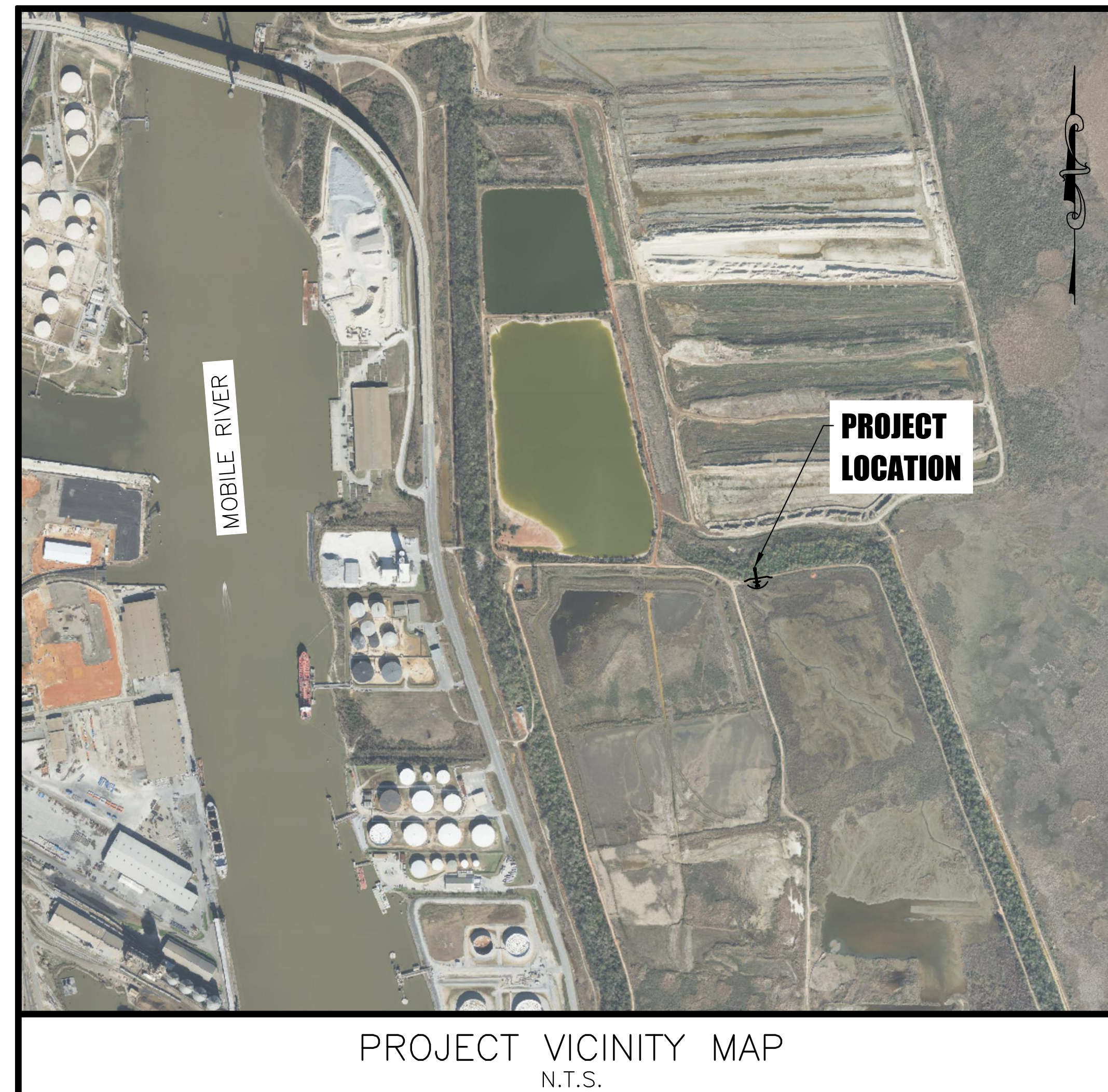


EAST MUD LAKES DREDGE DISPOSAL AREA WEIR BOX REPLACEMENT

PREPARED FOR



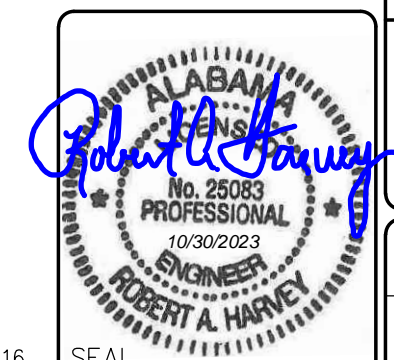
MOBILE, ALABAMA
 ASPA PROJECT NUMBER 11204
 THOMPSON PROJECT NUMBER 23-1101-0116



PROJECT VICINITY MAP
 N.T.S.

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0	ISSUE FOR BID	10/18/23	MJW
Mark	Description	Date	Appr.
ALABAMA STATE PORT AUTHORITY MOBILE, ALABAMA			
thompson ENGINEERING		2970 COTTAGE HILL ROAD, SUITE 190 MOBILE, ALABAMA 36606 (251)666-2443	
EAST MUD LAKES WEIR BOX REPLACEMENT			
WEIR BOX REPLACEMENT TITLE SHEET AND DRAWING INDEX			
Date: 8/28/23	Designed by: MJW	Drawn by: TPT	ASPA No. 11204
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1
SHEET NO. G001			Rev. 0
Drawing 1 of 13			



1. **STRUCTURAL GENERAL REQUIREMENTS:**

- 1.1. THESE STRUCTURAL DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE SPECIFIED BUILDING CODE. ALL CONSTRUCTION SHALL CONFORM TO THE EDITION OF THE BUILDING CODE REFERENCED. REFERENCE TO OTHER SPECIFICATIONS OR CODES SHALL MEAN THE VERSION INDICATED IN THE BUILDING CODE.
- 1.2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE A PORTION OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR AND SUBCONTRACTORS SHALL REFERENCE AND COORDINATE WITH ALL OTHER DISCIPLINES DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER.
- 1.3. THE CONTRACTOR SHALL VERIFY SITE CONDITIONS AND COORDINATE STRUCTURAL DIMENSIONS, ELEVATIONS AND SECTIONS WITH ARCHITECTURAL DIMENSIONS, ELEVATIONS, AND SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT/ENGINEER PRIOR TO THE FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
- 1.4. STRUCTURAL DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY AND SHALL APPLY FOR LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN. IF THERE IS A QUESTION REGARDING THE APPLICABILITY OF A DETAIL, CONTACT THE ARCHITECT/ENGINEER IN WRITING REQUESTING CLARIFICATION.
- 1.5. COORDINATE AND VERIFY ALL OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND/OR ELECTRICAL DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION. STRUCTURAL DRAWINGS ONLY SHOW OPENINGS RELATIVE TO THE STRUCTURE.
- 1.6. COORDINATE ALL LIMITS AND DEPTHS OF DEPRESSIONS FOR FLOOR FINISHES WITH ARCHITECTURAL DRAWINGS AND SCHEDULES. LIMITS SHOWN ON STRUCTURAL DRAWINGS ARE SCHEMATIC. COORDINATE FLOOR JOINTS WITH ARCHITECTURAL FLOOR FINISHES.
- 1.7. STRUCTURAL MEMBERS SHALL NOT BE CUT, NOTCHED, CHANGED OR MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
- 1.8. DO NOT SCALE FOR DIMENSIONS NOT SHOWN ON THE DRAWINGS. SEND A WRITTEN REQUEST FOR INFORMATION TO THE ARCHITECT/ENGINEER FOR DIMENSIONS NOT PROVIDED.
- 1.9. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
- 1.10. THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. THE ENGINEER WILL NOT ADVISE ON OR ISSUE DIRECTION RELATED TO SAFETY REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE OSHA REGULATIONS.
- 1.11. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS/ROOFS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LIVE LOAD.
- 1.12. DISSIMILAR METALS MUST BE SEPARATED BY A COATING SUCH AS ECK CORROSION COATING OR AN APPROVED EQUIVALENT, OR NEOPRENE GASKET MATERIAL TO PREVENT GALVANIC ACTION.
- 1.13. WHERE SPECIFIED, POST INSTALLED ANCHORING SYSTEMS SUCH AS MANUFACTURED BY SIMPSON OR HILTI, SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. SPECIAL ATTENTION SHALL BE GIVEN TO THE DRILLING, CLEANING, AND PREPARATION OF HOLES. WHERE ADHESIVE ANCHORS ARE SHOWN, SPECIAL ATTENTION SHALL BE GIVEN TO THE REQUIRED MIXING, APPLICATION, AND CURING TIME OF THE ADHESIVE SPECIFIED.
- 1.14. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION THAT MIGHT BE AFFECTED BY, OR OTHERWISE INTERFERE WITH, INSTALLATION OF NEW WORK. THIS INCLUDES THOSE THAT MIGHT BE DAMAGED BY NEW FOUNDATIONS OR OTHER WORK, AND THOSE WHOSE PRESENCE MIGHT LEAD DAMAGE TO THE NEW WORK (e.g. DIFFERENTIAL SETTLEMENT).

2. **DESIGN CRITERIA:**

- 2.1. GENERAL BUILDING CODE:
 - 2.1.1. INTERNATIONAL BUILDING CODE, IBC 2012 EDITION. ALL CODES BELOW ARE THE EDITION REFERENCED IN THE IBC.
- 2.2. DESIGN LOAD CRITERIA:
 - 2.2.1. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7.
- 2.3. CONCRETE:
 - 2.3.1. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AMERICAN CONCRETE INSTITUTE, ACI 318.
- 2.4. STRUCTURAL STEEL:
 - 2.4.1. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 360.
 - 2.4.2. SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 341.

3. **DESIGN LOADS:**

- 3.1. DESIGN DEAD LOAD IS ACTUAL WEIGHT OF THE STRUCTURE. ANY CHANGES IN CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOAD-CARRYING CAPACITY OF THE STRUCTURE.
- 3.2. LIVE LOADS (PSF):

<u>MAINTENANCE CATWALK</u>	40
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- 3.3. LIVE LOAD REDUCTIONS HAVE BEEN APPLIED IN ACCORDANCE WITH THE BUILDING CODE WHEN PERMITTED.

4. **SHOP DRAWINGS AND SUBMITTALS:**

- 4.1. THE USE OR REPRODUCTION OF THE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS IS NOT PERMITTED.
- 4.2. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND THE SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.
- 4.3. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL SHOP DRAWINGS MUST BE REVIEWED AND "APPROVED" BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. REVIEW OF SHOP DRAWINGS AND OTHER SUBMITTALS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITIES.
- 4.4. SHOP DRAWINGS AND CALCULATIONS SUBMITTED AS PART OF A DELEGATED DESIGN SHALL BE SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE OF THE PROJECT.
- 4.5. HARDCOPY SHOP DRAWING SUBMITTALS: SUBMIT ALL SHOP DRAWINGS ON THREE PRINTS ONLY. ONE PRINT WILL BE RETURNED TO THE CONTRACTOR. ALL PRINTS REQUIRED BY THE CONTRACTOR ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE AFTER APPROVED SHOP DRAWINGS ARE RETURNED. IF ADDITIONAL PRINTS ARE SUBMITTED, THEY WILL BE RETURNED UNMARKED.
- 4.6. ELECTRONIC SHOP DRAWING SUBMITTALS: SUBMIT ALL ELECTRONIC SHOP DRAWINGS IN PDF FORMAT. REVIEWED SHOP DRAWINGS WILL BE RETURNED IN PDF FORMAT. ALL PRINTS REQUIRED BY THE CONTRACTOR ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE AFTER APPROVED SHOP DRAWINGS ARE RETURNED.
- 4.7. RESUBMITTED SHOP DRAWINGS: RESUBMITTED SHOP DRAWINGS SHALL HAVE ALL CHANGES SINCE THE PREVIOUS SUBMISSION IDENTIFIED BY CLOUDING OR OTHER CLEAR COMMUNICATION. RE-REVIEWED SHOP DRAWINGS WILL ONLY BE REVIEWED FOR IDENTIFIED CHANGES.
- 4.8. SHOP DRAWINGS: SEE THE RELATED MATERIAL SECTION FOR THE REQUIRED SUBMITTALS AND SHOP DRAWINGS.

5. **SOILS, SLABS, WALLS, AND SHALLOW FOUNDATIONS:**

- 5.1. A GEOTECHNICAL ENGINEER SHALL PROVIDE COMPACTED FILL REQUIREMENTS FOR THE BUILDING PAD AND REVIEW THE FOUNDATION BEARING SURFACE TO VERIFY THE ASSUMED ALLOWABLE BEARING PRESSURE NOTED. DO NOT PLACE CONCRETE PRIOR TO GEOTECHNICAL ENGINEER'S APPROVAL.
- 5.2. ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE TO ENSURE THEIR COMPLIANCE WITH THE PRESSURES NOTED, THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS, AND THE GEOTECHNICAL REPORT. IN THE ABSENCE OF SPECIFIC REQUIREMENTS, A DYNAMIC CONE PENETROMETER TEST (ASTM STP-399) SHALL BE PROVIDED AT EACH ISOLATED COLUMN FOOTING AND A MAXIMUM OF EVERY 50' OF CONTINUOUS FOUNDATION AND/OR THICKENED SLAB TO VERIFY BEARING CAPACITY. SOILS DEEMED UNSUITABLE SHALL BE UNDERCUT TO COMPETENT MATERIAL, BACKFILLED WITH AN APPROVED AND PROPERLY COMPACTED MATERIAL, AND RETESTED.

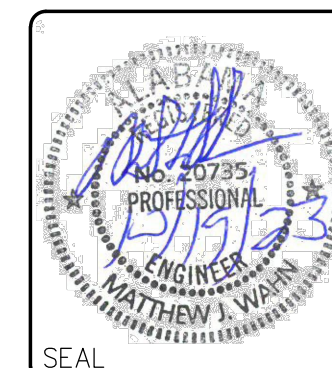
- 5.3. ALL FOOTING ELEVATIONS ARE ESTIMATED AND MAY BE ADJUSTED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.
- 5.4. COMPACTED FILL SHALL MEET THE REQUIREMENTS NOTED IN THE GEOTECHNICAL REPORT.
- 5.5. WHEN EXCAVATIONS APPROACH THE GROUND WATER TABLE, THE WATER LEVEL SHALL BE LOWERED BY AN ACCEPTABLE DEWATERING SYSTEM SO THAT THE WATER LEVEL IS MAINTAINED CONTINUOUSLY A MINIMUM OF 2' BELOW THE EXCAVATION DURING CONSTRUCTION.
- 5.6. BACKFILL FOR FOUNDATION AND RETAINING WALLS SHALL BE A FREE DRAINING GRANULAR MATERIAL. BACKFILL SHALL BE COMPACTED SUFFICIENTLY TO PREVENT SUBSIDENCE OF SURFACE ADJACENT TO WALL. THE GRANULAR MATERIAL SHALL BE PLACED IN A 45 DEGREE WEDGE EXTENDING FROM THE BASE OF THE FOOTING.
- 5.7. COORDINATE THROUGH WALL OR BEHIND WALL DRAINAGE SYSTEM WITH THE GEOTECHNICAL AND CIVIL ENGINEER.
- 5.8. FOUNDATION AND RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL CONCRETE HAS ATTAINED THE REQUIRED 28 DAY COMPRESSIVE STRENGTH.
- 5.9. BACKFILLING OF WALLS AND PIERS SHALL BE PLACED SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE BACKFILLING EACH SIDE TO UNEQUAL HEIGHTS, THEN WALLS OR PIERS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS OR OTHER PERMANENT BRACING ELEMENTS ARE PLACED AND PROPERLY SET TO PROVIDE FULL SUPPORT.
- 5.10. HEAVY EQUIPMENT FOR SPREADING AND COMPACTING BACKFILL SHALL NOT BE OPERATED CLOSER TO WALL, GRADE BEAM, ETC., THAN A DISTANCE EQUAL TO THE HEIGHT OF BACKFILL ABOVE THE TOP OF WALL FOOTING AND BOTTOM OF GRADE BEAM, ETC. THE AREA REMAINING SHALL BE COMPACTED BY HAND TAMPERS.
- 5.11. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS.
- 5.12. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS AND FROM PONDING ON PREPARED SUBGRADES AND SLABS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES.
- 5.13. DEWATER EXCAVATIONS AND REMOVE ANY WET MATERIAL PRIOR TO THE PLACING OF CONCRETE.
- 5.14. IMMEDIATELY NOTIFY THE OWNERS REPRESENTATIVE AND ENGINEER IF UNUSUAL SOIL CONDITIONS ARE FOUND.

6. **CONCRETE:**

- 6.1. ALL CONCRETING OPERATIONS SHALL COMPLY WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
- 6.2. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315 "DETAILING MANUAL".
- 6.3. THE CONTRACTOR SHALL SUBMIT FOR THE STRUCTURAL ENGINEER'S REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS. ITEMS MARKED (#) SHALL BE SUBMITTED FOR THE STRUCTURAL ENGINEER'S RECORD ONLY.
 - 6.3.1. CONCRETE MIX DESIGNS
 - 6.3.2. CONCRETE REINFORCING
- 6.4. CONTRACTOR SHALL NOT FABRICATE OR PLACE REINFORCEMENT UNTIL REINFORCEMENT SHOP DRAWINGS, REVIEWED AND STAMPED BY THE STRUCTURAL ENGINEER, ARE RECEIVED ON THE JOB SITE. SHOP DRAWINGS SHALL CONSIST OF BOTH "CUT" AND PLACEMENT SHEETS. PLACEMENT SHEETS SHALL CONTAIN ALL INFORMATION NECESSARY TO POSITION ALL REINFORCING STEEL IN THE FIELD WITHOUT HAVING TO REFER TO THE STRUCTURAL DRAWINGS. ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL NOT BE COPIED OR REPRODUCED FOR USE AS SHOP DRAWINGS.
- 6.5. A QUALITY ASSURANCE PROGRAM CONSISTING OF SUBMITTALS, TESTING, AND INSPECTIONS SHALL BE USED TO VERIFY THAT CONSTRUCTION IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. MATERIAL QUALITY, HANDLING, STORAGE, PREPARATION, PLACEMENT, AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE.
- 6.6. THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNER'S TESTING LABORATORY. RESPONSIBILITY FOR OBTAINING THE REQUIRED CONCRETE DESIGN STRENGTH IS THE CONTRACTOR'S.
- 6.7. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- 6.8. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
- 6.9. WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A1064. MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WIRE SPACING PLUS 2" OR 8". WWR SHALL BE SUPPLIED IN FLAT SHEETS (NOT ROLLS).
- 6.10. DEFORMED BAR ANCHORS (DBA'S) SHALL CONFORM TO ASTM A496. DBA'S SHALL BE AUTOMATICALLY END WELDED USING MANUFACTURERS RECOMMENDED PROCEDURES, EQUIPMENT, FLUX, AND FERRULES. DBA'S SHALL BE NELSON FLUXED DBA'S OR APPROVED ALTERNATE.
- 6.11. SEE CONCRETE MIX DESIGN SCHEDULE FOR REQUIRED CONCRETE STRENGTH AND PROPERTIES.
- 6.12. USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.
- 6.13. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4 INCH CHAMFER.
- 6.14. CONSTRUCTION JOINTS IN A HORIZONTAL PLANE ARE NOT PERMITTED.
- 6.15. ANY STOP IN CONCRETE WORK MUST BE MADE WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS. MAKE ALL REINFORCING CONTINUOUS THROUGH CONSTRUCTION JOINTS. CONTROL JOINTS FOR CONCRETE SLABS ON GRADE SHALL BE AS DETAILED AND LOCATED AS SHOWN IN THE CONSTRUCTION DOCUMENTS.
- 6.16. SEE SECTIONS AND DETAILS FOR CONCRETE COVER. FOR CONCRETE COVERS NOT INDICATED IN SECTIONS AND DETAILS, SEE CONCRETE COVER SCHEDULE FOR REQUIRED STEEL COVERAGE.
- 6.17. REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES, AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.
- 6.18. REINFORCING BAR PLACING ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS. WHERE CONCRETE IS SAND-BLASTED OR BUSH-HAMMERED, PROVIDE ACCESSORIES OF STAINLESS STEEL.
- 6.19. ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED OTHERWISE.
- 6.20. TIE ALL REINFORCING STEEL AND EMBEDMENT'S SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN POSITION OF REINFORCEMENT WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED.
- 6.21. ADDITIONAL REINFORCING AND THE QUANTITY OF REINFORCING OCCURRING AT OPENINGS SHALL BE PLACED EQUALLY EACH SIDE OF OPENINGS AS DETAILED.
- 6.22. HOOKS IN REINFORCING ARE IN ADDITION TO LENGTH SHOWN.
- 6.23. WHERE REINFORCING BARS ARE NOTED AS CONTINUOUS, THE FOLLOWING REQUIREMENTS APPLY:
 - 6.23.1. THE TERMINATION OF ALL CONTINUOUS REINFORCING BAR RUNS SHALL BE A STANDARD HOOK UNLESS NOTED OTHERWISE.
 - 6.23.2. SPLICES IN CONTINUOUS TOP BARS SHALL OCCUR OVER PARALLEL CMU WALLS OR AT THE CENTER OF THE CLEAR SPAN.
 - 6.23.3. SPLICES IN CONTINUOUS BOTTOM BARS SHALL OCCUR OVER PERPENDICULAR CMU WALLS OR CENTERED OVER COLUMNS.
- 6.24. FIELD BENDING OF BARS LARGER THAN #4 IS NOT PERMITTED. ALL BENDS FOR BARS LARGER THAN #4 SHALL BE SHOP MADE COLD BENDS.

7. **STRUCTURAL STEEL:**

- 7.1. FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
 - 7.2. THE CONTRACTOR SHALL SUBMIT FOR THE STRUCTURAL ENGINEER'S REVIEW SHOP DRAWINGS WHICH INCLUDE ERECTION DRAWINGS, MATERIALS, CONNECTIONS, FABRICATION, AND ALL DETAILS FOR THE FOLLOWING ITEMS.
 - 7.2.1. STRUCTURAL STEEL
 - 7.2.2. STEEL HANDRAILS
 - 7.3. THE STEEL FRAME IS "NON-Self-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL THE LATERAL LOAD RESISTANCE SYSTEM IS INSTALLED AND STABILITY OF THE COMPLETED STRUCTURE IS ACHIEVED.
 - 7.4. STRUCTURAL STEEL:
 - 7.4.1. ASTM A992 FOR WIDE FLANGE BEAMS AND COLUMNS
 - 7.4.2. ASTM A36 FOR STEEL ANGLES AND CHANNELS
 - 7.4.3. ASTM A36 FOR STIFFENER PLATES, BASE PLATES, COLUMN CAP PLATES, BEAM CONNECTION PLATES
 - 7.4.4. ASTM 572 FOR ALL PLATE STEEL
 - 7.5. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C.
 - 7.6. WELDED CONNECTIONS: E70XX ELECTRODES, MINIMUM SIZE FILLET WELD 3/16". ALL SHOP AND FIELD WELDING SHALL BE BY A CERTIFIED WELDER AND IN ACCORDANCE WITH AMERICAN WELDING SOCIETY D1.1 SPECIFICATION.
 - 7.7. HEADED ANCHOR RODS: ASTM F1554, GRADE 55, WELDABLE ANCHOR AND HEAVY HEX NUT, UNLESS INDICATED OTHERWISE.
 - 7.8. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OR REPAIRS OF ANCHOR BOLTS OR RODS, AND COLUMN BASE PLATES.
 - 7.9. SHEAR CONNECTORS: ASTM A108, GRADE 1015 THROUGH 1020, HEADED-STUD TYPE, COLD FINISHED CARBON STEEL; AWS D1.1, TYPE B.
 - 7.10. COMPRESSIBLE WASHER TYPE DIRECT TENSION INDICATOR DEVICES (DTI'S) SHALL CONFORM TO ASTM F959, AND SHALL BE BY J&M TURNER, INC. OR APPROVED EQUIVALENT. TWIST OFF TYPE TENSION CONTROL BOLTS (TCB'S) SHALL CONFORM TO ASTM F1852.
 - 7.11. BOLTED CONNECTIONS: BEARING TYPE A325-N IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER. OTHER BOLTS SHALL BE 3/4" DIAMETER. USE SNUG TIGHT BEARING CONNECTIONS FOR ALL BOLTED CONNECTIONS.
 - 7.12. BOLTS SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT BOLTS MAY BE USED. ACTUAL NUMBER, UNLESS SPECIFIED, TO BE IN ACCORDANCE WITH AISC.
 - 7.13. PACK UNDER BASE PLATES WITH NON-SHRINK, NON-METALLIC, HI-STRENGTH (6,000 PSI MIN) GROUT MEETING THE REQUIREMENTS OF ASTM 1107 AFTER SETTING AND LEVELING.
 - 7.14. ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325 BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.
 - 7.15. STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3" CONCRETE COVER.
8. **GRATING:**
- 8.1. FABRICATE AND ERECT ALL GRATING IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS.
 - 8.2. THE CONTRACTOR SHALL SUBMIT FOR THE STRUCTURAL ENGINEER'S REVIEW SHOP DRAWINGS WHICH INCLUDE ERECTION DRAWINGS, MATERIALS, CONNECTIONS, FABRICATION, AND ALL DETAILS FOR THE FOLLOWING ITEMS.
 - 8.2.1. BAR GRATING
 - 8.2.2. BAR GRATING CONNECTIONS
 - 8.3. GRATING SHALL BE MCNICHOLS GW 125, 19-W-4, SERRATED, GALVANIZED, BAR GRATING, OR APPROVED EQUAL.
 - 8.4. EXTEND GRATING CONTINUOUSLY OVER SUPPORTS, GRATE GUIDES, AND GATES AS REQUIRED.
 - 8.5. NOTCH GRATING AT SUPPORTS AS REQUIRED.
 - 8.6. WIDTH OF GRATING SECTIONS SHALL NOT EXCEED 3'-0"
 - 8.7. SHOP DRAWINGS BASED ON FIELD MEASUREMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
 - 8.8. BAND ALL EDGES WITH MATERIAL MATCHING GRATING WITH A MINIMUM SIZE OF 3/16" X DEPTH OF BEARING BAR.
 - 8.9. PROVIDE GRATING FASTENERS AS REQUIRED TO ANCHOR GRATING AND BRING INTO FULL CONTACT WITH SUPPORTS.



