = 1'-0" — SC-502




DETAIL 18 — 1/2" = 1'-0" — SC-401




DETAIL 19 — 3/8" = 1'-0" — SC-401

DRAWING NOTES:
1. REFERENCE DRAWING S-001 FOR GENERAL STRUCTURAL NOTES

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| C | 7/9/2021 | ISSUED FOR BID | | | | | | |
| B | 7/1/2021 | 100% DESIGN | | | | | | |
| A | 5/20/2021 | 90% DESIGN | | | | | | |

| REF | NUMBER | TITLE |
|---|---|---|
| REFERENCES | | |

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APPROVED FOR

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.: 300472X4

SCALE: As indicated

| | BY | DDMMMYYYY |
|---|---|---|
| DES | PJB | |
| DRN | PJB | |
| CHK | JPR | |
| APP | MAL | |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG No:

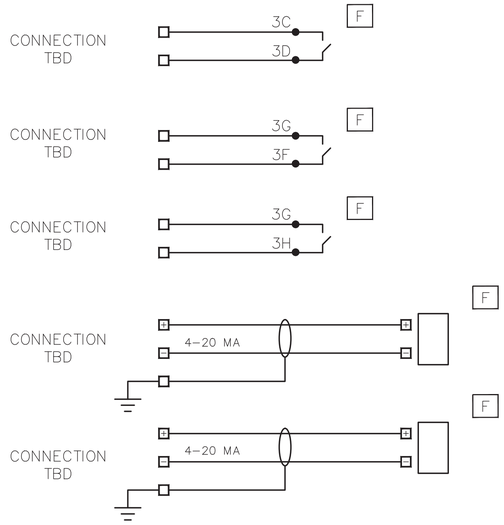
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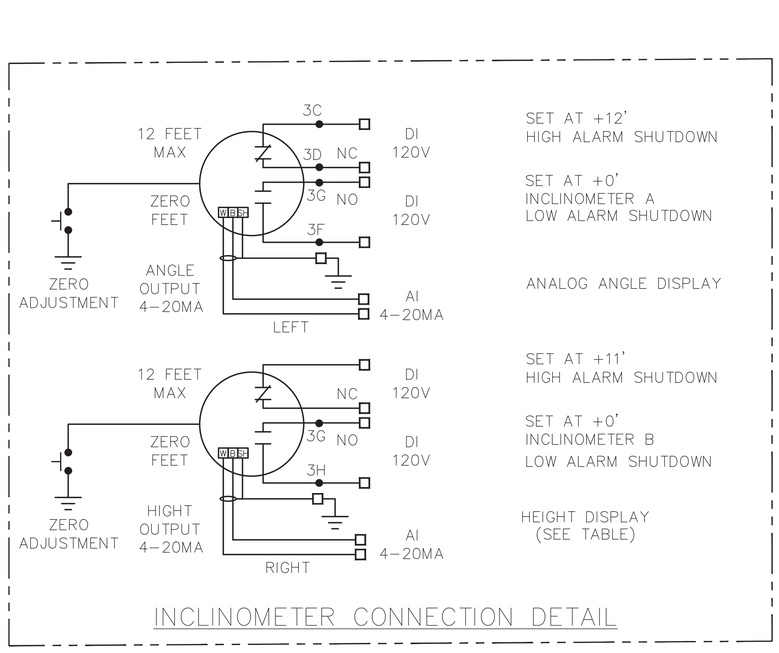
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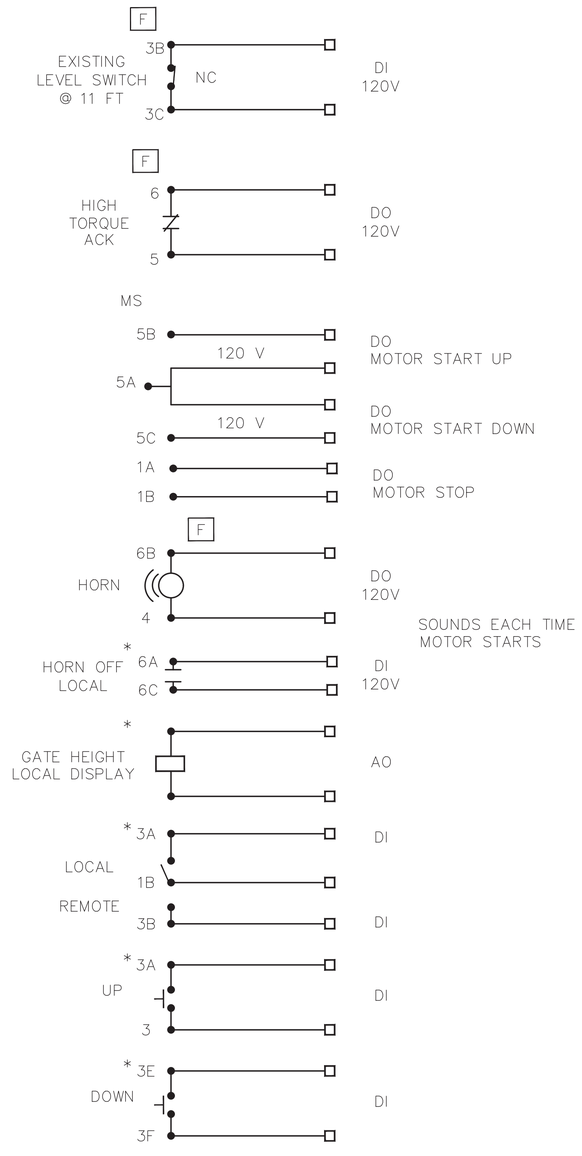
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ANSI D 22x34




INCLINOMETER CONNECTION DETAIL




## LEGEND:

- F – MOUNTED AT GATE HOUSE
- * – LC – IN GATE HOUSE
- ■ – CONTROL ROOM
- MS – MOTOR STARTER

## NOTES:

1. MOUNTED IN GEAR BOX.
2. GATE HEIGHT AND ANGLE ARE CALCULATED FROM THE TWO (2) INCLINOMETERS mA OUTPUTS.
3. NOTE SHIELD WIRE MUST BE CONNECTED AT BOTH THE INCLINOMETER AND THE PLC INPUT.
4. I/O DUPLICATED IN THREE (3) GATES.

| DATE | ISSUE |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

| NO. | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| B | RE-ISSUED FOR APPROVAL | 04/30/21 |
| A | ISSUED FOR APPROVAL | 3/19/2021 |

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PREPARED FOR:

MANATEE COUNTY

DAM AND RESERVOIR

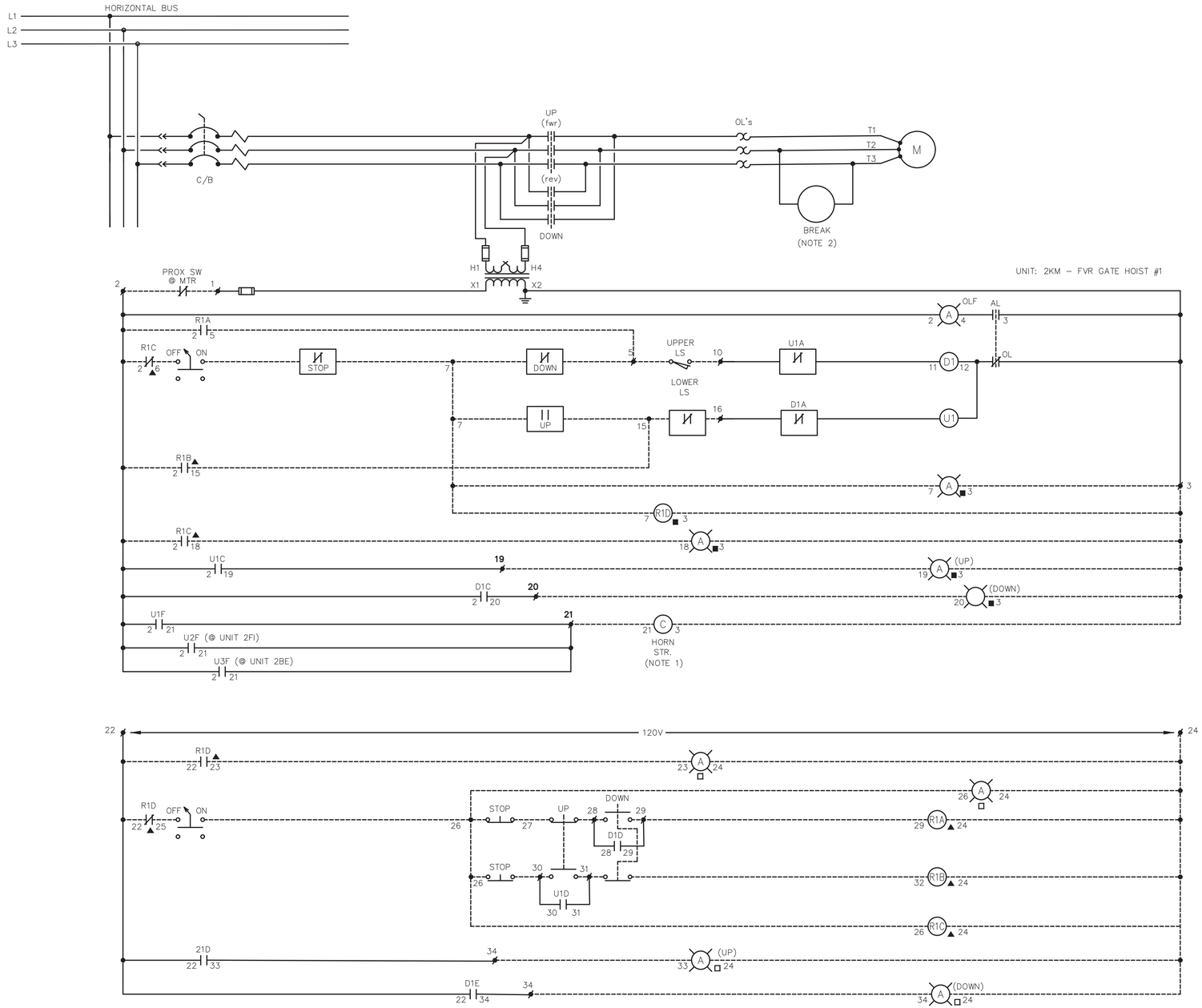
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|---|---|
| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002ILD001.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NONE |

