



ALABAMA PORT AUTHORITY PORT OF MOBILE

TRR RAIL PIT EXPANSION MOBILE, ALABAMA

DRAWING SCHEDULE:

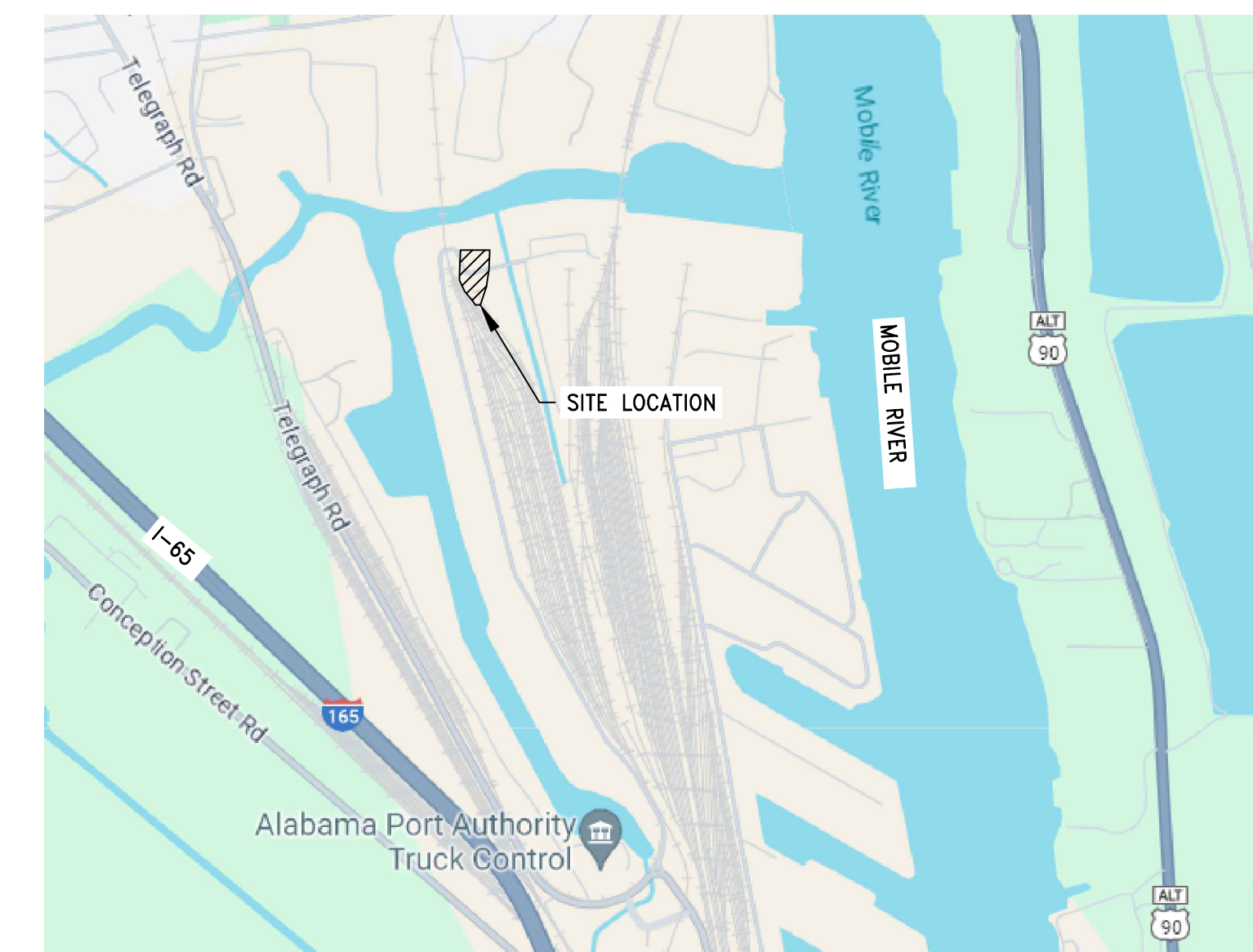
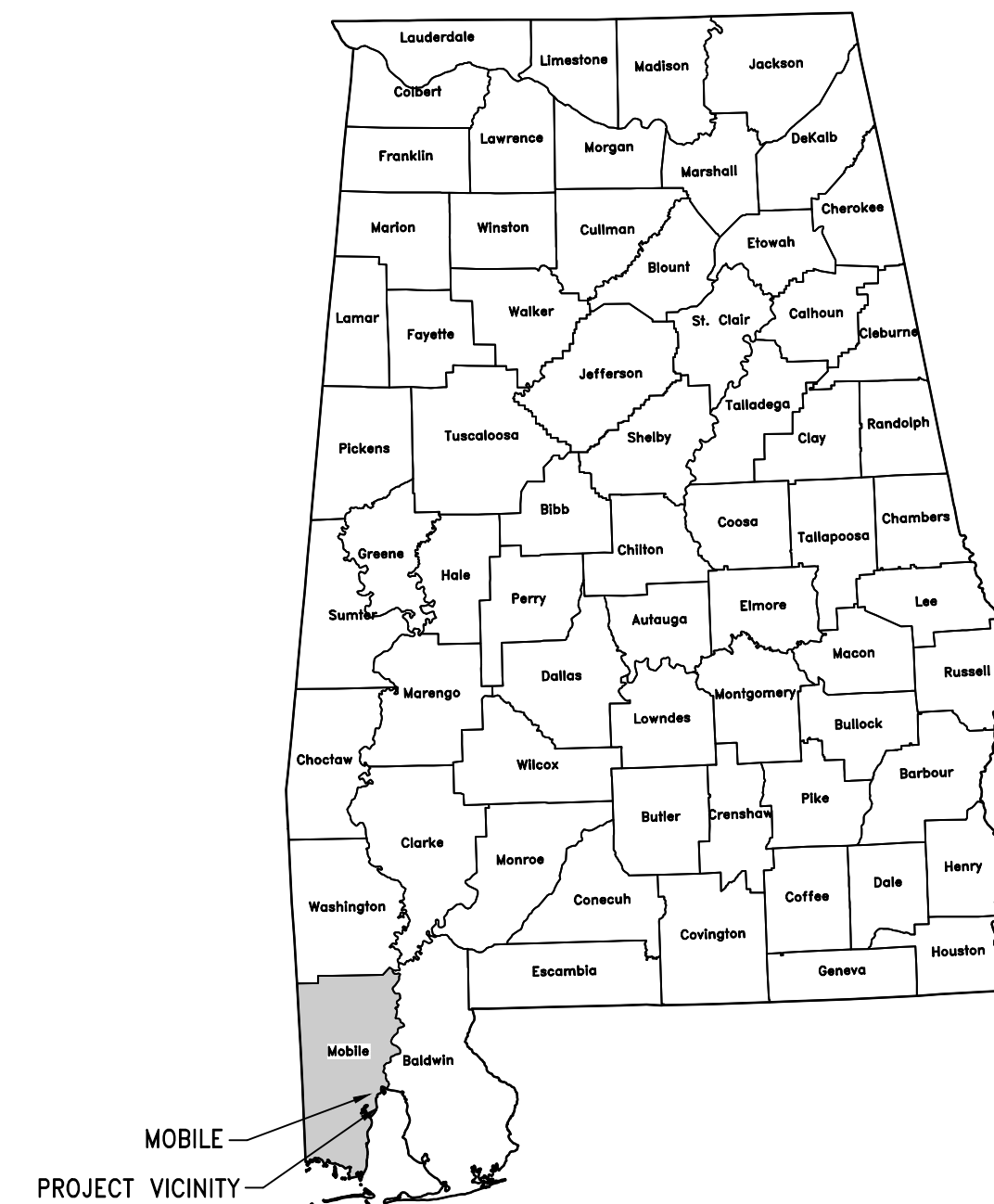
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- REF. DRAWING: 24-046A
WHITING HYDRAULICS DJ-413-01
WHITING HYDRAULICS DJ-412-2

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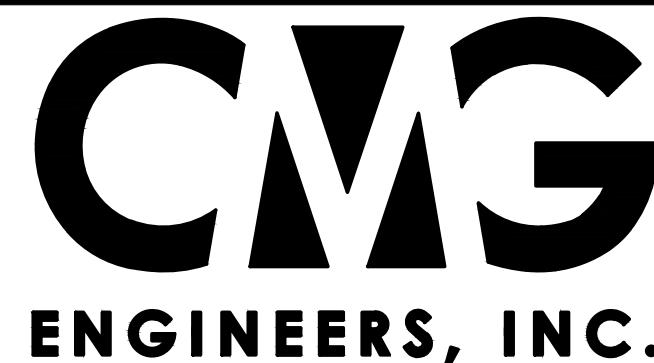
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LOCATION MAP
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REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR BID	04/04/25	VTH	WBS

11880 Cranston Drive, Ste. 101
Arlington, Tennessee 38002
(901) 290-5444



457 St. Michael Street
Mobile, Alabama 36602
(251) 433-1611

PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	COVER SHEET
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	DRAWING NUMBER	4503-C0			

GENERAL NOTES

- 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 OWNER, 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 STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'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.
- CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.
- 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 DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.
- MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.
- CONTRACTOR SHALL COORDINATE THE STRUCTURAL DOCUMENTS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SEE THE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL OBTAIN AND COORDINATE EDGE OF SLAB DIMENSIONS, OPENING LOCATIONS AND DIMENSIONS, DEPRESSED SLAB LOCATIONS AND EXTENTS, SLAB SLOPES, CURB LOCATIONS, AND CMU WALL LOCATIONS. STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION.
- CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.
- CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
- THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSEWORK, TEMPORARY BRACING, ETC.
- CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.
- REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR.
- SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS SHALL BE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- WHERE A SECTION OR DETAIL IS SHOWN OR DETAILED FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR AND LIKE CONDITIONS. DETAILS LABELED "TYPICAL" ON THE DRAWINGS APPLY TO ALL 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.
- SIGNATURE AND REGISTRATION SEAL OF THE STRUCTURAL ENGINEER THAT MAY BE AFFIXED TO THESE DRAWINGS RELATES ONLY TO THE STRUCTURAL DESIGN OF THE PROJECT.

CODE/DESIGN CRITERIA

- STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2018 BUILDING CODE, WITH LATEST AMENDMENTS.
- GRAVITY LOADS
 - UNIFORM FLOOR LIVE LOADS (REDUCED AS ALLOWED BY THE BUILDING CODE):

FLOOR	80 PSF
STAIRS	100 PSF

WIND LOADS: SEE TABLE ON THIS SHEET

- ESTIMATED DEFLECTIONS (IN INCHES) ARE AS FOLLOWS:

	<u>LIVE LOAD</u>	<u>DEAD + LIVE LOAD</u>
ROOF MEMBERS:	L/360 OR 1 IN.	L/240
FLOOR MEMBERS:	L/360	L/240

WHERE, L = SPAN LENGTH (IN INCHES) BETWEEN CENTERLINES OF SUPPORTS. FOR CANTILEVERS, L IS TWICE THE LENGTH OF THE CANTILEVER.)

- SPECIAL INSPECTIONS:

4.1 THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION: FOUNDATION ANCHORS & REINFORCING STEEL, STRUCTURAL STEEL, AND LIGHT GAUGE STEEL FRAMING.

REINFORCEMENT

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, PREFABRICATED, UNLESS NOTED OTHERWISE. NO FIELD BURNING ALLOWED.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND HAVE MINIMUM SIDE AND END LAPS OF 12". CHAIRS TO BE PLACED 2'-0" O.C.. INDIVIDUAL CHAIRS SHOULD BE ABLE TO SUPPORT 200 LB. LOAD WITHOUT CRUSHING. WIRE MUST RETURN TO PROPER PLACEMENT AFTER BEING STEPPED ON.
- SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE REINFORCING BAR SIZES AND PLACEMENT. WRITTEN DESCRIPTION OF REINFORCEMENT WITHOUT ADEQUATE SECTIONS, ELEVATIONS, AND DETAILS IS NOT ACCEPTABLE.
- PROVIDE DOWELS FROM FOUNDATIONS THE SAME SIZE AND NUMBER AS THE VERTICAL WALL OR COLUMN REINFORCING, UNLESS NOTED OTHERWISE.
- PLACE REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - CAST-IN-PLACE (NON POST-TENSIONED) CONCRETE REINFORCEMENT COVER

PERMANENTLY EXPOSED TO EARTH:
CAST AGAINST THE EARTH _____ 3" CLEAR

EXPOSED TO EARTH OR WEATHER:
FOR BARS LARGER THAN A NO. 5 BAR _____ 2" CLEAR
NO. 5 BARS OR SMALLER _____ 1-1/2" CLEAR
 - MASONRY REINFORCING STEEL SHALL BE PLACED IN THE CENTER OF CMU CELLS, UNLESS NOTED OTHERWISE.
- REINFORCEMENT SHALL BE SPLICED ONLY AT LOCATIONS SHOWN OR NOTED IN THE STRUCTURAL DOCUMENTS, EXCEPT REINFORCEMENT MARKED "CONTINUOUS" CAN BE SPLICED AT LOCATIONS DETERMINED BY CONTRACTOR. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. REINFORCING STEEL SPLICES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

CONCRETE REINFORCEMENT:	CLASS B TENSION LAP
MASONRY REINFORCEMENT:	48 BAR DIAMETERS
- ADHESIVE FOR REINFORCING DOWELS IN EXISTING CONCRETE SHALL BE EITHER THE HIT HY200 INJECTION ADHESIVE SUPPLIED BY HILTI FASTENING SYSTEMS, THE EPCON SYSTEM CERAMIC 6 EPOXY ADHESIVE SUPPLIED BY ITW RAMSET/RED HEAD, POWER-FAST EPOXY INJECTION GEL SUPPLIED BY POWERS FASTENING, OR APPROVED EQUAL. MINIMUM EMBEDMENT LENGTH SHALL BE 24 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL BE FREE FROM GREASE, MUD, EXCESSIVE RUST OR OTHER COATINGS THAT WILL DESTROY OR REDUCE BOND STRENGTH. REINFORCING STEEL IN ALL FOOTINGS, WALLS, BOND BEAMS AND PILASTERS SHALL BE MADE WITH BENT BARS WITH A MINIMUM SPLICE LENGTH OF 48 BAR DIAMETERS. PROVIDE GALV. ANCHOR BOLTS SET IN CONCRETE FOR ANCHORING STEEL OR WOOD TO CONCRETE.

CAST-IN-PLACE CONCRETE

- CONCRETE WORK SHALL CONFORM TO ACI 318 AND CRSI STANDARDS.
- CONCRETE SHALL HAVE THE FOLLOWING MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH:

ALL CONCRETE SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS SPECIFIED.

CLASS "A" CONCRETE SHALL BE USED FOR ALL WORK INCLUDED IN THIS CONTRACT, AND CLASS "AC" SHALL BE USED FOR PUMPING.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS OR GROUNDS REQUIRED TO BE ENCASED IN CONCRETE AND FOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.
- CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- DEFECTIVE AREAS IN CONCRETE INCLUDING, BUT NOT LIMITED TO, HONEY-COMBING, SPALLS, AND CRACKS WITH WIDTHS EXCEEDING 0.01 INCH SHALL BE REPAIRED. EXTENT OF DEFECTIVE AREA TO BE DETERMINED BY THE STRUCTURAL ENGINEER.

PROVIDE (1) SET OF CYLINDERS, (4) FROM EACH 50 CUBIC YARDS.

CLASS	MAX. WATER PER BAG OF CEMENT	MIN. CEMENT PER CUBIC YARD	MIN. COMPRESSIVE STRENGTH IN 28 DAYS	SLUMP RANGE
A	5.5	6.5	4,000 PSI	2"-4"
AC	6.0	8.0	4,000 PSI	5"-7"

FOUNDATION

- FOUNDATION DESIGN IS BASED ON AN ALLOWABLE BEARING PRESSURE OF 1,200 PSF AND TIMBER PILE SUPPORTED COLUMN FOOTINGS. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN.
- GEOTECHNICAL/INSPECTION AGENCY SHALL CERTIFY THE BEARING MEDIUM.
- DENSIFY BUILDING AREAS AND A MINIMUM OF 5'-0" OUTSIDE THE BUILDING PERIMETER USING A VIBRATORY ROLLER.
- SOIL COMPACTION - 100% STANDARD PROCTOR DENSITY. ALL FILL SHALL BE COMPACTED IN 8" LOOSE LIFTS. COMPACTION TESTING SHALL BE PERFORMED ON EACH LIFT. ALL REPORTS SHALL BE SUBMITTED TO THE ENGINEER.
- BACKFILL SHALL BE A SAND CLAY GRANULAR MATERIAL WITH LESS THAN 30% PASSING THE #200 SIEVE AND A LIQUID LIMIT OF LESS THAN 25.
- ALL CONCRETE MUST CURE FOR A MINIMUM OF 7 DAYS BEFORE ANY LOAD IS PLACED ON CONCRETE. INSTALL CURING COMPOUND ON ALL EXPOSED CONCRETE SURFACES. CONCRETE SHALL BE CURED WITH MEMBRANE 30% SOLIDS COMPOUND, SPRAY APPLIED.
- PROVIDE (1) SET OF CYLINDERS, (4) FROM EACH 50 CUBIC YARDS.
- FOR SITE PREPARATION SEE SOUTHERN EARTH SCIENCES, GEOTECHNICAL REPORT PROJECT #: M24-264.

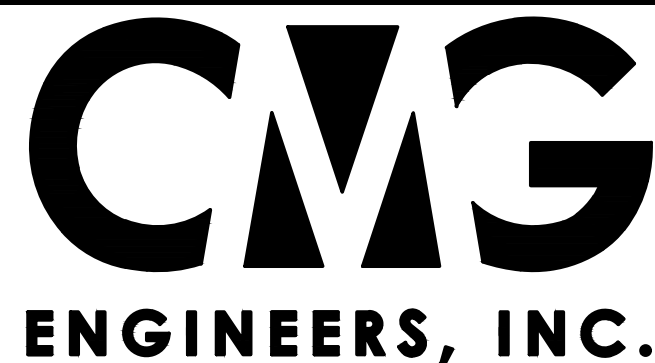
PRE-ENGINEERED METAL BUILDING NOTES:

- SEE ALSO SPECIFICATIONS. WHERE SPECIFICATIONS CONFLICT OR ARE DUPLICATED THE MORE RESTRICTIVE OF THE ENGINEERING SPECS WILL GOVERN.
- BUILDING DIMENSIONS SHALL BE AS SHOWN ON THE DRAWINGS AND SHALL BE DESIGNED AS FOLLOWS AND IN ACCORDANCE WITH THE 2018 BUILDING CODE:
 - DEAD LOAD OF STRUCTURE
 - WIND LOAD - 159 MPH (3 SECOND GUST) (RISK CATEGORY II) (EXPOSURE B)
 - ROOF LIVE LOAD = 20 PSF
 - COLLATERAL LOAD = 5 PSF
 - MAJOR STRUCTURAL COMPONENTS, INCLUDING RIGID FRAMES, BEAMS AND COLUMN WHICH SUPPORT A TRIBUTARY ROOF AREA GREATER THAN 600 SQUARE FEET SHALL BE DESIGNED ON THE BASIS OF A REDUCED LIVE LOAD IN ACCORDANCE WITH THE APPLICABLE CODE.
 - BUILDING SHALL BE CERTIFIED BY BUILDING MANUFACTURER FOR 159 MPH WIND LOAD. PLANS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ALABAMA PROFESSIONAL ENGINEER.
- DEFLECTIONS SHALL BE LIMITED AS FOLLOWS:

PRIMARY FRAMING	L/240 FOR LIVE LOAD H/180 FOR WIND LOAD
SECONDARY FRAMING	L/360 FOR ROOF DEAD LOAD + ROOF LIVE LOAD.
- ROOF IS A PRE-FINISHED GALVALUME ROOF. COMPLETE AS PER MANUFACTURER'S STANDARDS. COLOR SHALL BE CHOSEN BY THE OWNER.
- ALL ROOF PANEL FASTENERS SHALL BE "EXTENDED LIFE" WITH EITHER A ZINC/ALUMINUM/MANGANESE ALLOY CASTING OR A 302 STAINLESS STEEL CAP OVER THE CARBON STEEL HEAD AND STANDARD SEALING WASHER.
- BUILDING TRIM SHALL BE IN ACCORDANCE WITH BUILDING MANUFACTURERS STANDARD. COLOR OF TRIM SHALL BE CHOSEN BY OWNER.
- ALL STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF BUILDING MANUFACTURER'S STANDARD SHOP PAINTING SYSTEM.
- THE BUILDING SHALL BE INSULATED AS SHOWN ON THE DRAWINGS.
- ALL ANCHOR BOLT SIZES AND LOCATIONS SHALL BE AS PER BUILDING MANUFACTURER'S CERTIFIED DRAWINGS.
- D BRACING IN ROOF AND WALLS SHALL BE PROVIDED USING ROD TYPE X-BRACING OR WIND FRAMES.
- ERECTION DRAWINGS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW PRIOR TO FABRICATION.

A	ISSUED FOR BID	04/04/25	YTH	WBS	
REV.	DESCRIPTION	DATE	BY	CHK'D	

11880 Cranston Drive, Ste. 101
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(901) 290-5444



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Mobile, Alabama 36602
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

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GENERAL NOTES	
DATE	04/02/25
	22x34 REV. A
DRAWING NUMBER	4503-G1

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STRUCTURAL STEEL GENERAL NOTES

REFERENCE SPECIFICATIONS

1. STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS
2. STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS – ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" (1989) AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (1992).
3. HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR A490 BOLTS" (1994).
4. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD D1.1, LATEST EDITION.

MATERIALS

8. STRUCTURAL STEEL "W", "WT" AND "S" SHAPES SHALL CONFORM TO ASTM A992, GRADE 50. ALL CHANNELS, ANGLES AND PLATES SHALL CONFORM TO ASTM A572 GR 50 UNLESS NOTED OTHERWISE OR APPROVED EQUAL.
9. HIGH STRENGTH BOLTS, NUTS AND HARDENED WASHERS SHALL CONFORM TO ASTM A325, ASTM A563 DH, AND ASTM F436 RESPECTIVELY. MACHINE BOLTS AND NUTS SHALL CONFORM TO ASTM A307, AND PLAIN WASHERS SHALL CONFORM TO ANSI B18.22.1. BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED.
10. WELDING ELECTRODES USED FOR FIELD CONNECTIONS SHALL CONFORM TO AWS A5.1, CLASS E70XX UNLESS NOTED OTHERWISE ON THE DRAWINGS. WELDING ELECTRODES USED FOR SHOP CONNECTIONS SHALL CONFORM TO AWS A5.1 WITH A MINIMUM ELECTRODE TENSILE STRENGTH OF 70 KSI, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

FABRICATION AND ERECTION

1. NO TEMPORARY ERECTION BOLTS OTHER THAN HIGH STRENGTH BOLTS SHALL BE USED DURING ERECTION OF THE MEMBERS REQUIRING HIGH STRENGTH BOLTS.
2. WHEN CONNECTIONS REQUIRE FIELD PREPARATION OF BOLT HOLES, THE HOLES SHALL BE DRILLED OR PUNCHED, AND THE DIAMETER OF THE BOLT HOLES SHALL BE 1/16 INCH GREATER THAN THE NOMINAL BOLT DIAMETER.
3. FIELD CORRECTING OF FABRICATED STEEL BY GAS CUTTING SHALL NOT BE PERMITTED ON MAJOR STRUCTURAL FRAMING MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
4. ALL ANGLE AND STRUCTURAL TEE BRACING SHALL HAVE 1/8 INCH DRAW PER 10 FEET OF LENGTH. MAXIMUM DRAW SHALL BE 3/8 INCH AND NO DEDUCTION SHALL BE MADE FOR LENGTHS LESS THAN 10 FEET.
5. FILLET WELD SIZES, IF NOT CALLED OUT ON THE DRAWINGS, SHALL BE 3/16 INCH MINIMUM UNLESS TABLE J2.4 OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS – ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" REQUIRES A LARGER SIZE.
6. SLIP CRITICAL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED AND TIGHTENED THROUGH THE USE OF "TURN-OF-THE-NUT" TIGHTENING AS PROVIDED IN THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ALL NON-SLIP CRITICAL BOLTS MAY BE TIGHTENED TO A "SNUG-TIGHT" CONDITION AS DEFINED BY AISC.
7. THE CONTRACTOR SHALL NOT CUT OR ALTER STRUCTURAL MEMBERS WITHOUT THE APPROVAL OF THE ENGINEER.
8. ERECTOR SHALL PROVIDE ALL TEMPORARY SHORING AND BRACING NEEDED FOR STABILITY UNTIL STRUCTURE IS COMPLETE.
9. PAINTED SURFACES THAT HAVE BEEN DAMAGED BY WELDING, CUTTING, BURNING, SHEARING OR OTHER DAMAGE INCURRED DURING TRANSIT OR ERECTION SHALL BE REPAIRED TO PROVIDE A FINISH IN ACCORDANCE WITH SPECIFICATIONS.

CONNECTIONS

1. BOLTED CONNECTIONS FOR SECONDARY STRUCTURAL MEMBERS (PURLINS, GIRTS, STAIR FRAMING, STAIR BRACING, TOE PLATE, HANDRAIL, LADDERS, ETC) SHALL BE BOLTED WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. WHEN CONNECTION DETAILS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC SPECIFICATIONS.
3. HIGH STRENGTH BOLT SIZES SHALL BE 3/4 INCH DIAMETER (UNO) EXCEPT THAT TOE PLATES, HANDRAIL AND LADDERS SHALL BE BOLTED WITH 5/8 INCH DIAMETER BOLTS.
4. FIELD CONNECTIONS SHALL BE MADE WITH GALVANIZED ASTM-A325 HIGH STRENGTH BOLTS, BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED FROM SHEAR PLANE. CONNECTIONS SHALL BE MADE WITH 3/4" DIA. BOLTS UNLESS OTHERWISE NOTED.
5. ALL SHOP CONNECTIONS SHALL BE WELDED. BEAM CONNECTIONS SHALL USE TABLE III, CASE 1 WELD A, WITH TABLE II BOLTED CONNECTIONS. WELDING SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS AND AWS D1.1 STRUCTURAL WELDING CODE USING E70XX ELECTRODES.
6. MINIMUM NUMBER OF BOLTS IN CONNECTIONS NOT OTHERWISE DETAILED.
DIAGONAL ANGLE BRACING – 3
OTHER BRACING – TO DEVELOP 50% OF MEMBER STRENGTH
BEAMS (WF & CHANNEL) – MAXIMUM NO. MEMBER WILL ACCOMMODATE.
7. ALL WELDED JOINTS SHALL BE WELDED CONTINUOUSLY. MINIMUM WELD SIZE SHALL BE 1/4" FILLET.
8. ALL ANCHOR BOLTS SHALL BE GALVANIZED.

DETAILS

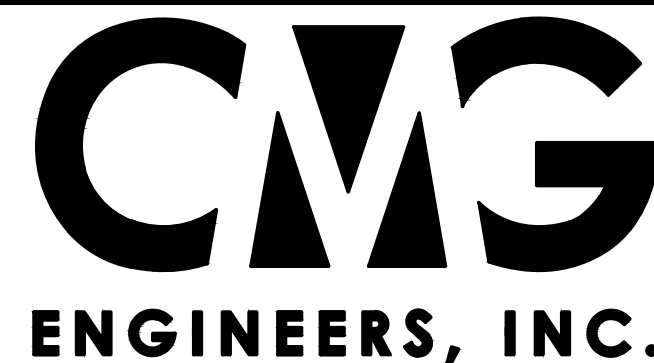
1. HOLES FOR 5/8" BOLTS SHALL BE 1/16" DIA., HOLES FOR 3/4" BOLTS SHALL BE 1/8" DIA. AND FOR 1/2" BOLTS SHALL BE 1/16" DIA. UNLESS NOTED OTHERWISE.
2. BRACING MEMBERS MEETING AT A POINT SHALL HAVE THEIR GRAVITY AXIS MEETING AT ONE POINT IF PRACTICABLE. IF NOT, PROVISIONS SHALL BE MADE FOR BENDING STRESSES DUE TO ECCENTRICITY.
3. CLIP ANGLES AND GUSSET PLATES SHALL BE 3/8" THICK UNLESS NOTED OTHERWISE.
4. COLUMN BASES AND SPLICED ENDS SHALL BE MILLED OR SAW CUT TO PROVIDE FULL BEARING.
5. BRACING: ALL RECESSED DIMENSIONS (i.e. -6, -8 ETC.) ARE NOMINAL DIMENSIONS FOR MEMBER CLEARANCE ONLY. THE FABRICATOR AND DETAILER SHALL PROVIDE FOR CLEARANCE AT BOLTS, PLATES, AND ANY OTHER INTERFERENCES.

COATINGS

1. ALL STEEL SURFACES TO BE PAINTED SHALL BE BLAST CLEANED TO NEAR-WHITE CONDITION IN ACCORDANCE WITH SSPC-SP 10-82.
2. ALL STEEL SURFACES, EXCEPT MACHINED ITEMS, OR NOTED OTHERWISE, SHALL BE PAINTED. PAINTING SYSTEM AS FOLLOWS:
3. PRIME COAT – SHOP APPLIED. PRIME WITH ONE COAT OF INORGANIC ZINC WITH MIL. DFT. CARBO ZINC 11 AS MANUFACTURED BY CARBOLINE, OR AN APPROVED EQUAL.
4. INTERMEDIATE COAT – SHOP APPLIED. ONE COAT OF EPOXY PRIMER WITH 3 TO MIL. DFT. CARBOLINE 893
5. TOP COAT – SHOP APPLIED. TOP COAT IS ONE (1) COAT OF HIGH BUILD VINYL WITH 4 MIL. DFT. POLYCLAD 134HS AS MANUFACTURED BY CARBOLINE, OR AN APPROVED EQUAL.

A	ISSUED FOR BID	04/04/25	VTH	WBS
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457 St. Michael Street
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

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TITLE		GENERAL NOTES	
DATE	04/02/25	22x34	REV. A
DRAWING NUMBER	4503-G2		

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EARTHWORK SPECIFICATIONS							
1. GENERAL REQUIREMENTS				2.7.2. THE AREAS TO BE GRASSED SHALL INCLUDE, BUT ARE NOT LIMITED TO, ALL OF THE DISTURBED AREAS IN THE CONSTRUCTION ZONES.			
1.1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE SPECIFICATIONS STATED HEREIN.				2.7.3. CONTRACTOR WILL BE REQUIRED TO REMOVE ALL SILT FENCES PRIOR TO SITE STABILIZATION.			
2. SITE CLEARING				3. SITE INFORMATION			
2.1. THE WORK INCLUDED UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL THE LABOR, TOOLS, EQUIPMENT, MATERIAL, SERVICES, AND SUPERVISION NECESSARY FOR THE REMOVAL, CLEARING, GRUBBING, AND DISPOSAL OF EXISTING UTILITY LINES, VEGETATION, FOUNDATIONS, PAVEMENT, MISCELLANEOUS STRUCTURES, DEBRIS, AND OTHER ITEMS WITHIN THE CONTRACT LIMITS SHOWN ON THE DRAWINGS AND SPECIFIED.				3.1. SOIL REPORT – EARTHWORK INCLUDING EXCAVATION/FILL SHALL BE IN ACCORDANCE WITH SESI, GEOTECHNICAL REPORT, PROJECT NO. M24-264.			
2.2. ANY CONCRETE, METAL, PAVEMENT, OR ANY OTHER ITEM, WHICH WILL NOT BECOME PART OF FINAL FACILITY, SHALL BE REMOVED.				4. EXCAVATION			
2.3. THE REMOVAL AND DISPOSAL WORK REQUIRED UNDER THIS SECTION SHALL BE PERFORMED IN SUCH A MANNER SO AS NOT TO DAMAGE ANY EXISTING STRUCTURES THAT ARE TO REMAIN AND ANY DAMAGE THERETO CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.				4.1. GENERAL.			
2.4. REMOVED MATERIALS AS NOTED HEREIN OR AS MAY BE DESIGNATED BY THE ENGINEER SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE NEATLY STOCKPILED AS DIRECTED. MATERIAL SPECIFIED TO BE DISPOSED OF SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE DISPOSED OF OFF OWNER'S PROPERTY. CARE SHALL BE TAKEN TO AVOID DROPPING ANY REMOVED MATERIALS IN THE WATER AND ANY SUCH MATERIALS ENTERING THE WATER SHALL BE IMMEDIATELY REMOVED.				4.1.1. THE TERM "EXCAVATION" USED HEREINAFTER IS DEFINED AS "UNCLASSIFIED EXCAVATION". EXCAVATION OF EVERY DESCRIPTION, REGARDLESS OF MATERIAL ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT, SHALL BE PERFORMED TO THE LINES AND GRADES INDICATED OR SPECIFIED. SUITABLE EXCAVATED MATERIAL SHALL BE STOCKPILED OR TRANSPORTED TO AND PLACED IN FILL AREAS WITHIN THE LIMITS OF THE WORK. (DURING CONSTRUCTION, EXCAVATION AND FILLING SHALL BE PERFORMED IN A MANNER AND SEQUENCE THAT WILL PROVIDE DRAINAGE AT ALL TIMES.)			
2.5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL NECESSARY DETAILS OF THE EXISTING CONSTRUCTION AS RELATIVE TO ITS EFFECTS ON HIS WORK.				4.2. STOCKPIILING.			
2.6. EROSION CONTROL.				4.2.1. GENERALLY, IT WILL BE NECESSARY TO STOCKPILE EXCAVATED MATERIALS PRIOR TO FINAL PLACEMENT OR DISPOSAL. SUITABLE MATERIALS SHALL BE KEPT SEGREGATED FROM UNSATISFACTORY MATERIALS AND CONTAINED BY SILT FENCING. ONCE EXCAVATED, ALL MATERIALS ARE TO BE TRUCKED OFF-SITE AND SHALL ONLY BE ON SITE LONG ENOUGH TO BE LOADED INTO TRUCK. SINCE THE ENTIRE PROJECT BOUNDARY IS CONTAINED WITH SILT FENCING, NO ADDITIONAL BMPs WILL BE PLACED AROUND THE STOCKPIILING. ONCE MATERIAL IS IMPORTED OR EXCAVATED, THE MATERIAL WILL BE GRADED THROUGHOUT THE SITE OR HAULED-OFF SITE AS SOON AS POSSIBLE SO NO ADDITIONAL BMPs ARE REQUIRED.			
2.6.1. DURING THIS SITE CONSTRUCTION PROCESS AND UNTIL ALL SITE DRAINAGE IMPROVEMENTS ARE OPERATIONAL; THE CONTRACTOR SHALL MAINTAIN AN EROSION CONTROL SYSTEM SATISFACTORY TO THE ENGINEER, OWNER, AND ADEM. EROSION CONTROL SHALL CONSIST OF SILT FENCES, 10' WIDE SEDIMENT DITCH, SEDIMENT TRAPS AROUND INLETS, HAY WATTLERS (IF ADDITIONAL BMPs ARE REQUIRED) TO PREVENT THE TRANSPORTATION OF SEDIMENTS IN STORM WATER RUNOFF TO THE SURFACE WATERS.				4.3. STRUCTURES.			
2.6.2. THE CONTRACTOR SHALL PROVIDE, ESTABLISH, MAINTAIN, AND INSTALL EROSION CONTROL AS REQUIRED BY THE OWNER, MOBILE COUNTY AND ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.				4.3.1. EXCAVATION FOR STRUCTURES SHALL BE MADE ACCURATELY TO THE LINES, GRADES, AND ELEVATIONS SHOWN OR AS DIRECTED. TRENCHES AND FOUNDATION PITS SHALL BE OF SUFFICIENT SIZE TO PERMIT THE PLACEMENT AND REMOVAL OF FORMS FOR THE FULL LENGTH AND WIDTH OF STRUCTURE FOOTINGS AND FOUNDATIONS AS SHOWN. EXCAVATION TO THE FINAL GRADE LEVEL SHALL NOT BE MADE UNTIL JUST BEFORE THE CONCRETE IS TO BE PLACED.			
2.6.3. ALL EROSION CONTROL SHALL BE MAINTAINED AND INSPECTED WEEKLY BY THE ENGINEER (OCP) DURING THE CONTRACT PERIOD, AND UNTIL CONTRACT ACCEPTANCE. ALL DAILY WALK THROUGHs FOR TRASH BY CONTRACTOR.				4.4. TRENCHES.			
2.6.3.1. THE CONTRACTOR SHALL EXAMINE THE SITE AND SITE CONDITIONS DAILY AND REPAIR AS REQUIRED.				4.4.1. GENERAL.			
2.6.3.2. ONCE THE WORK HAS BEGUN ON A SECTION IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL ALL EROSION DURING CONSTRUCTION. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, SEEDING, SODDING, FENCES, BERMS, DIKES, DRAINS, NETTING, SAND BAGS, ETC., AS SPECIFIED HEREIN.				4.4.1.1. PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCE ENCOUNTERED SO THAT PIPE CAN BE LAID TO THE ALIGNMENT AND DEPTH SHOWN ON THE DRAWINGS. BRACE AND SHORE ALL TRENCHES, WHERE REQUIRED, IN ACCORDANCE WITH THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, DEPARTMENT OF LABOR. MAKE ALL EXCAVATIONS BY OPEN CUT UNLESS OTHERWISE SPECIFIED OR INDICATED ON THE DRAWINGS.			
2.6.4. ALL PRACTICES AND MATERIALS SHALL CONFORM TO THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AND ALABAMA HANDBOOK FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, LATEST EDITION.				4.4.2. WIDTH OF TRENCHES.			
2.6.5. ALL MATERIALS SHALL COMPLY WITH THE PLANS AND SPECIFICATIONS. CERTAIN MATERIALS CAN BE SUBSTITUTED IF AUTHORIZED BY THE ENGINEER.				4.4.2.1. EXCAVATE TRENCHES SUFFICIENTLY WIDE TO ALLOW PROPER INSTALLATION OF PIPE, FITTINGS, AND OTHER MATERIALS AND NOT LESS THAN 12" CLEAR OF PIPE ON EITHER SIDE AT ANY POINT. DO NOT WIDEN TRENCHES BY SCRAPING OR LOOSENING MATERIALS FROM THE SIDES. WHERE SUPPORTS, SHEETING, AND BRACING ARE REQUIRED, TRENCH MAY BE OF EXTRA WIDTH TO PERMIT THE PLACING OF THE TRENCH SUPPORTING MATERIAL.			
2.6.5.1. NO HAY BALES WILL BE USED.				4.4.3. TRENCH EXCAVATION IN EARTH.			
2.6.5.2. SILT FENCES, TYPE "A" SHALL CONSIST OF A WOVEN WIRE FABRIC MOUNTED ON POSTS WITH A POLYMERIC FILTER FABRIC ATTACHED TO THE FENCE FABRIC. FILTER FABRIC SHALL BE A POLYMERIC FABRIC FORMED FROM A PLASTIC YARN OF A LONG CHAIN SYNTHETIC POLYMER COMPOSED OF AT LEAST 85% BY WEIGHT OF PROPYLENE ETHYLENE, AMIDE, ESTER, OR VINYLENECHLORIDE AND SHALL CONTAIN STABILIZERS TO MAKE THE FILAMENTS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE FOR AT LEAST SIX MONTHS. FOR INSTALLATION, PLACE BOTTOM 8" OF FABRIC IN A 6" DEEP (MIN) TRENCH LAPPING TOWARD THE UPSLOPE SIDE. THEN IT SHALL BE BACKFILLED WITH COMPACTED SOIL. ALL SILT FENCING IS TO REMAIN IN PLACE UNTIL LANDSCAPING HAS BEEN COMPLETED AND SITE IS FULLY STABILIZED.				4.4.3.1. EARTH EXCAVATION INCLUDES ALL EXCAVATION OF WHATEVER SUBSTANCE ENCOUNTERED. IN LOCATIONS WHERE PIPE IS TO BE BEDDED IN EARTH EXCAVATED TRENCHES, FINE GRADE THE BOTTOM OF SUCH TRENCHES TO ALLOW FIRM BEARING FOR THE BOTTOM OF THE PIPE ON UNDISTURBED EARTH. WHERE ANY PART OF THE TRENCH HAS BEEN EXCAVATED BELOW THE GRADE OF THE PIPE, FILL THE PART EXCAVATED BELOW SUCH GRADE WITH PIPE BEDDING MATERIAL AND COMPACT AT THE CONTRACTOR'S EXPENSE.			
2.6.6. PERFORMANCE REQUIREMENTS				5. BACKFILL			
2.6.6.1. SAND BAGS SHALL BE SECURELY FASTENED WHEN PLACED. THE BAGS SHALL HAVE A THICKNESS OF APPROXIMATELY 6". SILT FENCES SHALL BE CONSTRUCTED AT LOCATIONS AS REQUIRED. FIELD SPLICES CAN BE MADE BY OVERLAPPING THE FABRIC A MINIMUM OF 3 FT. AND SECURELY FASTENING THE FABRIC TO THE WIRE FENCE. CONTRACTOR SHALL MAINTAIN THE FENCE UNTIL THE CONTRACT HAS BEEN ACCEPTED. IF THE FABRIC SHOULD BECOME DAMAGED AN ADDITIONAL LAYER OF FABRIC CAN BE ATTACHED WITH AT LEAST A 3 FT. OVERLAP.				5.1. GENERAL.			
2.6.6.2. TEMPORARY DRAINAGE SUMPS OR SEDIMENT BASINS CAN BE CONSTRUCTED NEAR THE ENDS OF DRAINAGE STRUCTURES OR DITCHES TO CONTROL SILTING. SUMPS SHALL BE CLEANED PERIODICALLY BY THE REMOVAL OF THE SILT TO KEEP THE SUMP FUNCTIONAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE SITE AND ALL ADJACENT SURFACE WATERS FROM ANY AND ALL EROSION. IF EROSION DOES OCCUR, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND PROVIDE ALL ADDITIONALLY NEEDED TOPSOIL AT THE CONTRACTOR'S EXPENSE.				5.1.1. UNLESS OTHERWISE SPECIFIED OR INDICATED ON THE DRAWINGS, USE SUITABLE MATERIAL FOR BACKFILL, WHICH WAS REMOVED IN THE COURSE OF MAKING THE CONSTRUCTION EXCAVATIONS.			
2.7. MULCHING & GRASSING IS REQUIRED WITHIN 10 DAYS PRIOR TO COMPLETION OF GRADING.				5.2. MATERIAL.			
2.7.1. ALL DISTURBED AREAS, NOT SPECIFICALLY DESIGNATED TO RECEIVE A STONE SURFACE OR IMPERVIOUS AREA, SHALL BE COVERED WITH 4" OF TOPSOIL IN ACCORDANCE WITH SECTION 650 OF THE ALDOT STANDARD SPECIFICATIONS. THE AREAS SHALL THEN BE PREPARED AND FERTILIZED IN ACCORDANCE WITH SECTION 651 OF THE ALDOT STANDARD SPECIFICATIONS. FERTILIZER, COMMERCIAL 8_8_8, SHALL BE PLACED AT THE RATE OF 0.75 TON/ACRE. THE AREAS SHALL BE GRASSED AND MULCHED IN ACCORDANCE WITH SECTIONS 652, 656, 657, OR 658. THE SEED MIX AND MULCH SHALL BE OF A TYPE COMPATIBLE WITH THE TIME OF YEAR OR PLACEMENT AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.				5.2.1. APPROVED SELECTED MATERIALS AVAILABLE FROM THE EXCAVATIONS MAY BE USED FOR BACKFILLING AROUND STRUCTURES. OBTAIN MATERIAL NEEDED IN ADDITION TO THAT OF CONSTRUCTION EXCAVATIONS FROM APPROVED SITES OR OTHER APPROVED DEPOSITS. FURNISH ALL BORROW MATERIAL NEEDED FOR THE WORK. PLACE AND COMPACT ALL MATERIAL, WHETHER FROM THE EXCAVATION OR BORROW, TO MAKE A DENSE, STABLE FILL. USE FILL MATERIAL WHICH CONTAINS NO VEGETATION, MASSES OF ROOTS, INDIVIDUAL ROOTS OVER 18" LONG OR MORE THAN 1/2" IN DIAMETER, STONES OVER 4" IN DIAMETER, OR POROUS MATTER.			
				5.2.2. THE CONTRACTOR SHALL REPORT ALL QUANTITIES OF BACKFILL MATERIAL TO BRING SUB GRADE TO FINAL LEVEL. BORROW MATERIAL WILL BE USED ONLY WHEN AUTHORIZED OR DIRECTED BY THE ENGINEER.			
				5.2.3. SELECTION OF BORROW MATERIAL. BORROW MATERIAL SHALL BE A GOOD CLEAN MATERIAL WITH NOT MORE THAN 20% (BY WEIGHT) PASSING THE NO. 200 SIEVE. BORROW MATERIAL SHALL BE OBTAINED FROM APPROVED OFF-SITE SOURCES BY THE CONTRACTOR. SERVICE RECORDS OF THE SOURCE AND ANALYSIS OF THE MATERIAL BY A REPUTABLE LABORATORY SHALL BE SUBMITTED TO THE ENGINEER.			
				5.3. PLACING BACKFILL.			
				5.3.1. DO NOT PLACE BACKFILL AGAINST OR ON STRUCTURES UNTIL THEY HAVE ATTAINED			
				5.3.2. SUFFICIENT STRENGTH TO SUPPORT THE LOADS (INCLUDING CONSTRUCTION LOADS) TO WHICH THEY WILL BE SUBJECTED WITHOUT DISTORTION, CRACKING, OR OTHER DAMAGE. USE THE BEST OF THE EXCAVATED MATERIALS IN BACKFILLING WITHIN 2 FT. OF THE STRUCTURE. AVOID UNEQUAL SOIL PRESSURES BY DEPOSITING THE MATERIAL EVENLY AROUND THE STRUCTURE.			
				5.3.3. PLACE FILL AND BACKFILL IN LAYERS NOT MORE THAN 6" THICK, EXCEPT AS SPECIFIED OTHERWISE HEREIN, AND COMPACT EACH LAYER EVENLY TO THE SPECIFIED DENSITY. DO NOT BACKFILL AGAINST CONCRETE WITHOUT ENGINEER'S APPROVAL.			
				5.4. TRENCH BACKFILL			
				5.4.1. GENERAL.			
				5.4.1.1. UNLESS OTHERWISE SPECIFIED OR INDICATED ON THE DRAWINGS, USE SUITABLE MATERIAL FOR BACKFILL, WHICH WAS REMOVED IN THE COURSE OF MAKING THE CONSTRUCTION EXCAVATIONS. START BACKFILLING AS SOON AS PRACTICABLE AFTER THE PIPES HAVE BEEN LAID OR THE STRUCTURES HAVE BEEN BUILT AND ARE STRUCTURALLY ADEQUATE TO SUPPORT THE LOADS, INCLUDING CONSTRUCTION LOADS, TO WHICH THEY WILL BE SUBJECTED, AND PROCEED UNTIL ITS COMPLETION. WITH THE EXCEPTION MENTIONED BELOW IN THIS PARAGRAPH, DO NOT BACKFILL TRENCHES AT PIPE JOINTS UNTIL AFTER THAT SECTION OF THE PIPELINE HAS SUCCESSFULLY PASSED ANY SPECIFIED TEST REQUIRED. SHOULD THE CONTRACTOR WISH TO MINIMIZE THE MAINTENANCE OF LIGHTS AND BARRICADES AND THE OBSTRUCTION OF TRAFFIC, HE MAY, AT HIS OWN RISK, BACKFILL THE ENTIRE TRENCH AS SOON AS PRACTICABLE AFTER INSTALLATION OF PIPE, AND THE RELATED STRUCTURES HAVE ACQUIRED A SUITABLE DEGREE OF STRENGTH. HE SHALL, HOWEVER, BE RESPONSIBLE FOR REMOVING AND LATER REPLACING SUCH BACKFILL, AT HIS OWN EXPENSE. SHOULD HE BE ORDERED TO DO SO IN ORDER TO LOCATE AND REPAIR OR REPLACE LEAKING OR DEFECTIVE JOINTS OR PIPE.			
				5.4.2. MATERIALS.			
				5.4.2.1. THE NATURE OF THE MATERIALS WILL GOVERN BOTH THEIR ACCEPTABILITY FOR BACKFILL AND THE METHODS BEST SUITED FOR THEIR PLACEMENT AND COMPACTION IN THE BACKFILL. BOTH ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. PLACE NO STONE OR ROCK FRAGMENT LARGER THAN 4" IN GREATEST DIMENSION IN THE BACKFILL. DROP NO LARGE MASSES OF BACKFILL MATERIAL INTO THE TRENCH IN SUCH A MANNER AS TO ENDANGER THE PIPELINE. USE A TIMBER GRILLAGE TO BREAK THE FALL OF MATERIAL DROPPED FROM A HEIGHT OF MORE THAN 5 FEET. EXCLUDE PIECES OF BITUMINOUS PAVEMENT FROM THE BACKFILL UNLESS THEIR USE IS EXPRESSLY PERMITTED.			
				5.4.3. ZONE AROUND PIPE.			
				5.4.3.1. PLACE BEDDING MATERIAL TO THE LEVEL SHOWN ON THE DRAWINGS AND WORK MATERIAL CAREFULLY AROUND THE PIPE TO ENSURE THAT ALL VOIDS ARE FILLED. FOR BACKFILL UP TO A LEVEL OF 2 FT. OVER THE TOPS OF THE PIPE, USE ONLY SELECTED MATERIALS CONTAINING NO ROCKS, CLODS, OR ORGANIC MATERIALS. PLACE THE BACKFILL AND COMPACT THOROUGHLY UNDER THE PIPE HAUNCHES AND UP TO THE MID-LINE OF THE PIPE IN LAYERS NOT EXCEEDING 6" IN DEPTH. PLACE EACH LAYER AND TAMP CAREFULLY AND UNIFORMLY SO AS TO ELIMINATE THE POSSIBILITY OF LATERAL DISPLACEMENT. PLACE AND COMPACT THE REMAINDER OF THE ZONE AROUND THE PIPE AND TO A HEIGHT OF 1 FT. ABOVE THE PIPE IN LAYERS NOT EXCEEDING 6" AND COMPACT TO A MAXIMUM DENSITY OF AT LEAST 95% AS DETERMINED BY ASTM D1557 MODIFIED.			
				5.4.4. TAMPING.			
				5.4.4.1. DEPOSIT AND SPREAD BACKFILL MATERIALS IN UNIFORM, PARALLEL LAYERS NOT EXCEEDING 12" THICK BEFORE COMPACTION. TAMP EACH LAYER BEFORE THE NEXT LAYER IS PLACED TO OBTAIN A THOROUGHLY COMPACTED MASS. FURNISH AND USE, IF NECESSARY, AN ADEQUATE NUMBER OF POWER-DRIVEN TAMPERS, EACH WEIGHING AT LEAST 20 POUNDS, FOR THIS PURPOSE. TAKE CARE THAT THE MATERIAL CLOSE TO THE BANK, AS WELL AS IN ALL OTHER PORTIONS OF THE TRENCH, IS THOROUGHLY COMPACTED. WHEN THE TRENCH WIDTH AND THE DEPTH TO WHICH BACKFILL HAS BEEN PLACED ARE SUFFICIENT TO MAKE IT FEASIBLE, AND IT CAN BE DONE EFFECTIVELY AND WITHOUT DAMAGE TO THE PIPE, BACKFILL MAY, ON APPROVAL, BE COMPACTED BY THE USE OF SUITABLE ROLLERS, TRACTORS, OR SIMILAR POWERED EQUIPMENT INSTEAD OF BY TAMPING. FOR COMPACTION BY TAMPING (OR ROLLING), THE RATE AT WHICH BACKFILL MATERIAL IS DEPOSITED IN THE TRENCH SHALL NOT EXCEED THAT PERMITTED BY THE FACILITIES FOR ITS SPREADING, LEVELING, AND COMPACTING AS FURNISHED BY THE CONTRACTOR. WET THE MATERIAL BY SPRINKLING, IF NECESSARY, TO ENSURE PROPER COMPACTION BY TAMPING (OR ROLLING). PERFORM NO COMPACTION BY TAMPING (OR ROLLING) WHEN THE MATERIAL IS TOO WET FROM RAIN OR APPLIED WATER TO BE COMPACTED PROPERLY.			
				5.4.5. TRENCH COMPACTION.			
				5.4.5.1. COMPACT BACKFILL IN PIPE TRENCHES TO THE MAXIMUM DENSITY AS SHOWN ON THE DRAWINGS OR AS LISTED IN THE SOILS REPORT AND THESE SPECIFICATIONS WITH A MOISTURE CONTENT WITHIN THE RANGE OF VALUES OF MAXIMUM DENSITY AS INDICATED.			
				6. PREPARATION OF SUBGRADE			
				6.1. GROUND SURFACE ON WHICH FILL IS TO BE PLACED SHALL BE STRIPPED OF LIVE, DEAD, OR DECAYED VEGETATION, RUBBISH, DEBRIS, BouldERS, AND OTHER UNSATISFACTORY MATERIAL; PLOWED, DISKED, OR OTHERWISE BROKEN UP; PULVERIZED; AND MOISTENED OR AERATED AS REQUIRED JUST PRIOR TO PLACEMENT OF FILL MATERIALS TO ASSURE ADEQUATE BOND BETWEEN FILL MATERIAL AND THE PREPARED GROUND SURFACE. THE EXPOSED GROUND SURFACE OF AREA GRADED TO ELEVATIONS AS NOTED ABOVE SHALL BE SCREENED AND GRATED TO CLEAN NATIVE SOIL MATERIAL.			
				6.2. SAND FILL REQUIRED TO ATTAIN DESIGN ELEVATIONS AND PARTICLE SIZE MIX SHALL BE PROVIDED AND INSTALLED.			
				7. SUBBASE PREPARATION			
				7.1. CONSTRUCTION.			
				7.1.1. THE FINAL LIFT FOR SUB GRADE SHALL NOT BE MORE THAN 6" IN DEPTH. SUB GRADE SHALL BE SHAPED TO LINE, GRADE AND CROSS SECTION, AND COMPACTED AS SPECIFIED. THIS OPERATION SHALL INCLUDE PLOWING, DISKING, OR ANY MOISTENING OR AERATING REQUIRED TO OBTAIN PROPER COMPACTION. SOFT OR OTHERWISE UNSATISFACTORY MATERIAL SHALL BE REMOVED AND REPLACED WITH SATISFACTORY EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL AS DIRECTED. AFTER ROLLING, THE SURFACE OF THE SUB BASES FOR BASE SHALL NOT SHOW DEVIATION GREATER THAN 1/4" WHEN TESTED WITH A			
				7.2. COMPACTION.			
				7.2.1. COMPACTION SHALL BE ACCOMPLISHED BY SHEEPS FOOT ROLLERS, PNEUMATIC TIRE ROLLERS, STEEL WHEELED ROLLERS, VIBRATORY COMPACTORS, OR OTHER APPROVED EQUIPMENT.			
				8. FINISHING			
				8.1. THE SURFACE OF ALL EXCAVATIONS, FILLS, AND SUB GRADES SHALL BE FINISHED TO A REASONABLY SMOOTH AND COMPACT SURFACE SUBSTANTIALLY IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS SECTIONS OR ELEVATIONS SHOWN. THE DEGREE OF FINISH FOR ALL GRADED AREAS SHALL BE WITHIN 0.1 FT. OF THE GRADES AND ELEVATIONS INDICATED.			
				9. SUBBASE AND FILL PROTECTION			
				9.1. DURING CONSTRUCTION, FILLS AND EXCAVATIONS SHALL BE KEPT SHAPED AND DRAINED. DITCHES AND DRAINS ALONG SUB GRADE SHALL BE MAINTAINED IN SUCH A MANNER AS TO DRAIN EFFECTIVELY AT ALL TIMES. THE FINISHED SUB GRADE SHALL NOT BE DISTURBED BY TRAFFIC OR OTHER OPERATION AND SHALL BE PROTECTED AND MAINTAINED BY THE CONTRACTOR IN A SATISFACTORY CONDITION UNTIL BASE COURSE IS PLACED. THE STORAGE OR STOCKPIILING OF MATERIALS ON THE FINISHED SUB GRADE WILL NOT BE PERMITTED. NO BASE COURSE SHALL BE LAID UNTIL THE SUB GRADE HAS BEEN CHECKED AND APPROVED, AND IN NO CASE SHALL BASE BE PLACED ON A MUDDY, SPONGY, OR FROZEN SUB GRADE.			
				10. DISPOSAL OF UNSUITABLE OR EXCESS MATERIAL			
				10.1. GENERAL.			
				10.1.1. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE OR EXCESS MATERIALS RESULTING FROM THE EXCAVATION THAT ARE NOT PERMITTED OR REQUIRED IN THE FILLS OR REQUIRED IN OTHER FEATURES OF THE WORK. MATERIALS SHALL BE DISPOSED OF OFF THE OWNER'S PROPERTY.			
				11. MEASUREMENT			
				11.1. THE UNIT OF MEASUREMENT FOR MATERIAL WILL BE THE CUBIC YARD FOR ALL "CHANGE ORDER" YARDAGE. "CHANGE ORDER" YARDAGE OF MATERIAL TO BE PAID FOR WILL BE THE NUMBER OF CUBIC YARDS OF MATERIAL BASED UPON TRUCK BED MEASUREMENT AND PAYMENT BY LOAD TICKETS.			
				11.2. THE UNIT OF MEASUREMENT FOR EXCESS MATERIAL WILL BE THE CUBIC YARD. YARDAGE WILL BE THE NUMBER OF CUBIC YARDS BASED UPON TRUCK BED MEASUREMENT.			
				12. SUBSIDIARY OBLIGATIONS			
				12.1. GENERAL.			
				12.1.1. THE FOLLOWING OPERATIONS AND CONSTRUCTION WILL NOT BE MEASURED FOR DIRECT PAYMENT, BUT WILL BE CONSIDERED SUBSIDIARY OBLIGATIONS OF THE CONTRACTOR, AND WILL BE COVERED UNDER THE CONTRACT PRICES FOR THE STRUCTURES INVOLVED OR UNDER THE UNIT PRICES PER YARD AS SPECIFIED BELOW.			
				12.2. EXCAVATION.			
				12.2.1. EXCAVATION FOR DRAINAGE STRUCTURES, FOUNDATIONS, AND OPERATIONS REQUIRED IN CONNECTION THEREWITH, INCLUDING BRACING OR SHEETING, DRAINAGE, AND PUMPING, WILL BE COVERED UNDER THE CONTRACT LUMP SUM PRICE FOR DRAINAGE STRUCTURES OR THE SUBJECT STRUCTURE.			
				12.3. BACKFILL.			
				12.3.1. BACKFILL FOR DRAINAGE STRUCTURES AND OTHER STRUCTURES BELOW GRADE, INCLUDING ATTENDANT OPERATIONS, WILL BE COVERED UNDER THE CONTRACT LUMP SUM PRICE FOR DRAINAGE STRUCTURES OR THE SUBJECT STRUCTURE.			
				12.4. FILL.			
				12.4.1. FILL CONSTRUCTION INCLUDING THE PREPARATION OF GROUND SURFACE FOR PLACEMENT OF FILL UP TO THE FINISHED SUB GRADE ELEVATION WILL BE COVERED UNDER THE CONTRACT LUMP SUM PRICE FOR EXCAVATION OR BORROW.			
				12.5. SUB GRADE PREPARATION.			
				12.5.1. SUB GRADE PREPARATION, INCLUDING DRESSING, SHAPING, WETTING, AERATING, AND COMPACTING OF THE SUB GRADE, WILL BE COVERED UNDER THE CONTRACT LUMP SUM PRICE FOR EXCAVATION OR BORROW.			
				12.6. WATER			
				12.6.1. WATER USED FOR SPRINKLING AND WETTING MATERIALS DURING CONSTRUCTION IN CONNECTION WITH COMPACTION OF FILLS, UNLESS OTHERWISE SPECIFIED, WILL BE COVERED UNDER THE CONTRACT LUMP SUM PRICE FOR EXCAVATION OR BORROW.			
				12.7. DISPOSAL			
				12.7.1. DISPOSAL OF UNSUITABLE MATERIAL SHALL BE MOVED AND STORED AS DIRECTED BY THE OWNER.			
				12.8. DEWATERING			
				12.8.1. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TYPE OF DEWATERING, IF REQUIRED.			

