



ADDENDUM NO.: 2

DATE: September 9, 2026
PROJECT: Mary G. Montgomery Gymnasium
DCM #: 2026145
FPN #: 25-10
WSM #: 25-138

OWNER: Mobile County Public School Systems
ARCHITECT: Ward Scott Morris Architecture, Inc.

BID DATE: September 15th, 2026
BID TIME: 2:00 PM Local Time
BID LOCATION: Mobile County Public School System Facilities Office
1 Magnum Pass, Building F
Mobile, AL 36618

This Addendum forms a part of the Contract Documents and modifies the original Bid Documents as noted below. Acknowledge receipt of this Addendum in the location provided on the Bid Proposal Form.

1.1 GENERAL

- A. See attached pre-bid conference agenda and sign-in sheet.

1.2 SPECIFICATIONS

1. Add the following division section to the specification manual:
SECTION 02200 – TEMPORARY EROSION AND SEDIMENT CONTROL
SECTION 02230 – SITE CLEARING
SECTION 02300 – EARTHWORK
SECTION 02360 – TERMITE CONTROL
SECTION 02510 – SITE WATER UTILITY DISTRIBUTION PIPING
SECTION 02510.1 – DISINFECTION OF WATER UTILITY PIPING SYSTEMS
SECTION 02530 – SANITARY SEWER
SECTION 02630 – STORM DRAINAGE
SECTION 02700 – PAVING
SECTION 02920 – SODDING
SECTION 055213 – PIPE AND TUBE RAILINGS
SECTION 072410 – DIRECT APPLIED MEMBRANE AIR BARRIERS
SECTION 323113 – CHAIN LINK FENCE
2. Revise SECTION 012100 – ALLOWANCES to the reflect the following:
PART 3 - EXECUTION
4. Allowances No. 4: Solid Sodding (Unit Price #4)

a) Include an allowance in Base Bid ~~4,500~~ **450** square yards in place of Solid Sodding. Contractor to adhere to Alabama Department of Transportation (ALDOT) "Section 654 Solid Sodding" and "Section 860 Roadside Improvement Materials Article 860.05 Solid Sod" with exceptions to the following:

7. Allowance No. 7: Utility Connections

b) Lump Sum Allowance: Include a lump sum contingency allowance of **\$35,000** ~~\$10,000.00~~ for fees associated with utility connections.

13. Allowance No. 13: Exterior Signage and Graphics

c) Lump Sum Allowance: Include an allowance of \$30,000.00 for the purchase and installation of exterior signage and graphics as instructed by the Owner, Architect, or Construction Manager.

3. Revise SECTION 033000 – CAST-IN-PLACE CONCRETE to reflect the following:

a. Delete paragraph 2.10 (F) (5) as follows:

~~5) Synthetic Microfiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than a rate of 1.5 lb/cu. Yd.~~

4. Revise SECTION 01 4000 – QUALITY REQUIREMENTS to reflect the following:

a. PART 1 – GENERAL

1.7 QUALITY CONTROL

C. Special Tests and Inspections: ~~Owner will~~ **General Contractor shall** engage a testing agency to conduct **all required** special tests and inspections required by authorities having jurisdiction, **the Building Code, and the Construction Documents.** ~~as the responsibility of Owner.~~

b. PART 3 – EXECUTION, add the following paragraph:

3.2.1 MOCK-UPS

- a) Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.*
- b) Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.*
- c) Accepted mock-ups shall be a comparison standard for the remaining Work.*
- d) Construct masonry mock-up panel incorporating CMU and brick masonry as well as metal wall panels representative of the materials, colors, textures, patterns, coursing, mortar, joint profiles, and workmanship required for the completed Work.*
- e) Mockup to be a minimum dimension of 6'-0" x 6'-0".*
- f) Include within the mock-up all typical components and conditions occurring in the exterior wall construction, including, but not limited to, windows and frames, masonry sills, lintels, flashing, weeps, cavity drainage materials, insulation, air/water barrier, sealants, air barrier, anchors and ties, control and expansion joints, pilasters, metal stud framing, metal siding, and other required accessories indicated in the Contract Documents.*
- g) Construct transitions, terminations, interfaces, and penetrations as necessary to demonstrate typical installation and coordination between materials.*
- h) Completed mock-up shall establish the standard of appearance and workmanship for the Work and shall be reviewed and accepted by the Architect and Owner prior to proceeding with related masonry construction.*
- i) Accepted mock-up shall remain in place as a quality standard for the duration of the Work unless otherwise approved by the Owner and the Architect.*

5. Revise SECTION 04200 – UNIT MASONRY to reflect the following:

PART 2 – PRODUCTS

2.4 CONCRETE MASONRY UNITS

CONCRETE MASONRY UNITS:

Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.

- a) Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
- b) Provide square-edged units for outside corners unless otherwise indicated.
- c) ***Provide bullnose for all exterior corners of travel ways, window jambs, etc. Provide square edge for corridors.***

PART 3 – EXECUTION

3.5 MORTAR BEDDING AND JOINTING:

- 1) Lay CMUs as follows:
 - d) Bed face shells in mortar and make head joints of depth equal to bed joints.
 - e) Bed webs in mortar in all courses of piers, columns, and pilasters.
 - f) Bed webs in mortar in grouted masonry, including starting course on footings.
 - g) Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.
 - h) Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.
 - i) ***Strike bed joint in first course of CMU block to receive VCT / LVT flooring.***

3.14 REPAIRING, POINTING, AND CLEANING

- A. **Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.**
- B. **Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.**
- C. **In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.**
- D. **Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:**
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Protect adjacent stone and non-masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
 - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
 - 5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
 - 6. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.
 - 7. Clean masonry with a proprietary acidic masonry cleaner applied according to manufacturer's written instructions.
 - 8. ***BRICK SHOULD BE THOROUGHLY CLEANED OF ALL MORTAR RESIDUE.***

- 6. Revise SECTION 061000 – ROUGH CARPENTRY to reflect the following:

PART 2 – PRODUCTS

~~2.5~~ — ~~WOOD-PLASTIC-COMPOSITE LUMBER~~

~~A. Material Description: Composite Boards consisting of recycled Linear Low-Density Polyethylene (LLDPE) and recycled wood extruded into shapes and sizes as follows:~~

~~1. 1" x 7 1/4" and 2" x 5 1/2"~~

~~2. Color To be selected by Architect from manufacturer's standard list of colors.~~

~~B. Manufacturers: Subject to compliance with requirements, provide products by the following:~~

~~1. Basis of Design: Trex Horizon Fencing.~~

~~a. Available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:~~

~~1) Trex~~

~~2) FenceTrac~~

~~3) Greenwood Fence~~

7. Revise SECTION 072726 – FLUID APPLIED MEMBRANE AIR BARRIERS to reflect the following:

PART 2 – PRODUCTS

2.3 VAPOR-RETARDING MEMBRANE AIR BARRIER

A. Fluid-Applied, Vapor-Retarding Membrane Air Barrier: synthetic polymer membrane.

1. Basis-of-Design Product: PROSOCO, Inc. "R-Guard".

3741 Greenway Circle, Lawrence, KS 66046. Phone: (800) 255-4255

2. Or a comparable product by one of the following:

a. Synthetic Polymer Membrane:

1) Grace, W. R., & Co. - Conn.; Perm-A-Barrier Liquid.

2) Henry Company; ~~Air Bloc 32~~ **Air Bloc 17 MR.**

PART 3 - EXECUTION

3.5 FLUID AIR-BARRIER MEMBRANE INSTALLATION

A. General: Apply fluid air-barrier material to form a seal with strips and transition strips and to achieve a continuous air barrier according to air-barrier manufacturer's written instructions. Apply fluid air-barrier material within manufacturer's recommended application temperature ranges.

1. Apply primer to substrates at required rate and allow it to dry.

2. Limit priming to areas that will be covered by fluid air-barrier material on same day. Reprime areas ex-posed for more than 24 hours.

3. Prime glass-fiber-surfaced gypsum sheathing with number of prime coats needed to achieve required bond, with adequate drying time between coats.

B. Membrane Air Barriers: Apply a continuous unbroken air-barrier membrane to substrates according to the following thickness. Apply air-barrier membrane in full contact around protrusions such as masonry ties.

1. Vapor-Retarding Membrane Air Barrier:

a. 10- mils dry film thickness

C. Apply strip and transition strip over cured air-barrier material overlapping 3 inches (75 mm) onto each surface according to air-barrier manufacturer's written instructions.

D. Do not cover air barrier until it has been tested and inspected by Owner's testing agency.

E. Correct deficiencies in or remove air barrier that does not comply with requirements; repair substrates and reapply air-barrier components.

F. All products to be roll-applied. Spray applied products will not be accepted.

8. Revised SECTION 081113 – DOOR HARDWARE to reflect the following:

PART 3 - EXECUTION

3.07 HARDWARE SETS

Set #2 - EXT FRP/SF SGL - 45H D - SDS

Doors: 1110A, 1129A

1.0	Hinge	661HD	AL	BES
1.0	Mortise Lock	45H 7 D 15 H CORMAX	630	BES
1.0	Cylindrical Lock	9K 3 7 D 15 C CORMAX	626	BES
1.0	Door Closer	HD8016 SDS (brackets/stops as req'd)	689	BES
1.0	Threshold	425	A	NGP
1.0	Gasketing	By Alum Frame Manufacturer/Provider		
1.0	Door Bottom	101V	A	NGP
1.0	Drip Cap	16 4" ODW	A	NGP

Set #14 – EXT FRP/HM PAIR –

Doors: 1140A

6.0	Hinge	FBB199 4.5"x4.5" (NRP AS REQ'D)	32D	BES
2.0	Flushbolt	590	626	BRN
1.0	Mortise Lock	45H 7 ZD 15 H CORMAX	630	BES
1.0	Cylindrical Lock	9K 3 7 YD 15 C CORMAX	626	BES
2.0	Door Bottom	101V	A	NGP
1.0	Gasket	160V	A	NGP
1.0	Astragal Set	125N	A	NGP

9. Revise SECTION 083313 – COILING COUNTER DOORS to reflect the following:

PART 2 - PRODUCTS

2.5 LOCKING DEVICES

Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.

Keyed Deadbolt on both left and right jamb sides, operable from coil side. Provide 7-pin Best Lock core. Key to match Owner's system.

10. Revise SECTION 105113 – METAL LOCKERS to reflect the following:

PART 2 – PRODUCTS

2.4 WELDED, OPEN-FRONT ATHLETIC LOCKERS

- B. Basis-of-Design Product: AMP Pro Sport Twin-Frame all-welded open-front athletic locker
 - 1. Other Available Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Art Metal Products (AMP)
 - b. American Locker
 - c. ASI Storage Solutions
 - d. List Industries
 - e. Lyon LLC
 - f. Penco Products, Inc.
 - g. Republic Storage Systems, LLC
 - h. WEC Manufacturing LLC
 - i. **Lockers MFG**

11. Revise SECTION 133419 – METAL BUILDING SYSTEMS to reflect the following:

PART 1 – GENERAL

1.9 QUALITY ASSURANCE

Manufacturer Qualifications: A qualified manufacturer.

- a) Accreditation: Manufacturer's facility accredited according to the International Accreditation Service's AC472, "Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems."
- b) Engineering Responsibility: Preparation of comprehensive engineering analysis and Shop Drawings by a professional engineer who is legally qualified to practice in jurisdiction where Project is located.

Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.

Welding Qualifications: Qualify procedures and personnel according to the following:

- c) AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- d) AWS D1.3, "Structural Welding Code - Sheet Steel."

Land Surveyor Qualifications: A professional land surveyor who practices in jurisdiction where Project is located and who is experienced in providing surveying services of the kind indicated.

- E. ***Roofer Qualifications: Subcontractor having a documented history of installing similar roofing systems for no less than 5 years.***

PART 2 - PRODUCTS

2.5 METAL ROOF PANELS

- A. Standing-Seam, Double Lok, Metal Roof Panels: Formed panel edges and flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels and engaging opposite edge of adjacent panels.
 - 1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 24-gauge nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
 - a. Exterior Finish: ~~Galvalume~~. ***Factory-applied 70% PVDF fluoropolymer finish.***
 - 2. Clips: One-piece fixed to accommodate thermal movement.
 - 3. Joint Type: Mechanically seamed.
 - 4. Panel Coverage: 24 inches.
 - 5. Panel Height: 2 inches (51 mm).
 - 6. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

2.6 METAL WALL PANELS

- A. Exposed-Fastener, Tapered-Rib, Metal Wall Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced flat pan between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
 - 1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.024-inch (0.61-mm) nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
 - a. Finish: ~~Siliconized polyester~~. ***Factory-applied 70% PVDF fluoropolymer finish.***
 - b. Color: As selected by Architect from manufacturer's full range.

12. Revise SECTION 167200 – FIRE DETECTION AND ALARM SYSTEMS to reflect the following:

PART 2 - PRODUCTS

2.2 ACCEPTABLE MANUFACTURERS

- ~~A. Existing main fire alarm control is a Simplex Model 4005 system. The fire alarm panel for the new building shall be a Simplex model 4007 or equal. New panel shall be compatible with existing fire alarm system. New panel shall be an addressable type that can be integrated with the existing zone type system to have one fully functional campus wide fire alarm system.~~

~~Cerebrus Pyrotechnics, Cedar Knolls, NJ (973) 593-2600~~

~~Edwards Systems Technology, Cheshire, CT (203) 699-9300~~

~~Faraday Inc, Tecumseh, MI (517) 423-2111~~

~~Honeywell, Minneapolis, MN (800) 328-5111~~

~~Notifier, Northford, CT (800) 454-9779~~

~~Simplex, Gardner, MA (800) 221-7336~~

- A. Existing main fire alarm control is a Edwards EST 3 system. The fire alarm panel for the new building shall be a Edwards EST 3X panel compatible with the existing fire alarm system on campus. New panel shall be an addressable type that can be integrated with the existing zone type system to have one fully functional campus wide fire alarm system.**

1.3 DRAWINGS

- A. Replace the following drawings in their entirety with their respective attached sheets.

1. C-0.1
2. D-1.0
3. C-1.0
4. C-2.0
5. C-2.1
6. C-3.0
7. C-3.1
8. C-4.0
9. C-5.0
10. C-5.1
11. C-6.0
12. S000
13. S100
14. S500
15. AC01
16. AC02
17. A002
18. A101
19. A102
20. A111
21. A202
22. A311
23. A312
24. A314
25. A331

1.4 ATTACHED TO ADDENDUM:

- A. Specification section:
1. SECTION 02200 – TEMPORARY EROSION AND SEDIMENT CONTROL
 2. SECTION 02230 – SITE CLEARING
 3. SECTION 02300 – EARTHWORK

4. SECTION 02360 – TERMITE CONTROL
5. SECTION 02510 – SITE WATER UTILITY DISTRIBUTION PIPING
6. SECTION 02510.1 – DISINFECTION OF WATER UTILITY PIPING SYSTEMS
7. SECTION 02530 – SANITARY SEWER
8. SECTION 02630 – STORM DRAINAGE
9. SECTION 02700 – PAVING
10. SECTION 02920 – SODDING
11. SECTION 055213 – PIPE AND TUBE RAILINGS
12. SECTION 072410 – DIRECT APPLIED MEMBRANE AIR BARRIERS
13. SECTION 323113 – CHAIN LINK FENCE

B. Sheets:

1. C-0.1
2. D-1.0
3. C-1.0
4. C-2.0
5. C-2.1
6. C-3.0
7. C-3.1
8. C-4.0
9. C-5.0
10. C-5.1
11. C-6.0
12. S000
13. S100
14. S500
15. AC01
16. AC02
17. A002
18. A101
19. A102
20. A111
21. A202
22. A311
23. A312
24. A314
25. A331

END OF ADDENDUM

Pre-Bid Conference Check List

1.1 GENERAL

- A. Welcome
- B. Pre-bid conference is mandatory: Sign-in Sheet (will be included in the next addendum)
- C. Name and location of project: Mary G. Montgomery Gym, 4275 Snow Road N, Semmes, AL 36575
- D. Introduce Owner, Architect, and affiliation of key personnel
 - 1. John Seitz – Contract Administrator, Facilities; Louis Anderson – Executive Manager, Facilities; Dr Chresal Threadgill – Superintendent.
 - 2. Jake Johnson, Project Manager, 404-394-1848
- E. Project funding is local.

1.2 SUMMARY

- A. Overall summary – The Project consists of the addition of a gymnasium building at the existing Mary G. Montgomery High School.
- B. Organization of contract documents – Hard copy plans are available for a deposit of \$200.00 per set ordered from www.ward-scottplans.com. Electronic Copies of Plans and Specifications are available from the same website free of charge. Initial registration is required but no cost is associated.
- C. Site visit is recommended (~~coordinate visits through architect~~) Check in with Front Office prior to making site visit.

1.3 RECEIPT OF BIDS

- A. Date: September 15, 2026.
- B. Time: 2:00 pm
- C. Location: Building F, 1 Magnum Pass, Mobile, AL 36618 - this location.
- D. Proposal form – Must use the Proposal form provided in the specifications.
- E. Proposal form – show receipt of all addenda
- F. Accounting of Sales Tax, Attachment to DCM Form C-3A: Shall be included in bid proposal envelopes.
- G. Bid Bond; All bids must have a bid bond of 5% of the bid amount, not to exceed \$10,000.00, or a certified check. This must be included with the proposal form when you submit your bid.
- H. Copy of Alabama State Contractor's License: Shall be included in bid proposal envelopes.
- I. Proposal envelopes must have the bidder's company name and address, said company's State of Alabama General Contractor license number, the name of the project, clearly marked on the outside of the envelope.

1.4 CONTRACTUAL REQUIREMENTS

- A. Performance & Payment Bonds will be required for the successful bidder in order to enter into a contract.
- B. This is a tax-exempt project, and all bidders WILL NOT include taxes in their bid. Refer to specification sections 012910 Sales and Use Tax Savings, and Form ST: EXC-01 Sales and Use Tax Certificate of Exemption for Government Entity Project (including the Instructions for Preparation) documents provided in the specifications for proper procedures.
- C. Required permits and licenses – The contractor will be responsible for obtaining a Building Permit from all Authorities having Jurisdiction. All contractors are required to have current business licenses as required. Please note that the contractor will be responsible for including in their lump sum and paying the DCM State Permit fees noted within the specifications.
- D. Builder's Risk Insurance will be provided by the Contractor.
- E. Project schedule:
 - 1. Contract Award: TBD
 - 2. Preconstruction Meeting: approximately 3 weeks
 - 3. Construction Overall Timeframe: 365 days from preconstruction meeting.
 - a. The successful bidder will be required to execute their contracts and bonds and submit them to the Architect along with a valid Certificate of Insurance within seven (7) calendar days after receiving a Notice of Award.
 - 4. Anticipated Substantial Completion: TBD
- F. Liquidated damages. Amount: \$500.00/Calendar Day
- G. Alternates – N/A
- H. Allowances:
 - 1. See 012100 – end of the section has a schedule of allowances listed.
 - a. 1 – Unsuitable Soil

- b. 2 – Reinforcing Steel
- c. 3 – Concrete
- d. 4 – Sodding
- e. 5 – Masonry
- f. 6 – Construction Fencing
- g. 7 – Utility Connections
- h. 8 – Interior Graphics
- i. 9 – A/V Systems
- j. 10 – Emergency Radio Communications Enhancements System
- k. 11 - Emergency Radio Communications Enhancements System Testing
- l. 12 – Project Contingency

I. Unit Prices – see 012200 unit prices – end of section has a schedule

- 1. 1 – Unsuitable Soil
- 2. 2 – Reinforcing Steel
- 3. 3 – Concrete
- 4. 4 – Solid Sodding

1.5 SITE CONDITIONS

- A. Discuss access for construction operations. – coordination necessary with bell times.
- B. Construction limits – Construction Limits to be coordinated with Owner during construction.
- C. Parking –Contractors and their subcontractors will be permitted to park on site in the existing parking areas as coordinated with the Owner.
- D. On-site communications – is required for superintendent on site. Superintendent **MUST BE ON SITE** while construction is occurring.
- E. Security at site –Contractors will be responsible for securing their own materials, tools, and equipment.
- F. Temporary Facilities – ***Coordinate all shutdowns with owner at least 48 hours ahead of time.*** Contractor shall be responsible for removal of any construction debris not expressly noted to be performed outside the contract.
- G. Job Safety and Cleanup
 - 1. Contractor shall be responsible for maintaining all safety measures during project. Owner and architect are not responsible.
Contractor will be responsible for picking up construction waste and debris as necessary and removing it off site.

1.6 SCOPE

- 1. ~21,500 square foot PEMB gymnasium with metal roof, and a combination of brick on block and metal siding walls.
- 2. Locker rooms, concessions, storage, multipurpose room, offices, support spaces, mechanical mezzanine, and restrooms
- 3. Electric bleachers, gym equipment, display cases, concessions appliances, wood court flooring, resinous flooring, rubber flooring
- 4. Paint accent walls – see interior elevations

1.7 MISCELLANEOUS

- A. Project comments from Owner
 - 1. No alcohol or tobacco products while on site. No contact with teachers or students while on site. No weapons.

1.8 QUESTIONS FROM BIDDERS

- A. Will programmable sports lighting be incorporated into the project as an alternate?
 - 1. Answer: No, programmable sports lighting will be incorporated into the project as a base-bid item.

1.9 MEETING PARTICIPANTS

- A. See attached sign-in sheet

SIGN-IN SHEET

DATE: 09/08/2026 TIME: 10:00am LOCATION: 1 Magnum Pass, Mobile, AL 36618	PROJECT: Mary G Montgomery Gym SUBJECT: Pre-Bid Conference
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Name:	Company	Phone/Fax	Email
Zach Fischer	C Roberts GC	251-615-6649	Zach@croberdsgc.com
Jeff Dixon	Dixon Contracting	601.215.4925	jeffdixonjr@dixoncontractinggroupllc.com
STEVE ROBINSON	BAYSHORE CONST.	251-937-3333	STEVE@BAYSHORECONSTRUCTIONCO.COM
Jeffrey Redman	Bayshore Construction	251-243-5492	jeffrey@bayshoreconstructionco.com
Greg Brown	Modern Sound	228 235 8655	greg@modernsound.net
Doug Braniel	Modern Sound	"	"
Shannon McIntyre	RH Dens Bldg.	251-229-1435	shannon@rhideasbuildingco.com
Garnes Todd	Museo Lighting	334-333-2176	garnes.todd@museo.com
Bob Savin	CSI	850 232 0998	B.SAVIN@COMBOSYS.NET
CHRIS CLARK	ROY LEWIS CONSTR.	(251)402-3309	chris@roylewisconstruction.com
JOHN OTS	MWR CONSTRUCTION	251-479-5350	BIDS@MWRCONSTR.NET
Richard Kirkpatrick	Walters Controls Inc	251-620-7019	Richard@walterscontrols.net
Justin Duffey	Tindle Construction	251-654-4148	Justin@tindleconstruction.net
ROQUAN WIGGINS	CRUCIBLE CONSTRUCTION	(850)549-6822	Roquan@crucibleconstruction.com
Louis Anderson	McKees	251-221-4650	landerson7@McKees.com
Jay Collins	Green-Simmons	850-266-3515	jamaruns@green-simmons.com
Lissa McLean	Perrons Services Corp	251-721-1156	bidsgc@perronservices.com
Will Majure	HCC	251-232-3847	wmajure@hanson-const.com

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SECTION 02200
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 GENERAL [ADD 002]**1.01 SECTION INCLUDES**

- A. Prevention of erosion due to construction activities.
- B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.
- C. Restoration of areas eroded due to insufficient preventive measures.
- D. Compensation of Owner for fines levied by authorities having jurisdiction due to non-compliance by Contractor.

1.02 REFERENCE STANDARDS

- A. ASTM D4355/D4355M - Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc-Type Apparatus; 2021.
- B. ASTM D4491/D4491M - Standard Test Methods for Water Permeability of Geotextiles by Permittivity; 2022.
- C. ASTM D4533/D4533M - Standard Test Method for Trapezoid Tearing Strength of Geotextiles; 2015 (Reapproved 2023).
- D. ASTM D4632/D4632M - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles; 2015a (Reapproved 2023).
- E. ASTM D4751 - Standard Test Methods for Determining Apparent Opening Size of a Geotextile; 2021a.
- F. ASTM D4873/D4873M - Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples; 2017 (Reapproved 2021).
- G. EPA (NPDES) - National Pollutant Discharge Elimination System (NPDES), Construction General Permit; Current Edition.
- H. FHWA FLP-94-005 - Best Management Practices for Erosion and Sediment Control; 1995.
- I. USDA TR-55 - Urban Hydrology for Small Watersheds; USDA Natural Resources Conservation Service; 2015.