LAKE MANATEE DAM
TAINTER GATE MODIFCATIONS
GATE INSTRUMENTATION
LOOP & WIRING DIAGRAM

DRAWING. NO. ILD–001

REVISION: 0

O:\2020\CARCILLO - 526\526-2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CUWRKDIR)\Electrical\5262002ILD001.dwg Plotted on: 6/24/21 By: Dakota Caldwell




NOTES:

1. SEE HORN CONTROL DRAWING ES–004.
2. BREAK WIRING CONNECTED AT MOTOR CONNECTION BOX.
3. RELAYS TO BE REPLACED BY NEW PLC. (BY OTHERS)

| DATE | ISSUE |
|---|---|
| | |

| NO. | REVISIONS | DATE |
|---|---|---|
| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| A | ISSUED FOR APPROVAL | 03/19/21 |

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PREPARED FOR:

# MANATEE COUNTY
# DAM AND RESERVOIR

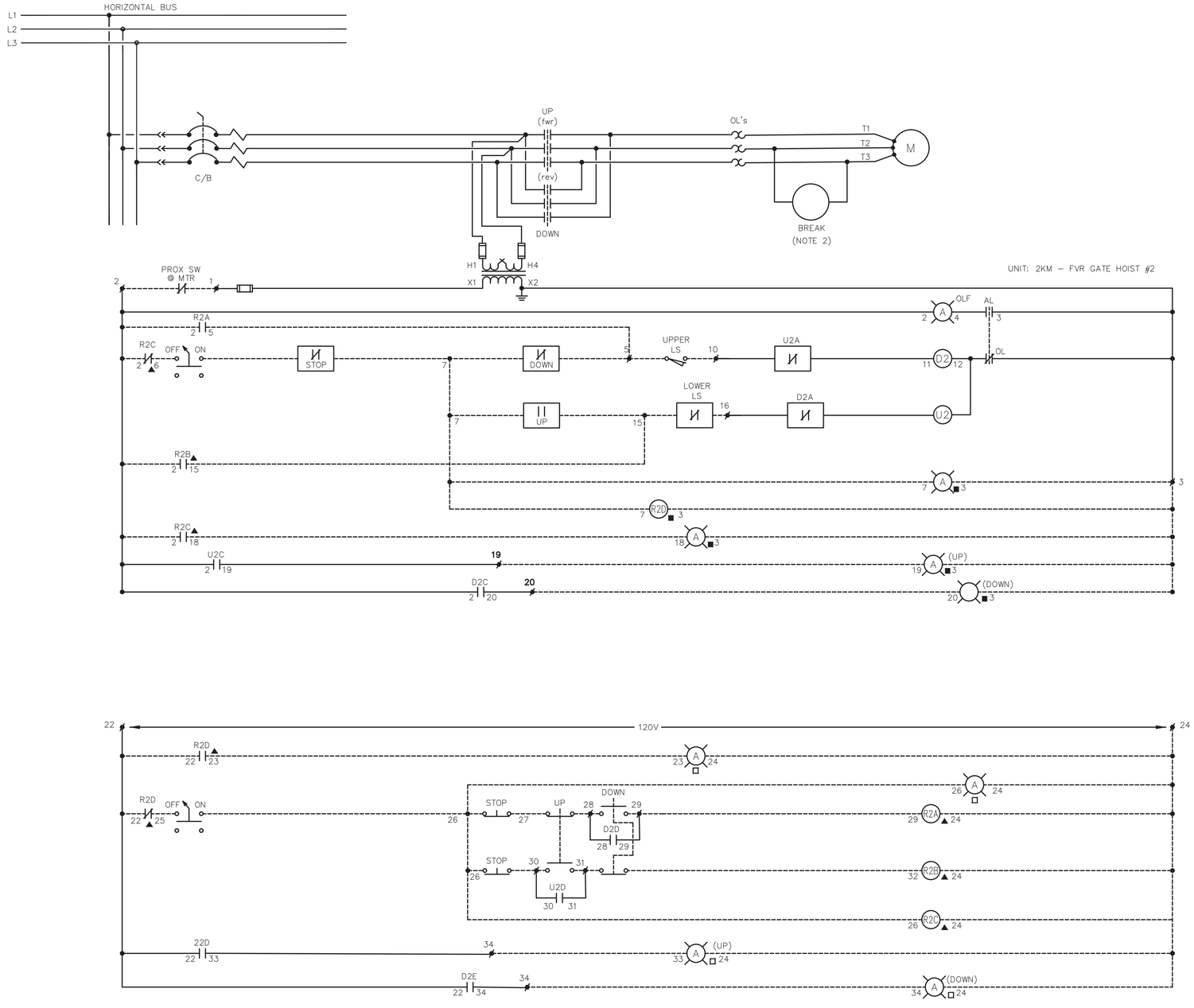
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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002ES001.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NONE |

LAKE MANATEE DAM
TAINTER GATE MODIFCATIONS
GATE HOIST #1
ELECTRICAL LADDER DIAGRAM

DRAWING NO. ES–001

REVISION: 0


O:\2020\CAROLLO –526\526–2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CUWRKDIR)\Electrical\5262002ES001.dwg Plotted on: 6/24/21 By: Dakota Caldwell




NOTES:

1. SEE HORN CONTROL DRAWING ES–004.
2. BREAK WIRING CONNECTED AT MOTOR CONNECTION BOX.
3. RELAYS TO BE REPLACED BY NEW PLC. (BY OTHERS)

| DATE | ISSUE |
|---|---|
| | |
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| NO. | REVISIONS | DATE |
|---|---|---|
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| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| A | ISSUED FOR APPROVAL | 03/19/21 |

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PREPARED FOR:

MANATEE COUNTY

DAM AND RESERVOIR

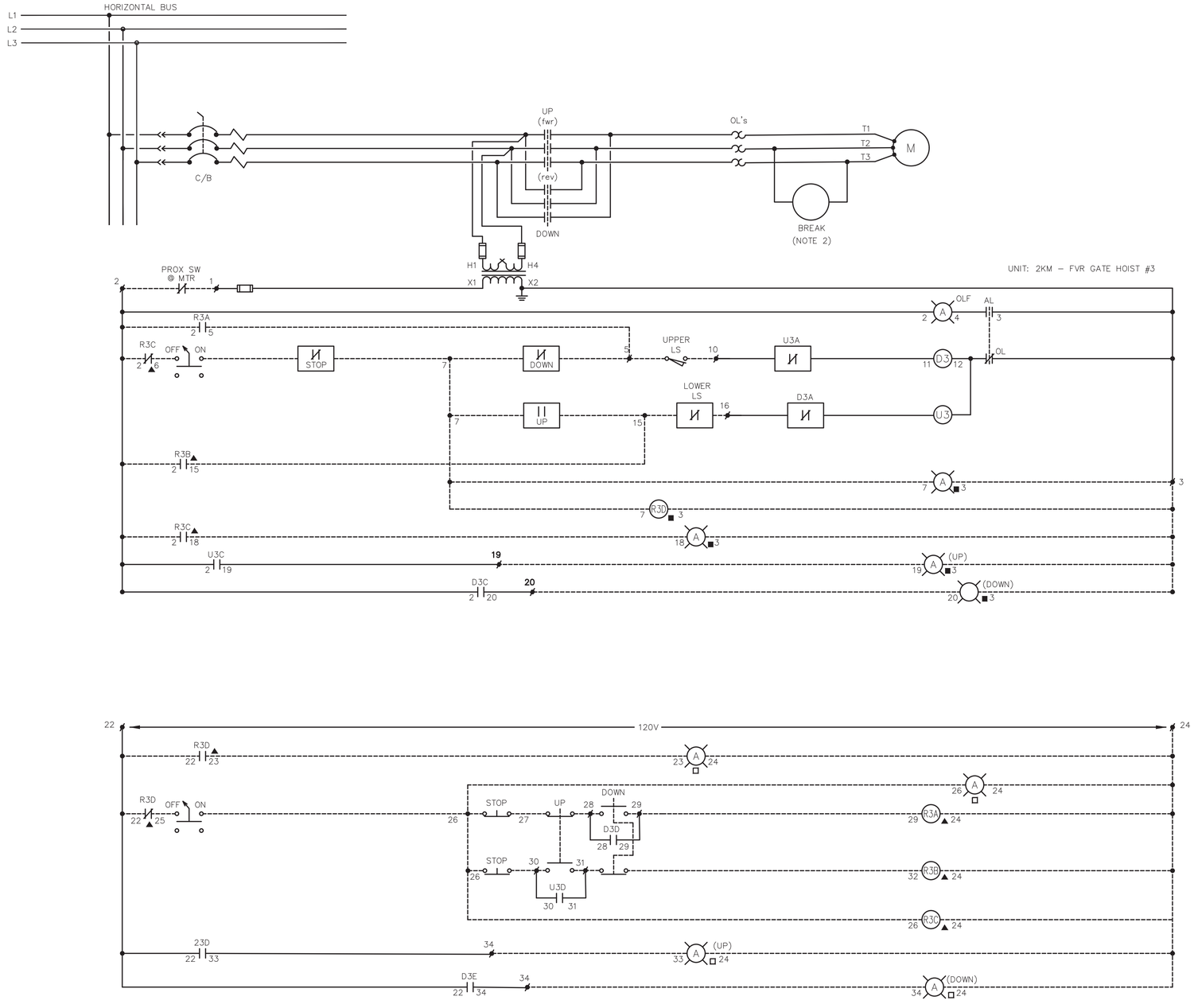
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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002ES002.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NONE |

LAKE MANATEE DAM
TAINTER GATE MODIFCATIONS
GATE HOIST #2
ELECTRICAL LADDER DIAGRAM

DRAWING. NO. ES–002

REVISION: 0

O:\2020\CARCILLO –526\526–2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CUWRKDIR)\Electrical\5262002ES002.dwg Plotted on: 6/24/21 By: Dakota Caldwell




NOTES:

1. SEE HORN CONTROL DRAWING ES–004.
2. BREAK WIRING CONNECTED AT MOTOR CONNECTION BOX.
3. RELAYS TO BE REPLACED BY NEW PLC. (BY OTHERS)

| DATE | ISSUE |
|---|---|
| | |
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| NO. | REVISIONS | DATE |
|---|---|---|
| | | |
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| | | |
| | | |
| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| A | ISSUED FOR APPROVAL | 03/19/21 |

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PREPARED FOR:

MANATEE COUNTY

DAM AND RESERVOIR

| | |
|---|---|
| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002ES003.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NONE |

LAKE MANATEE DAM
TAINTER GATE MODIFCATIONS
GATE HOIST #3
ELECTRICAL LADDER DIAGRAM

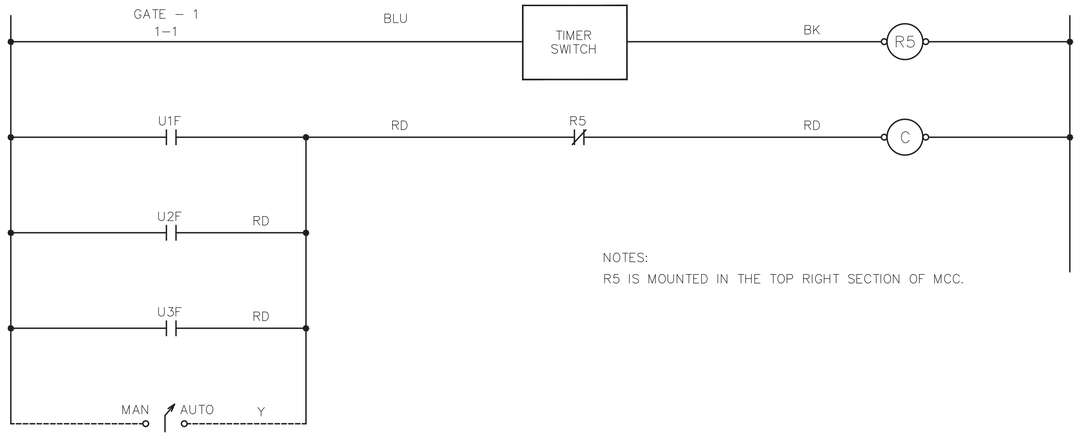
DRAWING. NO. ES–003

REVISION: 0

O:\2020\CARDILLO -526\526-2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CU\WRKDIR)\Electrical\5262002ES003.dwg Plotted on: 6/24/21 By: Dakota Caldwell

# DAM GATE HORN

30 AMP, 3 POLE, BRKR – 12 THHN

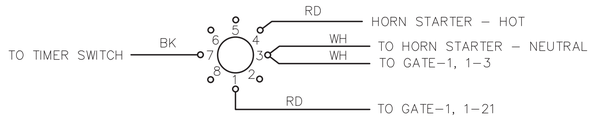



NOTES:
R5 IS MOUNTED IN THE TOP RIGHT SECTION OF MCC.

# AT HORN STARTER

BLUE WIRE – GOES TO THE TIMER SWITCH ABD TO GATE #1, 1–1.
BLACK WIRE – GOES TO THE #7 PIN ON R5 RELAY AND TO TIMER SWITCH.
RED WIRE – GOES TO THE HORN STARTER COIL AND TO #4 PIN ON R5 RELAY.
WHITE WIRE – GOES TO THE HORN STARTER COIL AND TO #2 PIN ON R5 RELAY AND TO GATE #1, 1–3.

# AT R5 RELAY (8 PIN DETAIL)




PINS 1 TO 4 ARE N.C. CONTACT

NOTES:
1. RELAYS TO BE REPLACED BY NEW PLC. (BY OTHERS)

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| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| A | ISSUED FOR APPROVAL | 03/19/21 |

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DAM AND RESERVOIR

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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002ES004.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NONE |

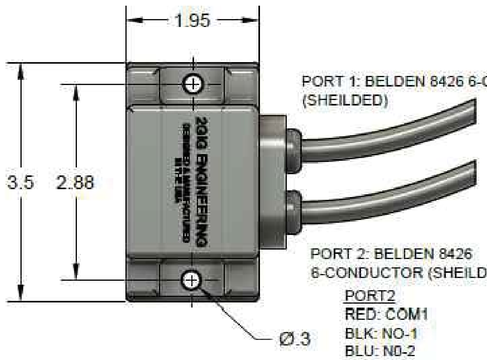
LAKE MANATEE DAM
TAINTER GATE MODIFCATIONS
GATE HORN
ELECTRICAL LADDER DIAGRAM

DRAWING. NO. ES–004

REVISION: 0

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## DISPLAYS MOUNT ORIENTATION