0	ISSUE FOR BID	10/18/23	M JW
Mark	Description	Date	Appr

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EAST MUD LAKES WEIR BOX REPLACEMENT

**WEIR BOX REPLACEMENT
GENERAL NOTES**

Date: 8/28/23	Designed by: MJW	Drawn by: TPT	ASPA No. 11204	Sheet No. G002	Rev. 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 2 of 13	

9. CONCRETE QUALITY CONTROL:

- 9.1. ALL CONCRETE TO BE AIR ENTRAINED SHALL USE AIR-ENTRAINING ADMIXTURE AT THE MANUFACTURER'S PRESCRIBED RATE TO RESULT IN CONCRETE AT THE POINT OF PLACEMENT HAVING A TOTAL AIR CONTENT AS NOTED ABOVE.
- 9.2. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33. NORMAL WEIGHT CONCRETE AGGREGATES MAY BE EITHER GRAVEL OR LIMESTONE UNLESS SPECIFIED.
- 9.3. WATER FOR CONCRETE SHALL BE CLEAN, FRESH, AND DRINKABLE.
- 9.4. CEMENT SHALL CONFORM TO THE SPECIFICATION FOR PORTLAND CEMENT, ASTM C150, TYPE I (NORMAL).
- 9.5. UNLESS ACCEPTED BY THE STRUCTURAL ENGINEER, USE ONE BRAND OF CEMENT THROUGHOUT THE PROJECT.
- 9.6. AN INDEPENDENT TESTING AGENCY SHALL PREPARE DESIGN MIXES FOR EACH TYPE AND STRENGTH OF CONCRETE BY EITHER LABORATORY TRIAL MIXTURES OR FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 318.
- 9.7. CONCRETE MIX DESIGNS MUST BE SUBMITTED A MINIMUM OF 15 DAYS PRIOR TO THE START OF THE WORK FOR STRUCTURAL ENGINEER'S ACCEPTANCE. ANY ADJUSTMENT IN APPROVED MIX DESIGNS INCLUDING CHANGES IN ADMIXTURES MUST BE SUBMITTED IN WRITING TO THE STRUCTURAL ENGINEER FOR ACCEPTANCE PRIOR TO USE IN THE FIELD.
- 9.8. CONCRETE DESIGNED TO BE PUMPED SHALL BE SO NOTED ON THE MIX DESIGNS AND SHALL HAVE MIX PROPORTIONS COMPATIBLE WITH THE PUMPING PROCESS.
- 9.9. USE ONLY ADMIXTURES APPROVED BY THE STRUCTURAL ENGINEER AND CONTAINING NO CHLORIDE IONS.
- 9.10. THE CONTRACTOR SHALL EMPLOY A TESTING AGENCY TO PERFORM THE REQUIRED TESTS AND TO SUBMIT THE TEST REPORTS.
- 9.11. DURING PLACEMENT OF CONCRETE SAMPLE AND TEST CONCRETE FOR QUALITY CONTROL AS FOLLOWS:
 - 9.11.1. CONCRETE SAMPLING: ASTM C172, EXCEPT MODIFIED FOR SLUMP TO COMPLY WITH ASTM C94.
 - 9.11.2. CONCRETE SLUMP: ASTM C143, ONE TEST FOR EACH SET OF COMPRESSIVE STRENGTH TEST SPECIMENS.
 - 9.11.3. AIR CONTENT: ASTM C173, VOLUMETRIC METHOD FOR LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE; ASTM C231 PRESSURE FOR NORMAL WEIGHT CONCRETE; ONE FOR EACH SET OF COMPRESSIVE STRENGTH TEST SPECIMENS.
 - 9.11.4. CONCRETE TEMPERATURE: TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES F (4 DEGREES C) AND BELOW, AND WHEN 80 DEGREES F (27 DEGREES C) AND ABOVE, AND EACH TIME A SET OF COMPRESSION TEST SPECIMENS ARE MADE.
 - 9.11.5. COMPRESSIVE TEST SPECIMEN: ASTM C31, ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPRESSIVE STRENGTH TEST, UNLESS DIRECTED OTHERWISE. MOLD AND STORE CYLINDERS FOR LABORATORY CURED TEST SPECIMENS EXCEPT WHEN FIELD-CURE TEST SPECIMENS ARE REQUIRED.
 - 9.11.6. COMPRESSIVE STRENGTH TESTS: ASTM C39, ONE SET FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF, OF EACH CONCRETE CLASS PLACED IN ANY ONE DAY OR FOR EACH 5,000 SQ. FT. OF SURFACE AREA PLACED. TEST ONE SPECIMEN AT 7 DAYS, TWO SPECIMENS AT 28 DAYS, AND RETAIN ONE SPECIMEN IN RESERVE FOR LATER TESTING IF REQUIRED.
 - 9.11.7. WHEN FREQUENCY OF TESTING WILL PROVIDE LESS THAN 5 STRENGTH TESTS FOR A GIVEN CLASS OF CONCRETE, CONDUCT TESTING FROM AT LEAST 5 RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN 5 ARE USED.
 - 9.11.8. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, EVALUATE CURRENT OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING THE IN-PLACE CONCRETE.
 - 9.11.9. STRENGTH LEVEL OF CONCRETE WILL BE CONSIDERED SATISFACTORY IF AVERAGES OF SETS OF THREE CONSECUTIVE STRENGTH TEST RESULTS EQUAL OR EXCEED SPECIFIED COMPRESSIVE STRENGTH, AND NO INDIVIDUAL STRENGTH TEST RESULT FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.
- 9.12. TEST RESULTS WILL BE REPORTED IN WRITING TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND CONTRACTOR. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AGENCY, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN STRUCTURE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIAL; COMPRESSIVE BREAKING STRENGTH AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.
- 9.13. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BUT SHALL NOT BE USED AS THE SOLE BASIS FOR ACCEPTANCE OR REJECTION.
- 9.14. ADDITIONAL TESTS: THE TESTING AGENCY SHALL MAKE ADDITIONAL TESTS OF IN-PLACE CONCRETE WHEN TEST RESULTS INDICATE SPECIFIED CONCRETE STRENGTHS AND OTHER CHARACTERISTICS HAVE NOT BEEN ATTAINED IN THE STRUCTURE, AS DIRECTED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL PAY FOR SUCH TESTS CONDUCTED AND ANY OTHER ADDITIONAL TESTING AS MAY BE REQUIRED WHEN UNACCEPTABLE CONCRETE IS VERIFIED.

CIVIL GENERAL NOTES

DEMOLITION AND REMOVAL

THE PROJECT INCLUDES THE DEMOLITION OF A PORTION OF THE EXISTING WEIR BOX AND DEMOLITION OF THE ABANDONED STEEL HOPPER. PRIOR TO DEMOLITION OF THE EXISTING WEIR BOX, THE WEIR BOX SHALL BE FILLED WITH FLOWABLE FILL TO AN ELEVATION EQUIVALENT TO ONE FOOT ABOVE THE TOP OF THE EXISTING UPPER PIPE AS NEEDED TO "PLUG" THE EXISTING UPPER PIPES. THE WEIR BOX SHALL BE DEMOLISHED ABOVE THE ELEVATION OF THE FLOWABLE FILL AND REMOVED FROM THE SITE. ALL ORGANIC DEBRIS SHALL BE REMOVED AND TAKEN OFF-SITE TO A SUITABLE LOCATION SELECTED BY THE CONTRACTOR. ALL NON-ORGANIC DEBRIS SHALL BE REMOVED AND DISPOSED OF AT A SUITABLE CONSTRUCTION / DEMOLITION (C/D) LANDFILL APPROVED BY THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

EARTHWORK

- 1) DIKE FILL: DIKE FILL INCLUDES MATERIALS EXCAVATED FROM THE EXISTING DIKE. IMPORTED DIKE FILL INCLUDES MATERIALS WITH A CLASSIFICATION OF SM, SC, SC-SM, CL, CL-ML OR ML ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM PER ASTM D2487. IMPORTED DIKE FILL MATERIALS SHALL HAVE A MINIMUM OF 30 PERCENT PASSING THE NO. 200 SIEVE, A LIQUID LIMIT EQUAL TO OR GREATER THAN 30, A PLASTICITY INDEX EQUAL TO OR GREATER THAN 15 PER ASTM D422 OR D6913 AND D4318 RESPECTIVELY. IMPORTED DIKE FILL SHALL HAVE A MAXIMUM PERMEABILITY OF 1×10^{-5} PER ASTM D5084.
- 2) STRUCTURAL FILL: IMPORTED FILL CONSISTING OF A SPECIFIED SOIL MIX OR GRADATION OF MATERIALS CONSTRUCTED TO ATTAIN MAXIMUM BEARING STRENGTH AND MINIMIZE CONSOLIDATION OR DIFFERENTIAL SETTLEMENT UNDER A LOAD SHALL HAVE BETWEEN 10 TO 35 PERCENT PASSING THE NO. 200 SIEVE, BY WEIGHT AND A MAXIMUM OF 95 PERCENT PASSING THE NO. 40 SIEVE, BY WEIGHT.
- 3) DENSE GRADED CRUSHED AGGREGATE BASE: DENSE GRADED CRUSHED AGGREGATE BASE MATERIALS SHALL CONSIST OF A CRUSHED LIMESTONE CONFORMING TO THE GRADATION SPECIFICATIONS OF ALDOT 825.03 TYPE B.
- 4) UNDERWATER FILL: IMPORTED FILL CONSISTING OF CLEAN SAND WITH A MAXIMUM OF 10 PERCENT PASSING THE NO. 200 SIEVE BY WEIGHT AND A MAXIMUM OF 90 PERCENT PASSING THE NO. 40 SIEVE BY WEIGHT.

COMPACTION

STRUCTURAL FILL, DIKE FILL, AND CRUSHED AGGREGATE BASE SHALL BE COMPACTED IN MAXIMUM 8" LOOSE LIFTS SO THAT THE IN-PLACE DENSITY TESTED IS NOT LESS THAN 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR DENSITY AND TO WITHIN PLUS OR MINUS 2 PERCENT OF THE MATERIAL'S OPTIMUM MOISTURE CONTENT AS PER ASTM D-698. THERE ARE NO COMPACTION REQUIREMENT FOR UNDERWATER FILL.

WEIR BOX INSTALLATION

THE CONTRACTOR SHALL FURNISH AND INSTALL THE WEIR BOX AND HDPE DISCHARGE PIPES. THE CONTRACTOR WILL BE REQUIRED TO SET THE WEIR BOX AND DISCHARGE PIPES AT THE LOCATION AND ELEVATIONS INDICATED ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL ADEQUATELY ANCHOR THE WEIR BOX AS PER THE CONTRACT DRAWINGS. ALL PIPE JOINTS SHALL BE SECURED AND SEALED TO PREVENT ANY LEAKAGE. THE CONTRACTOR SHALL COMPACT THE FILL MATERIAL AROUND THE PIPES AND BACKSIDE OF THE WEIR TO 95% PERCENT STANDARD PROCTOR DENSITY (AS PER ASTM D-698). THE DISCHARGE PIPES SHALL BE FUSION WELDED SOLID HDPE WITH DR17. MINIMUM WALL THICKNESS FOR 30" DIA PIPE SHALL BE 1.76" AND MINIMUM WEIGHT SHALL BE 43.801 LB/FT. MINIMUM WALL THICKNESS FOR 36" DIA. PIPE SHALL BE 2.118" AND MINIMUM WEIGHT SHALL BE 68 LB/FT.

SURVEY NOTES:

1. HORIZONTAL COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON THE ALABAMA STATE PLANE COORDINATE SYSTEM, WEST ZONE AS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983.
2. ELEVATIONS SHOWN ON THE DRAWINGS ARE IN FEET AND DECIMALS AND ARE REFERENCED TO NAVD 88 DATUM.
3. EXISTING CONTOURS SHOWN WERE OBTAINED BY FIELD SURVEY BY THOMPSON ENGINEERING, SEPTEMBER 2022.

EROSION AND SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHOWN ARE CONSIDERED TO BE THE MINIMUM ACCEPTABLE MEASURES. THE CONTRACTOR SHALL UTILIZE "BEST MANAGEMENT PRACTICES" AS NECESSARY TO PREVENT SEDIMENT LADEN STORMWATER RUNOFF OR ERODED MATERIALS FROM LEAVING THE CONSTRUCTION SITE. THE CONTRACTOR SHALL MAINTAIN AND REPAIR EROSION CONTROL MEASURES IN AN EXPEDITIOUS MANNER AFTER EACH RAINFALL EVENT AND INSPECT THEM TWICE WEEKLY IN THE EVENT OF NO RAINFALL. BEST MANAGEMENT PRACTICES (BMPs) ARE DEFINED AS: SCHEDULES OF ACTIVITIES, PROHIBITIONS OF PRACTICES, MAINTENANCE PROCEDURES, AND OTHER MANAGEMENT PRACTICES TO PREVENT OR REDUCE THE POLLUTION OF WATERS OF THE UNITED STATES. BMPs ALSO INCLUDE TREATMENT REQUIREMENTS, OPERATING PROCEDURES, AND PRACTICES TO CONTROL PLANT SITE RUNOFF, SPILLAGE OR LEAKS, SLUDGE OR WASTE DISPOSAL, OR DRAINAGE FROM RAW MATERIAL STORAGE. WITH REGARD TO CONSTRUCTION THESE MAY INCLUDE STRUCTURAL DEVICES OR NONSTRUCTURAL PRACTICES THAT ARE DESIGNED TO PREVENT POLLUTANTS FROM ENTERING WATER OR TO DIRECT THE FLOW OF WATER.
2. TYPE "A" SILT FENCE SHALL BE USED IN AREAS WHERE INDICATED OR AS DIRECTED BY THE ENGINEER.
3. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHALL BE ERECTED OPPOSITE ERODABLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
4. SILT FENCES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION OPERATION. SILT FENCES SHALL BE CLEANED, SILT REMOVED, AND REPAIRED AS NECESSARY AS PART OF REQUIRED BMP MAINTENANCE.
5. AFTER THE CONSTRUCTION AREA IS STABILIZED BY PAVING OR A FIRM STAND OF GRASS AND EROSION ACTIVITY CURTAILED, EROSION CONTROL DEVICES SHALL BE REMOVED.
6. CONTRACTOR IS REQUIRED TO STABILIZE DISTURBED AREAS WITH TEMPORARY GRASS OR SOIL STABILIZER IF AREAS WILL REMAIN DISTURBED FOR 7 DAYS OR LONGER.
7. THE CONTRACTOR IS HEREBY DIRECTED TO PROVIDE SEDIMENT RUNOFF PROTECTION WHERE NECESSARY TO PREVENT SILT LADEN RUNOFF FROM ENTERING THE STREAMS NEAR THE PROPOSED PROJECT.
8. GRASS GROUND COVER SHALL BE MAINTAINED UPON COMPLETION OF CONSTRUCTION.
9. THE EROSION AND SEDIMENT CONTROL ITEMS SHOWN ON THE PLANS ARE PROVIDED AS A STARTING POINT FOR A COMPREHENSIVE SEDIMENT AND EROSION CONTROL PLAN TO BE IMPLEMENTED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE PREPARED TO ANTICIPATE AND ADJUST BEST MANAGEMENT PRACTICES AS NECESSARY THROUGHOUT CONSTRUCTION TO RESTRICT THE AMOUNT OF SILT LADEN RUNOFF LEAVING THE PROJECT.
10. SEDIMENT & EROSION CONTROL ITEMS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE FOLLOWING HANDBOOKS:
 - A. ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS.
 - B. EPA STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES.
 - C. EPA GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NON-POINT POLLUTION IN COASTAL WATERS.
 - D. AASHTO GUIDELINES FOR EROSION AND SEDIMENT CONTROL IN HIGHWAY CONSTRUCTION.
 - E. SOUTH ALABAMA REGIONAL PLANNING COMMISSION BEST MANAGEMENT PRACTICES FOR NON-POINT SOURCE RUNOFF CONTROL, MOBILE & BALDWIN COUNTIES, ALABAMA.
11. UNLESS OTHERWISE SET FORTH IN CONTRACT DOCUMENTS WITH THE PROJECT OWNER, WHEN AN ADEM STORMWATER DISCHARGE PERMIT (NOI) HAS BEEN OBTAINED FOR THE SITE, THE CONTRACTOR SHALL INSTALL A RAIN GAUGE AT THE SITE AND MAINTAIN A WRITTEN DAILY LOG OF RAINFALL AMOUNTS AT THE SAME TIME EACH DAY. AT THE END OF EACH MONTH, THE CONTRACTOR MUST PROVIDE A COPY OF THAT MONTH'S RAINFALL RECORDS TO THE ENGINEER. THE RAIN GAUGE MUST BE INSTALLED AT THE TOP OF A POST PLACED AT LEAST 50' FROM TREES, BUILDINGS, OR OTHER OBJECTS THAT COULD IMPEDE THE FREE ENTRY OF RAINFALL INTO THE RAIN GAUGE. THE CONTRACTOR MUST NOTIFY THE ENGINEER WITHIN 8 HOURS OF RECORDING ANY DAILY RAINFALL AMOUNT EXCEEDING 0.75". THE CONTRACTOR SHALL POST THE NOI PERMIT NUMBER IN A HIGHLY VISIBLE LOCATION ON THE SITE AND MAINTAIN IT IN A LEGIBLE CONDITION UNTIL THE PROJECT IS COMPLETED AND A PERMIT TERMINATION HAS BEEN APPROVED BY ADEM. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR MUST NOTIFY THE ENGINEER IN ORDER TO INSPECT THE SITE AND APPLY FOR A TERMINATION OF THE ADEM PERMIT.
12. THE CONTRACTOR SHALL REFER TO THE "EROSION CONTROL, DITCHES, AND FLUMES" SECTION OF ALDOT SPECIAL AND STANDARD HIGHWAY DRAWINGS FOR ADDITIONAL METHODS OF EROSION AND SEDIMENT CONTROL.
13. ALL CLEARING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO LIMIT EROSION OF MATERIALS FROM THE CONSTRUCTION AREA.
14. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL INSTALL NECESSARY RETENTION BERMS, HAY BALES, OR SILT FENCE TO PREVENT EROSION OF MATERIALS PRIOR TO THE NEXT SCHEDULED WORK OR PERIOD.
15. REGULAR MAINTENANCE OF EROSION CONTROL AND SILTATION FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16. THE ENGINEER SHALL HAVE THE RIGHT TO REQUIRE INSTALLATION OF ADDITIONAL FACILITIES IF DEEMED NECESSARY TO PROTECT ADJACENT AREAS.
17. EROSION CONTROL AND SILTATION FACILITIES SHALL BE REMOVED ON AN INDIVIDUAL BASIS ONLY AFTER SPECIFIC AREAS HAVE STABILIZED.
18. HAY BALES REMOVED, WHICH ARE IN GOOD CONDITION, SHALL BE DISPERSED AS MULCH IN ADJACENT OR OTHER AREAS, AS APPROVED BY THE ENGINEER, TO FACILITATE ESTABLISHMENT OF A PERMANENT GRASS STAND.

CAST-IN-PLACE CONCRETE MIX SCHEDULE									
APPLICATION	EXPOSURE CLASS	STRENGTH (PSI)	TYPE	W/C RATIO	SLUMP	AIR CONTENT	MAX AGGREGATE SIZE	MAX CONCRETE WEIGHT (PCF)	
UNLESS NOTED OTHERWISE	FO, SO, WO, CO	4,000	NORMAL WT.	0.45	3" TO 5"	---	3/4"	150	
NOTES:									
1. ALL CAST-IN-PLACE CONCRETE SHALL INCLUDE MCI-2005NS CORROSION INHIBITOR DOSED AT 1.5 PINTS PER CUBIC YARD OR APPROVED EQUAL.									
2. ALL CAST-IN-PLACE CONCRETE SHALL INCLUDE E5-INTERNAL CURE DOSED AT 6 FLUID OUNCES PER 100 POUNDS OF CEMENTITIOUS MATERIAL OR APPROVED EQUAL FOR INTERNAL CURING.									
3. EXPOSURE CLASS FOR FREEZE/THAW, SULFATES, WATER EXPOSURE, AND CORROSION ARE PER ACI 318, SECTION 19.3.									
4. WHERE NO W/C RATIO, SLUMP, OR AIR CONTENT IS NOTED, CONCRETE MIX DESIGN SHALL BE AS RECOMMENDED BY THE READY MIX SUPPLIERS ENGINEER.									
5. WHERE AIR ENTRAINMENT IS NOT REQUIRED PER THE ABOVE TABLE, THE CONTRACTOR, INSTALLER, OR SUPPLIER MAY CHOOSE TO INCLUDE AIR ENTRAINMENT TO IMPROVE PLACEMENT AND FINISHING CHARACTERISTICS. AIR ENTRAINMENT IS NOT PERMITTED IN NORMAL WEIGHT CONCRETE TO RECEIVE A HARD TROWEL FINISH, AND ENTRAPPED AIR SHALL NOT EXCEED 3%. AIR ENTRAINMENT IN LIGHT WEIGHT CONCRETE SLABS IS REQUIRED TO MEET FIRE RATING REQUIREMENTS. SLABS SHALL BE PROPERLY FINISHED TO AVOID SURFACE IMPERFECTIONS SUCH AS BLISTERING OR DELAMINATION.									
6. CEMENT AND AGGREGATES SHALL BE FROM A SINGLE SOURCE.									

CONCRETE TENSION SPLICE LAP LENGTHS												
BAR SIZE	f'c=3000				f'c=4000				f'c=5000			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	A	B	A	B	A	B	A	B	A	B	A	B
#3	22	28	17	22	19	25	15	19	17	22	13	17
#4	29	38	22	29	25	33	19	25	23	29	17	23
#5	36	47	28	36	31	41	24	31	28	36	22	28
#6	43	56	33	43	37	49	29	37	34	44	26	34
#7	63	81	48	63	54	71	42	54	49	63	38	49
#8	72	93	55	72	62	81	48	62	56	72	43	56
#9	81	105	62	81	70	91	54	70	63	81	48	63
#10	91	118	70	91	79	102	61	79	71	92	54	71
#11	101	131	78	101	87	114	67	87	78	102	60	78
NOTES:												
1. ALL LENGTHS ARE IN INCHES.												
2. BAR COVER AND TRANSVERSE REINFORCEMENT SHALL MEET CODE MINIMUM.												
3. LAP SPLICING OF #14 & #18 BARS IS NOT ALLOWED.												
4. LAP LENGTHS ARE FOR NORMAL WEIGHT CONCRETE WITH UNCOATED, 60 KSI BARS.												
5. WHEN LAPPING BARS OF DIFFERENT SIZES USE THE SPLICE LAP LENGTH OF THE SMALLER BAR, OR THE DEVELOPMENT LENGTH OF THE LARGER BAR, WHICHEVER IS GREATER. THE "A" VALUE FROM THE TABLE IS EQUAL TO THE BAR DEVELOPMENT LENGTH.												
6. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW THE REINFORCEMENT.												

CIP CONCRETE CLEAR COVER SCHEDULE	
LOCATION	COVER (IN)
CONCRETE CAST AGAINST & EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 TO #18 BARS	2"
#5, w31, AND SMALLER BARS	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS, AND JOISTS	
#14 AND #18 BARS	1 1/2"
#11 AND SMALLER BARS	3/4"
BEAMS AND COLUMNS	1 1/2"
FOOTINGS, GRADE BEAMS, AND PILE CAPS	2" TOP
	3" BOT. & SIDES
PEDESTALS AND COLUMNS	1 1/2" CLEAR OF TIES
ELEVATED SLABS EXPOSED TO WEATHER:	
#5 AND SMALLER BARS	1 1/2" TOP & 3/4" BOT.
#6 AND GREATER BARS	2" TOP & 3/4" BOT.
WELDED WIRE REINFORCEMENT:	
5" OR LESS SLAB THICKNESS	CENTER
6" OR GREATER SLAB THICKNESS	2" FROM TOP
BEAMS	1 1/2" CLR OF STIRRUPS
JOISTS	1 1/2" ALL SIDES

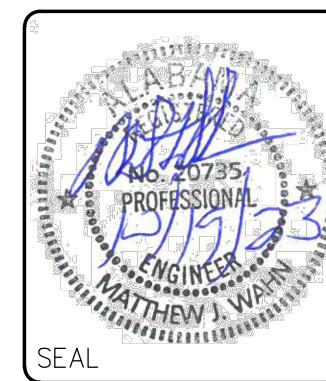
0	ISSUE FOR BID	10/18/23	MJW
Mark	Description	Date	Appr

ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA

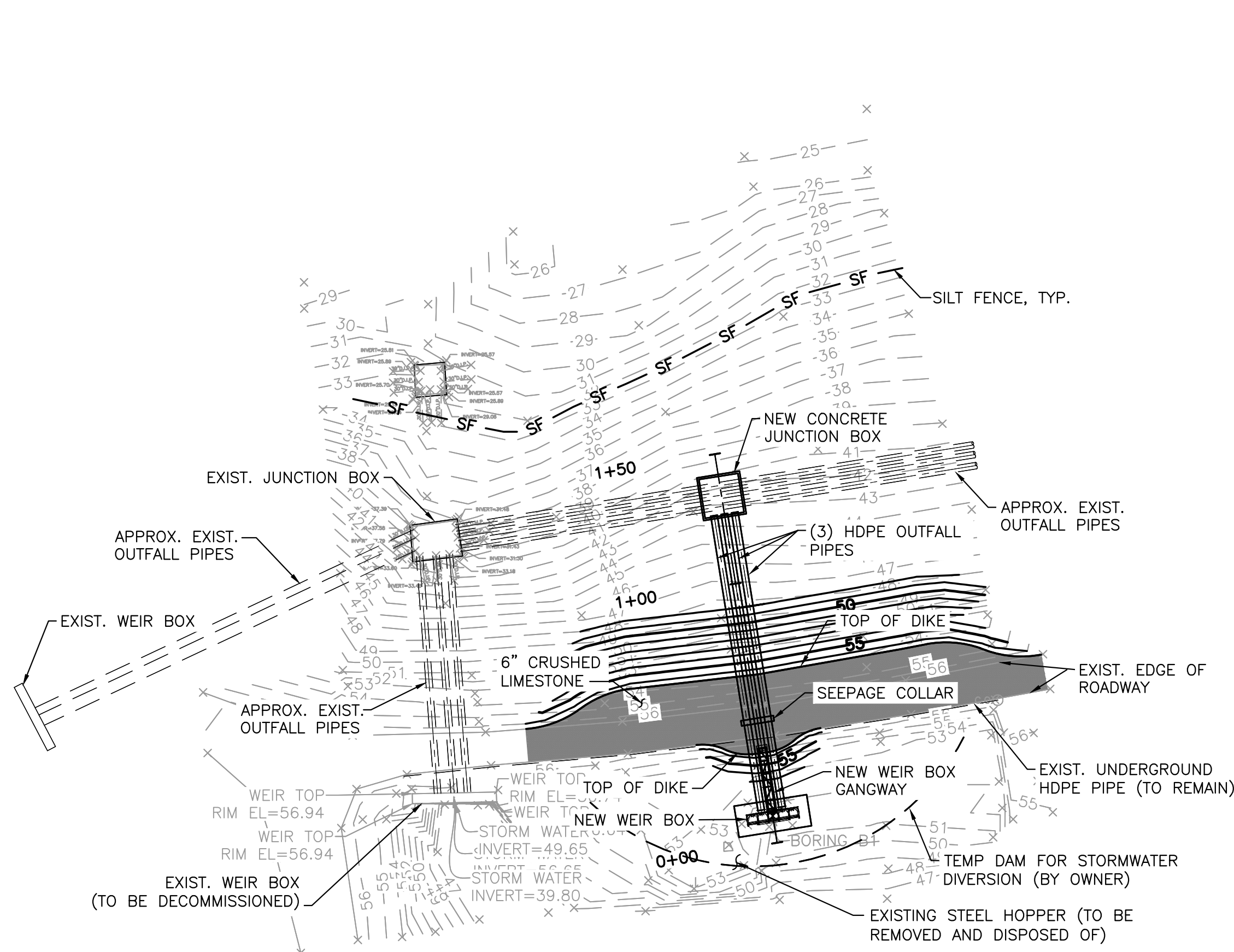
thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

**WEIR BOX REPLACEMENT
GENERAL NOTES**



Date: 8/28/23	Designed by: MJW	Drawn by: TPT	ASPA No. 11204	Sheet No. 0003	Rev. 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 3 of 13	



NOTE:
1. TOP OF DIKE ROADWAY IS TO BE RESURFACED WITH 6-IN. OF DENSE GRADED CRUSHED LIMESTONE BASE.