1.03 PERFORMANCE REQUIREMENTS

- A. Comply with requirements of EPA (NPDES) for erosion and sedimentation control, as specified by the NPDES, for Phases I and II, and in compliance with requirements of Construction General Permit (CGP).
- B. Also comply with all more stringent requirements of State of Alabama Department of Environmental Management Erosion and Sedimentation Control Manual.
- C. Best Management Practices Standard: FHWA FLP-94-005.
- D. Runoff Calculation Standard for Urban Areas: USDA TR-55.
- E. The Contractor, with the assistance of the engineer of record, shall obtain a NPDES Permit for Construction Activities from the Alabama Department of Environmental Management (ADEM). A comprehensive Erosion Control Plan has been prepared and is included in the design drawings. These erosion control measures will be required to be fully implemented and maintained by the Contractor at all times. Due to the nature of construction, adjustments or modifications to the erosion control measures may be required to be adjusted or modified. It shall be the Contractor's responsibility to make any and all necessary modifications to the erosion control measures on the site to ensure that the Contractor remains in compliance with this permit at all times. Inspections shall be performed by a Qualified Credentialed Inspector (QCI). The Engineer of Record shall be consulted on all changes to the Erosion Control Plan.

1. The cost for the permit, inspections, maintenance, and any fees will be the responsibility of the General Contractor.
 2. Inspections should occur at a minimum once a month, and after each rain event exceeding .75 inches in a 24 hour period.
- F. Develop and follow an Erosion and Sedimentation Prevention Plan and submit periodic inspection reports.
- G. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
- H. Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.
- I. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.
 2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 2 years.
- J. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
1. Control movement of sediment and soil from temporary stockpiles of soil.
 2. Prevent development of ruts due to equipment and vehicular traffic.
 3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- K. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
1. Prevent windblown soil from leaving the project site.
 2. Prevent tracking of mud onto public roads outside site.
 3. Prevent mud and sediment from flowing onto sidewalks and pavements.
 4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- L. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
 2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.
- M. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
- N. Open Water: Prevent standing water that could become stagnant.
- O. Maintenance: Maintain temporary preventive measures until permanent measures have been established.

1.04 SUBMITTALS

- A. See Section 013300 - Submittal Procedures, for submittal procedures.

- B. Erosion and Sedimentation Control Plan:
 - 1. Submit not less than 30 days prior to anticipated start of clearing, grading, or other work involving disturbance of ground surface cover.
 - 2. Include:
 - a. Site plan identifying soils and vegetation, existing erosion problems, and areas vulnerable to erosion due to topography, soils, vegetation, or drainage.
 - b. Site plan showing grading; new improvements; temporary roads, traffic accesses, and other temporary construction; and proposed preventive measures.
 - c. Where extensive areas of soil will be disturbed, include storm water flow and volume calculations, soil loss predictions, and proposed preventive measures.
 - d. Schedule of temporary preventive measures, in relation to ground disturbing activities.
 - e. Other information required by law.
 - f. Format required by law is acceptable, provided any additional information specified is also included.
 - 3. Obtain the approval of the Plan by authorities having jurisdiction.
 - 4. Obtain the approval of the Plan by Owner.
- C. Certificate: Mill certificate for silt fence fabric attesting that fabric and factory seams comply with specified requirements, signed by legally authorized official of manufacturer; indicate actual minimum average roll values; identify fabric by roll identification numbers.
- D. Inspection Reports: Submit report of each inspection; identify each preventive measure, indicate condition, and specify maintenance or repair required and accomplished.
- E. Maintenance Instructions: Provide instructions covering inspection and maintenance for temporary measures that must remain after Substantial Completion.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Mulch: Use one of the following:
 - 1. Straw or hay.
 - 2. Wood waste, chips, or bark.
 - 3. Erosion control matting or netting.
 - 4. Cutback asphalt.
 - 5. Polyethylene film, where specifically indicated only.
- B. Grass Seed For Temporary Cover: Select a species appropriate to climate, planting season, and intended purpose. If same area will later be planted with permanent vegetation, do not use species known to be excessively competitive or prone to volunteer in subsequent seasons.
- C. Bales: Air dry, rectangular straw bales.
 - 1. Cross Section: 14 by 18 inches (350 by 450 mm), minimum.
 - 2. Bindings: Wire or string, around long dimension.
- D. Bale Stakes: One of the following, minimum 3 feet (1 m) long:
 - 1. Steel U- or T-section, with minimum mass of 1.33 pound per linear foot (1.98 kg per linear m).
 - 2. Wood, 2 by 2 inches (50 by 50 mm) in cross section.
- E. Silt Fence Fabric: Polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:
 - 1. Average Opening Size: 30 U.S. Std. Sieve (0.600 mm), maximum, when tested in accordance with ASTM D4751.
 - 2. Permittivity: 0.05 sec⁻¹, minimum, when tested in accordance with ASTM D4491/D4491M.
 - 3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D4355/D4355M after 500 hours exposure.

4. Tensile Strength: 100 pounds-force (450 N), minimum, in cross-machine direction; 124 pounds-force (550 N), minimum, in machine direction; when tested in accordance with ASTM D4632/D4632M.
 5. Elongation: 15 to 30 percent, when tested in accordance with ASTM D4632/D4632M.
 6. Tear Strength: 55 pounds-force (245 N), minimum, when tested in accordance with ASTM D4533/D4533M.
 7. Color: Manufacturer's standard, with embedment and fastener lines preprinted.
- F. Silt Fence Posts: One of the following, minimum 5 feet (1500 mm) long:
1. Steel U- or T-section, with minimum mass of 1.33 pound per linear foot (1.98 kg per linear m).
 2. Softwood, 4 by 4 inches (100 by 100 mm) in cross section.
 3. Hardwood, 2 by 2 inches (50 by 50 mm) in cross section.
- G. Gravel, Riprap, Concrete

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

3.02 PREPARATION

- A. Schedule work so that soil surfaces are left exposed for the minimum amount of time.

3.03 SCOPE OF PREVENTIVE MEASURES

- A. In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.
- B. Construction Entrances: Traffic-bearing aggregate surface.
1. Width: As required; 20 feet (7 m), minimum.
 2. Length: 50 feet (16 m), minimum.
 3. Provide at each construction entrance from public right-of-way.
 4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel washing area out of direct traffic lane, with drain into sediment trap or basin.
- C. Linear Sediment Barriers: Made of silt fences.
1. Provide linear sediment barriers:
 - a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.
 - b. Along the top of the slope or top bank of drainage channels and swales that traverse disturbed areas.
 - c. Along the toe of cut slopes and fill slopes.
 - d. Perpendicular to flow across the bottom of existing and new drainage channels and swales that traverse disturbed areas or carry runoff from disturbed areas; space at maximum of 200 feet apart (at maximum of 60 m apart).
 - e. Across the entrances to culverts that receive runoff from disturbed areas.
 2. Space sediment barriers with the following maximum slope length upslope from barrier:
 - a. Slope of Less Than 2 Percent: 100 feet (30 m)..
 - b. Slope Between 2 and 5 Percent: 75 feet (23 m).
 - c. Slope Between 5 and 10 Percent: 50 feet (15 m).
 - d. Slope Between 10 and 20 Percent: 25 feet (7.5 m).
 - e. Slope Over 20 Percent: 15 feet (4.5 m).
- D. Storm Drain Curb Inlet Sediment Trap: Protect each curb inlet using one of the following measures:
1. Filter fabric wrapped around hollow concrete blocks blocking entire inlet face area; use one piece of fabric wrapped at least 1-1/2 times around concrete blocks and secured to prevent dislodging; orient cores of blocks so runoff passes into inlet.
 2. Straw bale row blocking entire inlet face area; anchor into pavement.

- E. Storm Drain Drop Inlet Sediment Traps: As detailed on drawings.
- F. Temporary Splash Pads: Stone aggregate over filter fabric; size to suit application; provide at downspout outlets and storm water outlets.
- G. Soil Stockpiles: Protect using one of the following measures:
 - 1. Cover with polyethylene film, secured by placing soil on outer edges.
 - 2. Cover with mulch at least 4 inches (100 mm) thickness of pine needles, sawdust, bark, wood chips, or shredded leaves, or 6 inches (150 mm) of straw or hay.
- H. Mulching: Use only for areas that may be subjected to erosion for less than 6 months.
 - 1. Wood Waste: Use only on slopes 3:1 or flatter; no anchoring required.
 - 2. Asphalt: Use only where no traffic, either vehicular or pedestrian, is anticipated.
- I. Temporary Seeding: Use where temporary vegetated cover is required.

3.04 INSTALLATION

- A. Traffic-Bearing Aggregate Surface:
 - 1. Excavate minimum of 6 inches (150 mm).
 - 2. Place geotextile fabric full width and length, with minimum 12 inch (300 mm) overlap at joints.
 - 3. Place and compact at least 6 inches (150 mm) of 1 1/2 to 3 1/2 inch (40 to 90 mm) diameter stone.
- B. Silt Fences:
 - 1. Store and handle fabric in accordance with ASTM D4873/D4873M.
 - 2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch (405 mm) high barriers with minimum 36 inch (905 mm) long posts spaced at 6 feet (1830 mm) maximum, with fabric embedded at least 4 inches (100 mm) in ground.
 - 3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6 months, use nominal 28 inch (710 mm) high barriers, minimum 48 inch (1220 mm) long posts spaced at 6 feet (1830 mm) maximum, with fabric embedded at least 6 inches (150 mm) in ground.
 - 4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20 feet (6 m), use nominal 32 inch (810 mm) high barriers with woven wire reinforcement and steel posts spaced at 4 feet (1220 mm) maximum, with fabric embedded at least 6 inches (150 mm) in ground.
 - 5. Install with top of fabric at nominal height and embedment as specified.
 - 6. Embed bottom of fabric in a trench on the upslope side of fence, with 2 inches (50 mm) of fabric laid flat on bottom of trench facing upslope; backfill trench and compact.
 - 7. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches (460 mm), with extra post.
 - 8. Fasten fabric to wood posts using one of the following:
 - a. Four nails per post with 3/4 inch (19 mm) diameter flat or button head, 1 inch (25 mm) long, and 14 gauge, 0.083 inch (2.11 mm) shank diameter.
 - b. Five staples per post with at least 17 gauge, 0.0453 inch (1.150 mm) wire, 3/4 inch (19 mm) crown width and 1/2 inch (12 mm) long legs.
 - 9. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.
 - 10. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12 inches (300 mm) high with post spacing not more than 4 feet (1220 mm).
- C. Straw Bale Rows:
 - 1. Install bales in continuous rows with ends butting tightly, with one bale at each end of row turned uphill.
 - 2. Install bales so that bindings are not in contact with the ground.
 - 3. Embed bales at least 4 inches (100 mm) in the ground.

4. Anchor bales with at least two stakes per bale, driven at least 18 inches (450 mm) into the ground; drive first stake in each bale toward the previously placed bale to force bales together.
 5. Fill gaps between ends of bales with loose straw wedged tightly.
 6. Place soil excavated for trench against bales on the upslope side of the row, compacted.
- D. Mulching Over Large Areas:
1. Dry Straw and Hay: Apply 2-1/2 tons per acre (6350 kg per hectare); anchor using dull disc harrow or emulsified asphalt applied using same spraying machine at 100 gallons of water per ton of mulch.
 2. Wood Waste: Apply 6 to 9 tons per acre (15,200 to 20,800 kg per hectare).
 3. Asphalt: Apply at 1200 gallons per acre (11,000 L per hectare).
 4. Erosion Control Matting: Comply with manufacturer's instructions.
- E. Mulching Over Small and Medium Areas:
1. Dry Straw and Hay: Apply 4 to 6 inches (100 to 150 mm) depth.
 2. Wood Waste: Apply 2 to 3 inches (50 to 75 mm) depth.
 3. Asphalt: Apply 1/4 gallon per square yard (1 L per 100 sq m).
 4. Erosion Control Matting: Comply with manufacturer's instructions.
- F. Temporary Seeding:
1. When hydraulic seeder is used, seedbed preparation is not required.
 2. When surface soil has been sealed by rainfall or consists of smooth undisturbed cut slopes, and conventional or manual seeding is to be used, prepare seedbed by scarifying sufficiently to allow seed to lodge and germinate.
 3. If temporary mulching was used on planting area but not removed, apply nitrogen fertilizer at 1 pound per 1000 sq ft (0.5 kg per 100 sq m).
 4. On soils of very low fertility, apply 10-10-10 fertilizer at rate of 12 to 16 pounds per 1000 sq ft (6 to 8 kg per 100 sq m).
 5. Incorporate fertilizer into soil before seeding.
 6. Apply seed uniformly; if using drill or cultipacker seeders place seed 1/2 to 1 inch (12 to 25 mm) deep.
 7. Irrigate as required to thoroughly wet soil to depth that will ensure germination, without causing runoff or erosion.
 8. Repeat irrigation as required until grass is established.

3.05 MAINTENANCE

- A. Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.5 inches (13 mm) or more rainfall at the project site, and daily during prolonged rainfall.
- B. Repair deficiencies immediately.
- C. Silt Fences:
1. Promptly replace fabric that deteriorates unless need for fence has passed.
 2. Remove silt deposits that exceed one-third of the height of the fence.
 3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.
- D. Straw Bale Rows:
1. Promptly replace bales that fall apart or otherwise deteriorate unless need has passed.
 2. Remove silt deposits that exceed one-half of the height of the bales.
 3. Repair bale rows that are undercut by runoff or otherwise damaged, whether by runoff or other causes.
- E. Clean out temporary sediment control structures weekly and relocate soil on site.
- F. Place sediment in appropriate locations on site; do not remove from site.

3.06 CLEAN UP

- A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by Architect.
- B. Clean out temporary sediment control structures that are to remain as permanent measures.
- C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

END OF SECTION

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**SECTION 02230
SITE CLEARING****PART 1 GENERAL [ADD 002]****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Protecting existing trees and vegetation to remain to include all site trees unless shown removed.
 - 2. Demolition of existing site features
 - 3. Removing trees and other vegetation.
 - 4. Clearing and grubbing.
 - 5. Topsoil stripping.
 - 6. Removing above-grade site improvements.
 - 7. Disconnecting, capping or sealing, and abandoning site utilities in place.
 - 8. Disconnecting, capping or sealing, and removing site utilities.

1.03 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches (50.8 mm) in diameter; and free of weeds, roots, and other deleterious materials.

1.04 MATERIALS OWNERSHIP

- A. Except for materials indicated to be stockpiled or to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from the site.

1.05 SUBMITTALS

- A. Record drawings according to Division 1 Section "Closeout Procedures."
 - 1. Identify and accurately locate capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.06 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
- B. Notify utility locator service for area where Project is located before site clearing.

PART 2 PRODUCTS (NOT APPLICABLE)**PART 3 EXECUTION****3.01 DEMOLITION SCOPE**

- A. Complete all demolition and disposal of demolished material for all items of work indicated on drawings or specified herein. Demolition to include all items attached to or built into structure to be demolished. Contractor shall inspect the site and review construction drawings and existing structures to determine level of reinforcement, details of construction, and pertinent information that would affect demolition work to be completed. Demolition work includes but is not limited to:
 - 1. Saw cut as required, demolish and dispose of the existing concrete sidewalks as shown.
 - 2. Contractor shall remove existing asphalt surfacing as required.
 - 3. Demolish and remove existing utilities as shown on the demolition and utility plans.

4. Contractor will wet down or use other dust control measures to keep airborne debris, resulting from demolition work, from adjacent Owners and other occupied portions of the school.
 5. Demo tree in NW corner of existing parking lot per the plans.
- B. These items are noted on the design drawings for further clarification. It is the intent that any incidentals not specifically shown on the drawings shall also be included in the work.

3.02 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Provide erosion-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Locate and clearly flag trees and vegetation to remain or to be relocated.
- D. Protect existing site improvements to remain.
 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.03 TREE PROTECTION

- A. Erect and maintain a temporary fence around drip line of individual trees or around perimeter drip line of groups of trees to remain. Remove fence when construction is complete.
 1. Do not store construction materials, debris, or excavated material within drip line of remaining trees.
 2. Do not permit vehicles, equipment, or foot traffic within drip line of remaining trees.
- B. Do not excavate within drip line of trees, unless otherwise indicated.
- C. Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 1. Cover exposed roots with burlap and water regularly.
 2. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
 3. Coat cut faces of roots more than 1-1/2 inches (38 mm) in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 4. Cover exposed roots with wet burlap to prevent roots from drying out. Backfill with soil as soon as possible.

3.04 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 1. Arrange to shut off indicated utilities with utility companies.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Architect's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.

3.05 CLEARING AND GRUBBING

- A. Perform all clearing, grubbing, filling and related items necessary to complete work shown on the drawings and specified herein. The subsurface exploration and evaluation are included in this Division and shall be followed in the execution of this work.
- B. The contractor shall perform all of the required clearing and grubbing for this project. Work shall include but shall not be limited to the following.
 1. Complete all necessary clearing and grubbing.
 2. Properly dispose of all existing debris off-site and all debris generated by this contractor. This includes all soils, roots, and other debris and excess soils not used in the project.

3. The entire area within clearing and grubbing limits, shall be cleared of miscellaneous deleterious materials such as glass, metal, plastics, underbrush, stumps, roots, stones larger than 3 inches, roots larger than ½ inch, wood, brick batts, paving materials and other debris. This clean up shall be accomplished and approved prior to beginning of stripping of top soil and rough grading. All such deleterious materials shall be disposed of off-site in an approved manner.
 4. All trees in areas of "total clearing" shall be completely removed including roots, to a depth not less than 2 feet below existing grade and also not less than 4 feet below finished building floor elevation, except those noted otherwise.
 5. All debris from clearing and grubbing operations shall be disposed of off-site by this contractor.
- C. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal includes digging out stumps and obstructions and grubbing roots.
1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 3. Completely remove stumps, roots, obstructions, and debris extending to a depth of 18 inches (457.2 mm) below exposed subgrade.
 4. Use only hand methods for grubbing within drip line of remaining trees.
- D. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding 8-inch loose depth, and compact each layer to a density equal to adjacent original ground.

3.06 STRIPPING

- A. All areas under buildings, walkways, roadways and parking areas, and extending 5 feet in all direction beyond the limits of these facilities, shall be "stripped" of top soil, organics and other deleterious material. This stripping operation shall extend a minimum depth of 6 inches below existing grades.
- B. Handling of Stripped Materials
1. Top soil from stripping operation shall be stored on site for use in grassing operations. All materials not used in the project shall be hauled off-site and disposed of in an approved manner.
 2. Organics, roots and other deleterious materials removed by the stripping operations shall be disposed of off-site by the contractor in an approved manner.
- C. Approval of Stripping
1. After the completion of an area stripping operation, the area shall be inspected by the geotechnical consultant to observe any areas of "unsuitable materials" which exist in place after the initial stripping operation. If areas of "unsuitable materials" are encountered, these areas shall be excavated an additional 16 inches, or as directed by the Geotechnical Consultant, and these "unsuitable materials" shall be properly disposed of by the contractor. All areas of "unsuitable materials" removed shall be measured for payment as "in place" measurements.
 2. All areas of under-cut shall be backfilled with suitable "Structural fill" material provided from off-site by the contractor.
 3. After stripping and under cutting is completed the stripped area shall be proof rolled with a large rubber tired (non-vibrating) roller weighing at least 20 tons until the subgrade soils achieve the requirements as stated in the Report of Southern Earth Sciences. This operation shall be observed by the geotechnical consultant and approved before the beginning of "rough grading" operation.
- D. Remove sod and grass before stripping topsoil.
- E. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.

1. Strip surface soil of unsuitable topsoil, including trash, debris, weeds, roots, and other waste materials.
- F. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Limit height of topsoil stockpiles to 72 inches (1828.8 mm).
 2. Do not stockpile topsoil within drip line of remaining trees.
 3. Stockpile surplus topsoil and allow for respreading deeper topsoil.

3.07 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials, including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION

**SECTION 02300
EARTHWORK****PART 1 GENERAL [ADD 002]****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Preparing subgrades for slabs-on-grade, walks, pavements, lawns, and plantings.
 - 2. Excavating and backfilling for buildings and structures.
 - 3. Fine grading, topsoiling and preparing lawn areas.
 - 4. Excavating and backfilling trenches within building lines.
 - 5. Geotechnical Reports applicable to this project.
- B. Related Sections include the following:
 - 1. Division 2 Section "Site Clearing" for site stripping, grubbing, removing topsoil, and protecting trees to remain.

1.03 DEFINITIONS

- A. Backfill: Soil materials used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Drainage Course: Layer supporting slab-on-grade used to minimize capillary flow of pore water.
- E. Excavation: Removal of material encountered above subgrade elevations.
 - 1. Additional Excavation: Excavation below subgrade elevations as directed by Architect. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavations more than 10 feet (304.8 cm) in width and pits more than 30 feet (914.4 cm) in either length or width.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.
- F. Fill: Soil materials used to raise existing grades.
- G. Structures: Buildings, footings, foundations, retaining walls, slabs, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- I. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.04 REFERENCE STANDARDS

- A. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)); 2012 (Reapproved 2021).
- B. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2017 (Reapproved 2025).

1.05 SUBMITTALS

- A. Material Test Reports: Submit following reports directly to Architect/Engineer from the testing services, with copy to the Contractor.
 - 1. Classification according to ASTM D2487 of each on-site or borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D698 for each on-site or borrow soil material proposed for fill and backfill.
 - 3. One optimum moisture density curve for each type of soil encountered.
 - 4. Verification of each footing subgrade.

1.06 QUALITY ASSURANCE

- A. Geotechnical Testing Agency: Soil testing and inspection service for quality control testing during earthwork operations shall be furnished by the owner. Retesting of failed test to be provided and paid for by the General Contractor.
- B. Prior to the installation or placement of concrete into insitu soil (load bearing earth), the Contractor shall receive acknowledgement from the Testing Company that the soil where the concrete is to be placed meets all compaction and other testing requirements specified and/or required by the Owners' onsite testing agent. This approval with all drawings showing pertinent information indicating that day's work attached shall be signed and dated by the onsite Testing Agent and the Contractor's Superintendent and presented to the Architect onsite.
 - 1. The owner's testing agency shall report to the contractor the results of all required tests, which shall be reviewed and acknowledges by the General Contractor and then submitted to the Architect. The General Contractor shall not submit any failed soil density concrete or other test result(s) to the Architect without including the applicable recheck test result(s) that indicate compliance with the Specifications. The recheck test result(s) shall be identified with the same number as the failed test with the notation "-R"

1.07 PROJECT CONDITIONS

- A. Site Information: The report of subsurface investigation is bound herein. Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil borings. It is expressly understood that owner will not be responsible for interpretations or conclusions drawn therefrom by Contractor.
 - 1. Additional test borings and other exploratory operations may be made by Contractor at no cost to the owner.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Architect and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- C. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.
- D. Recommendations made in the reports of subsurface investigation bound herewith after this section shall be a requirement of these specifications. Where conflicts occur between the report and this specification, the more stringent requirement shall govern.

PART 2 PRODUCTS**2.01 ROUGH GRADING (ONSITE MATERIAL)**

- A. Rough grading includes the movement of suitable on-site material (cut and fill) within the limits of walkways, roadways, and parking areas and yard areas to obtain appropriate subgrade levels as required for these areas.
- B. ALDOT Specifications

1. All references in these technical specifications and on drawings refer to ALDOT Specifications refer to the Alabama Highway Department Standard Specification for Highway Construction, latest edition.
- C. Rough Grading in building area shall be performed to the extent necessary so that the subgrade (on-site soils) under the building will be not less than one foot below "foundation level".
 1. Rough grading of on-site within the walkway areas shall be such that subgrade level will not be higher than 12 inches below walkway final grades.
- D. Placement of Material
 1. The operators of mechanical equipment shall be observed by a qualified geotechnical technician. It is intended that subgrade soils shall have a bearing capacity of up to 2000 psf, at accepted subgrade level prior to placement of structural embankment. This value shall be confirmed by the Geotechnical consultant.
 2. If these values are not obtained, undercutting shall be performed as directed by and as defined by the Geotechnical Consultant. (Refer to Paragraph E, which follows.)
 3. If these values are not obtained, undercutting shall be performed as directed by and as defined by the Geotechnical Consultant. (Refer to Paragraph E, which follows.)
- E. Undercut & Backfill
 1. Undercut & Backfill of some "soft spots" may be required during the grading of on-site soils during the rough grading operations.
 2. Undercut of "unsuitable materials", where authorized, shall extend to a depth of "firm" material. This shall be observed and approved by the Geotechnical Consultant. Unsuitable material shall be disposed of off-site. Undercut areas shall be measured for payment. Undercut area shall be backfilled with "structural fill" as approved by the Geotechnical Engineer.
 - a. "Structural Fill".
 3. This backfill shall be placed the same day as the excavation and shall be compacted to not less than 95% of Standard Proctor Density, in 8" lifts.
 4. Payment for the work shall include the following: Payment shall be "in place" measurements. Backfill shall be "in place" compacted measurements.
 5. Excavation, Disposal of Unsuitable Material, Furnishing and Placing Backfill to Grade.
 - a. Price shall be per "cubic yard".
 - b. Refer to Allowances for additional information.
 - c. The unit price shall be used as an ADD or DEDUCT in the event more or less of this item is required.
- F. Protection against erosion and standing water.
 1. All grading operations shall be performed in such manner that erosion will be prevented and accumulation of standing water will be prevented.
 2. Unsuitable or excess earth shall be disposed of off site.
 3. Restore to original grades and conditions all properties damaged by any activity related to the work and take adequate precautions to avoid settlement or cave-in of properties higher than site and silting, eroding or other damage to properties lower than site.
 4. In-place soils are highly sensitive to moisture. Never allow water to stand or become trapped on a foundation subgrade area. Provide positive drainage to any excavated areas at all times. **If subgrade becomes saturated after stripping and/or undercutting, an additional amount of soil, to be determined by the Geotechnical Engineer, shall be removed and backfilled at no cost to the Owner.**

2.02 EXCAVATION AND BACKFILL

- A. The items of work to be performed include, but are not limited to:
 1. Excavation and backfill for:
 - a. Footings and other structures
 - b. Site utilities

- c. Site drainage
- B. Excavation
 - 1. Excavate to lines and elevations as necessary for the demolition and for removal down to and inclusive of foundations. Equipment and methods shall be suitable for the work at hand. Work shall conform to the following unless indicated otherwise on the drawings.
 - a. Excavated material suitable for filling shall be separated from unsuitable materials.
 - b. Excavated material unsuitable for filling shall be removed from the construction site promptly, and disposed of.
 - c. Backfill to line and elevation, as necessary for proper construction of the work. Equipment and method shall be suitable for the work at hand. Work shall conform to the following, unless otherwise indicated on the drawings.
 - 1) Loosen existing soil for a depth of 2" just before filling.
 - 2) Do not place backfill in water, on muddy, frozen or frosty areas, or over debris, wood or foreign material.
 - 2. Backfill
 - a. Backfill shall be placed in layers not exceeding eight inches (8") in thickness (loose) and compacted to not less than 95% Standard Proctor Density. Approved compactors shall be used to compact backfill work.
 - b. Backfill shall be "Structural Fill" conforming to Section 821, Type B, of ALDOT with the additional requirement that the combined content of silt and clay shall not exceed twenty percent (20%) and shall comply with Soils Report by Southern Earth Sciences.