A	ISSUED FOR BID	04/04/25	YTH	WBS	
REV.	DESCRIPTION	DATE	BY	CHK'D	

11880 Cranston Drive, Ste. 101
Arlington, Tennessee 38002
(901) 290-5444



457 St. Michael Street
Mobile, Alabama 36602
(251) 433-1611

PROJECT

TRR RAIL PIT EXPANSION

MOBILE ALABAMA

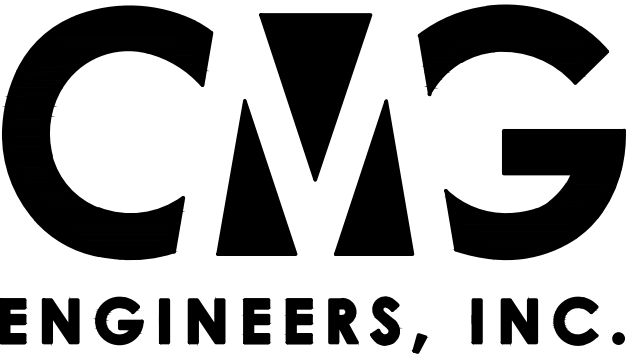
TITLE		GENERAL NOTES	
DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-G3		
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AUGER CAST PILING:

1. THE WORK COVERED BY THESE SPECIFICATIONS INCLUDES FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS FOR THE PLACING OF AUGURED (NON-DRIVEN) CAST-IN-PLACE CONCRETE BEARING PILES (AS SHOWN ON THE PLANS AND DESCRIBED IN THESE NOTES).
2. CONTRACTOR SHALL INSPECT THE SITE AROUND THE PROPOSED AUGER CAST PILING FOUNDATION, REVIEW DRAWINGS AND BE THOROUGHLY FAMILIAR WITH ALL PHYSICAL AND DIMENSIONAL REQUIREMENTS AND LIMITATIONS. CONTRACTOR SHALL SATISFY HIMSELF THAT HE CAN ADJUST HIS AUGER DRIVE UNIT, FRAME AND CRANE LEADS AS REQUIRED TO AUGER ON THE CENTER LINE OF AUGER CAST PILE FOUNDATION.
3. THE PILING CONTRACTOR SHALL HAVE AN EXPERIENCED SUPERINTENDENT IN CHARGE OF THE WORK AT ALL TIMES, WHOSE EXPERIENCE SHALL INCLUDE NOT LESS THAN FIVE (5) YEARS WITH AUGURED PILE FOUNDATION WORK.
4. CONCRETE FOR PLACING IN THE AUGURED TYPE BEARING PILES SHALL BE CLASS "AC" (4,000 PSI AT 28 DAYS) AS DESCRIBED IN THE "CONCRETE NOTES".
5. THE AUGER FOR CONSTRUCTION OF AUGURED TYPE CAST-IN-PLACE CONCRETE PILING SHALL BE A HOLLOW SHAFTED CONTINUOUS FLIGHT AUGER, EMPLOYED AS SHOWN ON THE PLANS, RESPECTIVELY. THE AUGER SHALL BE CONTINUOUS WITH NO GAPS FOR THE FULL REQUIRED DEPTH OF PENETRATION.
6. THE HOLLOW SHAFT OF THE AUGER SHALL BE LARGE ENOUGH TO PERMIT THE FREE PASSAGE OF PUMPED CONCRETE, AND THE DISCHARGE HOLE IN THE HOLLOW SHAFT SHALL BE AT THE BOTTOM OF THE AUGER BELOW THE CUTTING TEETH.
7. THE AUGER SHALL BE SUPPORTED BY SUITABLE LEADS, WHICH SHALL BE BRACED AS REQUIRED TO PREVENT TWISTING AND/OR BENDING AND TO MAINTAIN PROPER ALIGNMENT OF THE AUGER.
8. THE PUMP FOR PLACEMENT OF CONCRETE INTO THE PILING SHALL BE A POSITIVE DISPLACEMENT TYPE CONCRETE PUMP WITH AN OPERATING PRESSURE GAUGE AND METER AND SHALL BE CAPABLE OF OPERATING UNDER PRESSURES OF NOT LESS THAN 250 PSI, AND SHALL HAVE A CAPACITY LARGE ENOUGH TO PREVENT DELAY IN THE FOUNDATION CONSTRUCTION.
9. THE PUMP SHALL DISCHARGE THROUGH SUITABLE HOSE OR PIPING TO THE TOP OF THE AUGER AND THROUGH THE AUGER SHAFT INTO THE PILING CONSTRUCTION. SUCH PIPING OR HOSE SHALL NOT BE CONSTRUCTED OF OR LINED WITH ALUMINUM.
10. ALL CONCRETE HANDLING EQUIPMENT SHALL BE CLEAN AND FREE OF RUST, OIL AND OTHER DELETERIOUS MATERIALS BEFORE BEING USED ON THE JOB.
11. THE CONTINUOUS HOLLOW SHAFT FLIGHT AUGER SHALL BE ROTATED INTO THE GROUND TO THE REQUIRED DEPTH OF PENETRATION AS SHOWN ON THE PLANS AND SPECIFIED HEREIN.
12. WHEN THE AUGER HAS PENETRATED TO THE REQUIRED DEPTH, CONCRETE SHALL BE PUMPED THROUGH THE SHAFT UNDER A PRESSURE AT DISCHARGE OF ABOUT 50 PSI. THE AUGER SHALL CONTINUE TO BE ROTATED SLOWLY (3-5 RPM) IN A FORWARD (DIGGING) DIRECTION AND THEN SHALL BE SLOWLY WITHDRAWN, ALLOWING THE CONCRETE UNDER PRESSURE TO FILL THE SHAFT AND TO PENETRATE LATERALLY INTO ANY POROUS SOILS AS THE AUGER IS WITHDRAWN. THE AUGER SHALL NOT BE ALLOWED TO ADVANCE AHEAD OF THE CONCRETE AND ALLOW SOILS TO CAVE INTO THE AUGURED SHAFT SUCH AS MAY BE DETECTED BY A DROP IN PRESSURE AT THE PUMP. THIS PROCEDURE SHALL CONTINUE WITHOUT BREAK FROM BOTTOM TO TOP OF PILING. CENTER REINFORCEMENT BARS, WHERE REQUIRED, MAY BE INSTALLED PRIOR TO PUMPING THROUGH THE HOLLOW AUGER STEM.
13. THE AMOUNT OF CONCRETE PLACED IN EACH PILING SHALL BE RECORDED AND THAT AMOUNT SHALL NOT BE LESS THAN THE THEORETICAL VOLUME OF THE AUGURED HOLE.
14. THE DESIGN BEARING CAPACITY FOR EACH PILING AND THE DESIGNATED PILING LENGTH SHALL BE AS SHOWN ON THE DRAWING. PILES SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. PILE CENTERS SHALL BE LOCATED TO AN ACCURACY OF PLUS OR MINUS TWO (2") INCHES FOR BEARING PILES.
15. SOIL BORINGS HAVE BEEN PERFORMED ON THE CONSTRUCTION SITE AND THE LOGS OF THESE BORINGS ARE ON FILE. THESE BORING LOGS MAY BE INSPECTED BY THE CONTRACTOR, IF DESIRED. HOWEVER, IT SHALL BE NOTED THAT THESE BORINGS ARE MADE AVAILABLE FOR THE CONTRACTOR'S CONVENIENCE ONLY AND NEITHER THE OWNER, ENGINEER/ARCHITECT, NOR THE ENGINEERING LABORATORY STATES OR IMPLIES ANY GUARANTEE AS TO DIFFERENCES THAT MAY OCCUR BETWEEN SOIL CONDITIONS ON THE SITE AND THOSE INDICATED BY THE BORING LOGS.
16. DAILY RECORDS SHALL BE KEPT BY THE CONTRACTOR, TO BE CONFIRMED BY THE ENGINEERING LABORATORY EMPLOYED BY THE OWNER, FOR ALL AUGER CAST PILING AND SHALL CONTAIN THE FOLLOWING INFORMATION REGARDING PILES PLACED. COPIES OF THESE RECORDS SHALL BE FURNISHED AS FOLLOWS:
 - 1 COPY TO CONCRETE COMPANY
 - 1 COPY TO CMG ENGINEERS
 1. NUMBER OF PILE (LOCATION SHOWN ON PLANS).
 2. DEPTH OF PILE (CUTOFF ELEVATION OF PILE TIP).
 3. DIAMETER OF PILE.
 4. VOLUME OF CONCRETE MATERIAL PLACED IN EACH PILE.
 5. PRESSURE USED IN PLACING PILE.
 6. TYPE OF REINFORCING PLACED IN PILE.
17. THE CONTRACTOR SHALL OMIT COARSE AGGREGATE FROM THE AUGER CAST PILE CONCRETE. ALL REQUIREMENTS FOR CLASS "AC" CONCRETE AS STATED IN THE "CONCRETE NOTES" SHALL NOT BE REDUCED. THE CONSISTENCY OF THE SAND-CEMENT CONCRETE GROUT SHALL BE CHECKED PERIODICALLY BY AN HP METER AS DESCRIBED IN THE FOLLOWING.
18. THE MATERIALS BEING MIXED SHALL BE CHECKED PERIODICALLY AND THE TIME OF EFFLUX AS MEASURED BY FLOW THROUGH THE HP METER CONSISTS OF A CONICAL SHAPED VESSEL, WHOSE INTERIOR SURFACE SLOPES TOWARD THE VERTEX AT AN ANGLE OF APPROXIMATELY 67 DEGREES, FORMING A RESERVOIR CAPABLE OF CONTAINING 1725 MLS. AT THE SMALL END OF THE VESSEL IS LOCATED AN ORIFICE 19 MM IN DIAMETER AND 2.54 CM IN LENGTH. THE METER SHOULD BE ACCOMPANIED BY A STOP WATCH WHICH HAS AT LEAST A READING OF 0.2 SECONDS.
19. THE FIELD TESTING OF THIS TYPE CONCRETE SHALL BE PERFORMED BY THE USE OF "TEST CUBES" IN LIEU OF THE "TEST CYLINDERS" AS DESCRIBED IN THE FOLLOWING.
20. THE CONCRETE SHALL BE TESTED BY MAKING TWO (2) SETS OF 2" X 2" CUBES FOR EACH DAY DURING WHICH AUGER CAST PILES ARE PLACED. A SET OF CUBES SHALL CONSIST OF SIX (6) CUBES: (2) CUBES
21. TO BE TESTED AT SEVEN (7) DAYS; (2) CUBES TO BE TESTED AT TWENTY-EIGHT (28) DAYS; AND (2) CUBES AVAILABLE FOR ADDITIONAL TESTING, AS REQUIRED. TEST CUBES SHALL BE MADE AND TESTED IN ACCORDANCE WITH ASTM C109, WITH THE EXCEPTION THAT THE GROUT SHOULD BE RESTRAINED FROM EXPANSION BY A TOP PLATE.
22. AUGER CAST PILE CONCRETE MAY CONTAIN AN ADDITIONAL ADDITIVE(S) INTRODUCED TO OVERCOME THE NATURAL SHRINKAGE OF CONCRETE AND THUS ASSURE BETTER CONTACT AND FRICTIONAL CAPACITY OF THE PILING. ADDITIONAL ADDITIVES TO REASONABLY RETARD GROUT SET AND IMPROVE FLOW ABILITY MAY BE INTRODUCED INTO THE MIX AT THE OPTION OF THE CONTRACTOR. THE ADDITIVE(S) SHALL BE APPROVED MATERIALS WHICH HAVE PROVEN EXPERIENCE RECORDS OF NOT LESS THAN FIVE (5) YEARS.
23. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER/ARCHITECT, FOR APPROVAL, THE MIX WHICH HE PROPOSES TO USE FOR THE AUGER CAST PILING CONCRETE AND ALL REQUISITE LITERATURE AND PRODUCT RECORDS NO LATER THAN ONE (1) WEEK PRIOR TO COMMENCING THE AUGER CAST PILE INSTALLATIONS. A TRIAL BATCH OF THIS MIX SHALL HAVE BEEN MADE AND TESTED BY AN APPROVED LABORATORY AND TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT, NO LATER THAN ONE (1) WEEK PRIOR TO TEST PILE PLACEMENT. IN NO CASE SHALL THE AMOUNT OF CEMENT BE LESS THAN EIGHT (8) BAGS PER CUBIC YARD OF CONCRETE AND IN NO CASE SHALL THE CONCRETE ATTAIN A COMPRESSIVE STRENGTH OF LESS THAN 4,000 PSI AN TWENTY-EIGHT (28) DAYS.
24. THE CONTRACTOR SHALL NOT BEGIN ANY EXCAVATION ADJACENT TO ANY AUGER CAST PILES WITHIN 72 HOURS AFTER POURING OPERATIONS OF AUGER CAST PILES.
25. CONSTRUCTION OF PILES, MIX DESIGN, MIX CONSISTENCY AND METHODS OF INSTALLATION SHALL BE SUCH TO ALLOW UNRESTRICTED PLACEMENT OF STEEL REINFORCEMENT PRIOR TO AUGER GROUT SET AND TO PROJECT DIMENSIONS AS SHOWN ON THE DRAWINGS.
26. CONTRACTOR SHALL SUBMIT TO THE ENGINEER/ARCHITECT, SIX (6) COMPLETE SETS OF SHOP DRAWINGS, INCLUDING THE PROPOSED CONSTRUCTION SEQUENCE, METHOD AND SCHEDULE FOR PLACEMENT OF ALL AUGER CAST PILES AND THEIR REINFORCEMENT, PLACEMENT SEQUENCE OF ALL PILE REINFORCING AND ALL OTHER RELATED WORK FOR WRITTEN APPROVAL BY THE ENGINEER/ARCHITECT, ONE (1) WEEK PRIOR TO COMMENCING THE AUGER CAST PILE INSTALLATION. THE SIX (6) SETS SHALL BE DISTRIBUTED AS REQUIRED.

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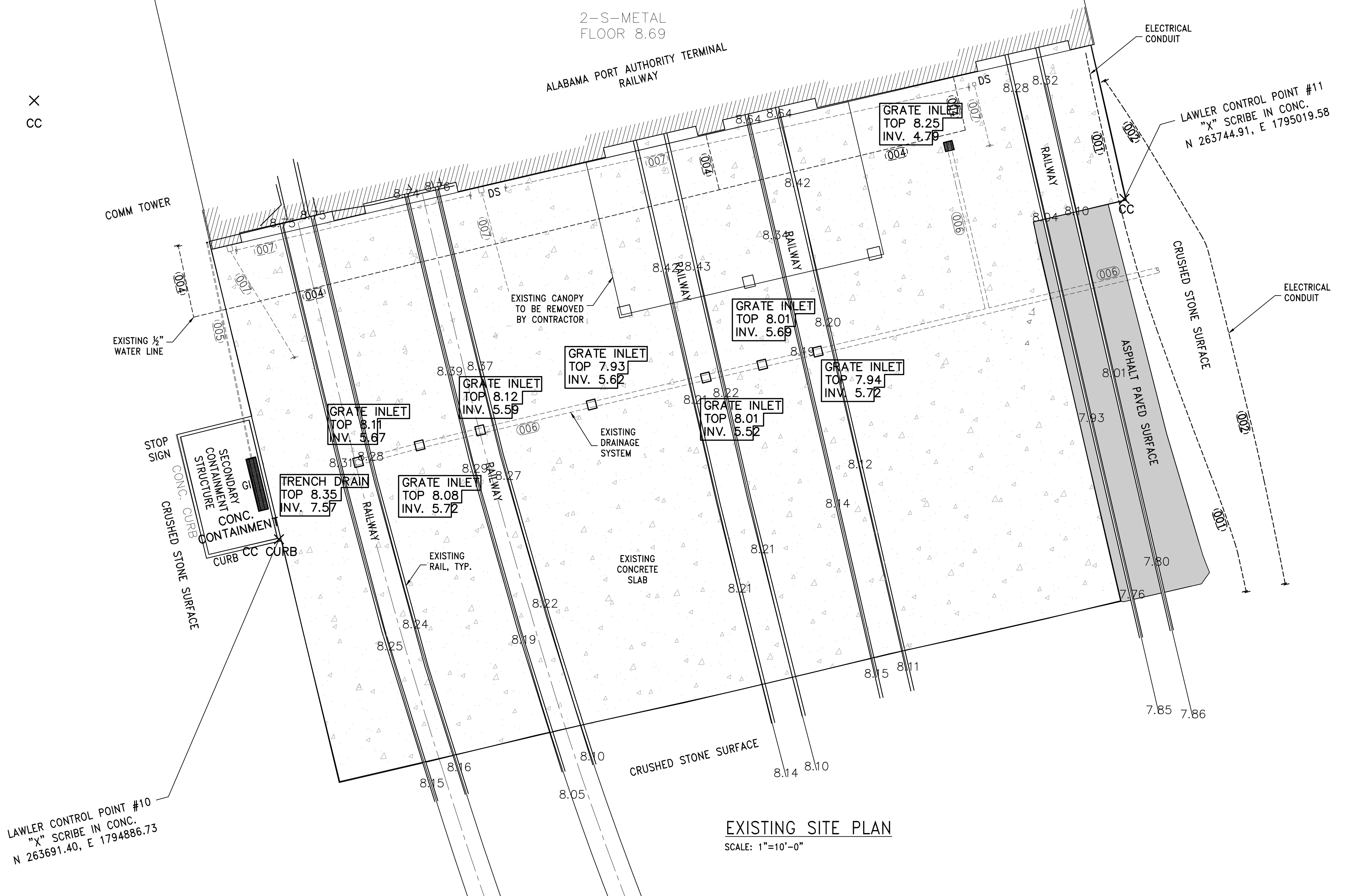


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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	GENERAL NOTES
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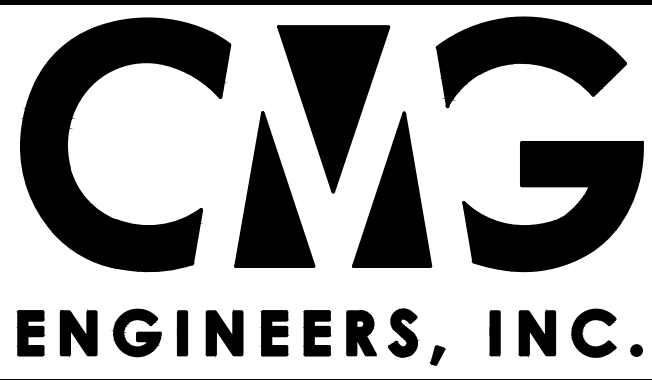
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	DRAWING NUMBER	4503-G4		



NOTE:
SEE E.F. THOMPSON GEOTECHNOLOGIES, INC. DRAWING #24-046A FOR UTILITY DETAILS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS.

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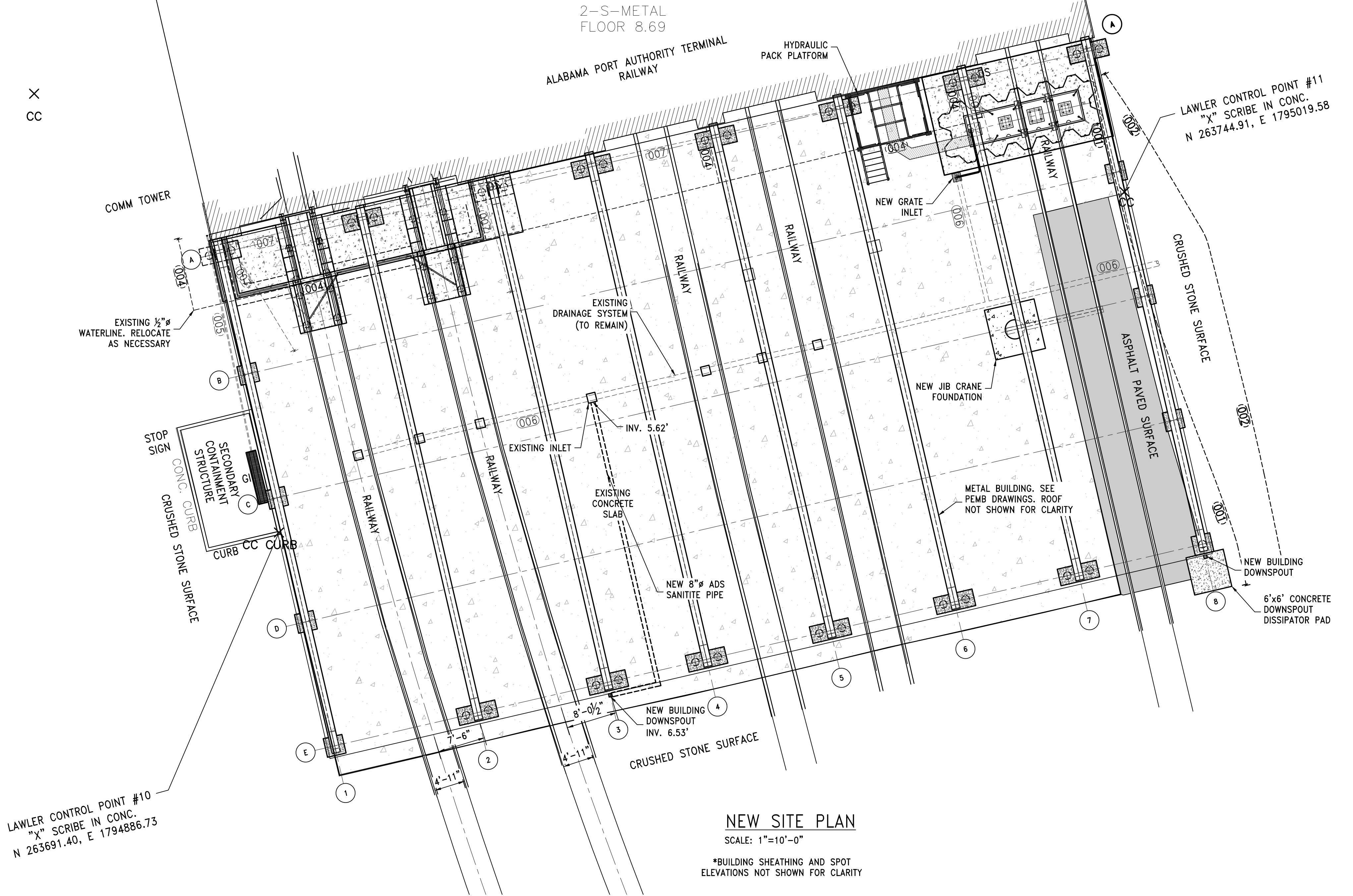
PROJECT
TRR RAIL PIT EXPANSION
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TITLE
EXISTING SITE PLAN

DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-C1		

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LAWLER CONTROL POINT #10
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N 263691.40, E 1794886.75

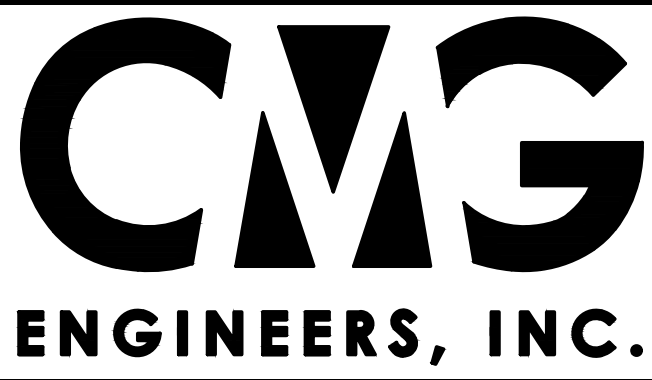
LAWLER CONTROL POINT #11
"X" SCRIBE IN CONC.
N 263744.91, E 1795019.58

NEW SITE PLAN
SCALE: 1"=10'-0"
*BUILDING SHEATHING AND SPOT ELEVATIONS NOT SHOWN FOR CLARITY

- = EXISTING ASPHALT
- = EXISTING CONCRETE
- = NEW CONCRETE

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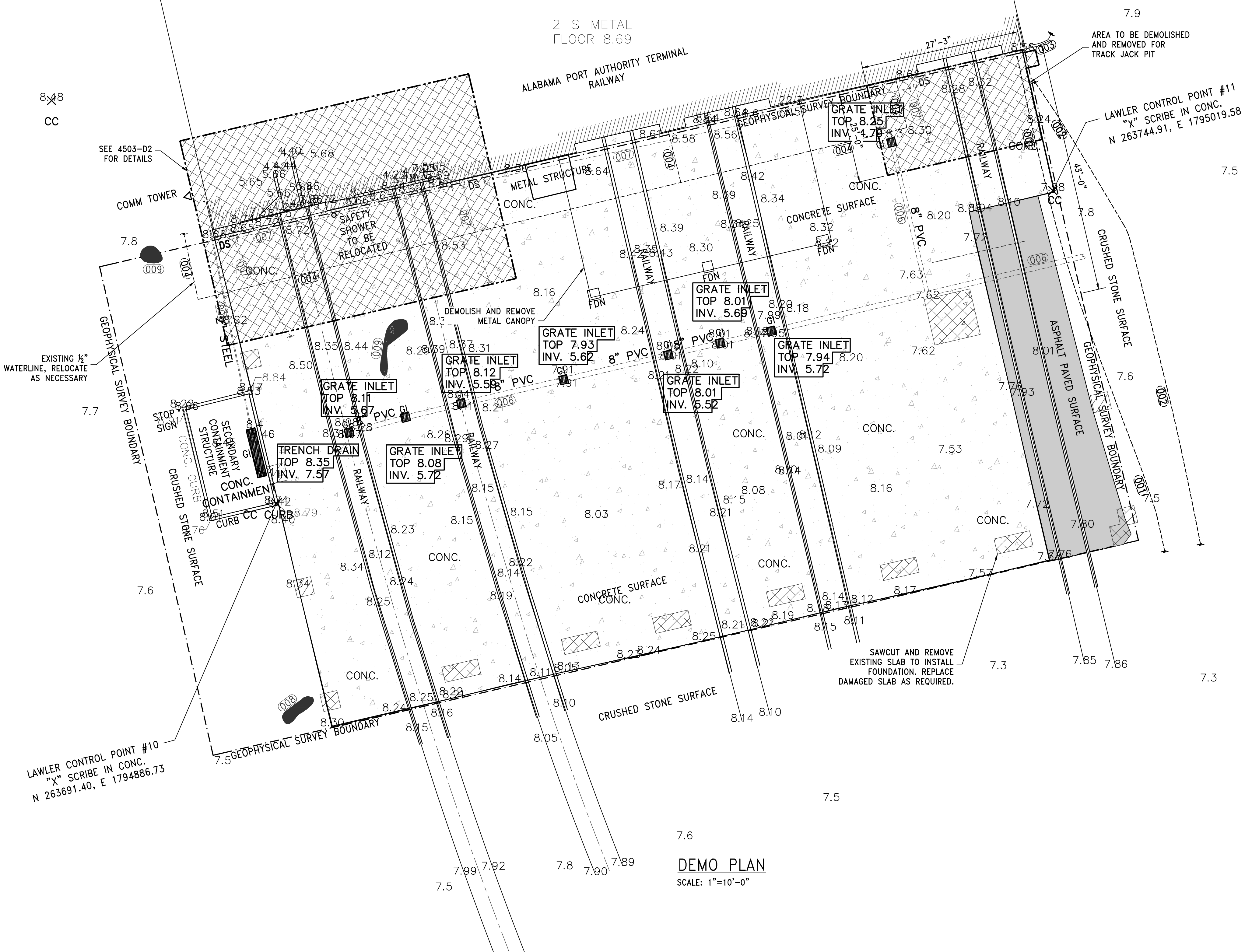
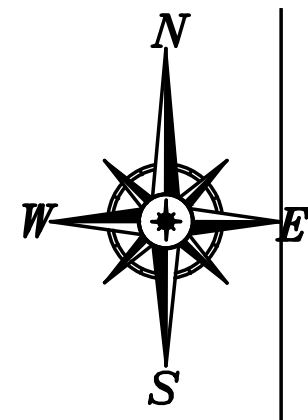


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PROJECT
TRR RAIL PIT EXPANSION
MOBILE ALABAMA

TITLE
NEW SITE PLAN

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- NOTES:**
1. ALL RAIL THAT IS DAMAGED OR REMOVED SHALL BE REPLACED UNLESS NOTED OTHERWISE. EXISTING RAIL MAY BE STORED AND REUSED. IF EXISTING RAIL IS DAMAGED DURING REMOVAL, NEW RAIL SHALL BE INSTALLED AT CONTRACTOR'S EXPENSE.
 2. DEMO DIMENSIONS ARE APPROXIMATE, ALL CONCRETE THAT IS DAMAGED IN CONSTRUCTION SHALL BE REPLACED ACCORDING TO PROJECT DETAILS.
 3. SEE REFERENCE DRAWING 24-046A FOR SUBSURFACE UTILITY SURVEY.
 4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS.

= DEMO AREA

DEMO PLAN
SCALE: 1"=10'-0"

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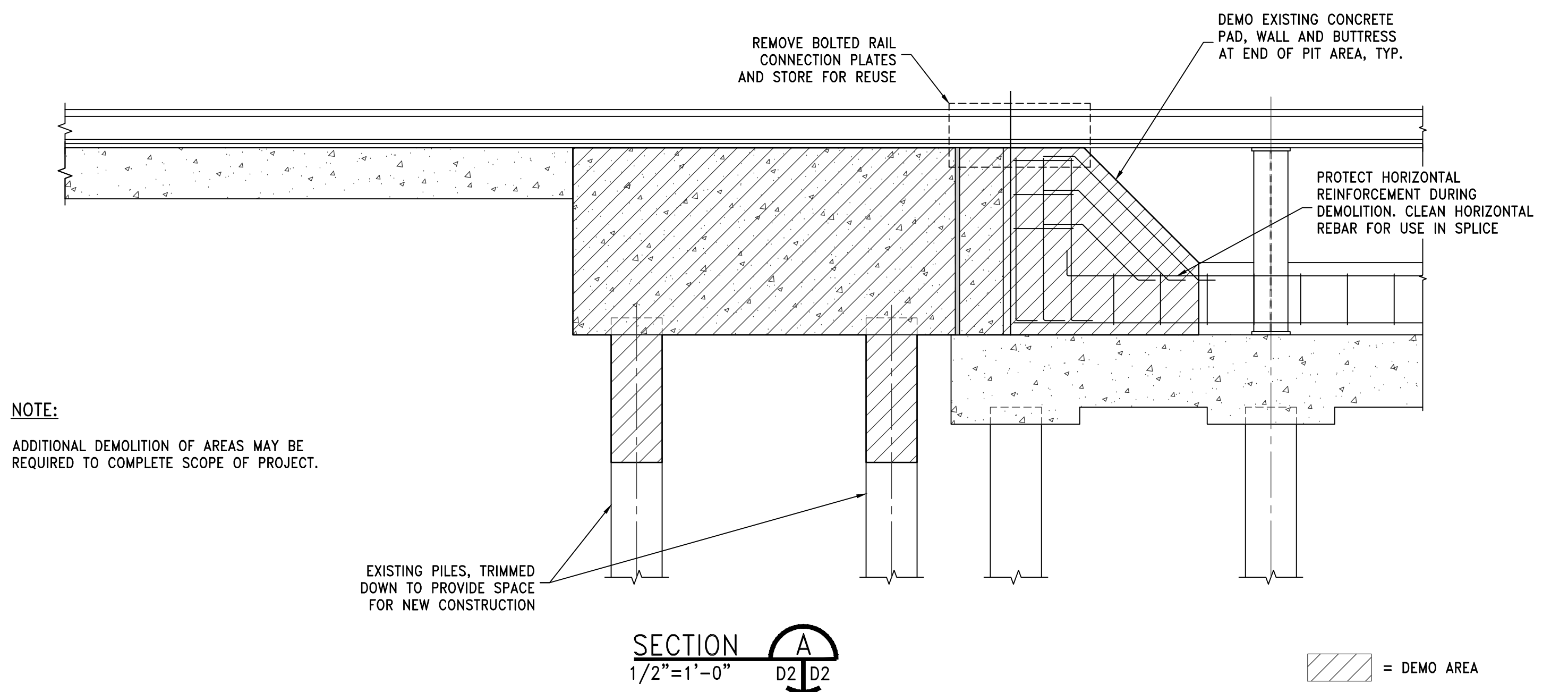
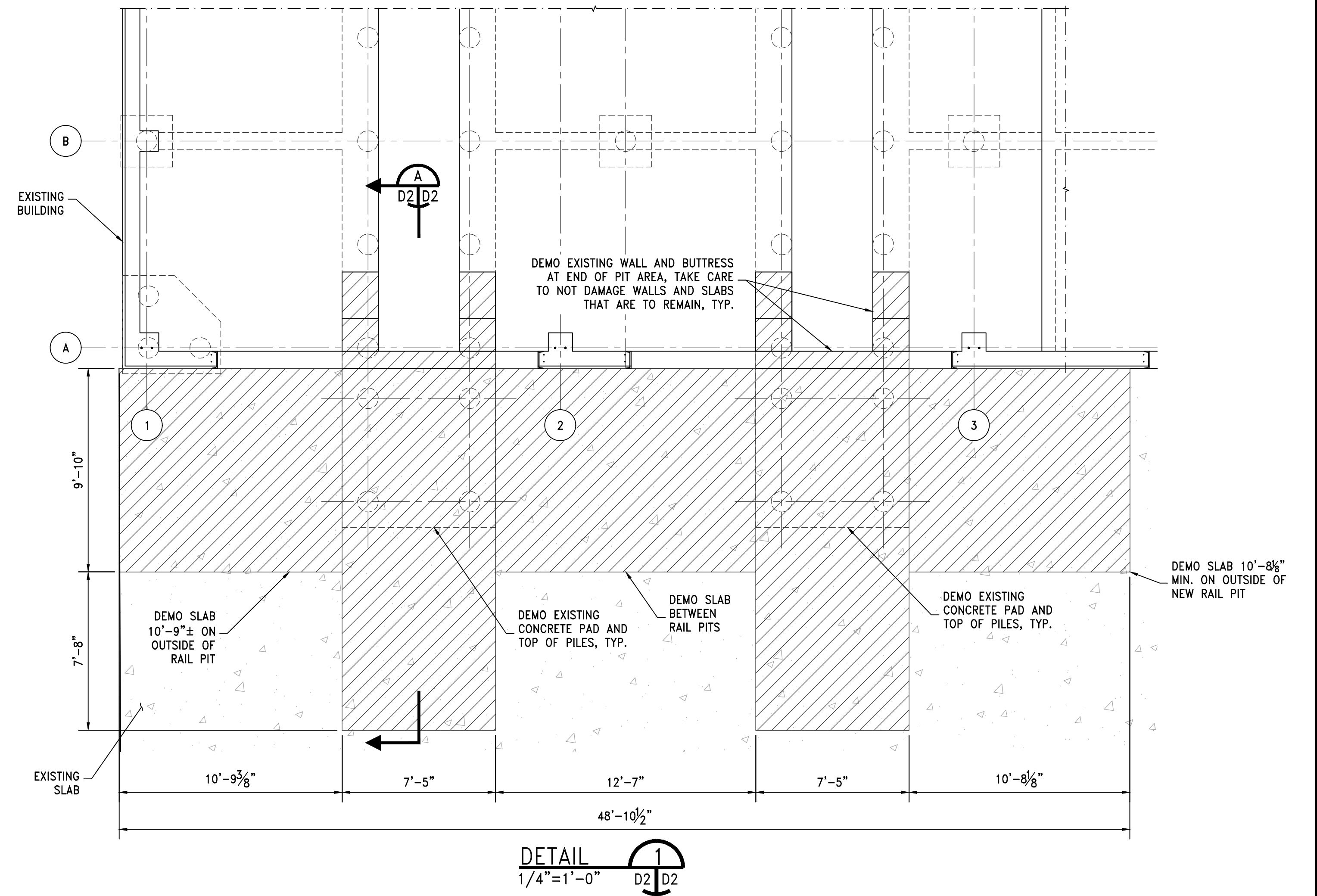
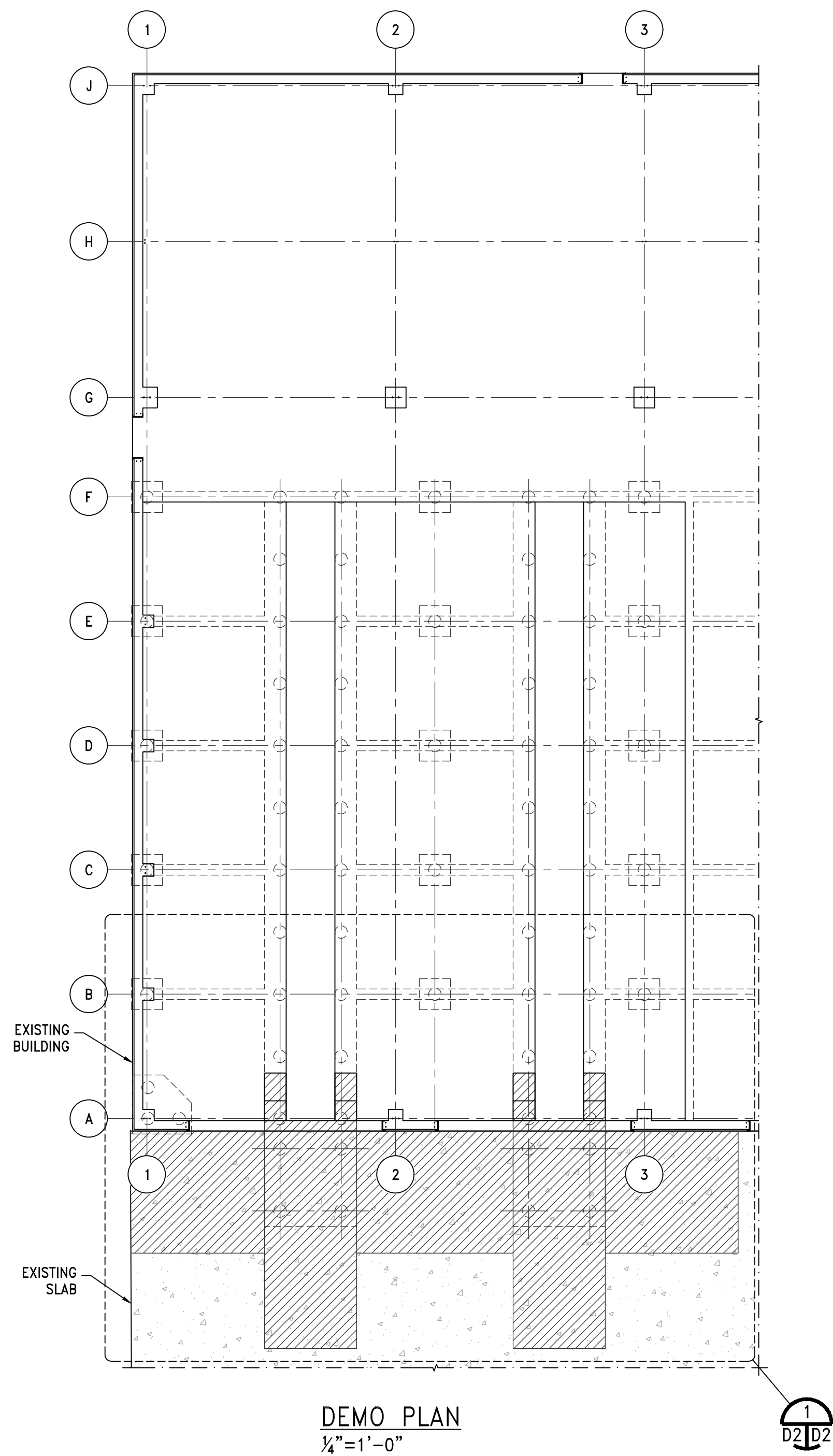
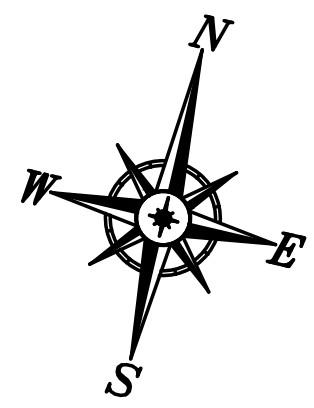
PROJECT
TRR RAIL PIT EXPANSION

MOBILE ALABAMA

TITLE		DATE	22x34 REV.
DEMO PLAN		04/02/25	A
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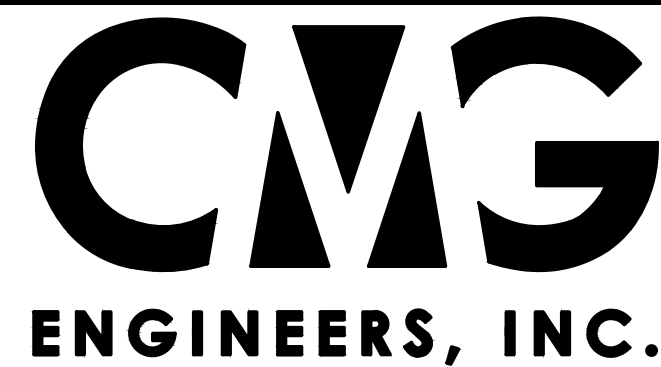
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NOTE:
ADDITIONAL DEMOLITION OF AREAS MAY BE REQUIRED TO COMPLETE SCOPE OF PROJECT.