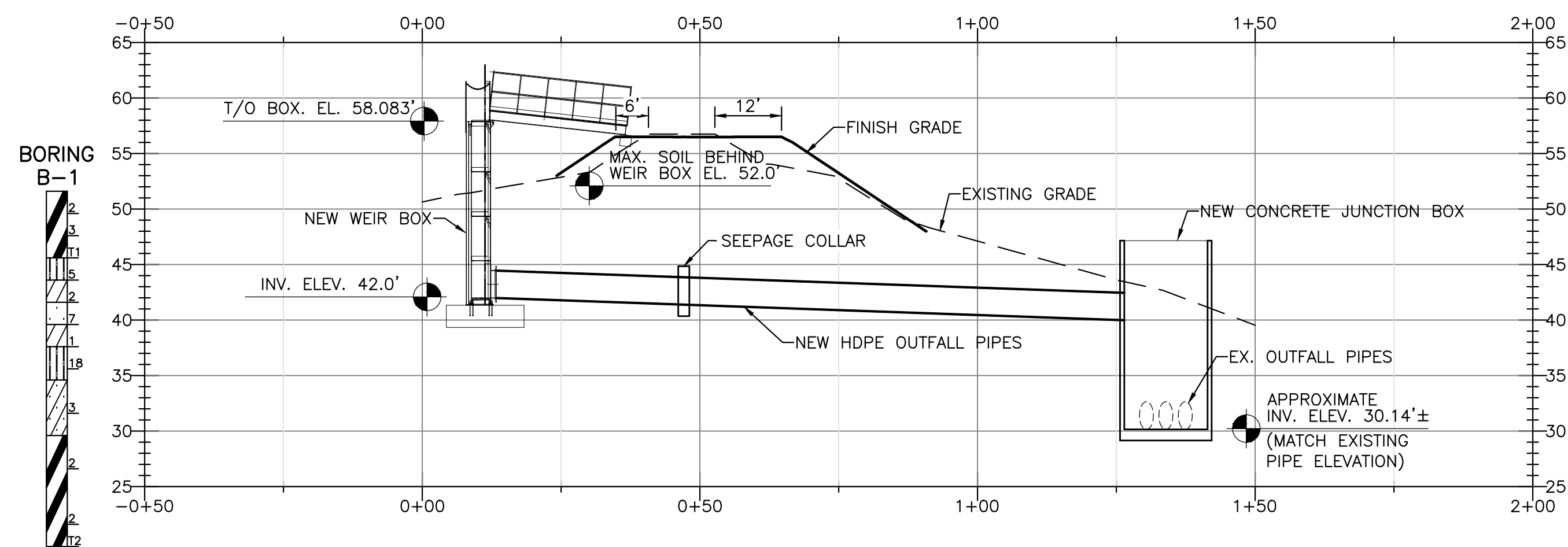
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E:1802334.45
ELEV=54.69

Ques
RED CAPPED IRON PIN SET
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E:1802832.06
ELEV=54.81

OUTFALL PLAN

SCALE: 1" = 40'

Alignment - OUTFALL PROFILE



OUTFALL PROFILE

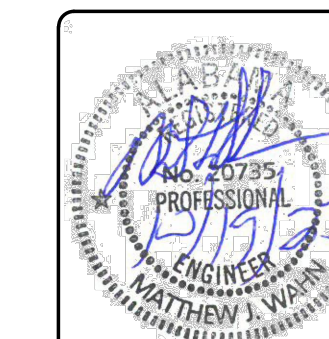
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Mark	Description	Date	M/J	Appr.
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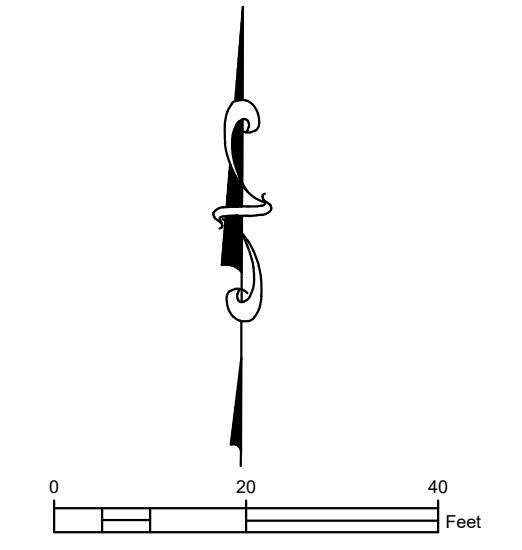
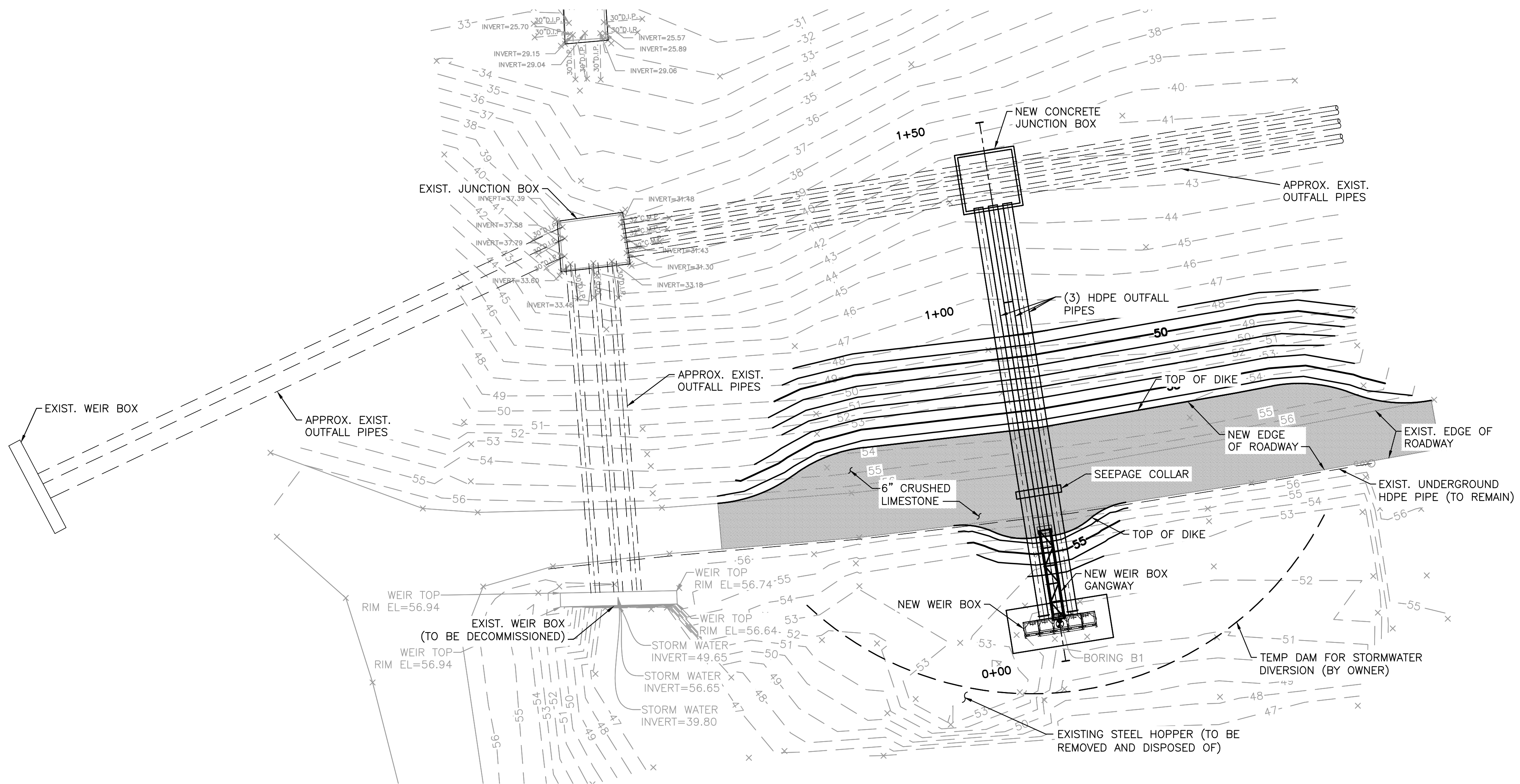
ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA
thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

**WEIR BOX REPLACEMENT
OUTFALL PLAN
AND PROFILE WITH CONTROL POINTS**



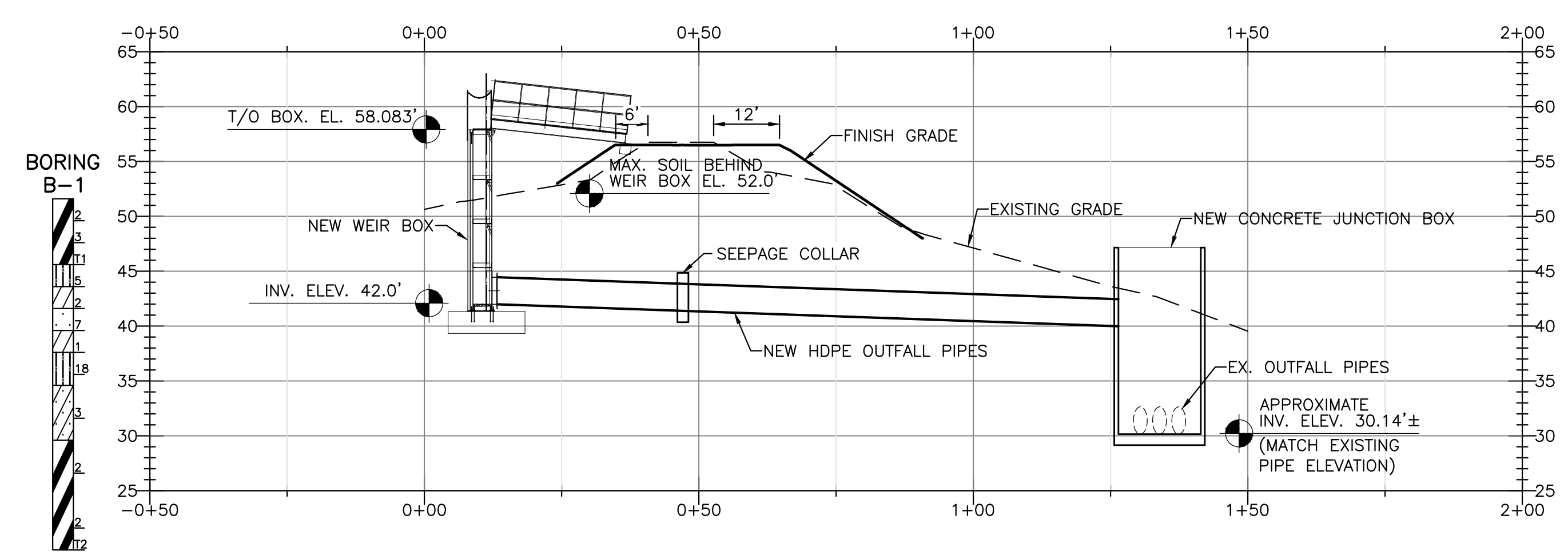
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Ckd by: RAH	Reviewed by: M/JW	Submitted by: M/JW	Plot scale: 1:1	Drawing 4 of 13	



NOTE:
 1. TOP OF DIKE ROADWAY IS TO BE RESURFACED WITH 6-IN. OF DENSE GRADED CRUSHED LIMESTONE BASE.

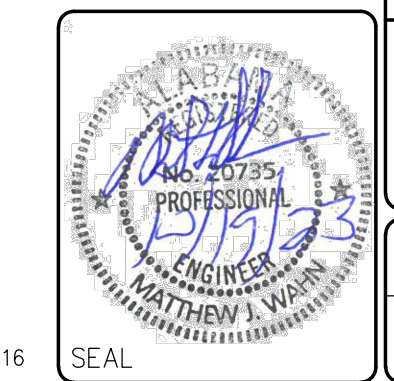
OUTFALL PLAN
 SCALE: 1" = 20'

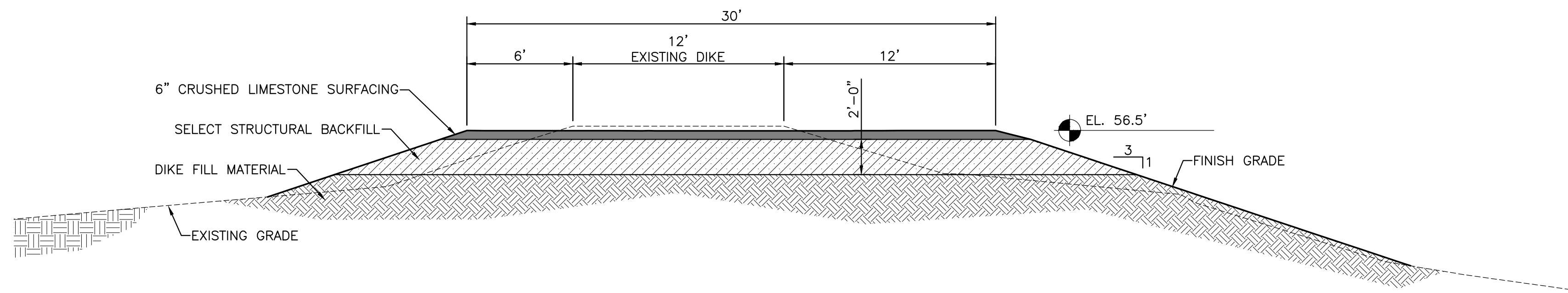
Alignment - OUTFALL PROFILE



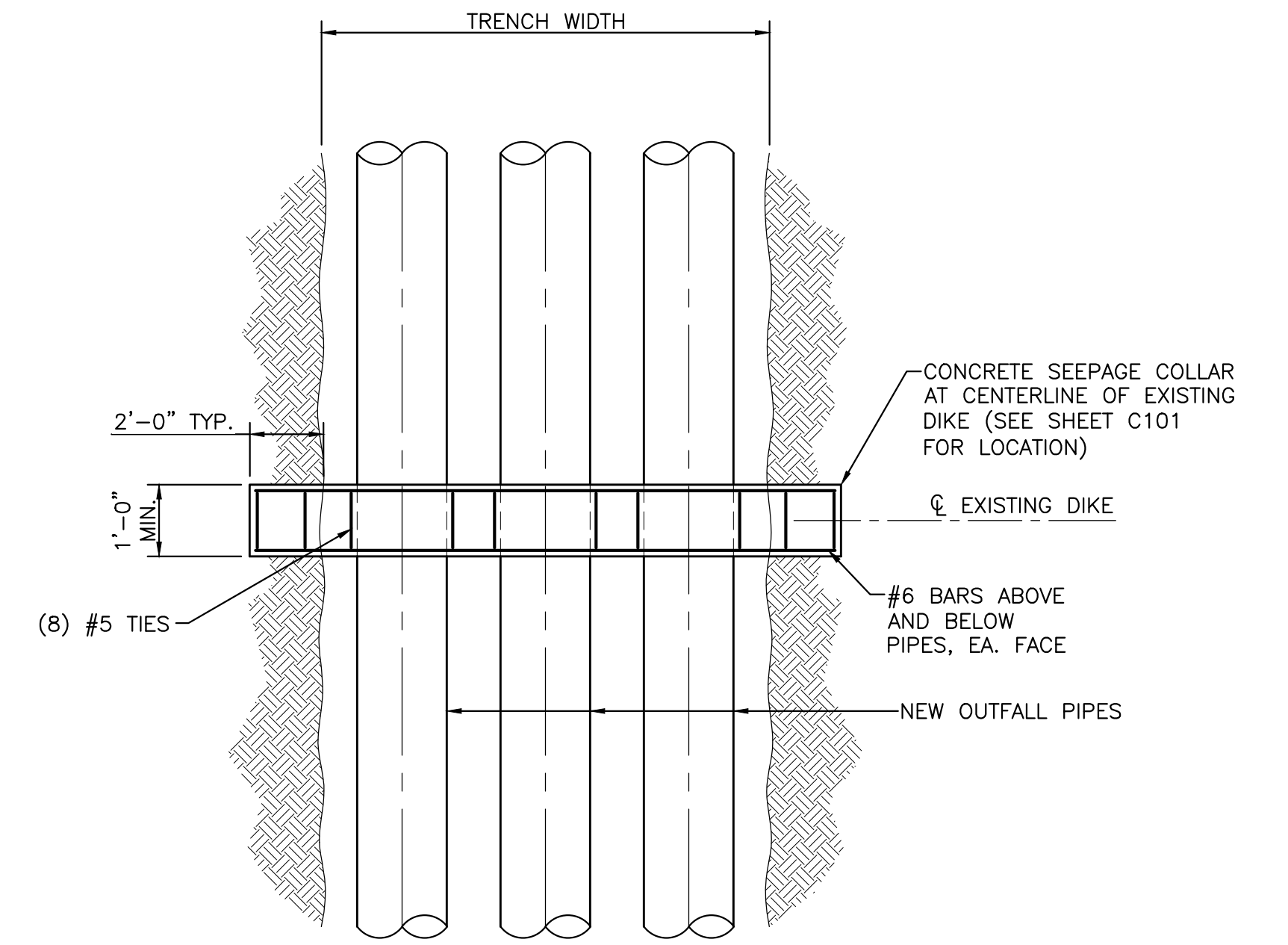
OUTFALL PROFILE
 SCALE: 1" = 20'

0	ISSUE FOR BID	10/18/23	MJW
Mark	Description	Date	Appr.
ALABAMA STATE PORT AUTHORITY MOBILE, ALABAMA			
thompson ENGINEERING			
2970 COTTAGE HILL ROAD, SUITE 190 MOBILE, ALABAMA 36606 (251) 666-2443			
EAST MUD LAKES WEIR BOX REPLACEMENT			
WEIR BOX REPLACEMENT OUTFALL PLAN AND PROFILE			
Date: 8/25/23	Designed by: MJW	Drawn by: TPT	ASPA No. 11204
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1
Sheet No. C101	Rev. 0	Drawing 5 of 13	

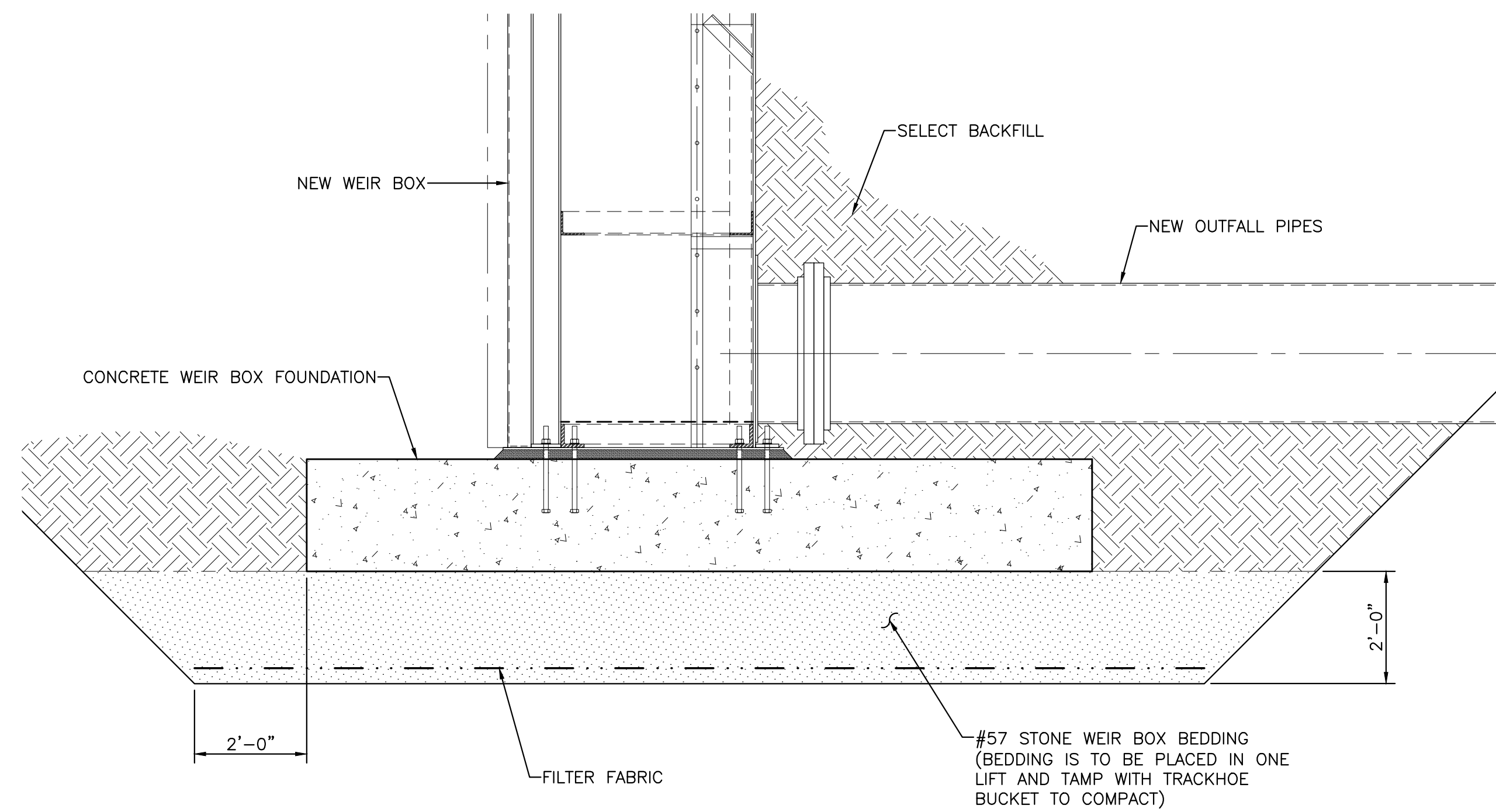




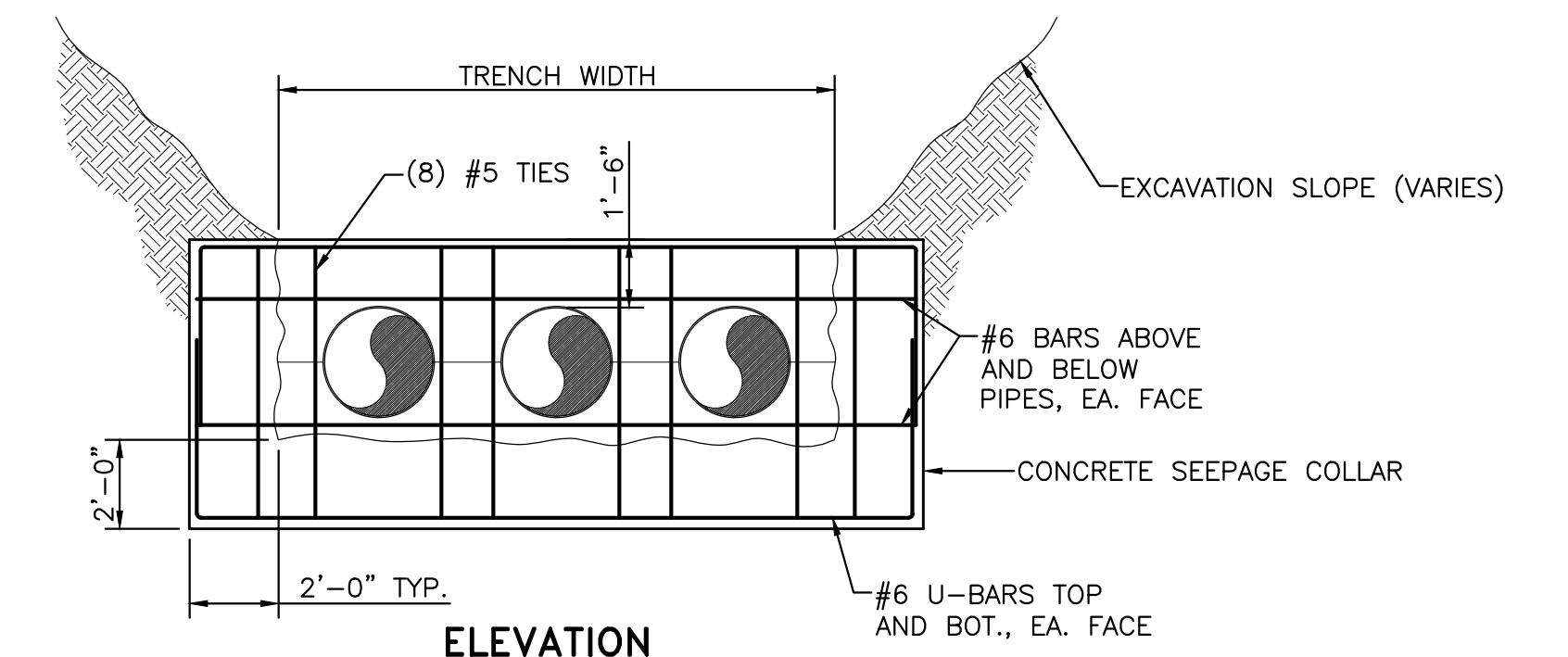
TYPICAL DIKE SECTION
SCALE: 1" = 5'