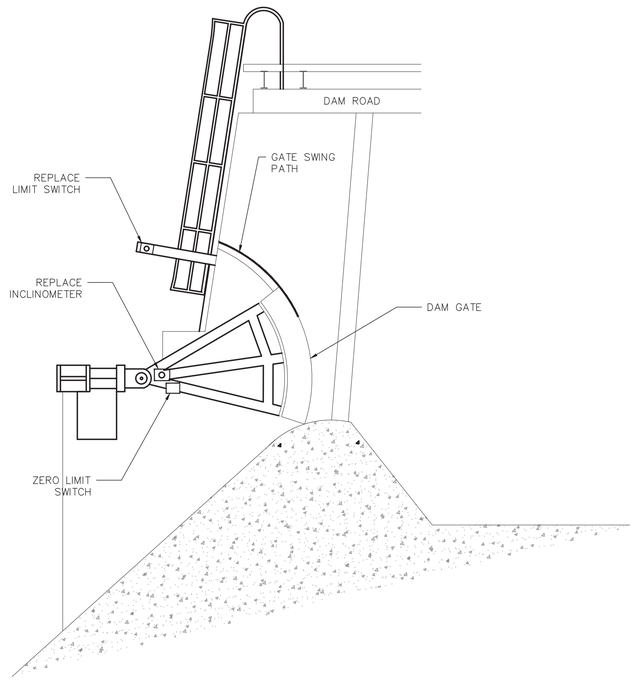

PORT1
RED: INPUT SUPPLY 4-40VDC
BLK:GND
BLU:4-20MA OUTPUT
WHT: RX
GRN: TX
BRN: ZERO WIRE (SEE ALL NOTES)
DO NOT CONNECT TO VOLTAGE
INTERNALLY PULLED HIGH
CONNECT TO GND FOR:
3 SECONDS = SETS ZERO = 4MA
6 SECONDS = FACTORY ZERO
10 SECONDS = POLARITY SWAP FOR
4-20MA SIGNAL

PORT2
RED: COM1
BLK: NO-1
BLU: N0-2
WHT: COM2
GRN: NC-1
BRN: NC-2



MOUNT ZERO PB
IN JUNCTION BOX

REPLACE INCLINOMETER




DAM GATE
POSITION CLOSED
SCALE: NTS

NOTES:

1. EACH GATE WILL INCORPORATE THE FOLLOWING NEW CONTROLS AND DEVICES:
   - TWO (2) INCLINOMETERS, 4–20mA. ONE INCLINOMETER WILL BE FOR GATE ANGLE. THE OTHER INCLINOMETER WILL CONVERT THE ANGLE TO GATE HEIGHT.
   - FOUR (4) LIMIT SWITCHES, (2) HIGH AND (2) LOW. REDUNDANT SWITCHES REQUIRED BY REGULATION. (SEE MOTOR WIRING SCHEMATICS)
   - TORQUE INDICATION AND HIGH TORQUE ALARM.

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| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| B | RE-ISSUED FOR APPROVAL | 04/30/21 |
| A | ISSUED FOR APPROVAL | 03/19/2021 |

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PREPARED FOR:

MANATEE COUNTY

DAM AND RESERVOIR

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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002IED001.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NTS |

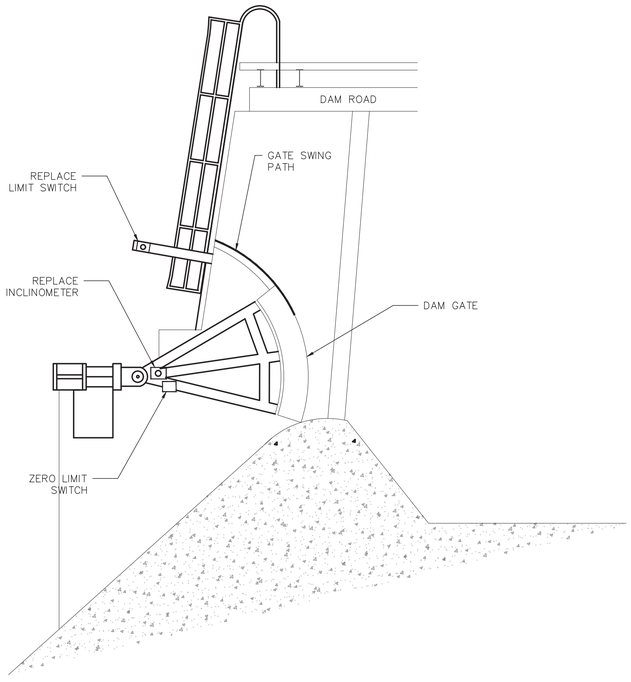
LAKE MANATEE DAM
TAINTER GATE MODIFACTIONS
DAM INSTRUMENTATION
NOTES & ELEVATION

| DRAWING. NO. | REVISION: |
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| IED–001 | 0 |

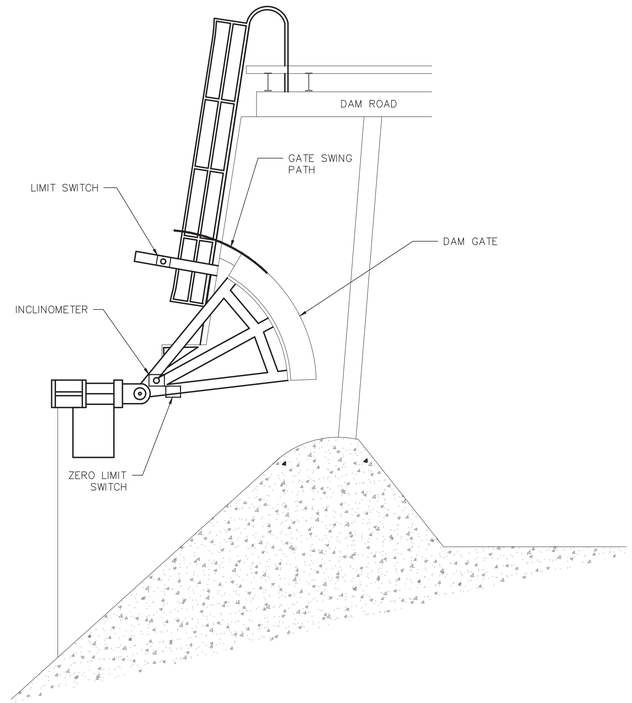

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NOTES:

1. REPLACE EXISTING INCLINOMETER AND HIGH–HIGH LIMIT SWITCH.
2. INSTALL NEW ZERO POSITION LIMIT SWITCH AS SHOWN.
3. INSTALL HIGH–HIGH AND ZERO POSITION LIMIT SWITCHES ON OPPOSITE TRUNNION BACK UP.
4. INSTALL INCLINOMETER ON OPPOSITE TRUNNION FOR BACK UP.
5. EACH GATE WILL INCORPORATE THE FOLLOWING NEW CONTROLS AND DEVICES:
   - TWO (2) INCLINOMETERS, 4–20mA. ONE INCLINOMETER WILL BE FOR GATE ANGLE. THE OTHER INCLINOMETER WILL CONVERT THE ANGLE TO GATE HEIGHT.
   - FOUR (4) LIMIT SWITCHES, (2) HIGH AND (2) LOW. REDUNDANT SWITCHES REQUIRED BY REGULATION. (SEE MOTOR WIRING SCHEMATICS)
   - TORQUE INDICATION AND HIGH TORQUE ALARM.
6. OPEN AND CLOSE RATE WILL BE FIXED BASED ON FIXED MOTOR SPEED AND GEAR REDUCTION RATIO.




DAM GATE
POSITION CLOSED
SCALE: NTS




DAM GATE
POSITION OPEN
SCALE: NTS

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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002IED002.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NTS |

LAKE MANATEE DAM
TAINTER GATE MODIFACTIONS
DAM INSTRUMENTATION
NOTES & ELEVATION

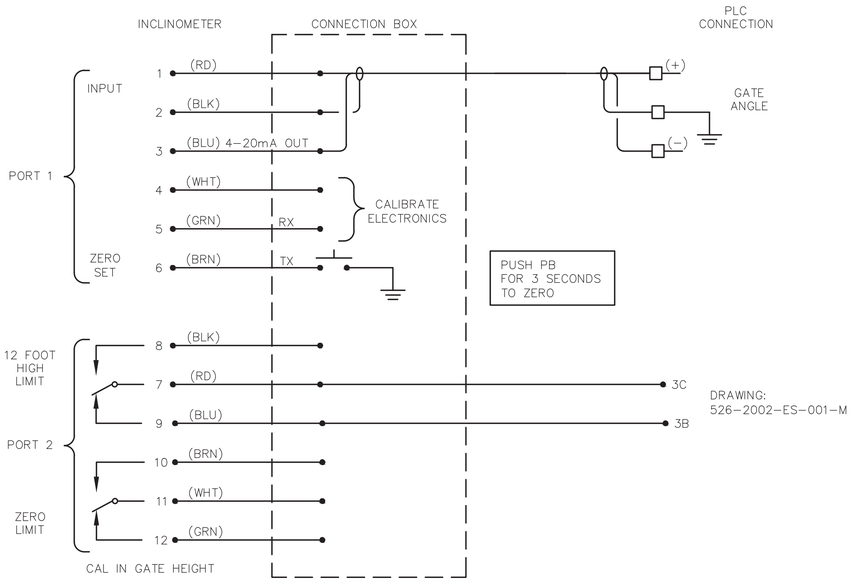
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| IED–002 | 0 |