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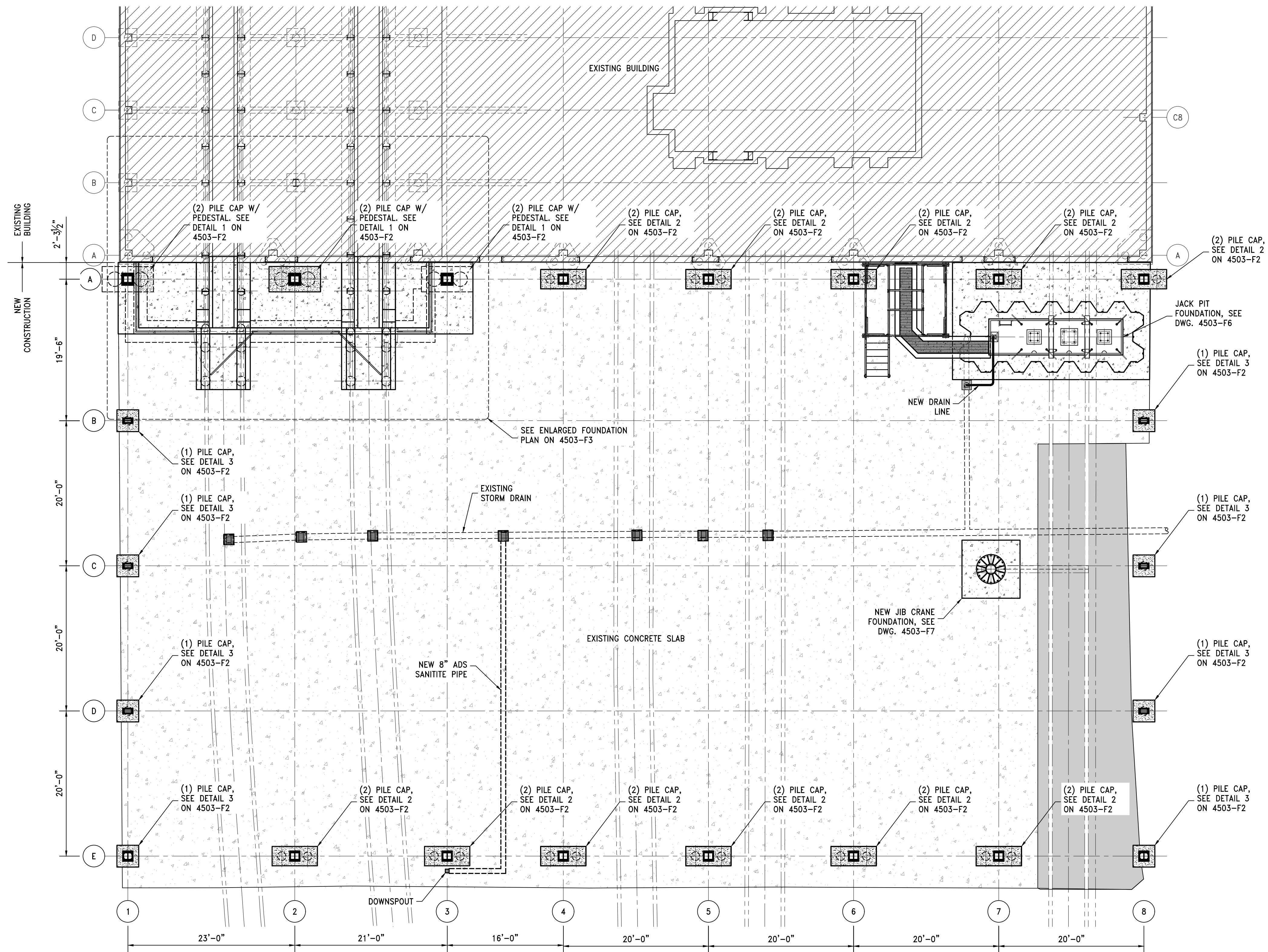
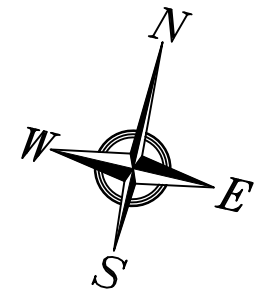
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	DEMO PLAN AND DETAILS
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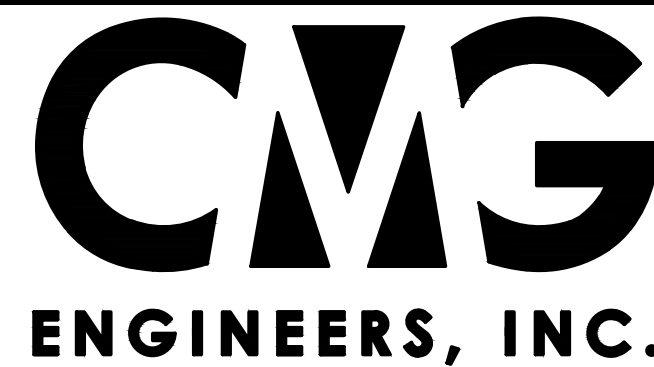
- NOTES:**
- PILES SHOULD NOT BE INSTALLED WITHIN 3 PILE DIAMETERS OF NEWLY PLACED PILING UNTIL GROUT HAS CURED FOR AT LEAST 24 HOURS OR WITHIN 6 PILE DIAMETERS UNTIL GROUT HAS CURED FOR 12 HOURS.
 - PEDESTAL, FOUNDATION, REINFORCEMENT AND PILE SIZES MAY BE REVISED BASED ON PRE-ENGINEERED METAL BUILDING (PROVIDED BY CONTRACTOR) REACTIONS AND DETAILS.

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

- = EXISTING ASPHALT
- = EXISTING CONCRETE
- = NEW CONCRETE

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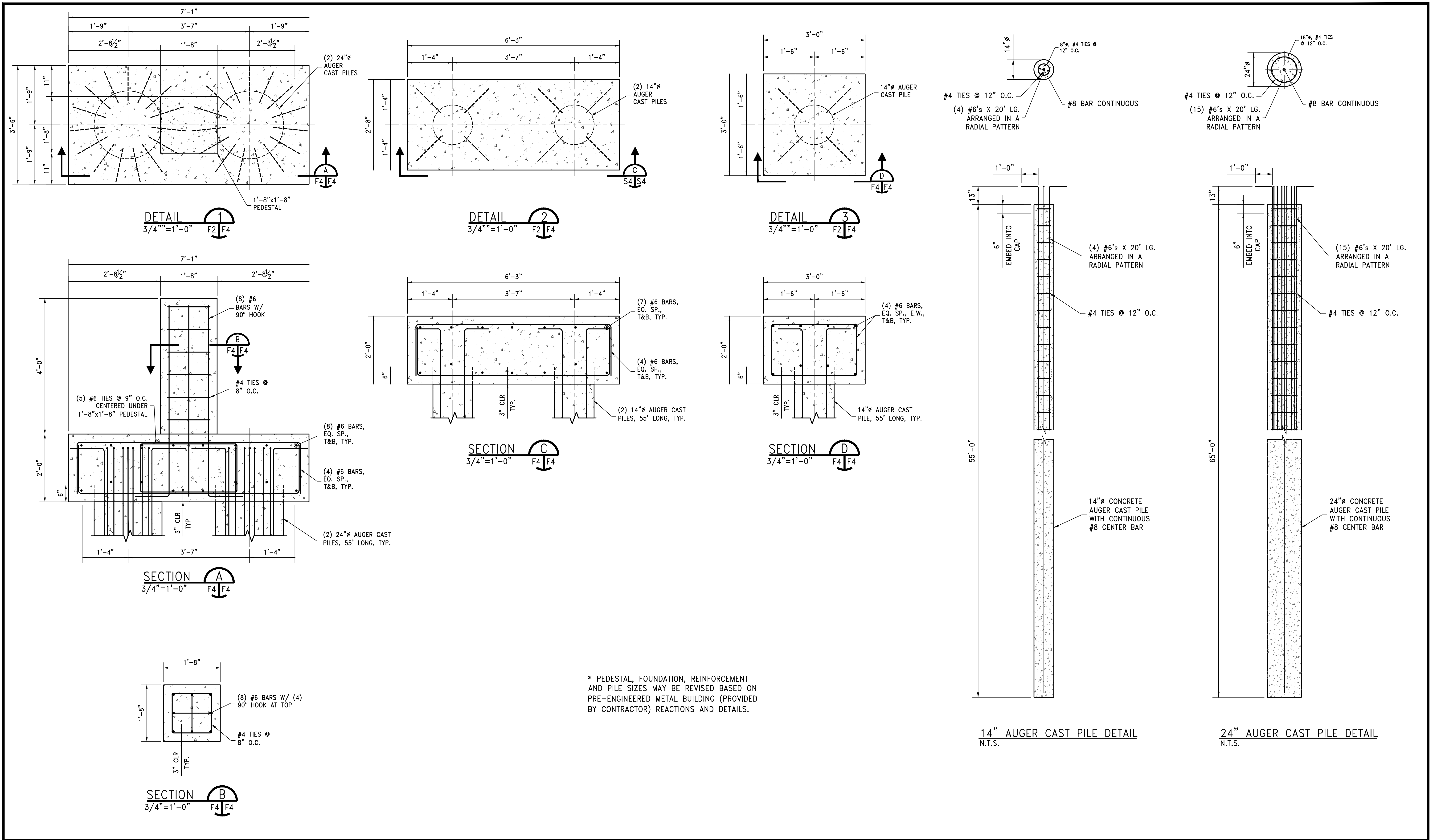
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PROJECT	TRR RAIL PIT EXPANSION
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TITLE	FOUNDATION PLAN
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PROJECT

TRR RAIL PIT EXPANSION

MOBILE ALABAMA

TITLE

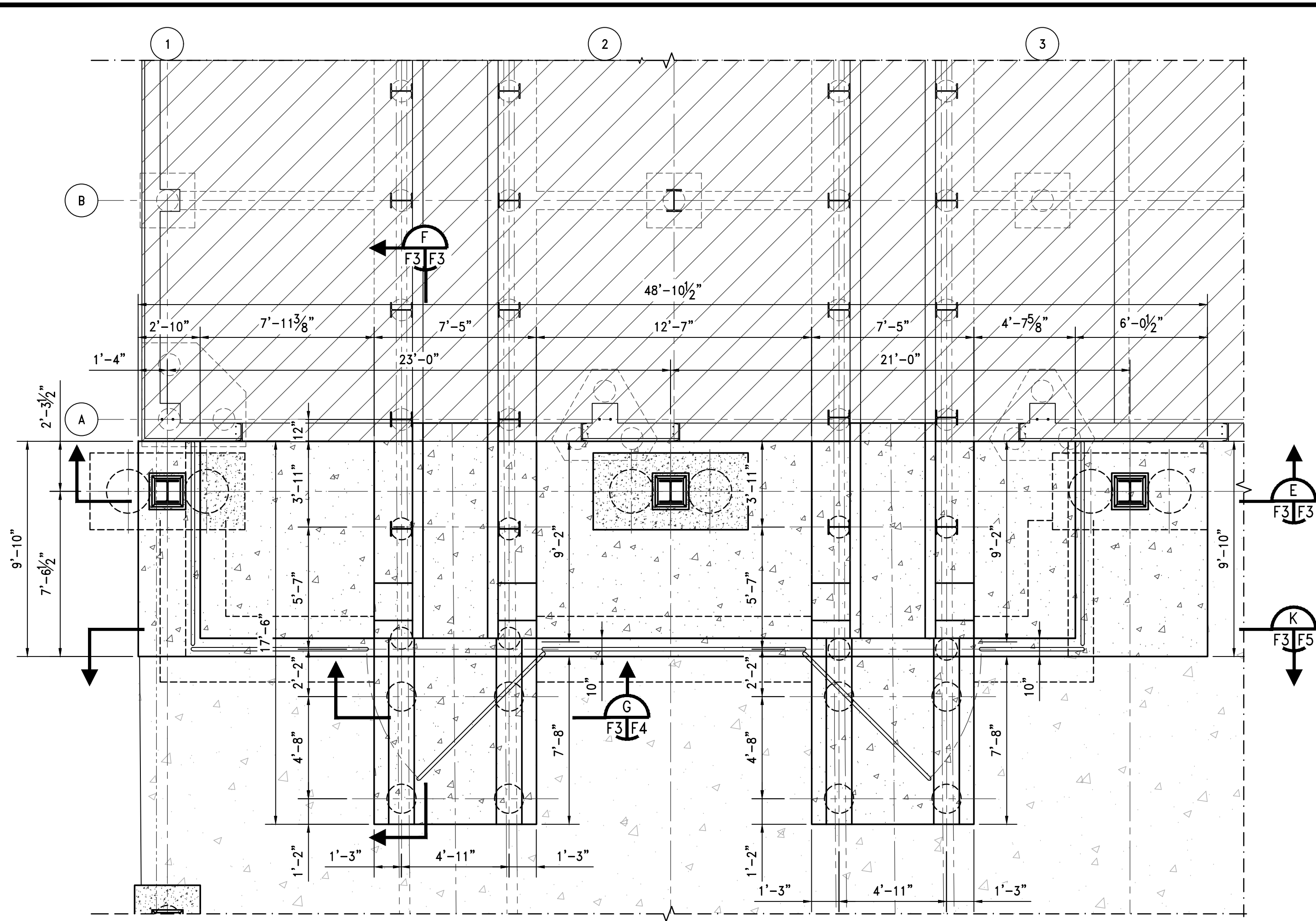
FOUNDATION DETAILS AND SECTIONS

DATE: 04/02/25
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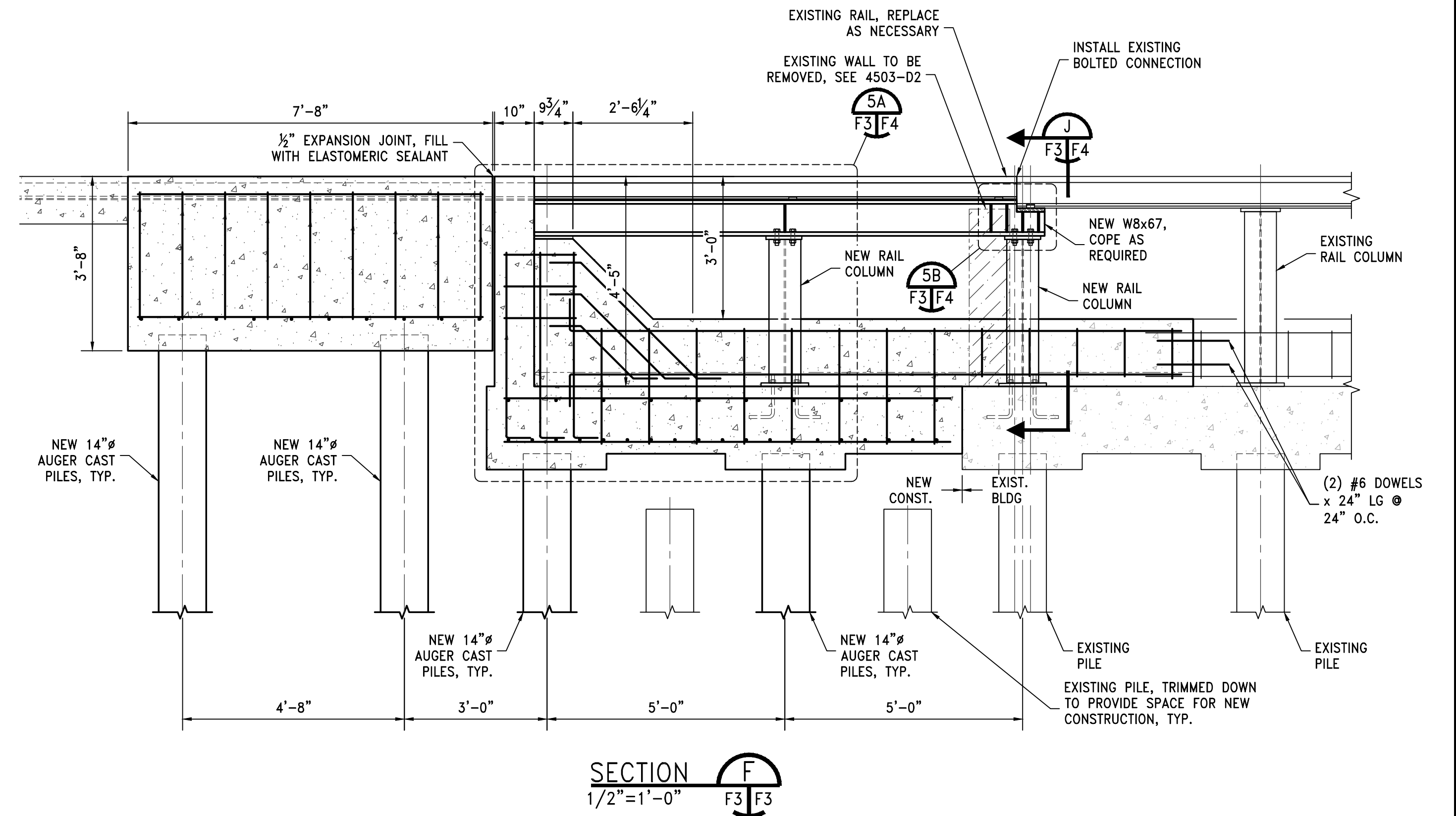
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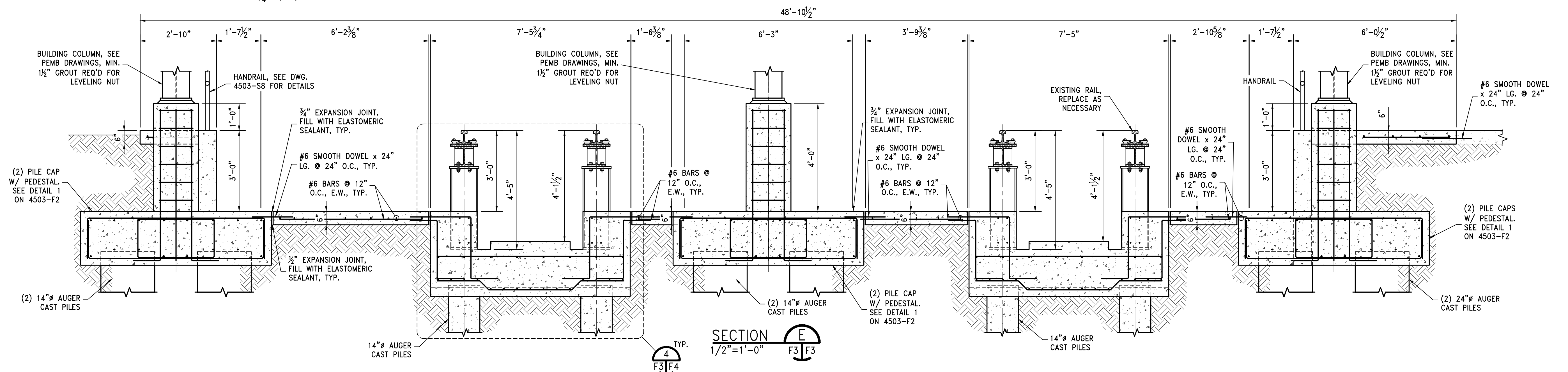
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ENLARGED FOUNDATION PLAN
1/4" = 1'-0"



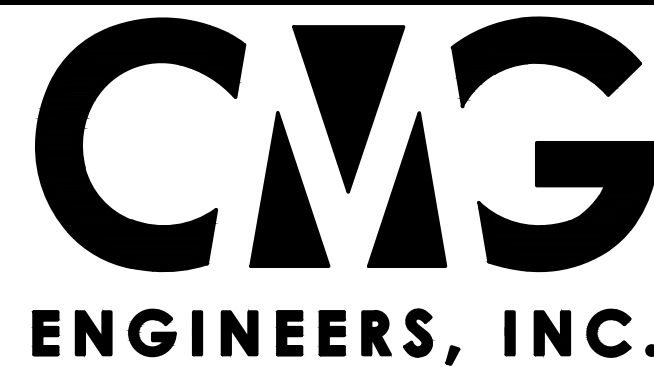
SECTION F
1/2" = 1'-0"



SECTION E
1/2" = 1'-0"

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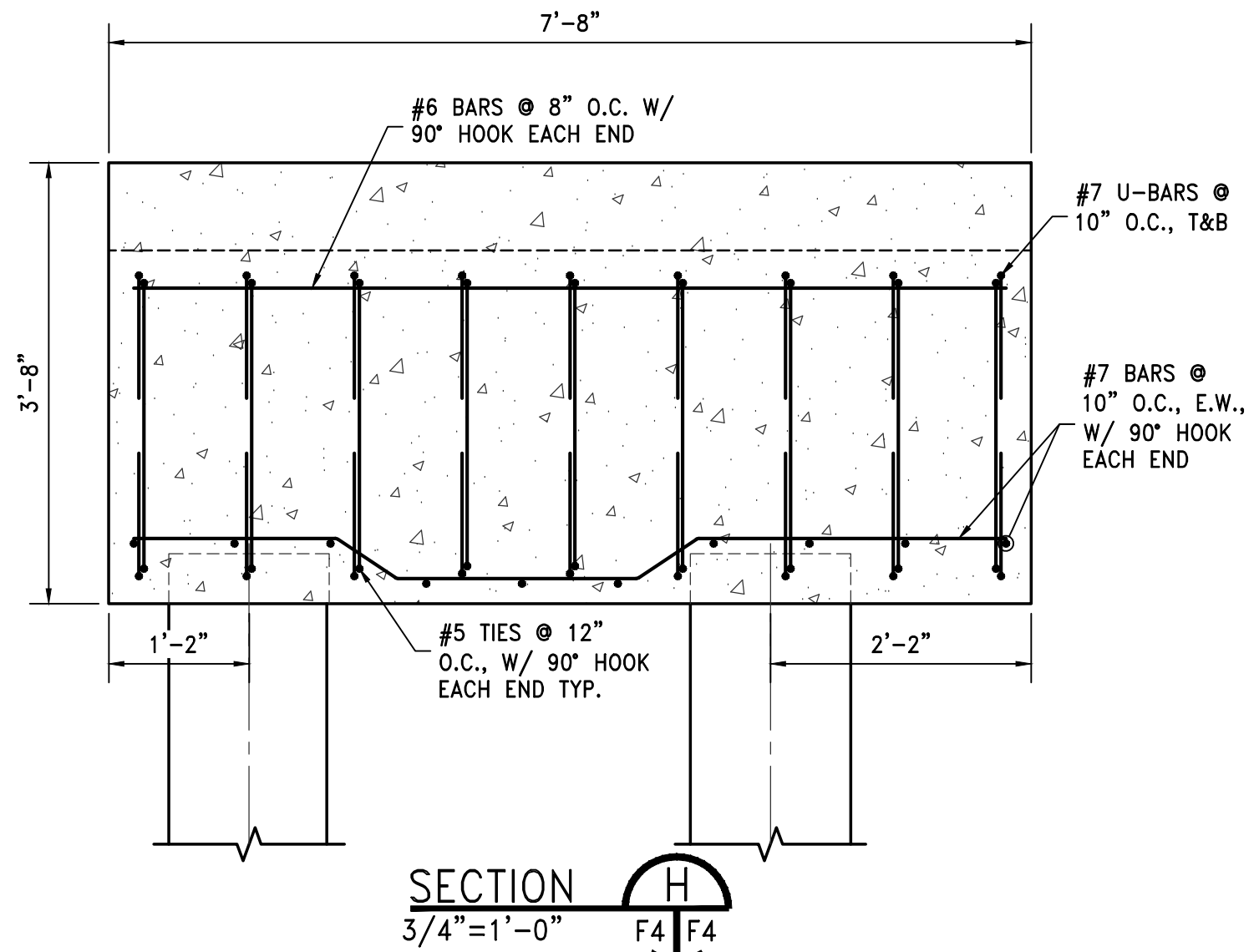
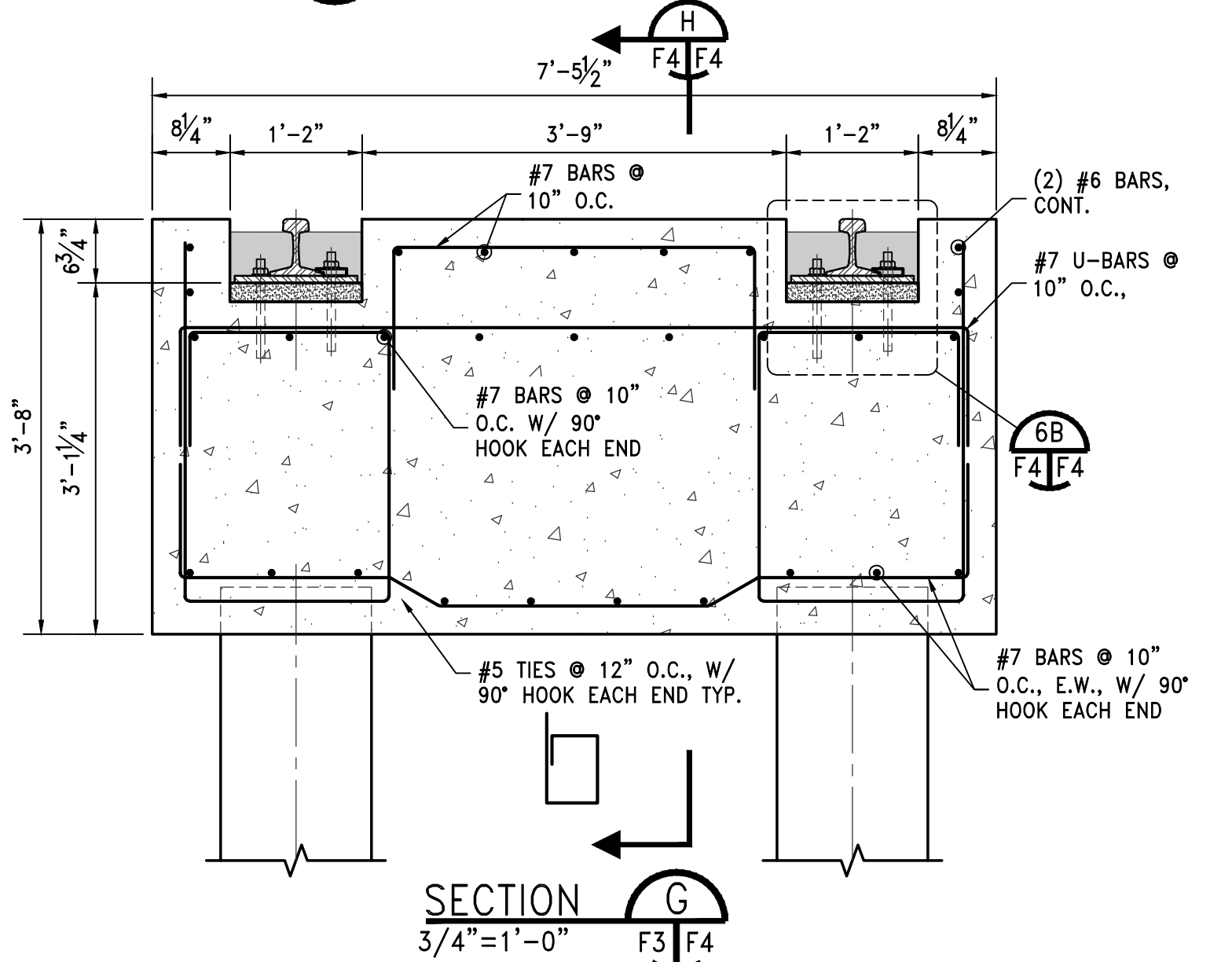
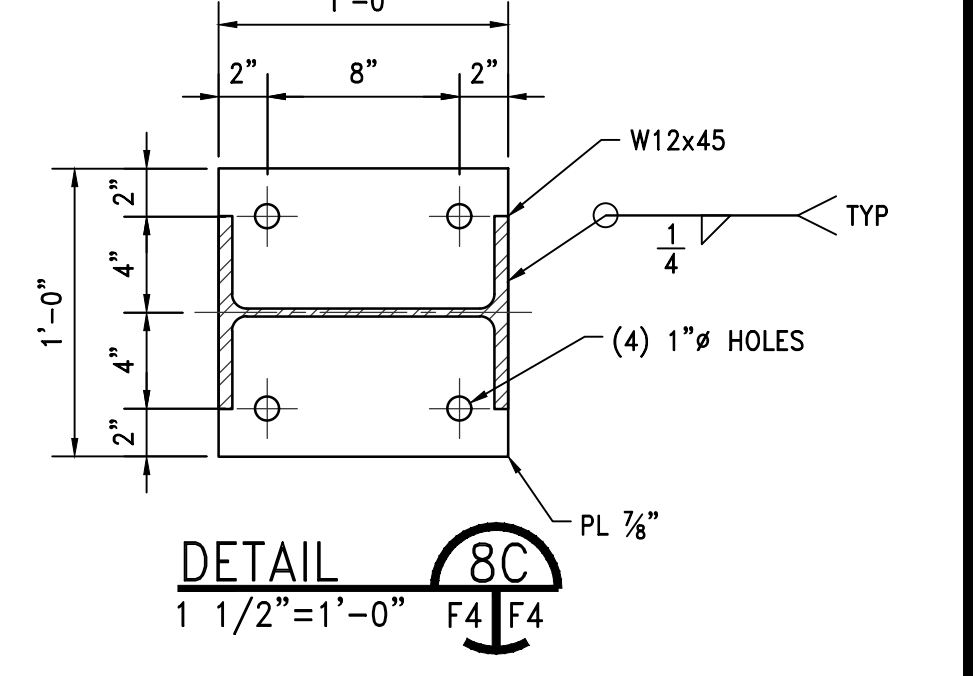
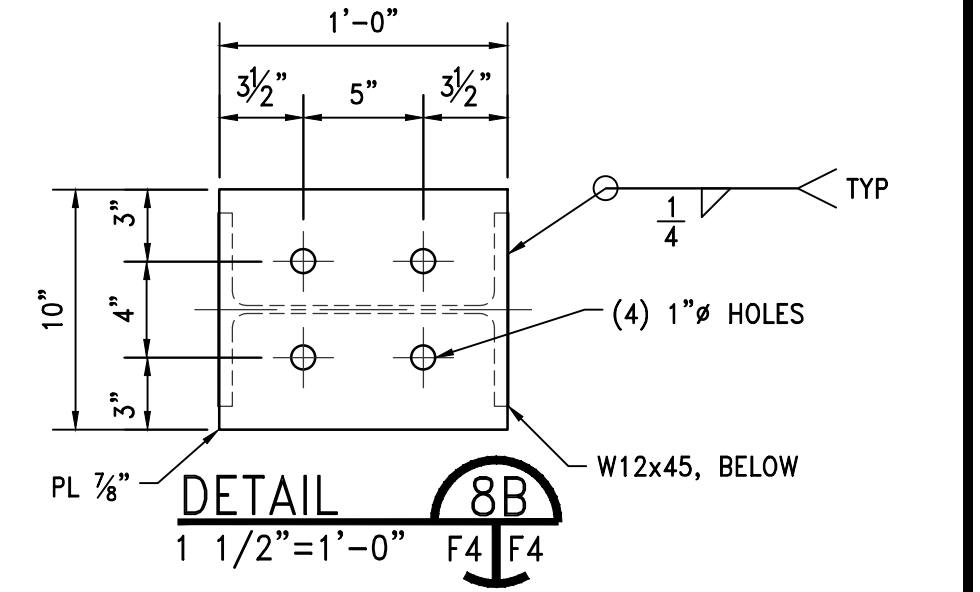
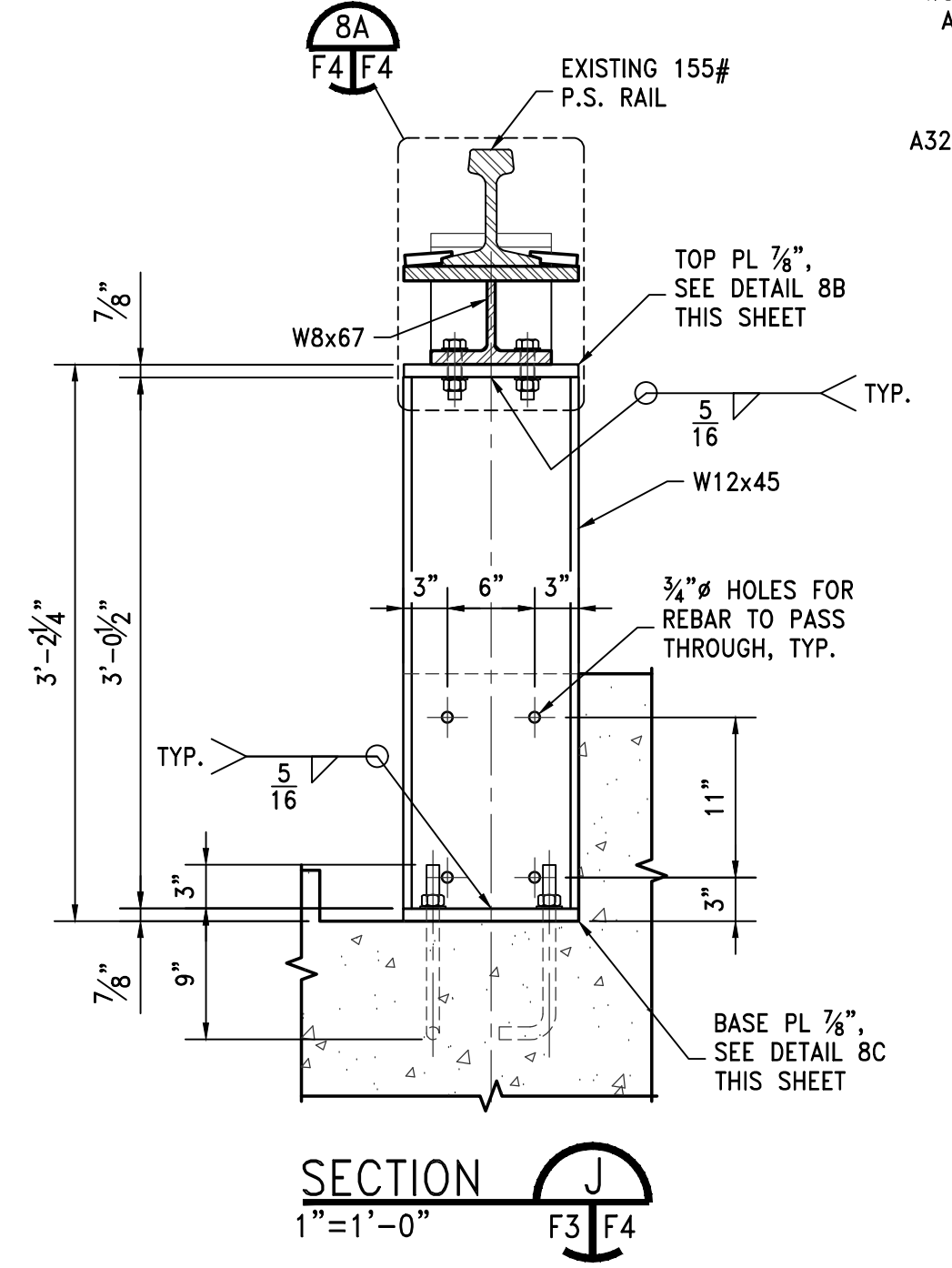
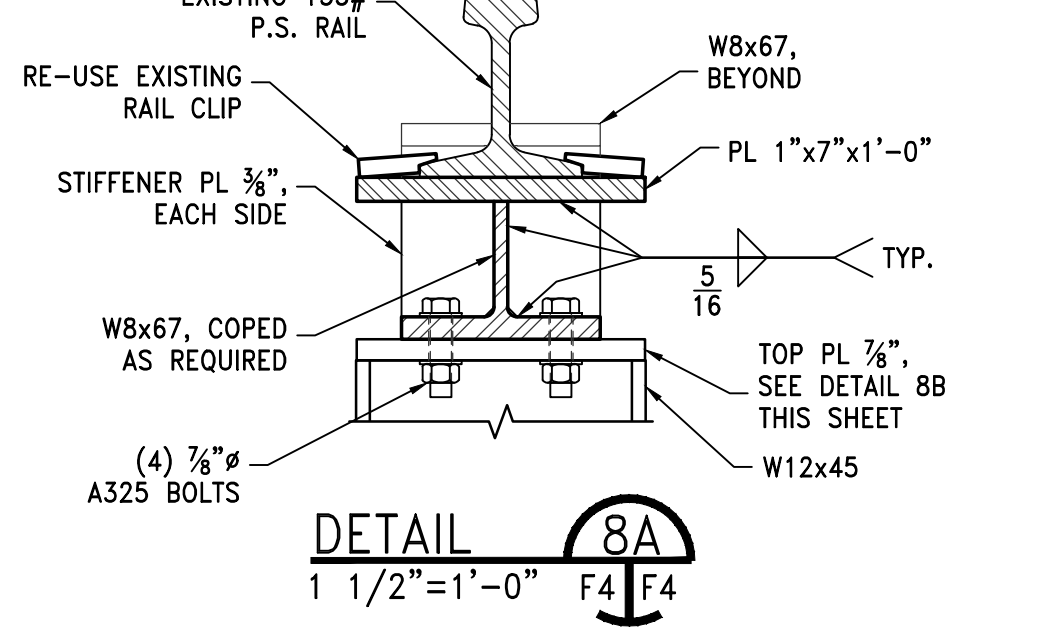
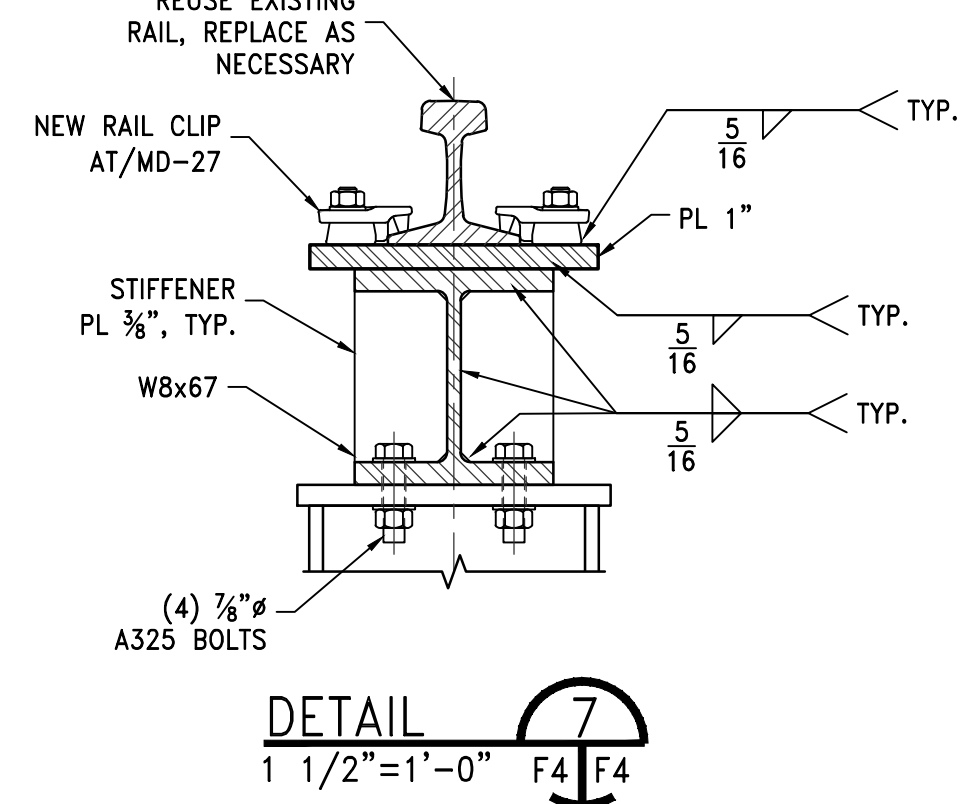
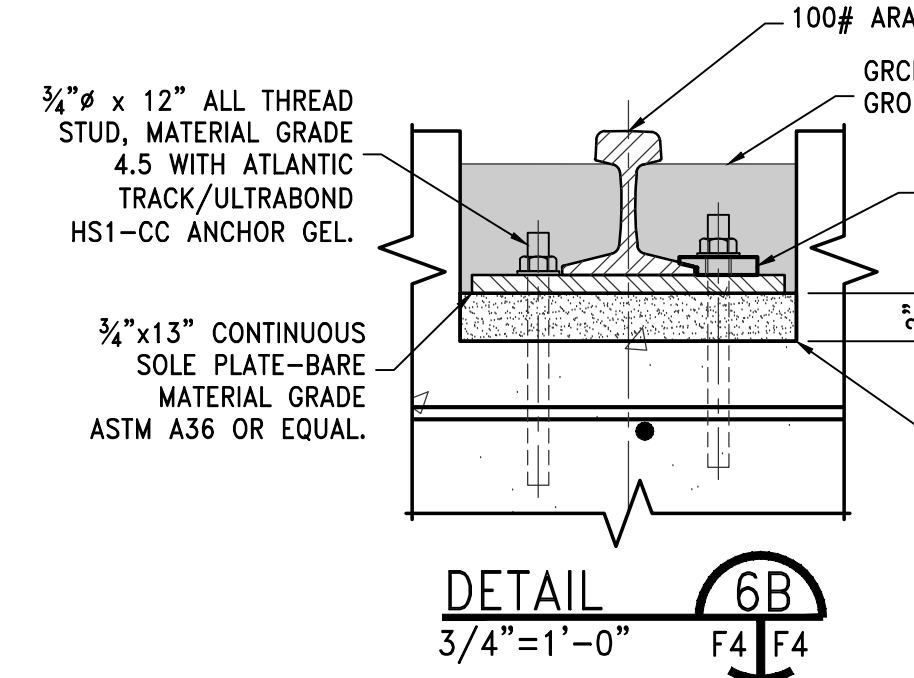
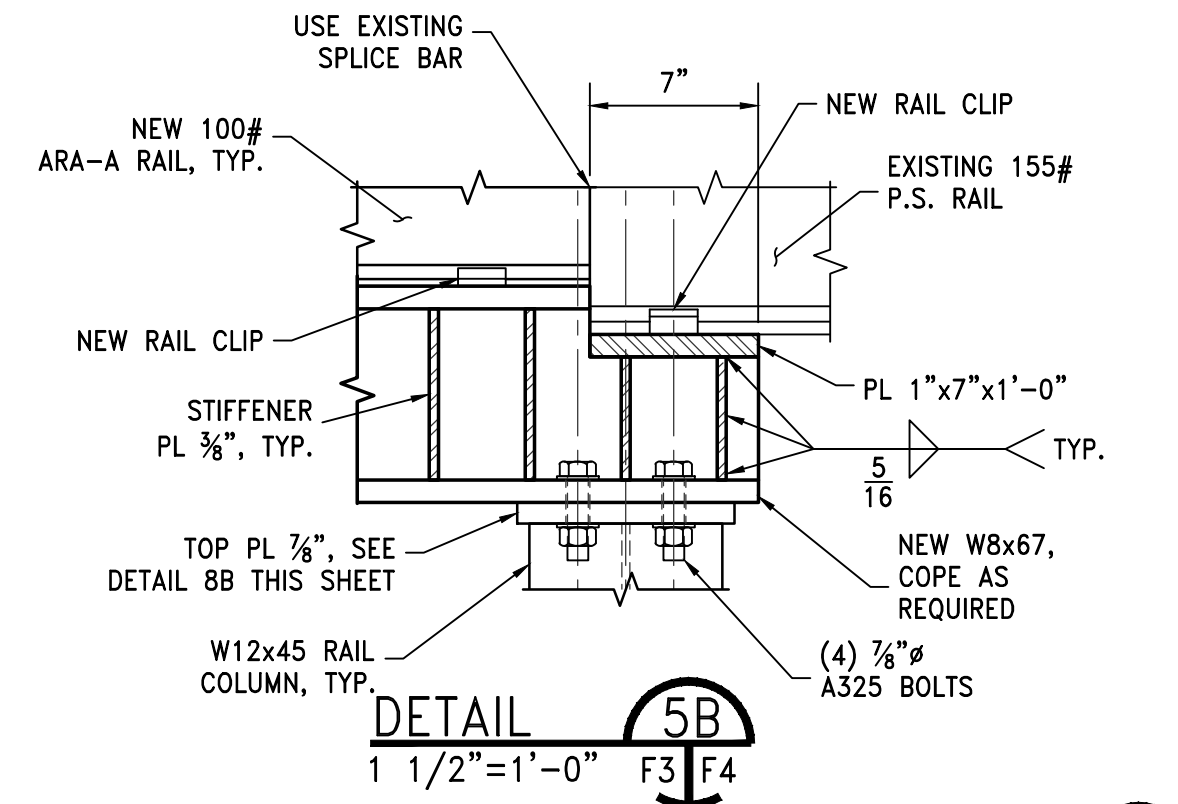
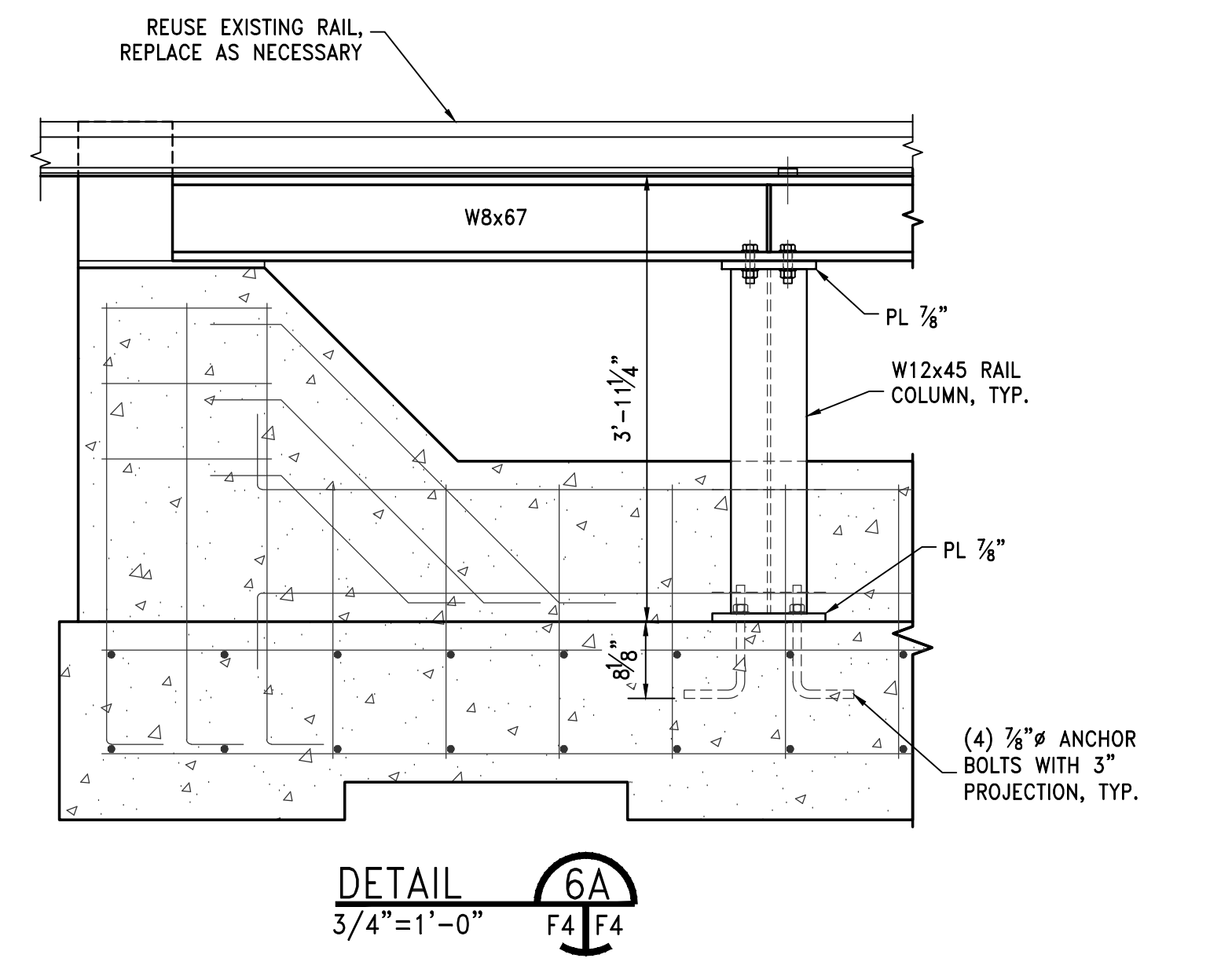
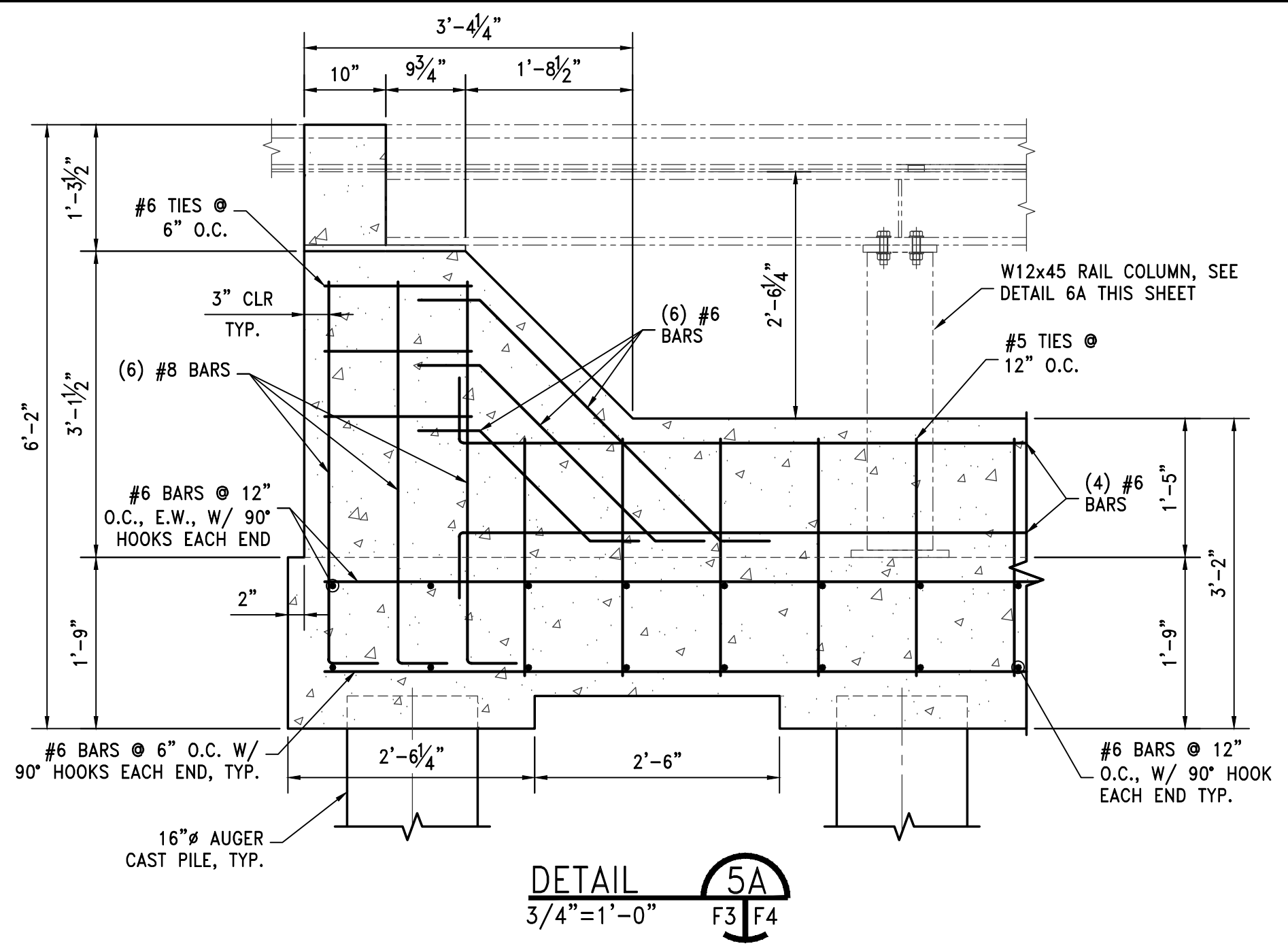
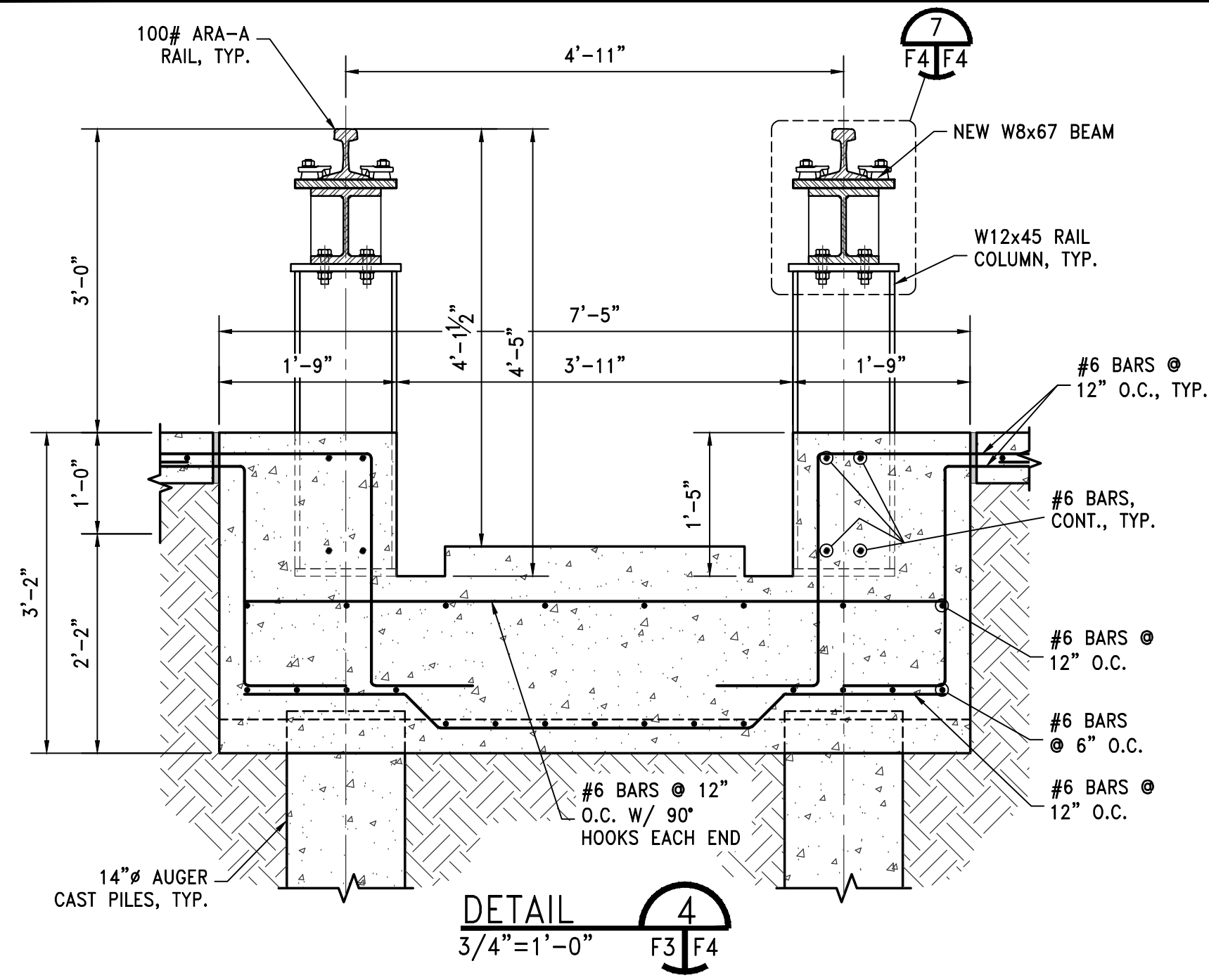
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PROJECT	TRR RAIL PIT EXPANSION
MOBILE ALABAMA	