PLAN

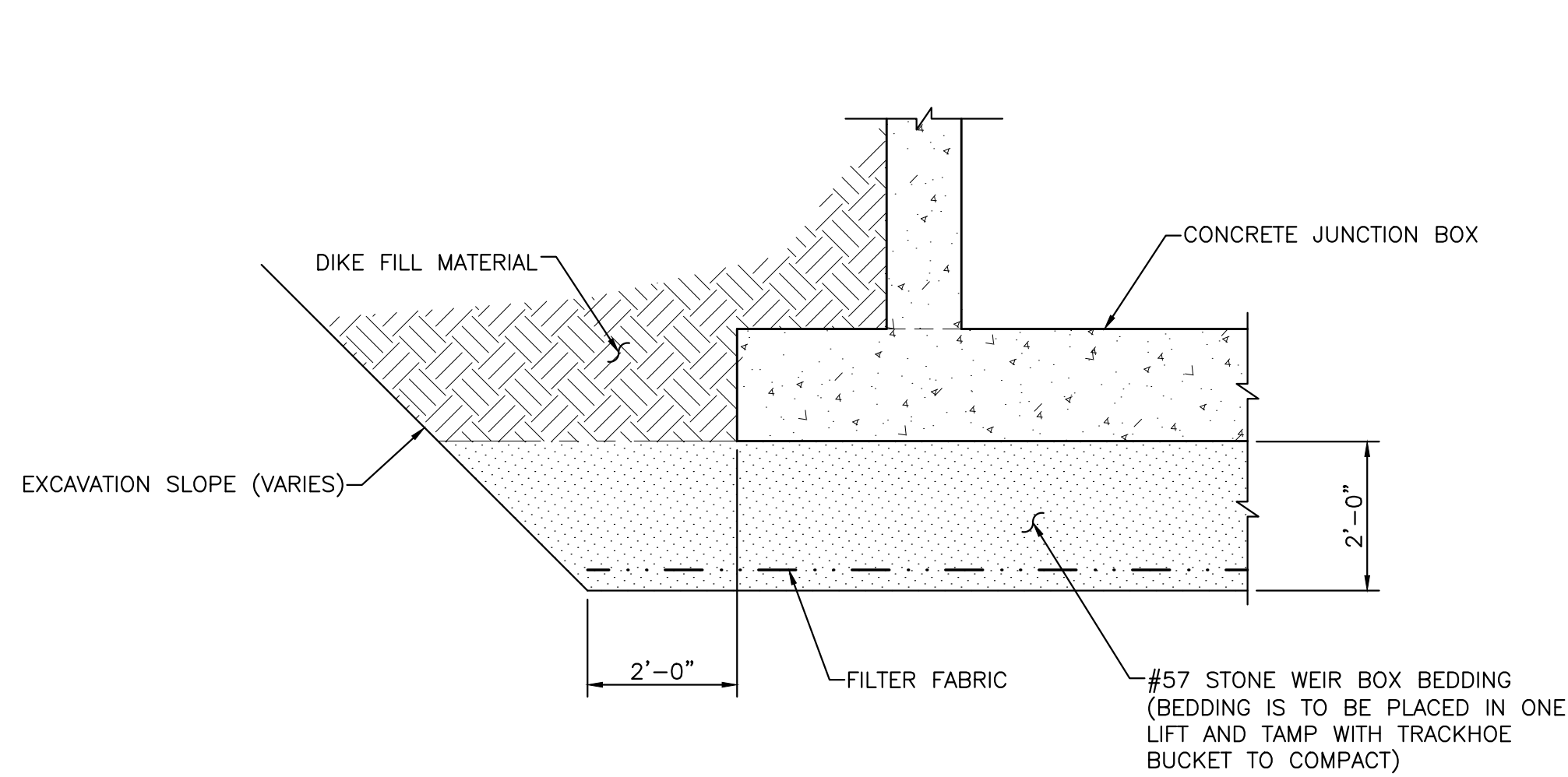


WEIR BOX UNDERCUT DETAIL
SCALE: 1/2" = 1'-0"

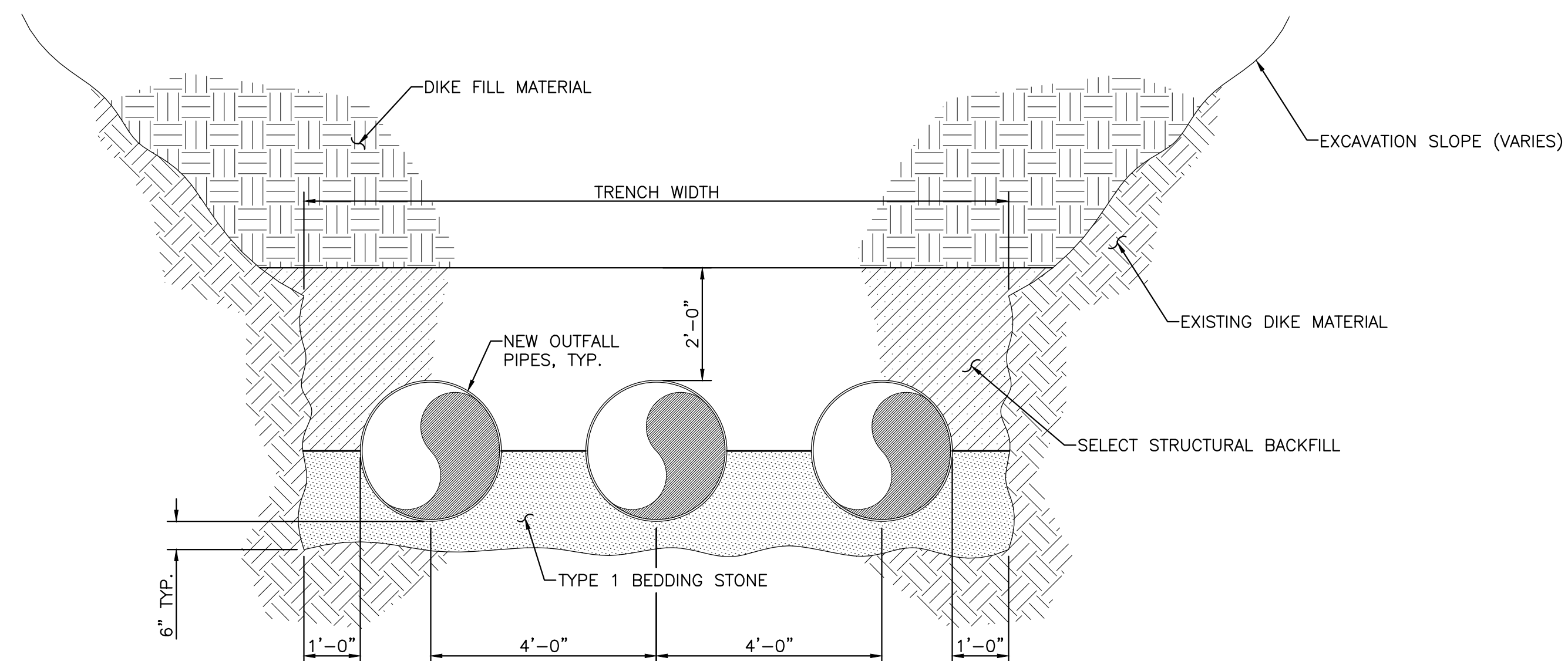


ELEVATION

SEEPAGE COLLAR DETAIL
SCALE: 1/4" = 1'-0"



JUNCTION BOX UNDERCUT DETAIL
SCALE: 1/2" = 1'-0"



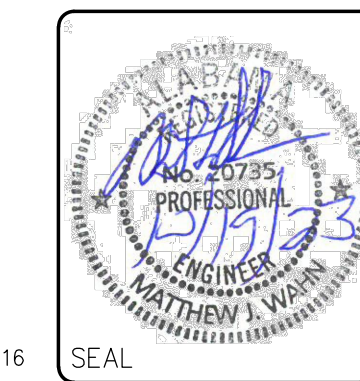
OUTFALL PIPE BEDDING DETAIL
SCALE: 1/2" = 1'-0"

0	ISSUE FOR BID	10/18/23	MJW
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ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA
thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

WEIR BOX REPLACEMENT SECTIONS AND DETAILS



Date: 8/25/23	Designed by: MJW	Drawn by: TPT	ASPA No.: 11204	Sheet No.: C102	Rev.: 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 6 of 13	

THOMPSON NO.: 23-1101-0116

thompson		RECORD OF TEST BORING														
PROJECT: East Mud Lake Weir Box Design											CLIENT: ASPA		BORING NO.: B-01			
SAMPLE METHOD: ASTM D1586 & 1587											TYPE BORING: Mud Rotary		PAGE: 1 OF 1			
STATION: Refer to Boring Location Plan											DRILLER: L. Phillips		LAT.: 30.72296			
GWL: AT 24 HRS.:											ENGINEER: C. Crigler		LONG.: -88.02943			
											WEATHER: Sunny		DATE: 7/10/23			
													ELEVATION: +51.6 ft.			
DEPTH/ ELEV. (FT)	SYMBOL	SAMPLER BLOWS	SAMPLE I.D. NO.	MAJOR SOIL COMPONENT	OTHER COMPONENTS	SPT N (RECN)	% F	MC	LL	PI	UW (pcf)	UC (pcf)	UU (pcf)	PP (pcf)	VS (pcf)	FS (pcf)
1		1	S-1		Very soft, gray and brown	2	75.7									
2		1	S-2	CLAY (CH)	Very soft, gray	3	95.4									
3		1	T-1			100%	91.8	54	105	65						
4		2	S-3	SILTY SAND (SM)	Loose, fine to medium grained, reddish brown	5										
5		1	S-4	SANDY CLAY (CL)	Soft, red, bottom, gray, sand	2	62.0									
6		1	S-5	SAND (SP)	Loose, fine to medium grained, gray	7										
7		3	S-6	SANDY CLAY (CL)	Very soft, red	1	64.7									
8		3	S-7	SILTY SAND (SM)	Medium dense, brown	18		21	NP	NP						
9		2	S-8	CLAYEY SAND (SC)	Very loose	3	25.3									
10		1	S-9		Very soft, reddish brown	2										
11		1	S-10	CLAY (CH)	Very soft	2	80.8	70	68	22						
12		2	T-2			100%	74.6									
Bottom of borehole at 32.0 feet.																

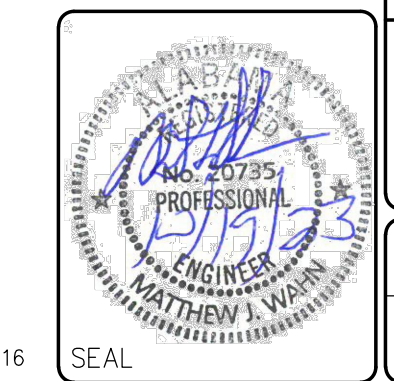
Refer to Notes and Legend on separate sheet for additional information. This Record of Test Boring is part of the project Geotechnical Report. Actual strata changes may be gradual over depth.

0	ISSUE FOR BID	10/18/23	MJW
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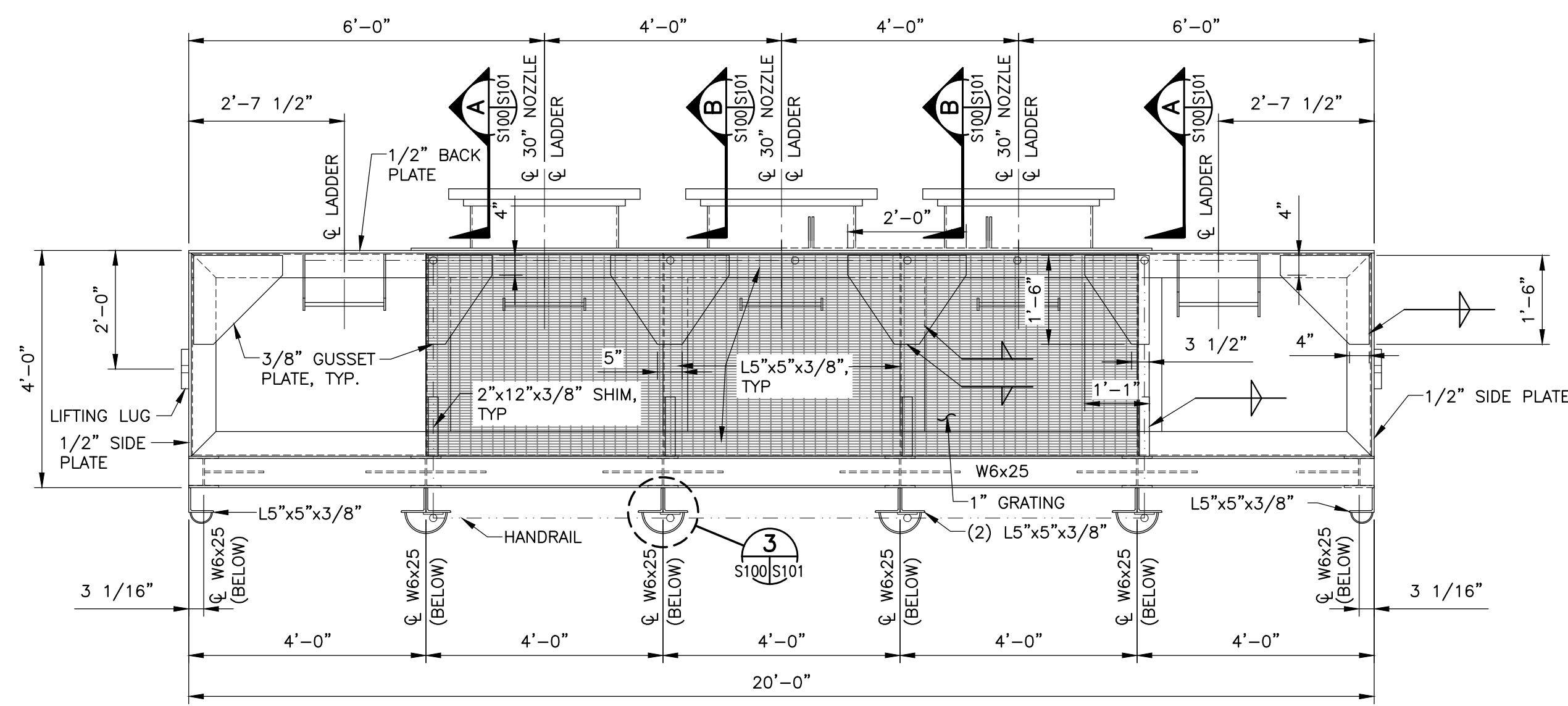
ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA
2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251) 666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

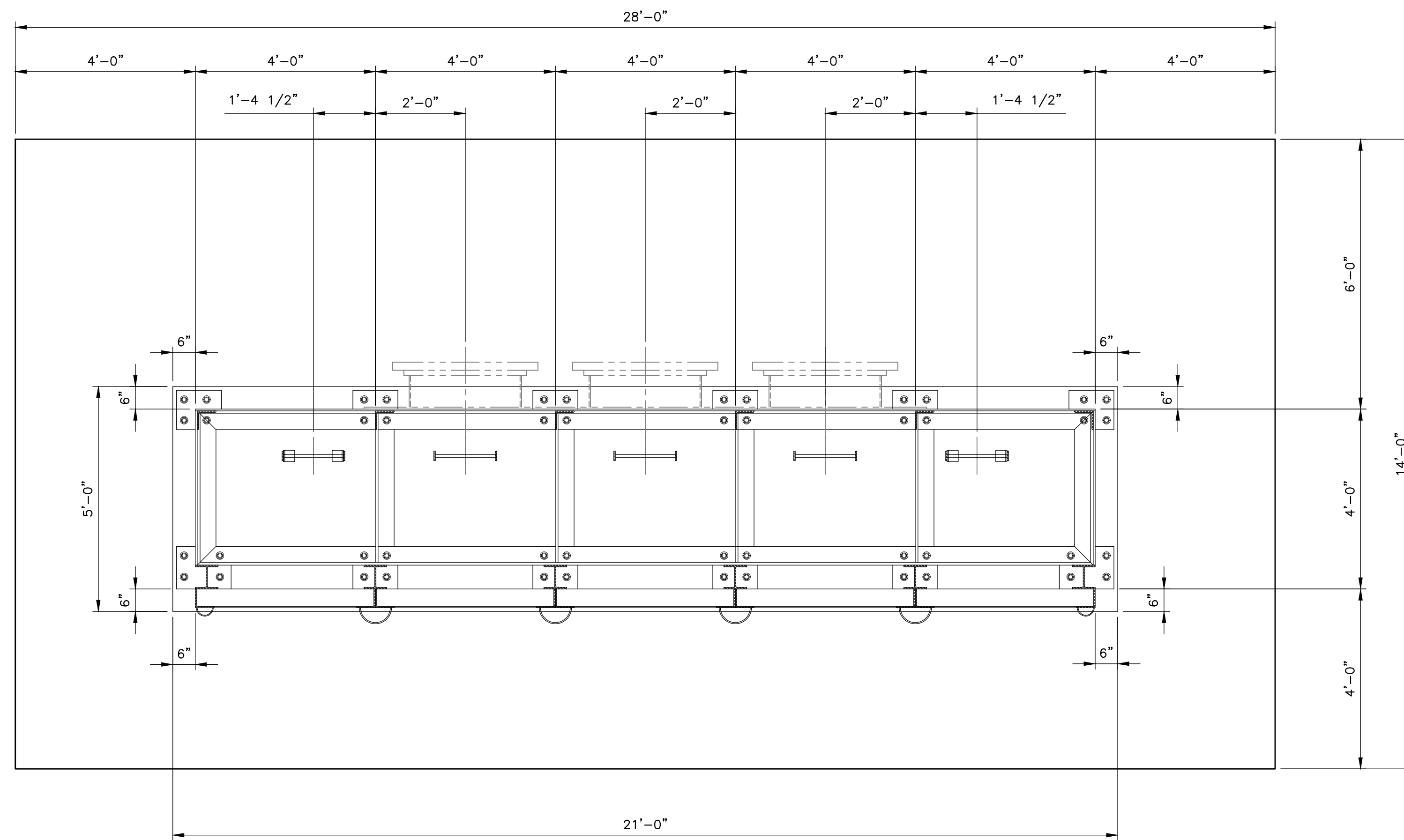
WEIR BOX REPLACEMENT BORING LOG



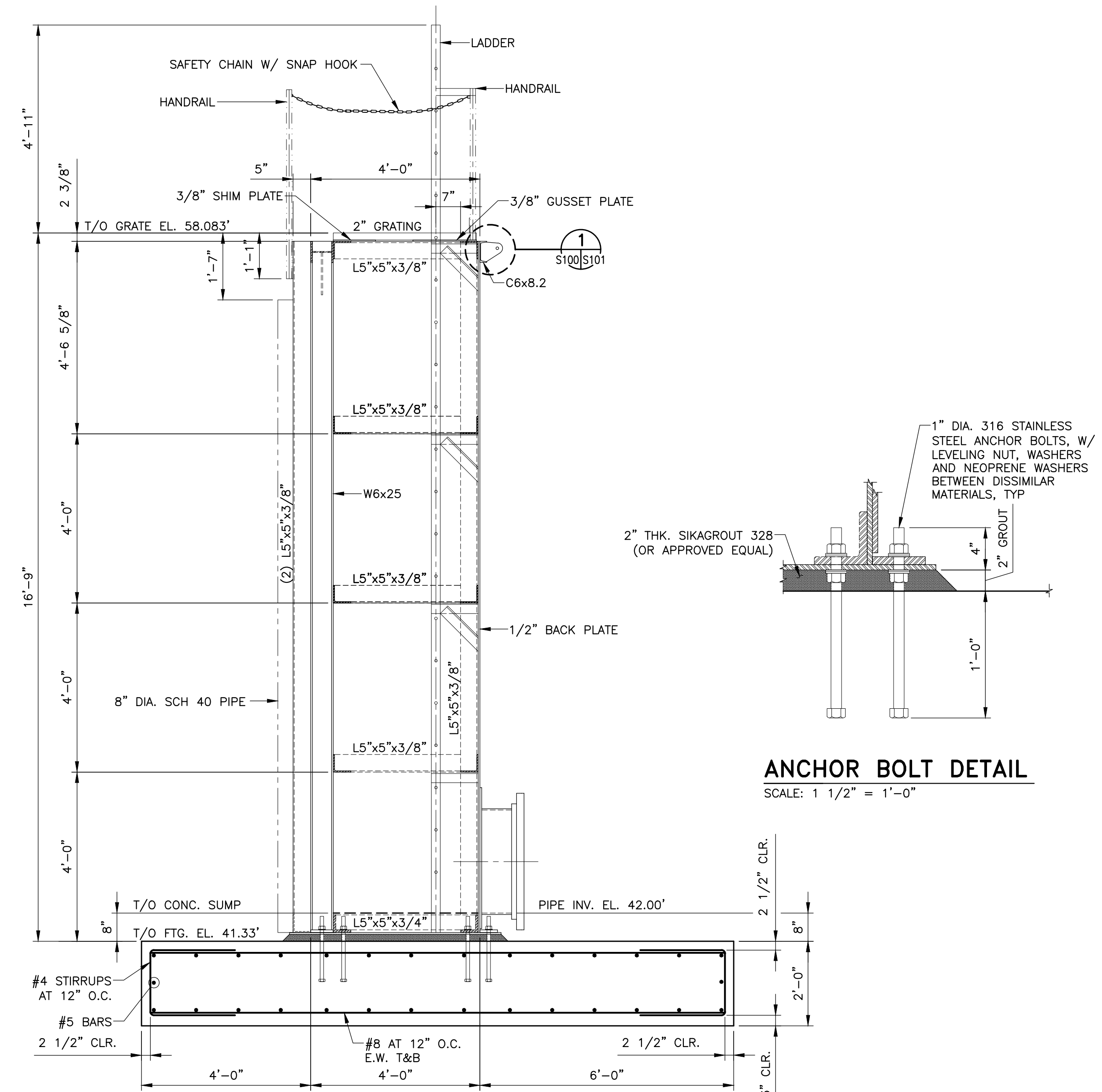
Date: 8/28/23	Designed by: MJW	Drawn by: TPT	ASPA No. 11204	Sheet No. C103	Rev. 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 7 of 13	



WEIR BOX PLAN
SCALE: 1/2" = 1'-0"



WEIR BOX FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



ANCHOR BOLT DETAIL
SCALE: 1 1/2" = 1'-0"

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

NOTES:

- SEE SHEET G002 AND G003 FOR GENERAL CONSTRUCTION NOTES.
- WEIR BOX SHALL BE COATED INSIDE AND OUT WITH COAL TAR EPOXY, 16 MIL MINIMUM DRY FILM THICKNESS. PREPARATION AND APPLICATION SHALL BE PER COATING MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ASTM A-36 OR A-992. WELDS NOT SPECIFICALLY NOTED, SHALL BE AT A MINIMUM, 1/16" LESS THAN THE THINNEST MATERIAL JOINED.
- FABRICATOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO PREVENT DISTORTION AND RACKING OF THE WEIR BOX DURING LIFTING OPERATIONS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE TIE BACKS AND/OR ANCHORAGE AS NECESSARY TO SECURE THE WEIR BOX AGAINST OVERTURNING AFTER PLACEMENT AND DURING DIKE CONSTRUCTION.
- FILL BOTTOM OF BOX TO THE PIPE INVERT WITH LEAN CONCRETE AS A WEARING SURFACE (6"± THICK)
- ESTIMATED LIFT WEIGHT OF BOX WITHOUT CONCRETE, DECK, GANGWAY, WINGWALL, OR BOARDS IS 20,000 LBS.
- THE WEIR BOX WAS DESIGN TO ACCOMMODATE A FUTURE 4-FT EXTENSION.
- ALL WEIR BOARDS ARE TO BE .6 CCA TREATED. THE CONTRACTOR IS TO PROVIDE AND STOCKPILE ON SITE.
- WEIR GRATING IS TO BE UNSECURED 4-FT BY 4-FT PANELS OF 2"x2"x2" CORVEX FRP GRATING.
- EXCAVATE FOUNDATION ADDITIONAL 2'-0" TO REACH TOP OF N=18 MATERIAL SHOWN ON THE DRAWING C103. ENGINEER SHALL VERIFY EXCAVATION DEPTH PRIOR TO PLACEMENT OF SELECT GRAVEL.
- WEIR BOX IS TO BE FABRICATED IN SUCH A WAY AS TO ENSURE ALL WEIR BOARDS SLOTS WILL HAVE THE EXACT SAME WEIR BOARD LENGTH.