2.03 SOIL COMPACTION CONTROL

- A. Scope of Work
 - 1. Furnish all labor, materials and equipment necessary to perform soil compaction as indicated on the drawings and specified herein.
- B. Minimum Densities
 - 1. The following minimum direction of compacting soils in this project shall be as follows:
 - a. Subgrade under buildings and traffic area - 98% Standard Proctor Density ASTM D 698
 - b. Structural fill and base course under building and foundations - 95% Modified Proctor Density ASTM D 1557
 - 2. Compaction of soils shall be performed in accordance with the report of the Project Geotechnical Consultant, Southern Earth Sciences.
- C. Field Test
 - 1. Field density tests to check compaction compliance shall be conducted in all fill areas at a frequency of one per 2500 square feet of fill per lift. Testing will be the responsibility of the Owner.

2.04 GEOTECHNICAL REPORT

- A. A comprehensive Geotechnical Investigation has been performed by the Owner's Geotechnical Consultant.
- B. This investigation was performed by Southern Earth Sciences.
- C. The report of this investigation dated 3/18/2026, is included in its entirety herein, as part of these Contract Documents, at the end of Division 2.

2.05 ROUGH GRADING (BORROW MATERIAL)

- A. General
 - 1. Work under this paragraph shall include furnishing and placing of borrow fill material to bring the site, building area and roadway areas to the required subgrade elevation. It is anticipated that a reasonable quantity of borrow fill material will be required to obtain the necessary subgrade elevations.

B. ALDOT Specifications

1. All references in these technical specifications and on drawings refer to ALDOT Specifications refer to the Alabama Highway Department Standard Specification for Highway Construction, (latest) edition.

C. Materials

1. "General fill" may be used in yard areas not under building or roadway areas. This general fill shall be friable granular soil including little or no organic matter and which can be spread and compacted by conventional earth moving equipment. This material shall generally meet the requirements of Section 820 of the ALDOT Standard Specification. Additional requirement of this "general fill" shall be a maximum content of silt and clay of 25 percent and that the soils comply with the report of Southern Earth Sciences.
2. "Structural fill" shall be used for all areas under buildings and all roadway areas to bring elevations up to required subgrade elevation. This select structural fill shall be granular soil meeting the requirements of ALDOT Standard Specification Section 821, Type B with an additional requirement that the soils comply with the Soils Report by Southern Earth Sciences and contains not more than 20% silt and clay (combined).

D. Placement of Borrow Fill Material

1. Placement of borrow fill shall be accomplished with standard earth moving equipment and shall be spread in layers not exceeding 8 inches of thickness and compacted to not less than 95 percent of the soils Standard Proctor Density, ASTM D 698.

E. Protection Against Erosion and Standing Water

1. It shall be required that grading operations be performed as specified and in a manner to prevent the erosion of soils and to prevent the accumulation of standing water in any graded areas. Do all pumping as required to prevent the accumulation of standing water.

F. Compaction of Soils

1. All compaction of soils shall be in accordance with Section 02335 of these specifications and in accordance with the report of Southern Earth Sciences.

G. Placement of Soils

1. Loosen existing soil for a depth of two inches (2") just before filling.
2. Do not place fill on frozen or frosty areas; or over debris, wood, or foreign material.
3. Place all fills and backfill in layers not over eight inches (8") thick and compacted per Section 02335.
4. Fill shall be compacted by a mechanical compactor with a minimum static weight of 12000 lbs or other approved compactor.
5. Soil moisture shall be maintained within 3 percentage points of the laboratory optimum moisture content during construction.
6. Positive surface drainage shall be maintained during earthwork operations. Do all pumping as required to maintain dry conditions.
7. All soil compaction shall be in accordance with Paragraph 02335 of these specifications and with the soils reports of Southern Earth Sciences.

PART 3 EXECUTION**3.01 PREPARATION**

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
- C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.02 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.03 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavation to subgrade elevations regardless of the character of surface and subsurface conditions encountered, including rock, soil materials, and obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.04 EXCAVATION FOR BUILDING STRUCTURES AND PAVEMENTS

- A. Excavate surfaces under buildings and pavements to indicated cross sections, elevations, and grades. One to three feet of undercutting and backfill is anticipated to promote fill placement in building and pavement areas as recommended in the Geotechnical Report
- B. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25.4 mm). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Excavation for Underground Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch (25.4 mm). Do not disturb bottom of excavations intended for bearing surface.

3.05 EXCAVATION FOR WALKS

- A. Excavate surfaces under walks to indicated cross sections, elevations, and grades.

3.06 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 - 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
- B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (304.8 mm) higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 12 inches (304.8 mm) on each side of pipe or conduit.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 - 1. For pipes and conduit less than 6 inches (152.4 mm) in nominal diameter and flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
 - 2. For pipes and conduit 6 inches (152.4 mm) or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
 - 3. Excavate trenches 6 inches (152.4 mm) deeper than elevation required in unyielding bearing material to allow for bedding course.

3.07 APPROVAL OF SUBGRADE

- A. Notify Architect when excavations have reached required subgrade.
- B. If Architect determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
 - 1. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- C. Proof roll subgrade under building and pavement areas with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding proof rolling shall include a minimum of 2 passes in perpendicular directions over the controlled area. Do not proof roll wet or saturated subgrades.

- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect.

3.08 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction or utility pipe as directed by Architect.

3.09 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.10 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
 - 2. Surveying locations of underground utilities for record documents.
 - 3. Inspecting and testing underground utilities.
 - 4. Removing concrete formwork.
 - 5. Removing trash and debris.
 - 6. Removing temporary shoring and bracing, and sheeting.
 - 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

3.11 UTILITY TRENCH BACKFILL

- A. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and
 - 1. for joints, fittings, and bodies of conduits.
- B. Backfill trenches excavated under footings and within 18 inches (457.2 mm) of bottom of footings; fill with concrete to elevation of bottom of footings.
- C. Place and compact initial backfill material, free of particles larger than 1 inch (25.4 mm) to a height of 12 inches (304.8 mm) over the utility pipe or conduit.
 - 1. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system.
- D. Coordinate backfilling with utilities testing.
- E. Fill voids with approved backfill materials while shoring and bracing, and as sheeting is removed.
- F. Place and compact final backfill of satisfactory soil material to final subgrade

3.12 FILL

- A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.
- B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- C. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use satisfactory soil material.
 - 3. Under steps and ramps, use satisfactory or structural fill.
 - 4. Under building slabs, use satisfactory or structural fill.

5. Under footings and foundations, use satisfactory or structural fill.

3.13 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 3 percent of optimum moisture content.
 1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
 2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.14 COMPACTION OF BACKFILLS AND FILLS

- A. Place backfill and fill materials in layers not more than 8 inches (203.2 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (101.6 mm) in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D698:
 1. Under structures, building slabs and steps, scarify and recompact top 12 inches (304.8 mm) and top 6" under pavement of existing subgrade and each layer of backfill or fill material at 98 percent.
 2. Under walkways, scarify and recompact top 6 inches (152.4 mm) below subgrade and compact each layer of backfill or fill material at 95 percent.
 3. Under lawn or unpaved areas, scarify and recompact top 6 inches (152.4 mm) below subgrade and compact each layer of backfill or fill material at 90 percent.

3.15 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 1. Lawn or Unpaved Areas: Plus or minus 1 inch (25.4 mm).
 2. Walks: Plus or minus 1 inch (25.4 mm).
 3. Pavements: plus or minus ½ inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch (12.7 mm) when tested with a 10-foot straightedge.
- D. Topsoil: All areas disturbed by grading or other construction operations or as shown on the Site Plan, not occupied by the building or pavement, shall receive 4 inch (101.6 mm) minimum thickness topsoil from on-site stockpile or from approved off-site sources.

3.16 BASE COURSES

- A. Under pavements, place base course material on prepared subgrades.
 1. Compact base courses at optimum moisture content to required grades, lines, cross sections and thickness to not less than 100 percent of ASTM D698 relative density.
- B. Shape base to required crown elevations and cross-slope grades.
 1. When thickness of compacted base course is 6 inches (152.4 mm) or less, place materials in a single layer.

2. When thickness of compacted base course exceeds 6 inches (152.4 mm), place materials in equal layers, with no layer more than 6 inches thick or less than 3 inches (76.2 mm) thick when compacted.

3.17 PLANTING SOIL PREPARATION

- A. Limit subgrade to areas that will be planted in the immediate future.
- B. Loosen subgrade to a minimum depth of 4 inches (101.6 mm). Remove stones larger than 1-1/2 inches (38 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter.
- C. Spread topsoil mixture to depth required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen.
 1. Place approximately 1/2 the thickness of topsoil mixture required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil mixture.
 2. Allow for sod thickness in areas to be sodded.
- D. Preparation of Unchanged Grades: Where lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare soil as follows:
 1. Remove and dispose of existing grass, vegetation, and turf. Do not turn over into soil being prepared for lawns.
 2. Till surface soil to a depth of at least 6 inches (152.4 mm). Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches (101.6 mm) of soil. Trim high areas and fill in depressions. Till soil to a homogenous mixture of fine texture.
 3. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 4. Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the Owner's property.
- E. Grade lawn and grass areas to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future. Remove trash, debris, stones larger than 1-1/2 inches (38 mm) in any dimension, and other objects that may interfere with planting or maintenance operations.
- F. Moisten prepared lawn areas before planting when soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- G. Restore prepared areas if eroded or otherwise disturbed after fine grading and before planting.

3.18 DRAINAGE COURSE

- A. Under slabs-on-grade, place drainage course on prepared subgrade and as follows:
 1. Compact drainage course to required cross sections and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D698.
 2. When compacted thickness of drainage course is 6 inches (152.4 mm) or less, place materials in a single layer.

3.19 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556. Tests will be performed at the following locations and frequencies:

1. Building Slab and Pavement Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 4,000 sq. ft. of fill area per each foot of vertical thickness placed on the building area and one per 6,000 sq.ft. in the pavement areas, but in no case fewer than three tests.
 2. Trench Backfill: At each compacted initial and final backfill layer, at least one test for each 50 feet (1524 cm) or less of trench length, but no fewer than two tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property, unless instructed otherwise by Owner.

END OF SECTION

**SECTION 02360
TERMITE CONTROL**

PART 1 GENERAL [ADD 002]

1.01 SECTION INCLUDES

- A. Chemical soil treatment.

1.02 REFERENCE STANDARDS

- A. Title 7, United States Code, 136 through 136y - Federal Insecticide, Fungicide and Rodenticide Act; 2022.

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.
- C. Test Reports: Indicate regulatory agency approval reports when required.
- D. Manufacturer's Application Instructions: Indicate caution requirements and
- E. Manufacturer's Certificate: Certify that toxicants meet or exceed specified requirements.
- F. Record moisture content of soil before application.
- G. Maintenance Data: Indicate re-treatment schedule .
- H. Warranty: Submit warranty and ensure that forms have been completed in Owner's name.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing this type of work and:
 - 1. Having minimum of 5 years documented experience.
 - 2. Approved by manufacturer of treatment materials.
 - 3. Licensed in the State in which the Project is located.

1.05 WARRANTY

- A. See Section 01 7700- Closeout Procedures, for additional warranty requirements.
- B. Provide five year installer's warranty against damage to building caused by termites.
 - 1. Include coverage for repairs to building and to contents damaged due to building damage. Repair damage and, if required, re-treat.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Manufacturers:
 - 1. Bayer Environmental Science Corp: www.backedbybayer.com/pest-management.
 - 2. FMC Professional Solutions: www.fmcprosolutions.com/#sle.
 - 3. Syngenta Professional Products: www.syngentaprofessionalproducts.com/#sle.
 - 4. Substitutions: See Section 01 6000 - Product Requirements.
- B. Toxicant Chemical: EPA approved; synthetically color dyed to permit visual identification of treated soil.
- C. Diluent: Recommended by toxicant manufacturer.

2.02 MIXES

- A. Mix toxicant to manufacturer's instructions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.

- B. Verify final grading is complete.

3.02 PREPARATION

- A. General: Comply with the most stringent requirements of authorities having jurisdiction and with manufacturer's written instructions for preparing substrate. Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil and around foundations.
- B. Soil Treatment Preparation: Remove foreign matter and impermeable soil materials that could decrease treatment effectiveness on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and footings. Termiticides may be applied before placing compacted fill under slabs if recommended by termiticide manufacturer.
- C. Fit filling hose connected to water source at the site with a backflow preventer, complying with requirements of authorities having jurisdiction.
- D. Applicator shall mix all treatment from a sealed package on site with the project construction superintendent and Owner Representative in his company during the course of the mixing. Notify Owner and Architect a minimum of 24 hours in advance of mixing.

3.03 APPLICATION

- A. The following rates and location of application may be adjusted for job conditions to provide the cited guarantee. If application adjustment is indicated, advise the Contractor and the Engineer. Application of chemical shall not be in conflict with procedures indicated on the product label or the EPA.
1. Do not begin soil poisoning work until all soil preparations for slab placement and backfill have been completed. Do not apply soil poison when surface water is present.
 2. Under New Slabs: Treat fill under all new concrete floor slabs at the rate of 1-gallon per 10 square feet of area.
 3. New Foundation Walls: Treat each uniformly on both sides of all exterior and interior foundation walls with the solution in a one foot wide strip at the rate of 2-gallons per linear feet of walls. Treat voids in unit masonry at the rate of 1-gallon per linear feet with treatment made at or near the footings.
 4. Below Slab at expansion and control joints, conduit, pipes, etc., apply 2 gal./5lf.
- B. Comply with requirements of U.S. EPA and applicable state and local codes.
- C. Spray apply toxicant in accordance with manufacturer's instructions.
- D. Apply toxicant at following locations:
1. Under Slabs-on-Grade.
 2. At Both Sides of Foundation Surface.
 3. Silt within 10 feet (304.8 cm) of Building Perimeter.
- E. Under slabs, apply toxicant immediately prior to installation of vapor barrier.
- F. At foundation walls, apply toxicant immediately prior to finish grading work outside foundations.
- G. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.
- H. Re-treat disturbed treated soil with same toxicant as original treatment.
- I. If inspection or testing identifies the presence of termites, re-treat soil and re-test.
- J. Re-treat all areas exposed to rain.

3.04 PROTECTION

- A. Do not permit soil grading over treated work.

END OF SECTION

**SECTION 02510
SITE WATER UTILITY DISTRIBUTION PIPING**

PART 1 GENERAL [ADD 002]**1.01 SECTION INCLUDES**

- A. Water pipe.

1.02 RELATED REQUIREMENTS

- A. Section 033000 - Cast-in-Place Concrete: Concrete for thrust restraints.

1.03 REFERENCE STANDARDS

- A. ASTM D1785 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120; 2021a.
- B. ASTM D2466 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40; 2024.
- C. ASTM D2855 - Standard Practice for the Two-Step (Primer and Solvent Cement) Method of Joining Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Piping Components with Tapered Sockets; 2020 (Reapproved 2024).
- D. AWWA C105/A21.5 - Polyethylene Encasement for Ductile-Iron Pipe Systems; 2018.
- E. AWWA C111/A21.11 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings; 2023.
- F. AWWA C600 - Installation of Ductile-Iron Mains and Their Appurtenances; 2023.

1.04 SUBMITTALS

- A. See Section 013300 - Submittal Procedures, for submittal procedures.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves and accessories.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with utility company requirements.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store valves in shipping containers with labeling in place.
- B. Protect crosslinked polyethylene tubing from direct and indirect UV exposure.

PART 2 PRODUCTS**2.01 WATER PIPE**

- A. Ductile Iron Pipe: AWWA C151/A21.51:
 - 1. Fittings: Ductile iron, standard thickness.
 - 2. Joints: AWWA C111/A21.11, Styrene butadiene rubber (SBR) or vulcanized SBR gasket with rods.
 - 3. Jackets: AWWA C105/A21.5 polyethylene jacket.
- B. PVC Pipe: ASTM D1785 Schedule 40.
 - 1. Fittings: ASTM D2466, PVC.
 - 2. Joints: ASTM D2855, solvent weld.

2.02 ACCESSORIES

- A. Concrete for Thrust Restraints: Concrete type specified in Section 033000.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Verify that building service connection and municipal utility water main size, location, and invert are as indicated.

3.02 PREPARATION

- A. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, remove burrs.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare pipe connections to equipment with flanges or unions.

3.03 TRENCHING

- A. See the sections on excavation and fill for additional requirements.
- B. Hand trim excavation for accurate placement of pipe to elevations indicated.
- C. Form and place concrete for pipe thrust restraints at each change of pipe direction. Place concrete to permit full access to pipe and pipe accessories. Provide thrust restraint bearing on subsoil.
- D. Backfill around sides and to top of pipe with cover fill, tamp in place and compact, then complete backfilling.

3.04 INSTALLATION - PIPE

- A. Maintain separation of water main from sewer piping in accordance with code.
- B. Group piping with other site piping work whenever practical.
- C. Install ductile iron piping and fittings to AWWA C600.
- D. Route pipe in straight line.
- E. Install pipe to allow for expansion and contraction without stressing pipe or joints.
- F. Slope water pipe and position drains at low points.

END OF SECTION

**SECTION 02510.1
DISINFECTION OF WATER UTILITY PIPING SYSTEMS**

PART 1 GENERAL [ADD 002]**1.01 SECTION INCLUDES**

- A. Disinfection of site domestic water lines and site fire water lines.

1.02 REFERENCE STANDARDS

- A. AWWA B300 - Hypochlorites; 2024.
- B. AWWA B301 - Liquid Chlorine; 2024.
- C. AWWA B302 - Ammonium Sulfate; 2023.
- D. AWWA B303 - Sodium Chlorite; 2024.
- E. AWWA C651 - Disinfecting Water Mains; 2023.

1.03 SUBMITTALS

- A. See Section 013300 - Administrative Requirements, for submittal procedures.
- B. Test Reports: Indicate results comparative to specified requirements.
- C. Certificate: From authority having jurisdiction indicating approval of water system.
- D. Certificate: Certify that cleanliness of water distribution system meets or exceeds specified requirements.
- E. Disinfection report:
 - 1. Type and form of disinfectant used.
 - 2. Date and time of disinfectant injection start and time of completion.
 - 3. Test locations.
 - 4. Initial and 24 hour disinfectant residuals (quantity in treated water) in ppm for each outlet tested.
 - 5. Date and time of flushing start and completion.
 - 6. Disinfectant residual after flushing in ppm for each outlet tested.
- F. Bacteriological report:
 - 1. Date issued, project name, and testing laboratory name, address, and telephone number.
 - 2. Time and date of water sample collection.
 - 3. Name of person collecting samples.
 - 4. Test locations.
 - 5. Initial and 24 hour disinfectant residuals in ppm for each outlet tested.
 - 6. Coliform bacteria test results for each outlet tested.
 - 7. Certification that water complies, or fails to comply, with bacterial standards of MAWSS.

PART 2 PRODUCTS**2.01 DISINFECTION CHEMICALS**

- A. Chemicals: AWWA B300 Hypochlorite, AWWA B301 Liquid Chlorine, AWWA B302 Ammonium Sulfate, and AWWA B303 Sodium Chlorite.

PART 3 EXECUTION**3.01 DISINFECTION**

- A. Use method prescribed by the applicable state or local codes, or health authority or water purveyor having jurisdiction, or in the absence of any of these follow AWWA C651.
- B. Provide and attach equipment required to perform the work.
- C. Inject treatment disinfectant into piping system.
- D. Maintain disinfectant in system for 24 hours.
- E. Flush, circulate, and clean until required cleanliness is achieved; use municipal domestic water.

- F. Replace permanent system devices removed for disinfection.

END OF SECTION

**SECTION 02530
SANITARY SEWER****PART 1 GENERAL [ADD 002]****1.01 REFERENCE STANDARDS**

- A. ASTM A74 - Standard Specification for Cast Iron Soil Pipe and Fittings; 2026.
- B. ASTM A536 - Standard Specification for Ductile Iron Castings; 2026a.
- C. ASTM A746 - Standard Specification for Ductile Iron Gravity Sewer Pipe; 2018 (Reapproved 2022).
- D. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets; 2021.
- E. ASTM C891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures; 2020.
- F. ASTM D2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications; 2026.
- G. ASTM D3034 - Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2024, with Editorial Revision (2025).
- H. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe; 2014 (Reapproved 2021).
- I. AWWA C600 - Installation of Ductile-Iron Mains and Their Appurtenances; 2023.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.03 SUMMARY

- A. This Section includes sanitary sewerage outside the building.

1.04 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Non-pressure-Piping Pressure Ratings: At least equal to system test pressure.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect pipe, pipe fittings, and seals from dirt and damage.

1.06 PROJECT CONDITIONS

- A. Site Information: Verify existing utility locations.
- B. Locate existing structures and piping to be closed and abandoned.
- C. Comply with requirements of the City of Hanceville Water & Sewer Board; obtain required permits and inspections. Pipe materials specified shall comply with the above agency. Should there be no material requirements from that agency, the general contractor may use any of the materials specified herein.

PART 2 PRODUCTS**2.01 MANUFACTURERS****2.02 PIPES AND FITTINGS**

- A. Ductile-Iron Sewer Pipe: ASTM A746, for push-on joints.
 - 1. Standard-Pattern, Ductile-Iron Fittings: AWWA C110, ductile or gray iron, for push-on joints.
 - 2. Gaskets: AWWA C111, rubber.
 - 3. PVC Sewer Pipe and Fittings: According to the following:
 - a. PVC Sewer Pipe and Fittings, NPS 15 and Smaller: ASTM D3034, SDR 35. for solvent-cemented or gasketed joints.

- 1) Gaskets: ASTM F477, elastomeric seals.

2.03 MANHOLES

- A. Normal-Traffic Precast Concrete Manholes: ASTM C 478, precast, reinforced concrete, or depth indicated, with provision for rubber gasketed joints.
 1. Diameter: 48 inches (1219.2 mm) minimum, unless otherwise indicated.
 2. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.
 3. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
 4. Top Section: Eccentric cone-top type.
 5. Gaskets: ASTM C443, rubber.
 6. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
- B. Cast-in-Place Concrete Manholes: Construct of reinforced-concrete bottom, walls, and top; of depth, shape, dimensions, and appurtenances indicated.
- C. Manhole Frames and Covers: ASTM A536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service. Include 24-inch ID by 7 x 9-inch riser with 4-inch minimum width flange, and 26-inch diameter cover. Include indented top design with lettering "SANITARY SEWER" cast into cover.

2.04 CONCRETE

- A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
 1. Cement: ASTM C 150, type II.
 2. Fine Aggregate: ASTM C 33, sand.
 3. Coarse Aggregate: ASTM C 33, crushed gravel.
 4. Water: Potable.
- B. Portland Cement Design Mix: 3000-psi minimum, with 0.45 maximum water- cementitious materials ratio.
- C. Structure Channels and Benches: Field formed from concrete. Portland cement design mix, 3000-psi minimum. Include channels and benches in manholes.
 1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth uniform radius and slope.
 - a. Invert Slope: 1 percent through manhole.
 2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: 8 percent.

2.05 CLEANOUTS

- A. Gray-Iron Cleanouts: ASME A112.36.2M, round, gray-iron housing with clamping device and round, secured, excoiated, gray-iron cover. Include gray-iron ferrule with inside calk or spigot connection and countersunk, tapered-thread, brass closure plug. Use units with top-loading classifications according to the following applications:
 1. Light Duty: In earth or grass foot-traffic areas.
 2. Medium Duty: In paved foot-traffic areas.
 3. Sewer Pipe Fitting and Riser to Cleanout: ASTM A74, Service class, cast-iron soil pipe and fittings.