TITLE	ENLARGED FOUNDATION PLANS, DETAILS AND SECTIONS
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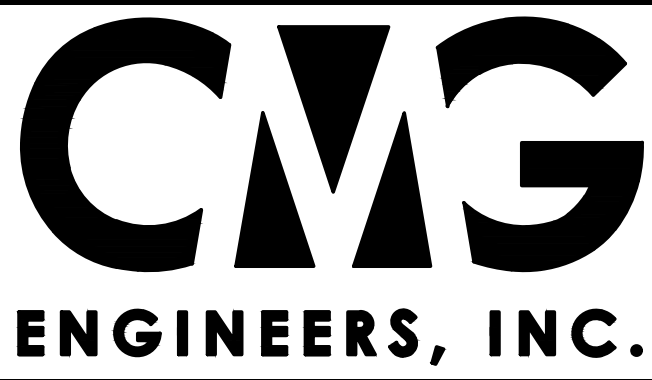
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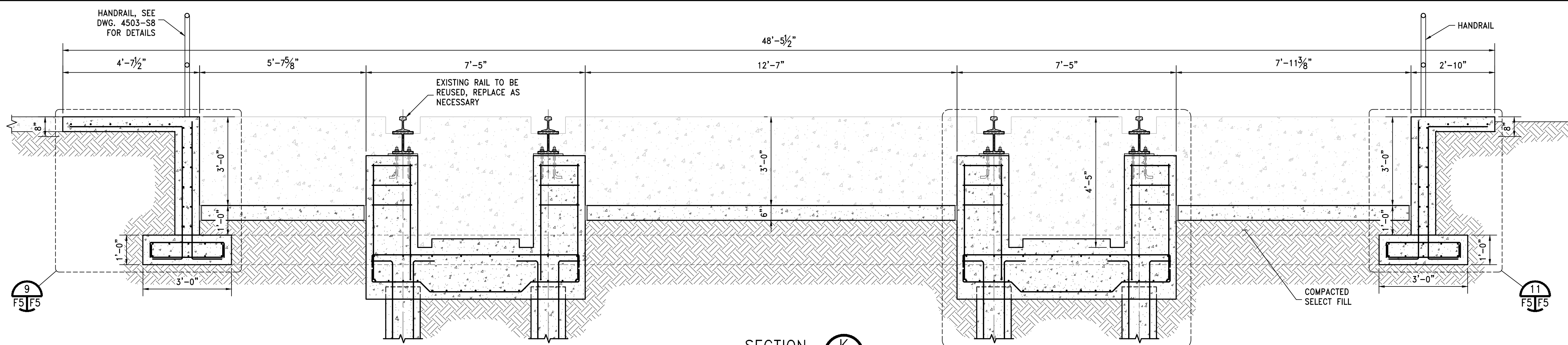
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PROJECT
TRR RAIL PIT EXPANSION
MOBILE ALABAMA

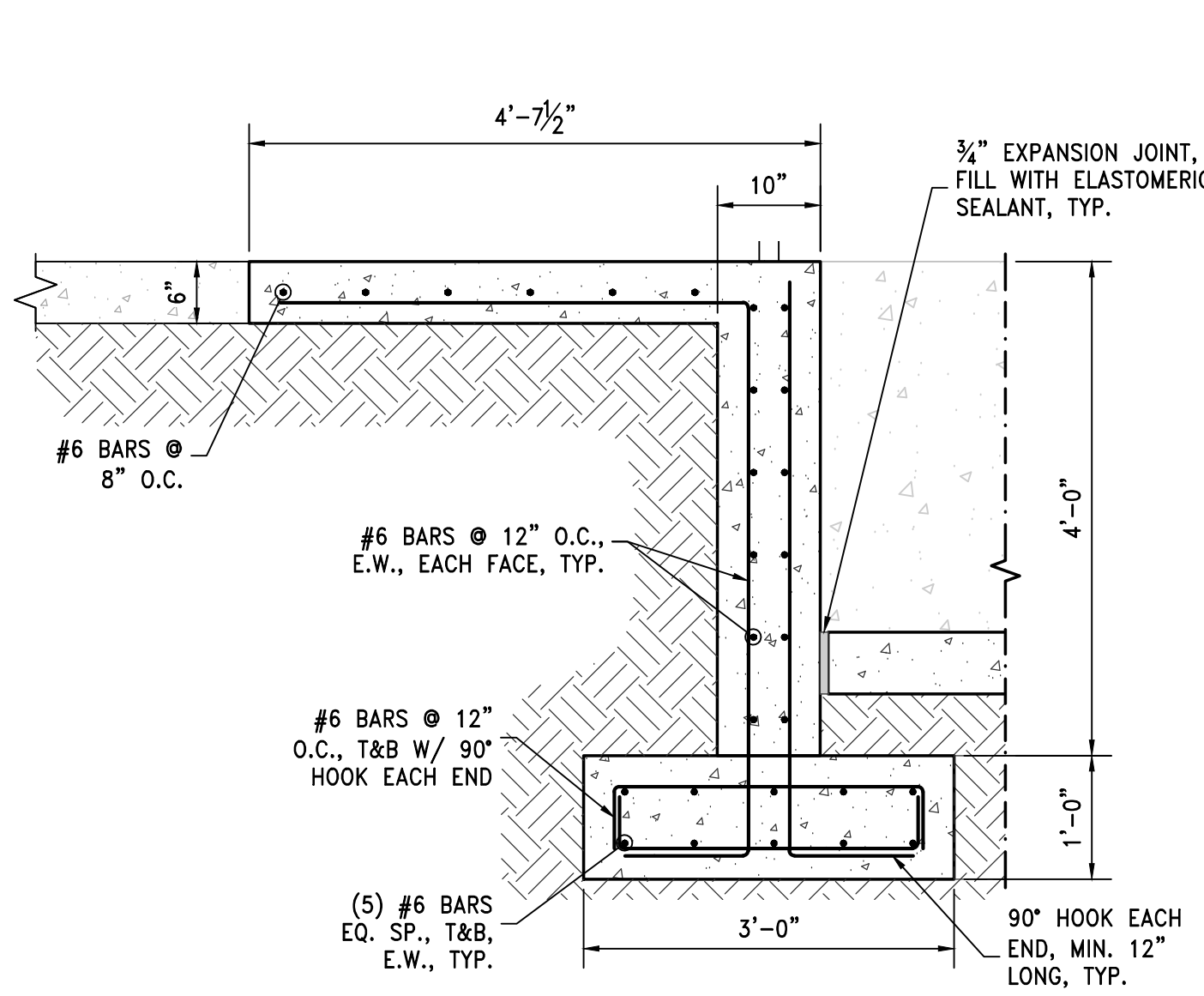
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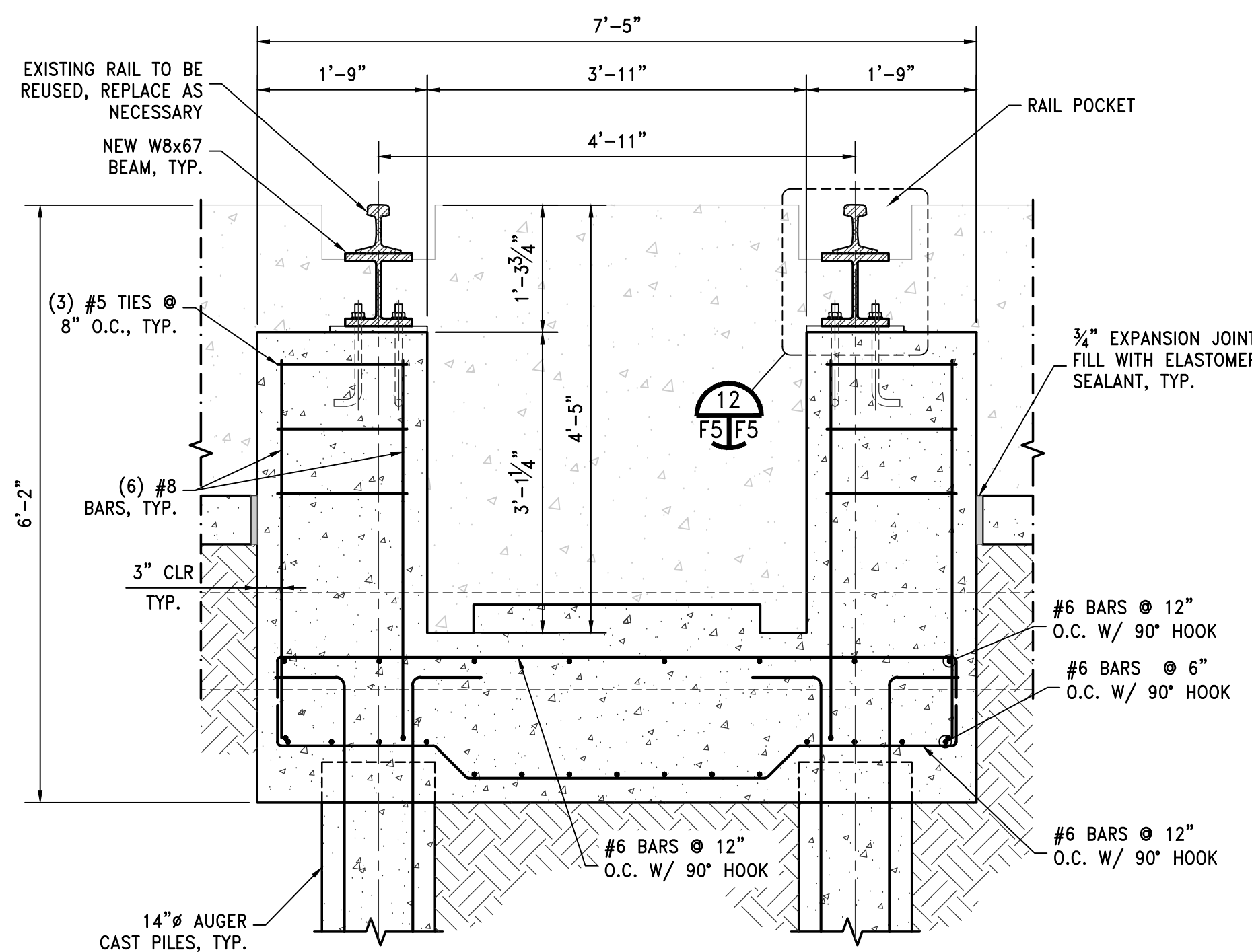
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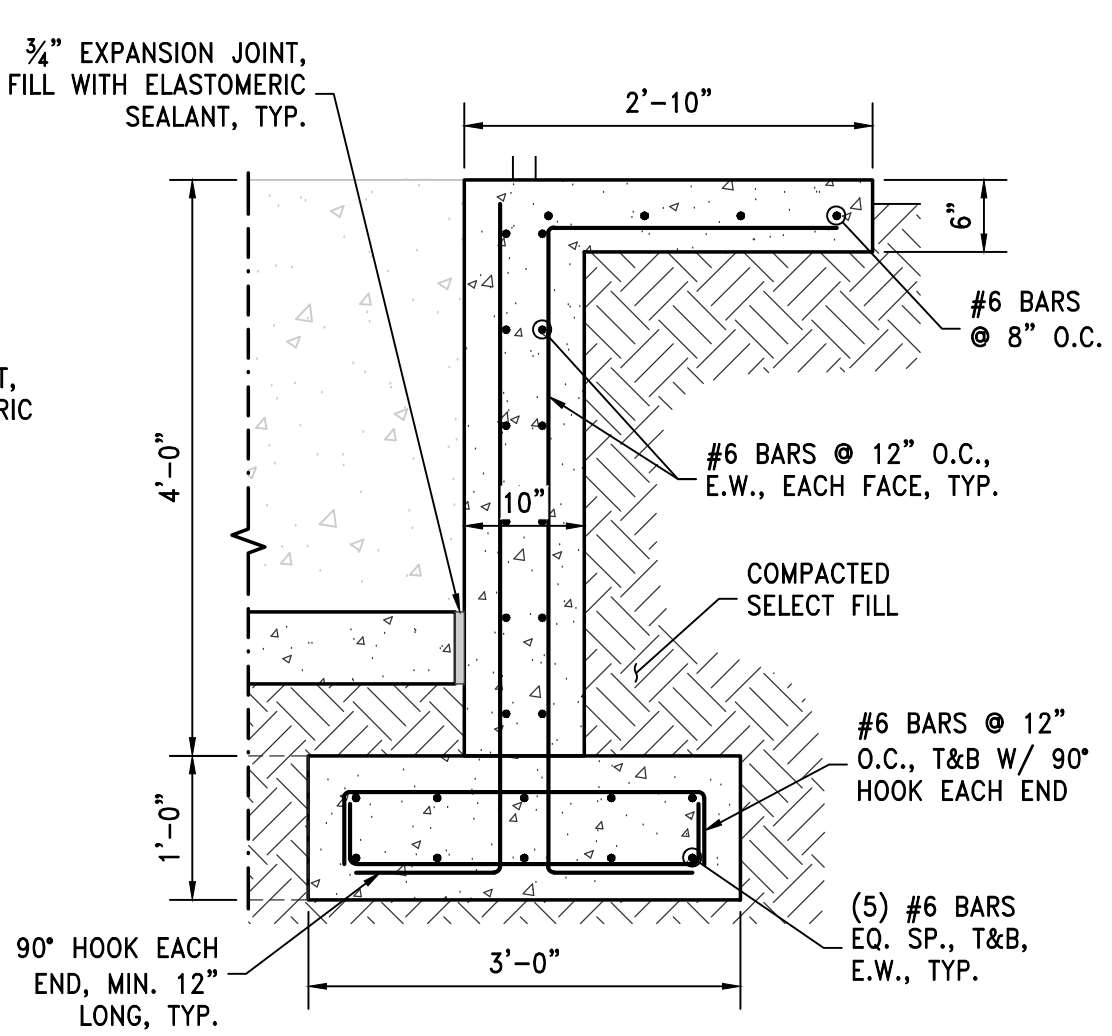
SECTION K
1/2"=1'-0"



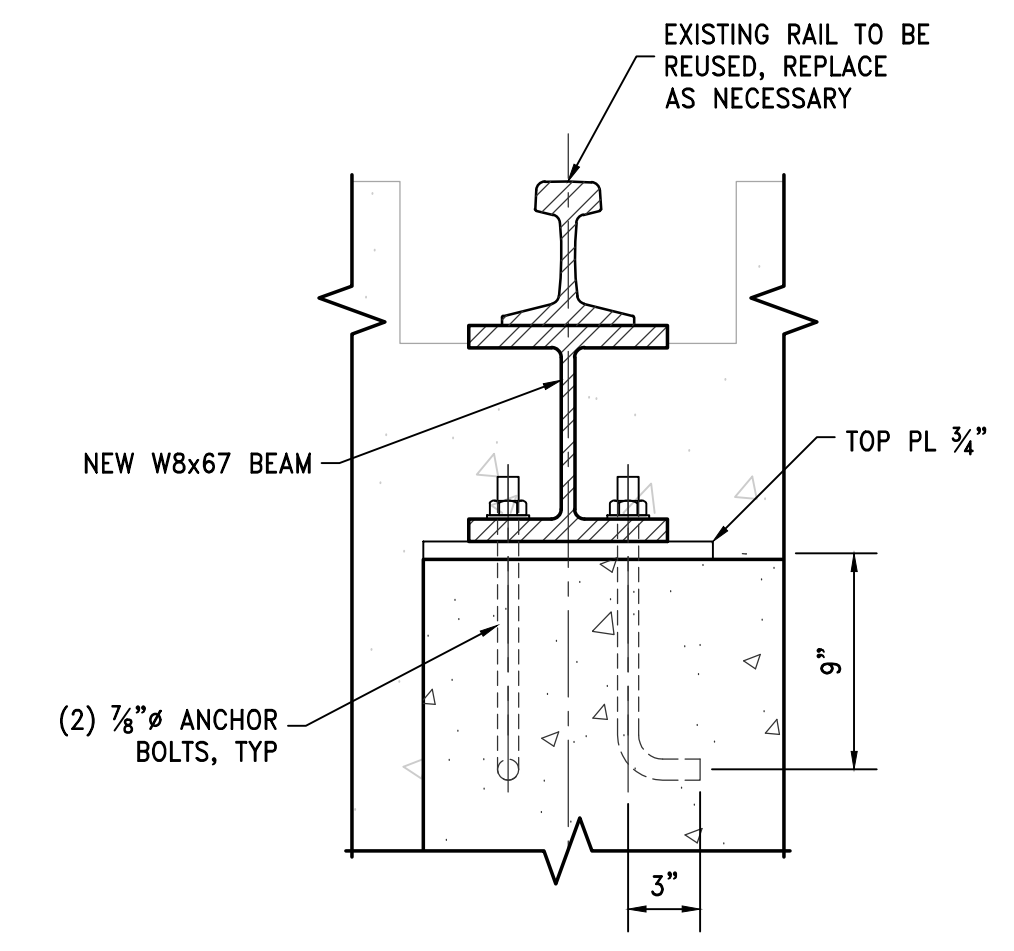
DETAIL 9
3/4"=1'-0"



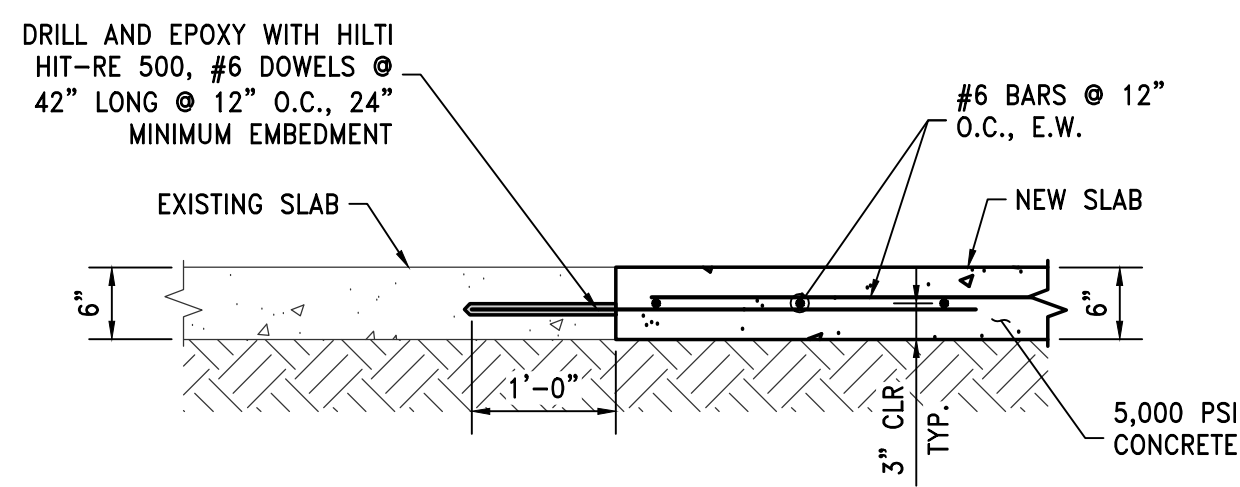
DETAIL 10
3/4"=1'-0"



DETAIL 11
3/4"=1'-0"



DETAIL 12
3/4"=1'-0"



TYPICAL CONCRETE REPAIR DETAIL
SCALE: 3/4"=1'-0"

NOTIFY ENGINEER IF EXISTING CONDITIONS DIFFER FROM PROJECT DRAWINGS

REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR BID	04/04/25	VTH	WBS

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Arlington, Tennessee 38002
(901) 290-5444

457 St. Michael Street
Mobile, Alabama 36602
(251) 433-1611

PROJECT
TRR RAIL PIT EXPANSION

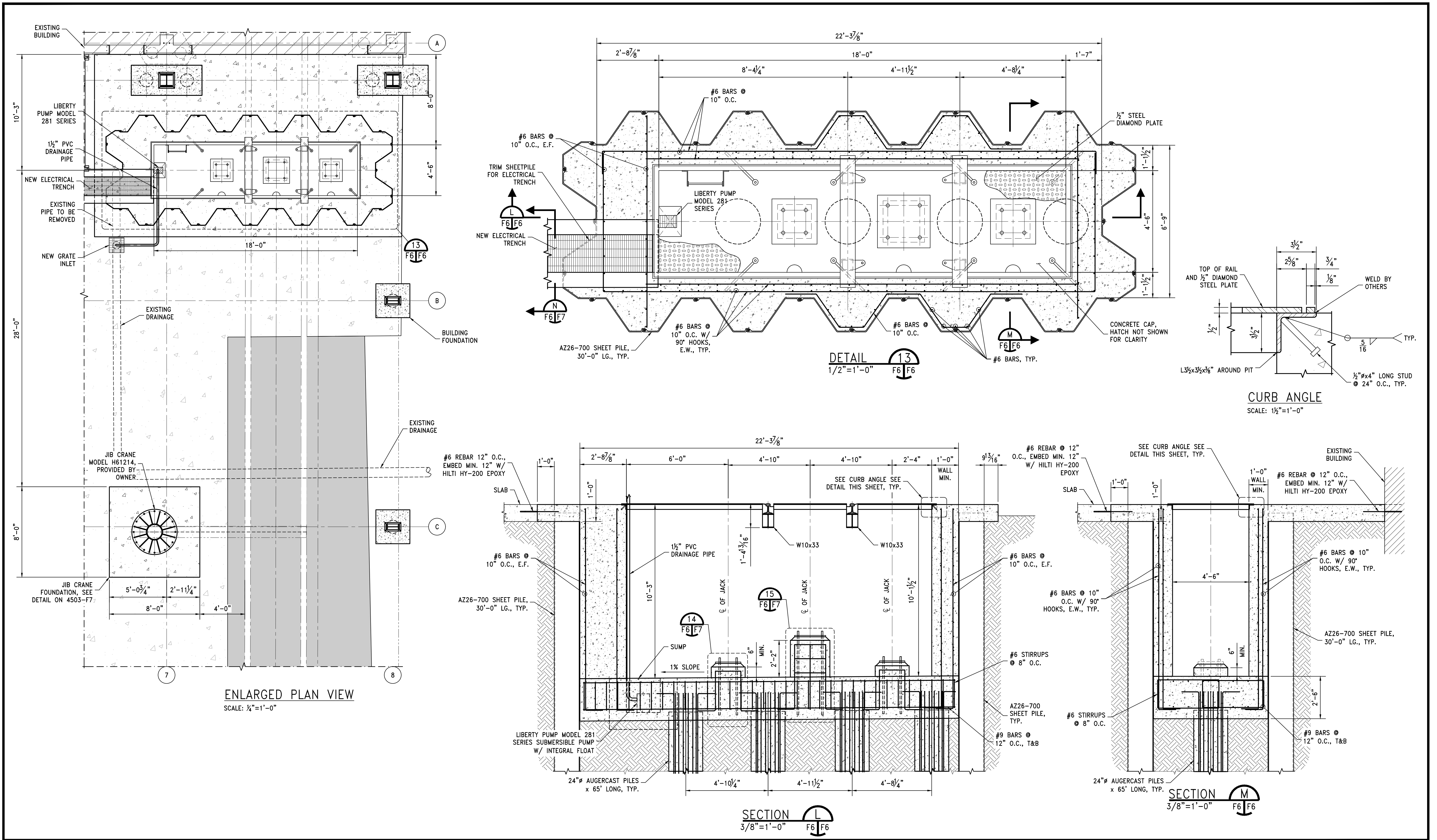
MOBILE ALABAMA

TITLE
FOUNDATION DETAILS AND SECTIONS

DATE 04/02/25
DRAWING NUMBER 4503-F5

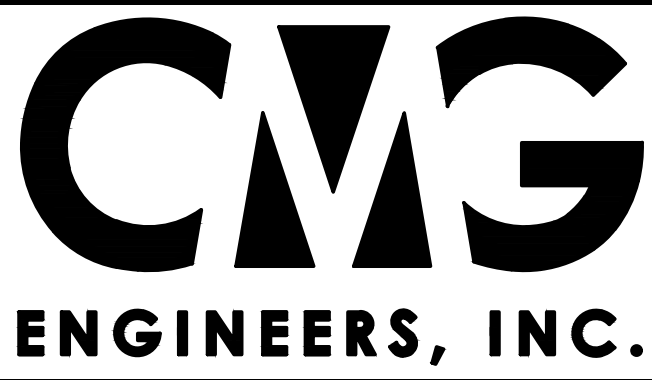
22x34 REV. A

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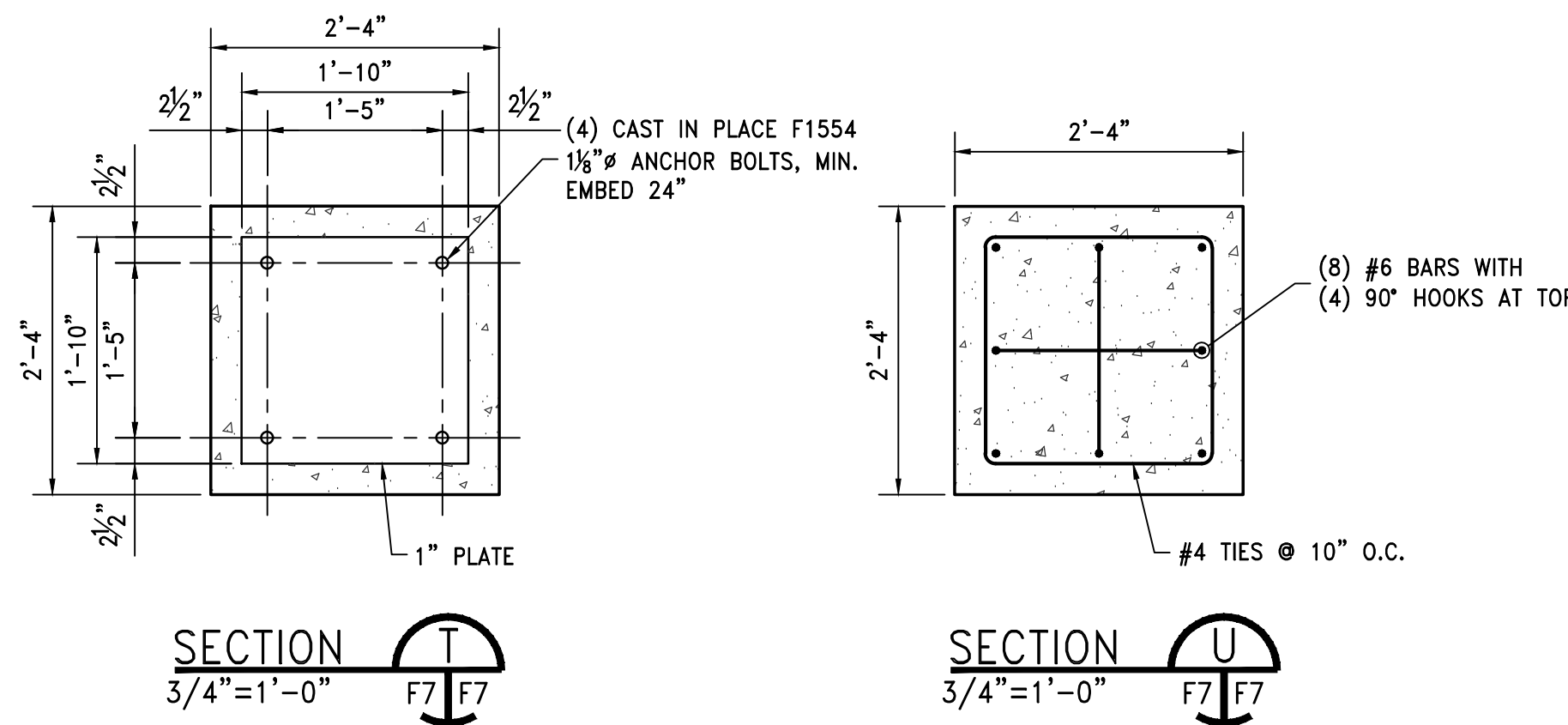
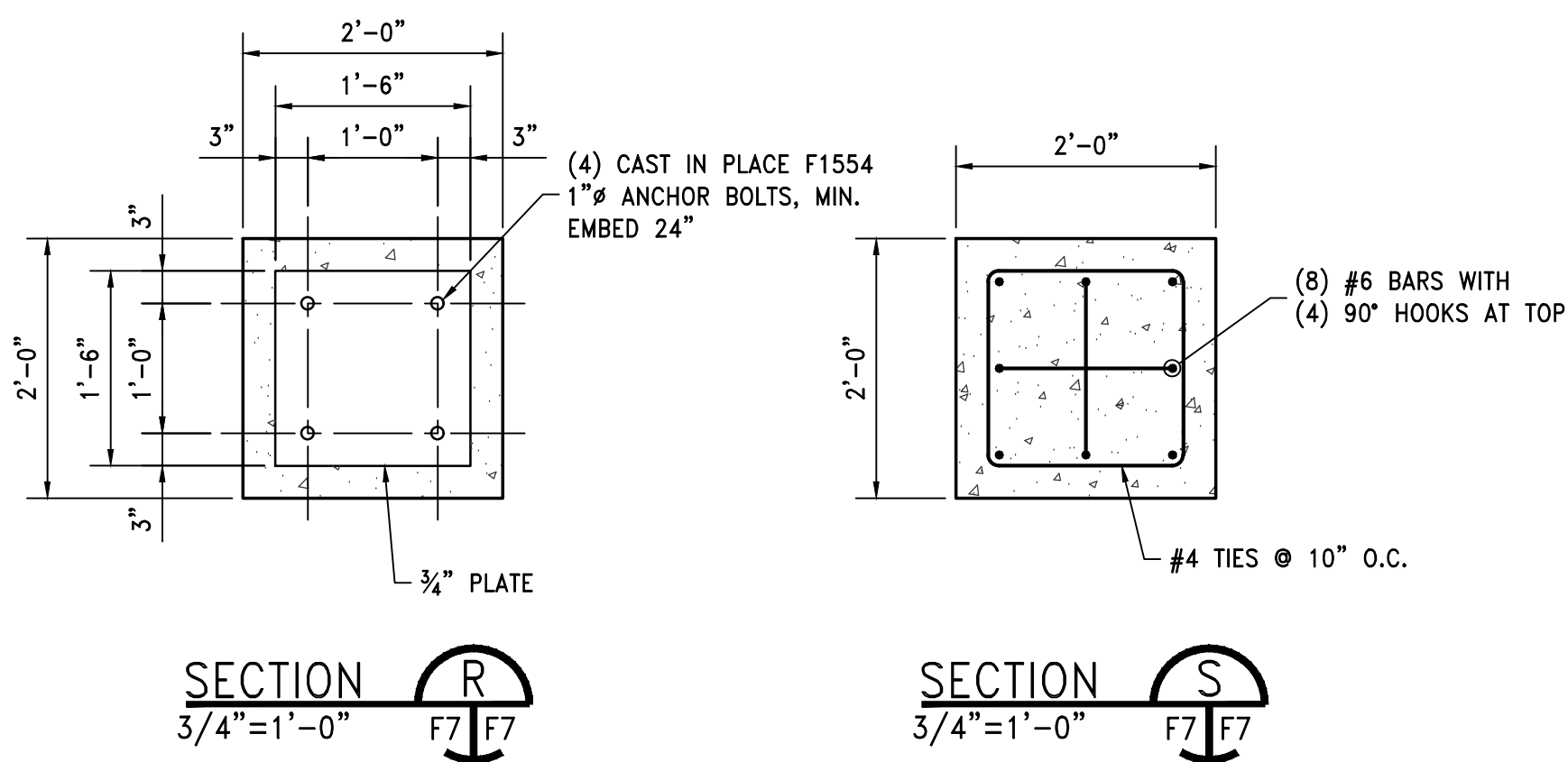
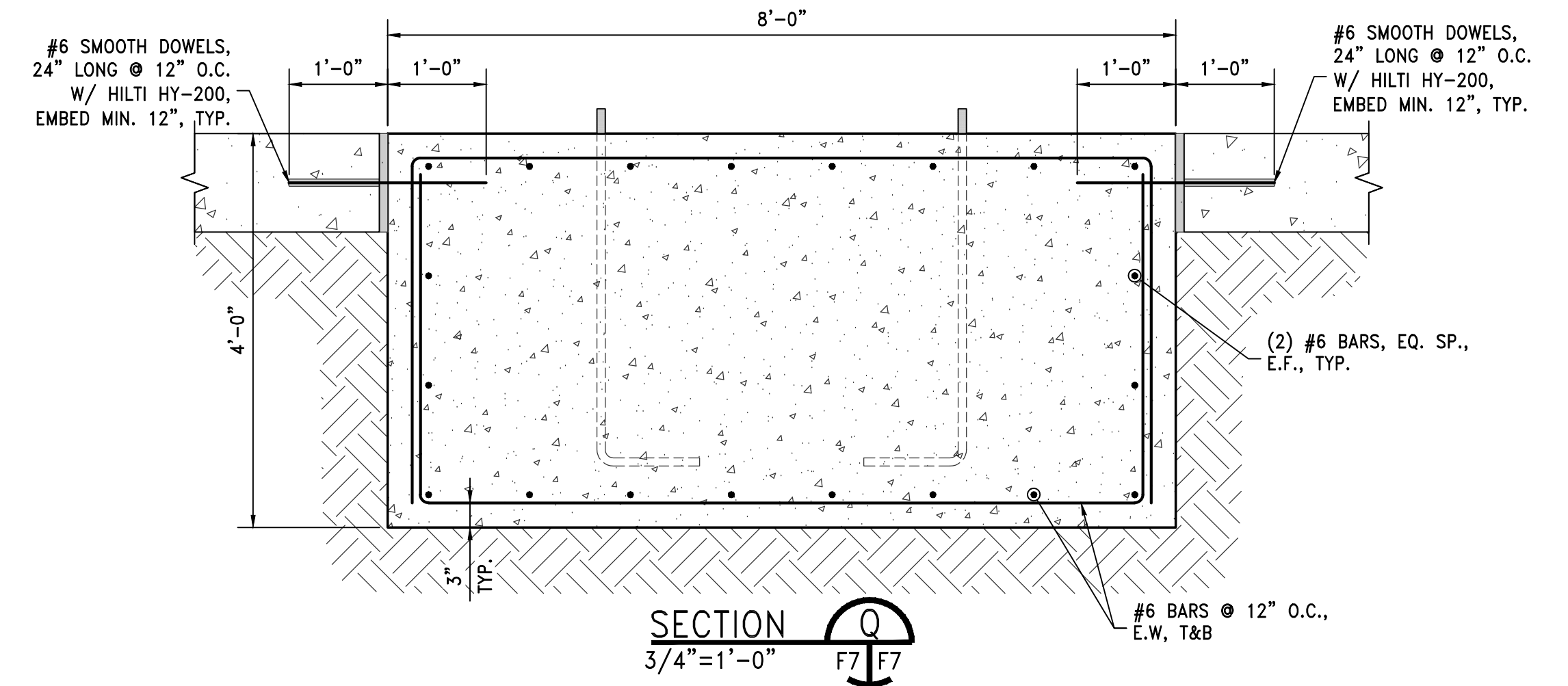
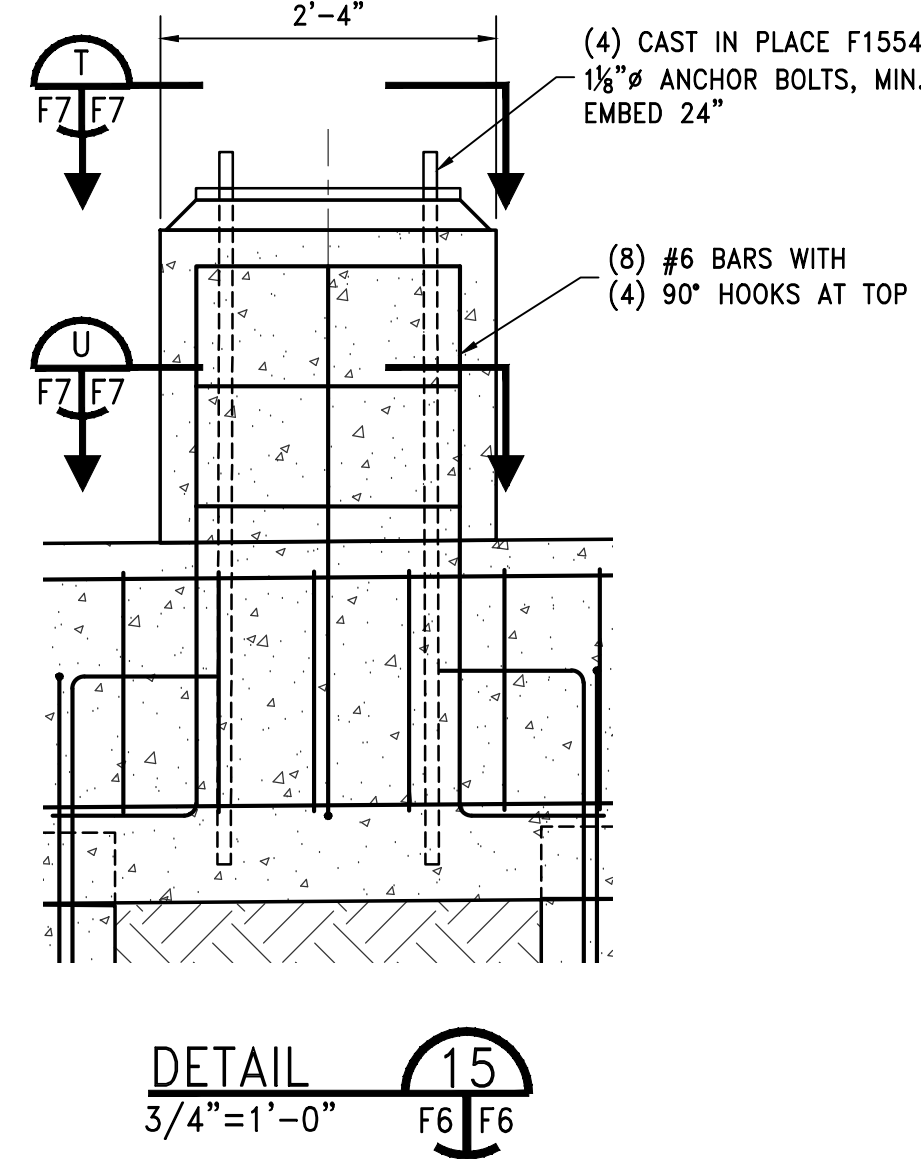
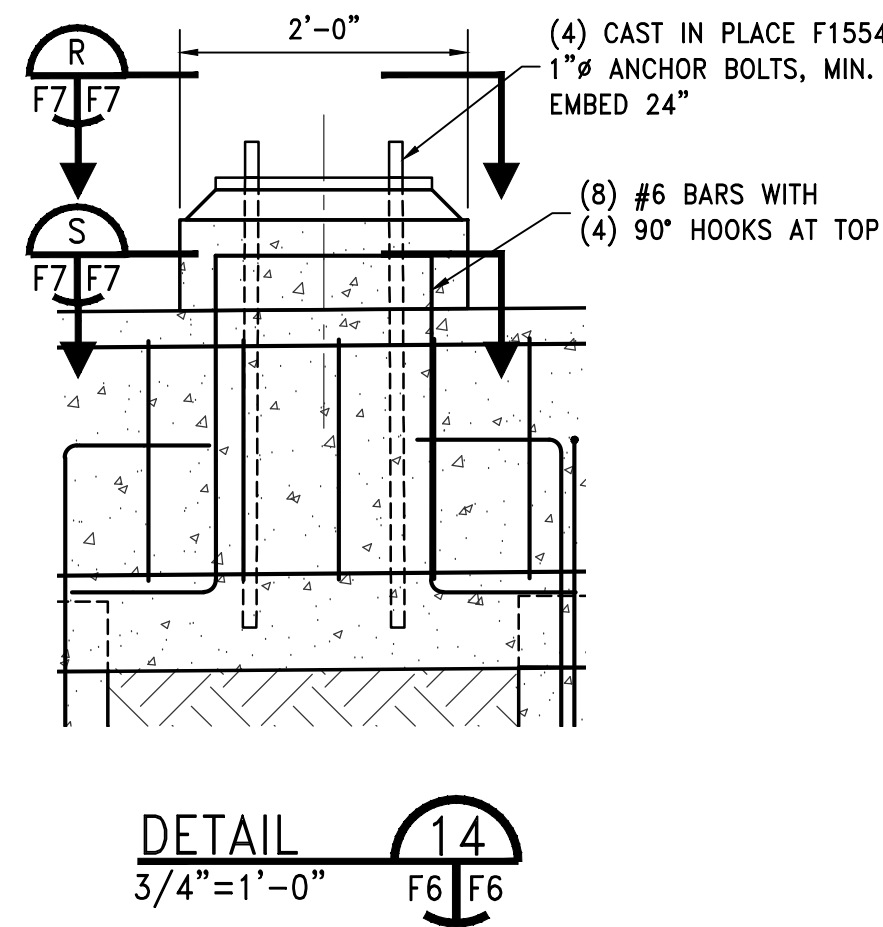
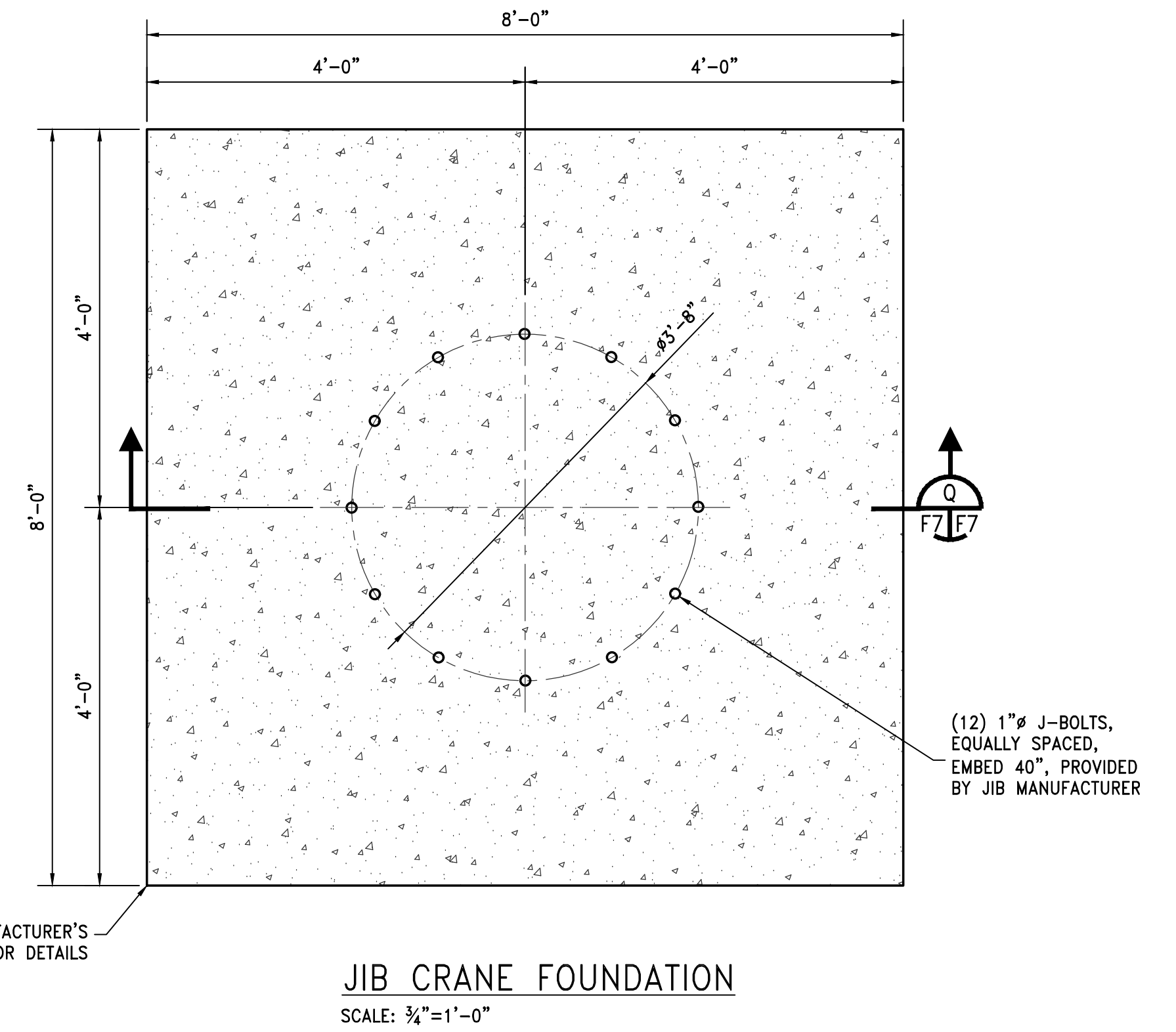
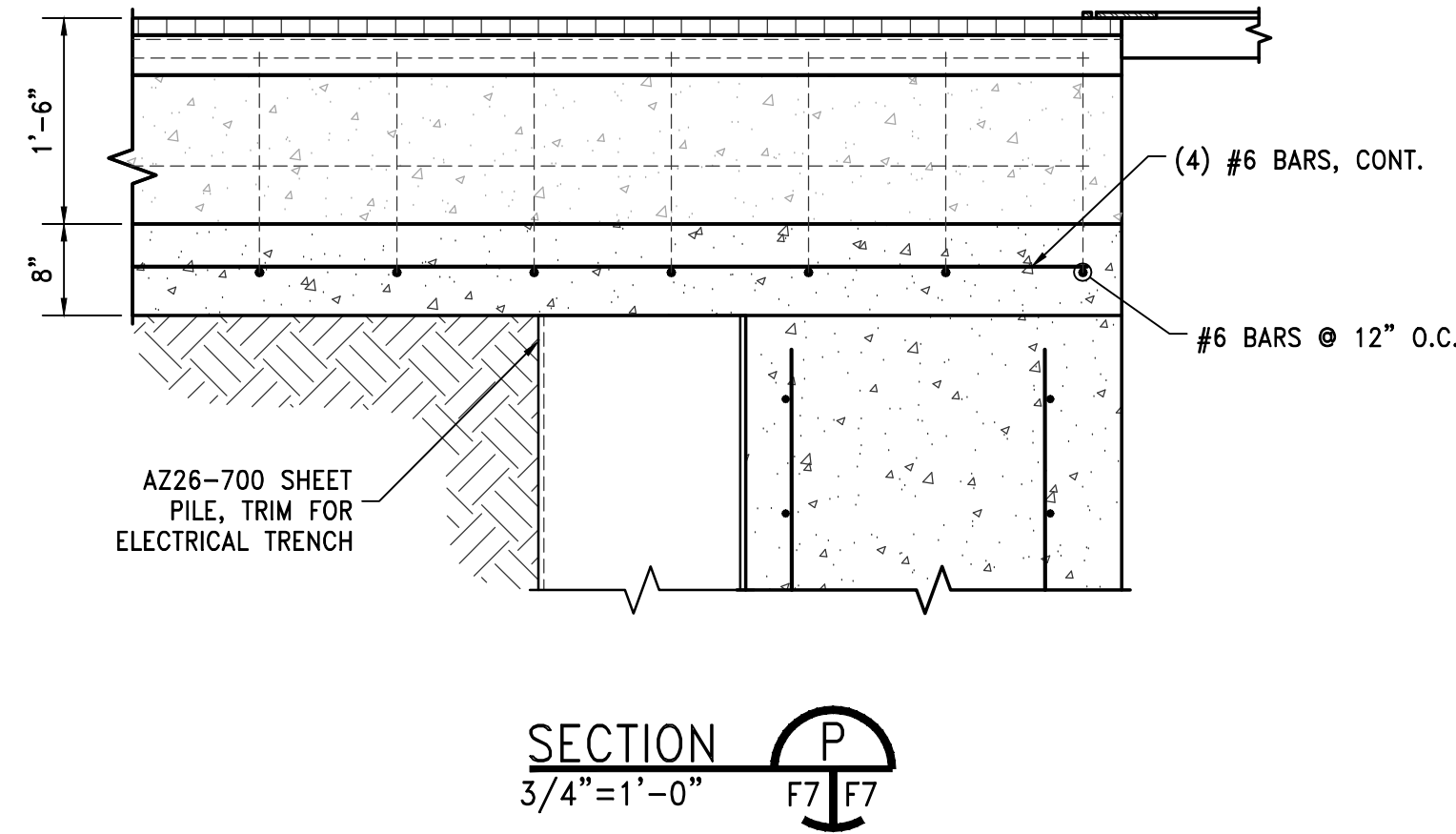
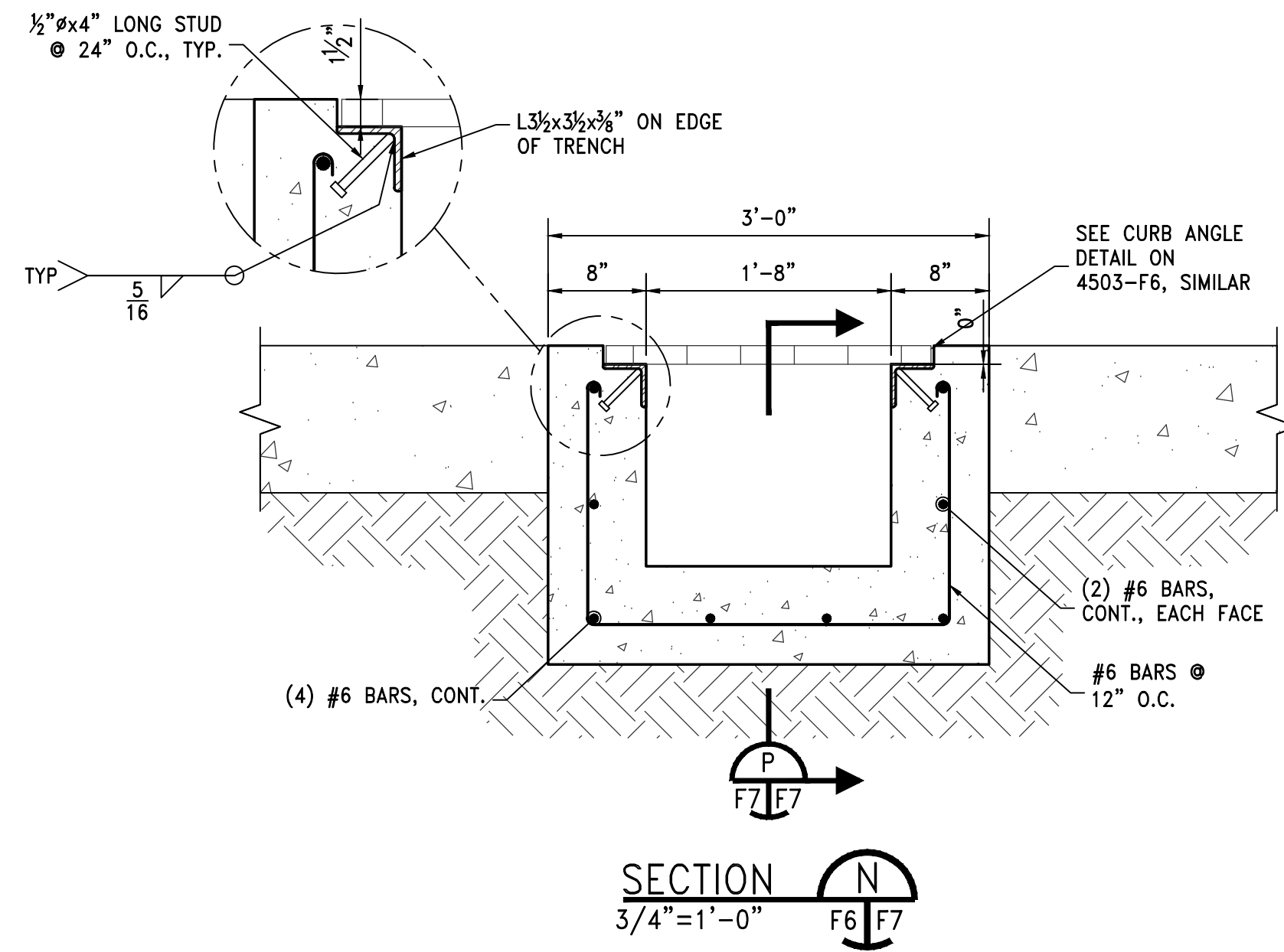
457 St. Michael Street
Mobile, Alabama 36602
(251) 433-1611