Mark	Description	Date	Appr.
0	ISSUE FOR BID	10/18/23	MJW

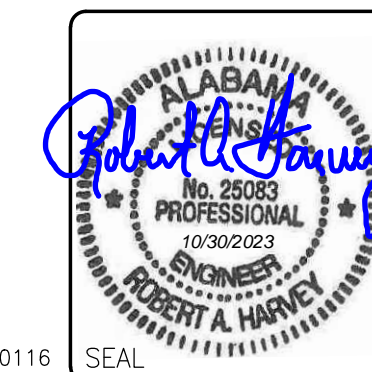
ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA

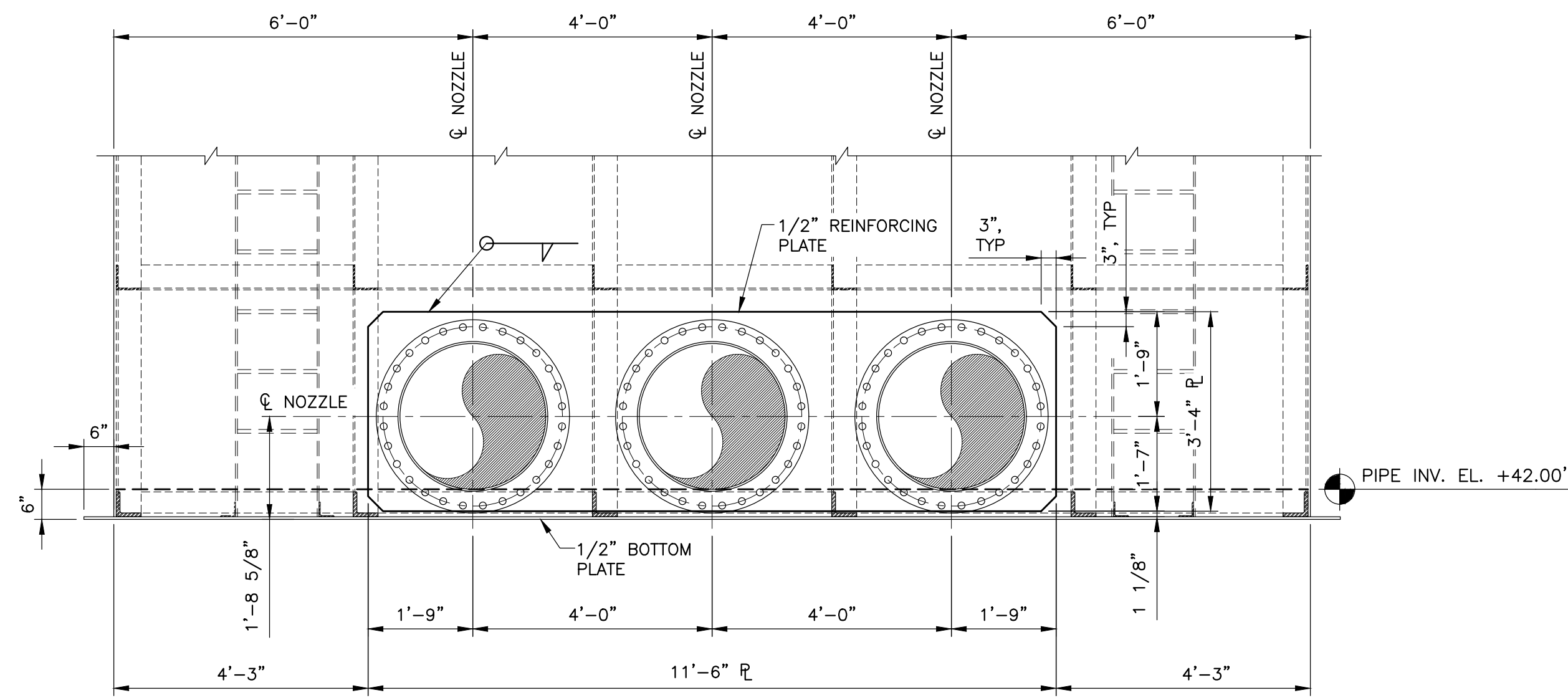
thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

**WEIR BOX REPLACEMENT
WEIR BOX PLAN, FOUNDATION
PLAN AND SIDE ELEVATION**

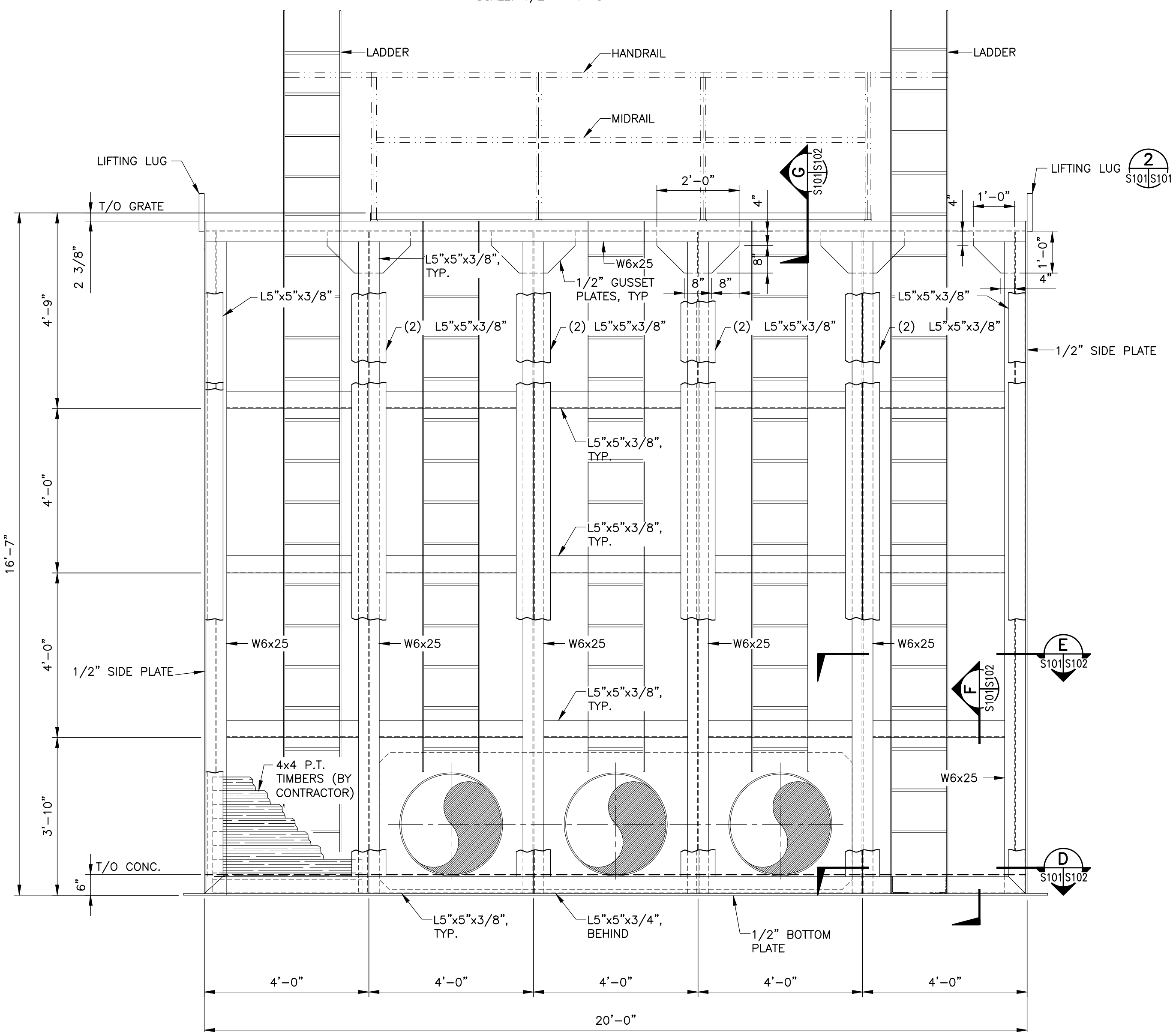
Date: 8/25/23	Designed by: RAH	Drawn by: TPT	ASPA No. 11204	Sheet No. S100	Rev. 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 8 of 13	



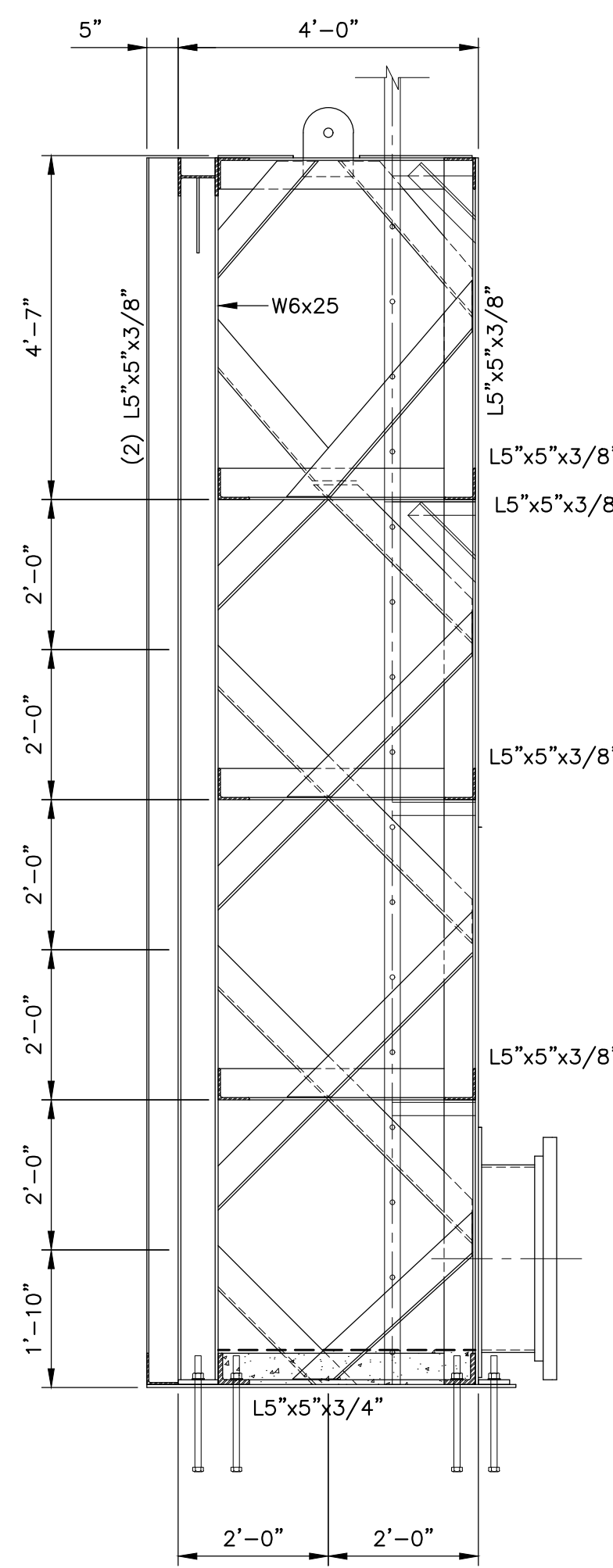


PARTIAL BACK ELEVATION
SCALE: 1/2" = 1'-0"

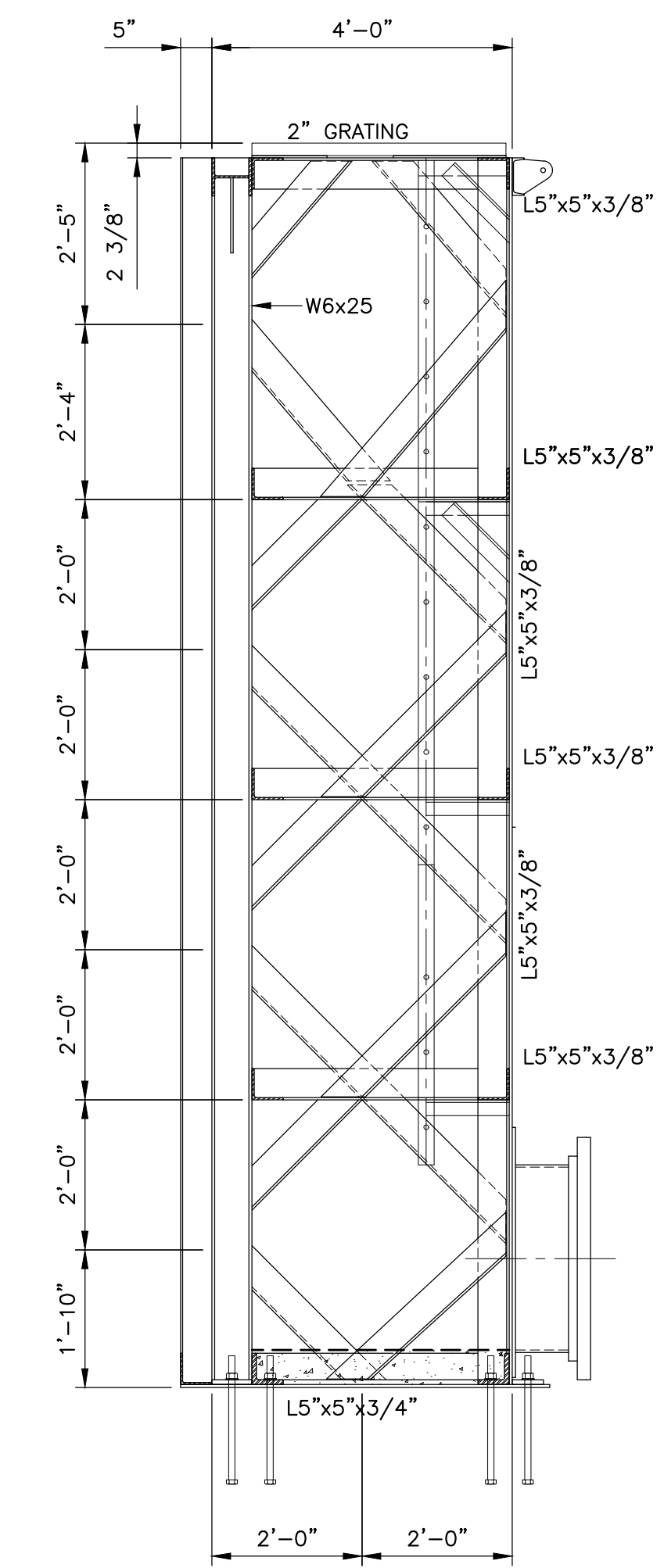
NOTE:
BOLT HOLES ON NOZZLE FLANGES
TO STRADDLE CENTER LINES.



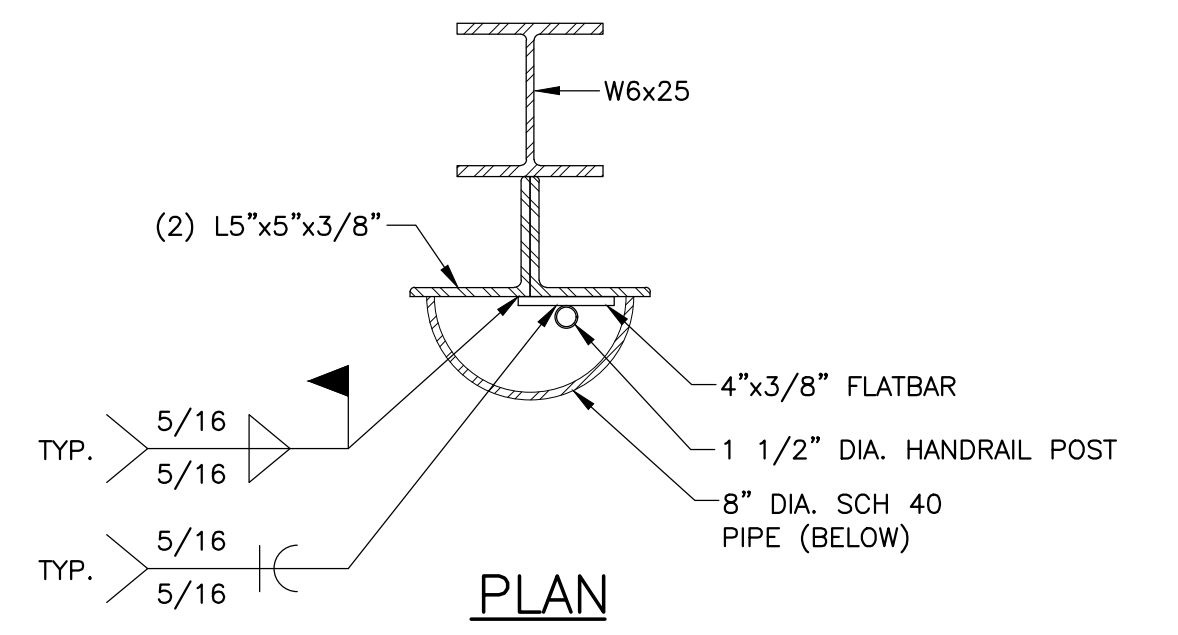
FRONT ELEVATION
SCALE: 1/2" = 1'-0"



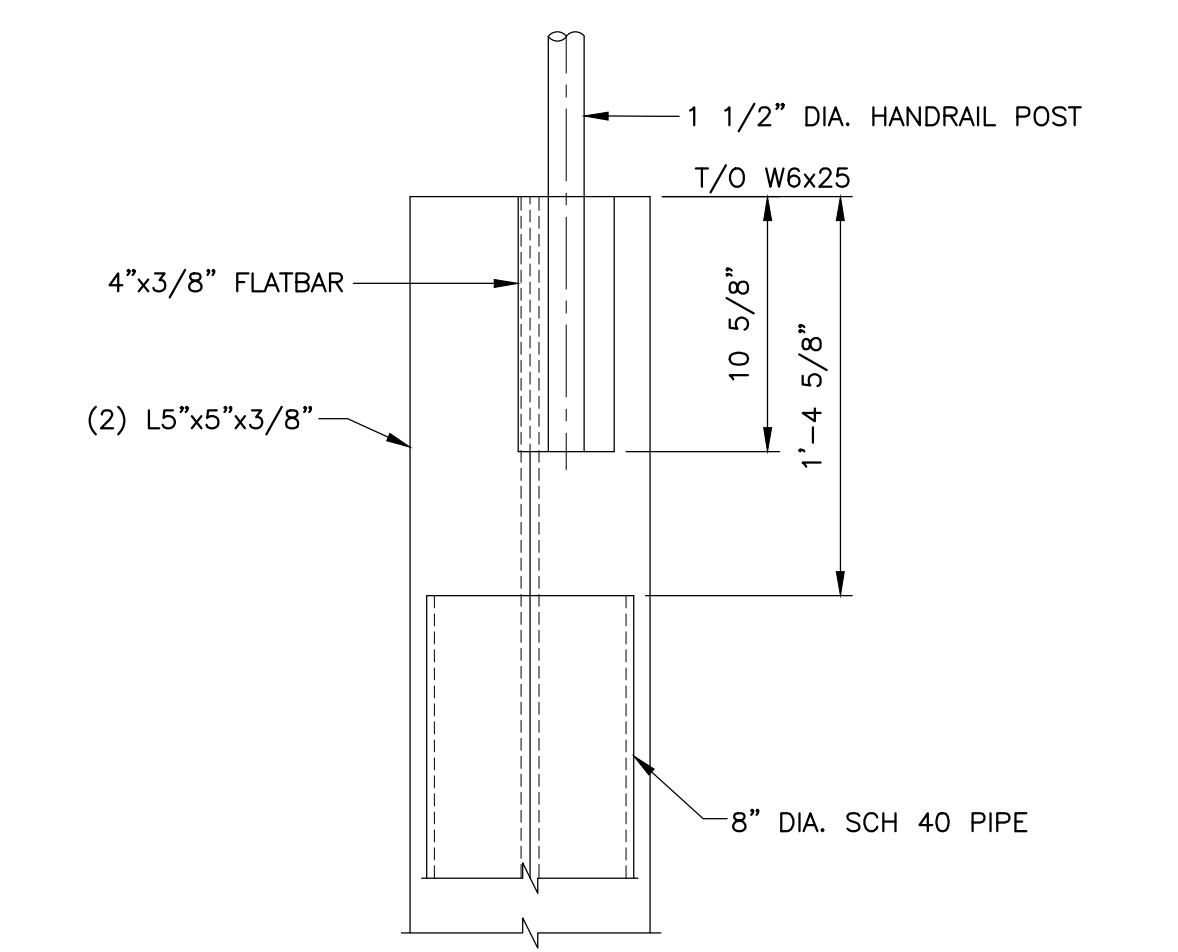
SECTION A
SCALE: 1/2" = 1'-0"



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

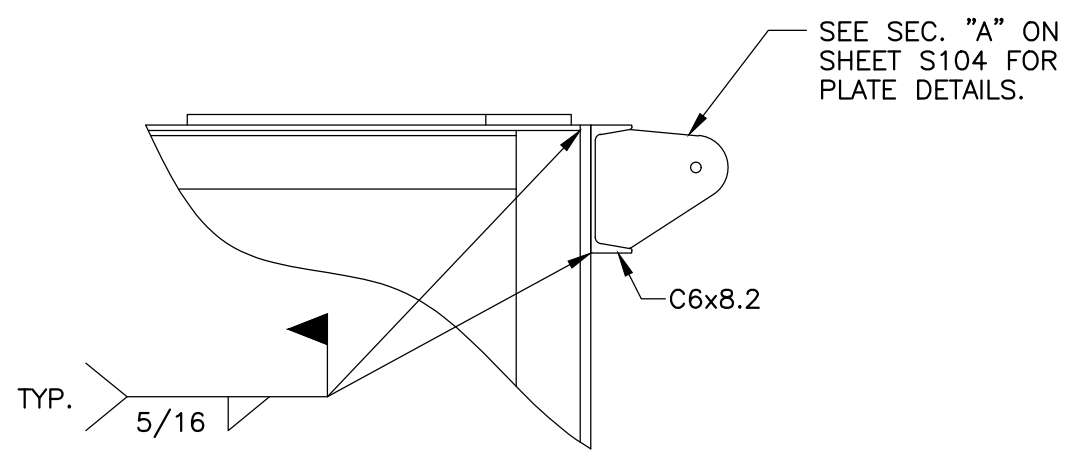


PLAN

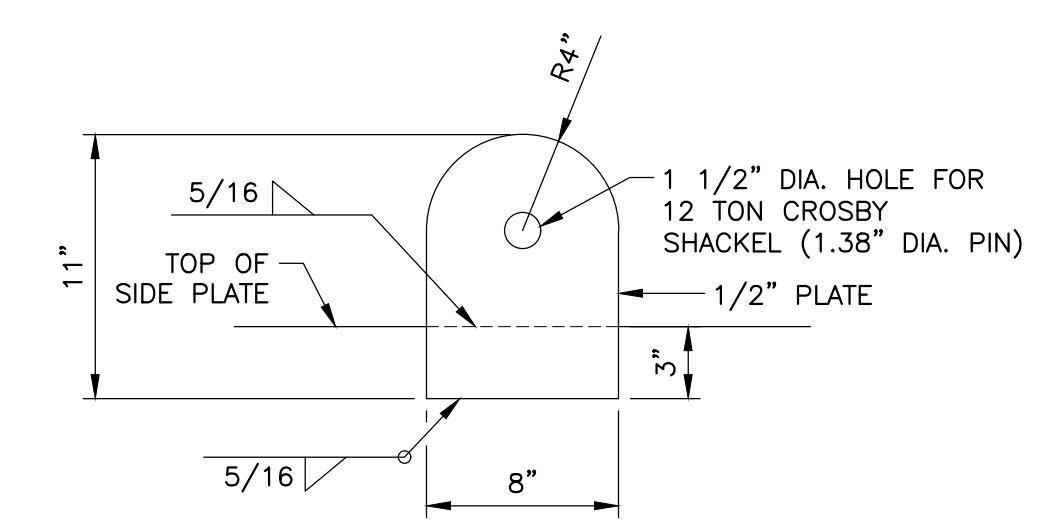


ELEVATION

DETAIL 3
SCALE: 1 1/2" = 1'-0"



DETAIL 1
SCALE: N.T.S.