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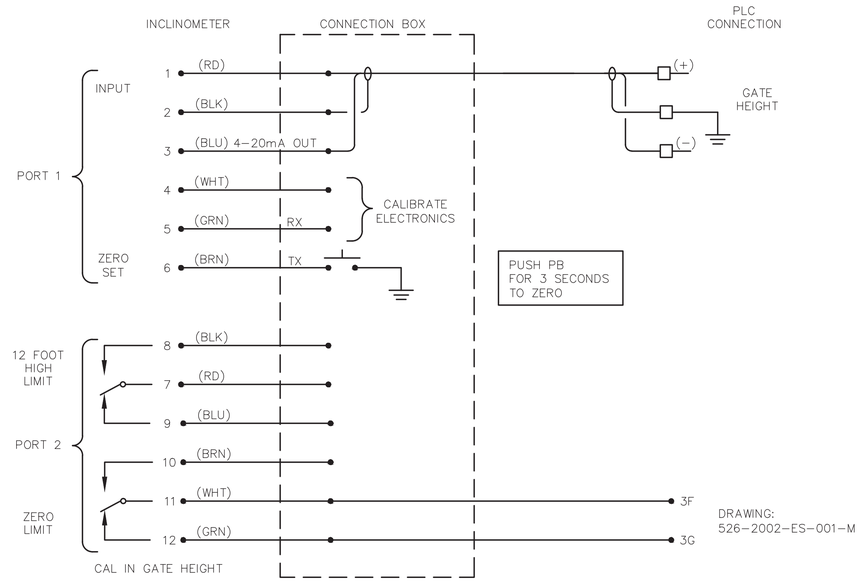
NOTES:

1. EACH GATE WILL INCORPORATE THE FOLLOWING NEW CONTROLS AND DEVICES:
   - TWO (2) INCLINOMETERS, 4–20mA. ONE INCLINOMETER WILL BE FOR GATE ANGLE. THE OTHER INCLINOMETER WILL CONVERT THE ANGLE TO GATE HEIGHT.
   - FOUR (4) LIMIT SWITCHES, (2) HIGH AND (2) LOW. REDUNDANT SWITCHES REQUIRED BY REGULATION. (SEE MOTOR WIRING SCHEMATICS)
   - TORQUE INDICATION AND HIGH TORQUE ALARM.

## RIGHT SIDE OF GATE




## LEFT SIDE OF GATE




O:\2020\CARGILLO -526\526-2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CUWRKDIR)\Electrical\5262002IED003.dwg Plotted on: 6/24/21 By: Dakota Caldwell

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| 0 | ISSUED FOR CONSTRUCTION | 06/24/21 |
| B | RE–ISSUED FOR APPROVAL | 04/30/21 |
| A | ISSUED FOR APPROVAL | 03/19/2021 |

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MANATEE COUNTY

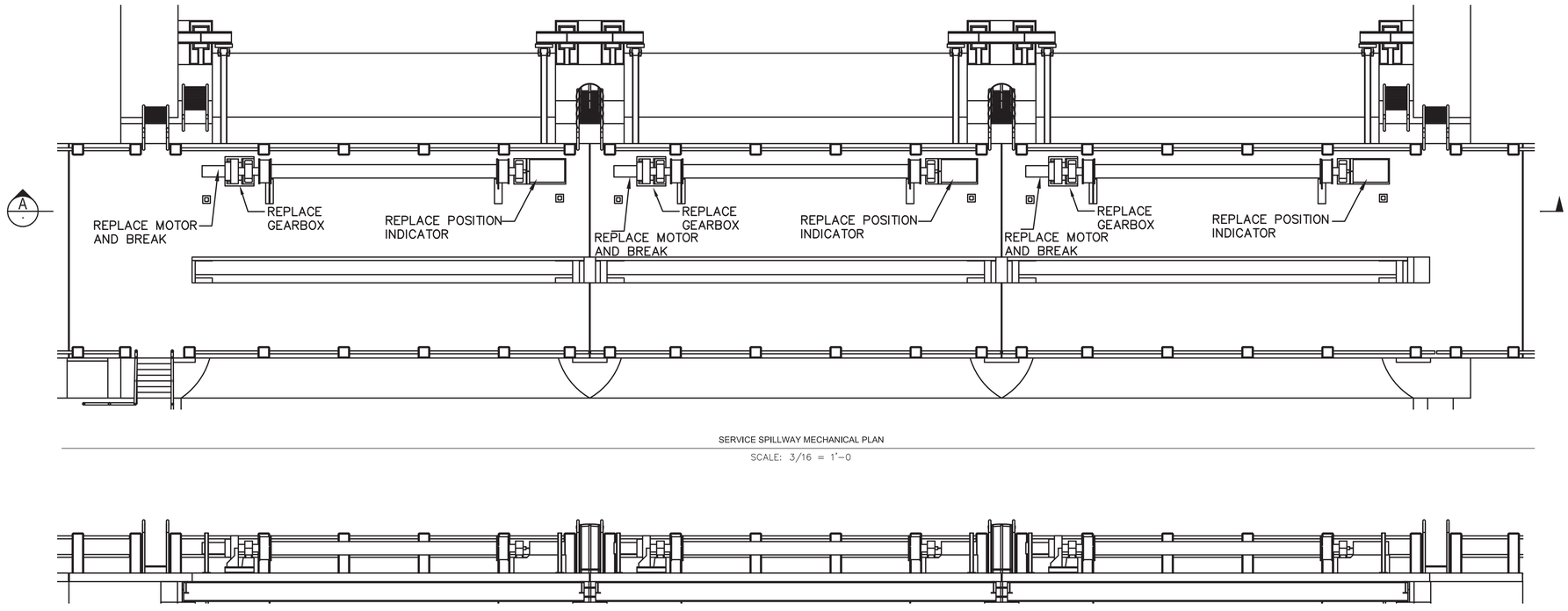
DAM AND RESERVOIR

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| PROJECT NO. | 526–2002 |
| ACAD FILE: | 5262002IED003.DWG |
| DRAWN BY: | CC |
| CHK'D BY: | WH |
| DATE: | 3/17/2021 |
| SCALE: | NTS |

LAKE MANATEE DAM
TAINTER GATE MODIFACTIONS
DAM INSTRUMENTATION
INCLINOMETER WIRING DIAGRAM

DRAWING. NO. IED–003

REVISION: 0




SERVICE SPILLWAY MECHANICAL PLAN

SCALE: 3/16 = 1'-0

O:\2020\CAROLLO -526\526-2002 Lake Manatee Dam, Tainter Gate Modifications\Working (CUWRKDIR)\Electrical\5262002M101.dwg Plotted on: 6/24/21 By: Dakota Caldwell

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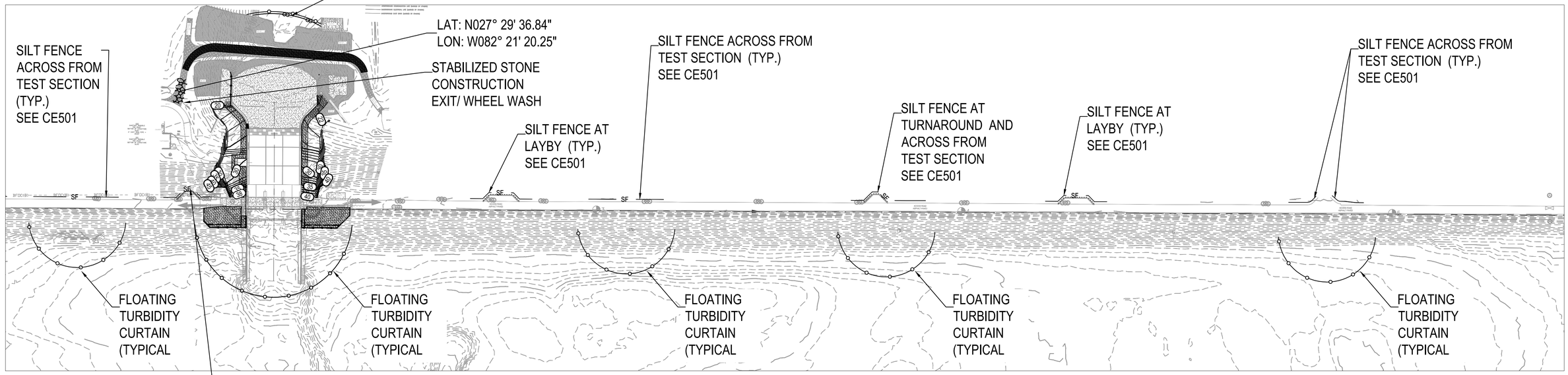
MANATEE COUNTY