PROJECT
TRR RAIL PIT EXPANSION
MOBILE ALABAMA

TITLE
JACK PIT

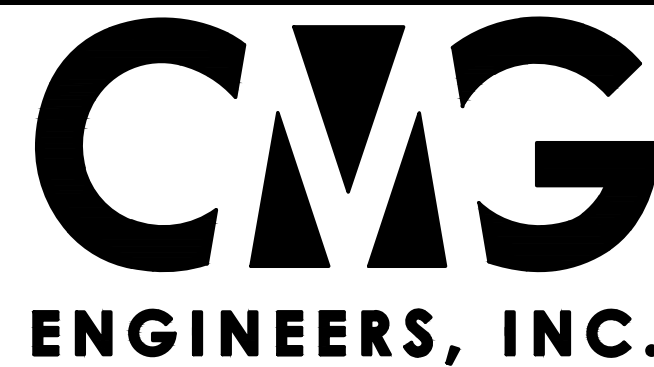
DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-F6		

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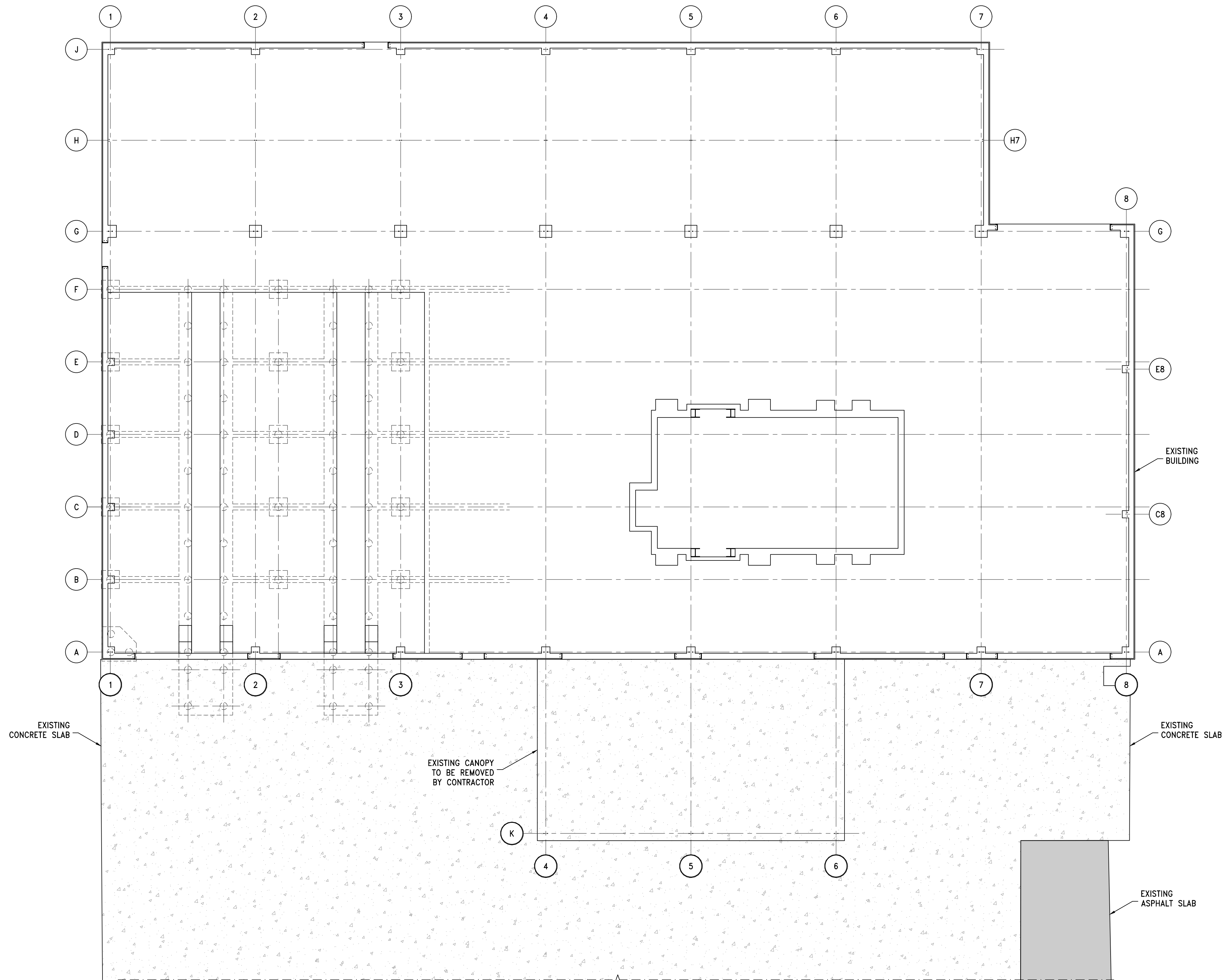
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	DETAILS AND SECTIONS
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DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-F7		

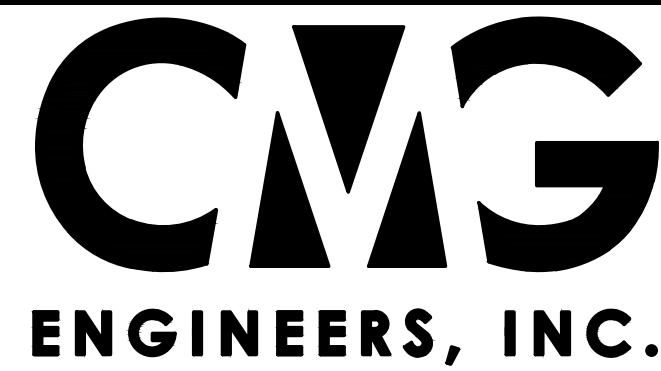
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EXISTING FLOOR PLAN
 1/8"=1'-0"

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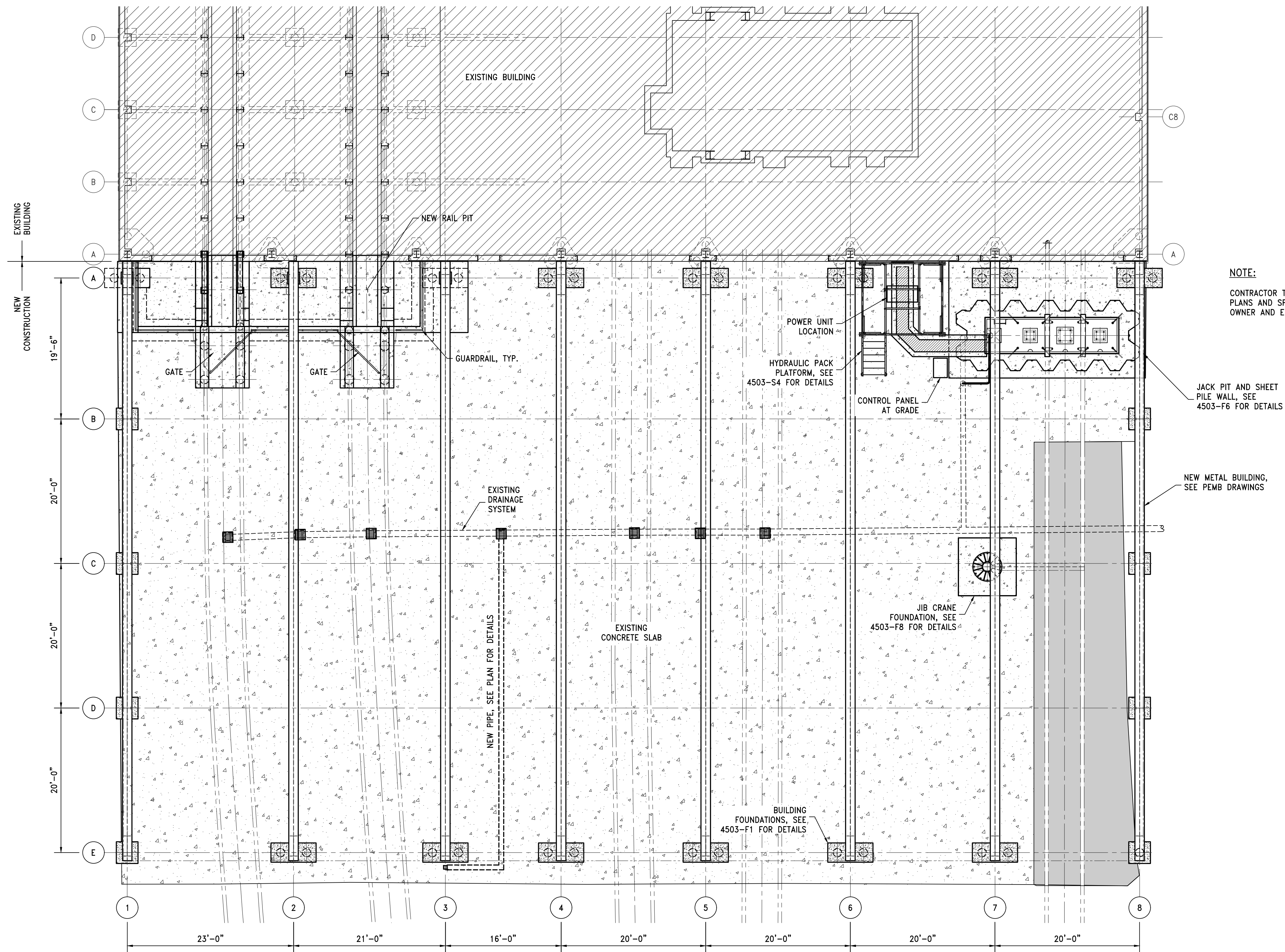
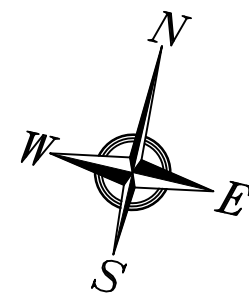
457 St. Michael Street
 Mobile, Alabama 36602
 (251) 433-1611

PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	EXISTING FLOOR PLAN
-------	---------------------

DATE	04/02/25	22x34	REV.	A
DRAWING NUMBER	4503-S1			

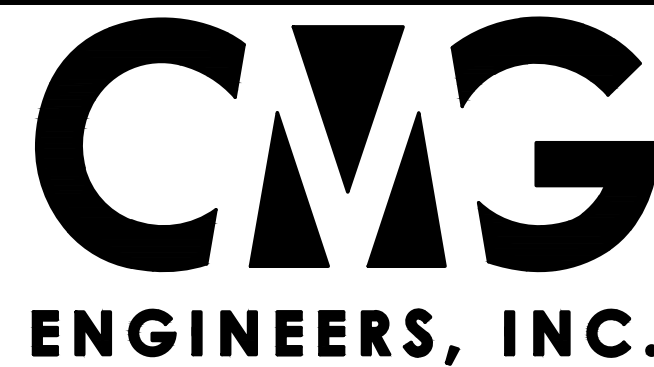
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FLOOR PLAN
SCALE: 1/8"=1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
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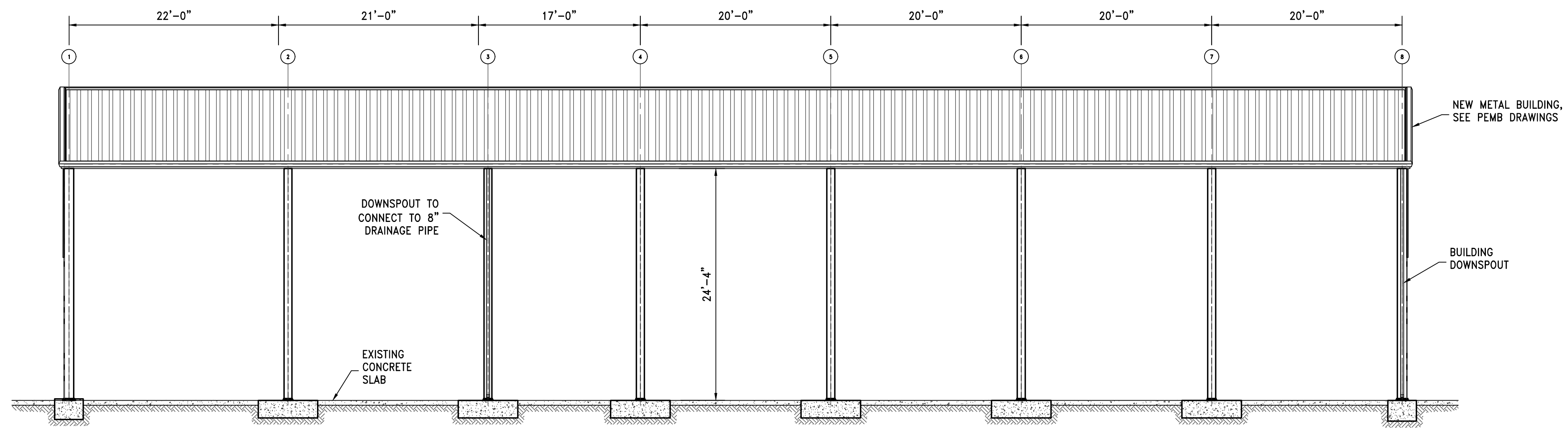


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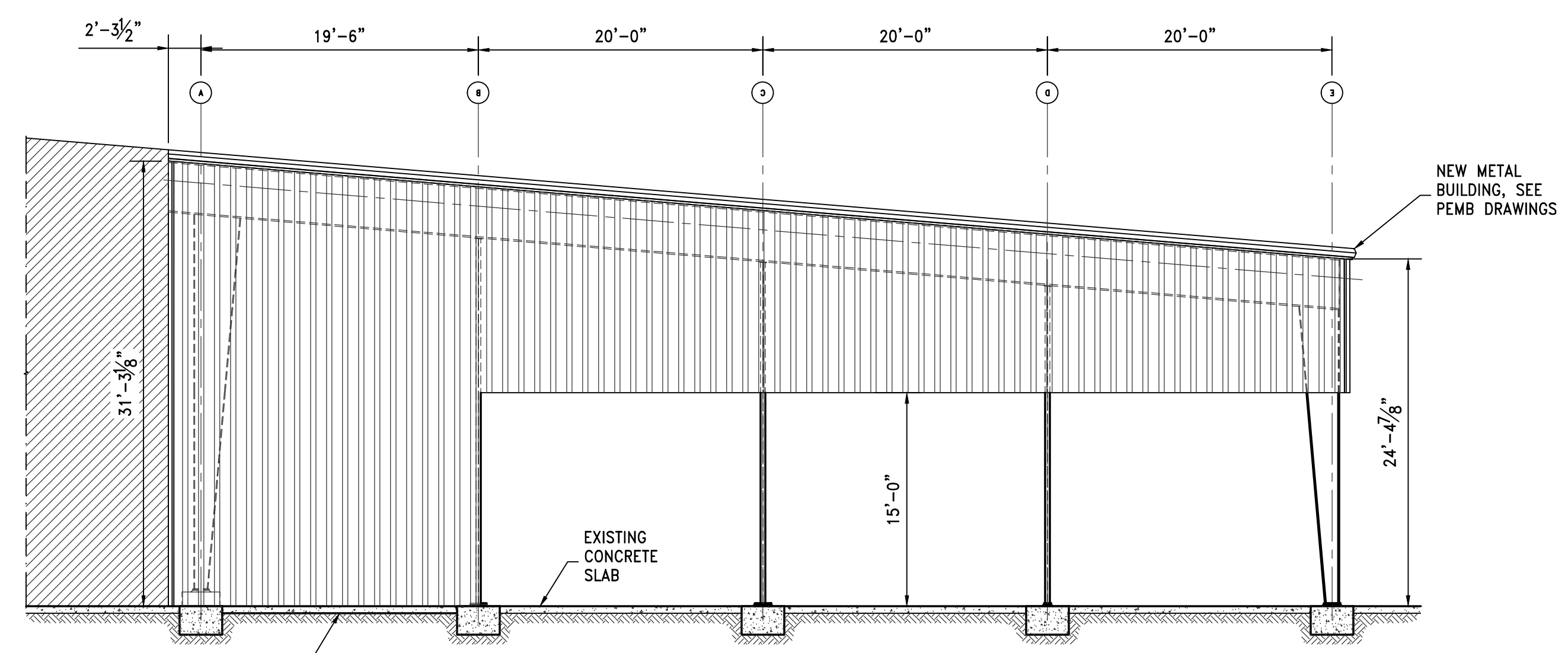
PROJECT	TRR RAIL PIT EXPANSION
	MOBILE ALABAMA

TITLE	NEW FLOOR PLAN
-------	----------------

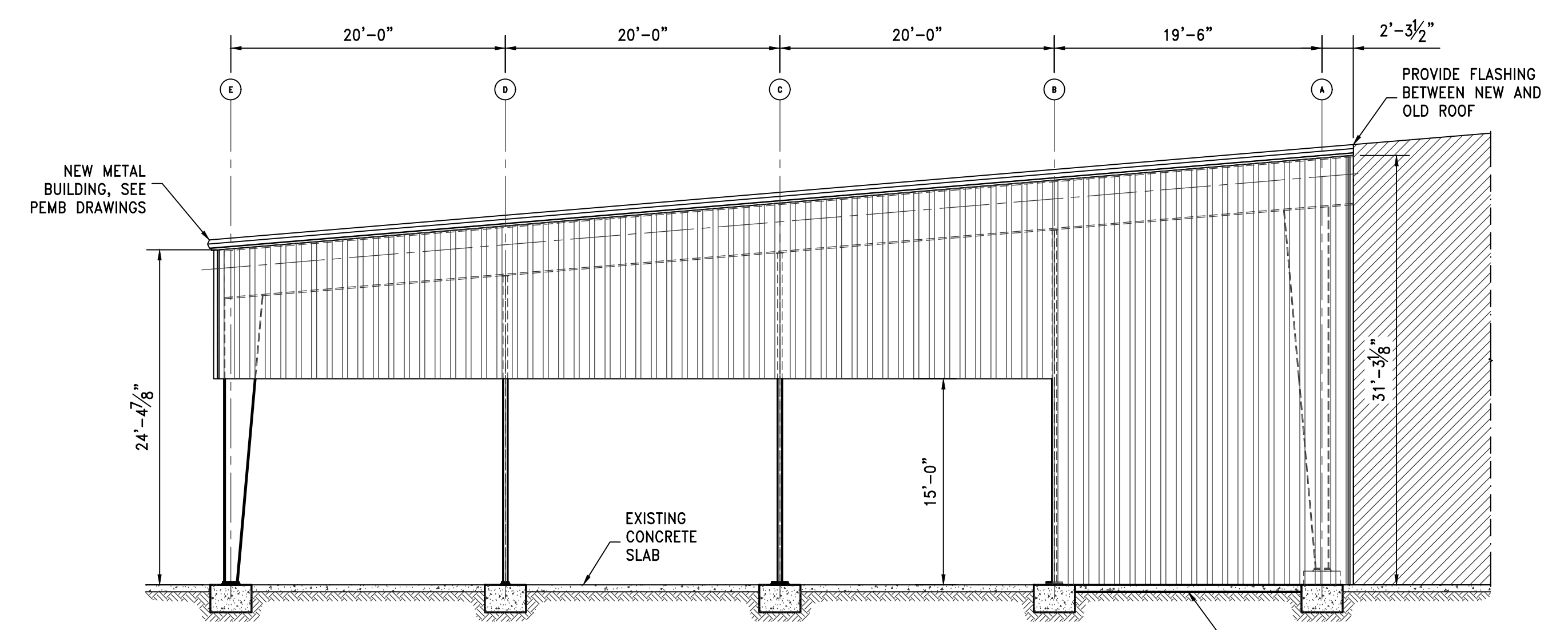
DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-S2		
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SOUTH ELEVATION
SCALE: 1/8"=1'-0"



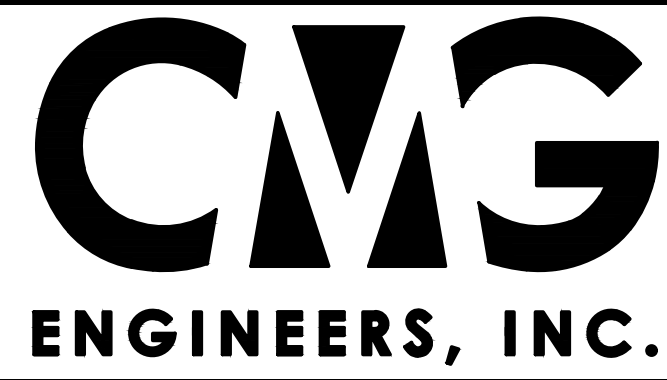
WEST ELEVATION
SCALE: 1/8"=1'-0"



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

REV.	DESCRIPTION	DATE	BY	CHK'D
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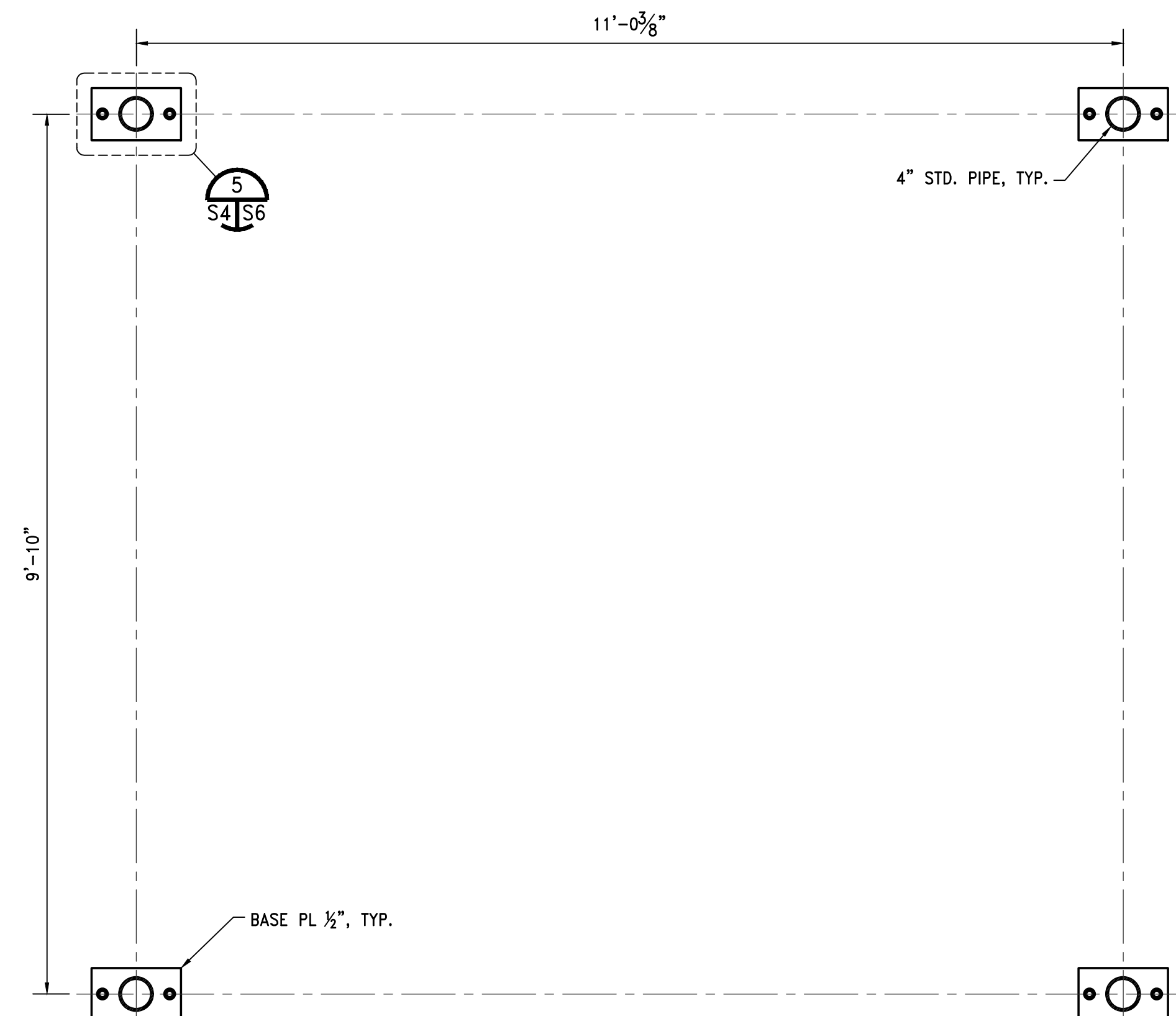
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PROJECT
TRR RAIL PIT EXPANSION
MOBILE ALABAMA

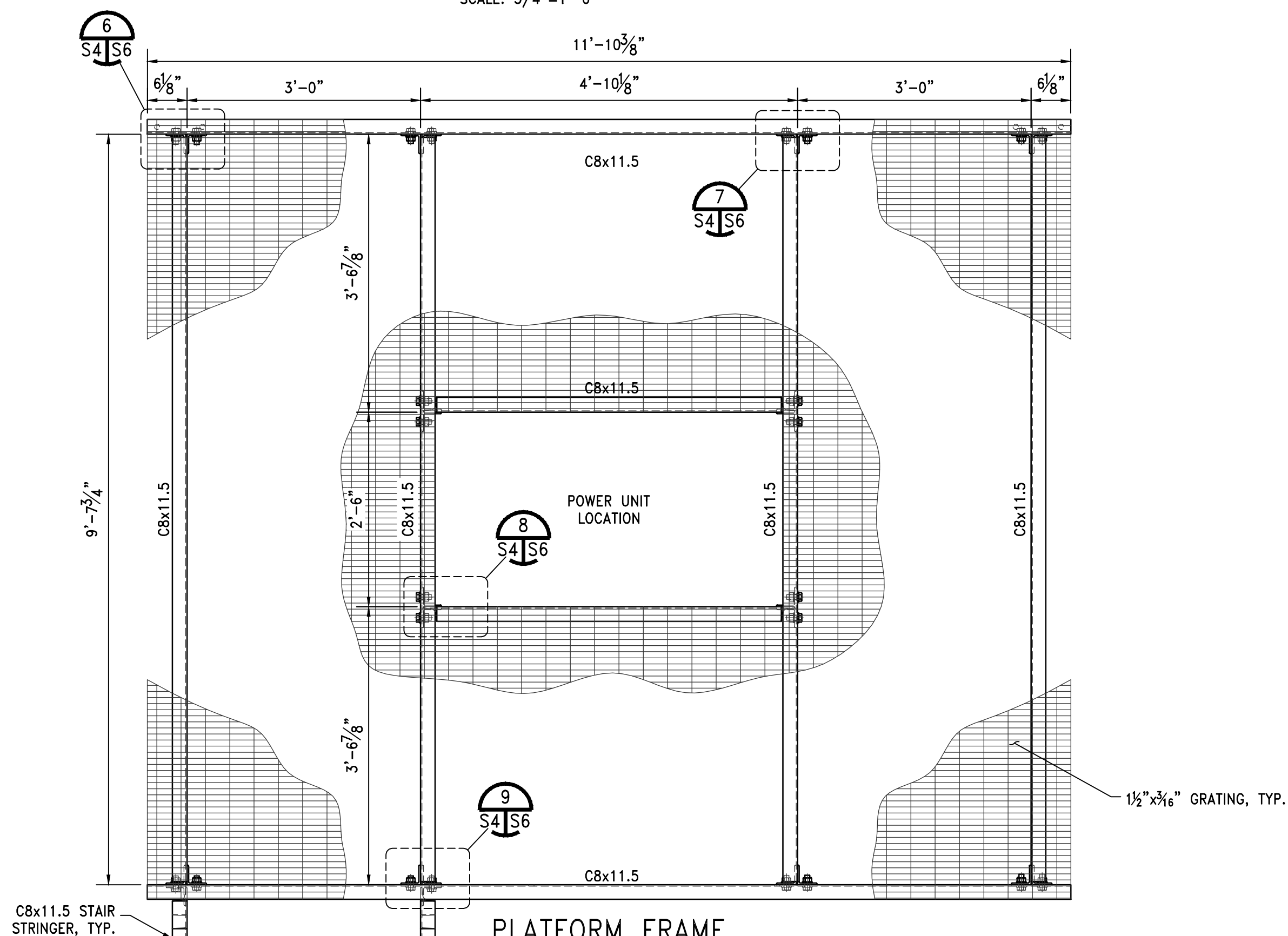
TITLE
EXTERIOR ELEVATIONS

DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-S3		

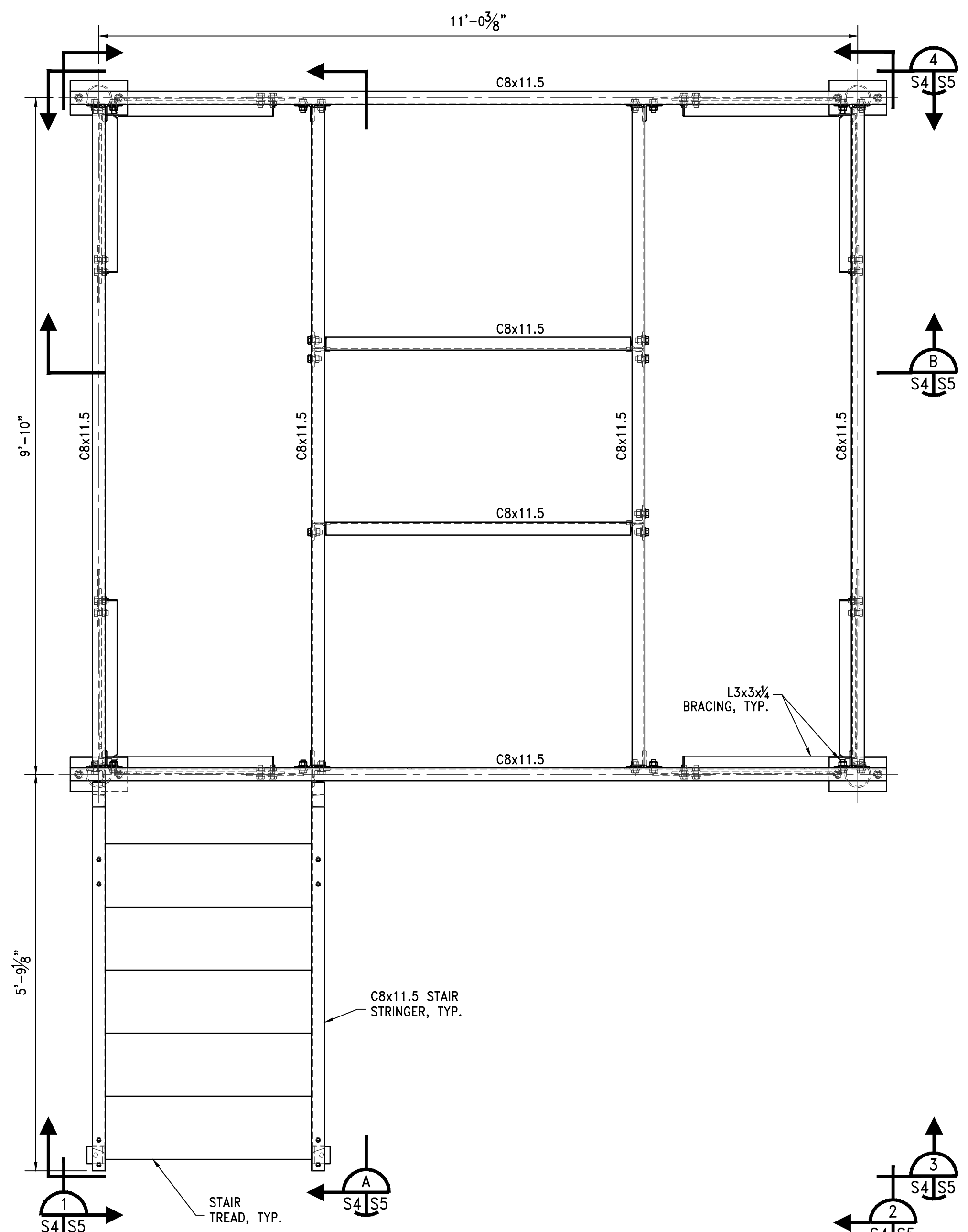
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BASE PLATE LAYOUT
SCALE: 3/4"=1'-0"



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



PLATFORM - PLAN VIEW
SCALE: 3/4"=1'-0"

NOTE:
INSTALL HYDRAULIC PACK ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

REV.	DESCRIPTION	DATE	BY	CHK'D
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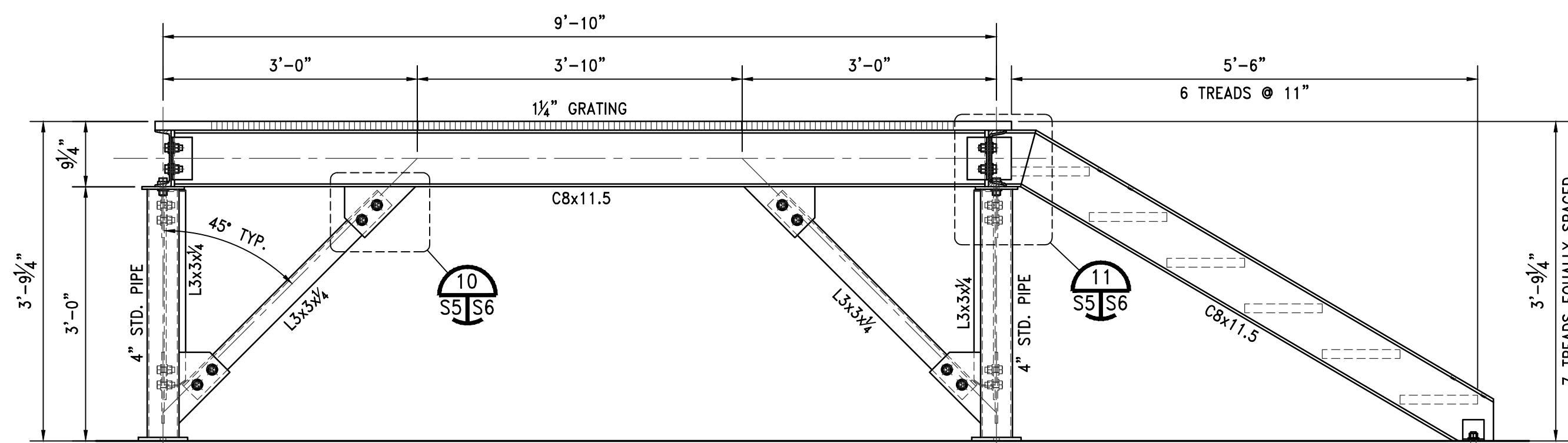
PROJECT
TRR RAIL PIT EXPANSION

MOBILE ALABAMA

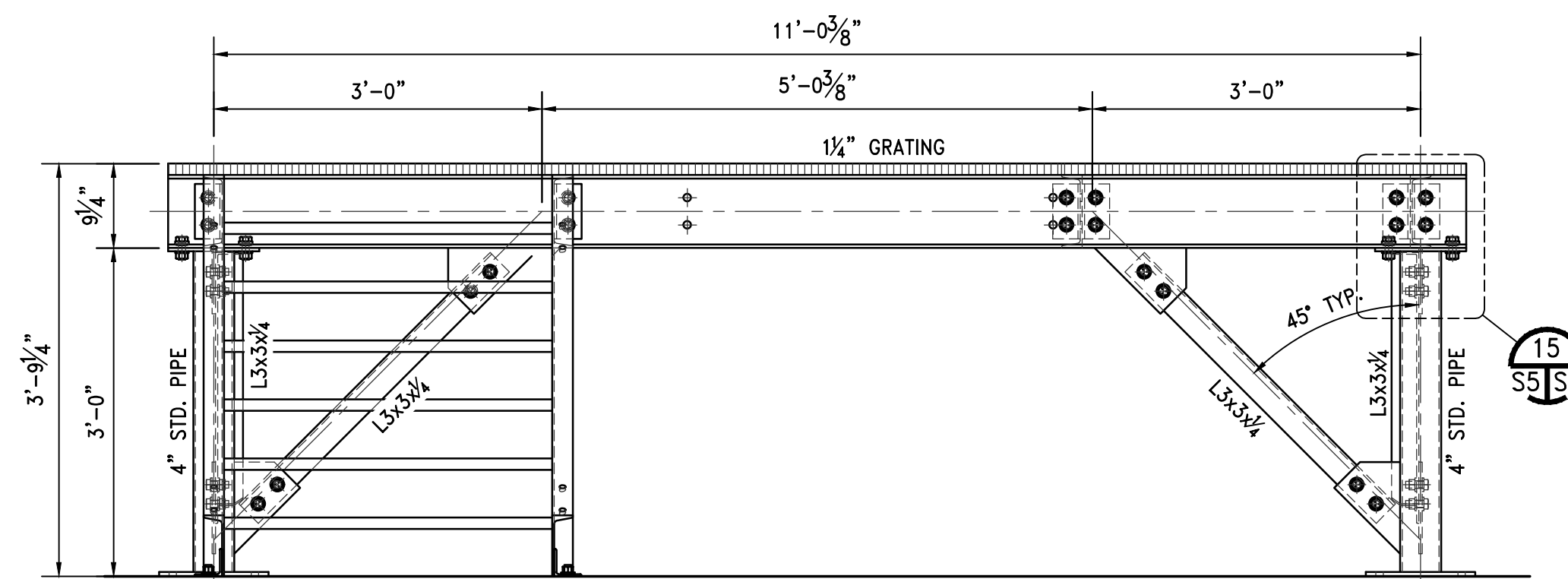
TITLE
HYDRAULIC PACK PLATFORM

DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-S4		

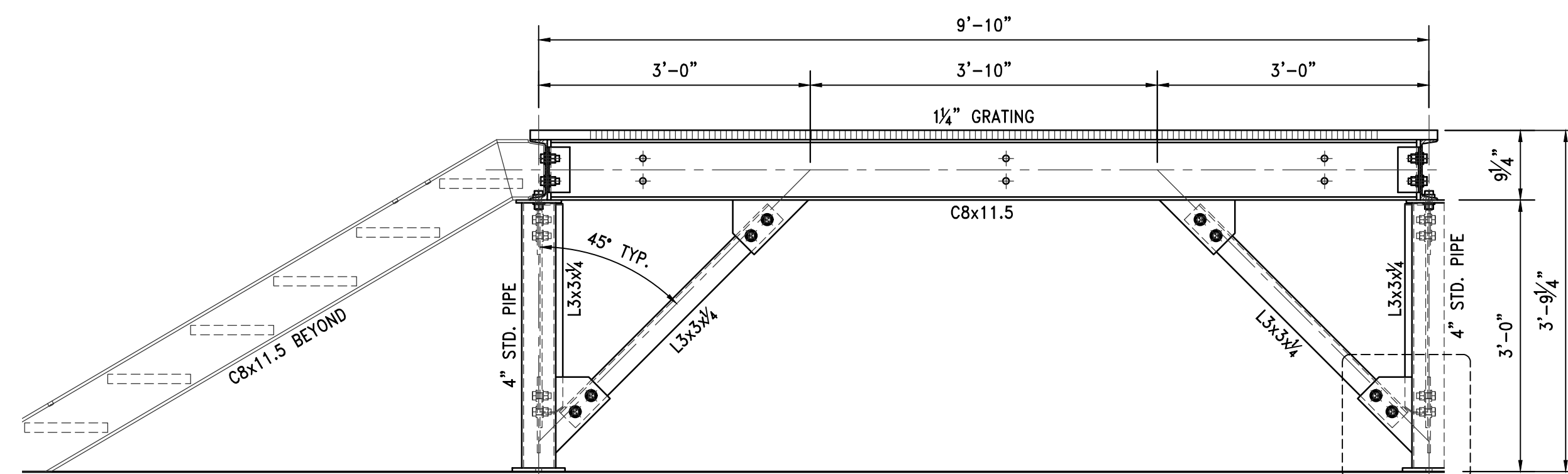
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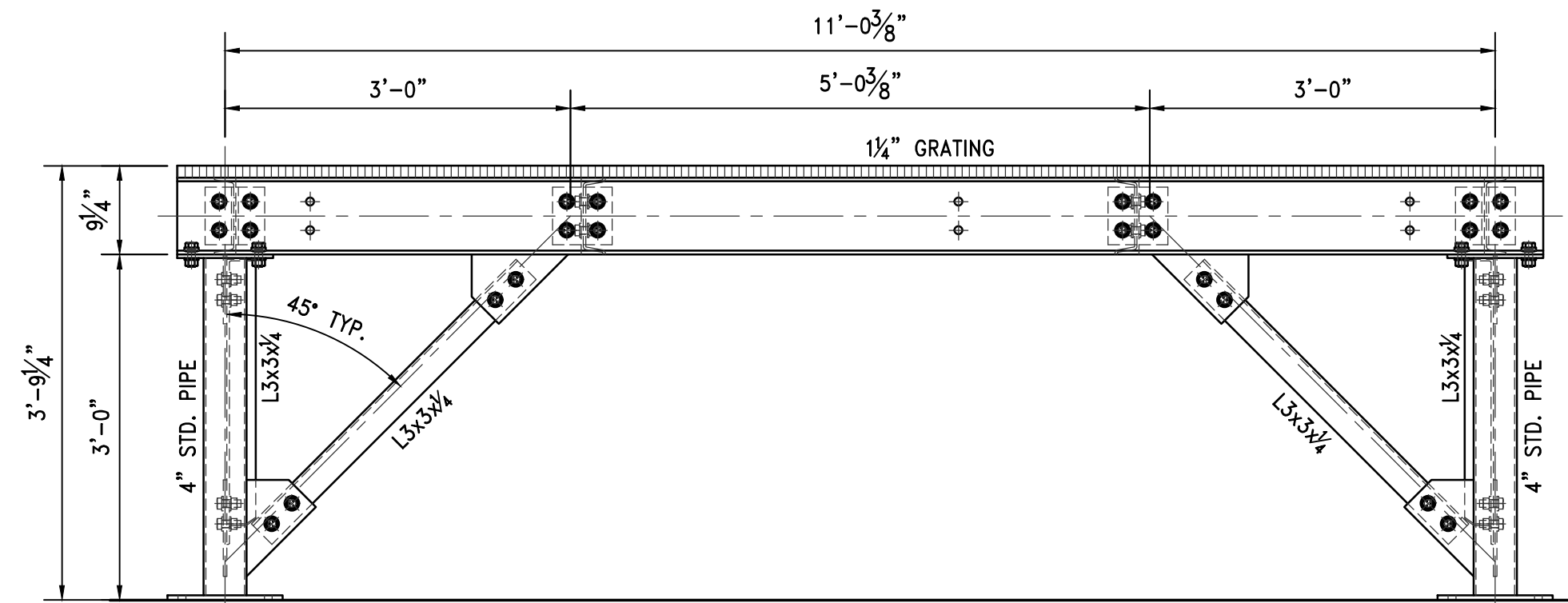
DETAIL 1
3/4"=1'-0" S4 S5