LIFTING LUG DETAIL 2
SCALE: 1/2" = 1'-0"

0	ISSUE FOR BID	10/18/23	MJW
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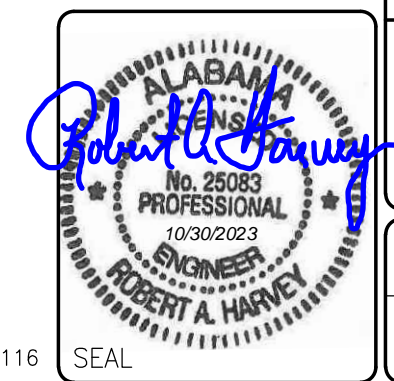
ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA

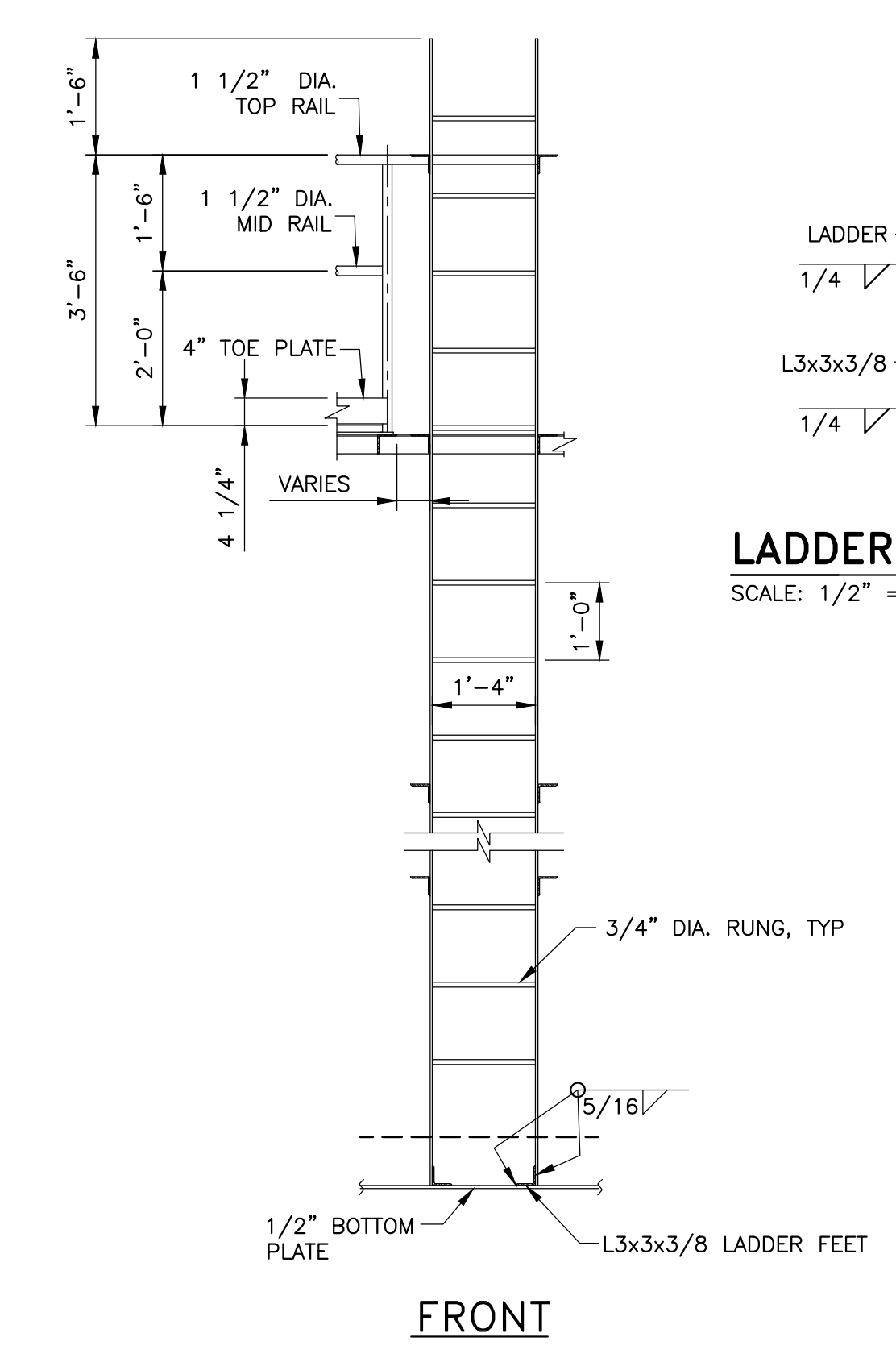
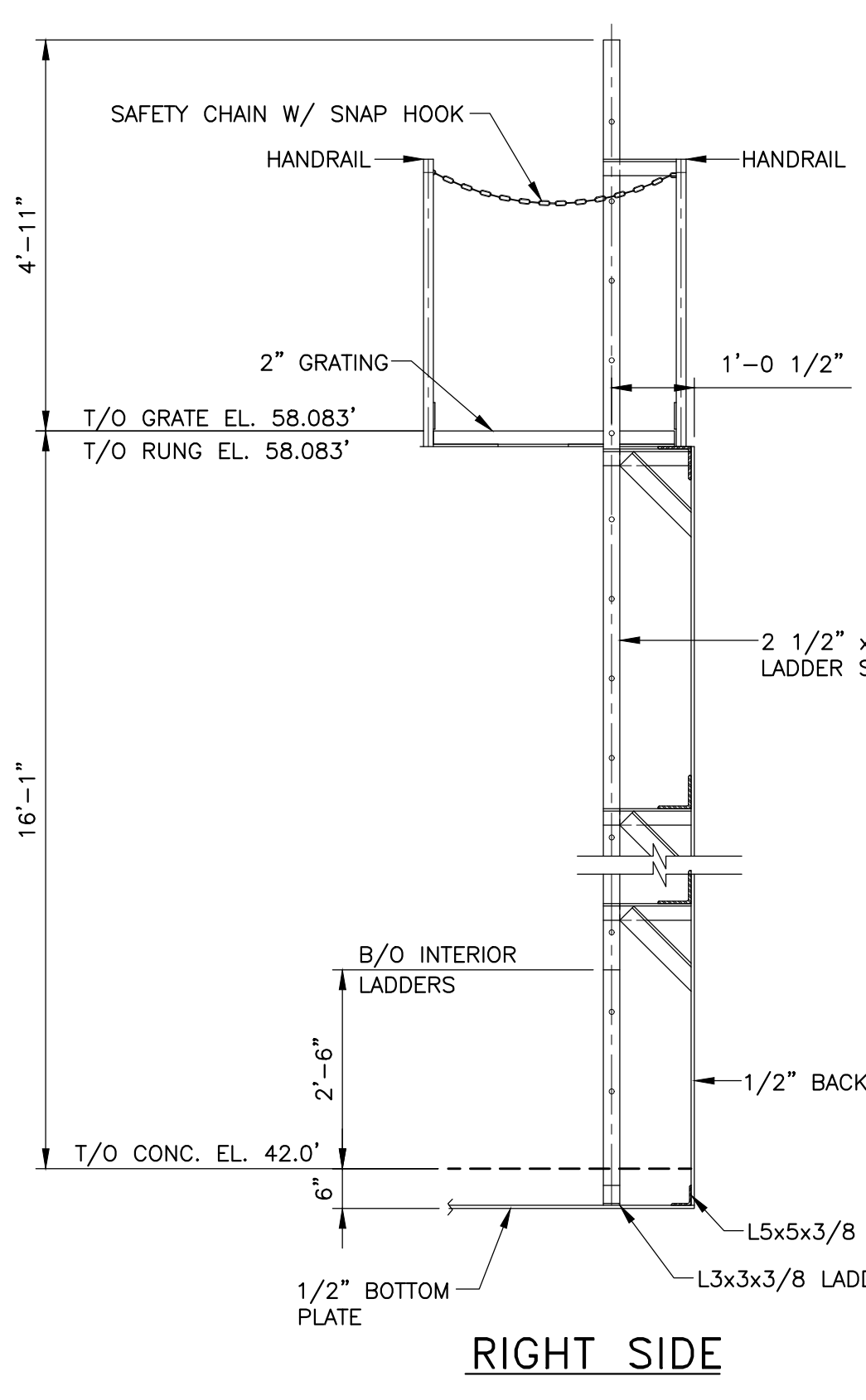
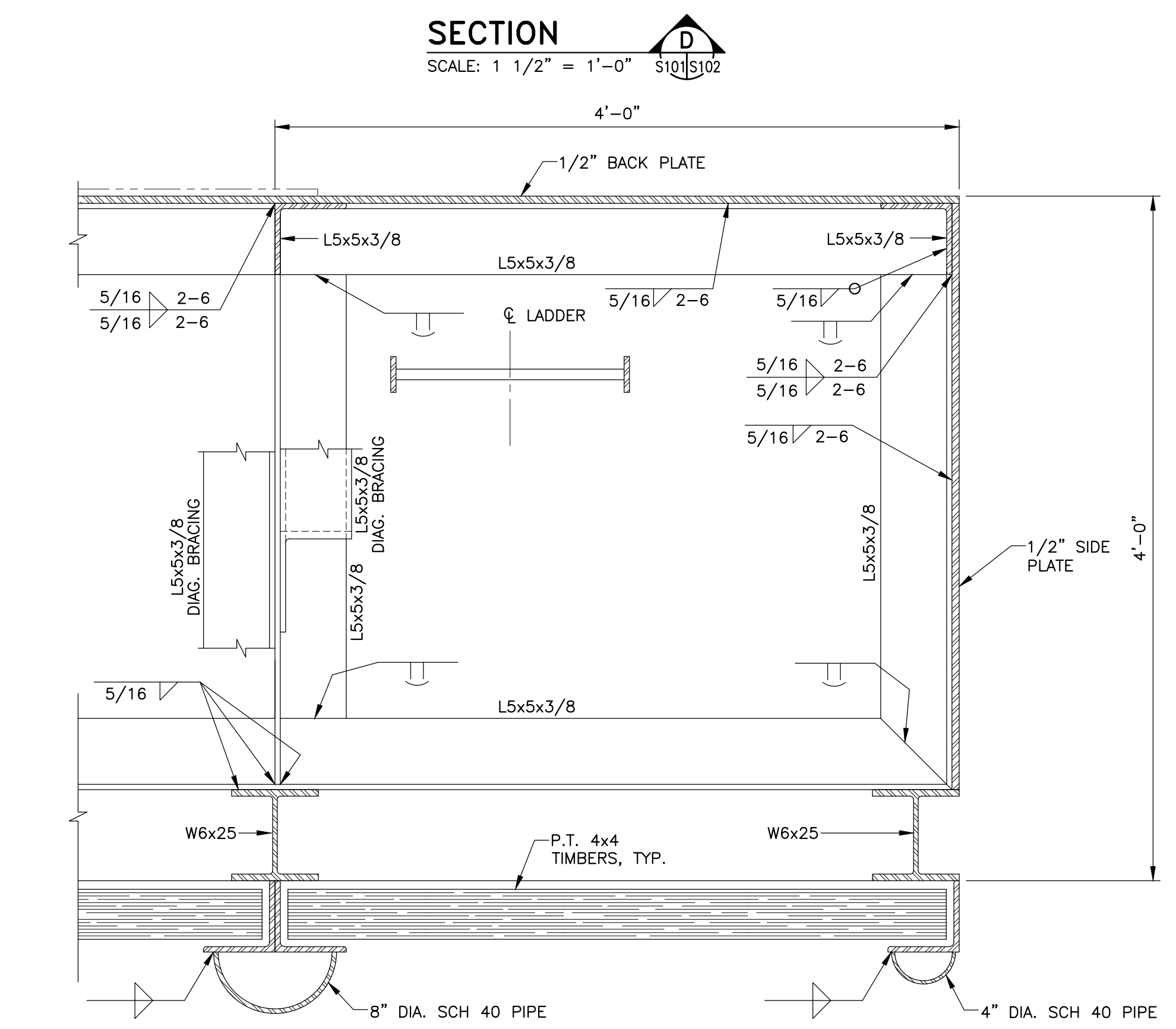
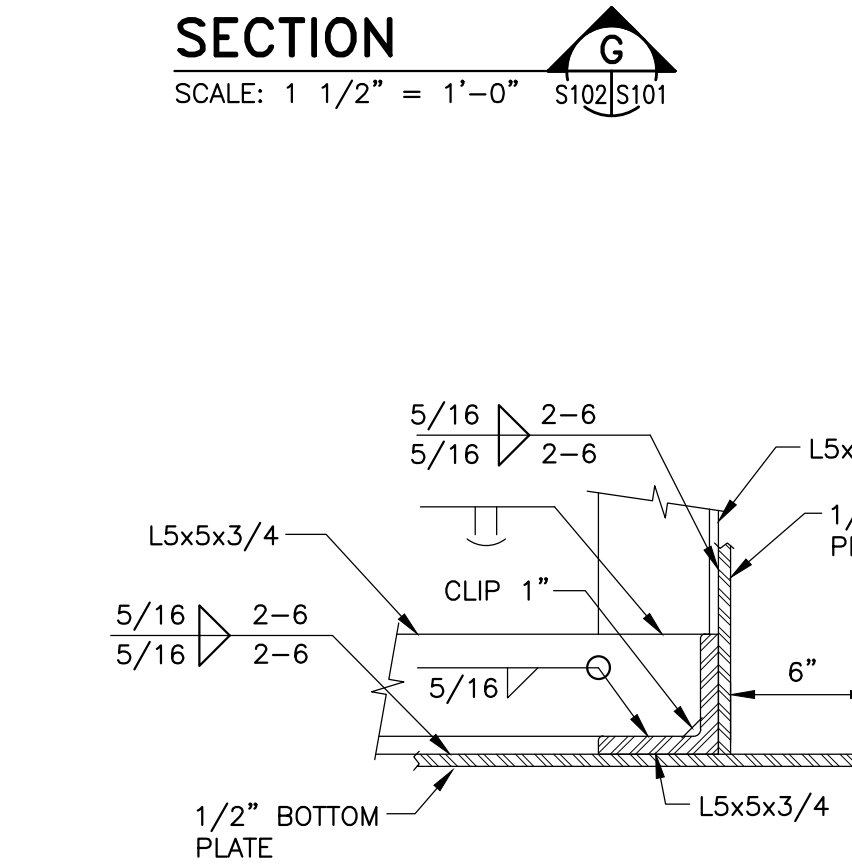
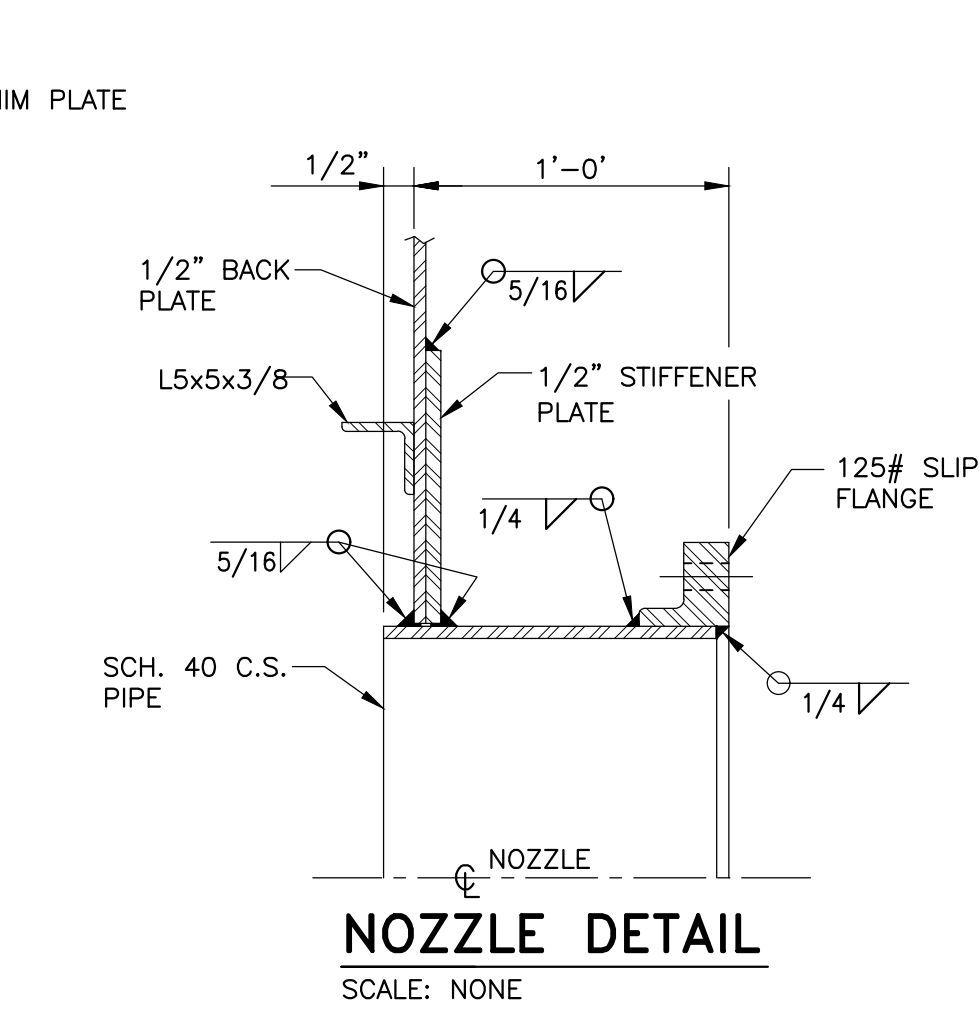
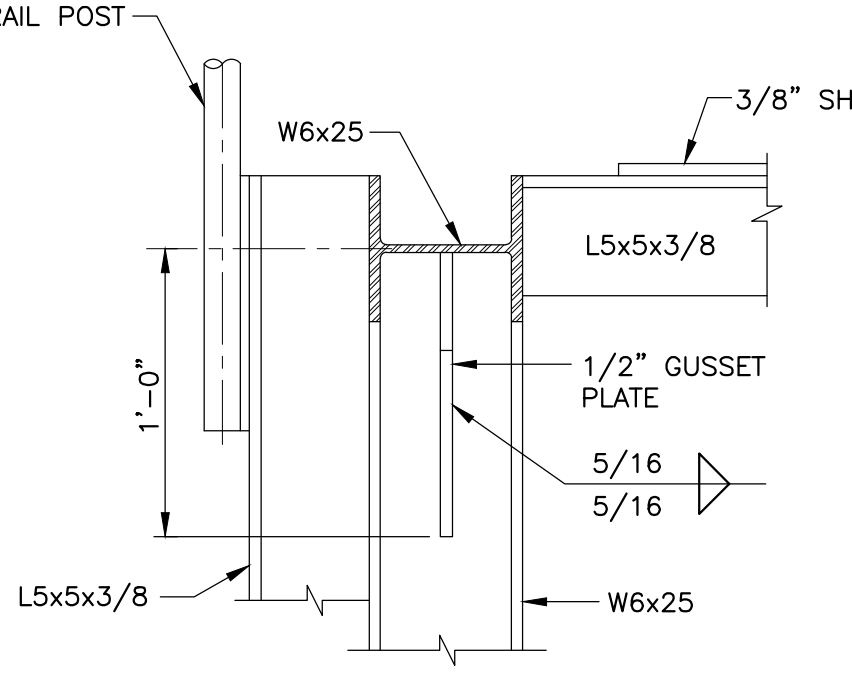
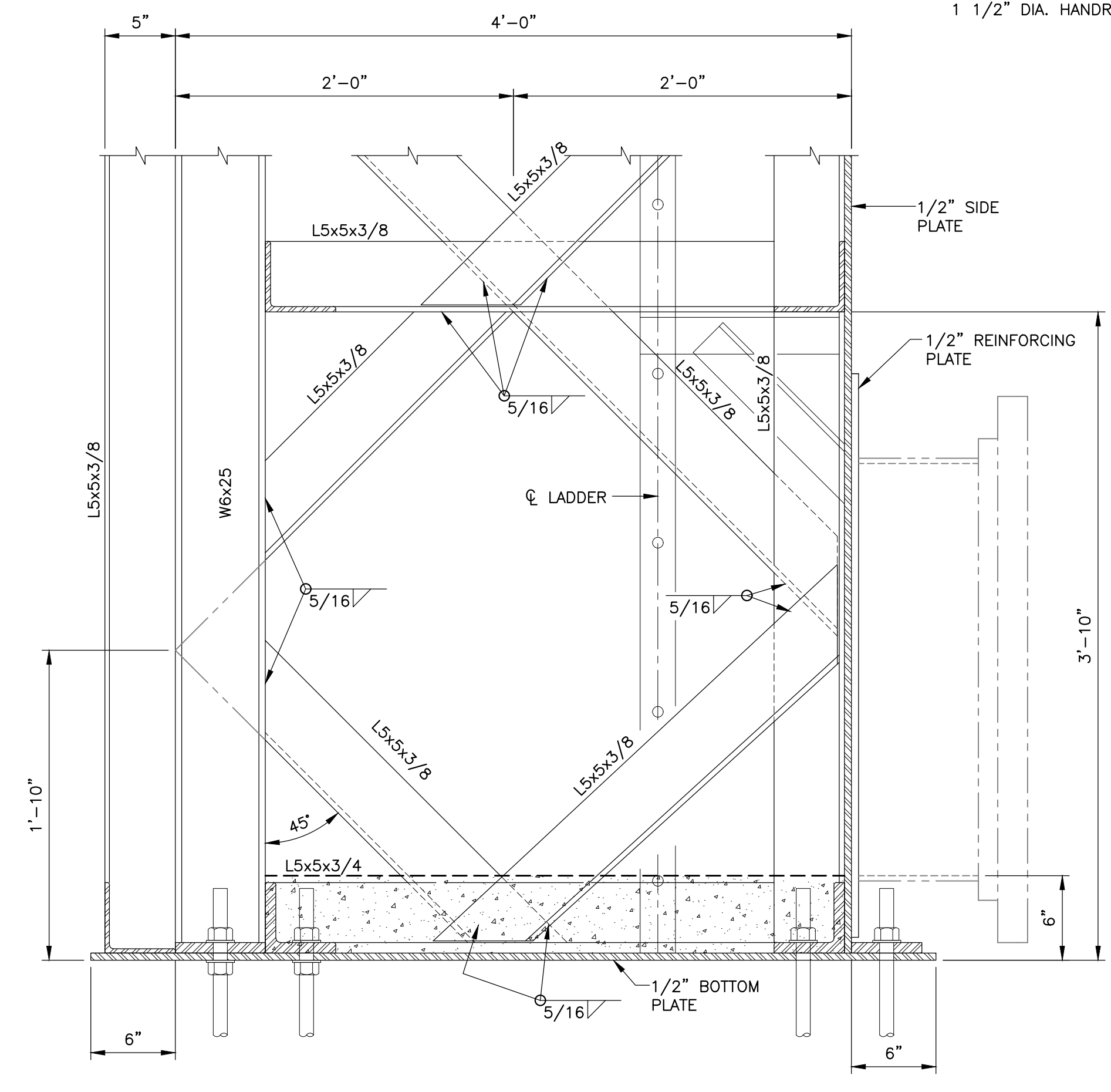
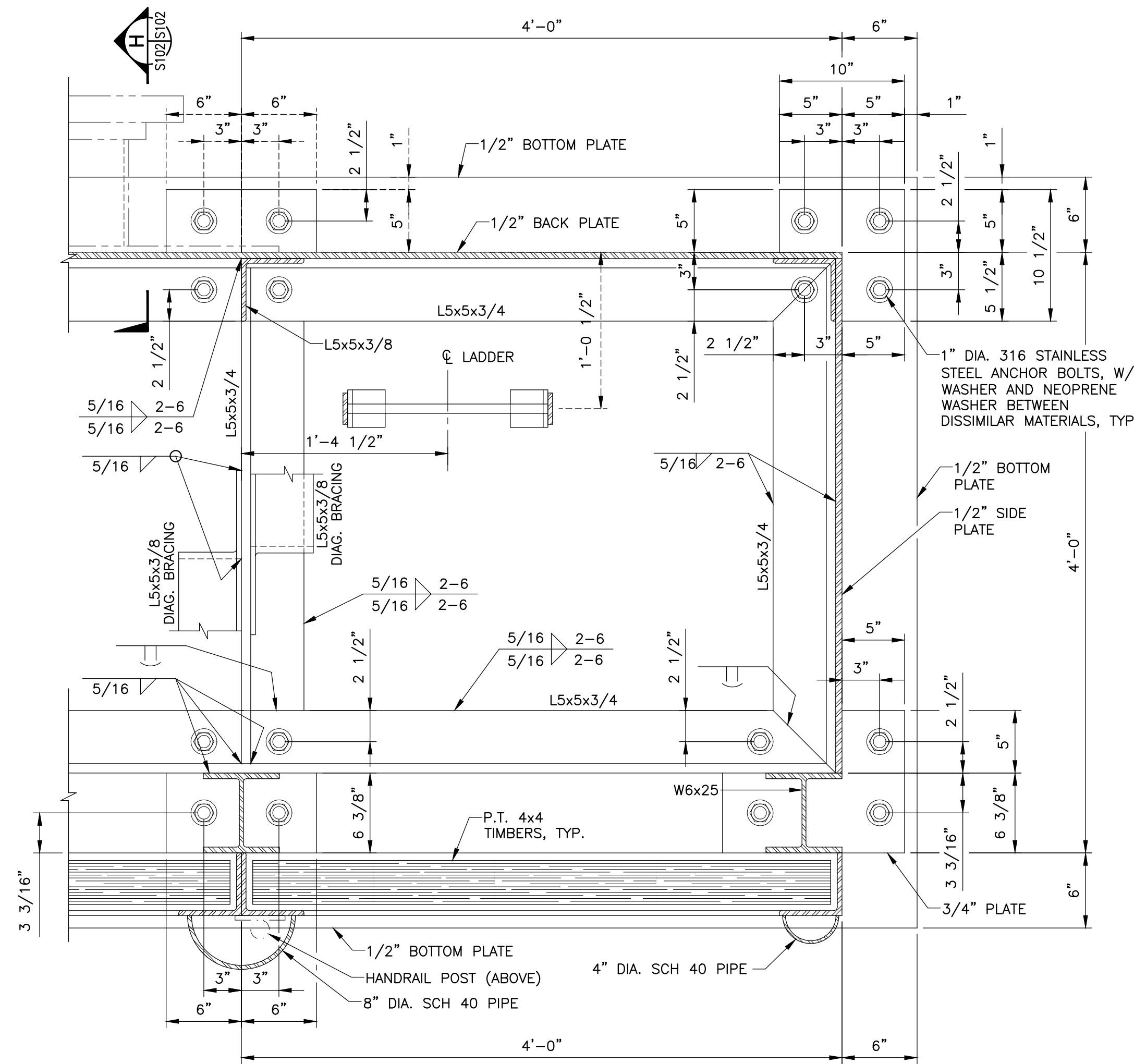
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MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

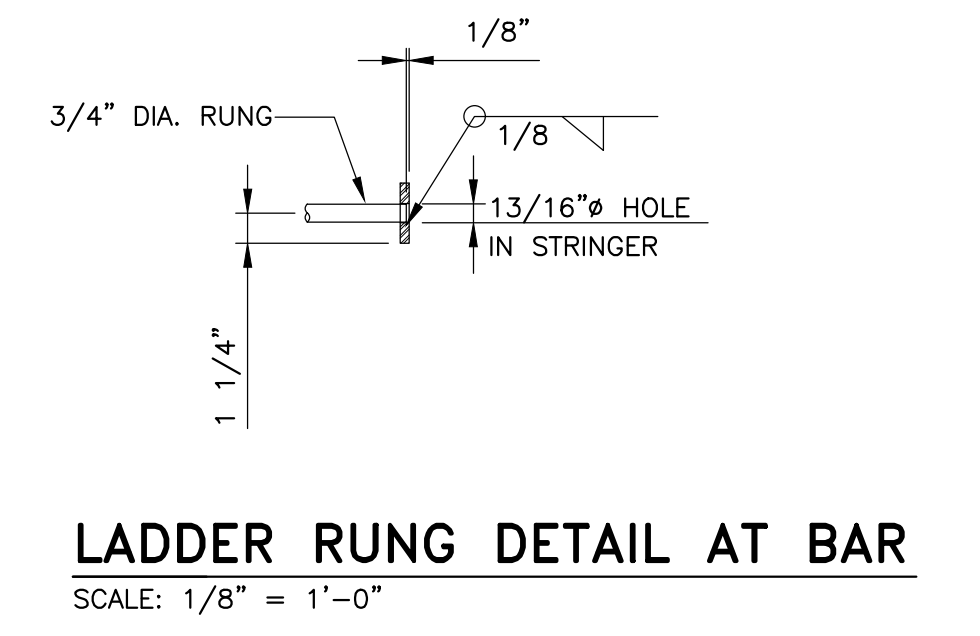
WEIR BOX REPLACEMENT ELEVATIONS, SECTIONS, AND DETAIL

Date: 8/25/23	Designed by: RAH	Drawn by: TPT	ASPA No. 11204	Sheet No. S101	Rev. 0
Clk by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 9 of 13	