2.06 ENCASEMENT PIPE FOR SANITARY SEWER MAINS:

- A. Encasement pipe and installation shall meeting requirements of ALDOT standard specification section 649 and 862 for Type 2 installation.

PART 3 EXECUTION**3.01 EARTHWORK**

- A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork".

3.02 IDENTIFICATION

- A. Materials and their installation are specified in Division 2 Section "Earthwork."
 - 1. Arrange for installing green warning tapes directly over piping.
 - 2. Use warning tape or detectable warning tape over ferrous piping.
 - 3. Use detectable warning tape over nonferrous piping.

3.03 PIPING APPLICATIONS

- A. General: Include watertight joints.

3.04 INSTALLATION, GENERAL

- A. General Locations and Arrangements: Drawings plans and details indicate general location and arrangement of underground sanitary sewerage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
- C. Extend sanitary sewerage piping and connect to building's sanitary drains, of sizes and in locations indicated. Terminate piping as indicated.

3.05 PIPE JOINT CONSTRUCTION AND INSTALLATION

- A. General: Join and install pipe fittings according to installations indicated.
- B. Ductile-Iron Sewer Pipe with Ductile-Iron Fittings: According to AWWA C600.
- C. ABS Pipe and Fittings: As follows:
 - 1. Join pipe and gasketed fittings with gaskets according to ASTM D2321.
 - 2. Install according to ASTM D2321.
- D. PVC Sewer Pipe and Fittings: As follows:
 - 1. Join pipe and gasketed fittings with gaskets according to ASTM D2321.
 - 2. Install according to ASTM D2321.
- E. System Piping Joints: Make joints using system manufacturer's couplings, unless otherwise indicated.
- F. Join piping made of different materials or dimensions with couplings made for this application. Use couplings that are compatible with and that fit both systems' materials and dimensions.
- G. Install with top surfaces of components, except piping, flush with finished surface.

3.06 MANHOLE INSTALLATION

- A. General: Install manholes, complete with appurtenances and accessories installed.
- B. Form continuous concrete channels and benches between inlets and outlets.
- C. Set tops of frames and covers flush with finished surfaces of manholes.
- D. Install precast concrete manhole sections with gaskets according to ASTM C891.
- E. Construct cast-in-place manholes as indicated.

3.07 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318 and ACI 350R.

3.08 CLEANOUT INSTALLATION

- A. Set cleanout frames and covers in earth in cast-in-place concrete block, 18 by 18 by 12 inches (304.8 mm) deep. Set with tops 1 inch (25.4 mm) above surrounding grade.

3.09 TAP CONNECTIONS

- A. Make connections to existing sewer system so finished Work complies as nearly as practical with requirements specified for new Work.
- B. Protect existing piping and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.10 FIELD QUALITY CONTROL

- A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
 - 1. Place plug in end of incomplete piping at end of day when work stops.
 - 2. Flush piping between manholes and other structures to remove collected debris, if required by authorities having jurisdiction.
- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
 - 1. Do not enclose, cover, or put into service before inspection and approval.
 - 2. Test completed piping systems according to authorities having jurisdiction.
 - 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 - 4. Submit separate reports for each test.
 - 5. If authorities having jurisdiction do not have published procedures, perform tests as follows:
 - a. Sanitary Sewerage: Perform hydrostatic test.
 - 1) Allowable leakage is maximum of 50 gal. Per inch of nominal pipe size per mile (4.6 L per millimeter of nominal pipe size per kilometer) of pipe, during 24-hour period.
 - 2) Close openings in system and fill with water.
 - 3) Purge air and refill with water.
 - 4) Disconnect water supply.
 - 5) Test and inspect joints for leaks.
 - (a) Option: Test ductile-iron piping according to AWWA C600, Section

"HYDROSTATIC TESTING." USE TEST PRESSURE OF AT LEAST 10 PSIG (68.95 KPA).

- 1) Sanitary Sewerage: Perform air test according to UNI-B-6 and as required by MAWSS.
- 2) Leaks and loss in test pressure constitute defects that must be repaired.
- 3) Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

END OF SECTION

**SECTION 02630
STORM DRAINAGE****PART 1 GENERAL****1.01 REFERENCE STANDARDS**

- A. ASTM A536 - Standard Specification for Ductile Iron Castings; 2026a.
- B. ASTM C76 - Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe; 2025.
- C. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets; 2021.
- D. ASTM C891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures; 2020.
- E. ASTM C913 - Standard Specification for Precast Concrete Water and Wastewater Structures; 2023.
- F. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe; 2014 (Reapproved 2021).

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.03 PERMITS AND CODES

- A. All new work shall comply with all applicable codes and regulations including the requirements of the County of Mobile.

1.04 SUMMARY

- A. This Section includes storm drainage outside the building.
- B. Related Sections include the following:
 - 1. Division 3 Section "Cast-in-Place Concrete" for concrete structures.

1.05 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Nonpressure-Piping Pressure Ratings: At least equal to system test pressure.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic structures, pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle precast concrete manholes and other structures according to manufacturer's written rigging instructions.

1.07 PROJECT CONDITIONS

- A. Site Information: Verify existing utility locations.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect's written permission.

PART 2 PRODUCTS**2.01 PIPES AND FITTINGS**

- A. General: All pipe shall have class designation cast or imprinted on side.
- B. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C76 Class III, Wall B, for gasketed joints.
 - 1. Gaskets: ASTM C443 rubber.

- C. PVC Sewer Pipe and Fittings: ASTM F949 or F794 (Contech A-2000) with an integral bell gasketed joint per manufacturers recommendation.
- D. Polypropylene Pipe and Fittings
 - 1. HDPE pipe meeting ASTM 2648 for piping less than 12" in diameter.
- E. Corrugated PE pipe and fittings: ASTM F2648 (ADS N-12 HP) pipe shall have a smooth interior and annular exterior corrugations. Pipe shall be joined using bell and spigot joint meeting ASTM F2648 with gaskets meeting ASTM F477 per manufacturer's recommendations. Install in accordance with manufacturer's recommendations.

2.02 MATERIALS

- A. Drainage Castings
 - 1. Castings shall be of gray iron conforming to requirements of ASTM C-48, Class 30, unless specified elsewhere. All frames and covers shall be "medium duty", traffic bearing type. (H-10 Loading).
- B. Drainage Stone
 - 1. Shall be #57 washed concrete gravel with less than 5% passing a #200 sieve.
- C. HDPE Pipe
 - 1. High Density Polyethylene (HDPE)
 - a. Storm sewer pipe shall be ADS N-12 or approved equal. The prescribed sized of pipe or nominal inside diameters. Pipe sizes shall be of the size and length as shown on the plans.
 - 1) The product supplied under this specifications shall be high density polyethylene pipe with a corrugated exterior and smooth interior for 12" to 36:" diameters meeting AASHTO M294-96 (Type S).
 - 2) All material shall meet ASTM D3350 resin cell classification 335420C. Flow calculations shall be based on Mannings "n" value of 0.012.
 - 3) Joints shall consist of a bell and spigot type joint with an O-ring rubber gasket meeting ASTM F477 place on the spigot end. At least two (2) corrugations of the spigot end must insert into the bell end. Pipe fittings shall conform to AASHTO M294 or as designed by the Engineer.
- D. Concrete Pipe
 - 1. All concrete drainage pipe shall be reinforced concrete pipe, Class III, conforming to Sections 530 and 850 ALDOT Specifications. Joints for storm drainage piping shall be factory made compression joints, conforming to ASTM Specification C-443.
- E. PVC Pipe
 - 1. Ribbed PVC Drainage Pipe
 - 2. ULTRARIB PVC Gravity Storm Drain Pipe shall meet the requirements of ASTM F794, and shall be as manufactured by UPONOR ETI Co., or an approved equal.
 - 3. Pipe shall have a smooth interior and manning flow coefficient of not less than 0.012.
 - 4. Pipe shall have an "impact resistance" and a "stiffness" not less than required by AASHTO M304.
 - 5. Joints for ULTRARIB PVC shall be slip on type with a rubber gasket meeting the requirements of ASTM F477.
 - 6. Fittings as manufactured by the UPONOR ETI Co. Shall be used for correcting sections of piping system.

PART 3 EXECUTION

3.01 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.02 INSTALLATION, GENERAL

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
- C. Use manholes for changes in direction, unless fittings are indicated. Use fittings for branch connections, unless direct tap into existing sewer is indicated.
- D. Use proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow piping and connect to building's storm drains, of sizes and in locations indicated. Terminate piping as indicated.

3.03 PIPE JOINT CONSTRUCTION AND INSTALLATION

- A. General: Join and install pipe and fittings according to installations indicated.
- B. Hub-and-Spigot, Cast-Iron Soil Pipe and Fittings: With rubber gaskets according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook." Use gaskets that match class of pipe and fittings.
- C. Install with top surfaces of components, except piping, flush with finished surface.
- D. Concrete Pipe and Fittings: Install according to ACPA's "Concrete Pipe Installation Manual." Use the following seals:
 - 1. Round Pipe and Fittings: ASTM C443 (ASTM C 443M), rubber gaskets.
- E. System Piping Joints: Make joints using system manufacturer's couplings, unless otherwise indicated.
- F. Join piping made of different materials or dimensions with couplings made for this application. Use couplings that are compatible with and that fit both systems' materials and dimensions.

3.04 MANHOLE INSTALLATION

- A. General: Install manholes, complete with appurtenances and accessories indicated.
- B. Form continuous concrete channels and benches between inlets and outlet.
- C. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches (76.2 mm) above finished surface elsewhere, unless otherwise indicated.
- D. Install precast concrete manhole sections with gaskets according to ASTM C891.

3.05 CATCH-BASIN INSTALLATION

- A. Construct catch basins to sizes and shapes indicated.
- B. Set frames and grates to elevations indicated.

3.06 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318 and ACI 350R.

3.07 TAP CONNECTIONS

- A. Make connections to existing underground structures so finished Work complies as nearly as practical with requirements specified for new Work.
- B. Protect existing piping and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.08 FIELD QUALITY CONTROL

- A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
 - 1. Place plug in end of incomplete piping at end of day and when work stops.

2. Flush piping between manholes and other structures to remove collected debris.
- B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches (609.6 mm) of backfill is in place, and again at completion of Project.
 1. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
- C. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
- D. Reinspect and repeat procedure until results are satisfactory.

3.09 TRENCH EXCAVATION, BEDDING AND BACKFILL FOR DRAINS

- A. Trenching - Trenches for drain piping shall proceed along the lines and grades shown on the drawings. Width of trenches at any point below the centerline of the pipe shall not be greater than twelve inches (12"), plus the outside diameter of the pipe. Trench shall be sloped, braced, or sheeted sufficiently to prevent caving in of trench walls. Care shall be taken not to undercut desired bottom of pipe trench. In the event undercutting of the trench occurs, the Contractor shall provide structural backfill to bring trench bottom to its proper grade. Provide all pumping necessary for keeping trenches in a dry condition.
- B. Removal of Unstable Materials - Where wet or otherwise unstable soil, incapable of properly supporting pipe is encountered, such material shall be removed to depth required and replaced to the proper grade with structural fill material, and compacted as provided herein.
- C. Bedding - The bedding surface for the pipe shall provide a firm foundation of uniform density throughout the entire length of the pipe. The pipe shall be bedded carefully in a soil foundation shaped to match the outside diameter of the pipe for a minimum of 25% of the height of the pipe laid flat. All pipe bedding shall be tamped. Bell holes and depressions for joint shall be only of such length, depth and width as required for properly making the particular type of joint.
- D. Backfilling - After pipe has been placed in bedding and the pipe joints have been completed, selected material from excavation or borrow shall be placed along both sides of the pipe in layers not to exceed six inches (6") in depth. The Backfill shall be brought up evenly on both sides of the pipe for its full length, and shall be thoroughly compacted with hand or mechanical tampers. The Backfill and compaction effort shall be repeated to a minimum cover of twelve inches (12") lifts and compacting by hand or mechanical tampers. Trench Backfill shall be compacted to not less than 95% Standard Proctor Density (ASTM D-698).

3.10 PIPE LAYING

- A. Drain Piping shall be carefully laid to lines and grades indicated. Any pipe which is not true in alignment or which shows settlement after laying, shall be taken up and relaid at Contractor's Expense. Interior of pipes shall be kept clear of debris as work progresses. No pipe shall be laid which is cracked, checked, spalled or otherwise damaged or which in any way fails to meet requirements of these specifications and all such rejected pipe shall be immediately and permanently removed from the site. Laying of drain pipe shall be started at outlet ends and proceed up grade.
- B. When a section of drain pipe is installed and prior to backfilling, pipes shall be visually inspected internally by "flashing" with mirrors or by strong spotlight. Any evidence of poor alignment, settlement or leakage shall be corrected by Contractor.
- C. Trench Excavation, Bedding and Backfill:
 1. Trench excavation, bedding and backfill shall be in accordance with paragraph 2.4.

3.11 RCP AND HDPE INSTALLATION

- A. In addition to installing the pipes per the manufacturer's specifications, each pipe joint shall be completely wrapped externally with a non-woven filter fabric. The fabric shall be tightly laid against the pipe and shall extend 2' on either side of joint. The fabric shall be overlapped a minimum of 12", with the seam located at the top of the pipe. The overlapped fabric shall be securely attached to each other by stitching the fabric or epoxy the fabric together. The fabric shall be AMOCO 4506 or approved equal.

3.12 VIDEOTAPING

- A. Prior to project completion, Contractor shall provide Engineer video evidence that all storm drain piping is free from damage, sediment and debris and is in good condition. If video evidence reveals any defects, damage or debris, it will be the responsibility of the Contractor to clean and/or repair pipe at no additional cost.

END OF SECTION

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**SECTION 02700
PAVING****PART 1 GENERAL [ADD 002]****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

- A. Work described in this section includes construction of new asphalt paving for parking areas at locations shown on the plans. Construction work items include a bituminous concrete binder layer, prime coat, tack coat, and bituminous concrete wearing surface. Pavement marking for parking areas is also included in this section. Preformed thermoplastic pavement markings only shall be used for making cross-walks.

1.03 SUBMITTALS

- A. Material Certificates: Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.04 QUALITY ASSURANCE

- A. Codes and Standards: Unless otherwise noted, specifications referred to herein shall be the State of Alabama Department of Transportation Standard Specifications for Highway Construction, 2008 Edition.
- B. Soil Testing: Laboratory and field density tests and other soils tests specified herein shall be performed by an independent soils testing laboratory selected and paid by the Contractor.

1.05 SITE CONDITIONS

- A. Weather Limitations: Construct asphalt concrete binder and surface courses when atmospheric temperature is above 40 degrees Fahrenheit (4.44 degrees Celsius) and rising, and when subgrade is dry. Spreading operations shall be stopped when the air temperature is below 45 degrees Fahrenheit (7.22 degrees Celsius) and falling.
- B. Grade Control: Establish and maintain required lines and elevations.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Subgrade material shall be compacted "Select Structural Fill". Where existing subgrade is found to be "unsuitable" such material shall be removed to a depth of not less than one foot (1') and replaced with soils equal to "Select Structural Fill".
- B. Base Course - Asphalt paved areas shall receive a base course of "Crushed Aggregate" Base course in accordance with Section 825.03B of the ALDOT Standard Specification. Base courses shall be placed and compacted to a minimum thickness as indicated on the contract documents. These base courses shall be placed on a prepared subgrade.
- C. Binder Course shall be "Asphalt Binder Surface" in accordance with Section 429-B of the ALDOT Standard Specifications. Place binder layer to the thickness shown on the plans.
- D. Wearing Surface Pavement - shall be "Asphalt Wearing Surface" in accordance with Sections 429-A of the State of Alabama Highway Department Standard Specifications for highways and bridges. Shall be placed to a thickness shown on plans.
- E. Concrete paving, curbs and sidewalks shall be as indicated on the drawings.
- F. Paint Striping and marking shall be paint (Class I) Reflective (Type A) materials. Traffic marking materials shall meet the material requirements of ALDOT Section 856 and 857. Construction requirements for the striping and markings shall be in accordance with section 701 and section 703 entitled "Traffic Stripe" and "Traffic Control Markings and Legends", respectively.

2.02 CONSTRUCTION REQUIREMENTS

- A. Construction requirements, including placement methods and compaction shall conform to the requirements of Section 410 of the ALDOT Standard Specifications.

PART 3 EXECUTION**3.01 PRIME COAT**

- A. Description: The work covers the furnishing and placing of a bituminous prime coat on a compacted crushed aggregate base course which is to be covered by a bituminous binder layer.
- B. Construction Methods: Requirements are specified in section 401 of the Alabama
 - 1. D.O.T. Standard Specifications for Highway Construction.

3.02 PLANT MIX BITUMINOUS CONCRETE BINDER LAYER

- A. Description: The work consists of constructing a layer, composed of an aggregate and bituminous material hot mixed in a central plant and hot laid on the compacted base in accordance with these specifications and at locations shown on the drawings.
- B. Construction Methods: Details and requirements for construction are specified in Section 424, which refers also to Articles 410.03 through 410.07 of the Alabama
 - 1. D.O.T. Specifications.
- C. Compaction shall be as specified in Subarticle 410.03 (g) of the Alabama D.O.T. Specifications. At least three compaction tests will be required for each day of paving operations to determine that density requirements have been attained.

3.03 TACK COAT

- A. Description: The work covers the furnishing and placing of a bituminous tack coat on a new bituminous concrete binder layer which is to be covered by a bituminous concrete wearing surface or on an existing asphalt surface to receive a new bituminous concrete overlay.
- B. Construction Methods: Requirements are specified in Section 405 of the Alabama
 - 1. D.O.T. Standard Specifications for Highway Construction

3.04 BITUMINOUS CONCRETE WEARING SURFACE

- A. Description: The work consists of constructing a hot bituminous concrete wearing surface on the previously constructed plant mix bituminous concrete binder layer in accordance with these specifications at locations shown on the drawings. See details.
- B. Construction Methods: Requirements shall be the same as specified in Section 424 which also refers to Article 410.03 through 410.07 of the Alabama D.O.T. Specifications.
- C. Compaction shall be as specified in Subarticle 410.03(g) of the Alabama D.O.T. Specifications. At least three compaction tests will be required for each day of paving operations to determine that density requirements have been attained.

3.05 PAVEMENT MARKINGS

- A. Application: All surfaces to be painted shall be swept clean of dirt and dust, washed with water if so directed by the Architect, and shall be dry and free from "bleeding asphalt". Paint may be applied by brush or mechanical marking equipment. Marking shall conform to the layout and dimensions shown on the drawings. Stripe shall be
 - 1. painted with one coat of paint with a rate of application of not more than 100 sq feet (0.10764 sq cm) per gallon.

3.06 PREFORMED THERMOPLASTIC MARKINGS

- A. Use: A durable, retroreflective preformed thermoplastic pavement marking material suitable for use as roadway, intersection, commercial, or private pavement delineation and markings. Crosswalk markings shall be with preformed thermoplastic pavement markings only.
 - 1. The markings must be a resilient white color thermoplastic product with uniformly distributed glass beads throughout the entire cross sectional area. The markings must be

resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, antifreeze, etc. Lines, legends, and symbols are capable of being affixed to bituminous and/or portland cement concrete pavements by the use of the normal heat of a propane torch.

2. The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

3.07 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing and inspection agency to sample materials, perform tests, and submit test reports. Sampling and testing for quality control may include those specified in this Article.
- B. General: Test in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness. Repair or remove and replace unacceptable paving as directed by Architect.
- C. Thickness: In-place compacted thickness will not be acceptable if exceeding following allowable variation from required thickness:
 1. Binder Course: $\frac{1}{2}$ ", plus or minus.
 2. Surface Course: $\frac{1}{4}$ ", plus or minus.
- D. Surface Smoothness: Test finished surface of each asphalt concrete course for smoothness, using 10' straightedge applied parallel with, and at right angles to centerline of paved area. Surfaces will not be acceptable if exceeding the following tolerances for smoothness.
 1. Binder Course Surface: $\frac{1}{4}$ "
 2. Wearing Course Surface: $\frac{3}{16}$ "
 3. Check surface areas at intervals as directed by Architect.

END OF SECTION

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**SECTION 02920
SODDING****PART 1 GENERAL [ADD 002]****1.01 SECTION INCLUDES**

- A. Preparation of subsoil.
- B. Fertilizing.
- C. Sod installation.
- D. Maintenance.

1.02 DEFINITIONS

- A. Weeds: Includes Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.03 SUBMITTALS

- A. See Section 013300 - Submittal Procedures, for submittal procedures.
- B. Certificate: Certify grass species and location of sod source.
- C. Certificate: Certify fertilizer and herbicide mixture approval by authority having jurisdiction.
- D. Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer .

1.04 QUALITY ASSURANCE

- A. Sod Producer: Company specializing in sod production and harvesting with minimum five years experience, and certified by the State of Alabama.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sod on pallets. Protect exposed roots from dehydration.
- B. Do not deliver more sod than can be laid within 24 hours.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Topsoil
 - 1. The Contractor shall place topsoil over the area to be grassed or landscaped. Topsoil shall be the best available soils from the stockpile on the project site. Material shall be free from roots or other materials which may be harmful to plant growth. The areas to receive topsoil shall first be brought to approximate grade and line and shall be approved prior to commencement of the top soiling operations. Where insufficient topsoil is not available provide an approved topsoil from off-site. Topsoil shall be 2 inch minimum thickness.
- B. Solid Sod
 - 1. Provide strongly rooted sod, inspected and found free of diseases, not less than two (2) years old and free of weeds and undesirable native grasses.
 - a. Provide only sod capable of growth and development when planted (viable, not dormant).
 - b. Sod shall be machine cut at a uniform minimum soil thickness of 5/8" at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Thatch shall be a maximum of 1/2", uncompressed.
 - c. Individual pieces of sod shall be cut to the supplier's standard width and length. Broken pads, torn pads, or pads with uneven ends shall not be acceptable.
 - d. Provide Certified Tifts - Bermuda Tiftway 419 Sod.
- C. Seed

1. All seed used shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of Invitation for Bids. All seed shall be furnished in sealed standard containers, unless exception is granted in writing by the Engineer. Seed which have become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable. Seed shall conform to the requirements of Federal Specification JJJ-S-181. Type of seed shall be at a rate of 30 lbs. per acre, unhulled. All areas to receive seed shall be "hydro" seeded and mulched as defined in ALDOT Section 658.
- D. Lime
 1. Lime shall be ground agricultural lime-stone containing not less than 85% of total carbonates and shall be ground to such fineness that at least 50% will pass through a 100-mesh sieve and at least 90% will pass through a 20-mesh sieve. Coarser material will be acceptable provided the specified rate of application are increased proportionately, on the basis of quantities passing the 100-mesh sieve, but no additional payment will be made for the increased quantity. Apply loose at the rate of 2000 lbs. per acre.
- E. Water
 1. Water shall be free from oil, acid, alkali, salt and other substances harmful to growth of grass. The source shall be subject to the approval of the Engineer prior to use.
- F. Fertilizer
 1. Initial Application of fertilizer shall be 13-13-13, uniform in composition, free-flowing and suitable for application with approved equipment, delivered to the site in bags or other convenient containers, each fully labeled, conforming to the applicable State Fertilizer Laws, and bearing the name, trade name or trademark, and warranty of the producer. Apply fertilizer at the rate of 400 lbs. per acre.
- G. Water and maintain sod areas until completion of the project.
- H. Maintenance shall include grass mowing to maintain the grass at a height not greater than 1-1/2 inches. Water the grass by use of portable sprinklers to maintain a 1 inch minimum to a 2 inch maximum precipitation per week.
- I. Erosion Control netting shall be North American Green, S75BN, natural fiber netting, with approximated life span of 10 months. Netting shall be installed per manufacturer's written recommendations.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that prepared soil base is ready to receive the work of this section.

3.02 FERTILIZING

- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after smooth raking of topsoil and prior to installation of sod.
- C. Apply fertilizer no more than 48 hours before laying sod.
- D. Mix thoroughly into upper 2 inches (50 mm) of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

3.03 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod immediately after delivery to site to prevent deterioration.
- C. Lay sod smooth and tight with no open joints visible, and no overlapping; stagger end joints 12 inches (300 mm) minimum. Do not stretch or overlap sod pieces.
- D. Where new sod adjoins existing grass areas, align top surfaces.
- E. Where sod is placed adjacent to hard surfaces, such as curbs, pavements, etc., place top elevation of sod 1/2 inch (13 mm) below top of hard surface.

- F. On slopes 6 inches per foot (500 mm per m) and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet (600 mm) on center. Drive pegs flush with soil portion of sod.
- G. Prior to placing sod, on slopes exceeding 8 inches per foot (666 mm per m) or where indicated, place wire mesh over topsoil. Securely anchor in place with wood pegs sunk firmly into the ground.
- H. Water sodded areas immediately after installation. Saturate sod to 4 inches (100 mm) of soil.
- I. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities.

3.04 CLEANING

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.