DETAIL 3
3/4"=1'-0" S4 S5



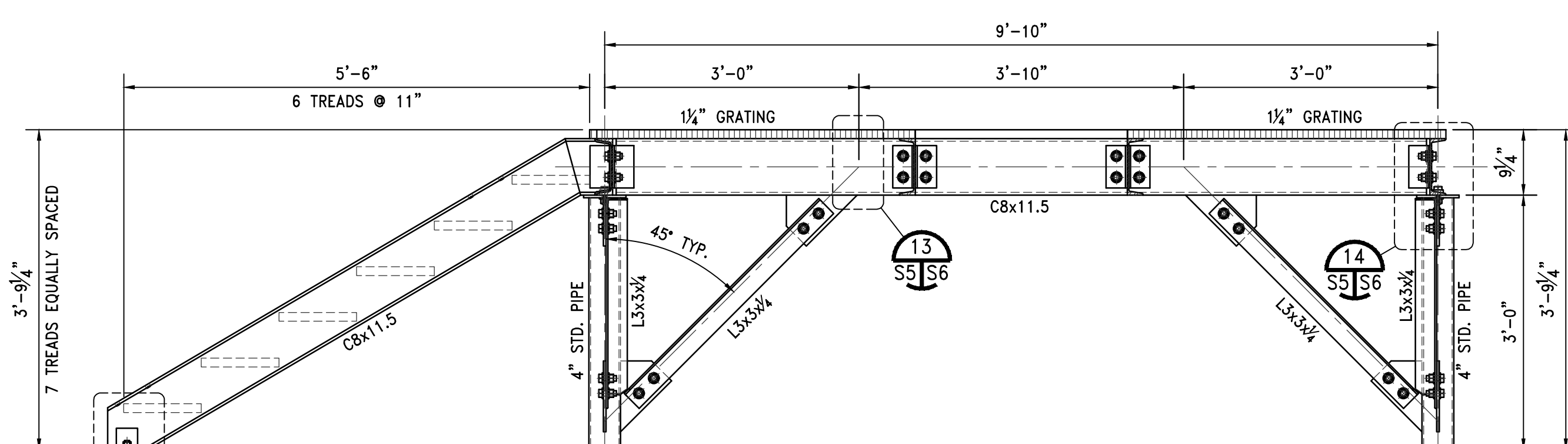
12
S5 S6



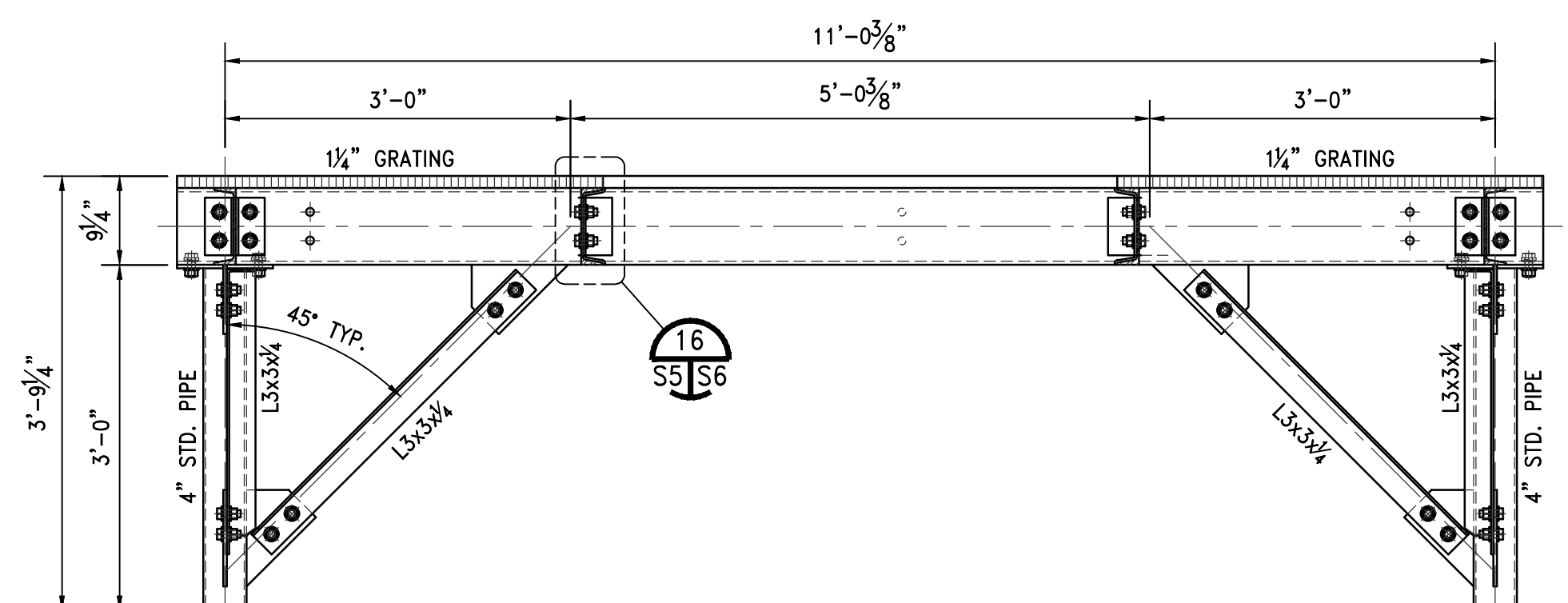
16
S5 S6

DETAIL 2
3/4"=1'-0" S4 S5

DETAIL 4
3/4"=1'-0" S4 S5



13
S5 S6



14
S5 S6

SECTION A
3/4"=1'-0" S4 S5

SECTION B
3/4"=1'-0" S4 S5

REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR BID	04/04/25	VTH	WBS

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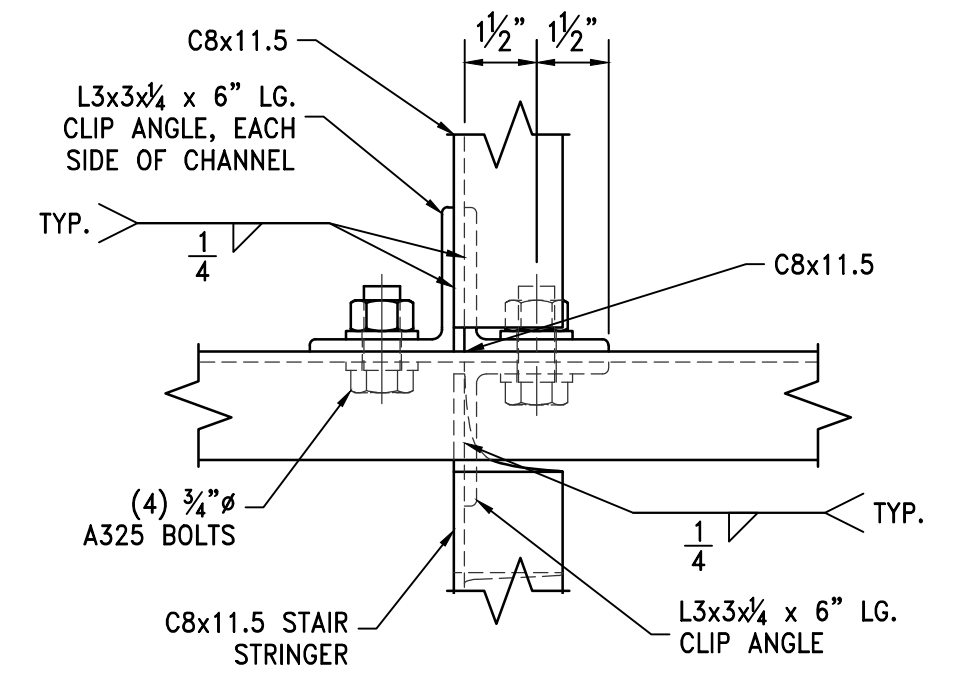
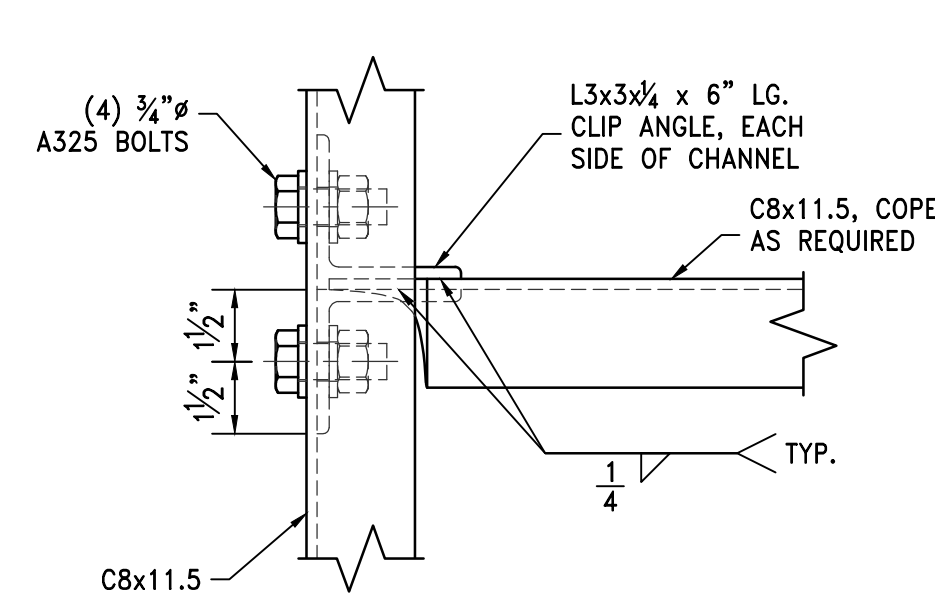
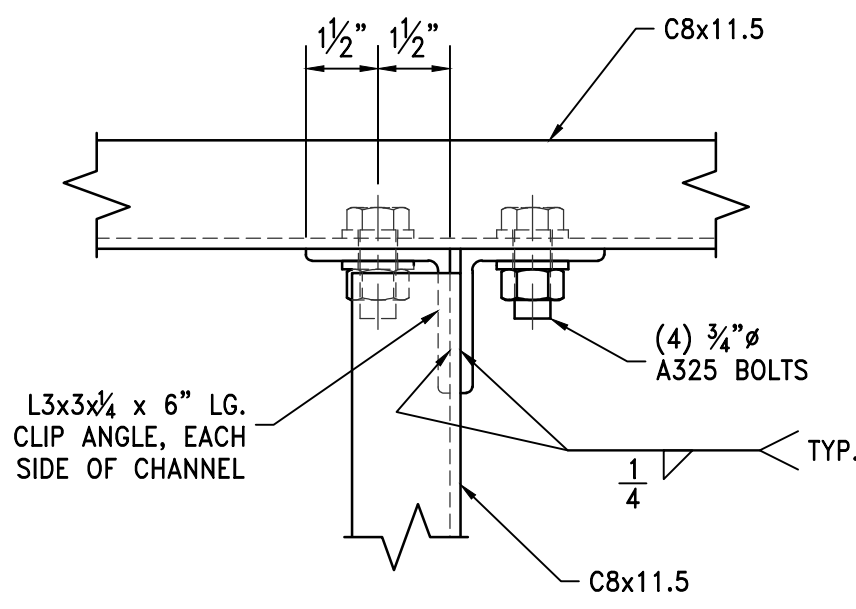
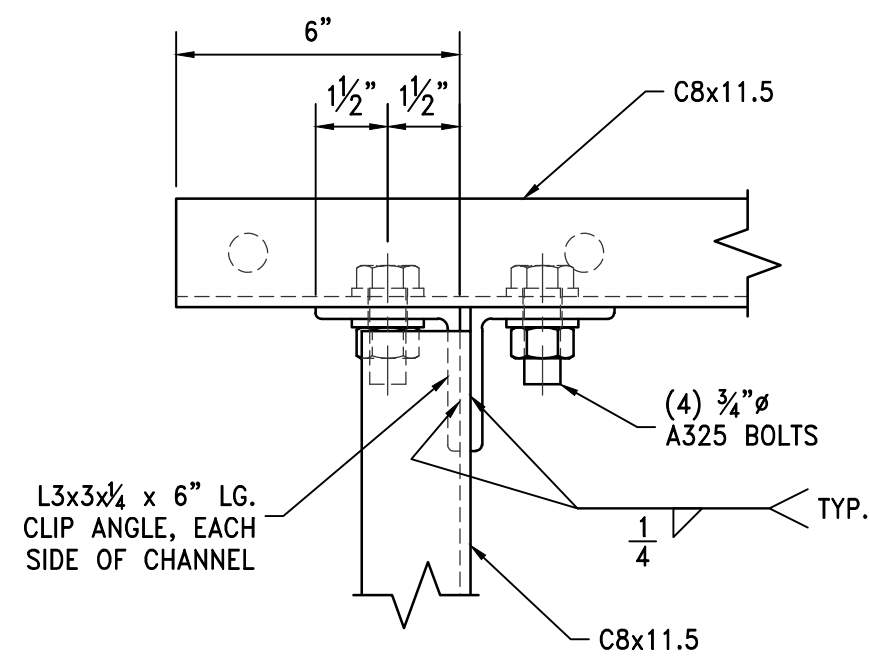
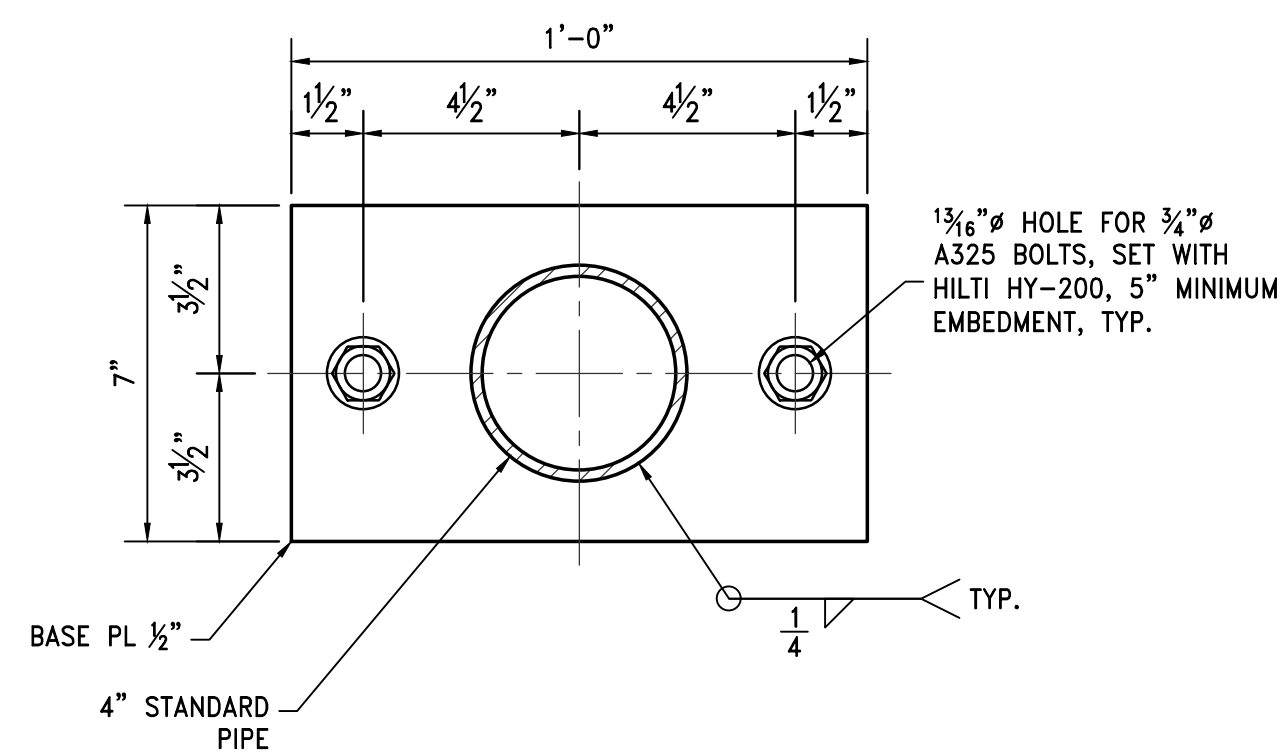
PROJECT
TRR RAIL PIT EXPANSION

MOBILE ALABAMA

TITLE
PLATFORM DETAILS AND SECTIONS

DATE: 04/02/25
DRAWING NUMBER: 4503-S5

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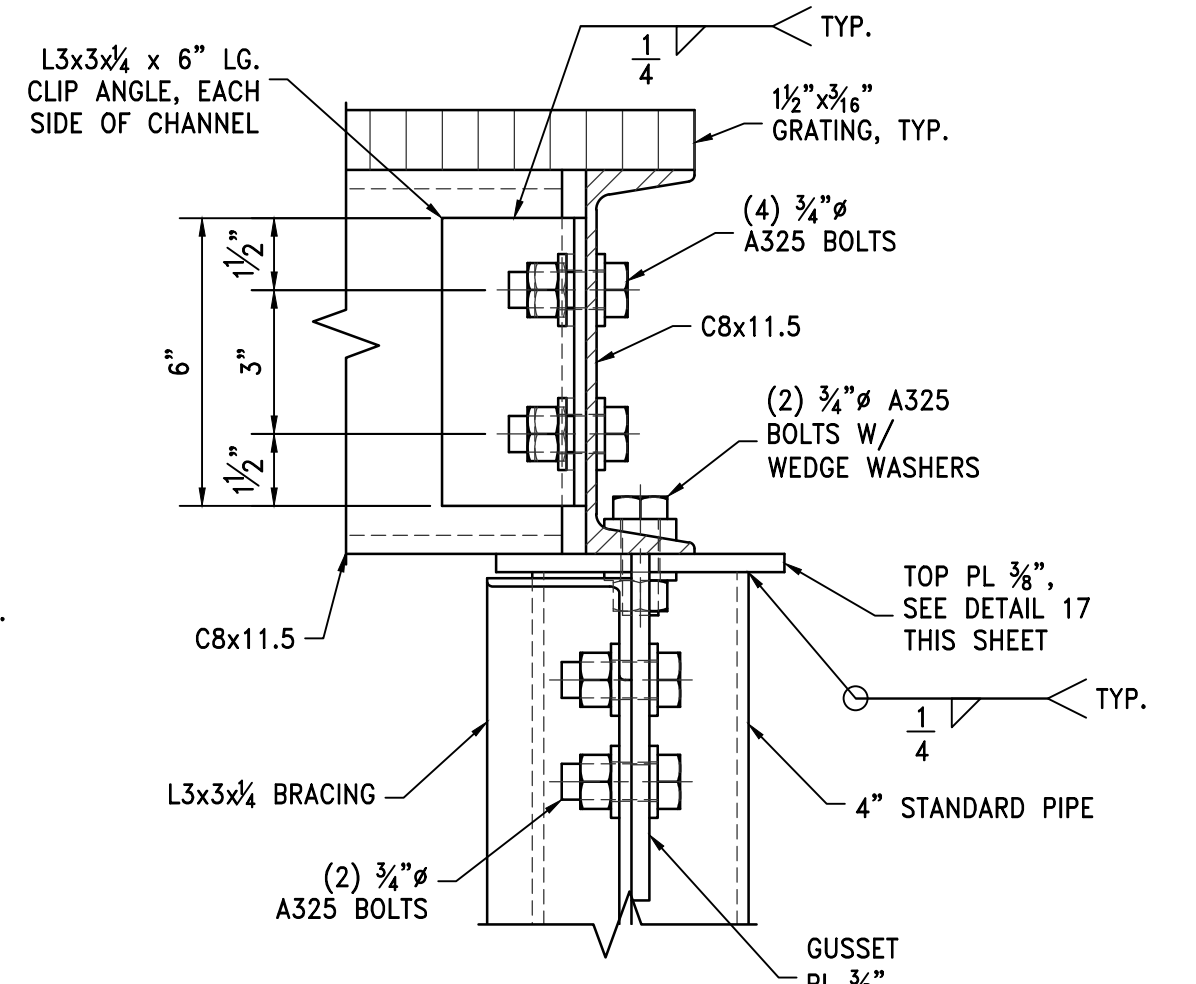
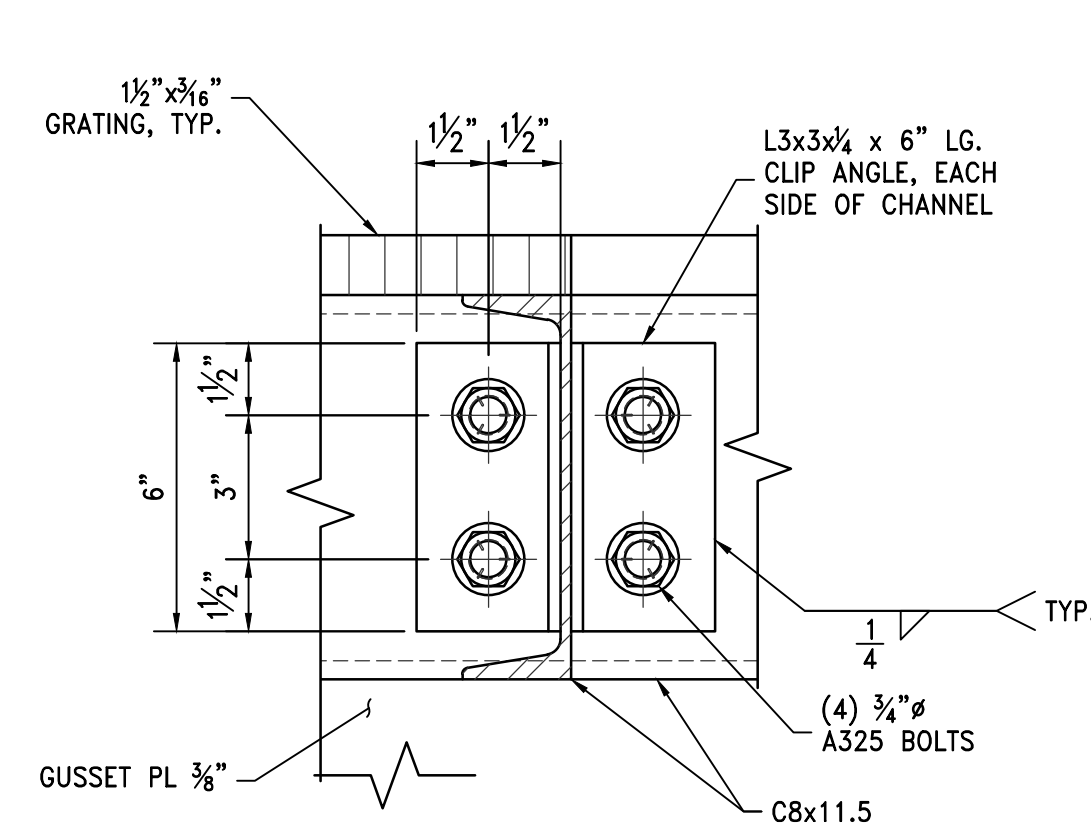
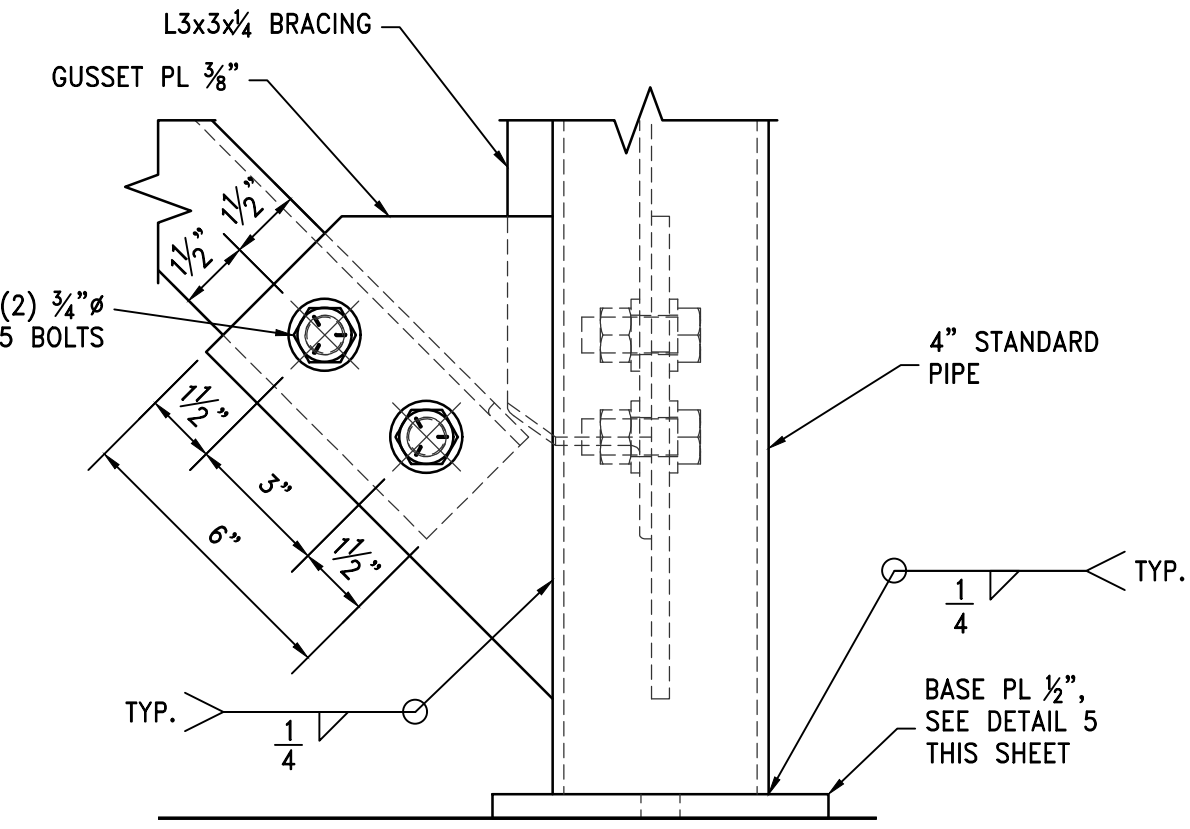
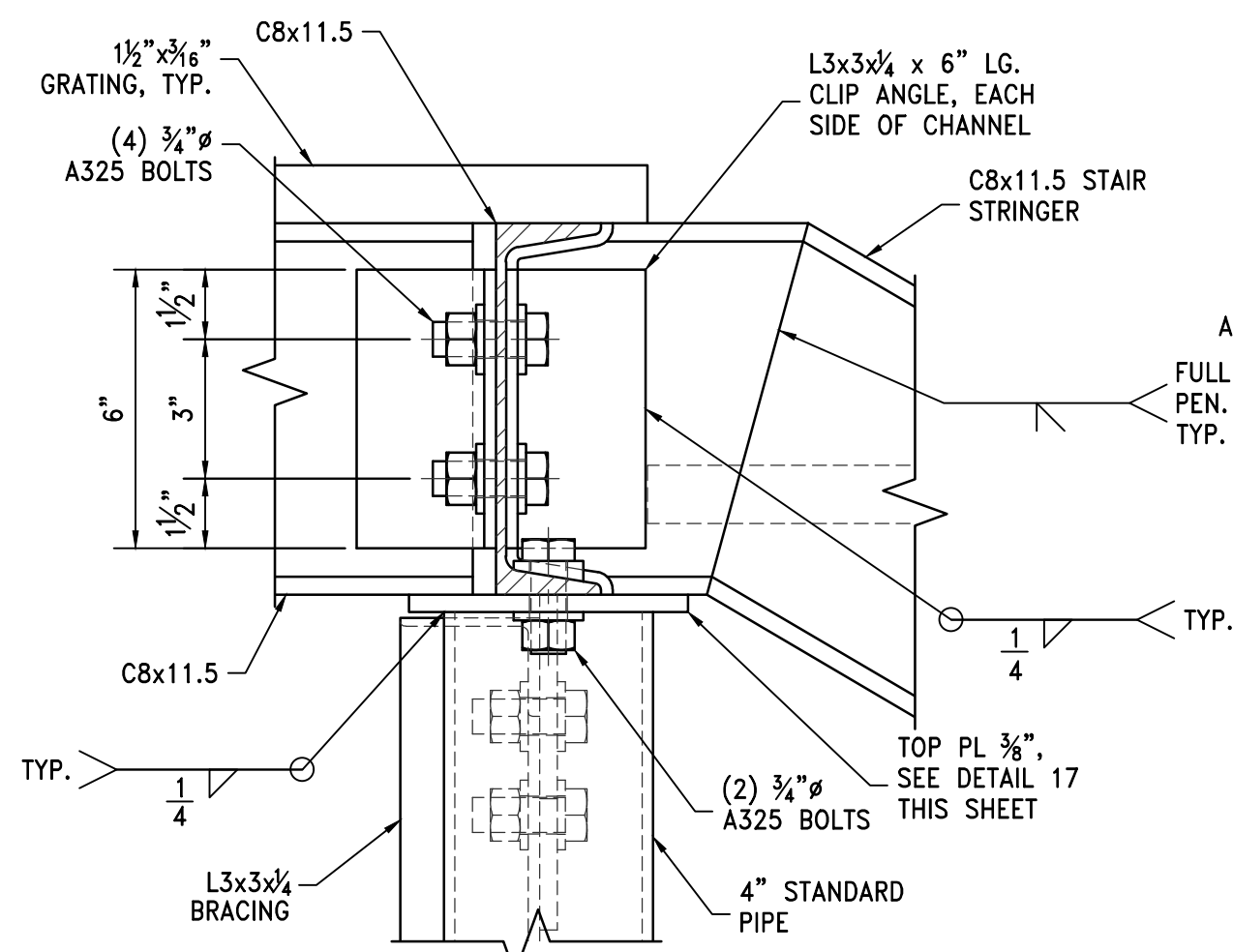
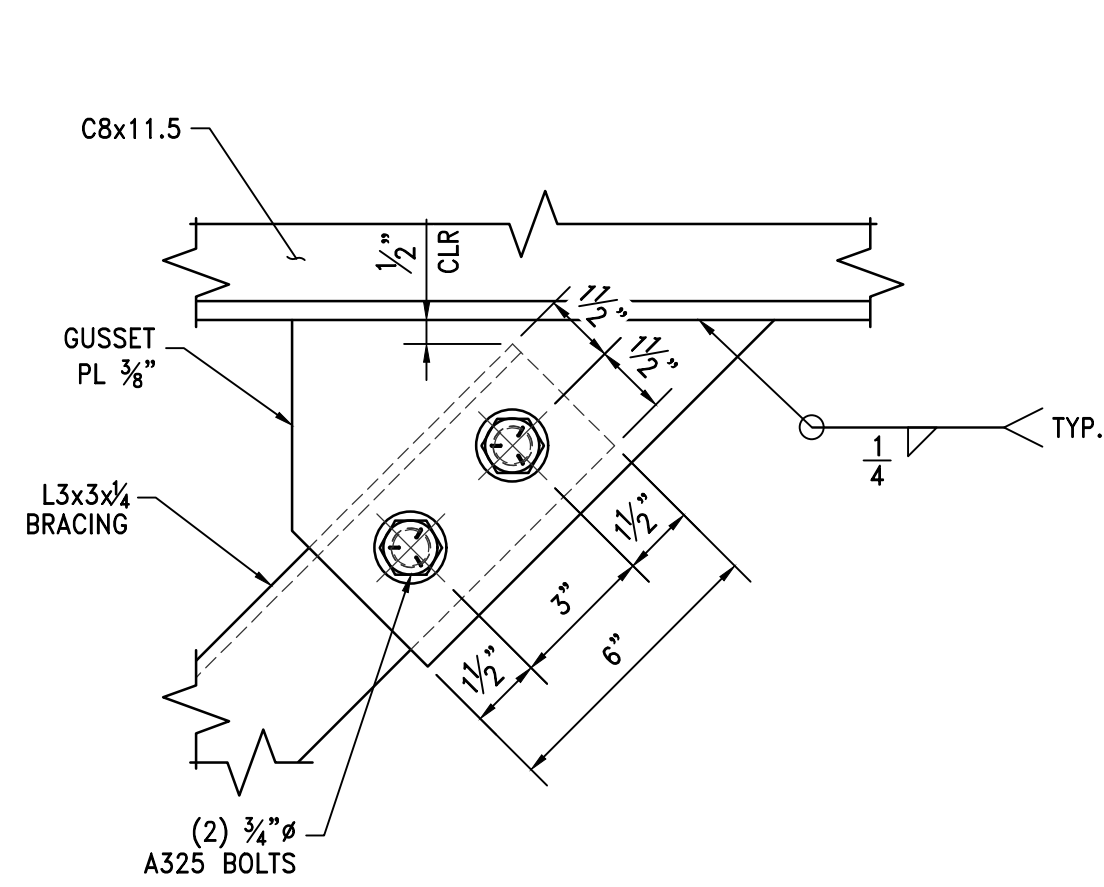
DETAIL 5
3"=1'-0" S4 S6

DETAIL 6
D"=1'-0" S4 S6

DETAIL 7
3"=1'-0" S4 S6

DETAIL 8
3"=1'-0" S4 S6

DETAIL 9
3"=1'-0" S4 S6



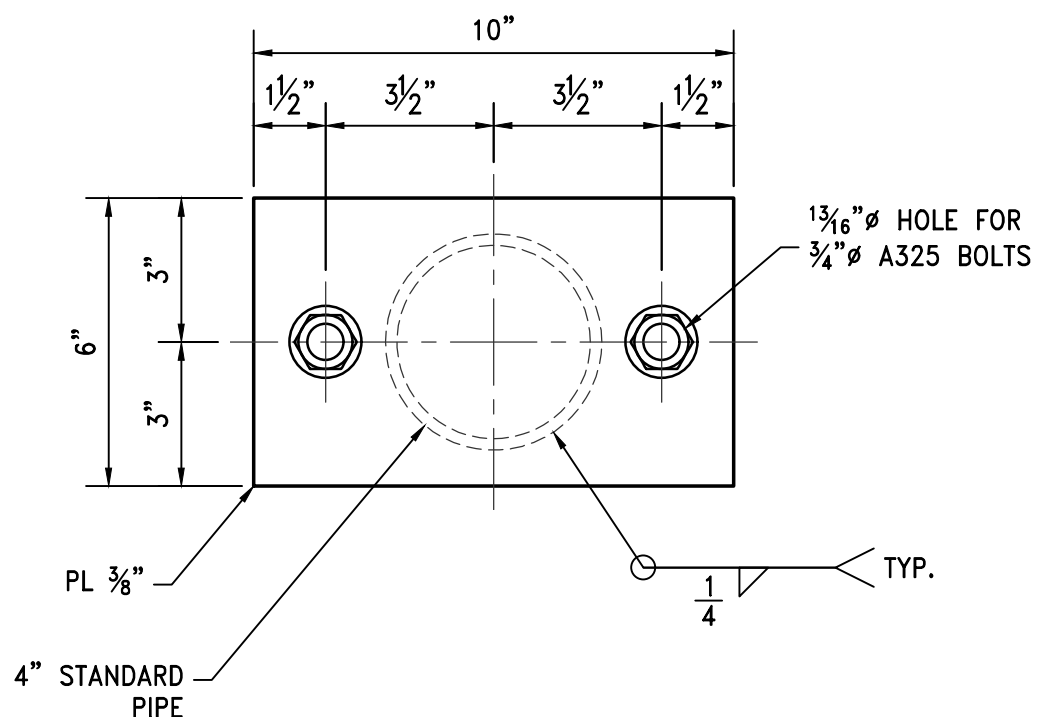
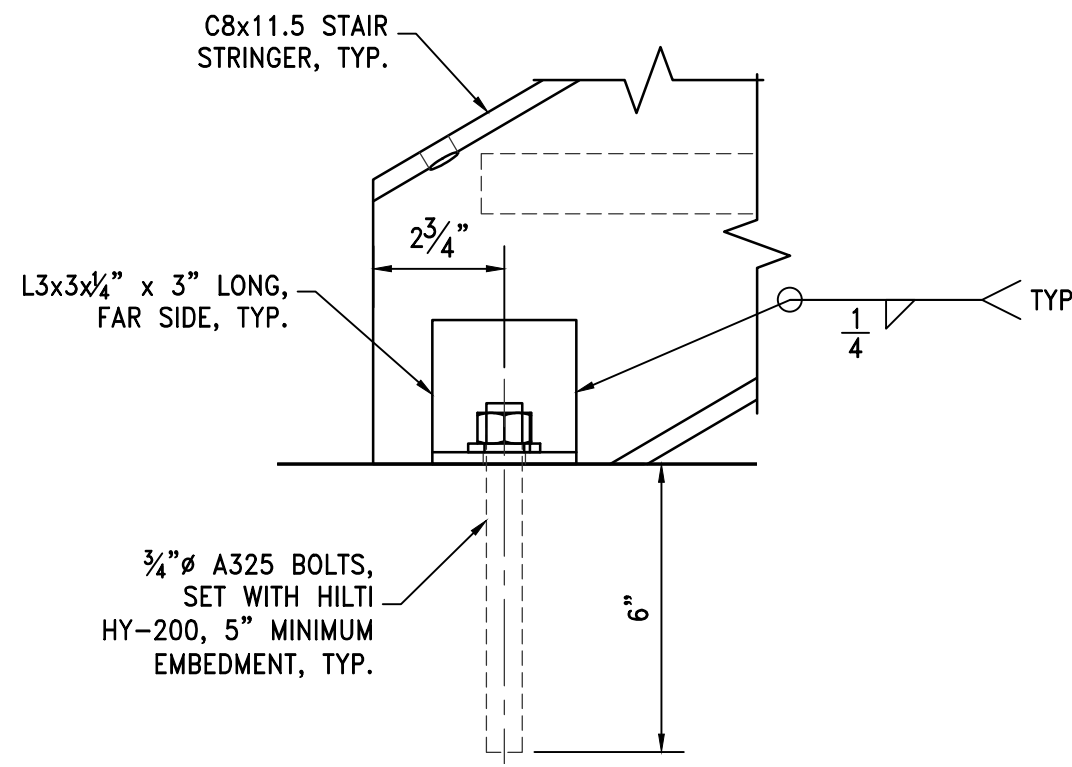
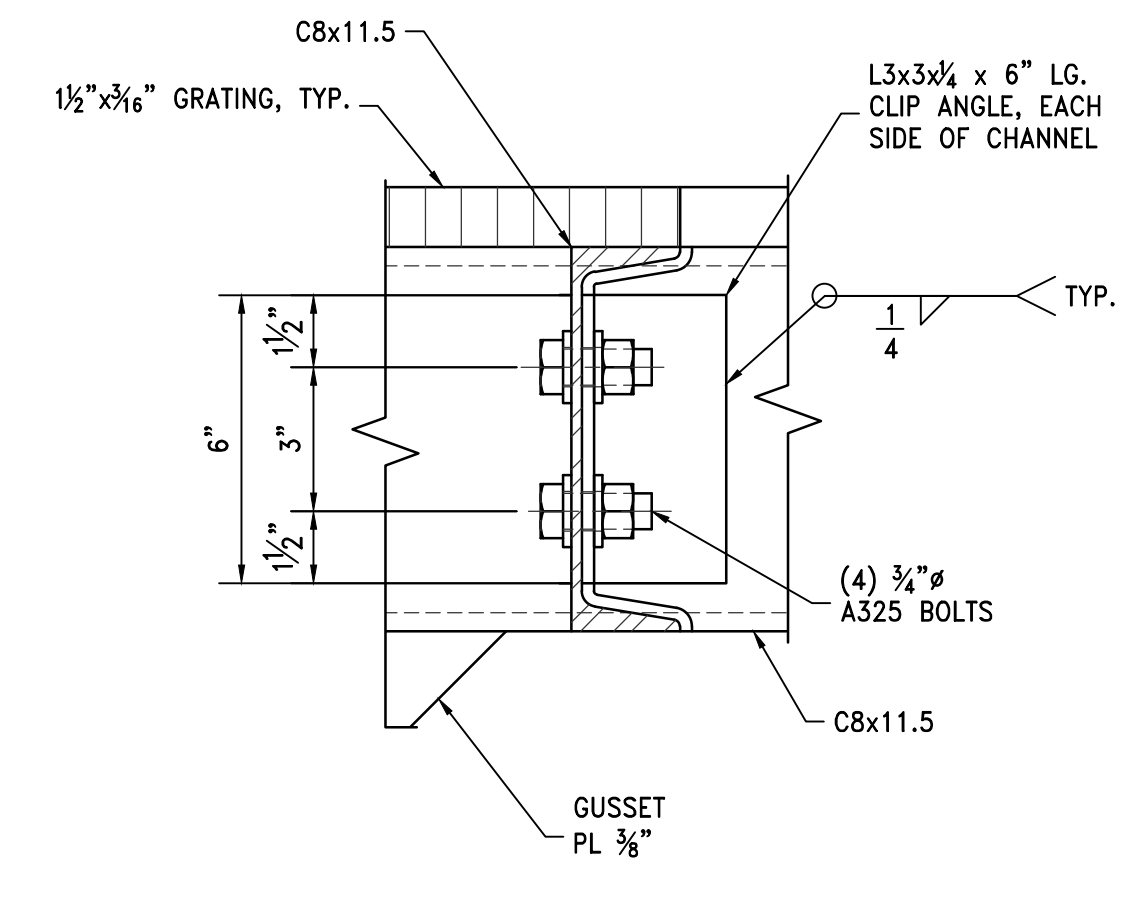
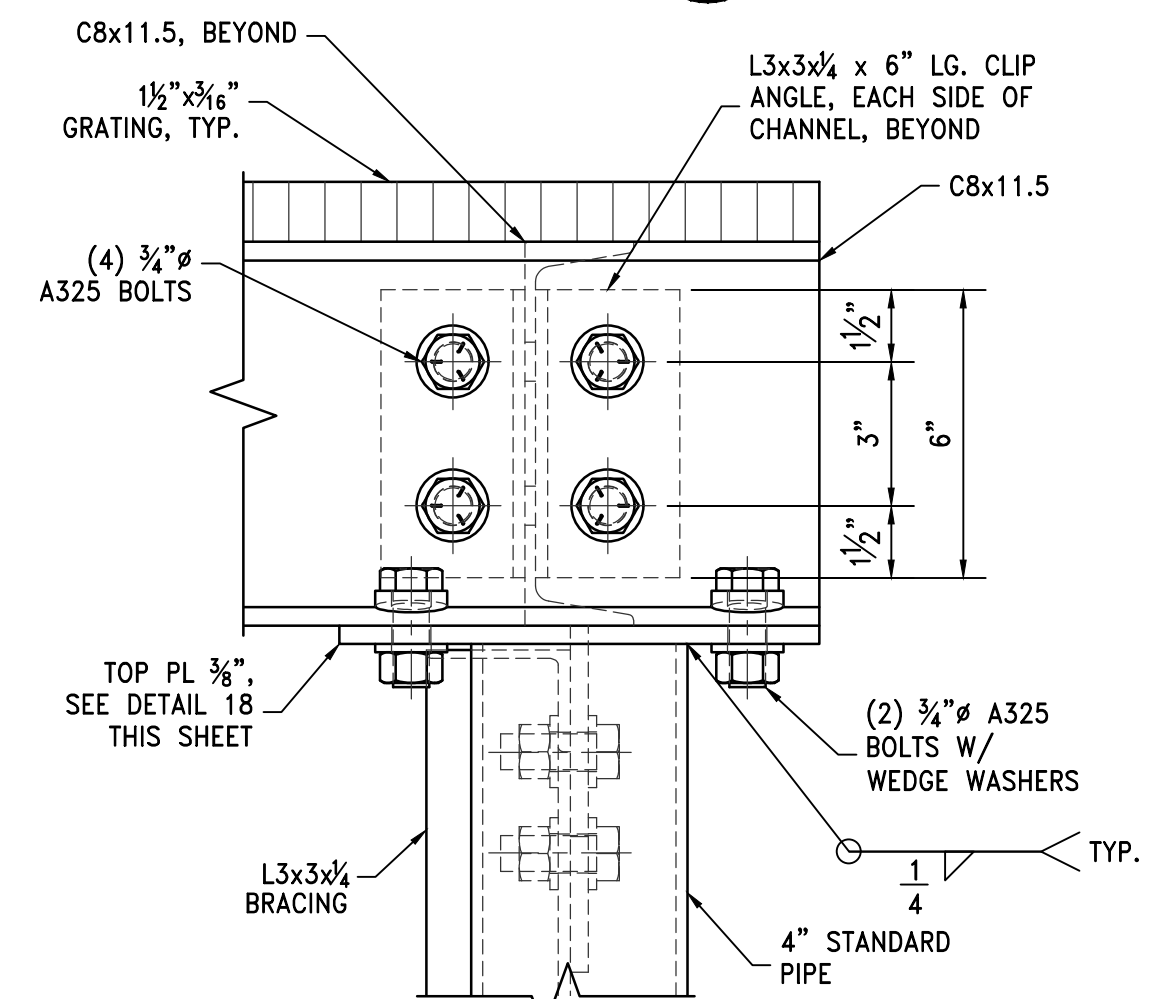
DETAIL 10
3"=1'-0" S5 S6

DETAIL 11
3"=1'-0" S5 S6

DETAIL 12
3"=1'-0" S5 S6

DETAIL 13
3"=1'-0" S5 S6

DETAIL 14
3"=1'-0" S5 S6



DETAIL 15
3"=1'-0" S5 S6

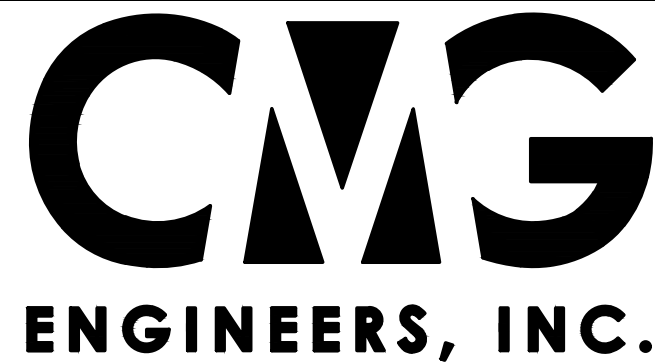
DETAIL 16
3"=1'-0" S5 S6

DETAIL 17
3"=1'-0" S5 S6

DETAIL 18
3"=1'-0" S6 S6

REV.	DESCRIPTION	DATE	BY	CHK'D
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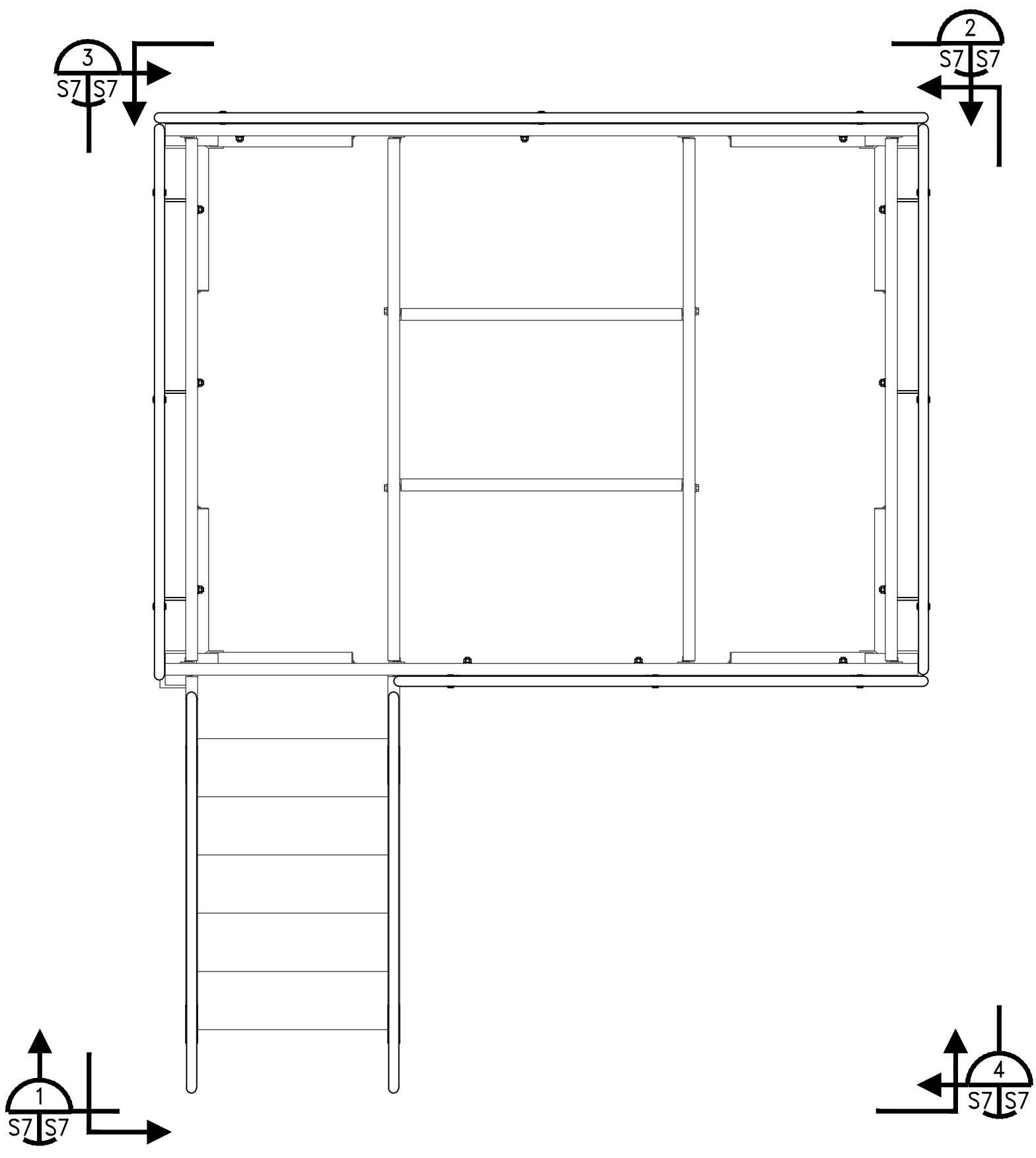


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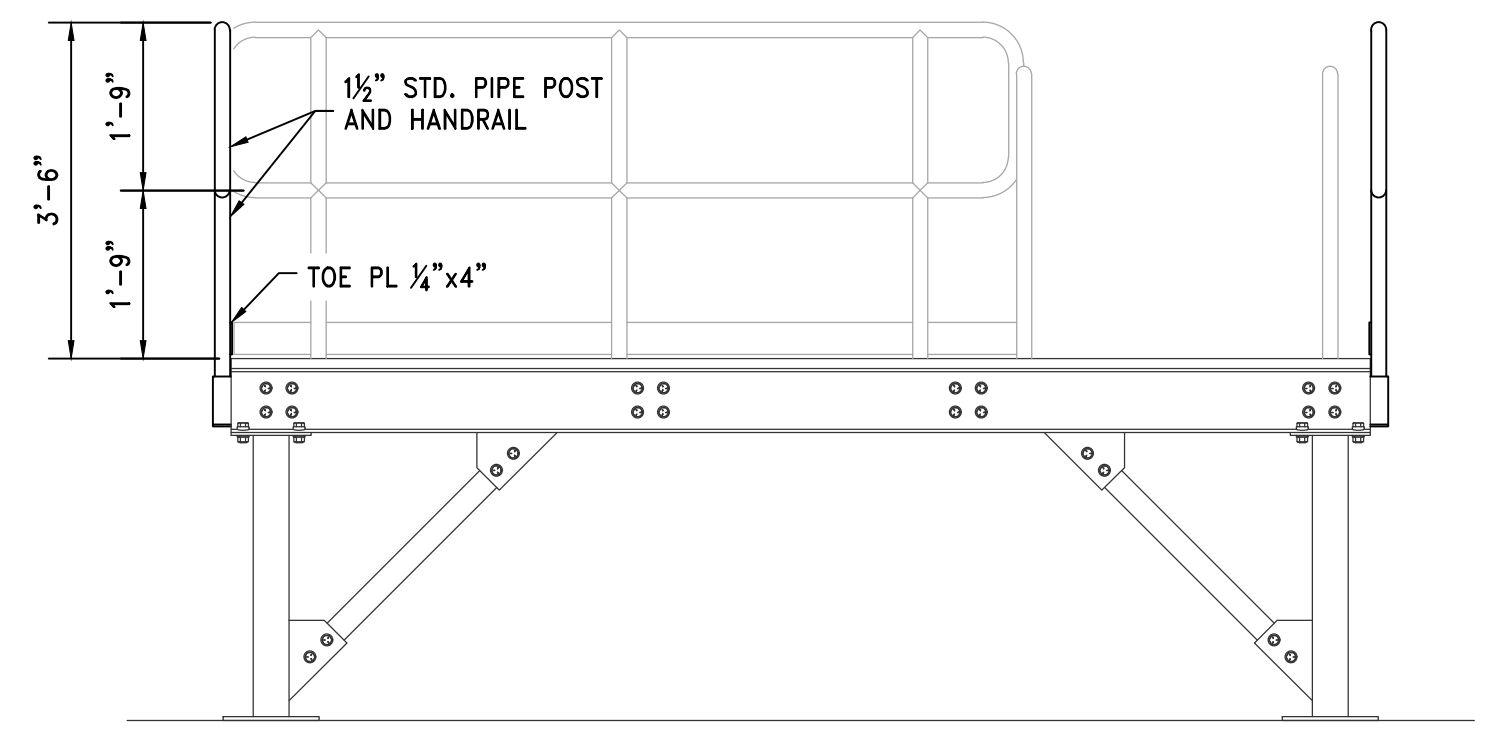
PROJECT	TRR RAIL PIT EXPANSION
LOCATION	MOBILE ALABAMA