DAM AND RESERVOIR

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|---|---|
| PROJECT NO. | 526-2002 |
| ACAD FILE: | 5262002M101.DWG |
| DRAWN BY: | – |
| CHK'D BY: | – |
| DATE: | – |
| SCALE: | 3/16=1'-0 |

LAKE MANATEE DAM
TAINTER GATE MODIFACTIONS
MANATEE DAM GATE MODIFICATIONS
MECHANICAL PLAN AND SECTION

| DRAWING NO. | REVISION: |
|---|---|
| M-101 | 0 |




NOTES:

1. REFER TO SHEET CE501 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
2. TRANSITION SLOPES BETWEEN EXISTING GRADE AND PROPOSED GRADES SHALL BE A MAXIMUM OF 3(H):1(V) SLOPE.
3. PROJECT LOCATION: LAT: 27° 29' 36.84" N, LON: 82° 21' 20.25"W.
4. DESCRIPTION: THIS PROJECT WILL CONSIST OF THE INSTALLATION AND DEWATERING OF COFFERDAMS (STEEL SHEETPILE AND PIPE PILE COMBI-WALLS); OVERWATER WORK; DIVER SUPPORTED UNDERWATER WORK; DEEP SOIL-MIXING; CONCRETE REPAIRS; STEEL GATE REPAIRS; ELECTRICAL AND MECHANICAL REPAIRS TO SPILLWAY GATE STRUCTURES; JET GROUTING; CONCRETE SLAB INSTALLATION
5. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
   - INSTALL STABILIZED CONSTRUCTION ENTRANCE.
   - INSTALL AREA EROSION AND SEDIMENTATION CONTROLS INCLUDING TURBIDITY BARRIERS.
   - CLEARING AND GRUBBING·
   - COMPLETE ROUGH GRADING OF SITE.
   - COMPLETE FINAL GRADING OF SITE.
   - CONSTRUCT CONCRETE SLABS
   - INSTALL PERMANENT SEEDING AND PLANTING
6. OUTFALL LOCATION: LAT: 27°29'39.27"N, LONG: 82°21'20.12"W
7. AREA ESTIMATES:TOTAL PROJECT AREA = 8.0 ACRES±TOTAL AREA OF DISTURBANCE = 2.93 ACRES±
8. RECEIVING WATERS: MANATEE RIVER
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT EROSION AND TO PREVENT SEDIMENT FROM LEAVING THE PROJECT SITE.
10. ALL DISTURBED AREAS, WHICH ARE NOT PAVED SHALL BE STABILIZED WITH PERMANENT SEEDING, FERTILIZER, AND MULCH; HYDROSEED;AND/OR SOD.
11. ALL DISTURBED AREAS LEFT EXPOSED FOR A PERIOD GREATER THAN 13 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING AND MULCH. TEMPORARY SEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

0 100' 100'
1"=100'-0"

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

| REF | NUMBER | TITLE |
|---|---|---|

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APPROVED FOR _____

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE
ISSUED FOR BID

PROJECT NO.

SCALE
AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT
OVERALL EROSION AND SEDIMENT CONTROL PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA
CERTIFICATE OF AUTHORIZATION
CA-5392

CLIENT DWG NO.

DRAWING NO.
CE100

REV
D

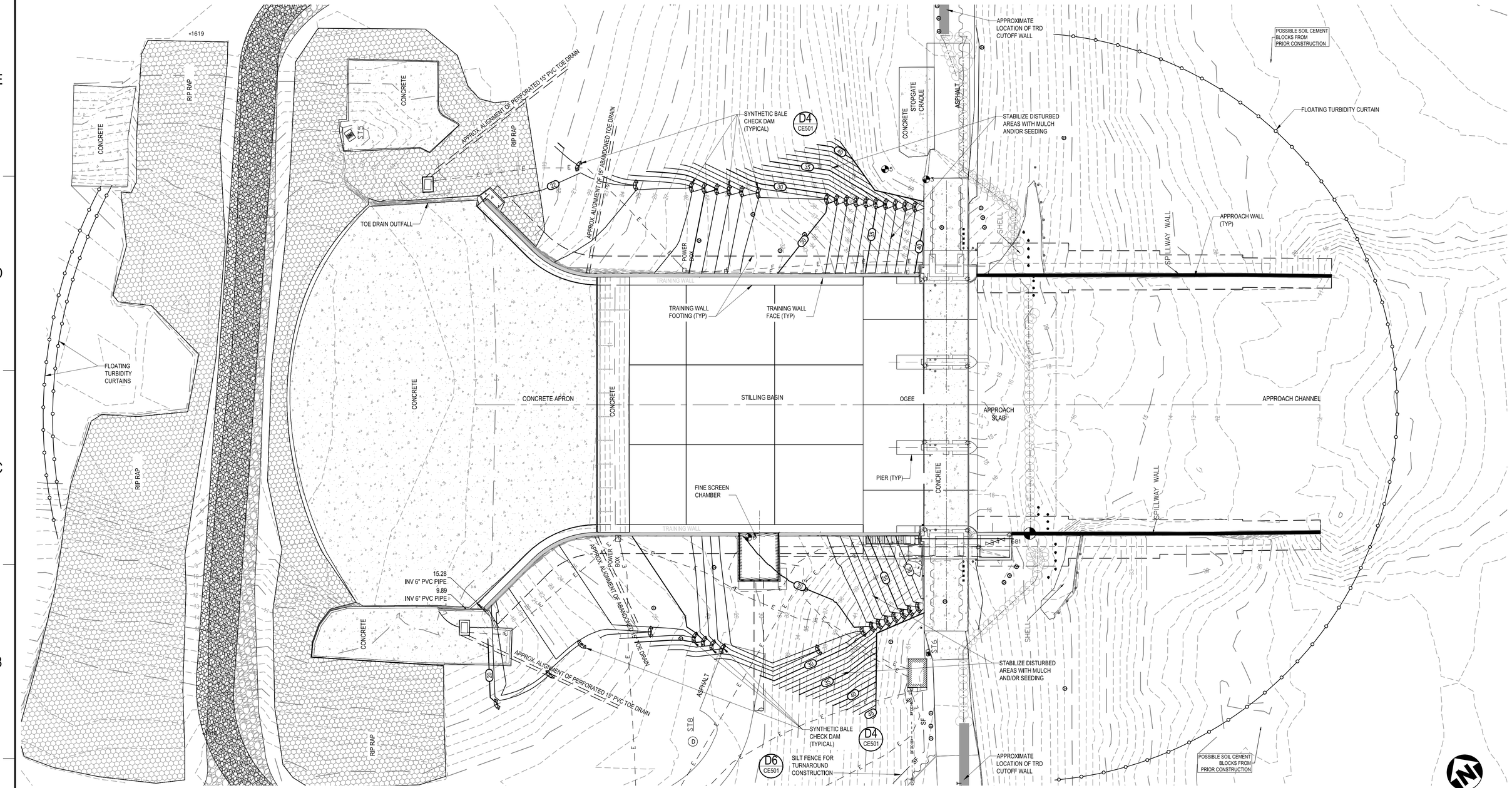
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CAD FILE: W:\CAD\CVE\180 OVERALL EROSION.DWG

ANSI D-22X34

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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
| B | 20 MAY 2021 | 90% DESIGN | | | | | | |
| A | 3/12/2021 | 60% REVIEW SET | | | | | | |

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|---|---|---|

REFERENCES

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APPROVED FOR _____

| A. ROSENSTEIN | G. ANDERSEN | D. BUTCHER |
|---|---|---|
| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROL PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA: CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. CE101 | REV D