3.05 MAINTENANCE

- A. See Section 017000 - Execution and Closeout Requirements, for additional requirements relating to maintenance service.
- B. Until the site has achieved Substantial Completion, mow grass at regular intervals to maintain at a maximum height of 2-1/2 inches (65 mm). Do not cut more than 1/3 of grass blade at any one mowing.
 - 1. Neatly trim edges and hand clip where necessary.
 - 2. Immediately remove clippings after mowing and trimming.
 - 3. Water to prevent grass and soil from drying out.
 - 4. Roll surface to remove irregularities.
 - 5. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions. Remedy damage resulting from improper use of herbicides.
 - 6. Immediately replace sod to areas that show deterioration or bare spots.
 - 7. Protect sodded areas with warning signs during maintenance period.

END OF SECTION

SECTION 055213 - PIPE AND TUBE RAILINGS [ADD 02]

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Steel pipe railings.
 - a. Includes removable section railing

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails:
 - a. Uniform load of 50 lbf/ ft. (0.73 kN/m) applied in any direction.
 - b. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
- B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to the following:
 - 1. AWS D1.2, "Structural Welding Code--Aluminum."

1.6 COORDINATION AND SCHEDULING

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails, unless otherwise indicated.

2.2 STEEL AND IRON

- A. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
- B. Plates, Shapes, and Bars: ASTM A 36/A 36M.
- C. Castings: Either gray or malleable iron, unless otherwise indicated.
 - 1. Gray Iron: ASTM A 48/A 48M, Class 30, unless another class is indicated or required by structural loads.
 - 2. Malleable Iron: ASTM A 47/A 47M.

2.3 FASTENERS

- A. General: Provide the following:
 - 1. Steel Railings: Plated steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
- B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.
- C. Anchors: Provide cast-in-place anchors, fabricated from corrosion-resistant materials with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

2.4 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
 - 1. For aluminum railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.
- B. Shop Primers: Provide primers that comply with Division 9 painting Sections.
- C. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.
 - 1. Water-Resistant Product: At exterior locations provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.5 FABRICATION

- A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.
- B. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm), unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with welded, if steel, and nonwelded, if aluminum, connections, unless otherwise indicated.
- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.
 - 4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- I. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
 - 1. Fabricate splice joints for field connection using an epoxy structural adhesive if this is manufacturer's standard splicing method.
- J. Form changes in direction as follows:
 - 1. By radius bends of radius indicated.
- K. Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- L. Close exposed ends of railing members with prefabricated end fittings.
- M. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work, unless otherwise indicated.

1. At brackets and fittings fastened to plaster or gypsum board partitions, provide fillers made from crush-resistant material, or other means to transfer wall loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.
- N. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.
- O. Removable Railings:
 1. Where indicated, provide mounting flanges for removable sections of railings, equal to:
 - a. Edge Fall Protection, LLC, face-mounted edge brackets.
 - 1) www.EDGEfallprotection.com, 844-314-1374
 - b. Position in the field, provide proper attachment to mounting edges.
 - c. Finish to match railings.

2.6 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

2.7 STEEL AND IRON FINISHES

- A. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications and environmental exposure conditions of installed railings:
 1. Interior Railings (SSPC Zone 1A): SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
- B. Apply shop primer to prepared surfaces of railings, unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine plaster and gypsum board assemblies, where reinforced to receive anchors, to verify that locations of concealed reinforcements have been clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL

- A. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1 m).
 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet (5 mm in 3 m).
- B. Corrosion Protection: Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- C. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.3 RAILING CONNECTIONS

- A. Welded Connections at steel: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in Part 2 "Fabrication" Article whether welding is performed in the shop or in the field.

3.4 ANCHORING POSTS

- A. Form or core-drill holes not less than 5 inches (125 mm) deep and 3/4 inch (20 mm) larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.
- B. Leave anchorage joint exposed; wipe off surplus anchoring material; and leave 1/8-inch (3-mm) buildup, sloped away from post.

3.5 ATTACHING HANDRAILS TO WALLS

- A. Attach handrails to wall with wall brackets. Provide brackets with 1-1/2-inch (38-mm) clearance from inside face of handrail and finished wall surface.
 - 1. At steel handrails: Use type of bracket with predrilled hole for exposed bolt anchorage.
- B. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
- C. Secure wall brackets to building construction as follows:
 - 1. For hollow masonry anchorage, use toggle bolts.
 - 2. For steel-framed gypsum board partitions, use hanger or lag bolts set into wood backing between studs. Coordinate with stud installation to locate backing members.

3.6 ADJUSTING AND CLEANING

- A. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Division 9 painting Sections.

3.7 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

END OF SECTION 055213

SECTION 072410 – DIRECT APPLIED EXTERIOR FINISH SYSTEM (DEFS) [ADD 02]

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior soffits and ceiling surfaces with associated substrate waterproofing, joints & trim

1.3 DEFINITIONS

- A. Definitions in ASTM E 2110 apply to Work of this Section.
- B. DEFS: DIRECT-APPLIED EXTERIOR FINISH SYSTEM.

1.4 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

- A. Product Data: For each component, trim, and accessory.
- B. Samples for Initial Selection: For each type of finish-coat color and texture indicated.
 - 1. Include similar Samples of exposed accessories involving color selection.
- C. Samples for Verification: 24-inch-(600-mm)-square panels for each type of finish-coat color and texture indicated, prepared using same tools and techniques intended for actual work including custom trim, each profile,.
 - 1. Include exposed trim and accessory Samples to verify color selected.
 - 2. Include a typical control joint filled with sealant of color selected, as specified in Section 079200 "Joint Sealants."

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Manufacturer Certificates: Signed by DEFS manufacturer certifying the following:
 - 1. DEFS substrate is acceptable to DEFS manufacturer.
 - 2. Accessory products installed with DEFS, including joint sealants, whether or not furnished by DEFS manufacturer and whether or not specified in this Section, are acceptable to DEFS manufacturer.
- C. Product Test Reports: For each DEFS assembly and component, for tests performed by a qualified testing agency.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For DEFS to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An installer certified in writing by DEFS manufacturer as qualified to install manufacturer's system using trained workers.
- B. Fabricator/Erector Qualifications: Certified in writing by DEFS manufacturer as qualified to fabricate and erect manufacturer's prefabricated panel system using skilled and trained workers.
- C. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, to set quality standards for materials and execution, and to set quality standards for fabrication and installation.

1. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original, unopened packages with manufacturers' labels intact and clearly identifying products.
- B. Store materials inside and under cover; keep them dry and protected from weather, direct sunlight, surface contamination, aging, corrosion, damaging temperatures, construction traffic, and other causes.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Maintain ambient temperatures above 40 deg F (4.4 deg C) for a minimum of 24 hours before, during, and after adhesives or coatings are applied. Do not apply adhesives or coatings during rainfall. Proceed with installation only when existing and forecasted weather conditions and ambient outdoor air, humidity, and substrate temperatures permit DEFS to be applied, dried, and cured according to manufacturers' written instructions and warranty requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. DEFS Finish System:
 - a. Sto Corp.
 - b. Equal Mfgs

2.2 MATERIALS

- A. Compatibility: Provide substrates, water-/weather-resistive barriers, adhesive, fasteners, board insulation, reinforcing meshes, base- and finish-coat systems, sealants, and accessories that are compatible with one another and approved for use by DEFS manufacturer for Project.
- B. Colors, Textures, and Patterns of Finish Coat: As selected by Architect from manufacturer's full range.
- C. Water-/Weather-Resistive Barrier: Provide the following:
 1. Water-/Weather-Resistive-Barrier Coating: DEFS manufacturer's standard formulation and accessories designed for indicated use, compatible with substrate, and complying with performance requirements indicated.
 - a. Sheathing Joint Tape: Type recommended by DEFS manufacturer for sealing joints between and penetrations through sheathing.
- D. Flexible-Membrane Flashing: Cold-applied, fully self-adhering, self-healing, rubberized-asphalt and polyethylene-film composite sheet or tape and primer; DEFS manufacturer's standard or product recommended in writing by DEFS manufacturer.
- E. Reinforcing Mesh: Balanced, alkali-resistant, open-weave glass-fiber mesh treated for compatibility with other DEFS materials, made from continuous multiend strands with retained mesh tensile strength of not less than 120 lbf/in. (21 dN/cm) per EIMA 105.01, complying with ASTM D 578 and the following requirements for minimum weight:
 1. Standard-Impact Reinforcing Mesh: Not less than 4.0 oz./sq. yd. (136 g/sq. m).
 2. Strip Reinforcing Mesh: Not less than 3.75 oz./sq. yd. (127 g/sq. m).
 3. Detail Reinforcing Mesh: Not less than 4.0 oz./sq. yd. (136 g/sq. m).
 4. Corner Reinforcing Mesh: Not less than 7.2 oz./sq. yd. (244 g/sq. m).
- F. Base-Coat Materials: DEFS manufacturer's standard mixture complying with the following requirements for material composition and method of combining materials:
 1. Factory-mixed noncementitious formulation of polymer-emulsion adhesive and inert fillers that is ready to use without adding other materials.
- G. Waterproof Adhesive/Base-Coat Materials: DEFS manufacturer's standard waterproof mixture complying with the following requirements for material composition and method of combining materials:
 1. Job-combined formulation of manufacturer's standard polymer-emulsion adhesive and manufacturer's standard dry mix containing portland cement.

- H. Finish-Coat Materials: DEFS manufacturer's standard acrylic-based coating with enhanced mildew resistance complying with the following requirements for material composition and method of combining materials:
 - 1. Factory-mixed formulation of polymer-emulsion binder, colorfast mineral pigments, and fillers used with stone particles for embedding in finish coat to produce an applied-aggregate finish.
 - 2. Sealer: Manufacturer's waterproof, clear acrylic-based sealer for protecting finish coat.
- I. Water: Potable.
- J. Mechanical Fasteners: DEFS manufacturer's standard corrosion-resistant fasteners consisting of thermal cap, standard washer and shaft attachments, and fastener indicated below; selected for properties of pullout, tensile, and shear strength required to resist design loads of application indicated; capable of pulling fastener head below surface of insulation board; and of the following description:
 - 1. For attachment, provide manufacturer's standard fasteners suitable for substrate.
- K. Trim Accessories: Type as designated or required to suit conditions indicated and to comply with DEFS manufacturer's written requirements; manufactured from UV-stabilized PVC; and complying with ASTM D 1784, manufacturer's standard Cell Class for use intended, and ASTM C 1063.
 - 1. Casing Bead: Prefabricated one-piece type for attachment behind insulation, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
 - 2. Drip Screed/Track: Prefabricated one-piece type for attachment behind insulation with face leg extended to form a drip, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
 - 3. Weep Screed/Track: Prefabricated one-piece type for attachment behind insulation with perforated face leg extended to form a drip and weep holes in track bottom, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg; designed to drain incidental moisture that gets into wall construction to the exterior at terminations of DEFS with drainage.
 - 4. Expansion Joint: Prefabricated one-piece V profile; designed to relieve stress of movement.

2.3 ELASTOMERIC SEALANTS

- A. Elastomeric Sealant Products: Provide DEFS manufacturer's listed and recommended chemically curing, elastomeric sealant that is compatible with joint fillers, joint substrates, and other related materials, and complies with requirements for products and testing indicated in EIMA's "EIMA Guide for Use of Sealants with Exterior Insulation and Finish Systems, Class PB" and with requirements in Division 7 Section "Joint Sealants" for products corresponding to description indicated below:
 - 1. Low-modulus, multicomponent, nonsag urethane sealant.
- B. Preformed Foam Sealant Products: Provide sealant compatible with adjacent materials and complying with requirements in Division 7 Section "Joint Sealants."
- C. Sealant Color: As selected by Architect from manufacturer's full range.

2.4 MIXING

- A. General: Comply with DEFS manufacturer's requirements for combining and mixing materials. Do not introduce admixtures, water, or other materials except as recommended by DEFS manufacturer. Mix materials in clean containers. Use materials within time period specified by DEFS manufacturer or discard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of DEFS.
- B. Examine roof edges, wall framing, flashings, openings, substrates, and junctures at other construction for suitable conditions where DEFS will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect contiguous work from moisture deterioration and soiling caused by application of DEFS. Provide temporary covering and other protection needed to prevent spattering of exterior finish coats on other work.
- B. Protect DEFS, substrates, and wall construction behind them from inclement weather during installation. Prevent penetration of moisture behind drainage plane of DEFS and deterioration of substrates.
- C. Prepare and clean substrates to comply with manufacturer's written requirements to obtain optimum bond between substrate and adhesive for insulation.

- D. Water-/Weather-Resistive-Barrier Coating: Apply over substrates to protect substrates from degradation and to provide water-/weather-resistive barrier.
 - 1. Tape and seal joints, exposed edges, terminations, and inside and outside corners of sheathing, unless otherwise indicated by DEFS manufacturer's written instructions. Coordinate with membrane air barrier installation
- E. Flexible-Membrane Flashing: Install over weather-resistive barrier, applied and lapped to shed water; seal at openings, penetrations, terminations, and where indicated by DEFS manufacturer's written instructions to protect wall assembly from degradation. Prime substrates, if required, and install flashing to comply with DEFS manufacturer's written instructions and details.

3.3 DEFS INSTALLATION

- A. General: Comply with ASTM C 1397 and DEFS manufacturer's written instructions for installation of DEFS as applicable to each type of substrate indicated.
- B. Trim: Apply trim accessories at perimeter of DEFS, at expansion joints, and elsewhere as indicated, according to DEFS manufacturer's written instructions. Coordinate with installation of insulation.
 - 1. Drip Screed/Track: Use at bottom edges of DEFS, unless otherwise indicated.
 - 2. Weep Screed/Track: Use at bottom termination edges, at window and door heads of DEFS with drainage, unless otherwise indicated.
 - 3. Expansion Joint: Use where indicated on Drawings.
 - 4. Casing Bead: Use at other locations.
- C. Expansion Joints: Install at locations indicated, where required by DEFS manufacturer, and as follows:
 - 1. Where expansion joints are indicated in substrates behind DEFS.
 - 2. Where DEFS adjoin dissimilar substrates, materials, and construction.
 - 3. Where wall height changes.
- D. Base Coat: Apply to exposed surfaces of insulation in minimum thickness recommended in writing by DEFS manufacturer, but not less than 1/16-inch (1.6-mm) dry-coat thickness.
- E. Reinforcing Mesh: Embed type indicated below in wet base coat to produce wrinkle-free installation with mesh continuous at corners and overlapped not less than 2-1/2 inches (64 mm) or otherwise treated at joints to comply with ASTM C 1397 and manufacturer's written requirements. Do not lap reinforcing mesh within 8 inches (204 mm) of corners. Completely embed mesh, applying additional base-coat material if necessary, so reinforcing-mesh color and pattern are not visible.
 - 1. Standard-impact reinforcing mesh.
- F. Additional Reinforcing Mesh: Apply strip reinforcing mesh around openings extending 4 inches (100 mm) beyond perimeter. Apply additional 9-by-12-inch (230-by-300-mm) strip reinforcing mesh diagonally at corners of openings (re-entrant corners). Apply 8-inch- (200-mm-) wide strip reinforcing mesh at both inside and outside corners unless base layer of mesh is lapped not less than 4 inches (100 mm) on each side of corners.
 - 1. At aesthetic reveals, apply strip reinforcing mesh not less than 8 inches (200 mm) wide.
 - 2. Embed strip reinforcing mesh in base coat before applying first layer of reinforcing mesh.
- G. Shapes: Fully embed reinforcing mesh in base coat.
- H. Double Base-Coat Application: Where indicated, apply second base coat in same manner and thickness as first application except without reinforcing mesh. Do not apply until first base coat has cured.
- I. Primer: Apply over dry base coat according to DEFS manufacturer's written instructions.
- J. Finish Coat: Apply over dry primer, maintaining a wet edge at all times for uniform appearance, in thickness required by DEFS manufacturer to produce a uniform finish of color and texture matching approved sample and free of cold joints, shadow lines, and texture variations.
- K. Sealer Coat: Apply over dry finish coat, in number of coats and thickness required by DEFS manufacturer.

3.4 INSTALLATION OF JOINT SEALANTS

- A. Prepare joints and apply sealants, of type and at locations indicated, to comply with applicable requirements in Division 7 Section "Joint Sealants" and in EIMA's "EIMA Guide for Use of Sealants with Exterior Insulation and Finish Systems, Class PB."
 - 1. Clean surfaces to receive sealants to comply with indicated requirements and DEFS manufacturer's written instructions.
 - 2. Apply primer recommended in writing by sealant manufacturer for surfaces to be sealed.
 - 3. Install sealant backing to control depth and configuration of sealant joint and to prevent sealant from adhering to back of joint.

4. Apply masking tape to protect areas adjacent to sealant joints. Remove tape immediately after tooling joints, without disturbing joint seal.
5. Apply joint sealants after base coat has cured but before applying finish coat.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Remove and replace DEFS where test results indicate that DEFS do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, shall be performed to determine compliance of re-placed or additional work with specified requirements.

3.6 CLEANING AND PROTECTION

- A. Remove temporary covering and protection of other work. Promptly remove coating materials from window and door frames and other surfaces outside areas indicated to receive DEFS coatings.
- B. Provide final protection and maintain conditions, in a manner acceptable to Installer and DEFS manufacturer, that ensure that DEFS are without damage or deterioration at time of Substantial Completion.

END OF SECTION 072413

SECTION 323113 - CHAIN-LINK FENCES AND GATES [ADD 02]

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Chain-link fences.
 - 2. Coated Chain-link Infill Panels
- B. Related Sections:
 - 1. Division 3 Section " Cast-in-Place Concrete for Sitework" for cast-in-place concrete post footings.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Chain-link fence and gate framework shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to ASCE/SEI 7:
 - 1. Minimum Post Size: Determine according to ASTM F 1043 for framework for the height indicated, and post spacing not to exceed 10 feet for fabric.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated, Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.
 - 1. Fence and gate posts, rails, and fittings.
 - 2. Chain-link fabric, reinforcements, and attachments.
 - 3. Accessories: Privacy slats.
 - 4. Gates and hardware.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.
- C. Samples for Initial Selection: For components with factory-applied color finishes.
- D. Samples for Verification: Prepared on Samples of size indicated below:
 - 1. Polymer-Coated Components: In 6-inch (150-mm) lengths for components and on full-sized units for accessories.
- E. Qualification Data: For qualified factory-authorized service representative.
- F. Product Certificates: For each type of chain-link fence, and gate, from manufacturer.
- G. Product Test Reports: For framing strength according to ASTM F 1043.
- H. Field quality-control reports.
- I. Operation and Maintenance Data: For the following to include in emergency, operation, and maintenance manuals:
 - 1. Polymer finishes.
 - 2. Gate hardware.
- J. Warranty: Sample of special warranty.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS**2.1 CHAIN-LINK FENCE FABRIC**

- A. General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:
 - 1. Fabric Height: See Schedule in Paragraph 3.9.
 - 2. Steel Wire Fabric: Wire with a diameter of 0.192 inch (4.88 mm).
 - a. Mesh Size: 2-1/8 inches (54 mm).
 - b. Polymer-Coated Fabric: ASTM F 668, Class 1 over-coated steel wire.
 - 1) Color: Black.
 - c. Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.
 - 3. Selvage: Knuckled at both selvages.

2.2 FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 based on the following:
 - 1. Fence Height: **as** indicated on Drawings. Retain one of first two subparagraphs below. Delete both if Contractor determines strength, material group, and dimensions of posts according to "Performance Requirements" Article.
 - 2. Heavy Industrial Strength: Material Group IA, round steel pipe, Schedule 40.
 - a. Line Post: 2.375 inches (60 mm) in diameter.
 - b. End, Corner and Pull Post: 2.375 inches (60 mm) in diameter.
 - 3. Horizontal Framework Members: Intermediate top and bottom rails complying with ASTM F 1043.
 - a. Top & Bottom Rails: 1.66 inches (42 mm) in diameter. Match side diameter when constructed in panels.
 - 4. Brace Rails: Comply with ASTM F 1043.
 - 5. Metallic Coating for Steel Framing:
 - a. Type A, consisting of not less than minimum 2.0-oz./sq. ft. (0.61-kg/sq. m) average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. (1.22-kg/sq. m) zinc coating per ASTM A 653/A 653M.
 - b. Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film.
 - c. External, Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film. Internal, Type D, consisting of 81 percent, not less than 0.3-mil- (0.0076-mm-) thick, zinc-pigmented coating.
 - d. Type C, Zn-5-Al-MM alloy, consisting of not less than 1.8-oz./sq. ft. (0.55-kg/sq. m) coating.
 - e. Coatings: Any coating above.
 - 6. Polymer coating over metallic coating.
 - a. Color: Black, complying with ASTM F 934.

2.3 FITTINGS

- A. General: Comply with ASTM F 626.
- B. Post Caps: Provide for each post.
 - 1. Provide line post caps with loop to receive tension wire or top rail.
- C. Rail and Brace Ends: For each gate, corner, pull, and end post.
- D. Rail Fittings: Provide the following:
 - 1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches (152 mm) long.
 - 2. Rail Clamps: Line and corner boulevard clamps for connecting intermediate and bottom rails in the fence line-to-line posts.
- E. Tension and Brace Bands: Pressed steel.
- F. Tension Bars: Steel, length not less than 2 inches (50 mm) shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.
- G. Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.
- H. Tie Wires, Clips, and Fasteners: According to ASTM F 626.

1. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:
 - a. Hot-Dip Galvanized Steel: 0.148-inch- (3.76-mm-) diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.
- I. Finish:
 1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. (366 g /sq. m) zinc.
 - a. Polymer coating over metallic coating.

2.4 SWING GATES

- A. General: ASTM F900 for gate posts and single swing gate types.
 1. Gate Leaf Width: As indicated.
 2. Framework Member Sizes and Strength: Based on gate fabric height of more than 72 inches (1830 mm).
- B. Pipe and Tubing:
 1. Zinc-Coated Steel: ASTM F1043 and ASTM F1083; protective coating and finish to match fence framework.
 2. Gate Posts: Round tubular steel.
 3. Gate Frames and Bracing: Round tubular steel.
- C. Frame Corner Construction: assembled with corner fittings.
- D. Hardware:
 1. Hinges: 180-degree inward swing.
 2. Latch: Permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate.

2.5 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

2.6 FENCE CAP

- A. Corrugated 4.5" diameter polyethylene tubing
 1. Color: As selected by Architect from Standard Colors
 2. Location: Adjacent to all fields of play.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
 1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152.5 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.3 INSTALLATION, GENERAL

- A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.
 1. Install fencing on established boundary lines inside property line.

3.4 CHAIN-LINK FENCE INSTALLATION

- A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- B. Post Setting: Set posts in concrete with mechanical anchors at indicated spacing.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
- C. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 15 degrees or more.
- D. Line Posts: Space line posts uniformly at 120 inches (2440 mm) o.c. maximum unless otherwise noted on the drawings.
- E. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.
 1. Locate horizontal braces at mid-height of fabric 72 inches (1830 mm) or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.
- F. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- G. Intermediate and Bottom Rails: Install and secure to posts with fittings.
- H. Panels: Where indicated as infill panels: Construct with equal dimension tube framing with welded connections. Mount fabric inside of framing with stretcher bars at four sides. All fastener heads to be oriented toward the exterior. All material with coated finish.
- I. Chain-Link Fabric: Where indicated as fencing: Apply fabric to outside of enclosing framework. Leave 1 inch (25.4 mm) between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- J. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches (380 mm) o.c.
- K. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
 1. Maximum Spacing: Tie fabric to line posts at 12 inches (300 mm) o.c. and to braces at 24 inches (610 mm) o.c.
- L. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.5 GROUNDING AND BONDING

- A. Fence Grounding: Install at maximum intervals of 1500 feet (450 m) except as follows:
 1. Fences within 100 Feet (30 m) of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet (225 m).
 - a. Gates and Other Fence Openings: Ground fence on each side of opening.
 - 1) Bond metal gates to gate posts.
 - 2) Bond across openings, with and without gates, except openings indicated as intentional fence discontinuities. Use No. 2 AWG wire and bury it at least 18 inches (460 mm) below finished grade.
- B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a maximum distance of 150 feet (45 m) on each side of crossing.
- C. Fences Enclosing Electrical Power Distribution Equipment: Ground as required by IEEE C2 unless otherwise indicated.
- D. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches (150 mm) below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location, including the following:
 1. Make grounding connections to each barbed wire strand with wire-to-wire connectors designed for this purpose.
 2. Make grounding connections to each barbed tape coil with connectors designed for this purpose.
- E. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.
- F. Connections: Make connections to minimize possibility of galvanic action or electrolysis. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
 1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
 2. Make connections with clean, bare metal at points of contact.
 3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.

4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.
- G. Bonding to Lightning Protection System: If fence terminates at lightning-protected building or structure, ground the fence and bond the fence grounding conductor to lightning protection down conductor or lightning protection grounding conductor complying with NFPA 780.