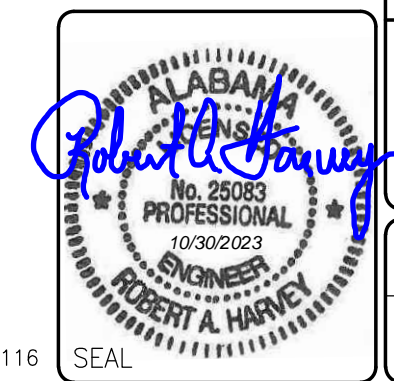
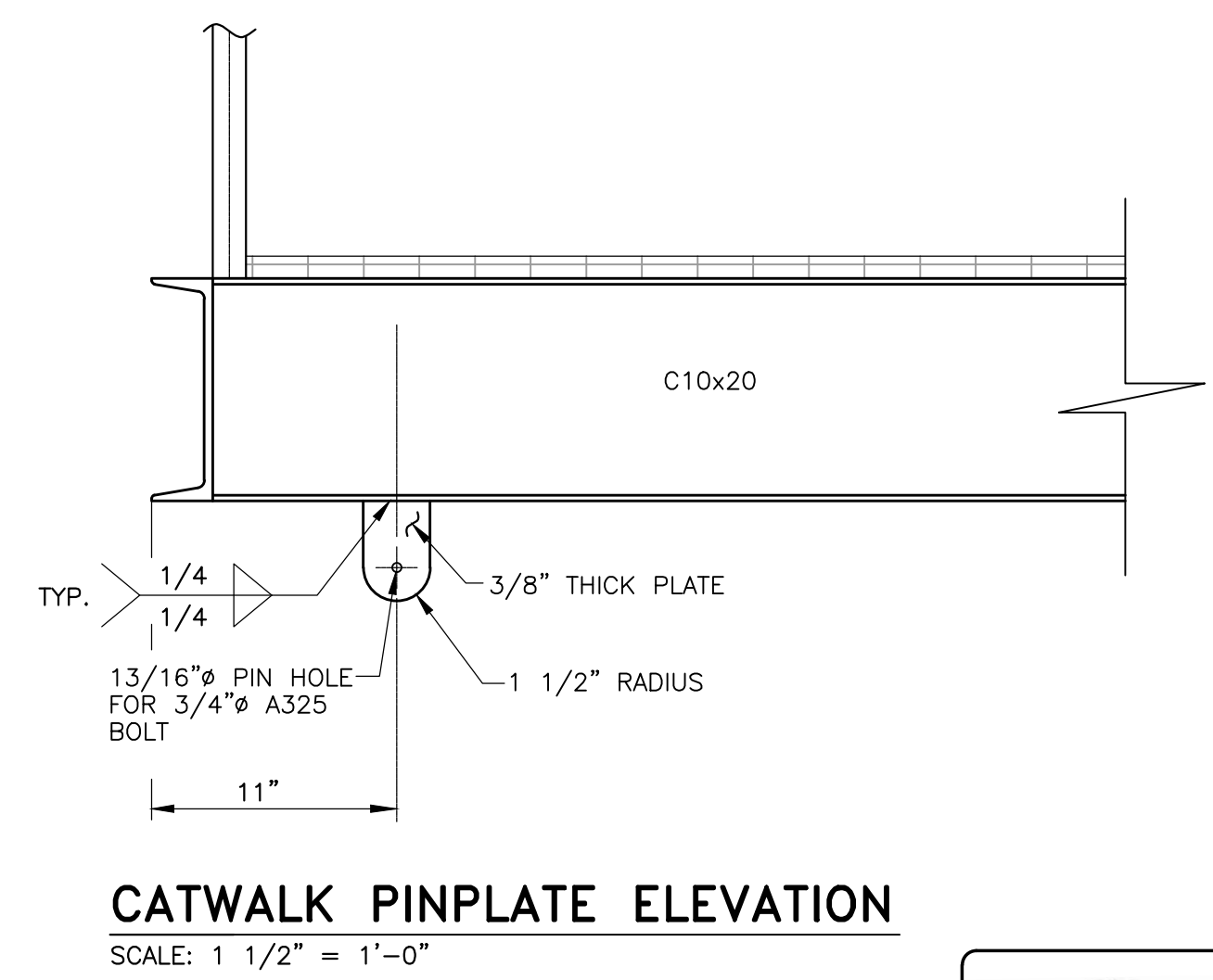
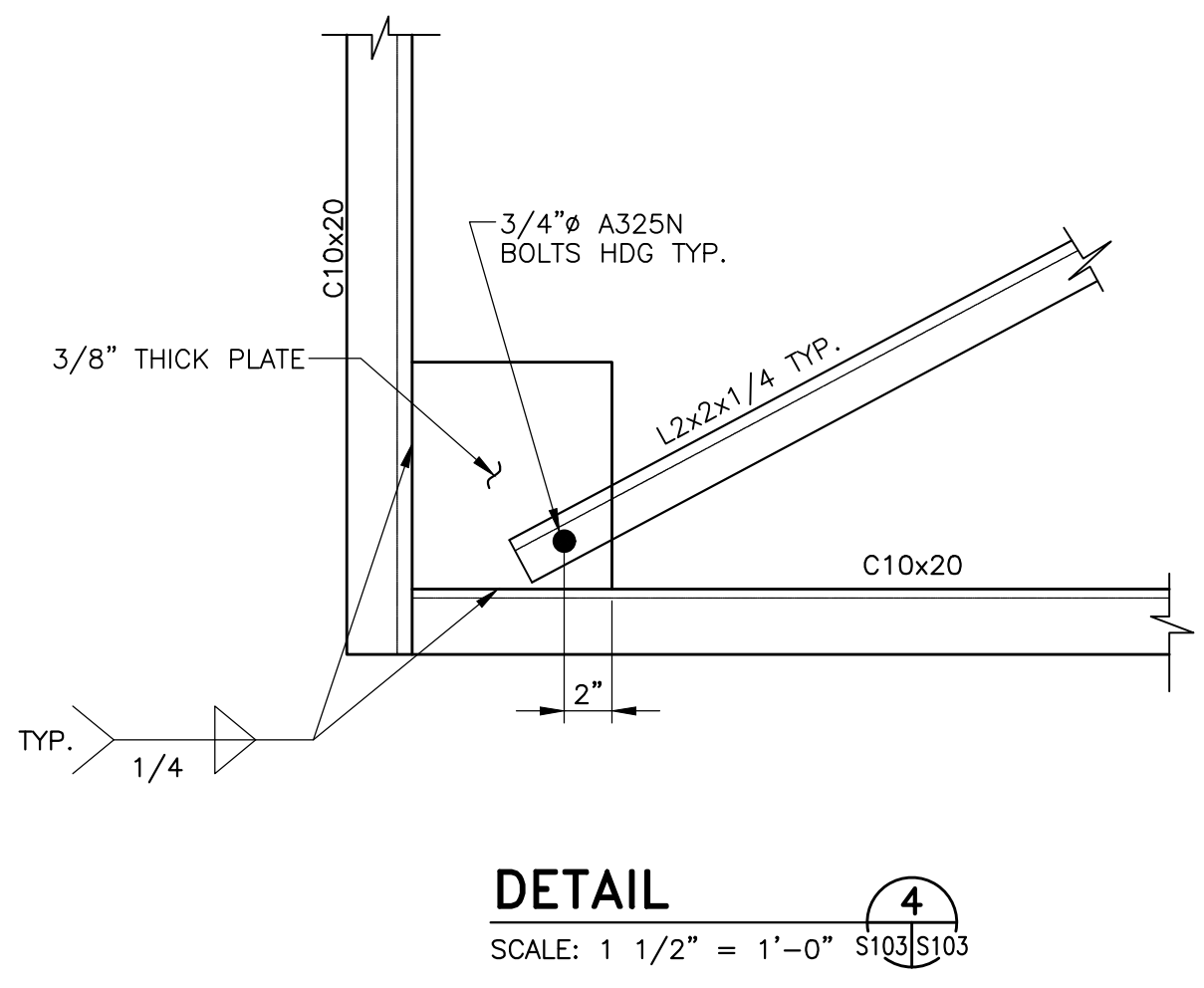
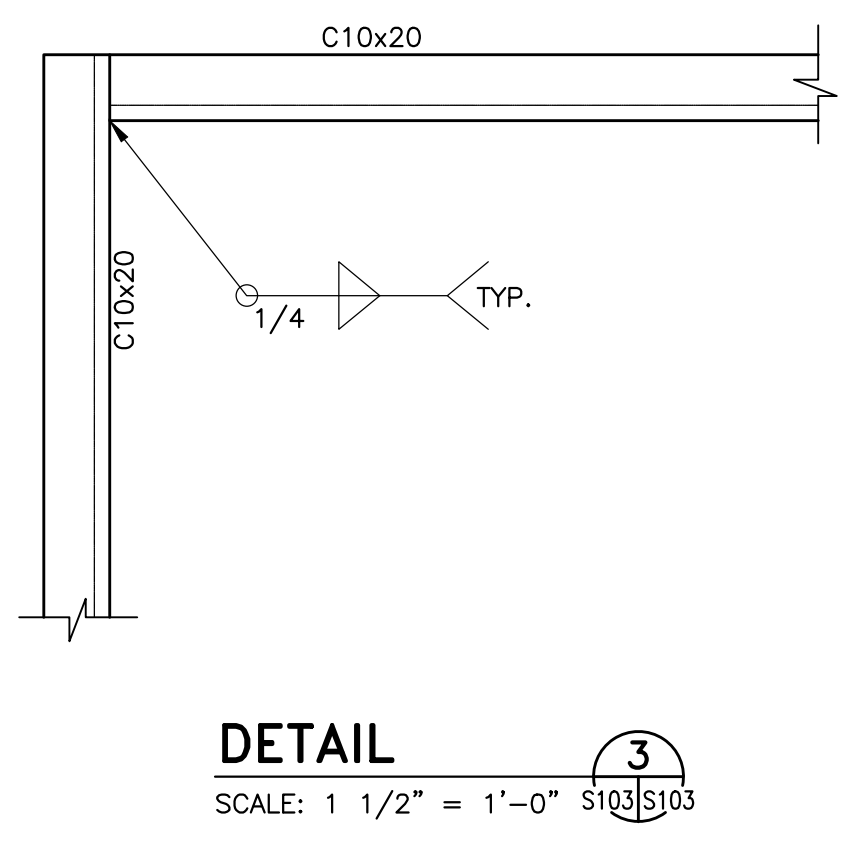
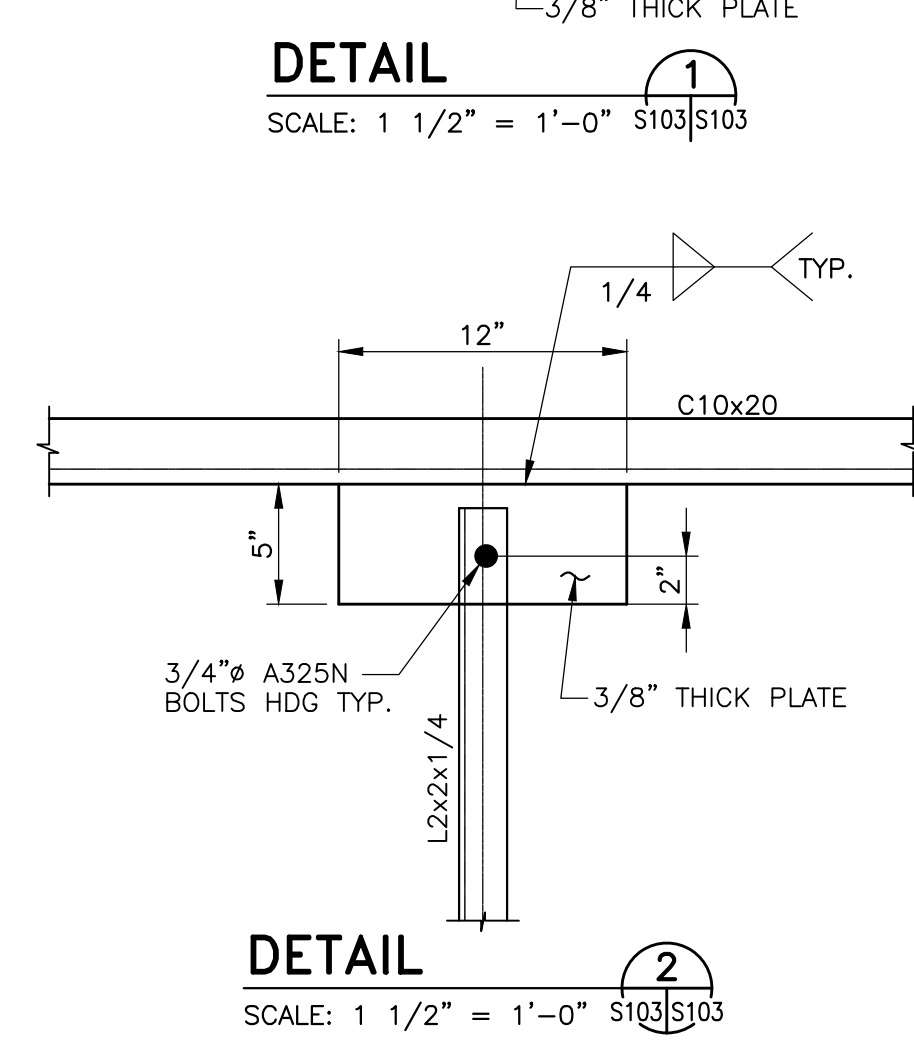
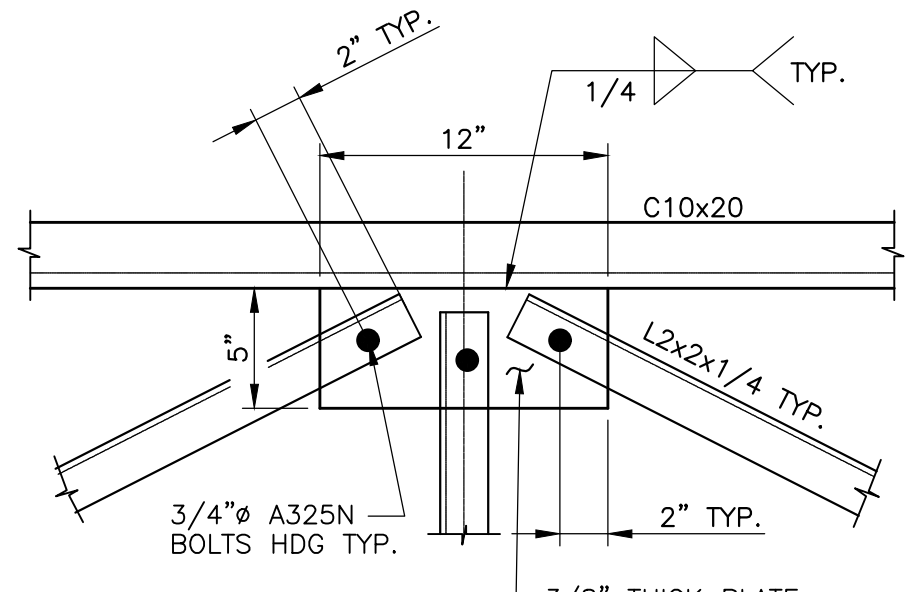
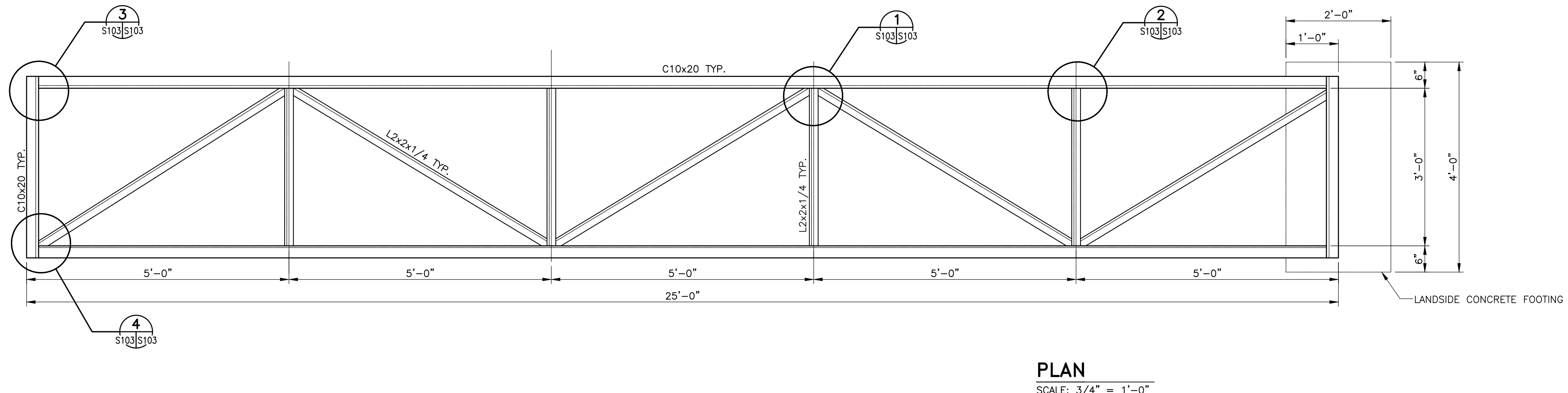
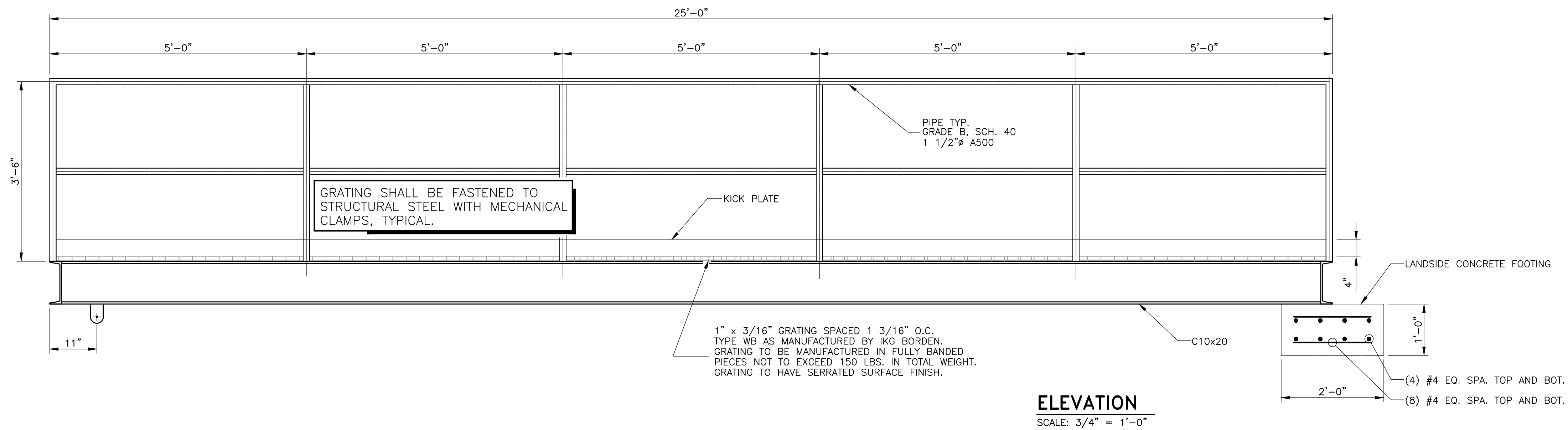
LADDER SUPPORT DETAIL
SCALE: 1/2" = 1'-0"



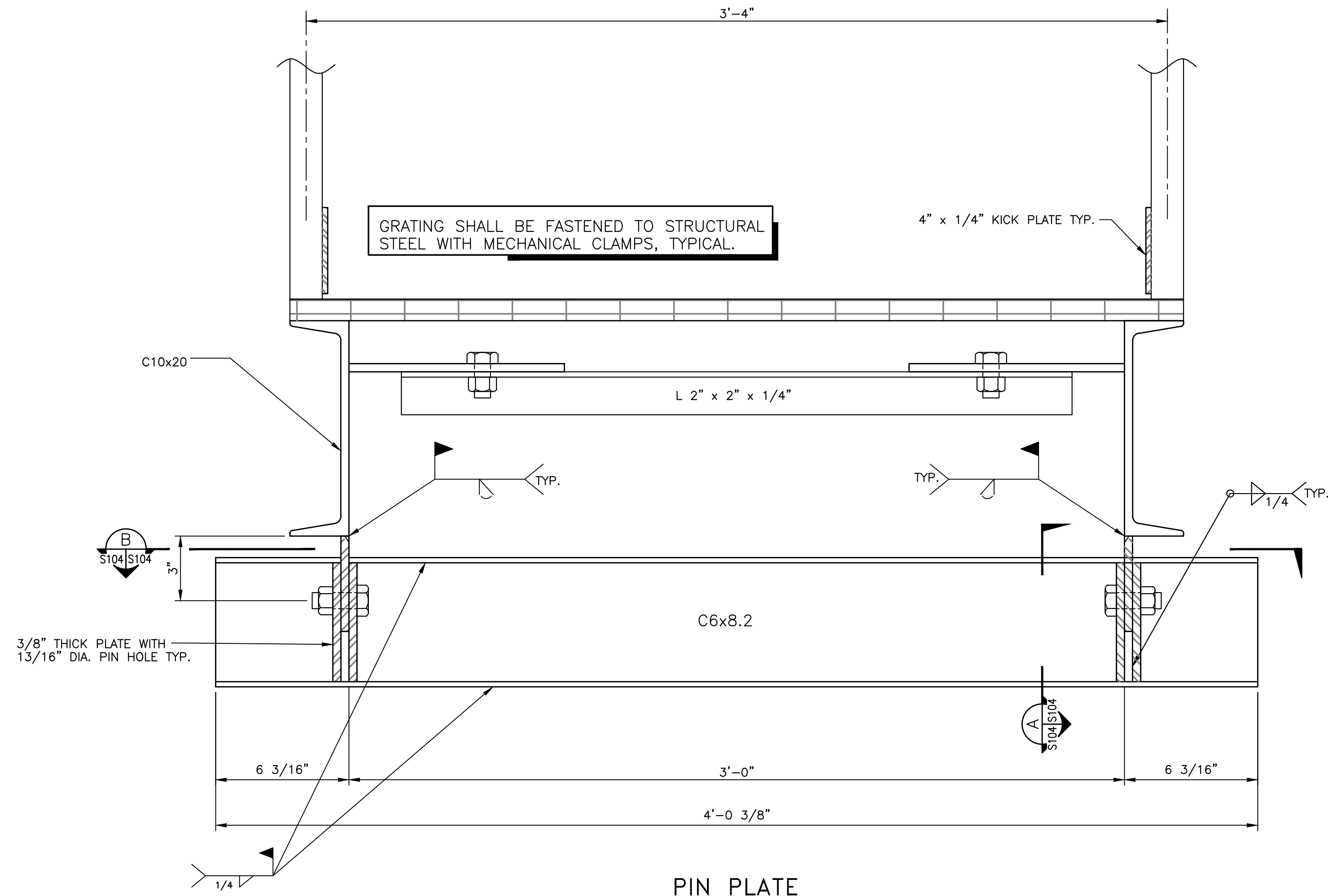
TYPICAL LADDER ELEVATIONS
SCALE: 1/2" = 1'-0"

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 ALABAMA STATE PORT AUTHORITY MOBILE, ALABAMA			
 thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190 MOBILE, ALABAMA 36606 (251)666-2443			
EAST MUD LAKES WEIR BOX REPLACEMENT			
WEIR BOX REPLACEMENT SECTIONS AND DETAILS			
Date: 8/25/23	Designed by: RAH	Drawn by: TPT	ASPA No. 11204
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1
Sheet No. S102			Rev. 0
Drawing 10 of 13			

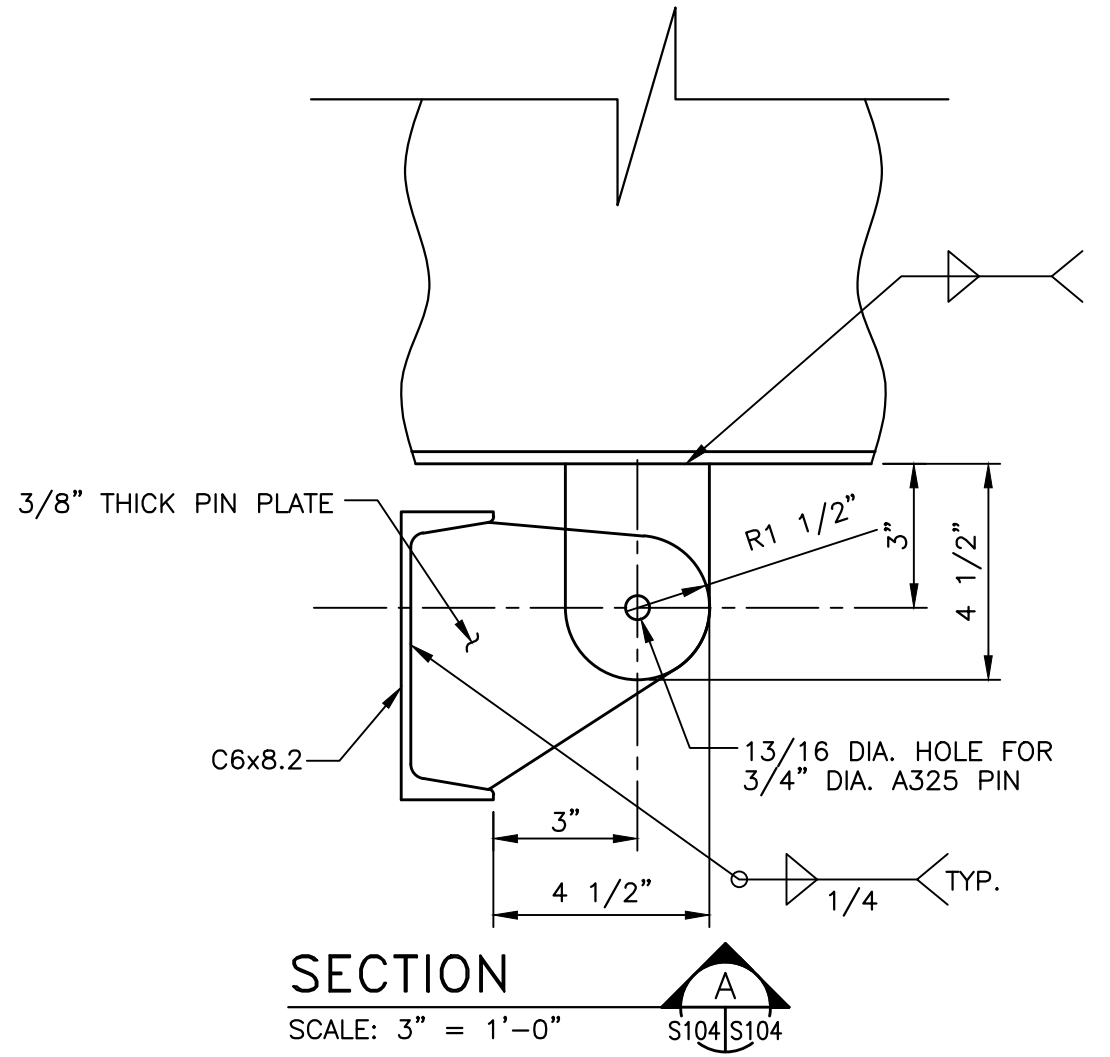
THOMPSON NO.: 23-1101-0116



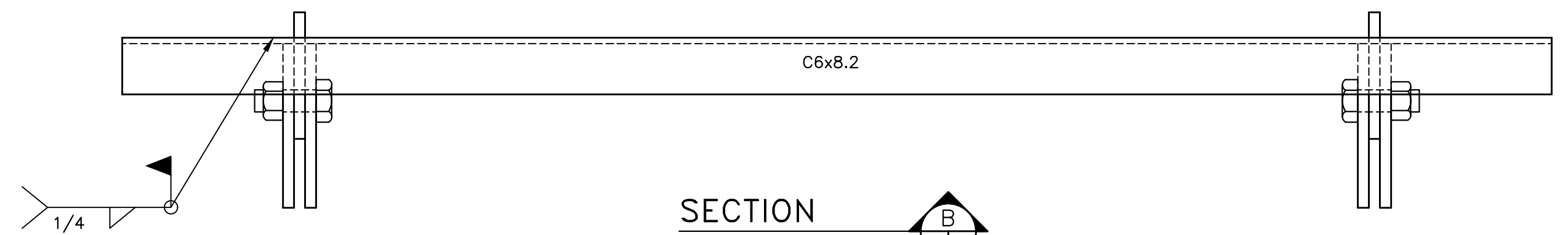
0	ISSUE FOR BID	10/18/23	MJW
Mark	Description	Date	Appr.
 ALABAMA STATE PORT AUTHORITY MOBILE, ALABAMA			
 thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190 MOBILE, ALABAMA 36606 (251)666-2443			
EAST MUD LAKES WEIR BOX REPLACEMENT			
WEIR BOX REPLACEMENT ACCESS RAMP PLAN, SECTIONS AND DETAILS			
Date:	Designed by:	Drawn by:	ASPA No.:
8/25/23	RAH	TPT	11204
Ckd by:	Reviewed by:	Submitted by:	Plot scale:
RAH	MJW	MJW	
Sheet No.	Rev.		
S103	0		
Drawing 11 of 13			