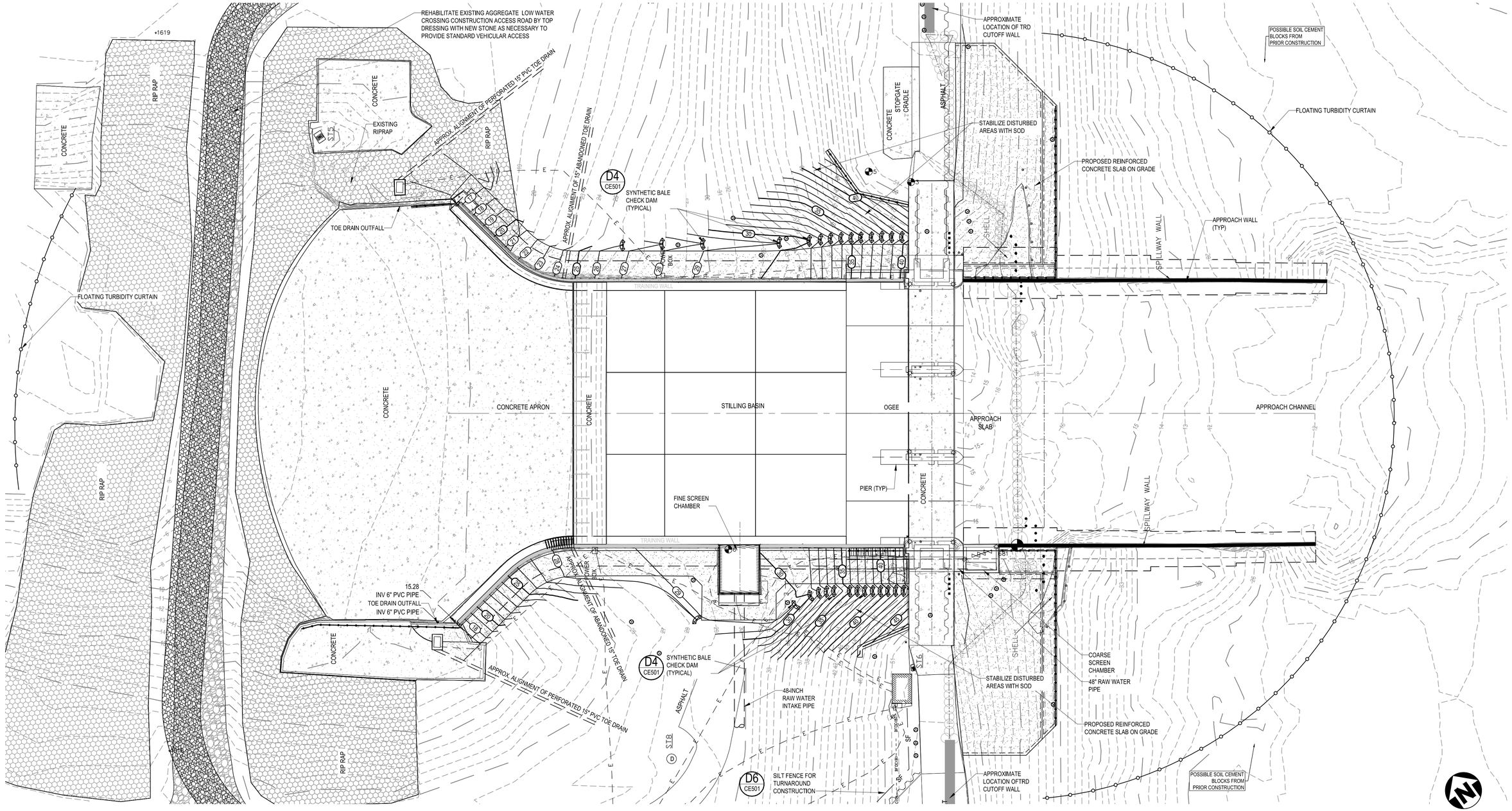
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| REV | DDMMMYY | REVISION / ISSUE DESCRIPTION | DRN | CHK | APP | APP | APP | APP |
|---|---|---|---|---|---|---|---|---|
| D | 09 JUL 2021 | ISSUED FOR BID | | | | | | |
| C | 01 JUL 2021 | 100% DESIGN | | | | | | |
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REFERENCES

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| CLIENT PROJECT MGR | TECHNICAL MGR | PROJECT MGR |

PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
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| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: FINAL PHASE EROSION AND SEDIMENT CONTROL PLAN

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. CE102 | REV D

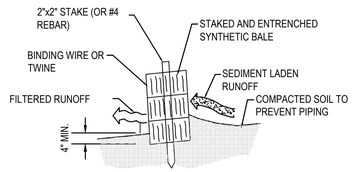
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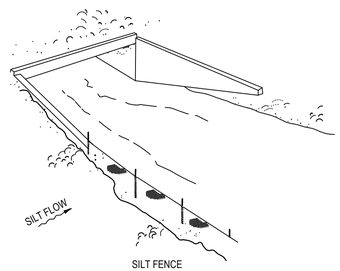
SOIL EROSION AND SEDIMENT CONTROL

1. ACTIVITIES PERFORMED ON THIS PROJECT MUST COMPLY WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND SPECIFICATION SECTION 01 57 23 OF THE PROJECT.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH COUNTY AND BASE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED ARE WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE STATE STANDARDS. ALL GRASSING SHALL BE IN ACCORDANCE WITH STATE STANDARDS.
4. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO STATE STANDARDS.
5. STATEMENT - ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS.
6. STABILIZATION SPECIFICATIONS: SEE ABOVE.
7. ALL SILT FENCES MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO LAND DISTURBANCE SHALL BE DONE UNTIL SILT BARRIER FACILITIES ARE INSTALLED.
8. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
9. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
10. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A SYNTHETIC BALE BARRIER OR SEDIMENT FENCE.
11. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING THESE MATERIALS FROM ENTERING THE STORMWATER DRAINAGE FEATURES, STRUCTURES, ETC.
12. CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD INTO PUBLIC STREETS. IF TRACKING OR FLOW OF MUD OCCURS, CONTRACTOR SHALL CONSTRUCT A SOIL TRACKING PREVENTION DEVICE IN ACCORDANCE WITH FDOT DESIGN STANDARD 2010, INDEX NO. 106. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
13. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY FLORIDA LICENSED GEOTECHNICAL ENGINEER.
14. CONTRACTOR TO PROTECT ANY EXISTING STORM DRAIN INLETS IN THE VICINITY OF WORK TO BE PERFORMED FROM DAMAGE OR SILTATION, WHETHER SPECIFICALLY IDENTIFIED ON THIS DRAWING OR NOT.
15. ALL CATCH BASINS AND DROP INLETS TO BE PROTECTED WITH SILT FENCE AND CONSTRUCTED WITH TEMPORARY SEDIMENT TRAP IMMEDIATELY AFTER CONSTRUCTION AND FOR ENTIRE PERIOD PRIOR TO APPLICATION OF PAVEMENT OR FINAL GROUND COVER.
16. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
17. CONTRACTOR RESPONSIBLE TO LOCATE SEDIMENT AND EROSION CONTROL MEASURES TO PROVIDE OPTIMUM SEDIMENT AND EROSION CONTROL. SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.
18. TEMPORARY PROTECTION DEVICES MUST BE MAINTAINED UNTIL VEGETATION MEASURES ARE ESTABLISHED.
19. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROL OF EROSION WITHIN THE WORK SITE AND PREVENTION OF SEDIMENTATION OF ANY ADJACENT OR DOWNSTREAM WATERWAYS. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE MINIMAL REQUIREMENTS. THE CONTRACTOR'S METHODS OF OPERATION MAY DICTATE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES, WHICH SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND INSTALL SUCH ADDITIONAL MEASURES. IF FULL IMPLEMENTATION OF THE APPROVED EROSION CONTROL PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
20. MAINTENANCE STATEMENT - EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN BY THE GENERAL CONTRACTOR. CONTRACTOR SHALL CONTACT INSPECTOR AFTER EACH 0.5 INCH RAIN EVENT WITHIN 6 HOURS. ALL REPAIRS TO THE EROSION CONTROL MEASURES WILL BE PERFORMED BY THE GENERAL CONTRACTOR. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE PERFORMED BY THE CONTRACTOR WHEN SEDIMENT HAS ACCUMULATED TO ONE-THIRD (1/3) OF THE HEIGHT OF THE INDIVIDUAL STRUCTURE FOR TEMPORARY SEDIMENT BASINS & RETROFITTED DETENTION PONDS AND ONE-HALF (1/2) FULL FOR SILT FENCES, CHECK DAMS, ROCK FILTER DAMS, AND INLET SEDIMENT TRAPS.
21. CONTRACTOR SHALL CONTROL FUGITIVE DUST THROUGH THE USE OF WATER OR OTHER MEANS TO LIMIT DUST IN WORK AREAS AND HAUL ROADS ON THE SITE. IN THE EVENT THAT ADEQUATE DUST CONTROL MEASURES ARE NOT BEING EMPLOYED, BASED ON THE DISCRETION OF THE ENGINEER, OWNER, OR STATE. THE CONTRACTOR MAY BE DIRECTED TO IMPLEMENT ADDITIONAL MEASURES TO REDUCE FUGITIVE DUST EMISSIONS.
22. CONTRACTOR SHALL COVER ALL TRUCK HAUL BEDS WITH SECURED TARPS UPON EXISTING THE SITE, AND, IF NEEDED, ON SITE TO PREVENT DUSTING.
23. SILT BARRIERS ARE TO BE PLACED AS SHOWN ON PLANS AND/OR DIRECTED BY BASE, PROJECT ENGINEER, AND/OR STORMWATER INSPECTOR.
24. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT DRAINAGE FACILITIES HAVE BEEN CONSTRUCTED AND GRASS ON PLANTED SLOPES IS SUFFICIENTLY ESTABLISHED TO BE AN AFFECTIVE EROSION DETERRANT.
25. EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE STABILIZED. CONTRACTOR TO REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON PERMANENT STABILIZATION.