3.6 FIELD QUALITY CONTROL

- A. Grounding-Resistance Testing: Engage a qualified testing agency to perform tests and inspections.
 1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance no fewer than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural grounding resistance. Perform tests by two-point method according to IEEE 81.
 2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.
 3. Report: Prepare test reports certified by a testing agency of grounding resistance at each test location. Include observations of weather and other phenomena that may affect test results.

3.7 ADJUSTING

- A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- B. Lubricate hardware and other moving parts.

3.8 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain chain-link fences and gates.

END OF SECTION 323113

1. BOUNDARY & TOPOGRAPHIC DATA TAKEN FROM SURVEY PREPARED BY CLARK, GREG, LATHAM & ASSOCIATES, INC.
2. CONTRACTOR TO NOTIFY ALL UNDERGROUND UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION EXCAVATION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA, FEDERAL, STATE AND LOCAL CODES.
3. CONTRACTOR TO COMPLY WITH EROSION CONTROL STANDARDS AS SPECIFIED BY CITY, COUNTY AND STATE OFFICIALS.
4. DURING CONSTRUCTION, CONTRACTOR SHALL CHECK THE EROSION CONTROL FACILITIES DAILY, AND MAKE REPAIRS OR MODIFICATIONS AS NEEDED.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER FACILITIES, POST STRUCTURAL, AND NON-STRUCTURAL BMPs DURING CONSTRUCTION. UPON COMPLETION OF PROJECT, THIS SHALL BECOME THE RESPONSIBILITY OF THE OWNER. THE OWNER SHALL INSPECT ALL STORM DRAINS ON A MONTHLY BASIS AND REMOVE ANY SILTATION AS NEEDED.
6. ALL DISTURBED GRASSED AREAS SHALL BE SOIL SOD OR AS SHOWN ON ANY LANDSCAPE PLANS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE IS FULLY STABILIZED AT TIME OF SUBSTANTIAL COMPLETION AND FOR THE ONE YEAR WARRANTY PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
7. CONSTRUCTION PHASE DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WATER SITE AS NEEDED, OR AS DIRECTED BY ENGINEER TO MAIN ROADWAY.
8. ANY AND ALL DESIGN, ERECTION, PERMIT FEES AND APPLICATION PERTAINING TO ANY AND ALL WORK ZONE TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. RIGHT OF WAY STRIPING SHALL BE THERMOPLASTIC STRIPING UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL UNCOVER AND VERIFY THE DEPTH OF ALL UTILITY THEN PROCEED PRIOR TO CONSTRUCTION AND ORDERING OF ANY MATERIALS. IF CONDITIONS ARE ENCOUNTERED DIFFERENT FROM DRAWINGS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY AND ADJUSTMENTS SHALL BE DETERMINED.
11. BACKFILL ALL EXCAVATED AREAS WHERE UTILITIES ARE REMOVED WITH SAND-CLAY STRUCTURAL FILL CONFORMING TO ALDOT SECTION 821, TYPE B. COMPACT IN 8 INCH LIFTS NOT LESS THAN 95% MODIFIED PROCTOR DENSITY.
12. ANY EXISTING UTILITIES TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND DISPOSED OF OFF-SITE IN A LEGAL MANNER.
13. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NEEDED PERMITS AND LICENSES, ALL WORKMANSHIP AND MATERIAL PROPOSED WITHIN CITY AND STATE RIGHTS-OF-WAY SHALL ADHERE TO ALDOT STANDARD SPECIFICATIONS, LATEST EDITION.

1. HDPE PIPE SHALL BE HIGH DENSITY POLYETHYLENE TYPE N-12 BY ADVANCE DRAINAGE SYSTEMS WITH BELL AND SPIGOT TYPE JOINT WITH O-RING RUBBER GASKET. ASTM F477.
2. RCP PIPE SHALL BE REINFORCED CONCRETE PIPE TYPE CLASS II CONFORMING TO ALDOT SPECIFICATIONS WITH COMPRESSION JOINTS. ASTM C-443.
3. PRE-CAST DRAINAGE STRUCTURES SHALL BE CONCRETE DRAINAGE BASINS CONFORMING TO THE FOLLOWING A DESIGN CRITERIA:
 - CONCRETE 4000PSI @ 28 DAY COMPRESSIVE STRENGTH
 - REINFORCING STEEL GRADE 60, 2" MINIMUM COVER
 - FIBERGLASS STEPS REQUIRED ON BASINS OVER 3'-6" DEEP
4. JOINTS SHALL BE WRAPPED WITH A NONWOVEN FILTER FABRIC, EXTEND 2" BEYOND EACH SIDE OF JOINT, LAP MINIMUM 12" AND GLUED WITH EPOXY GULF FABRIC SHALL BE MIRAFI 140NL OR APPROVED EQUAL.
5. SITE PREPARATION SHALL BE AS SPECIFIED IN THE GEOTECHNICAL REPORT BY SOUTHERN EARTH SCIENCE, CONTRACTOR TO COORDINATE GEOTECHNICAL CONSULTANT FOR TESTING AT A FREQUENCY OF ONE TEST PER 2500 SQUARE FEET OF PIPE PER LIFT. COST OF TESTING SHALL BE PAID BY THE OWNER.
6. PART 5 OF THE SPECIFICATIONS SHALL BE COMPLETED BY THE OWNERS RESPONSIBILITY.
7. DRAINAGE SYSTEMS TO BE WASHED, CLEAR OF DEBRIS AND CATCH BASINS CLEANED AND GROUTED PRIOR TO FINAL INSPECTION PER DIVISION NOTES.
8. SEE DIVISION NOTES FOR PIPE BEDDING SPECS.

1. WATER & SEWER SYSTEM STANDARDS AND SPECIFICATIONS, AND ALL OTHER GOVERNING AGENCIES STANDARDS.
2. THE CONTRACTOR SHALL OBTAIN, AND HAVE AVAILABLE ON SITE, COPIES OF THE APPLICABLE GOVERNING AGENCY STANDARDS DURING THE RELATED CONSTRUCTION OPERATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS, DIMENSIONS, AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION VIA UNDERGROUND RADAR. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON THE BEST AVAILABLE RECORDS AND ARE SUBJECT TO SOME DEGREE OF VARIATION. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL CONSULT THE ENGINEER TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH, AND CONTACT ALL UTILITIES INVOLVED, PRIOR TO CONSTRUCTION.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH, AND CONTACT THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION ZONE.
7. WHERE DIRECTED BY THE CITY OF SEMMES, THE CONTRACTOR SHALL PLACE TRAFFIC CONTROL DEVICES, THE PLACEMENT AND TYPE OF WHICH SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
8. ALL PAVEMENT CUTS TO CONNECT UTILITIES SHALL BE REPAIRED IN CONFORMANCE WITH THE CITY OF SEMMES STANDARD SPECIFICATIONS.
9. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL PERMITS.
10. WATER MAIN PIPING AND PRESSURE RATING SHALL BE C900 AND HAVE A MINIMUM OF 3'-0" OF COVER.
11. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES ON THE LAYOUT AND INSTALLATION OF UTILITY SERVICES, AND ON LOCATION OF EXISTING UTILITY STUBS BEFORE CONSTRUCTION BEGINS.
12. ALL FITTINGS, FITTINGS, AND APPURTENANCES SHALL BE INSTALLED BY A CERTIFIED FIRE PROTECTION CONTRACTOR, AND SHALL CONFORM TO THE LATEST EDITION OF THE UFC, NFPA STANDARD, AND AWWA STANDARD C502-94.
13. FIRE SUPPRESSION CONTRACTOR TO FLUSH AND TEST PRESSURE AND FLOW FOR UNDERGROUND FIRE WATER. RECORD RESULTS.
14. CONTRACTOR SHALL PROVIDE AND INSTALL ALL PERMANENT, AND OR TEMPORARY, FIRE LINE FITTINGS AND APPURTENANCES TO CONDUCT TESTING AND CERTIFICATION OF FIRE LINE SERVICE STUBS PER LOCAL UTILITY AGENCIES. CONTRACTOR SHALL COORDINATE WITH FIRE MARSHAL FOR TESTING.
15. CONTRACTOR SHALL TEST AND CLEAN ALL UTILITY PIPING AS REQUIRED BY 2021 INTERNATIONAL CODE. THURST BLOCKS TO HAVE BEARING SURFACE AGAINST TRENCH WALL AS NOTED. CONCRETE SHALL BE POURED ON AND AGAINST UNDISTURBED SOIL. MINIMUM COVER OVER THURST BLOCKS TO BE 24". CONCRETE SHALL NOT INTERFERE WITH ACCESS TO FITTING JOINTS.
17. CONTRACTOR TO COORDINATE ALL INSPECTION AND CONSTRUCTION REQUIREMENTS WITH REGARDS TO MOBILE AREA WATER AND SEWER SYSTEM (MAWSS) RELATED TO WORK WITH MIKE STANLEY AT 694-3180.
18. FIRE RISER SHALL BE DESIGNED BY FIRE SPRINKLER CONTRACTOR AND SUBMITTED TO ENGINEER FOR APPROVAL.
19. SEWER IN DRIVEWAYS AND PARKING AREAS TO BE SDR 26, PVC SCHEDULE 40 D2665 OR STRONGER.

THE PROJECT CONSISTS OF CONSTRUCTING A NEW SCHOOL GYMNASIUM BUILDING OVER AN EXISTING PARKING LOT AREA, MODIFYING THE EXISTING PARKING TO THE NORTH OF THE NEW BUILDING AND INSTALLING NEW PARKING TO THE SOUTH OF THE BUILDING.

FLOOD ZONE:

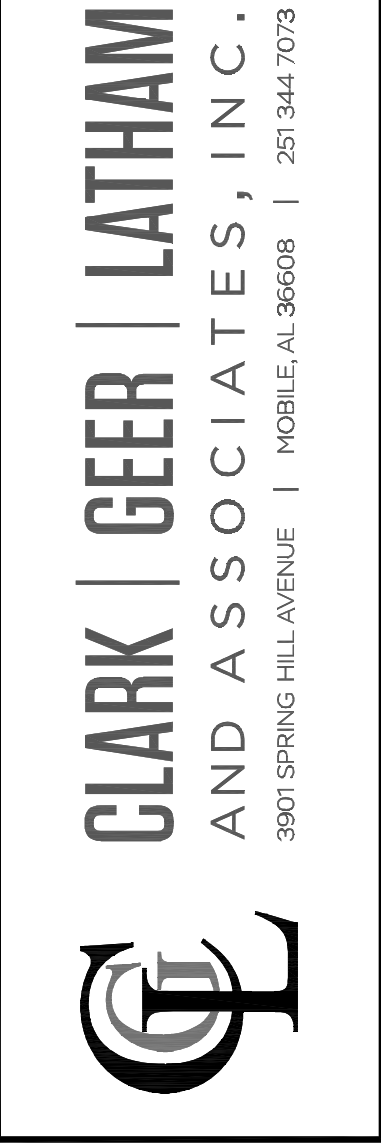
X-UNSHADED PER PANEL NO. 01097C0395L
DATED JUNE 5, 2020

ALL OF SEC 16 T3S R3W LESS R/W OF MOFFAT RD, BLACKWELL NURSERY RD
PT OF LND INTO R/W OF SNOW RD & AND R/W OF ED GEORGE RD.



CONTRACTOR SHALL UNCOVER AND VERIFY THE DEPTH OF ALL UTILITY TIE-IN POINTS PRIOR TO CONSTRUCTION AND ORDERING OF ANY MATERIALS. IF CONDITIONS ARE ENCOUNTERED DIFFERENT FROM DRAWINGS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY AND ADJUSTMENTS SHALL BE DETERMINED.

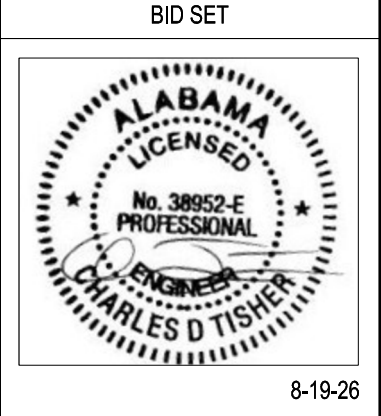
C-0.1	CIVIL GENERAL NOTES
D-1.0	DEMOLITION PLANS
C-1.0	SITE PLANS
C-2.0	GRADING PLAN
C-2.1	DRAINAGE PLAN
C-3.0	EROSION CONTROL PLANS
C-3.1	EROSION CONTROL DETAILS
C-4.0	UTILITY PLANS
C-5.0	SECTIONS & DETAILS
C-5.1	SECTIONS & DETAILS
C-6.0	LANDSCAPING PLANS



A NEW GYMNASIUM FOR
MARY G MONTGOMERY
4275 SNOW ROAD N
SEMMES, AL 36575

[illegible]

PROJECT NUMBER:	2629
DRAWN BY:	CDT
CHECKED BY:	CDT
ISSUE DATE:	8-19-26



SHEET TITLE:

Civil General Notes

SHEET NUMBER:
C-0.1

[illegible]

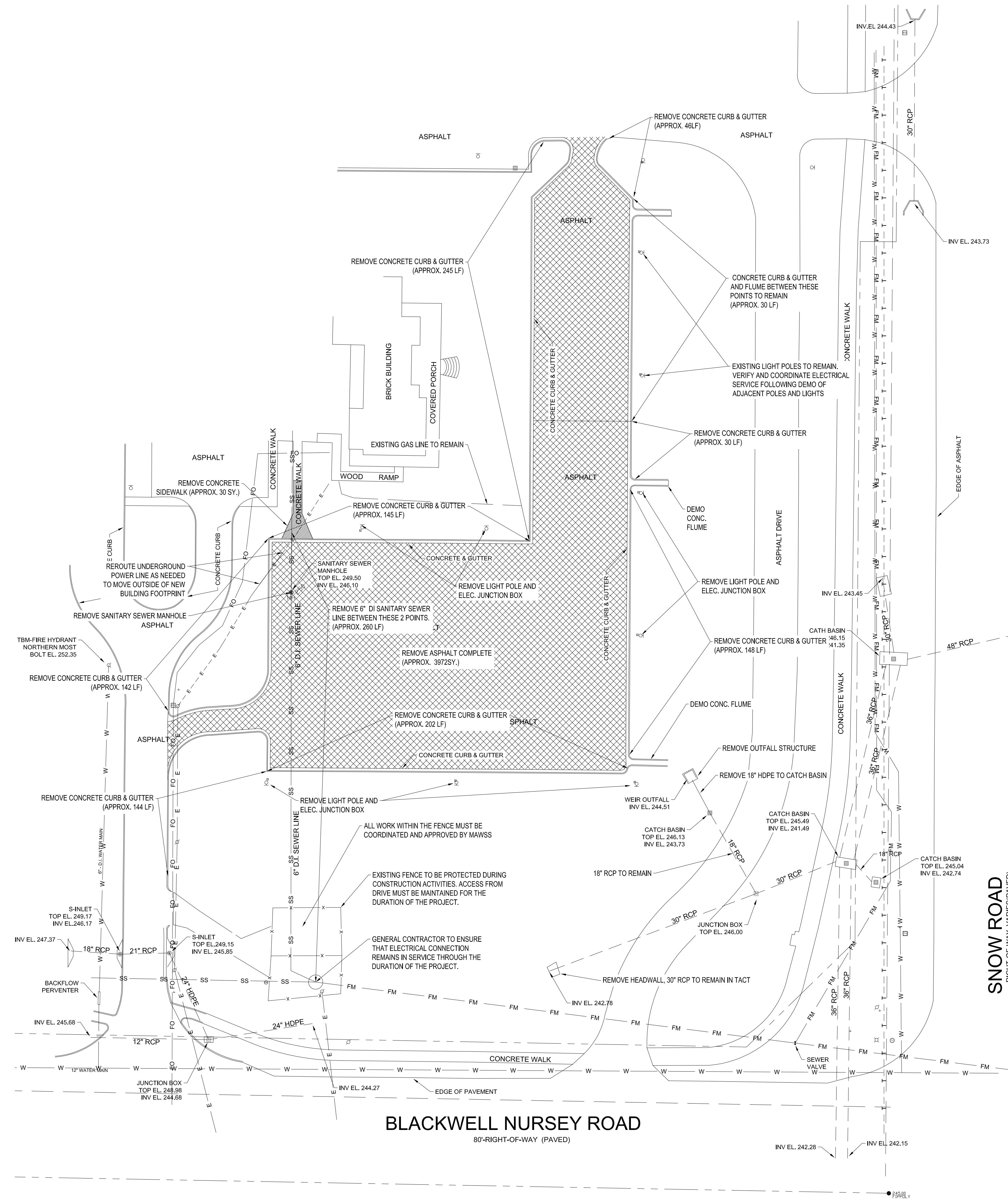
PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26

BID SET



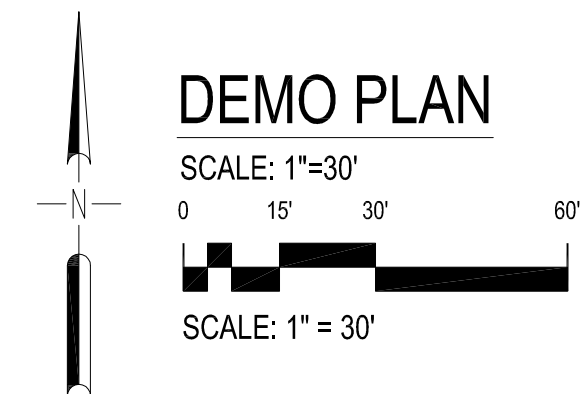
8-19-26

SHEET TITLE:	Demo Plan
SHEET NUMBER:	D-1.0



OUTAGE NOTE:

ANY OUTAGES NEEDED FOR INSTALLATION OF UTILITIES
MUST BE COORDINATED WITH MCPSS.



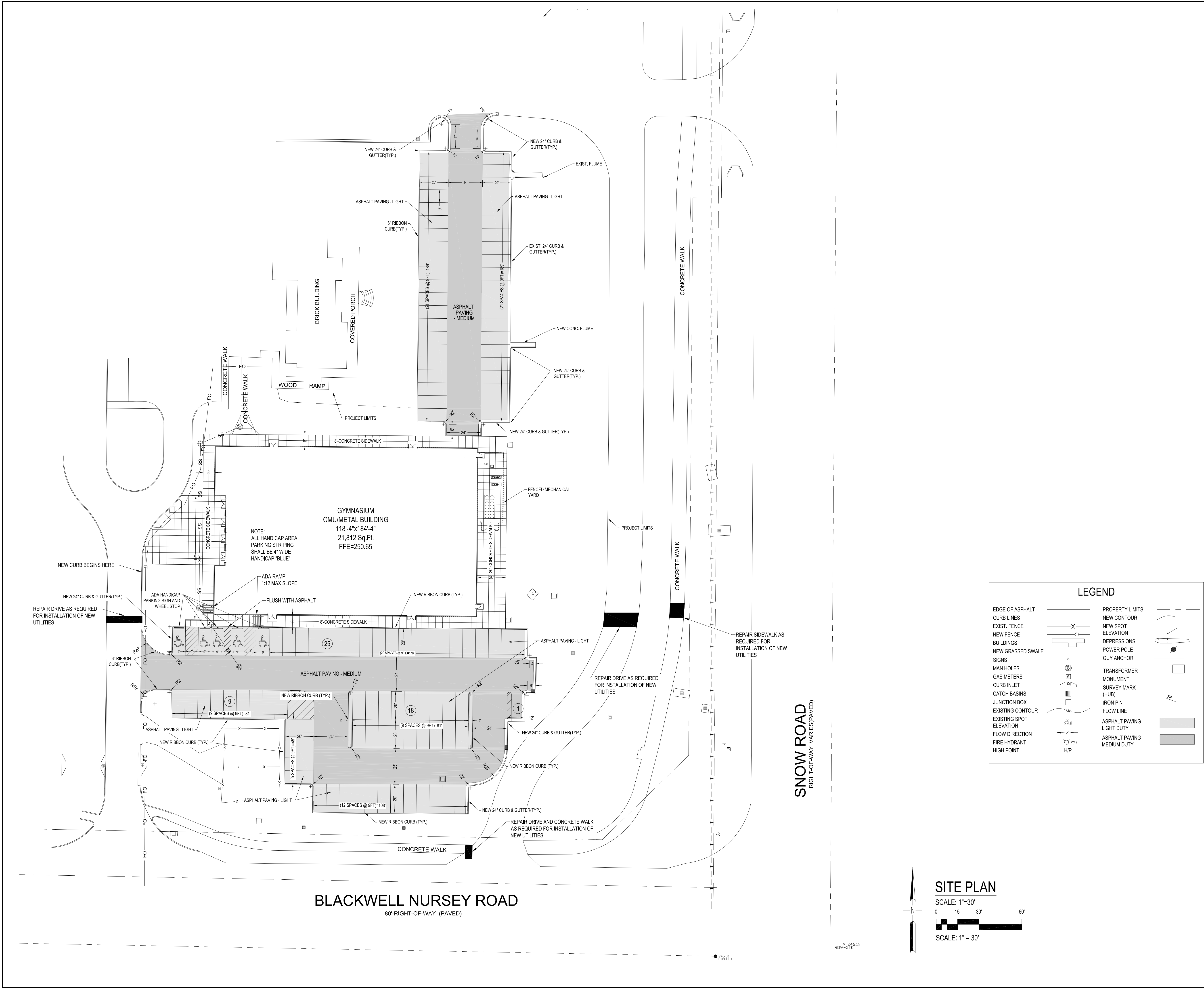
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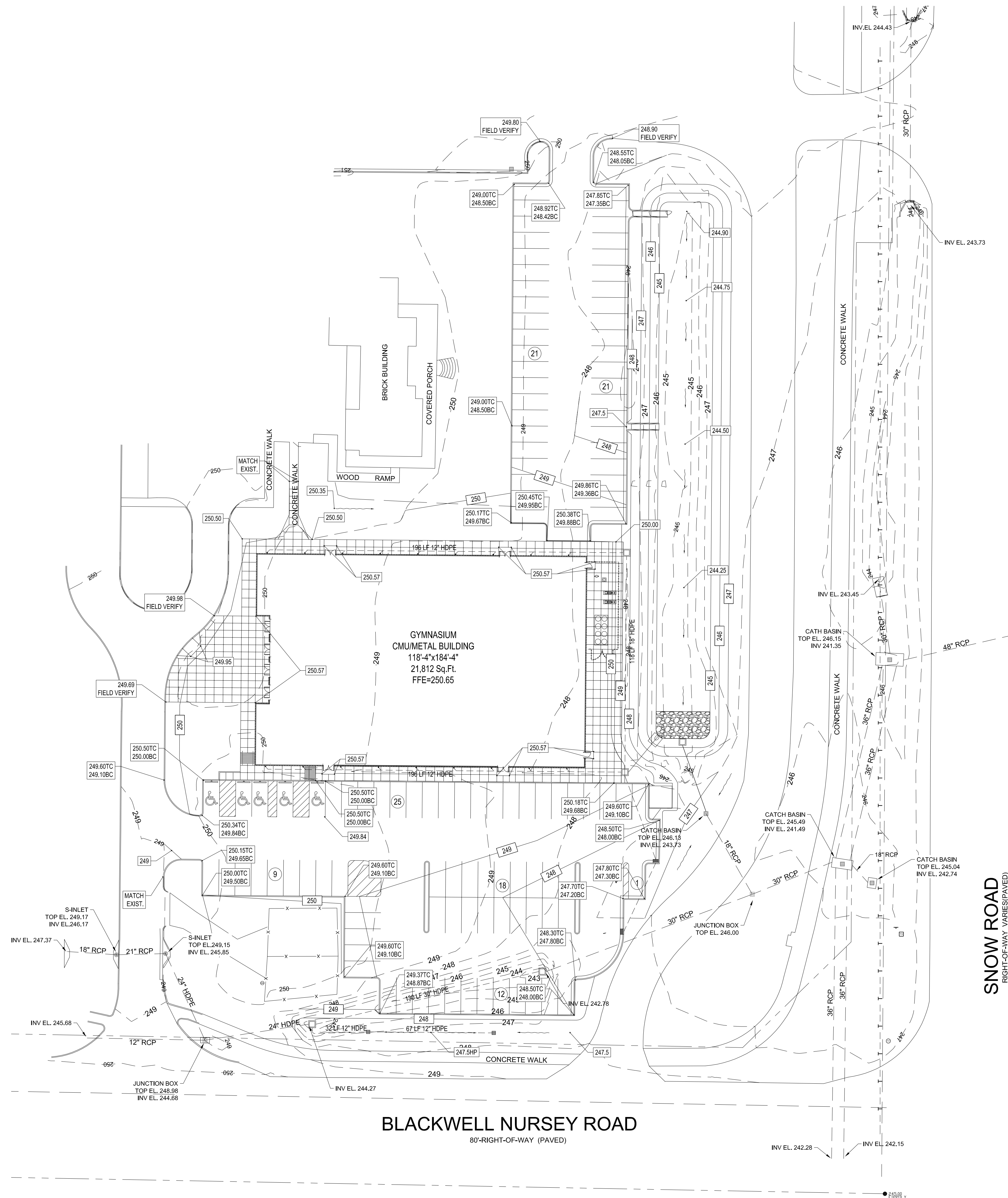
BID SET