PIN PLATE
SCALE: 3" = 1'-0"



SECTION
SCALE: 3" = 1'-0"

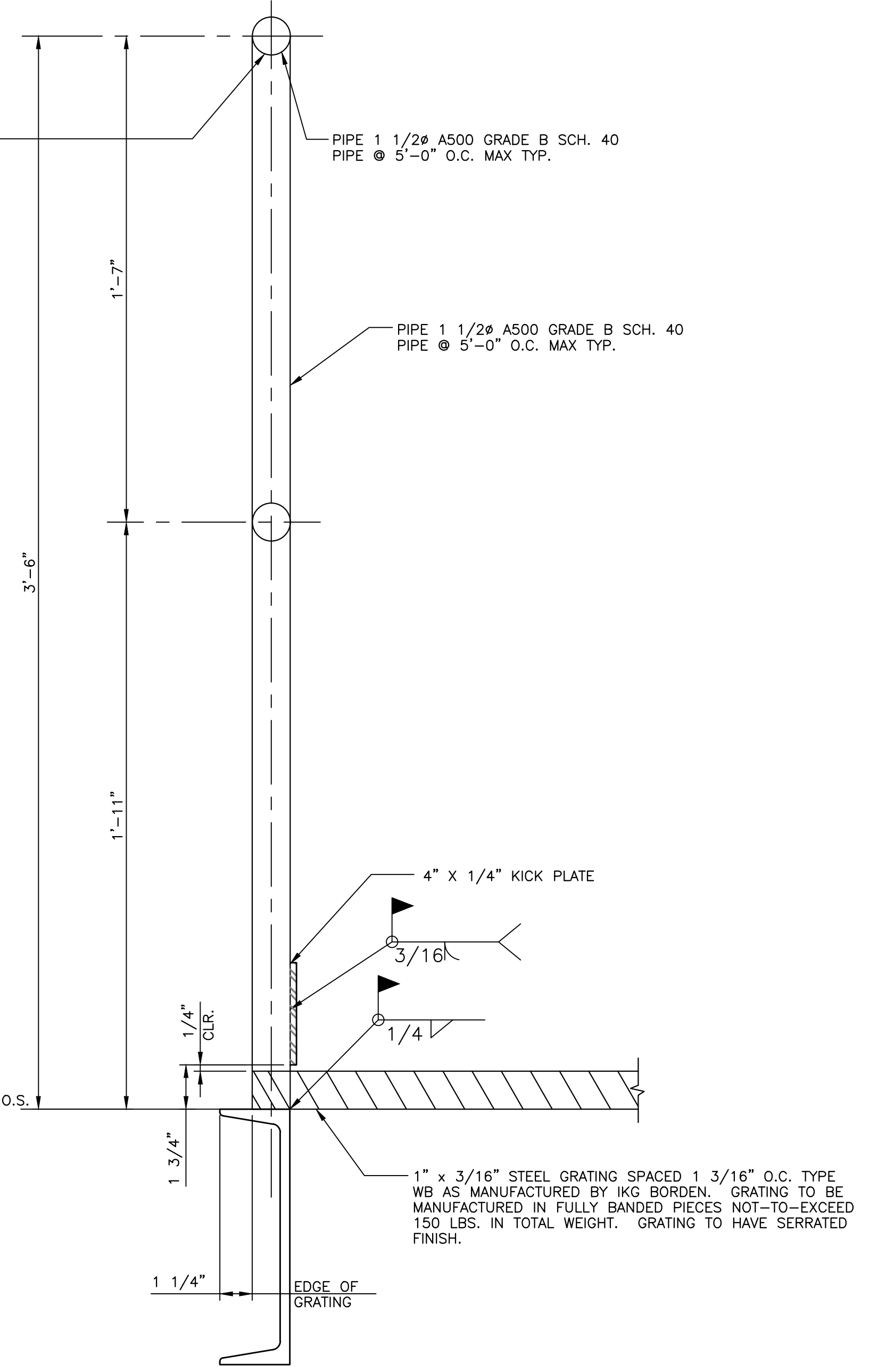


SECTION
SCALE: 3" = 1'-0"

GENERAL NOTES FOR STANDARD HANDRAIL

1. ALL STEEL SHALL BE DESIGNED, FABRICATED & ERECTED IN ACCORDANCE WITH THE LATEST CODES AND SPECIFICATIONS OF THE AISC AND LOCAL CODES.
2. ALL STEEL SHALL BE ASTM A36 UNLESS NOTED.
3. HANDRAILS AND POSTS SHALL BE 1 1/2" STANDARD BLACK PIPE, WITH POSTS AT FIVE FOOT MAXIMUM SPACING.
4. KICKPLATE SHALL BE 1/4" X 4" PLATE.
5. GRATING SHALL BE STANDARD RECTANGULAR PATTERN GRATING TREADS WITH SIZE AS SHOWN ON DRAWING.
6. ALL STRUCTURAL AND MISCELLANEOUS ITEMS SHALL CONFORM TO THE REQUIREMENTS OF THE RULES AND REGULATIONS OF OSHA.

ALL WELDS, BURRS AND SHARP EDGES ARE TO BE GROUND SMOOTH.



STANDARD HANDRAIL
SCALE: 3" = 1'-0"

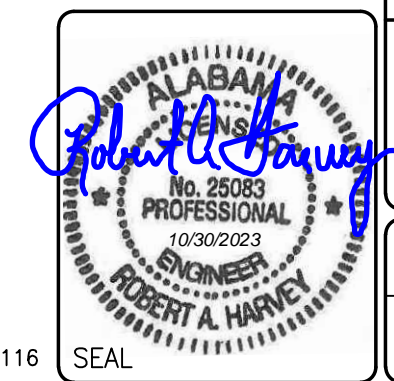
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0	ISSUE FOR BID	10/18/23	MJW	

ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA

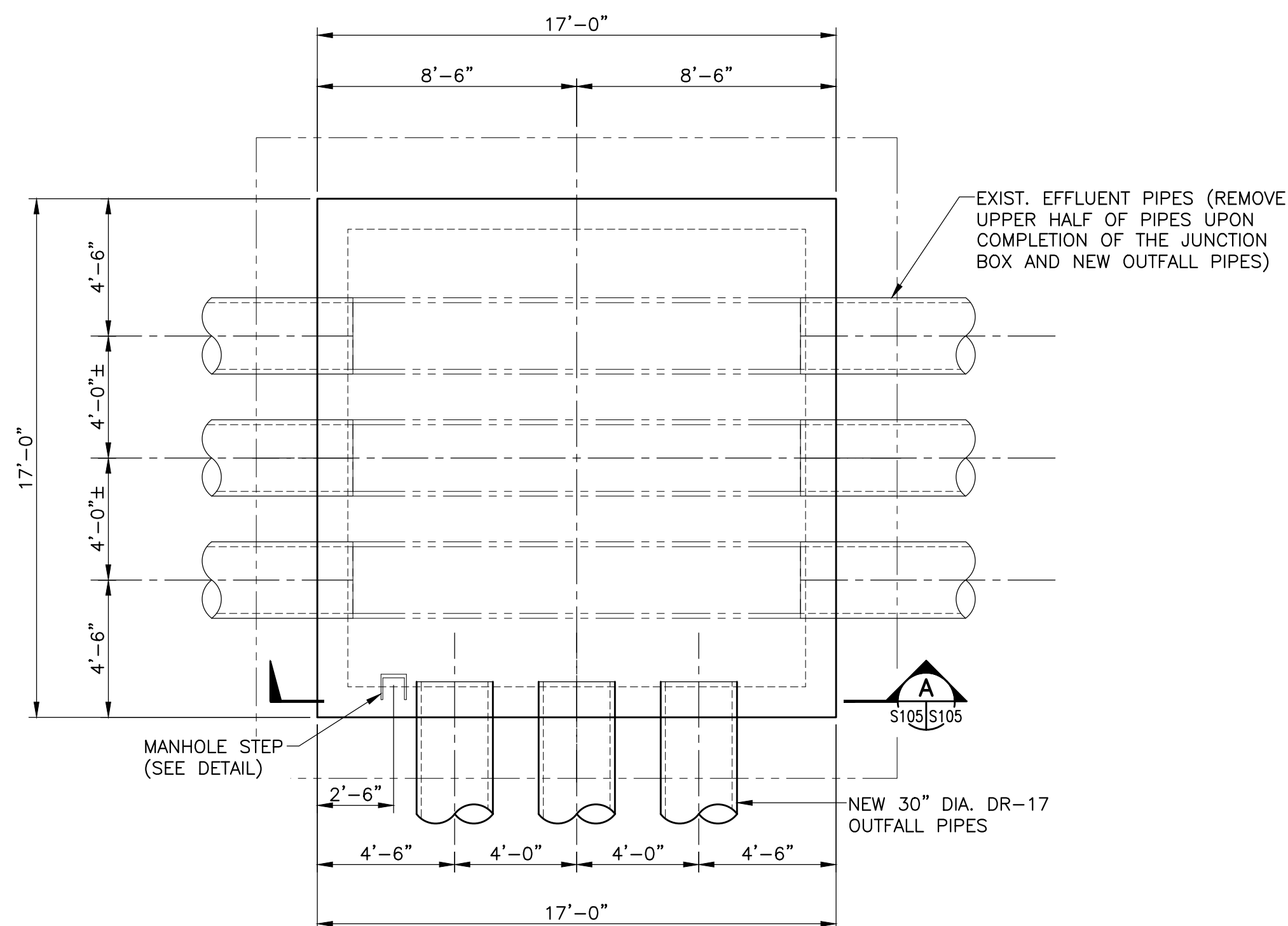
2970 COTTAGE HILL ROAD, SUITE 190
MOBILE, ALABAMA 36606
(251)666-2443

EAST MUD LAKES WEIR BOX REPLACEMENT

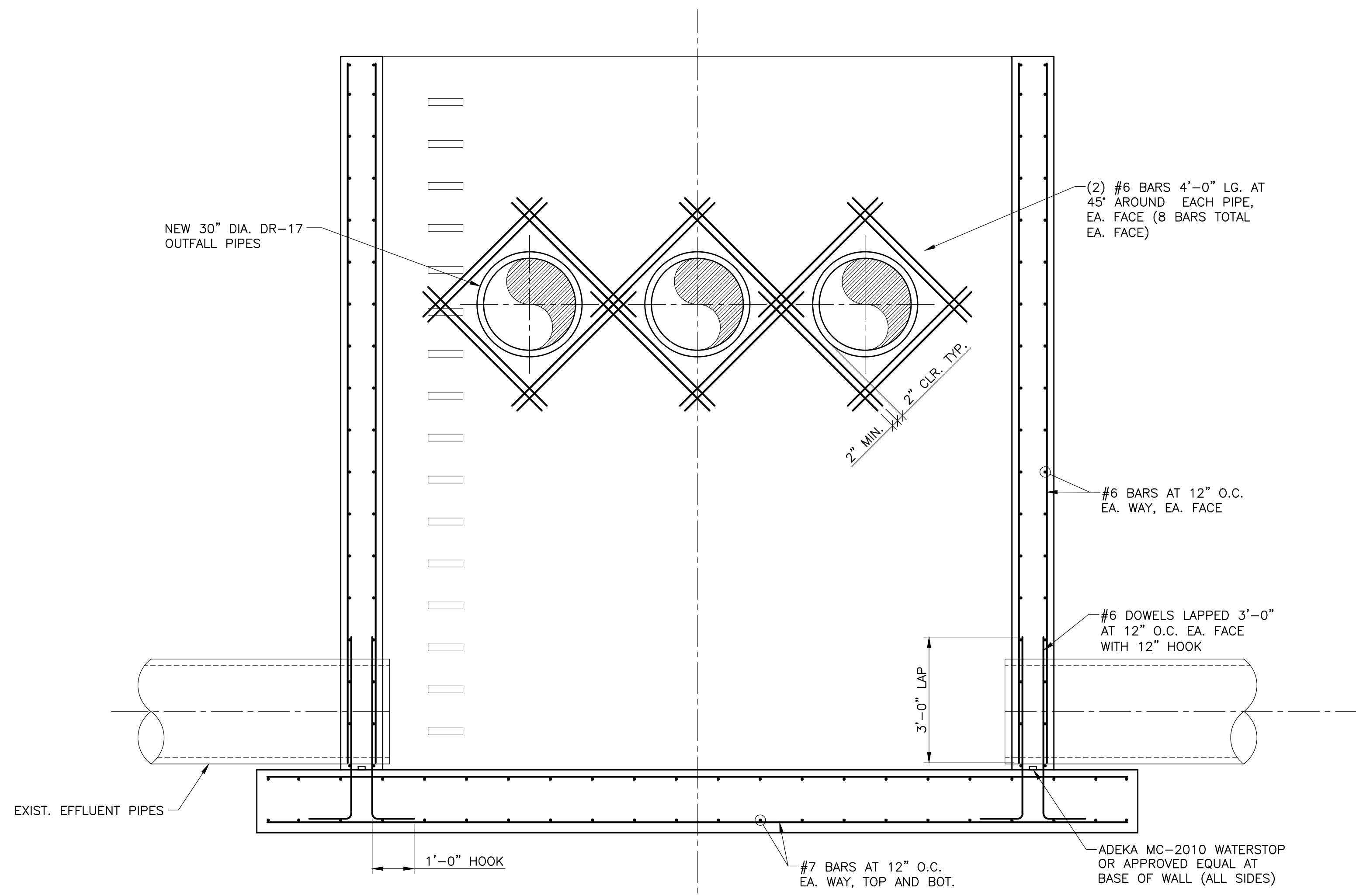
**WEIR BOX REPLACEMENT
ACCESS RAMP
SECTIONS AND DETAILS**



Date: 8/25/23	Designed by: RAH	Drawn by: TPT	ASPA No. 11204	Sheet No. S104	Rev. 0
Ckd by: RAH	Reviewed by: MJW	Submitted by: MJW	Plot scale: 1:1	Drawing 12 of 13	

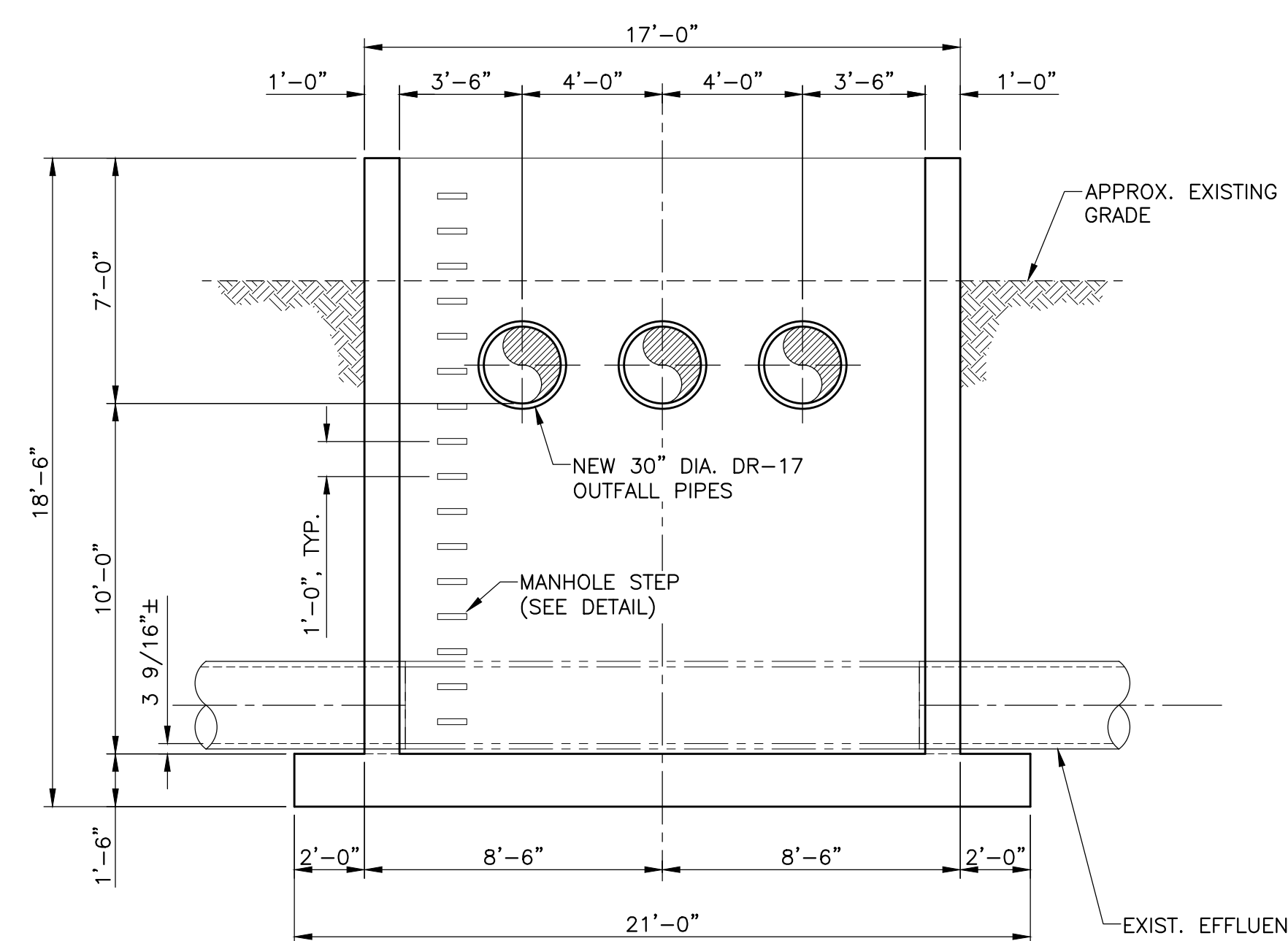


PLAN

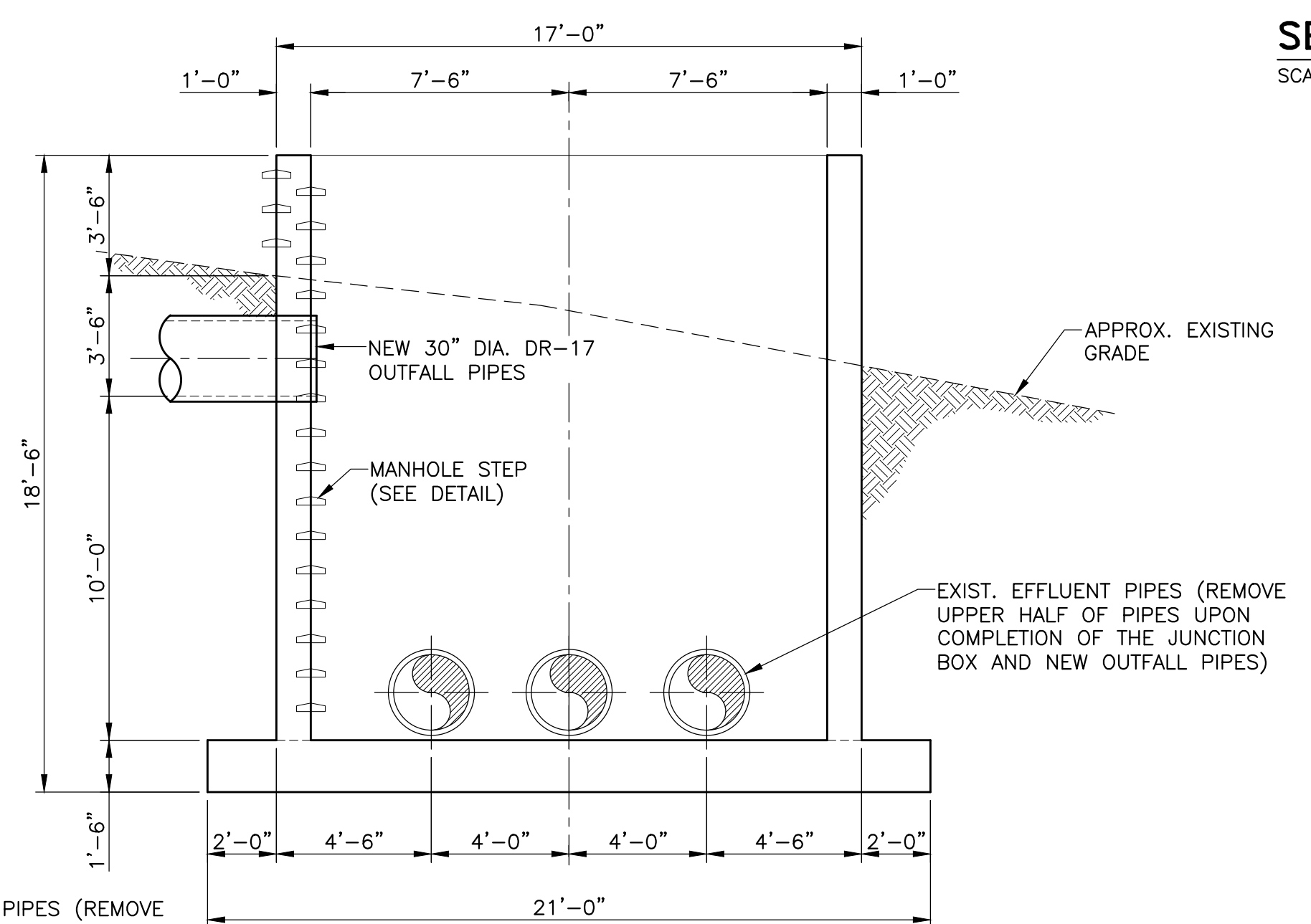


SECTION

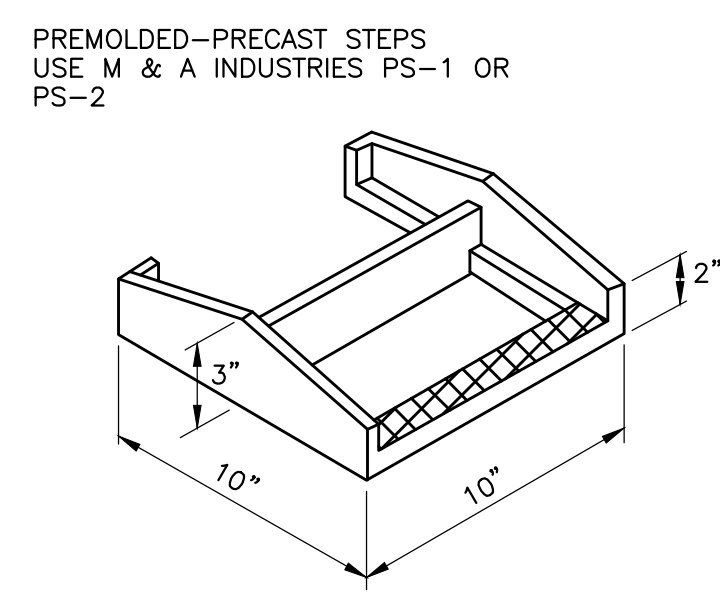
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SOUTH ELEVATION



EAST ELEVATION

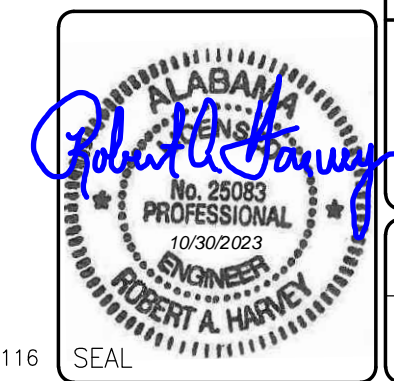


MANHOLE STEP DETAIL

SCALE: N.T.S.

JUNCTION BOX DETAIL

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



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thompson ENGINEERING 2970 COTTAGE HILL ROAD, SUITE 190 MOBILE, ALABAMA 36606 (251) 666-2443			
EAST MUD LAKES WEIR BOX REPLACEMENT			
JUNCTION BOX PLAN, SECTIONS, AND DETAILS			
Date:	Designed by:	Drawn by:	ASPA No.
8/25/23	RAH	TPT	11204
Sheet No.	Rev.		
S105	0		
Ckd by:	Reviewed by:	Submitted by:	Plot scale:
RAH	MJW	MJW	1:1
			Drawing 13 of 13