## D6 SYNTHETIC BALE PLACEMENT DETAIL

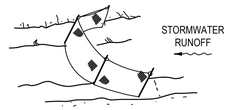
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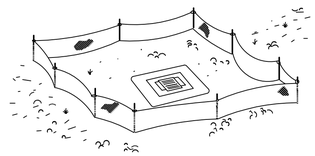

SILT FENCE

NOTES:

1. 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.



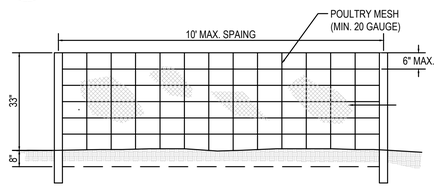

SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW

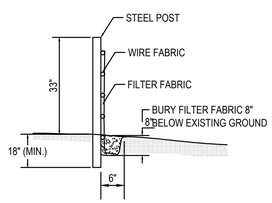


SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

## C6 SILT FENCE APPLICATIONS

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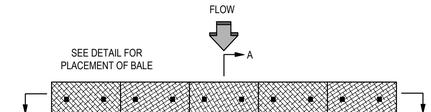

FILTER FABRIC

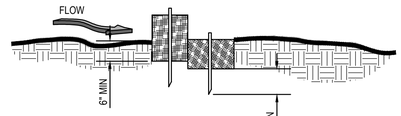
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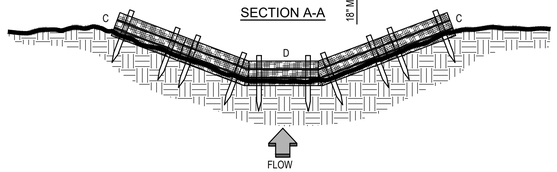
1. FILTER FABRIC SHALL BE IN ACCORDANCE WITH SEC. 985 FDOT SPECIFICATION.
2. WHEN TWO SILT FENCES SHALL BE JOINED, THEY SHALL BE JOINED IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION..
3. SEE DETAIL 3/C-511 FOR SILT FENCE APPLICATION.

## A6 SILT FENCE TYPE IV DETAIL

CE501 SCALE: N.T.S.



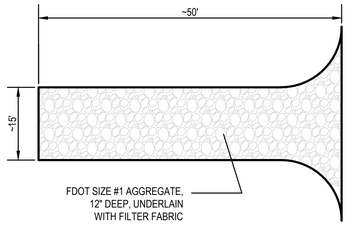




NOTES:

1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
3. POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

## D4 TYPICAL SYNTHETIC BALE CHECK DAM

CE501 SCALE: N.T.S.




NOTES:

1. CONSTRUCTION ENTRANCE TO BE CONSTRUCTED IN ACCORDANCE WITH FDOT DESIGN STANDARDS, INDEX NO. 106, ENTITLED "SOIL TRACKING PREVENTION DEVICE TYPE A".
2. SLOPE ENTRANCE TO DRAIN AWAY FROM PUBLIC OR PRIVATE ROADWAYS AT A MINIMUM SLOPE OF 0.1FT/FT.
3. STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM IT'S FUNCTION TO PREVENT OFFSITE TRACKING.
4. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.

## D2 STABILIZED CONSTRUCTION ENTRANCE/WHEEL WASH

CE501 SCALE: N.T.S.

| SEEDING RATES (Lbs/Ac) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TYPE OF SEED | ZONE I | | | | ZONE II | | | |
| | COASTAL | | INLAND | | COASTAL | | INLAND | |
| | Mar. to Nov. | Nov. to Mar. | Mar. to Oct. | Oct. to Mar. | Feb. to Dec. | Dec. to Feb. | Feb. to Dec. | Dec. to Feb. |
| QUICK GROWING | | | | | | | | |
| Brown Top Millet | 20 | | 20 | | 20 | | 20 | |
| Annual Rye Grass | | 20 | | 20 | | 20 | | 20 |
| TOTAL POUNDS PER ACRE | 35 | 35 | 60 | 65 | 35 | 35 | 60 | 65 |

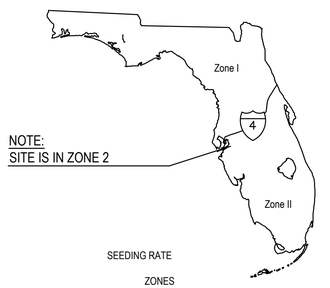
NOTE:
THE SEEDING RATES SHOWN IN THIS TABLE APPLY ONLY WHEN SEED IS SPREAD BY AN APPROVED MECHANICAL SPREADER MEETING THE REQUIREMENTS OF SECTION 570 AND 577 OF THE STANDARD SPECIFICATIONS.

| SEEDING RATES (Lbs/Ac) FOR NEW SHOULDERS AND SLOPES* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TYPE OF SEED | ZONE I | | | | ZONE II | | | |
| | COASTAL | | INLAND | | COASTAL | | INLAND | |
| | Mar. to Nov. | Nov. to Mar. | Mar. to Oct. | Oct. to Mar. | Feb. to Dec. | Dec. to Feb. | Feb. to Dec. | Dec. to Feb. |
| QUICK GROWING | | | | | | | | |
| Brown Top Millet | 20 | | 20 | | 20 | | 20 | |
| Annual Rye Grass | | 20 | | 20 | | 20 | | 20 |
| TOTAL POUNDS PER ACRE | 40 | 40 | 120 | 120 | 40 | 40 | 120 | 120 |

NOTE:
THE SEEDING RATES SHOWN IN THIS TABLE APPLY ONLY WHEN SEED IS SPREAD BY AN APPROVED MECHANICAL SPREADER MEETING THE REQUIREMENTS OF SECTION 570 AND 577 OF THE STANDARD SPECIFICATIONS. *SEE INDEX NO. 105 FOR ZONE BOUNDARIES AND SEEDING RATES FOR SHOULDER REWORKING.

NOTES:

1. SEE SHEET L-101 FOR PERMANENT VEGETATION COVER REQUIREMENTS.
2. SPECIAL ATTENTION IS TO BE DIRECTED TO THE CONSTRUCTION OF THE REQUIRED 1" DROP-OFF AT EDGE OF PAVEMENT.
3. FERTILIZE ENTIRE UNPAVED SHOULDER AND FRONT SLOPE TO TOE OF SLOPE OR BOTTOM OF DITCH.
4. TOPSOIL OBTAINED FROM BORROW PITS OR OTHER SOURCES MAY BE USED IN LIEU OF EXCAVATE TURF AND TOPSOIL WHEN ECONOMICALLY FEASIBLE. NO ADDITIONAL PAYMENT WILL BE MADE FOR SUBSTITUTING TOPSOIL FOR EXCAVATED TURF OR TOPSOIL.




NOTE:
SITE IS IN ZONE 2

SEEDING RATE ZONES

## A3 TEMPORARY SEEDING REQUIREMENTS

CE501 SCALE: N.T.S.

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PROJECT PHASE: ISSUED FOR BID

PROJECT NO.

SCALE: AS SHOWN

| | BY | DDMMMYY |
|---|---|---|
| DES | MAL | 11NOV20 |
| DRN | MJL | 11NOV20 |
| CHK | GRA | 11NOV20 |
| APP | PWM | 11NOV20 |

PHASE II REPAIRS TO THE LAKE MANATEE DAM

SUBJECT: EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

wood.
1101 CHANNELSIDE DR.
UNIT 200
TAMPA, FL 33602
(813) 289-0750

AREA | CERTIFICATE OF AUTHORIZATION CA-5392

CLIENT DWG NO.

DRAWING NO. CE501 | REV D

CAD FILE: W:\CAD\DIV\CE\01 EROSION AND SEDIMENT CONTROL DETAILS.DWG

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