8-19-26

SHEET TITLE:	Site Plan
SHEET NUMBER:	C-1.0





SNOW ROAD
RIGHT-OF-WAY VARIES (PAVED)

x 246.1
RTW-STK

GRADING PLAN

SCALE: 1"=30'

0 15' 30' 60'

SCALE: 1" = 30'

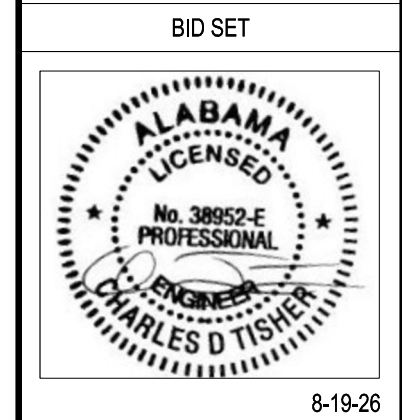
LEGEND	
PROPOSED CONTOUR	_____
EXISTING MAJOR CONTOUR	_____
EXISTING MINOR CONTOUR	_____

CLARK | GEER | LATHAM
AND ASSOCIATES, INC.
3901 SPRING HILL AVENUE | MOBILE, AL 36608 | 251 344 7073

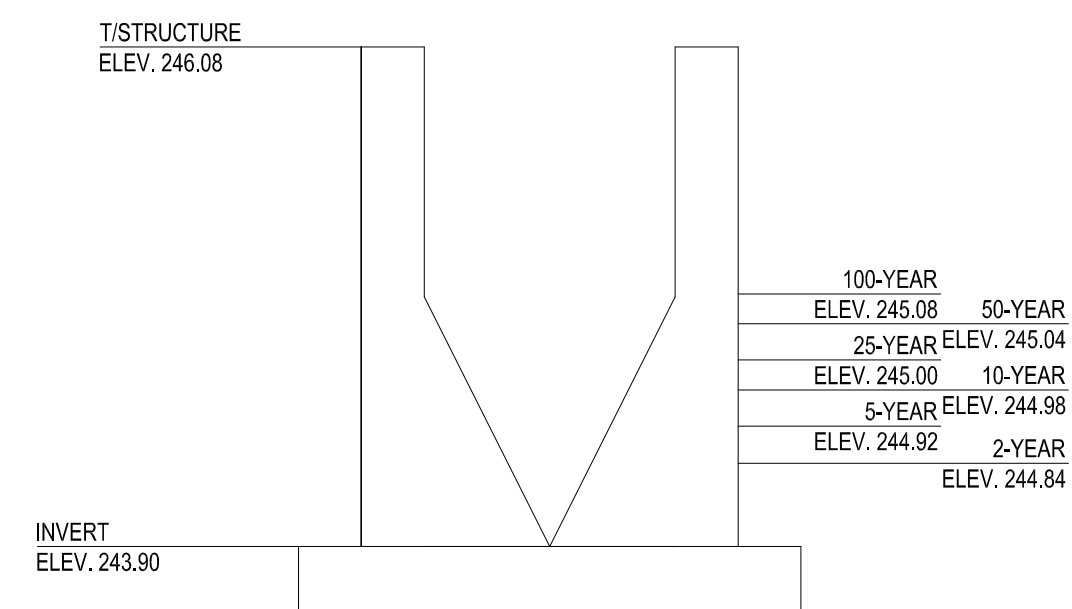
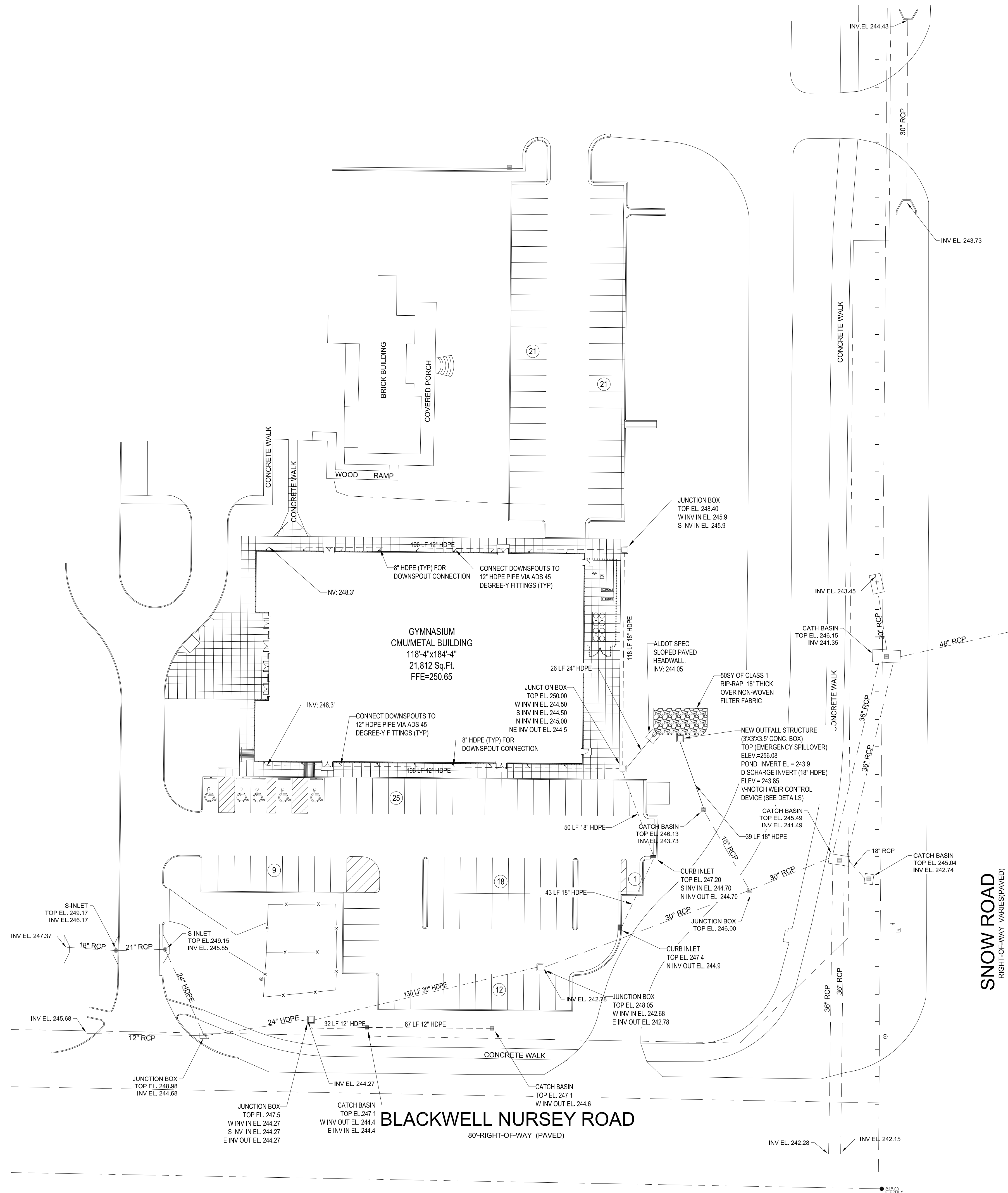
A NEW GYMNASIUM FOR
MARY G MONTGOMERY
4275 SNOW ROAD N
SEMMES, AL 36575

[illegible]

PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26

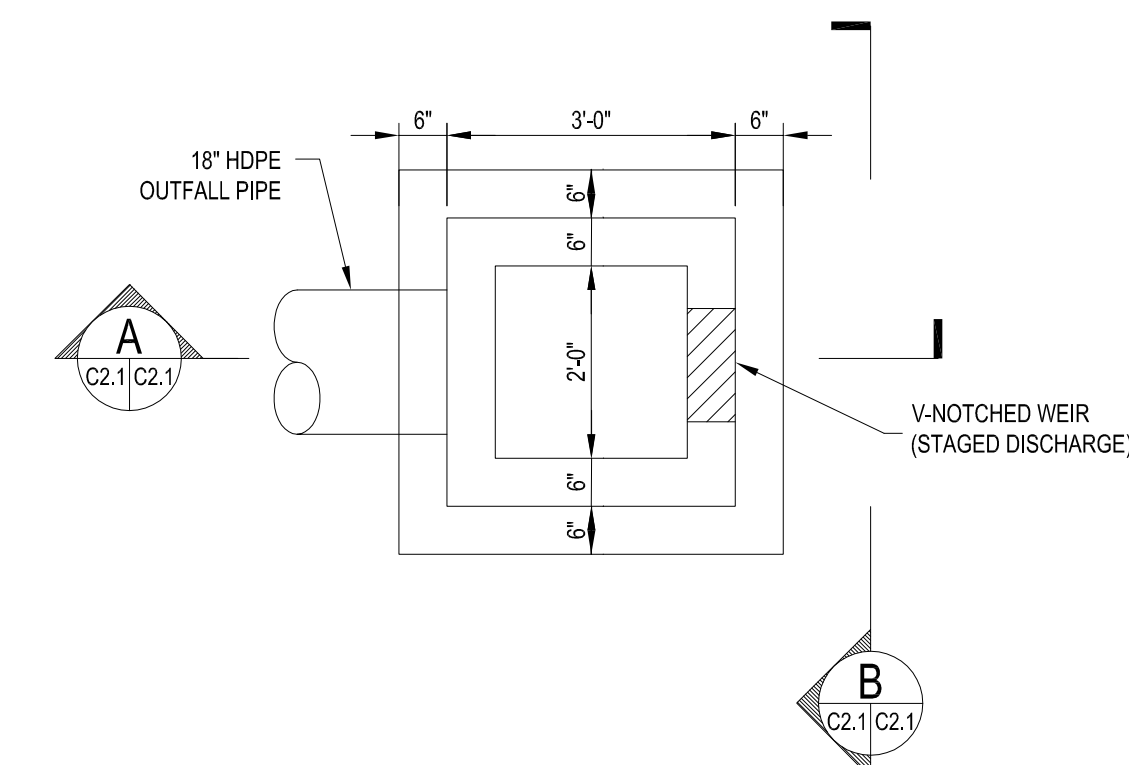


SHEET TITLE:
GRADING PLAN
SHEET NUMBER:
C-2.0

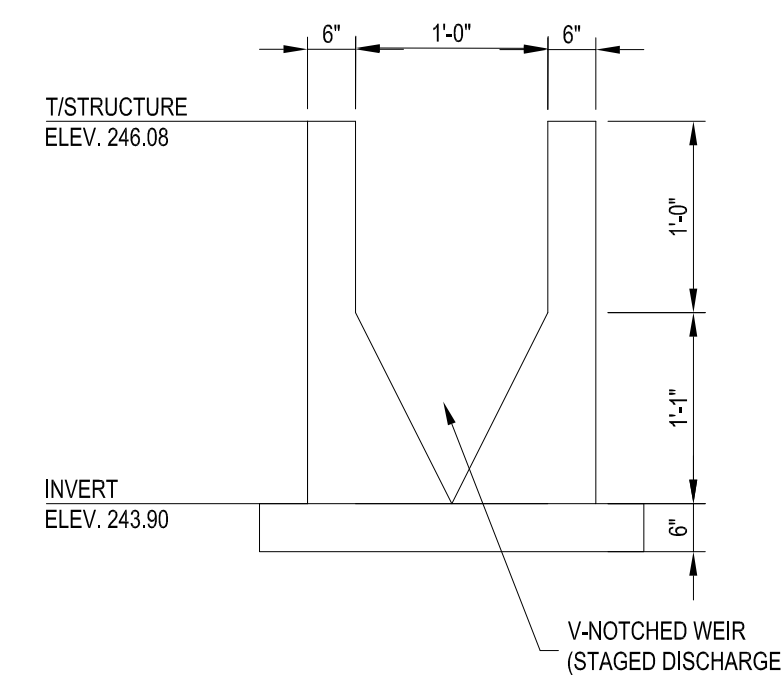
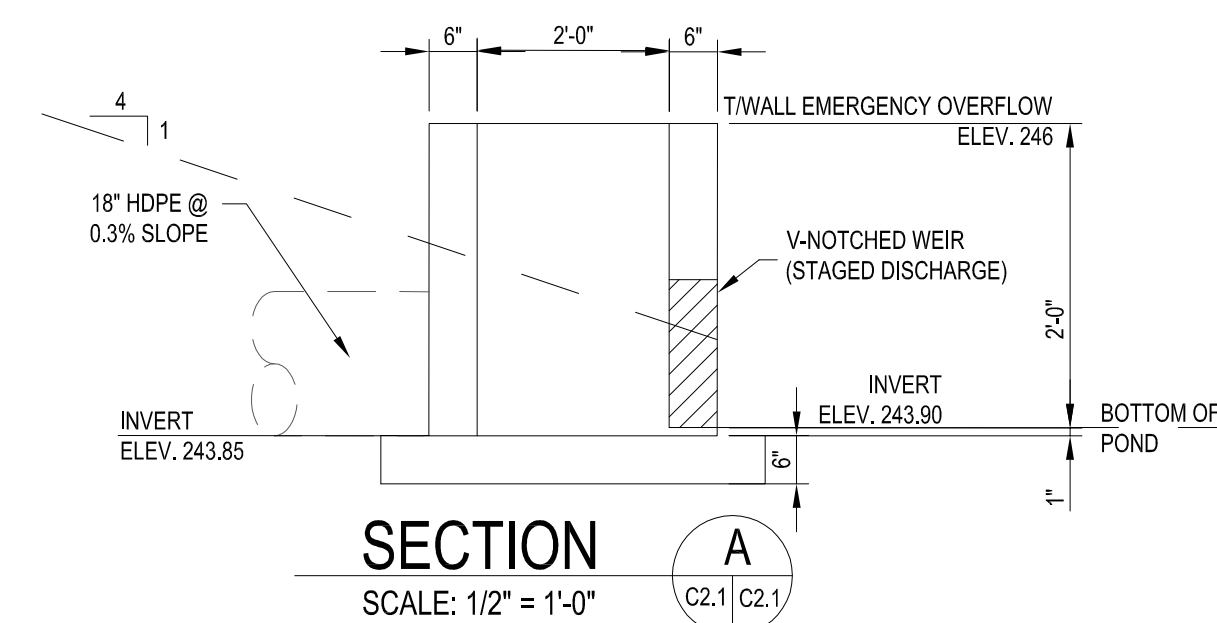


STAGED STORAGE DETAIL

SCALE: NTS



CONCRETE OUTFALL STRUCTURE

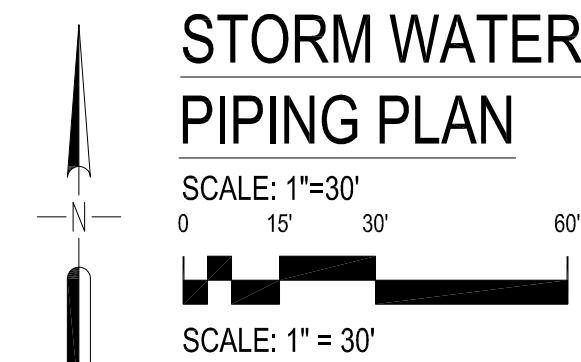


SECTION

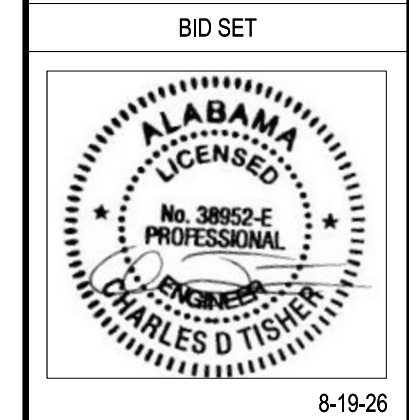
SCALE: 1/2" = 1'-0"

B

C2.1 C2.1

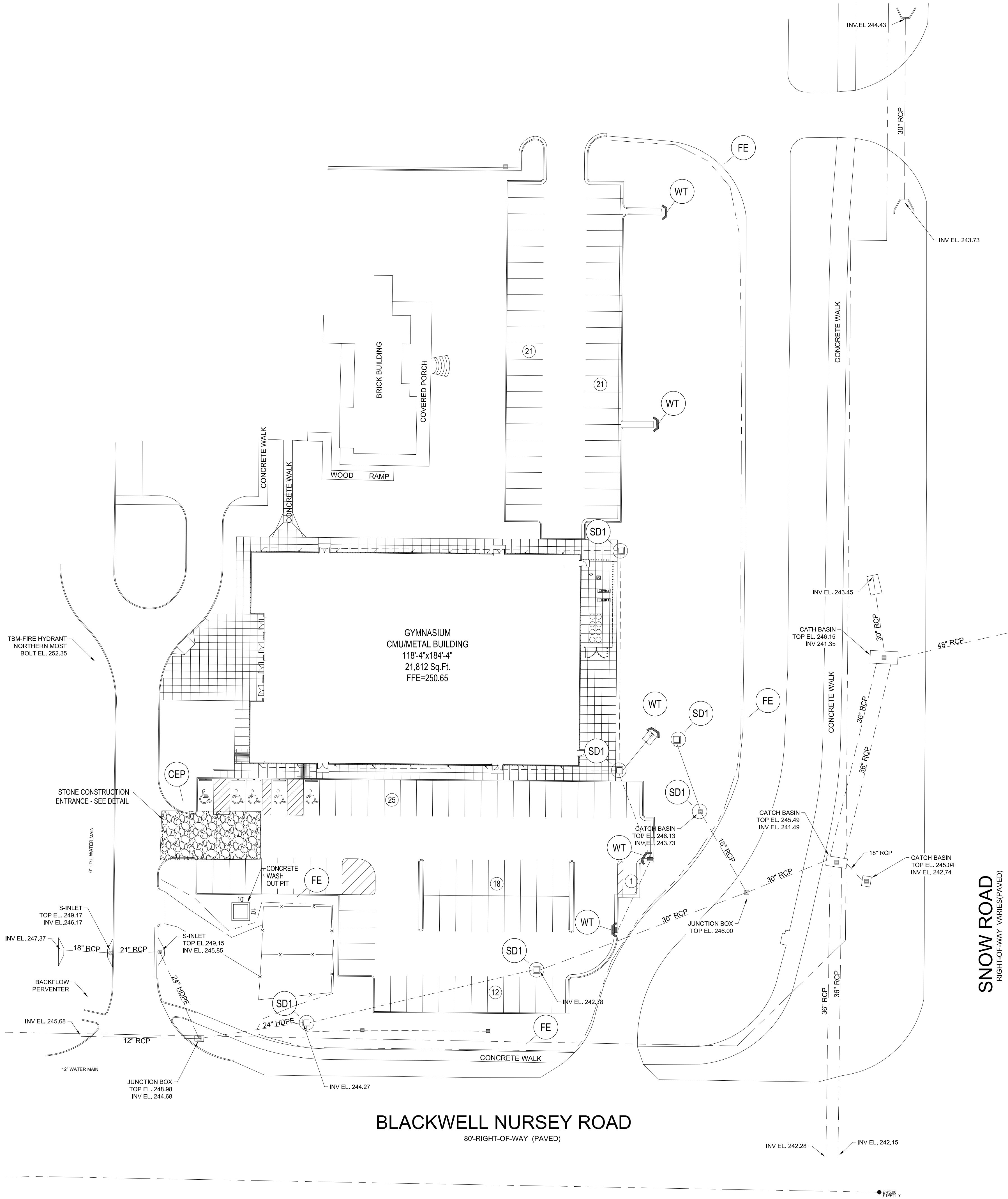
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PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26



SHEET TITLE: STORM WATER PIPING PLAN
SHEET NUMBER: C-2.1

LAST SAVED: LATHAM PRINTED BY: CHARLES TISHIER 9/19/2026 3:43:37 PM H:\0229 MCM Gymnasium\15 Civil\01 Production Sheets\C-3.0 Erosion Control Plan.dwg



SOIL EROSION AND SEDIMENTATION CONTROL PLAN:

- A. GENERAL STATEMENT:
THE PROJECT COVERS THE DEVELOPMENT OF APPROX. 2.496 AC OF EXISTING ASPHALT PARKING LOT, DRIVEWAY AND DENTON AREA. THE PURPOSE THE PROJECT CONSISTS OF CONSTRUCTING A NEW GYMNASIUM AND ADDITIONAL PARKING.
1. A STORMWATER MANAGEMENT PLAN HAS BEEN DEVELOPED AND IS INCLUDED IN THE PROJECT DRAWINGS.
2. SEDIMENTATION SHALL BE CONTROLLED BY INSTALLATION OF WATTLES, SILT FENCING AND/OR GEOTEXTILE MATERIAL. TEMPORARY SEEDING SHALL BE APPLIED AS REQUIRED.
- B. TOPOGRAPHY:
1. THE LOCATION, CONTOURS, PROPERTY LINES, ACREAGE AND ALL OTHER PHYSICAL FEATURES OF THE SITE ARE SHOWN ON THE PROJECT PLANS.
- C. SOIL INFORMATION:
1. REFER TO GEOTECHNICAL REPORT PRODUCED BY SOUTHERN EARTH SCIENCES.
- D. PROPOSED GRADES:
1. AS SHOWN ON GRADING PLAN.
- E. TEMPORARY MEASURES:
1. SILT FENCE, WATTLES, AND SOLID SOD SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED TO SLOW RUNOFF FROM DRAIN PIPES AND EXPOSED EMBANKMENTS TO PREVENT SEDIMENTATION FROM ACCUMULATING ON ADJACENT PROPERTIES AND WATERWAYS.
- F. PERMANENT MEASURES:
1. ALL DISTURBED AREAS SHALL BE SOLID SOD OR AS OTHERWISE NOTED ON PLANS.
- G. MAINTENANCE:
1. ALL DISTURBED SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED FOR DAMAGE DAILY AND AFTER EACH STORM BY THE CONTRACTOR. ALL FACILITIES THAT ARE DAMAGED, CLOGGED OR OTHERWISE ADVERSELY AFFECTED SHALL BE REPAIRED OR REPLACED AS REQUIRED AT NO COST TO THE OWNER.

CONTROL FACILITY MAINTENANCE PROGRAM:

- A. THE SEDIMENT COLLECTED AT THE CONTROL FACILITIES SHALL BE REMOVED AFTER EACH RAINFALL AT A MINIMUM. THE SEDIMENT SHALL BE REDISTRIBUTED AROUND THE CONSTRUCTION SITE BY THE CONTRACTOR.
- B. ALL CONTROL FACILITIES SHALL BE MAINTAINED AS SPECIFIED BY ADEM AND AS OUTLINED BELOW:
1. TEMPORARY MULCH: PROPERLY MAINTAIN MULCHED AREAS UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. PROMPTLY REAPPLY MULCH MATERIALS WHICH BECOME DISLODGED OR LOST DUE TO WIND, RAIN, FIRE OR OTHER CAUSES, AT INITIAL OR MODIFIED RATES AS DIRECTED. AFTER MULCHING WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED, IF A SLOPE FAILURE OCCURS, ONE WHICH REQUIRES REDRESSING, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE, REPLACE THE MULCH, AS DIRECTED.
2. SILT FENCE: INSPECTED AFTER EVERY PRECIPITATION EVENT. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE FENCE FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 3" ABOVE THE NATURAL GROUND HEIGHT AT THE FENCE. ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR SHALL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER FABRIC FENCE DUE TO WEATHERING.
3. CONSTRUCTION ENTRANCE: THE CONTRACTOR SHALL INSTALL 5' OF STONE AT THE CONSTRUCTION ENTRANCE. STONE THAT FALLS SHALL BE COVERED WITH ADDITIONAL STONE TO PREVENT SEDIMENTATION FROM LEAVING THE SITE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF ROADWAY WITH WATER IS NOT PERMITTED.
- a. ANY CONTROL STRUCTURE DISTURBED DURING DAILY OPERATIONS SHALL BE REPAIRED, REPLACED OR RECONSTRUCTED AS REQUIRED UPON COMPLETION OF THE WORK DAY. STONE MATERIAL USED IN THE CONSTRUCTION ENTRANCE SHALL BE ADDED AS NECESSARY, TO MAINTAIN REQ'D THICKNESS, WEEKLY.
- c. ALL CONTROL FACILITIES SHALL REMAIN IN PLACE AND BE MAINTAINED. AREAS DISTURBED DURING REMOVAL OF THE E&S CONTROL STRUCTURES SHALL BE STABILIZED IMMEDIATELY FOLLOWING THE REMOVAL.
- d. THE CONTRACTOR WILL BE RESPONSIBLE DURING CONSTRUCTION AND FOR ONE YEAR COMMENCING UPON SUBSTANTIAL COMPLETION FOR ENSURING THE SITE IS FULLY STABILIZED & MAINTAINING THE E&S MEASURES TO INSURE COMPLIANCE WITH THE APPROVED PLAN AND THE APPLICABLE REGULATIONS OF ADEM.
- e. THE OWNER SHALL BE RESPONSIBLE FOR THE PERMANENT CONTROL OF EROSION AND SEDIMENT FOLLOWING THE WARRANTY TIME AND THE FINAL SITE STABILIZATION, INCLUDING STABILIZED GRASSING.
- f. ALL CONSTRUCTION DEBRIS SHALL BE PLACED IN APPROPRIATE CONTAINER AND DISPOSED OF REGULARLY AND IN A LEGAL MANNER. GARBAGE SHALL BE COLLECTED IN SEPARATE CONTAINERS AND DISPOSED OF WEEKLY AND IN A LEGAL MANNER.
- g. CONTRACTOR SHALL PROVIDE TEMPORARY SANITATION FACILITIES ON SITE FOR ALL CONSTRUCTION PERSONNEL. THESE FACILITIES SHALL BE PROPERLY MAINTAINED.