TITLE	PLATFORM DETAILS AND SECTIONS
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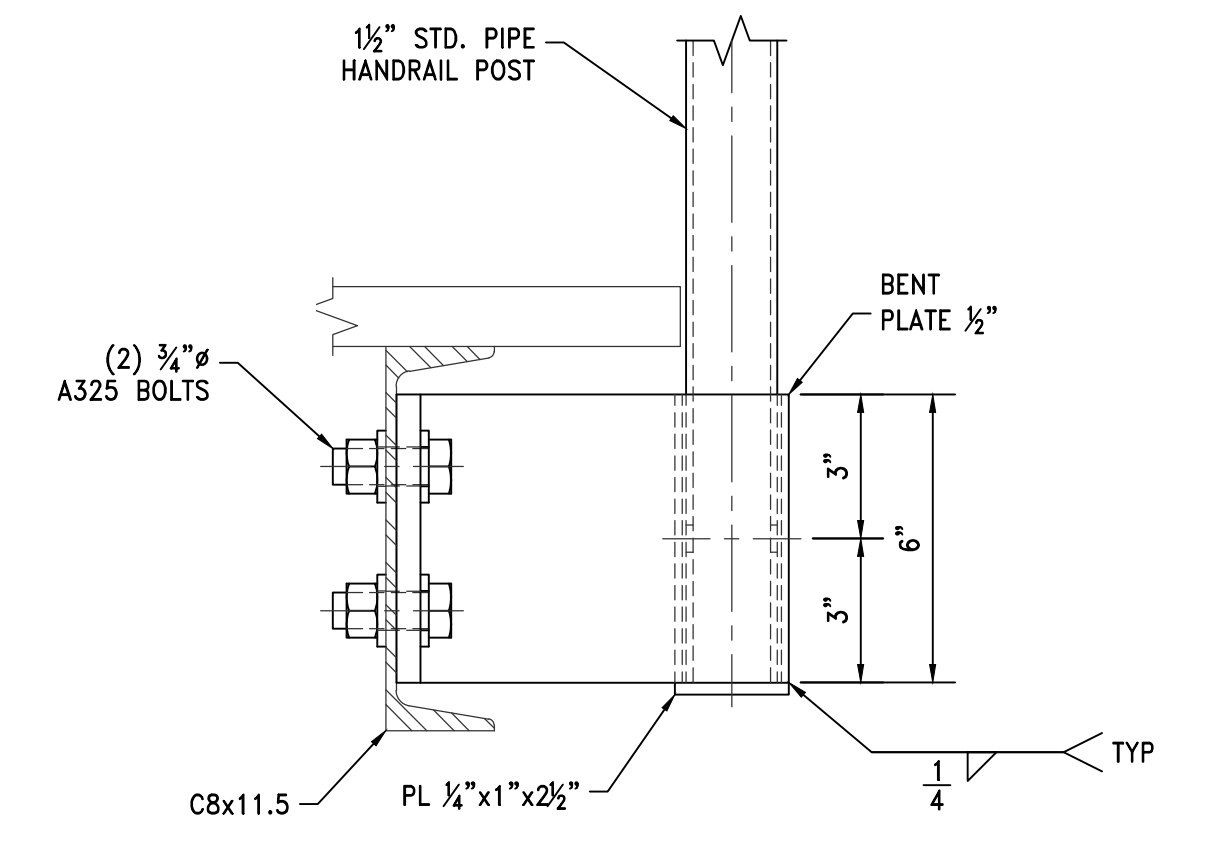
DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-S6		



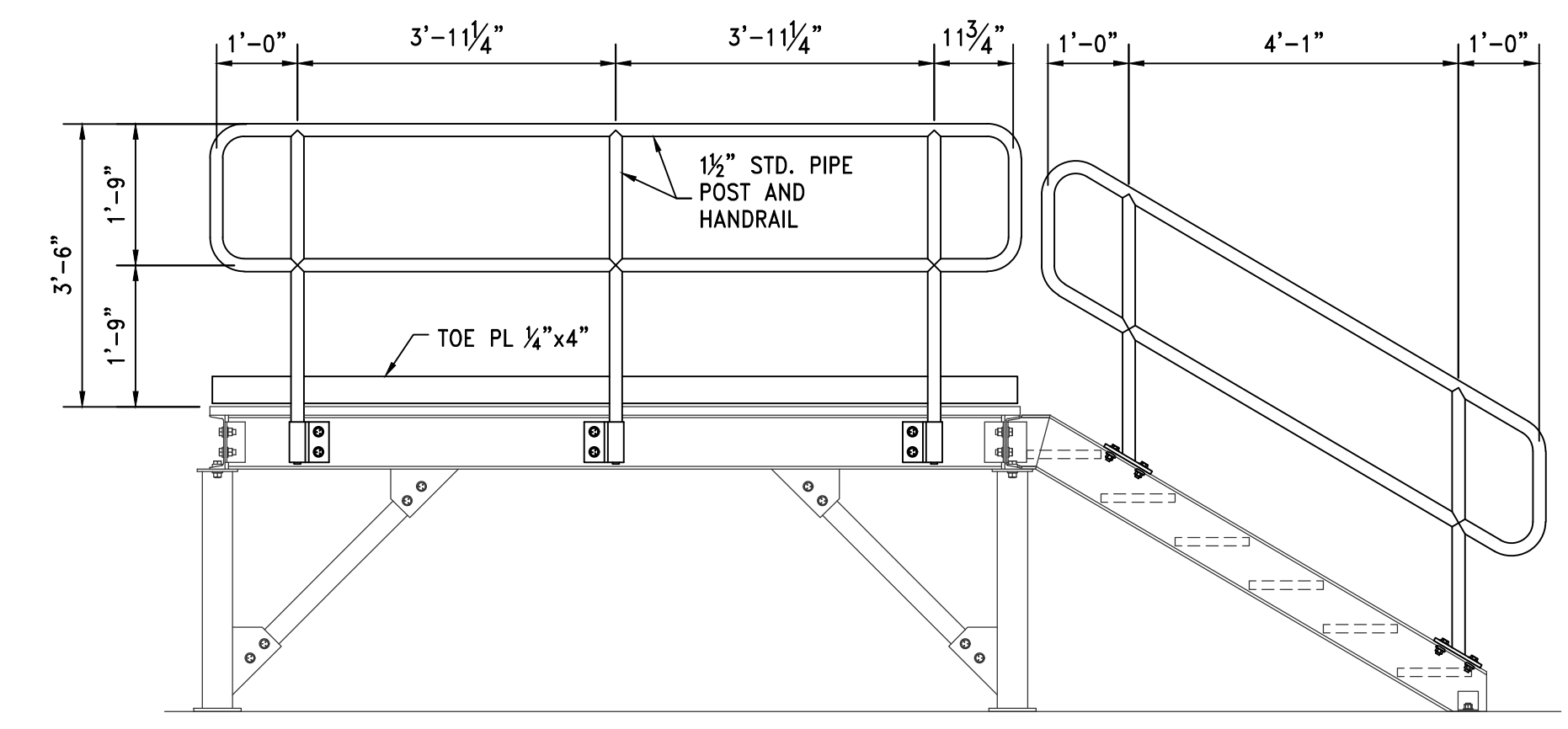
HANDRAIL LAYOUT
SCALE: 1/2"=1'-0"



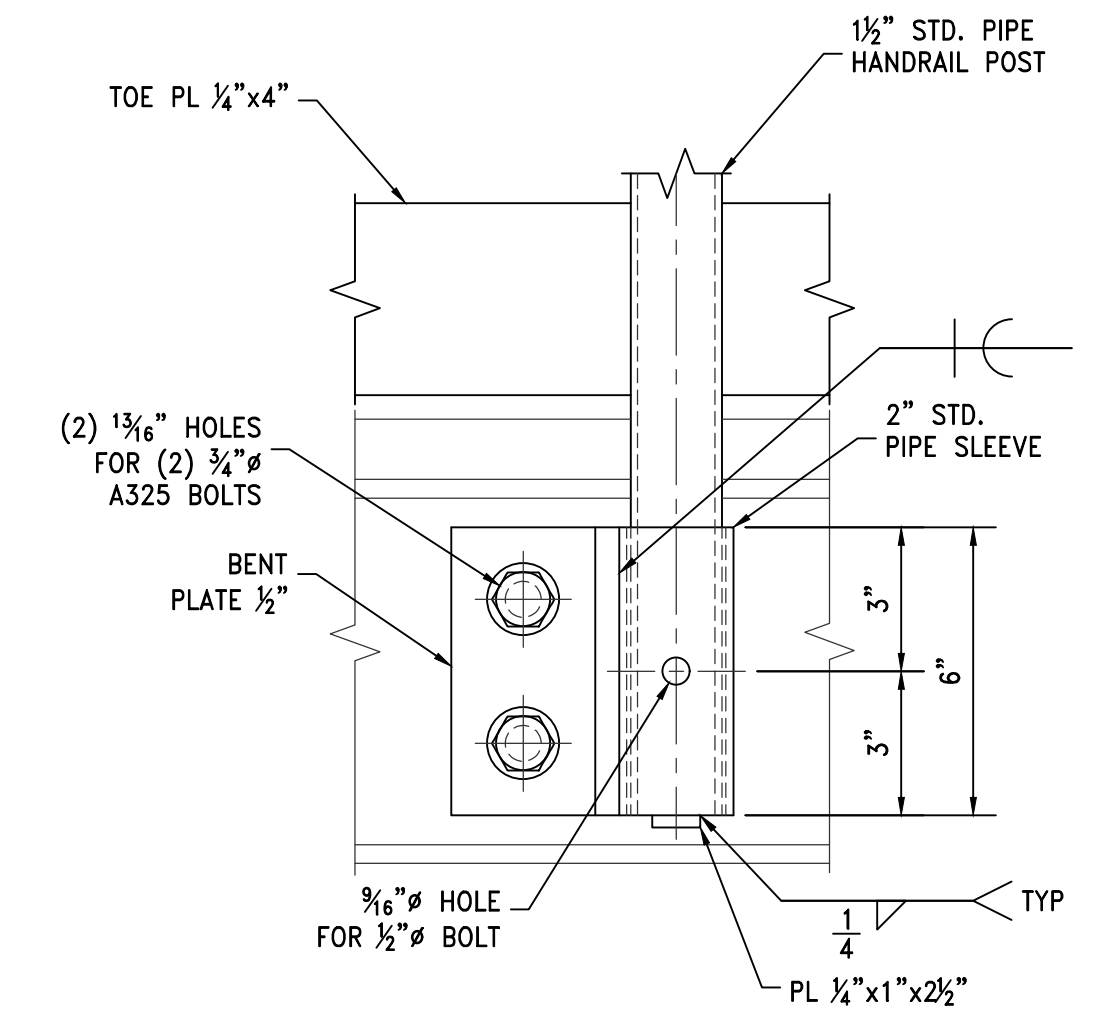
DETAIL 2
1/2"=1'-0"



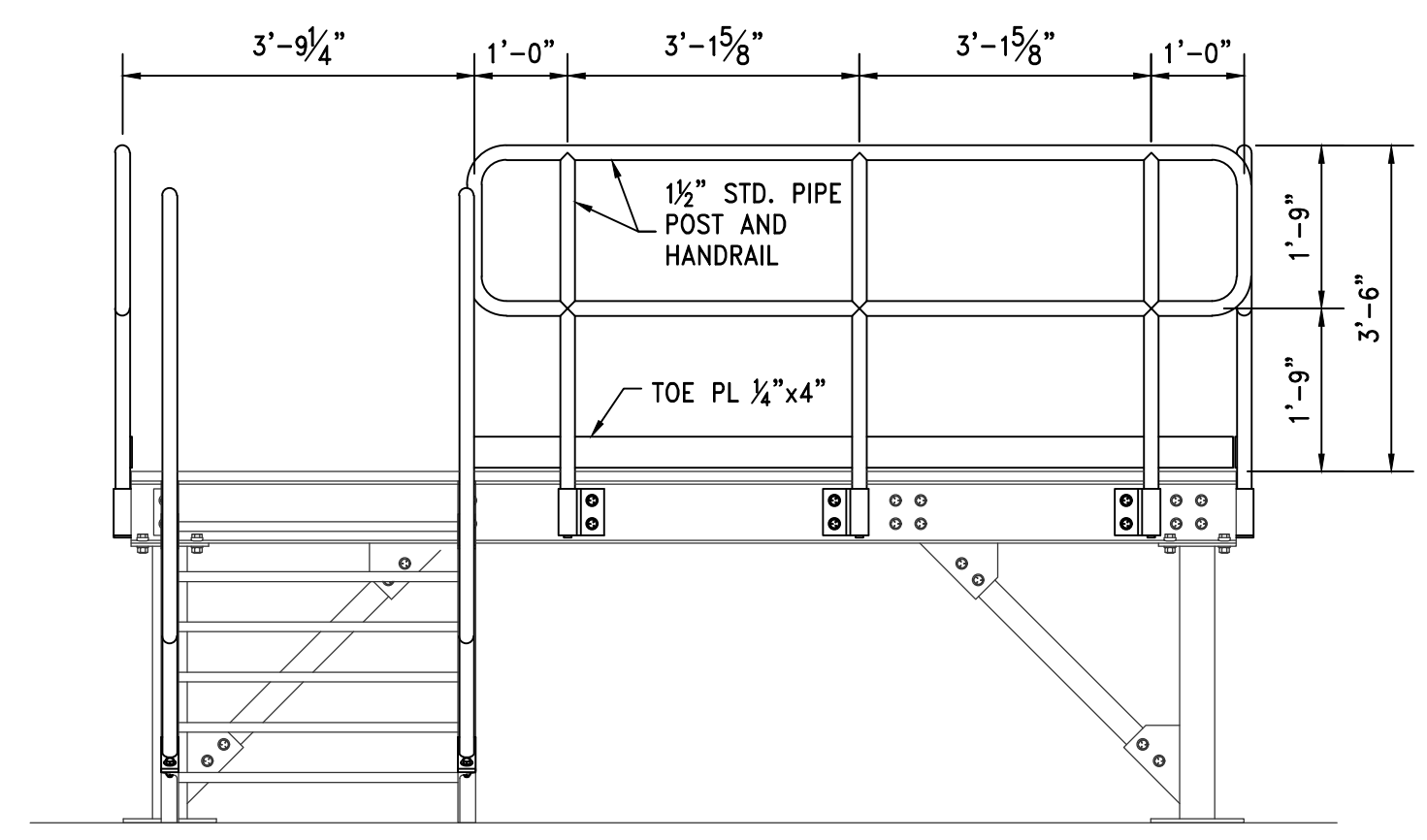
HANDRAIL SLEEVE - SIDE ELEV.
SCALE: 3"=1'-0"



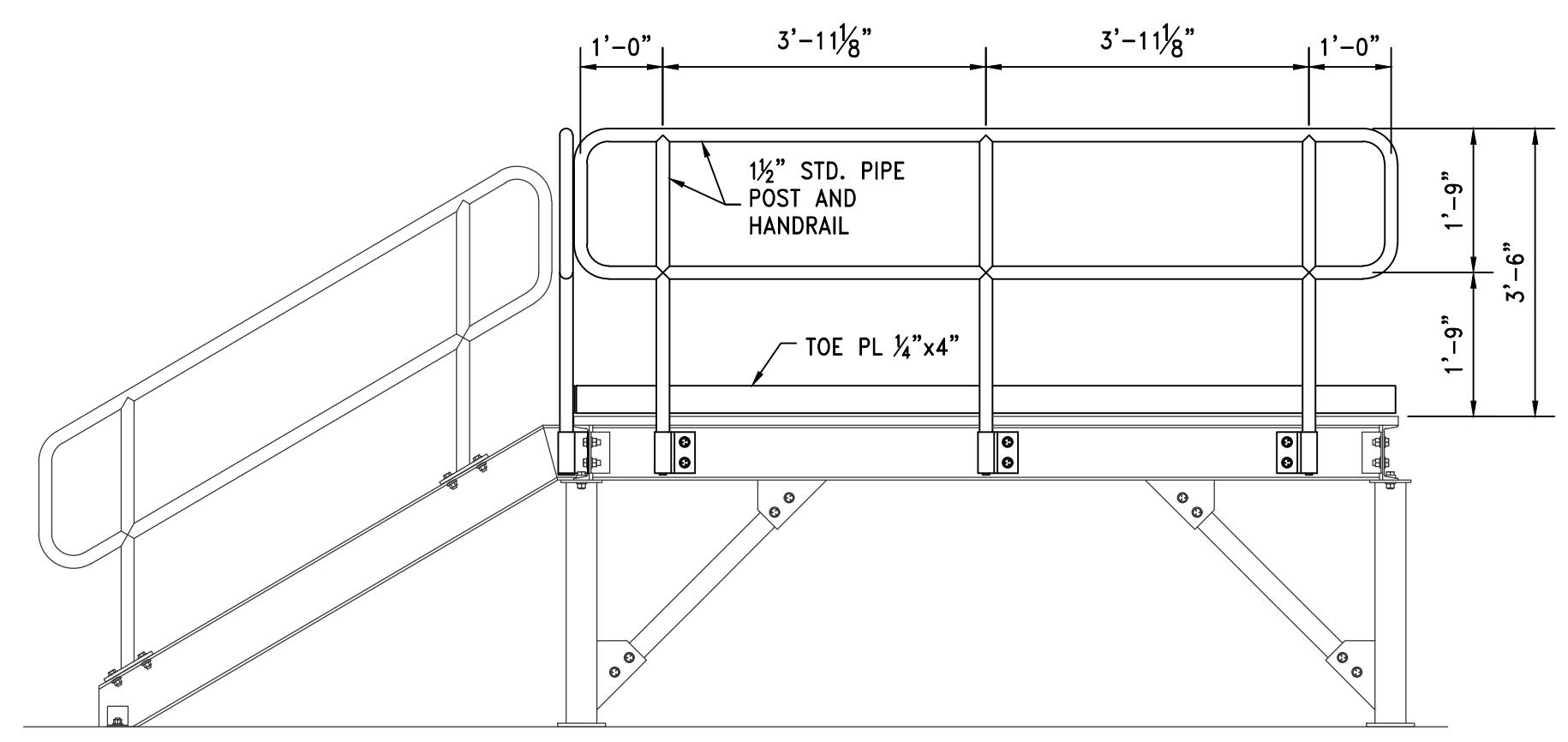
DETAIL 3
1/2"=1'-0"



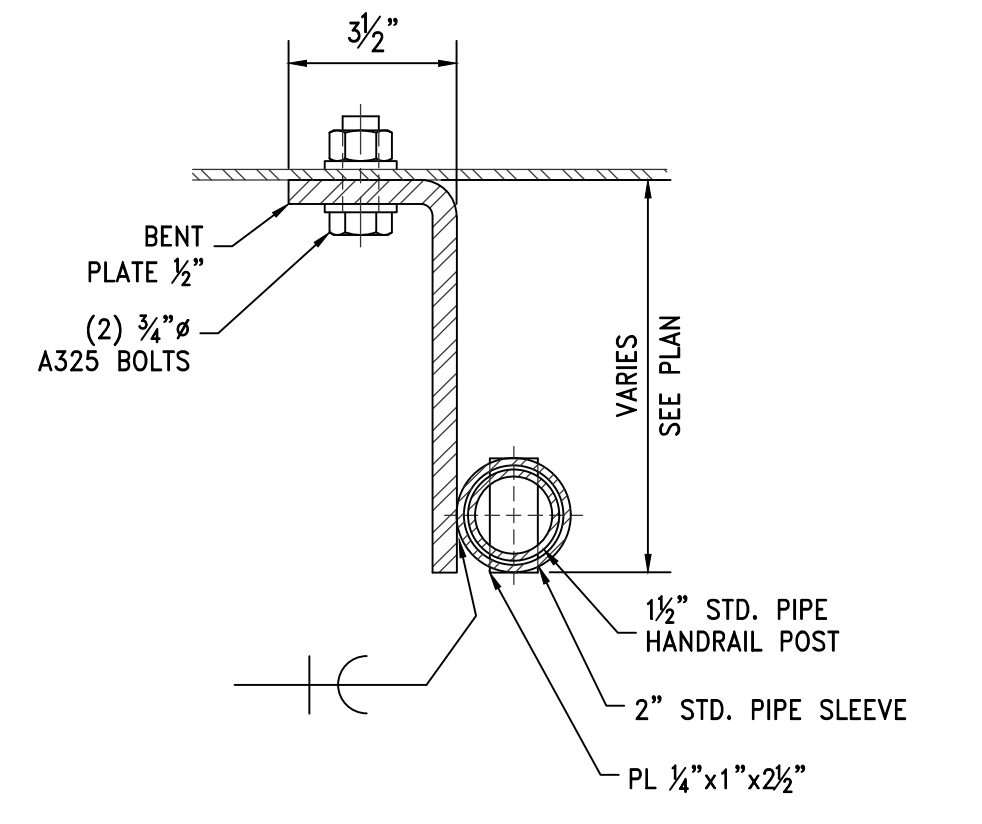
HANDRAIL SLEEVE - FRONT ELEV.
SCALE: 3"=1'-0"



DETAIL 1
1/2"=1'-0"



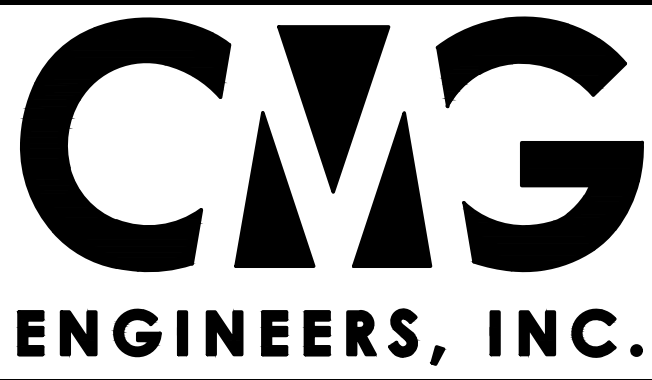
DETAIL 4
1/2"=1'-0"



HANDRAIL SLEEVE - PLAN VIEW
SCALE: 3"=1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
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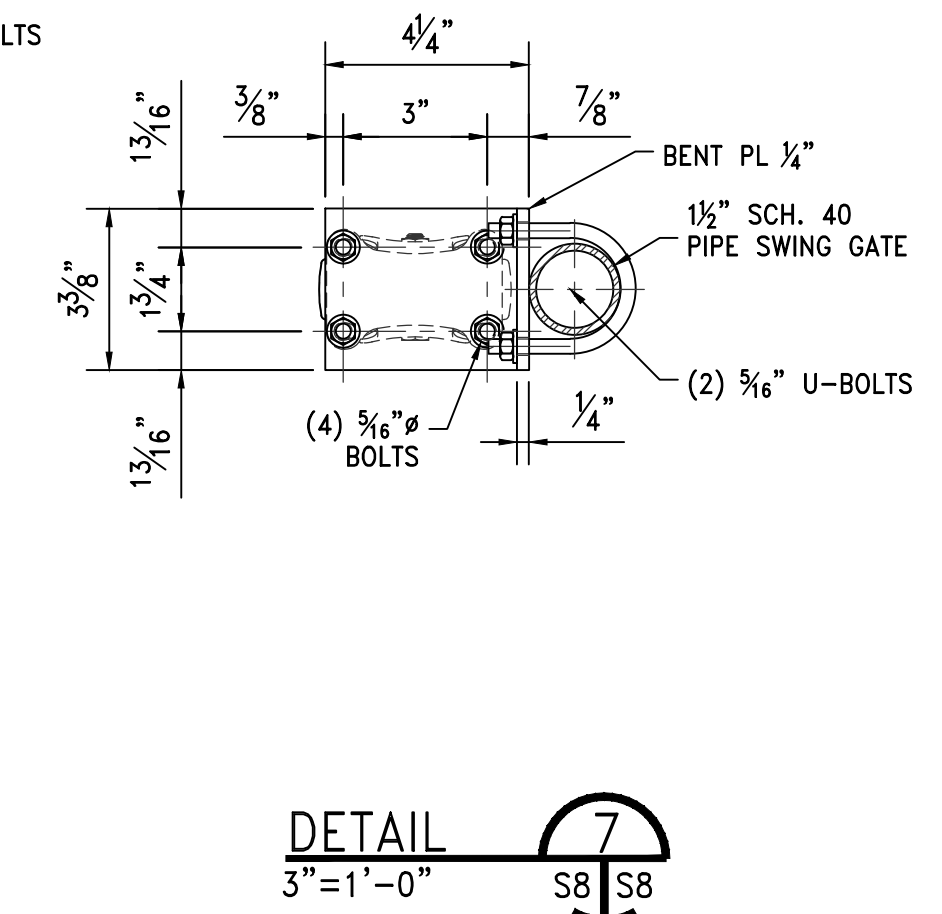
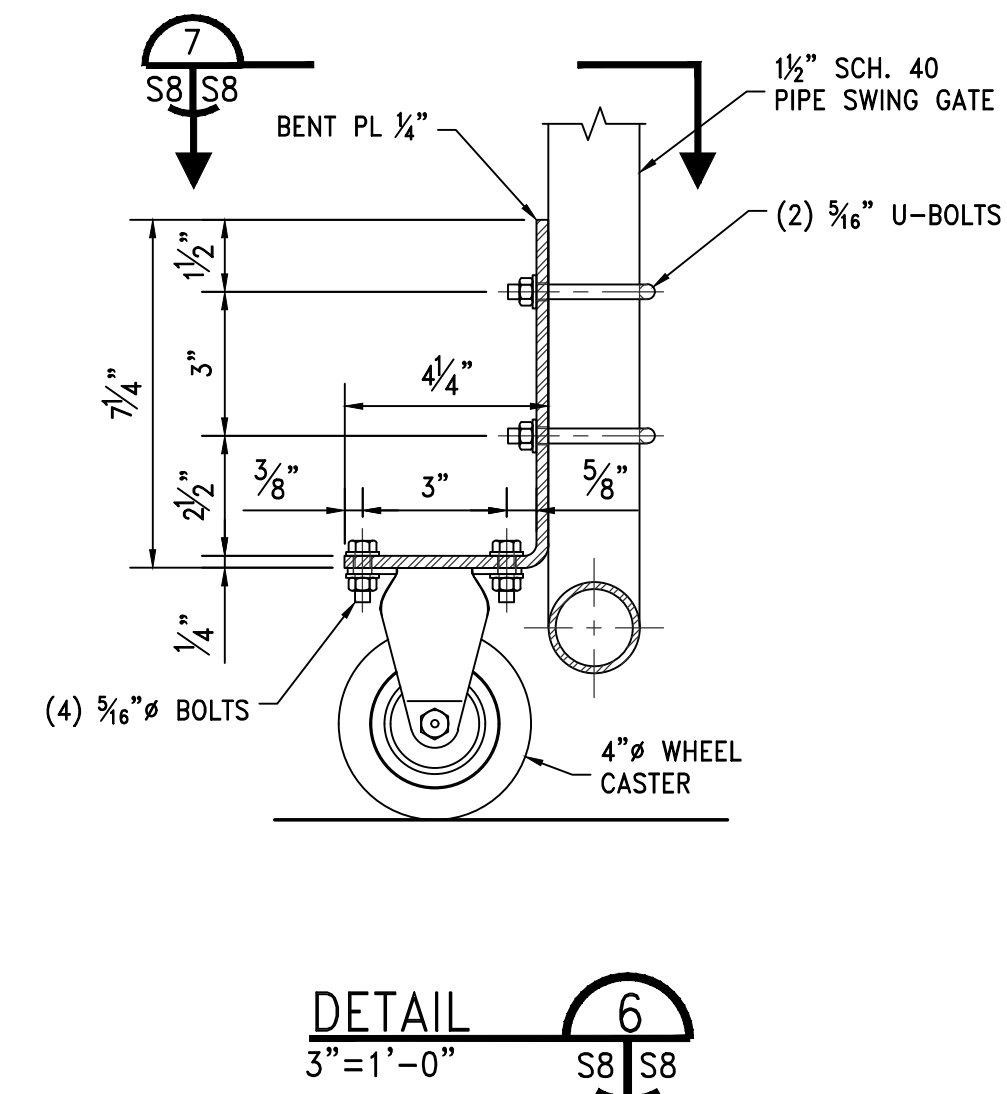
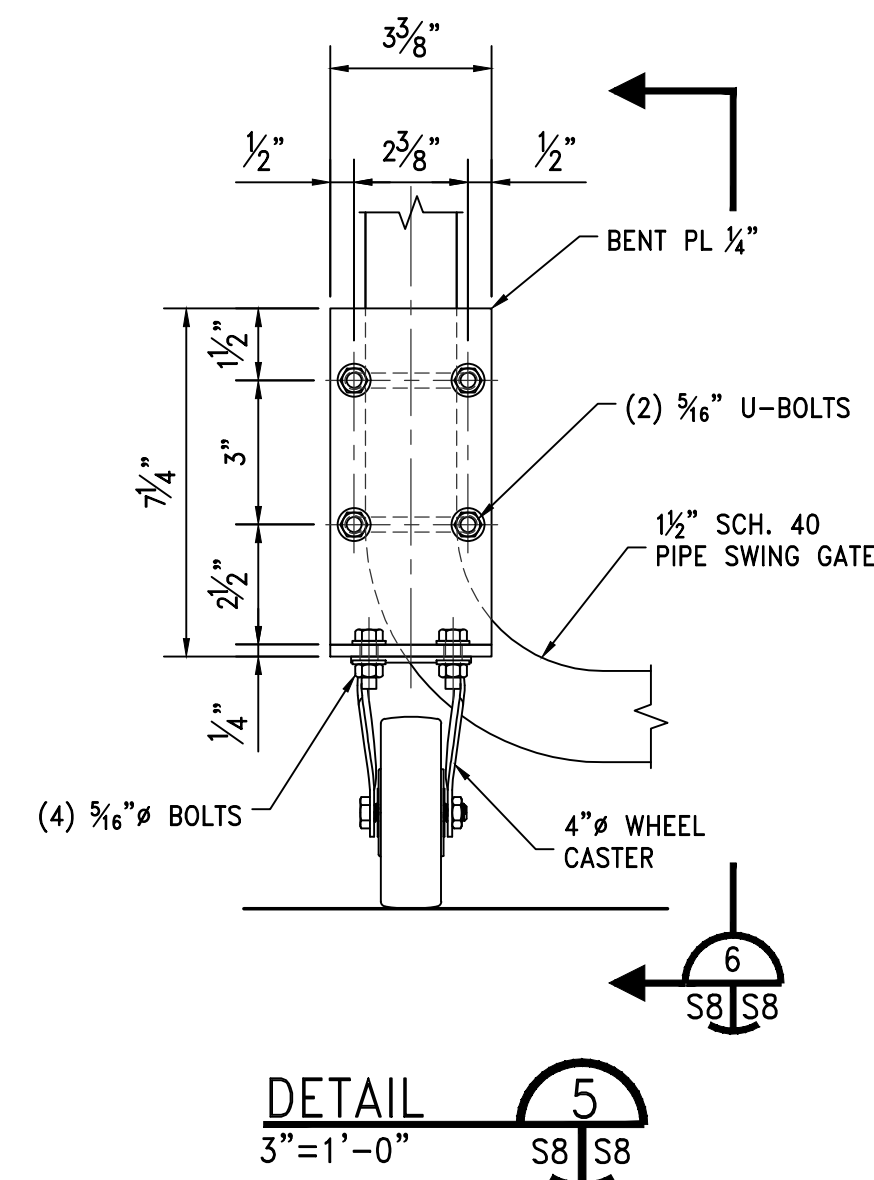
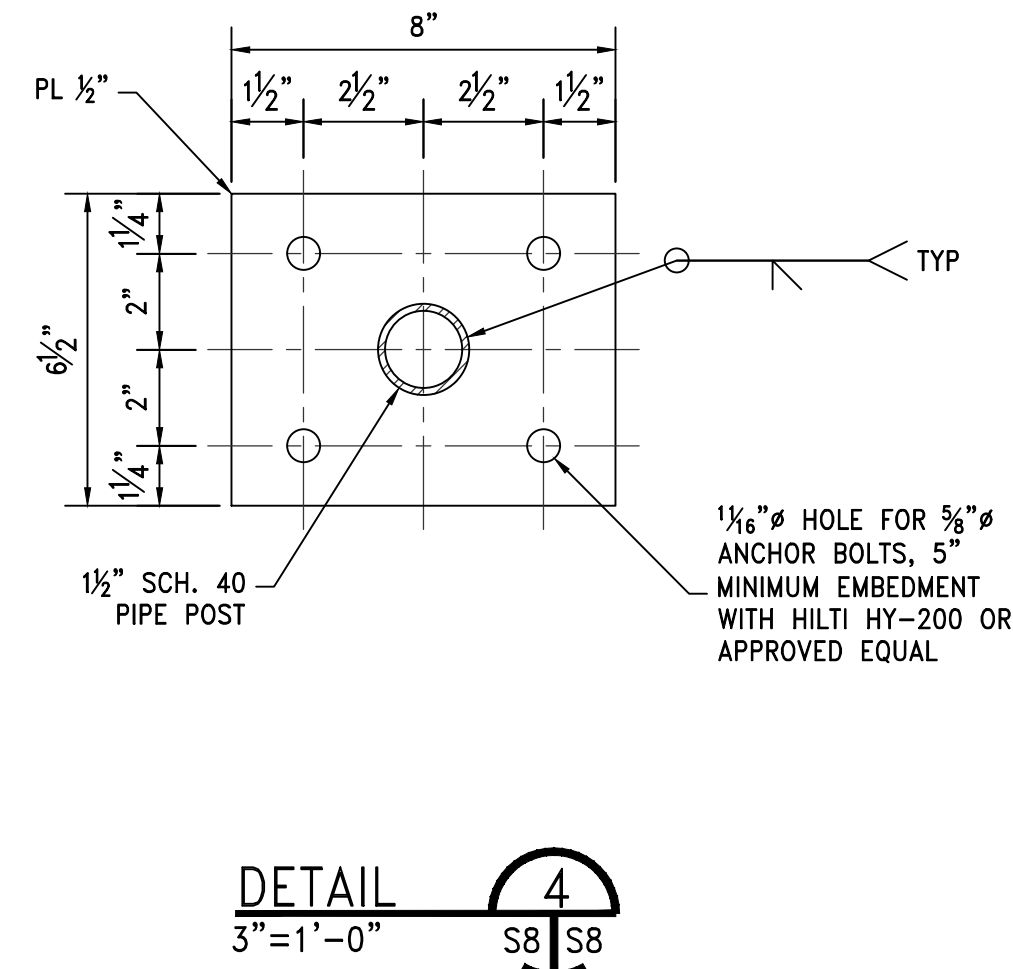
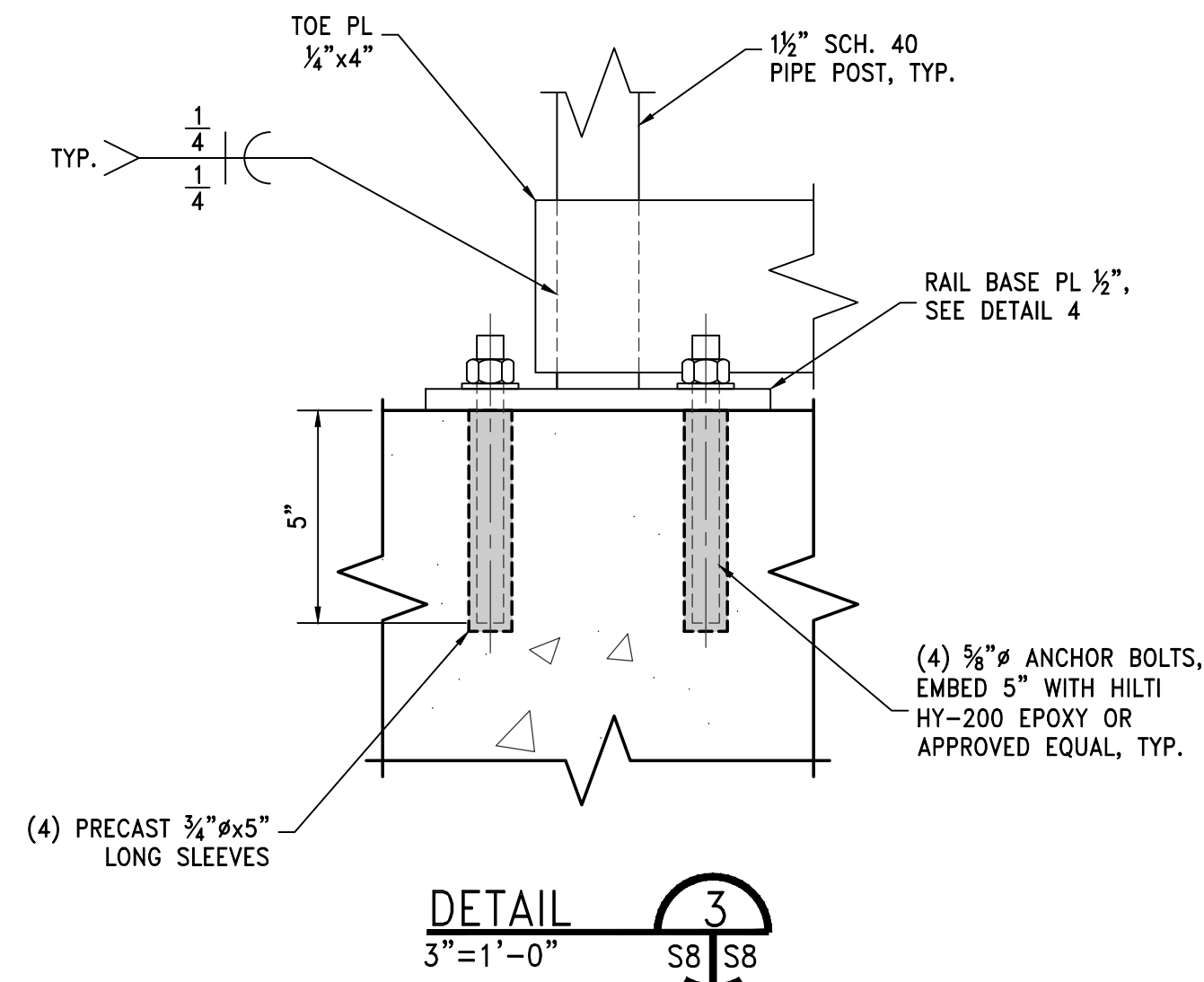
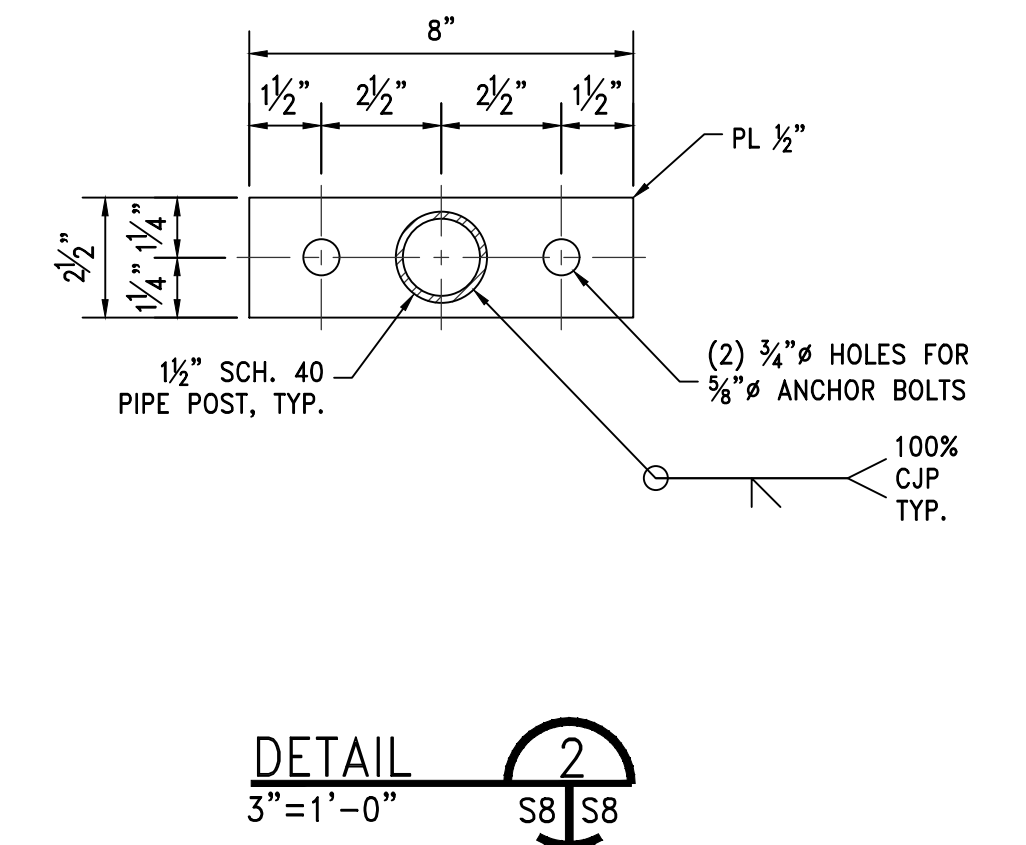
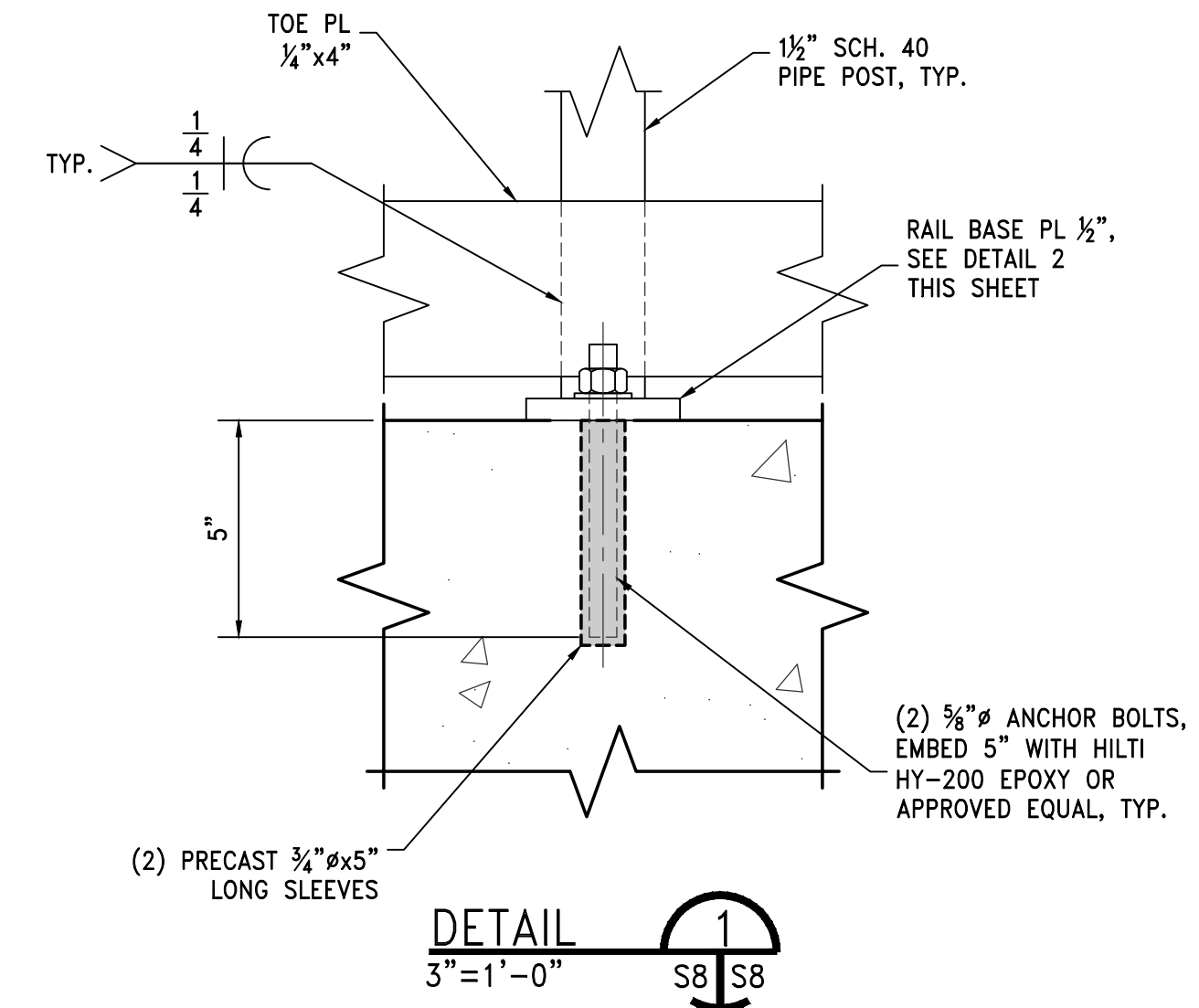
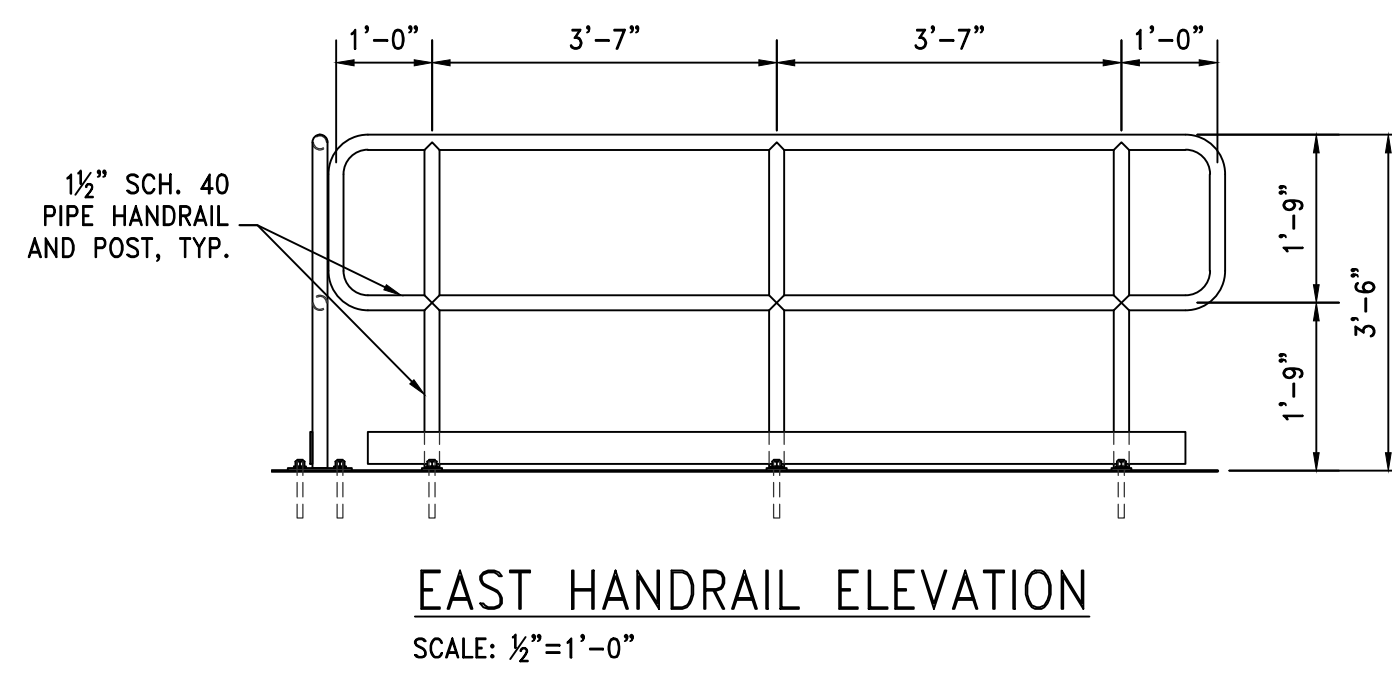
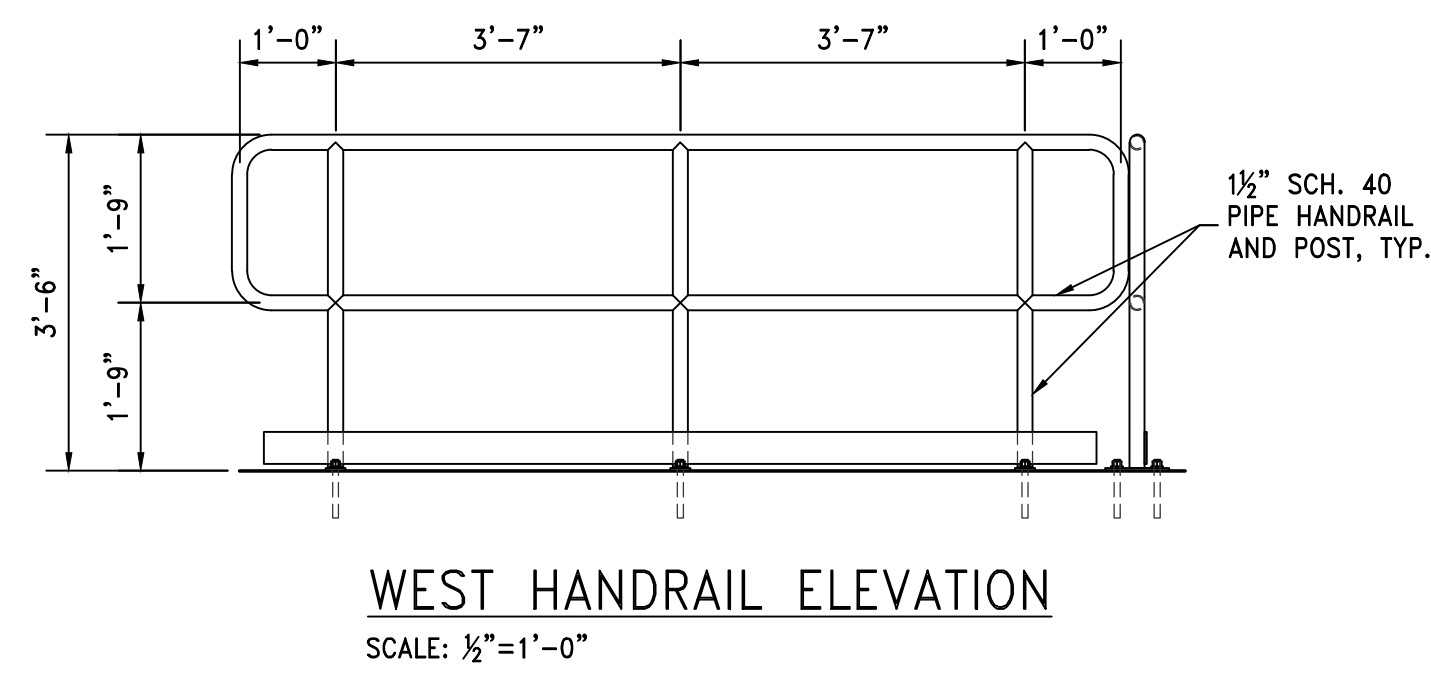
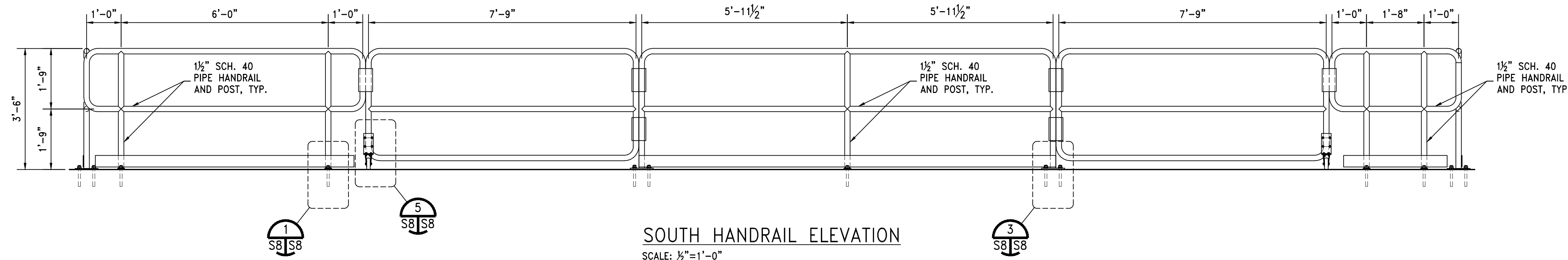
457 St. Michael Street
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PROJECT
TRR RAIL PIT EXPANSION
MOBILE ALABAMA

TITLE
HYDRAULIK PACK PLATFORM HANDRAILS

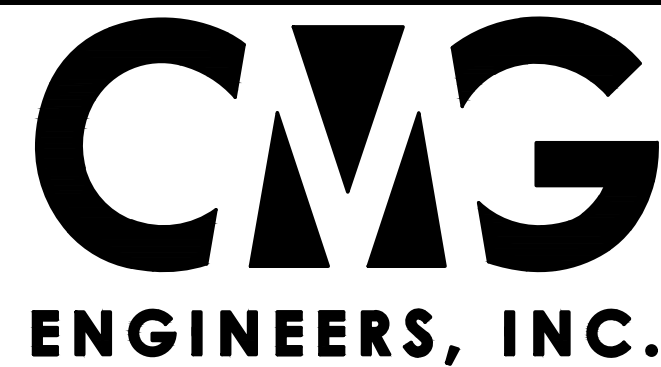
DATE	04/02/25	22x34 REV.	A
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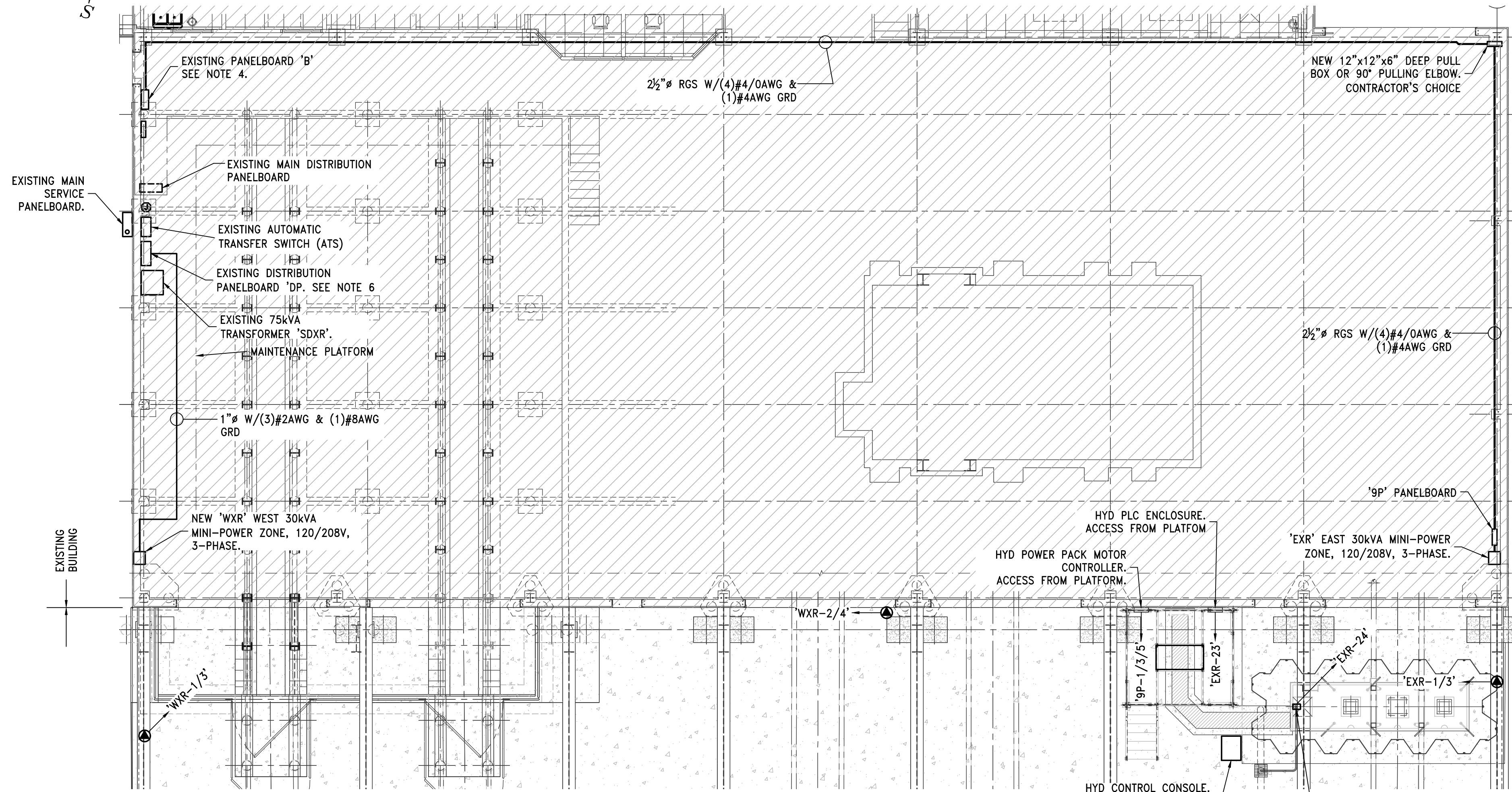
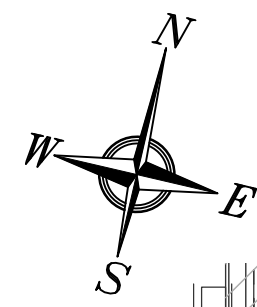


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(251) 433-1611

PROJECT	TRR RAIL PIT EXPANSION
MOBILE ALABAMA	

TITLE	RAIL PIT HANDRAILS
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DATE	04/02/25	22x34 REV.	A
DRAWING NUMBER	4503-S8		



ELECTRICAL FLOOR PLAN
SCALE: 1/8"=1'-0"

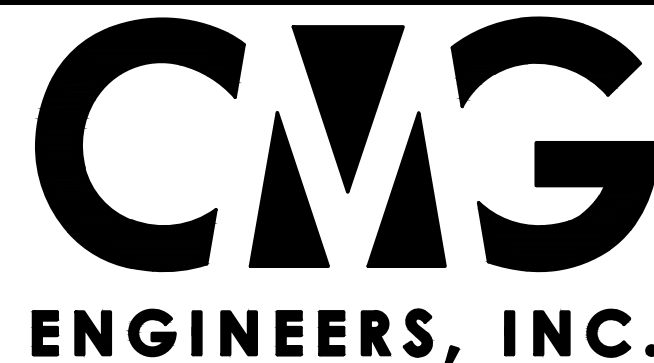
ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	240V, 1Ø RECEPTACLE TO MATCH WELDING MACHINE PLUG REQUIREMENTS. WEATHER PROOF ENCLOSURE

ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" - STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)
- CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.
- CONTRACTOR SHALL (PRIOR TO BID)
(a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
- CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 200 AMP, 3-POLE CIRCUIT BREAKER IN EXISTING PANELBOARD 'B'. CONTRACTOR SHALL VERIFY EXISTING PANELBOARD REQUIREMENTS PRIOR TO CIRCUIT BREAKER PURCHASE AND INSTALLATION.
- CONTRACTOR SHALL FURNISH AND INSTALL (1) 2 1/2" RGS W/(4)#4/OAWG & (1)#4AWG GRD FROM EXISTING PANELBOARD 'B' TO NEW PANELBOARD '9P'. CONDUIT SHALL BE SECURED AT A MAXIMUM OF 10FT SPACINGS. INSTALL CONDUIT BELOW OVERHEAD CRANE RAIL AND SECURE TO OVERHEAD CRANE RAIL SUPPORT I-BEAM.
- CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 90 AMP, 3-POLE CIRCUIT BREAKER IN EXISTING PANELBOARD 'DP' AND ROUTE 1" RGS W/(3)#2AWG & (1)#8AWG GRD FROM EXISTING PANELBOARD 'DP' TO THE NEW 30kVA, 120/208V MINI-POWER ZONE.
- ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**
- ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
- ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE STAINLESS UNLESS NOTED OTHERWISE.
- ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.

REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR BID	04/04/25	RCC	JJM

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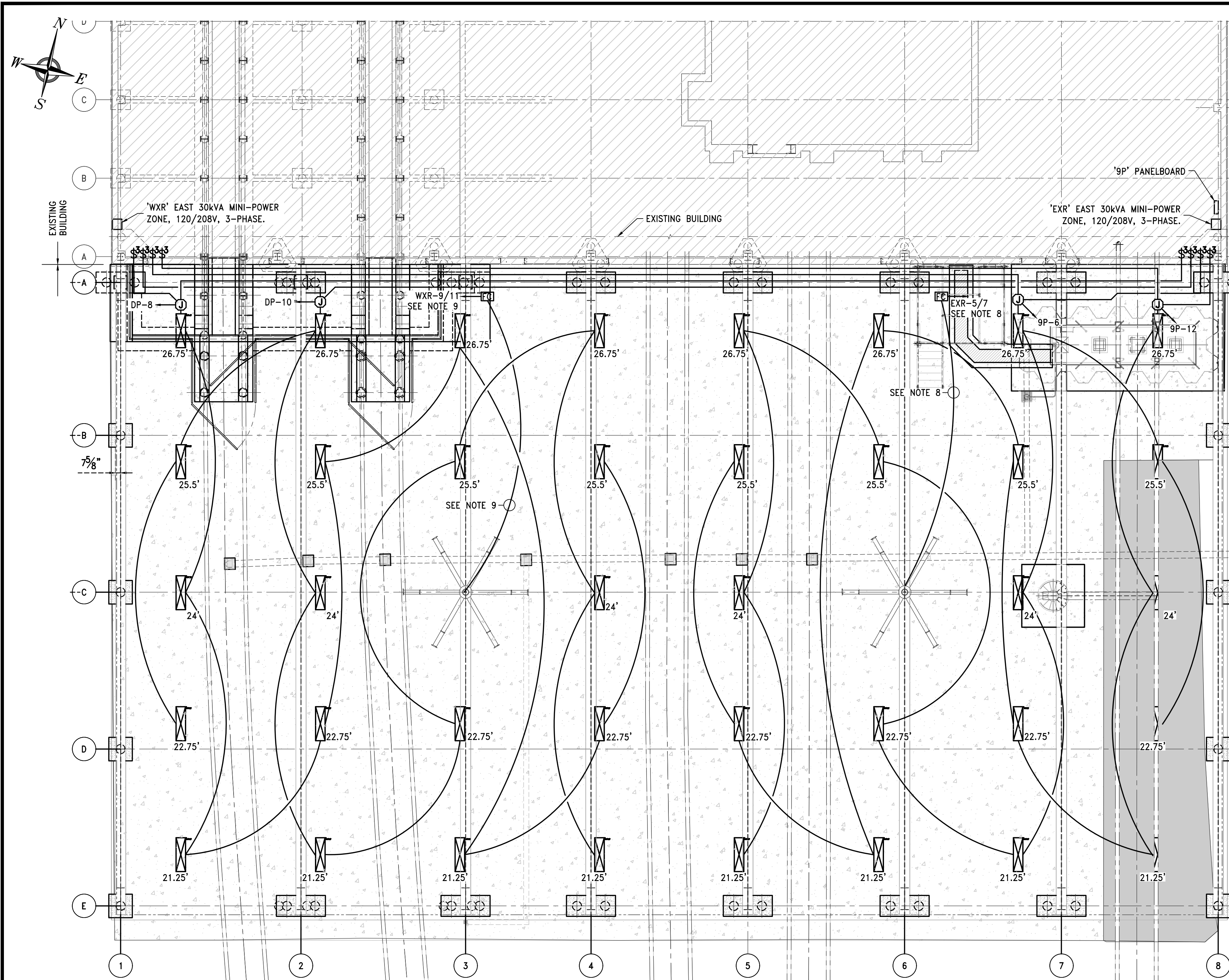
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE, ALABAMA

TITLE	ELECTRICAL FLOOR PLAN
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DATE	7/30/24	22x34 REV.	A
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ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	ORION #VTOD2438LUNVFD850LAFGSS, VAPORTIGHT WIDE BODY LED, 120/277V, 80 CRI, 5000K COLOR, ACRYLIC FROSTED LENS, 37,733 LUMENS (235W) OR EQUAL. HEIGHT A.F.F. GIVEN
	JUNCTION BOX WITH COVER RATED FOR SPLASH PROOF
	THREE WAY 120/277V, 20A, ROCKER SWITCH - SURFACE WALL MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE, SPLASH PROOF ENCLOSURE, OWNER APPROVED.
	OVERHEAD FAN CONTROLLER

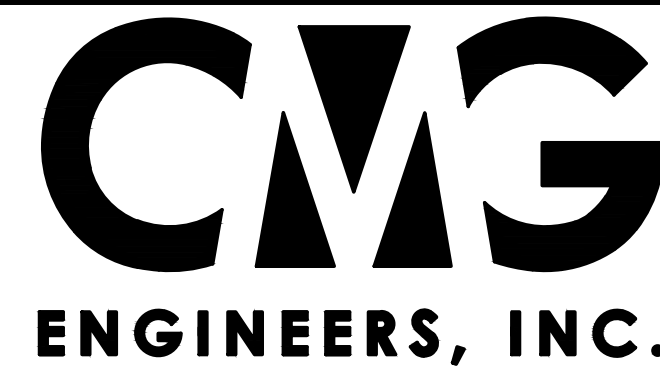
ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" - STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)
- CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.
- CONTRACTOR SHALL (PRIOR TO BID)
 - VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
 - TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.
- ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**
- ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
- ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
- ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.
- CONTRACTOR SHALL INSTALL OVERHEAD FAN CONTROLLER IN APPROXIMATE LOCATION, AS SHOWN AND VERIFY WITH OWNER, ON THE FLOOR PLAN. CONTRACTOR SHALL FURNISH AND INSTALL (1) 1/2" RGS W/(2)#10AWG & (1)#12AWG GRD FROM MINI-POWER CENTER 'EXR' TO THE FAN CONTROLLER AND INSTALL 4-CONDUCTOR CONTROL CABLE, IN 1/2" RGS, FROM FAN CONTROLLER TO THE FAN TERMINATION ENCLOSURE.
- CONTRACTOR SHALL INSTALL OVERHEAD FAN CONTROLLER IN APPROXIMATE LOCATION, AS SHOWN AND VERIFY WITH OWNER, ON THE FLOOR PLAN. CONTRACTOR SHALL FURNISH AND INSTALL (1) 1/2" RGS W/(2)#10AWG & (1)#12AWG GRD FROM MINI-POWER CENTER 'WXR' TO THE FAN CONTROLLER AND INSTALL 4-CONDUCTOR CONTROL CABLE, IN 1/2" RGS, FROM FAN CONTROLLER TO THE FAN TERMINATION ENCLOSURE.

ELECTRICAL LIGHTING/FAN FLOOR PLAN
SCALE: 1/8"=1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR BID	04/04/25	RCC	JJM

11880 Cranston Drive, Ste. 101
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(901) 290-5444



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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE, ALABAMA

TITLE	ELECTRICAL LIGHTING/FAN FLOOR PLAN
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DATE	7/30/24	22x34 REV.	A
DRAWING NUMBER	4503-E2		

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ELECTRICAL SPECIFICATIONS:
PART 1 – GENERAL SCOPE

FURNISHING OF ALL LABOR, MATERIAL, EQUIPMENT, SUPPLIES, AND SERVICES NECESSARY TO CONSTRUCT AND INSTALL THE COMPLETE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. WORK SHALL INCLUDE BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING ITEMS:

- LIGHTING INSTALLATION/TERMINATION
- INTERIOR/EXTERIOR CIRCUIT DISTRIBUTION
- PANELBOARD/MINI-POWER ZONE INSTALLATION/TERMINATION
- EQUIPMENT INSTALLATION/TERMINATION
- RECEPTACLE INSTALLATION/TERMINATION
- CONDUIT INSTALLATION
- CONDUCTOR INSTALLATION/TERMINATION

JOB CONDITIONS

EXISTING CONDITIONS: ALL UTILITIES, EXISTING SYSTEMS, AND CONDITIONS SHOWN ON THE PLANS AS EXISTING ARE APPROXIMATE, AND THE CONTRACTOR SHALL VERIFY BEFORE ANY WORK IS STARTED.

CODES, PERMITS AND INSPECTIONS

THE INSTALLATION SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND ORDINANCES APPLICABLE TO ELECTRICAL INSTALLATION AND WITH THE REGULATIONS OF THE LATEST ACCEPTED PUBLISHED EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C. 2017) WHERE SUCH REGULATIONS DO NOT CONFLICT WITH THOSE LAWS AND ORDINANCES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES, AND AFTER COMPLETION OF THE WORK, SHALL FURNISH THE ARCHITECT A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE APPLICABLE LOCAL INSPECTION AUTHORITIES. ANY CHARGES BY A UTILITY FOR PROVIDING SERVICE AS SHOWN SHALL BE INCLUDED IN THE BID AND PAID BY THE CONTRACTOR.

STANDARDS OF MATERIALS AND WORKMANSHIP

ALL MATERIALS SHALL BE NEW AND SHALL BE LISTED AND APPROVED BY THE UNDERWRITERS' LABORATORIES, INC., IN EVERY CASE WHERE A STANDARD HAS BEEN ESTABLISHED FOR A PARTICULAR TYPE OF MATERIAL IN QUESTION. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT A NEAT APPEARANCE.

SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT A LIST OF ITEMS PROPOSED FOR USE. HE SHALL ALSO SUBMIT CATALOG DATA AND SHOP DRAWINGS ON PROPOSED SYSTEMS AND THEIR COMPONENTS, PANELBOARDS, SAFETY SWITCHES, LIGHTING FIXTURES, AND WIRING DEVICES. WHERE SUBSTITUTIONS ALTER THE DESIGN OR SPACE REQUIREMENTS, THE CONTRACTOR SHALL DEFRAY ALL ITEMS OF COST FOR THE REVISED DESIGN AND CONSTRUCTION INCLUDING COSTS TO ALL ALLIED TRADES INVOLVED.

TYPE OF PERMANENT ELECTRICAL SERVICE

EXISTING ELECTRICAL SERVICE IS 277/480 VOLTS, 3 PHASE, 4 WIRE SERVED FROM ALABAMA POWER COMPANY UTILITY SERVICE. CONTRACTOR SHALL VERIFY ALL DETAILS OF THE EXISTING ELECTRICAL SERVICE PRIOR TO BID. INTERFACE WITH OTHER CONTRACTS IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COOPERATE WITH ALL OTHER CRAFTS WORKING ON THIS PROJECT. ALL CUTTING, TRENCHING, BACKFILL, AND STRUCTURAL REMOVALS TO PERMIT ENTRY OF THE ELECTRICAL SYSTEM COMPONENTS SHALL BE DONE BY THIS CONTRACTOR. ALL PATCHING AND FINISHING SHALL BE DONE BY THE GENERAL CONTRACTOR.

EQUIPMENT FURNISHED UNDER OTHER SECTIONS

THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE ELECTRICAL ROUGHING-IN AND CONNECTION TO ALL EQUIPMENT FURNISHED UNDER OTHER SECTIONS AS INDICATED ON DRAWINGS. THE CONTRACTOR SHALL VERIFY AND INSTALL PROPER SIZE SERVICE AS REQUIRED FOR ALL ACTUAL EQUIPMENT PURCHASED. ALL SUCH EQUIPMENT SHALL BE SET IN PLACE AS WORK OF OTHER SECTIONS.

GROUNDING

PROVIDE GROUNDING AND BONDING SYSTEMS IN STRICT ACCORDANCE WITH THE LATEST ACCEPTED PUBLISHED EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C. 2017), EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE SPECIFIED HEREIN. INTER-CONNECTION OF NEUTRAL AND GROUND IS NOT PERMITTED EXCEPT AT SERVICE ENTRANCE EQUIPMENT. INSTALL GROUNDING CONDUCTORS TO PERMIT SHORTEST AND MOST DIRECT PATH TO GROUND. CONCEALED JOINTS SHALL BE MADE BY CADWELD METHOD. WHERE GROUNDING CONDUCTORS ARE IN RACEWAY, BOND CONDUCTOR AND RACEWAY AT BOTH ENDS. GROUNDING AND BONDING FITTINGS USED SHALL BE UL LISTED AND BE COMPATIBLE WITH METALS USED IN SYSTEM. SHEET METAL TYPE STRAP ARE NOT ACCEPTABLE. A GREEN INSULATED GROUND CONDUCTOR SHALL BE RUN IN ALL BRACH CIRCUIT AND FEEDER CONDUIT WITH PHASE AND/OR NEUTRAL CONDUCTORS. GROUND CONDUCTOR SHALL BE SIZED PER NEC OR AS NOTED ON DRAWINGS. MINIMUM SIZE #12 AWG. CONDUIT BOX TO DEVICE STRAP OR YOKE SCREW CONNECTION IS NOT SUFFICIENT. PROVIDE AN INSULATED GROUNDING JUMPER FOR RECEPTACLE CIRCUITS.

GUARANTEE AND SERVICE

UPON COMPLETION OF ALL TESTS AND ACCEPTANCE, THE CONTRACTOR SHALL FURNISH THE OWNER OF A WRITTEN GUARANTEE COVERING THE ELECTRICAL WORK DONE FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. GUARANTEE INCLUDES EQUIPMENT CAPACITY AND PERFORMANCE RATINGS SPECIFIED WITHOUT EXCESSIVE NOISE LEVELS. UPON NOTICE FROM THE ARCHITECT OR THE OWNER, THE CONTRACTOR SHALL, DURING THE GUARANTEE PERIOD, RECTIFY AND REPLACE ANY DEFECTIVE MATERIAL OR WORKMANSHIP AND REPAIR ANY DAMAGE CAUSED THEREBY WITHOUT ADDITIONAL COST.

PART 2 – PRODUCTS
GENERAL

ALL EQUIPMENT AND MATERIALS SHALL HAVE RATINGS ESTABLISHED BY THE RECOGNIZED INDEPENDENT AGENCY OR LABORATORY. THE CONTRACTOR SHALL APPLY THE ITEMS USED ON THE PROJECT WITHIN THE RATINGS AND SUBJECT TO ANY STIPULATIONS OR EXCEPTIONS ESTABLISHED BY THE INDEPENDENT AGENCY OR LABORATORY. USE OF EQUIPMENT OR MATERIALS IN APPLICATIONS BEYOND THAT CERTIFIED BY THE AGENCY OR BEYOND THAT RECOMMENDED BY THE MANUFACTURER SHALL BE CAUSE FOR REMOVAL AND REPLACEMENT OF SUCH MISAPPLIED ITEMS.

RACEWAY AND FITTINGS

- CONDUIT SYSTEMS: ACCEPTABLE TYPES OF CONDUIT:
- HOT DIPPED GALVANIZED RIGID STEEL (GRS) (1/2" MIN. TRADE SIZE)
 - ELECTRICAL METALLIC TUBING (EMT) (1/2" MIN. TRADE SIZE)
 - POLYVINYL CHLORIDE – SCHEDULE 40 (PVC 40) (1/2" MIN. TRADE SIZE)
 - FLEXIBLE METALLIC CONDUIT (FLEX) (1/2" MIN. TRADE SIZE)
 - LIQUID TIGHT FLEXIBLE METALLIC CONDUIT (LQFLEX) (1/2" MIN. TRADE SIZE)
 - MC METAL CLAD CABLE (MC) (#12AWG MIN TRADE SIZE)

EMT OR GRS SHALL BE THE MAIN HOME RUN RACEWAY FOR ELECTRICAL CIRCUITS FROM PANELBOARDS TO ELECTRICAL DEVICES AND/OR JUNCTION BOX. MC CABLE CAN BE USED AS A SECONDARY INTERIOR CIRCUIT RACEWAY FROM THE MAIN HOME RUN JUNCTION BOX TO RECEPTACLES AND/OR LIGHT FIXTURE. CONDUITS INSTALLED IN EARTH FILL, IN CONCRETE, OR IN SOLID MASONRY STRUCTURES SHALL BE PVC 40. WHERE PVC 40 IS USED, THE 90° ELBOWS RISING ABOVE GRADE OR EXTENDING THROUGH THE CONCRETE ENVELOPE SHALL BE GRS. CONDUITS INSTALLED IN MOIST AND/OR DAMP LOCATIONS SHALL BE PVC 40. CONDUITS SUBJECT TO MECHANICAL INJURY SHALL BE GRS. CONDUITS RUN CONCEALED IN THE HOLLOW SPACE OF NON-MASONRY WALL OR ABOVE SUSPENDED CEILINGS SHALL BE EMT. IN ALL CASES, CONDUITS/MC SHALL BE RUN AT RIGHT ANGLES TO OR PARALLEL WITH BUILDING LINES AND EXPOSED STRUCTURE. IN ALL CASES, CONDUIT/MC RUNS SHALL BE GROUPED TOGETHER WHERE POSSIBLE AND SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, NOT FOR ANY SUSPENDED CEILING SUPPORT SYSTEM.

CONDUCTORS: ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT/MC. CONDUCTORS FOR BUILDING WIRING SHALL HAVE THHN/THWN, 600 VOLT INSULATION AND SHALL BE SOFT-DRAWN COPPER OF STANDARD AMERICAN WIRE GAUGE (AWG) SIZE. MINIMUM SIZE SHALL BE NO. 12. ALL WIRE NO. 8 AND LARGER SHALL BE STRANDED. ALL BRANCH CIRCUITS NO. 10 AND SMALLER SHALL BE WIRED WITH COLOR-CODED WIRE WITH THE SAME COLOR USED FOR A SYSTEM THROUGHOUT THE BUILDING. POWER FEEDERS AND BRANCH CIRCUITS LARGER THAN NO. 10 SHALL EITHER BE FULLY COLOR CODED OR SHALL HAVE BLACK INSULATION AND BE SIMILARLY COLOR CODED WITH TAPE OR PAINT IN ALL JUNCTION BOXES AND PANELS. TAPE OR PAINT SHALL COMPLETELY COVER THE FULL VISIBLE LENGTH OF CONDUCTOR INSULATION WITHIN THE BOX OR PANEL. COLOR CODING OF ALL CONDUCTORS SHALL BE AS FOLLOWS:

- GROUNDING: BARE, GREEN OR GREEN W/YELLOW STRIP
- 120/208V 3Ø CONDUCTORS: #A-BLACK, #B-RED, #C-BLUE
- 277/480V 3Ø CONDUCTORS: #A-BROWN, #B-ORANGE, #C-YELLOW
- 120/208V NEUTRAL: WHITE
- 277/480V NEUTRAL: GRAY

PART 3 – EXECUTION

PAINTING

CONTRACTOR SHALL TOUCH-UP OR REFINISH ALL ITEMS OF ELECTRICAL EQUIPMENT FURNISHED WITH A FACTORY FINISH COAT OF PAINT AND WHICH MAY HAVE BEEN DAMAGED REGARDLESS OF CAUSE.

TESTING AND BALANCING

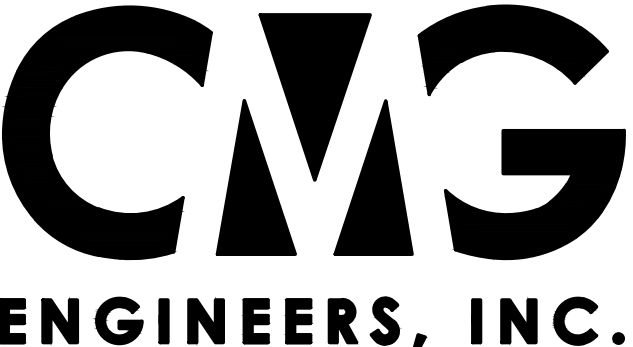
BALANCE ALL SINGLE PHASE LOADS CONNECTED TO ALL PANELBOARDS TO ENSURE AN APPROXIMATE EQUAL DIVISION ON THESE LOADS ON MAIN POWER SUPPLY SERVING BUILDING. ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARDS OF THE IEEE AND THE NEC. THE INSTALLATION SHALL BE TESTED FOR PERFORMANCE, GROUNDS AND INSULATION RESISTANCE. "MEGGER" TYPE INSTRUMENTS SHALL BE USED. CONTRACTOR SHALL PERFORM CIRCUIT CONTINUITY AND OPERATIONAL TESTS ON ALL EQUIPMENT FURNISHED OR CONNECTED BY CONTRACTOR. THE TESTS SHALL BE MADE PRIOR TO FINAL INSPECTION. THE CONTRACTOR SHALL PROVIDE ALL TESTING EQUIPMENT AND ALL COSTS SHALL BE BORNE BY HIM. WRITTEN REPORTS SHALL BE MADE OF ALL TESTS. THESE REPORTS SHALL BE TURNED OVER TO THE ARCHITECT AT TIME OF FINAL INSPECTION. ALL FAULTS SHALL BE CORRECTED IMMEDIATELY.

CLEANING UP

THE CONTRACTOR SHALL REMOVE ALL OIL, GREASE, OR OTHER STAINS RESULTING FROM HIS WORK PERFORMED IN THE BUILDING OR THE EXTERIOR THEREOF.

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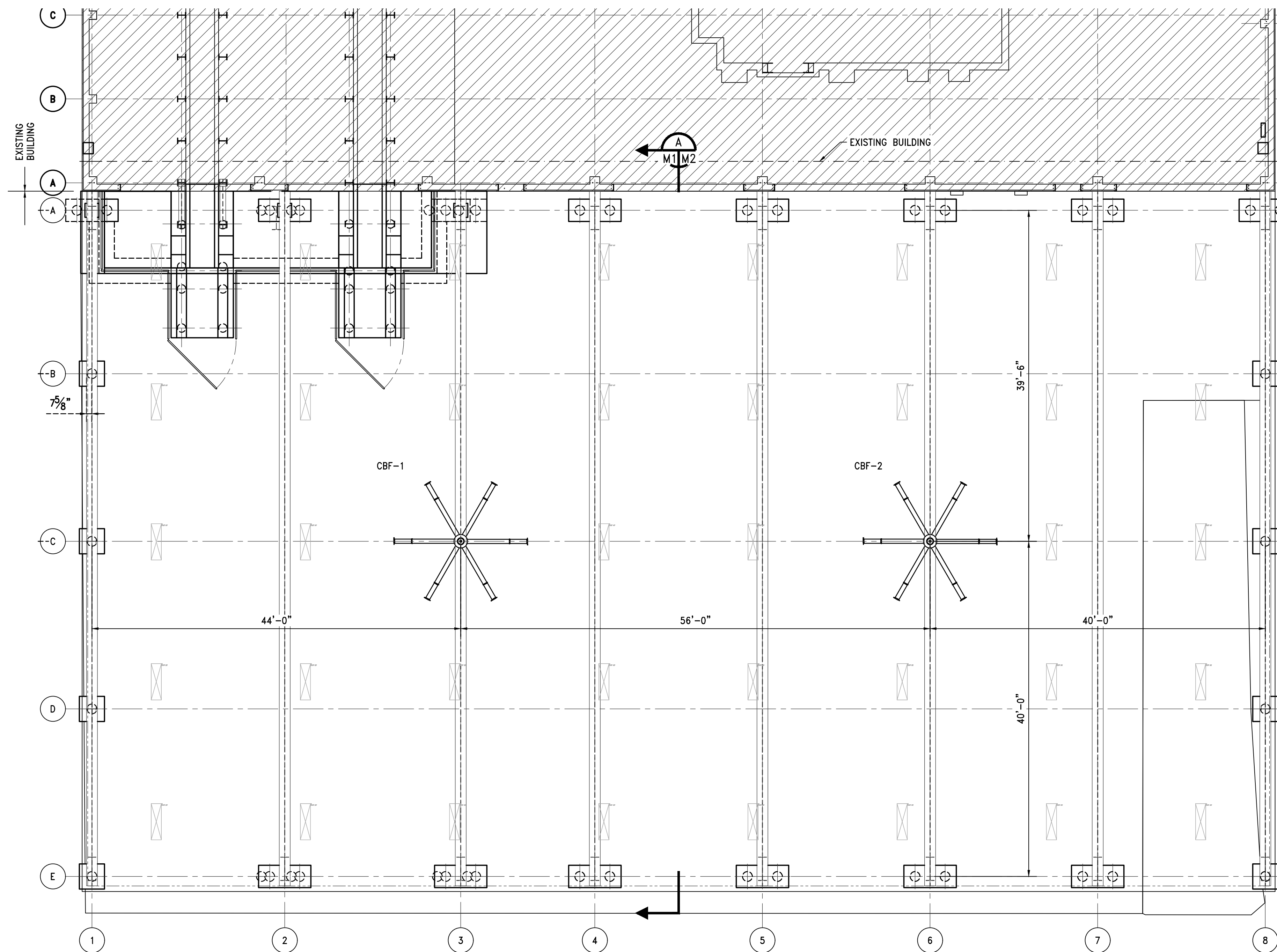
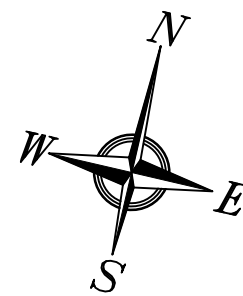
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Arlington, Tennessee 38002
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PROJECT	TRR RAIL PIT EXPANSION
	MOBILE, ALABAMA

TITLE		SPECIFICATIONS	
DATE	7/30/24	22x34 REV.	A
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VENTILATION PLAN
SCALE: 1/8"=1'-0"

TAG	MANUFACTURER	MODEL	DIA. (FT)	# OF AIRFOILS	WEIGHT (LBS)	SOUND LEVEL (DBA)	MOTOR (HP)	RPM	CONTROL	VOLT/PH	FULL LOAD CURRENT	CIRCUIT SIZE (AMPS)	NOTES
CBF-1	COOL BOSS	CB-16HVLS	16.5	6	210	≤40	1.5	78	STANDARD	208-230V/1	5.0	-	1-7
CBF-2	COOL BOSS	CB-16HVLS	16.5	6	210	≤40	1.5	78	STANDARD	208-230V/1	5.0	-	1-7

- NOTES:
1. VERIFY EXTENSION TUBE LENGTH AND MOUNTING METHODS WITH MANUFACTURER PRIOR TO ORDERING
 2. FAN(S) TO BE INSTALLED TO MEET ALL COOL BOSS FAN CLEARANCE GUIDELINES
 3. SYSTEM DESIGN AND PERFORMANCE ANALYSIS TO BE DEPENDENT ON CFD MODELING, CONSISTENT WITH METHODS IN ASHRAE STANDARD 55, AND TAKING INTO ACCOUNT MAJOR OBSTRUCTIONS TO AIRFLOW AT GROUND LEVEL
 4. FAN SHALL BE CAPABLE OF CONTINUOUS OPERATION IN -13°F TO 140°F AMBIENT CONDITIONS
 5. MAX LENGTH OF CONTROL CABLE SHALL BE 80 FEET
 6. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON A WATERFLOW ALARM. WHEN THE BUILDING IS PROTECTED WITH A FIRE ALARM SYSTEM, THIS INTERLOCK SHALL BE IN ACCORDANCE WITH NFPA 72. MECHANICAL CONTRACTOR SHALL COORDINATE INTERFACE, WIRING, CONDUIT AND FIRE PANEL CONNECTION WITH ELECTRICAL & FIRE SPRINKLER CONTRACTOR.
 7. THE VERTICAL CLEARANCE FROM HVLS FAN TO SPRINKLER DEFLECTORS SHALL BE 36 INCHES

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PROJECT

TRR RAIL PIT EXPANSION

MOBILE, ALABAMA

TITLE

VENTILATION PLAN

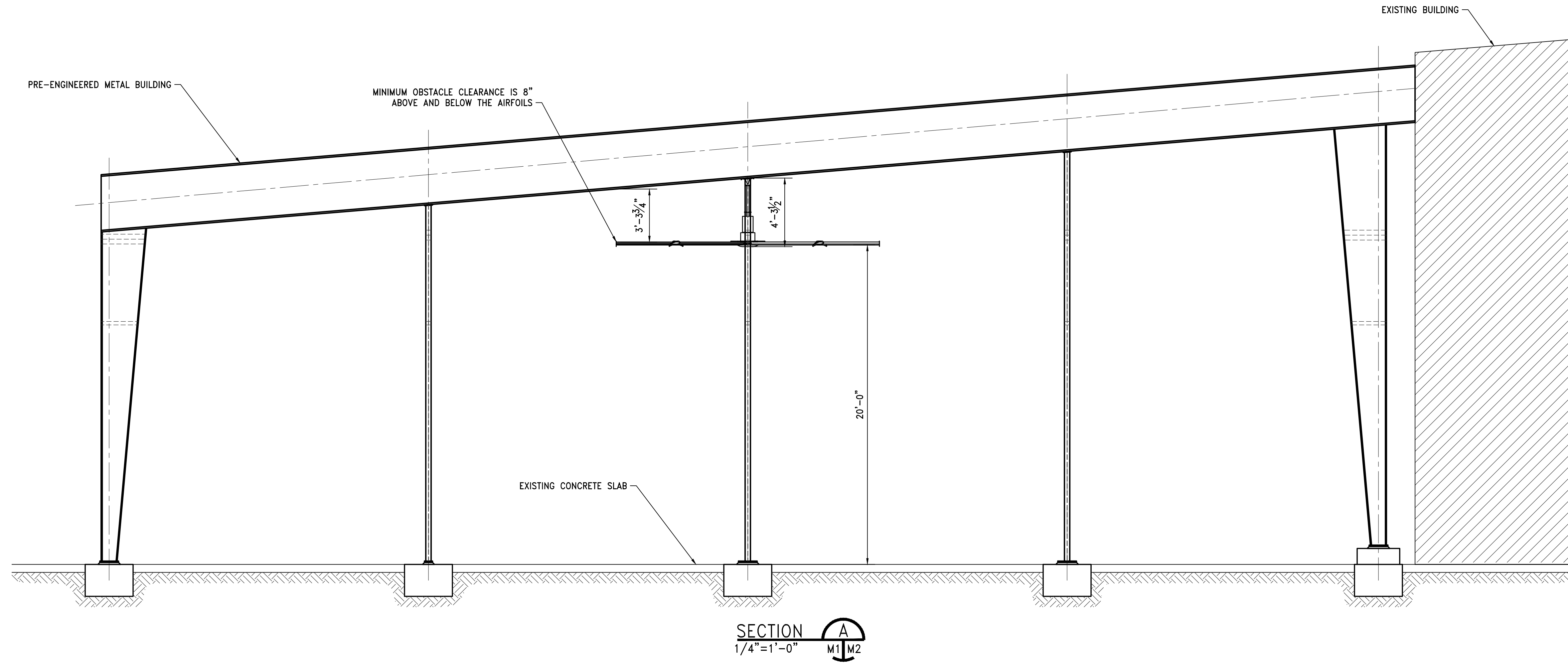
DATE 9/23/24

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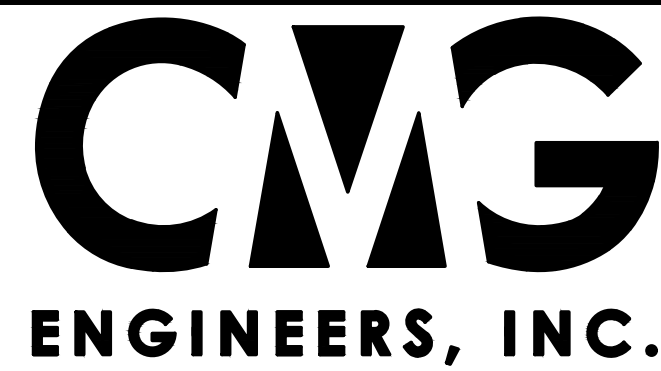
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PROJECT

TRR RAIL PIT
EXPANSION

MOBILE,
ALABAMA

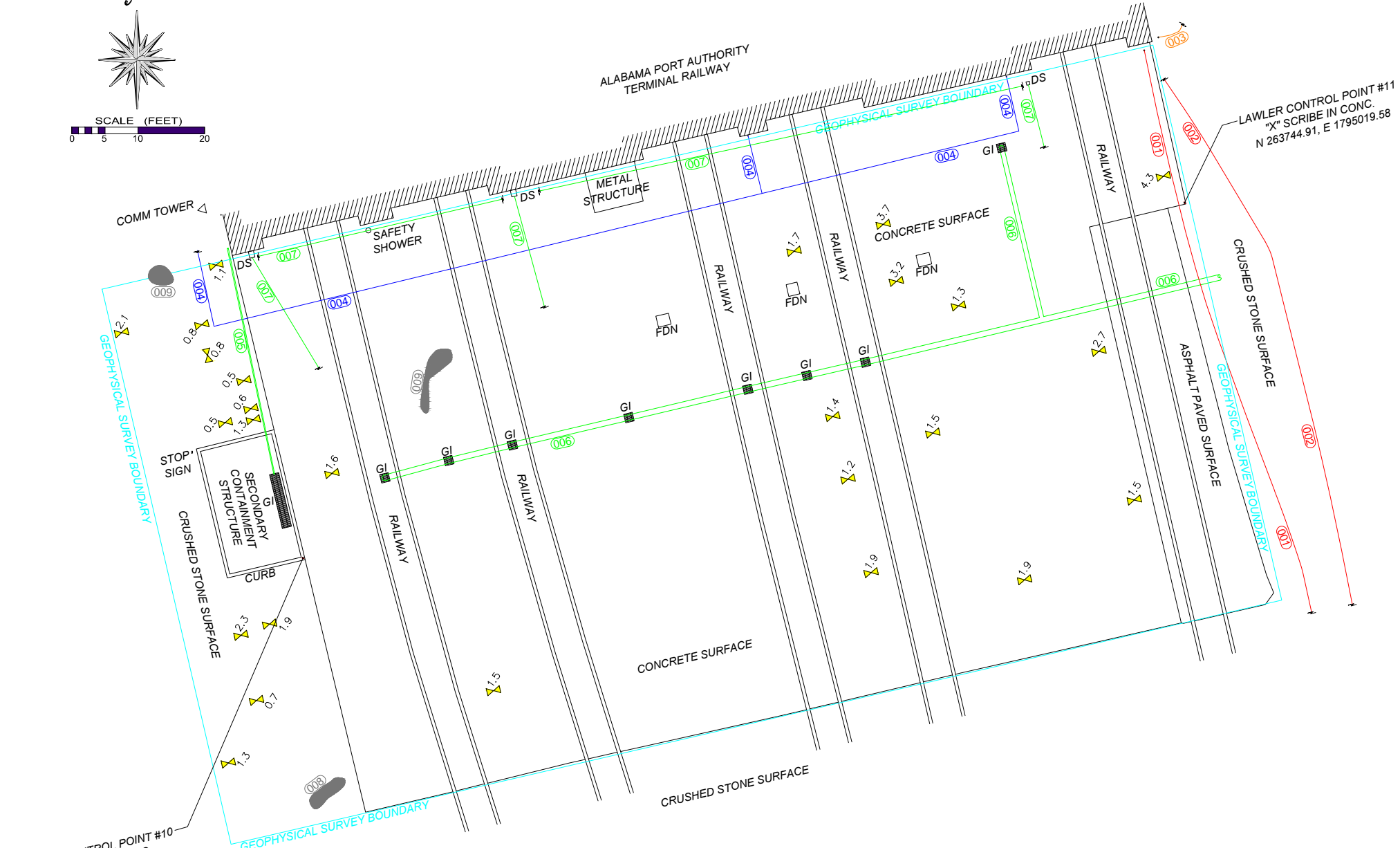
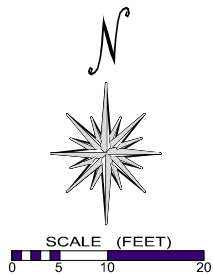
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VENTILATION ELEVATION

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DATE	9/23/24	22x34	REV.
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4503-M2



GENERAL SURVEY - DRAWING NOTES

THE OBJECTIVE OF THIS GEOPHYSICAL SURVEY WAS THE NON-INVASIVE SUBSURFACE SEARCH, DETECTION AND MAPPING OF SUBSURFACE UTILITIES, RELATED STRUCTURES AND FEATURES WITHIN THE GEOPHYSICAL SURVEY AREA IN ACCORDANCE WITH ASCE 38-02 SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVEL "B". THE BOUNDARIES OF THE GEOPHYSICAL SURVEY AREA ARE DEPICTED AND LABELED HEREON. SURFACE CIVIL FEATURES IN THE IMMEDIATE VICINITY ARE DEPICTED FOR FIELD REFERENCE. THIS GEOPHYSICAL SURVEY SHALL BE CONSIDERED "EXPIRED" AND ONLY APPLICABLE FOR SUE QUALITY LEVEL "D" INFORMATION 60 DAYS AFTER THE LAST FIELD SURVEY DATE.

GEOPHYSICAL TECHNOLOGIES UTILIZED TO PERFORM THIS SURVEY INCLUDED THE DEPLOYMENT OF A GEOPHYSICAL SURVEY SYSTEMS, INC. (GSSI) SYSTEM 4000 GROUND PENETRATION RADAR (GPR) AND RADIO DETECTION MODEL 7200 METALLIC PIPE/CABLE TRACER.

GPR, A CONTINUOUS GRAPHIC SUBSURFACE INTERFACE PROFILING INSTRUMENT, USED A 400 MHz ANTENNA ADJUSTED TO 60 ns TWO-WAY ELECTROMAGNETIC SIGNAL TRAVEL TIME. BASED ON AN ASSUMED CONVERSION FACTOR OF 7.5 ns/FT., THE VERTICAL RANGE OF INSTRUMENT DETECTION WAS PROGRAMMED AS A MAXIMUM DEPTH OF 8.0 FT. BELOW THE EXISTING GRADE. HOWEVER, ACTUAL RESOLUTION DEPTH WAS DETERMINED AS APPROXIMATELY 6.5 FT. BELOW THE EXISTING GRADE DUE TO SITE-SPECIFIC SUBSURFACE SOIL CONDITIONS. GPR PROFILES WERE PERFORMED AS PARALLEL IMAGES BI-DIRECTIONALLY WITHIN THE GEOPHYSICAL SURVEY AREA. ALL PROFILES WERE POST-PROCESSED USING GSSI RADAN SOFTWARE AND ANALYZED AND INTERPRETED FOR RELEVANCE TO THE PRESENCE OF SUBSURFACE UTILITIES, RELATED STRUCTURES AND FEATURES, AND ARCHIVED FOR FUTURE REFERENCE.

METALLIC PIPE/CABLE SEARCH AND DETECTION WAS PERFORMED BY MEANS OF RADIO FREQUENCY (RF) TECHNIQUES WITH A RADIO DETECTION MODEL 7200 PORTABLE TRANSMITTER AND RECEIVER UNIT DEPLOYED IN VARIOUS MODES OF OPERATION: LOW FREQUENCY STRAY SIGNAL DETECTION, CONDUCTIVE (IMPOSED) SIGNAL DETECTION, AND REMOTE (INDUCED) SIGNAL DETECTION.

DEPTHS INDICATED BY THIS PLAN DRAWING ARE IN UNITS OF FEET AND DECIMALS THEREOF. DEPTHS REFERENCE THE UPPERMOST SURFACE OF THE UTILITY, RELATED STRUCTURE OR FEATURE DETECTED FROM THE EXISTING GRADE AND SHOULD BE REGARDED AS APPROXIMATE ONLY.

LOCATIONS OF FEATURES PRESENTED BY THIS PLAN DRAWING REFERENCE CONTROL POINTS ESTABLISHED BY GPS LAND SURVEYING TECHNIQUES. HORIZONTAL CONTROL IS BASED ON ALABAMA WEST STATE PLANE COORDINATES NORTH AMERICAN DATUM OF 1983. HORIZONTAL COORDINATES WERE VERIFIED IN THE FIELD WITH LAWLER CONTROL POINTS 10 AND 11 DEPICTED HEREON. THIS PLAN DRAWING DOES NOT REPRESENT A LEGAL BOUNDARY OR TOPOGRAPHIC SURVEY AND SHOULD BE USED FOR REFERENCE ONLY.

THIS DRAWING IS INTENDED FOR MULTI-COLOR PRESENTATION. PHOTOCOPYING OF ALL OR PART OF THIS DRAWING IS NOT RECOMMENDED SINCE CERTAIN COLORS USED IN THE ORIGINAL MAY NOT REPRODUCE WITH CLARITY. THIS DRAWING WAS PREPARED IN ANSI "B" SIZE FORMAT. THE USER SHOULD REFERENCE THE PROVIDED BAR SCALE FOR DIMENSIONAL PURPOSES.

SYMBOL REPRESENTATION OF IRREGULAR OR POORLY DEFINED SUBSURFACE FEATURE OF RELATIVELY SMALL SIZE. THESE FEATURES TYPICALLY HAVE GPR RESPONSE CHARACTERISTICS AS ANTICIPATED FOR A BURIED UTILITY. HOWEVER, THEY ARE DEPICTED AS ISOLATED OCCURRENCES DUE TO INCONCLUSIVE DATA INDICATING LATERAL CONTINUANCE. THE DEPTH TO THE UPPERMOST SURFACE OF THE ISOLATED FEATURES ARE LABELED ADJACENT TO THE SYMBOL.

DS : DOWN SPOUT FDN : FOUNDATION GI : GRATE INLET

Services and resulting interpretations provided by E.F. Thompson Geotechnologies, Inc. are performed with our best professional efforts. Because of the limitations of technology as may be pertinent to the survey areas performed, and interpretations are judgements based on inference from acquired GPR and/or other geophysical response or information, E.F. Thompson Geotechnologies, Inc. does not guarantee GPR or other geophysical technology performance or, accuracy or correctness of interpretations, and E.F. Thompson Geotechnologies, Inc. will not accept liability or responsibility for any loss, damages, injury, or expenses that may be incurred or sustained by any party of the owner, its contractors, or its representatives as related to any services or interpretations performed by E.F. Thompson Geotechnologies, Inc.

GEOPHYSICAL SUBSURFACE UTILITY / FEATURE SCHEDULE

REFERENCE	DESCRIPTION	DEPTH (FT.)	COMMENTARY
001	ELEC. CONDUIT / CABLE	1.3' - 1.6'	
002	SUSPECTED ELEC. CONDUIT / CABLE	1.2' - 2.1'	LIMITED GEOPHYSICAL EVIDENCE
003	COMM. CONDUIT / CABLE	1.3' - 1.6'	
004	1/2" DIA.? METAL WATER PIPING	1.1' - 1.9'	LOCATION AND DEPTH DEPICTED AS BEST DETERMINED
005	1" DIA.? METAL SUMP DRAIN	0.7' - 1.1'	
006	8" OR 10" DIA. PVC STORM DRAIN	2.8' - 3.5'	10" DIA. PVC PIPE OBSERVED IN MANHOLE LOCATED APPROXIMATELY 104' EAST OF EAST SURVEY BOUNDARY
007	ROOF DRAIN PIPING?	1.4' - 3.3'	CONC. CUT-OUTS AT BASE OF DOWNSPOUTS IMPLY EXISTENCE OF ROOF DRAIN PIPING. HOWEVER, THESE CUT-OUTS ARE FILLED WITH DEBRIS AND NO PIPING WAS OBSERVED OR CONCLUSIVELY DETECTED. SUSPECTED LOCATIONS DEPICTED BASED ON LIMITED GEOPHYSICAL EVIDENCE.
008	ANOMALOUS FEATURES	1.5' - 1.9'	
009	ANOMALOUS FEATURES	2.9' - 3.7'	

**GEOPHYSICAL SURVEY DETECTED FEATURES
RAIL PIT EXPANSION PROJECT**

**ALABAMA PORT AUTHORITY TERMINAL RAILWAY
MOBILE, ALABAMA**

Field Survey Date: 5/9/2024 Dwg. No: 24-046A
Drawing By: FST | Review By: NPD | Scale: 1" = 20' (ANSI "B" SIZE SHEET)

Cowles, Murphy, Glover & Associates

Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:	Revision No.:	Revision Date:	Revision By:
Revision Comments:			Revision Comments:			Revision Comments:			Revision Comments:			Revision Comments:		