EROSION AND SEDIMENT POLLUTION CONTROL NOTES:

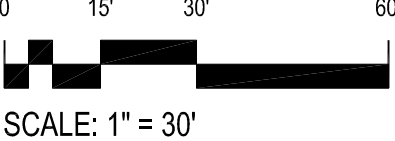
1. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 13 DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREA WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 2.5 TO 3 TONS PER ACRE.
3. PERMANENT VEGETATION SHALL BE SODDED ON ALL EXPOSED AREAS WITHIN 7 TO 10 DAYS AFTER FINAL GRADING. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ADEM.
4. STABILIZE WITH PERMANENT SEEDING REQUIREMENTS AND MULCH IF SEASON AND WEATHER PERMITS. IF BEYOND THE ESTABLISHED SEEDING DATES, PROVIDE TEMPORARY STABILIZATION BY APPLYING STRAW MULCH AT A RATE OF 3 TONS PER ACRE. ANY STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED DAILY.
5. PROPOSED JUNCTION BOXES & CATCH BASINS ON SITE, WITHIN THE LIMITS OF CONSTRUCTION, MUST HAVE SD 1 TEMPORARY SEDIMENT BARRIER UNTIL PERMANENT MANHOLE IS IN PLACE.

LEGEND - SEE SHT. C-3.1

- FE TYPE A SILT FENCE
- SD1 TEMPORARY SEDIMENT BARRIER
- WT WATTLE
- CEP CONSTRUCTION ENTRANCE PAD

EROSION CONTROL PLAN

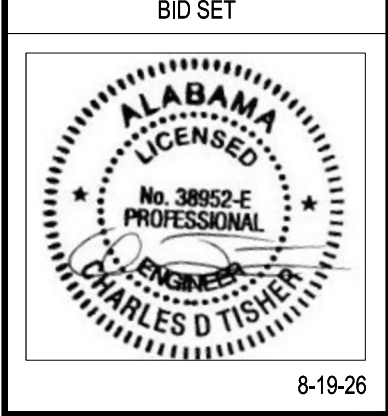
SCALE: 1"=30'



SCALE: 1" = 30'

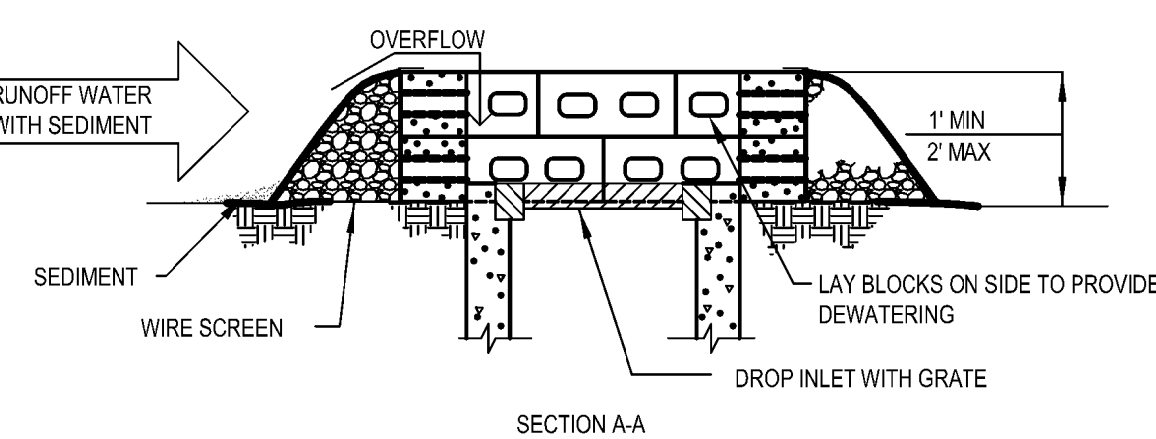
REV	DATE	BY	DESCRIPTION

PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26

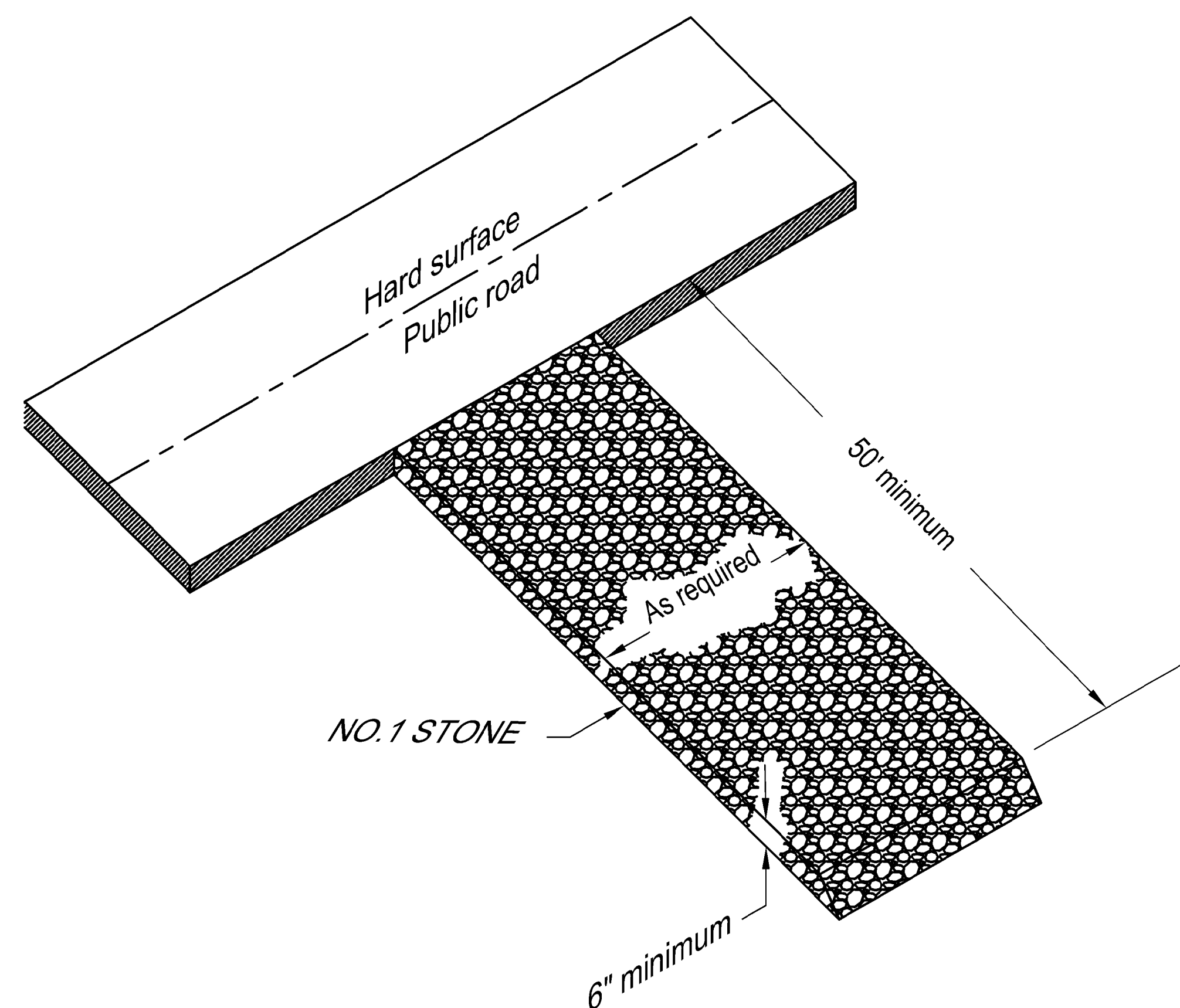


SHEET TITLE:
EROSION CONTROL PLAN

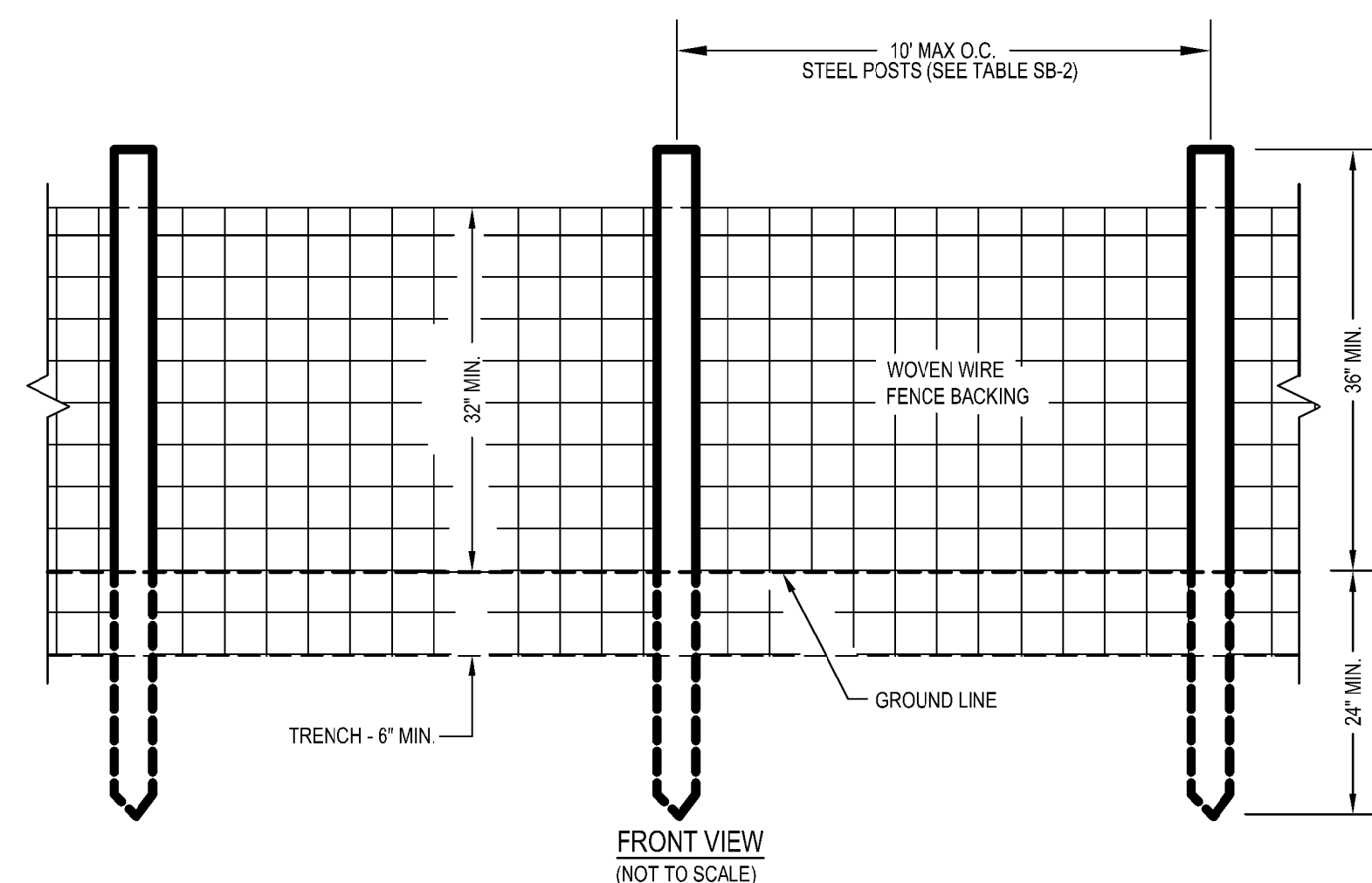
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C-3.0



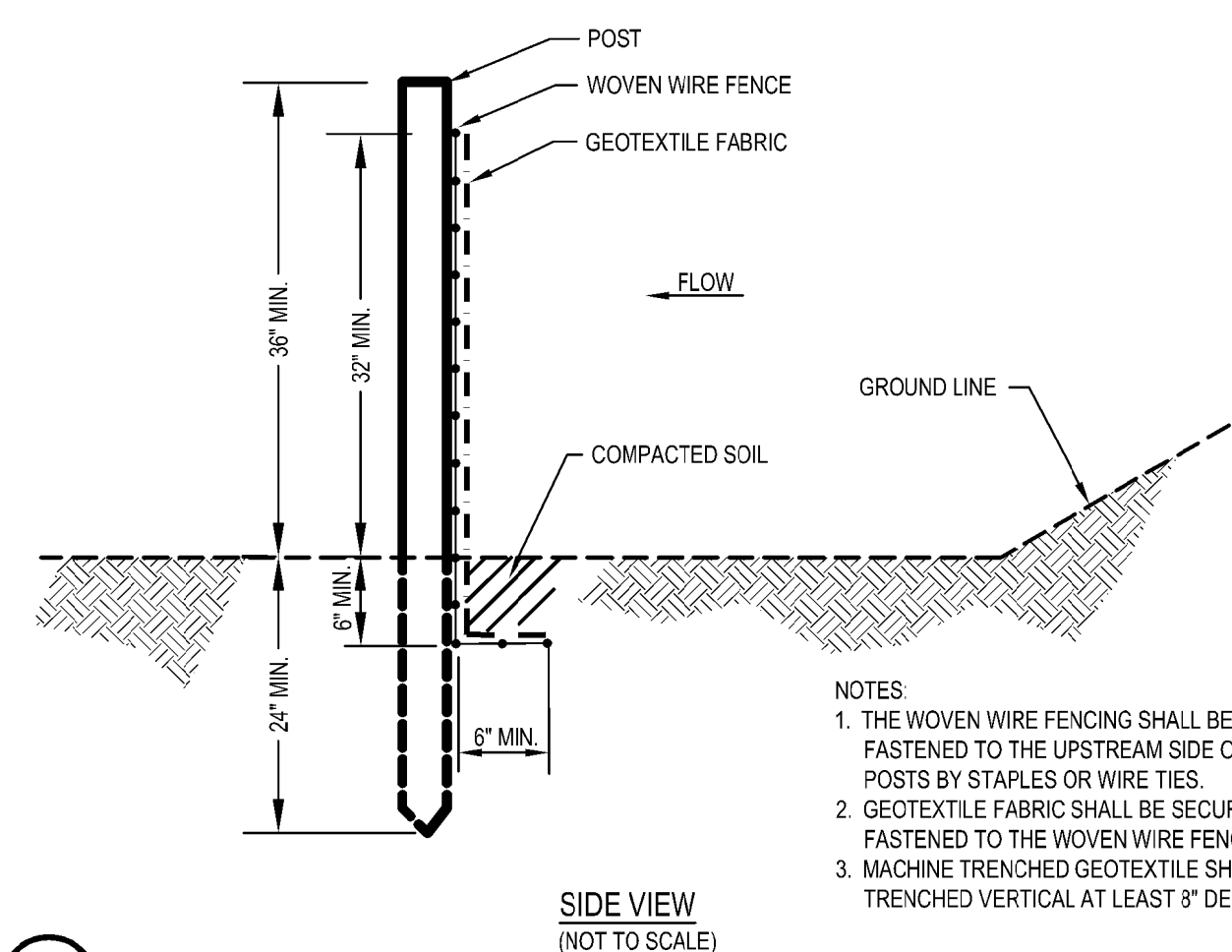
TEMPORARY SEDIMENT BARRIER
NOT TO SCALE



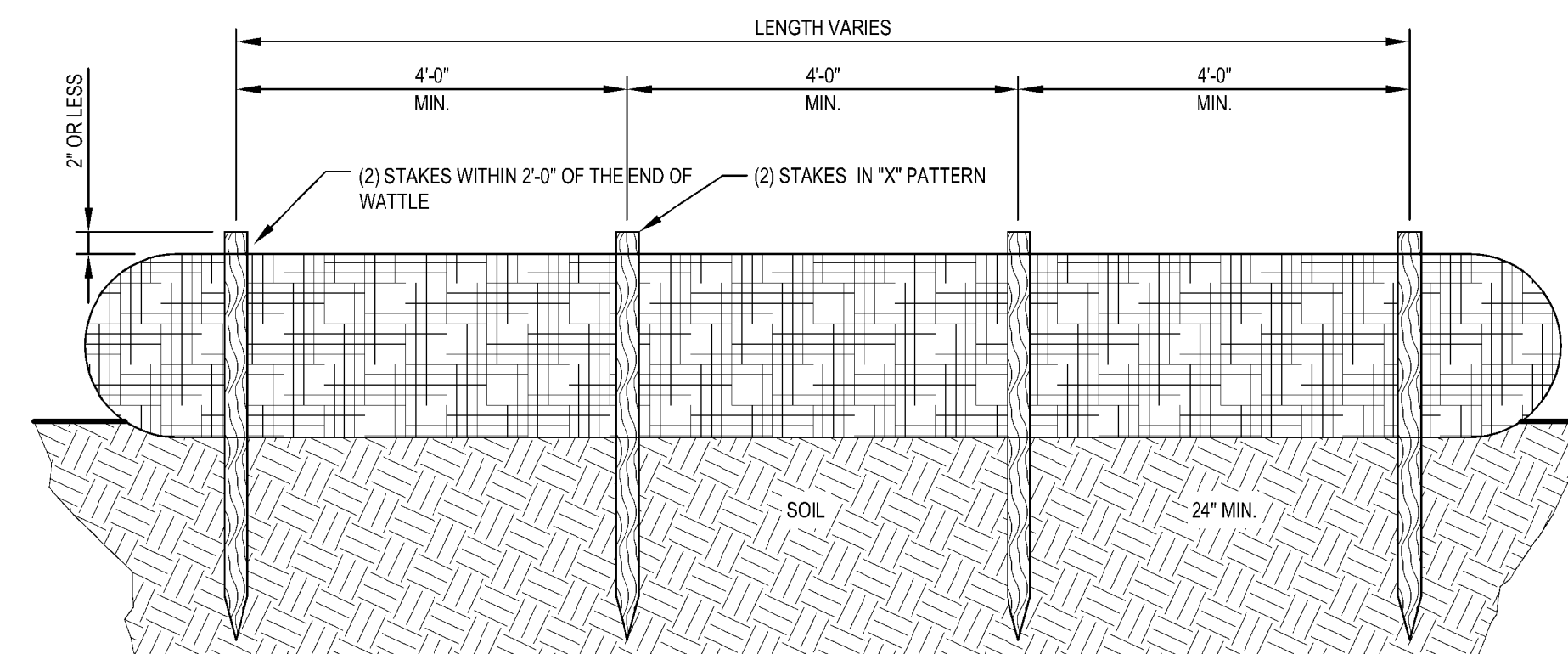
CEP CONSTRUCTION ENTRANCE PAD NTS



SILT FENCE - TYPE A 
SCALE: NONE

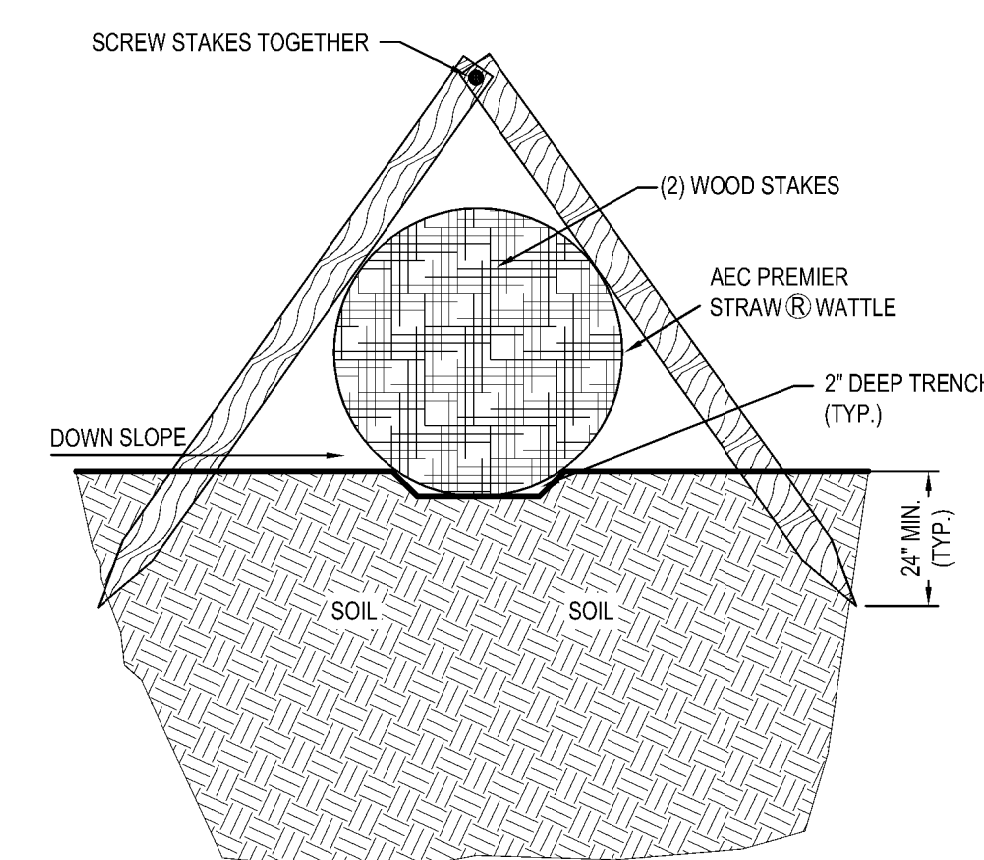


- NOTES:
1. THE WOVEN WIRE FENCING SHALL BE FASTENED TO THE UPSTREAM SIDE OF POSTS BY STAPLES OR WIRE TIES.
 2. GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO THE WOVEN WIRE FENCING.
 3. MACHINE TRENCHED GEOTEXTILE SHALL BE TRENCHED VERTICAL AT LEAST 3" DEEP.

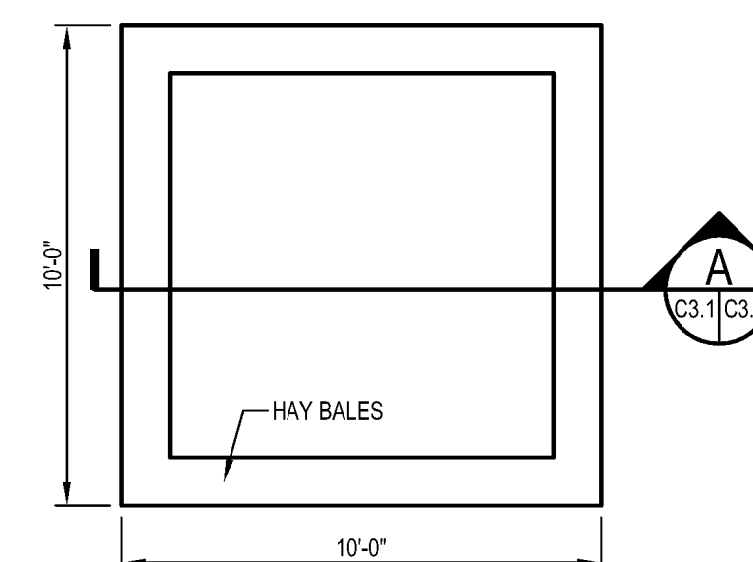
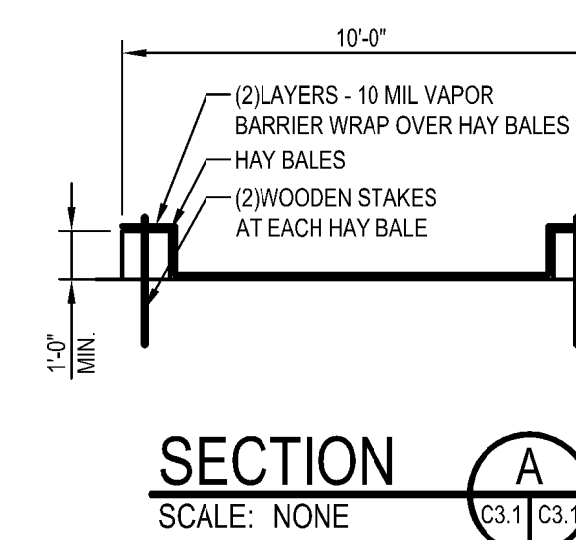


WATTLE - STAKING PATTERN GUIDE WT

SCALE: NONE



WATTLE - CROSS SECTION ON BARE SOIL (WT)

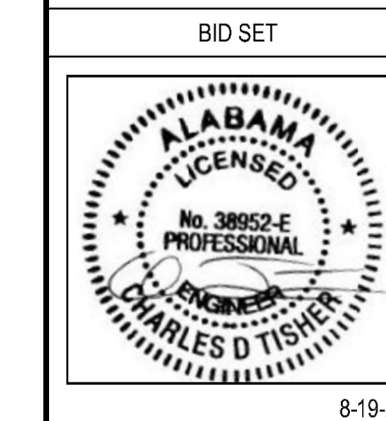


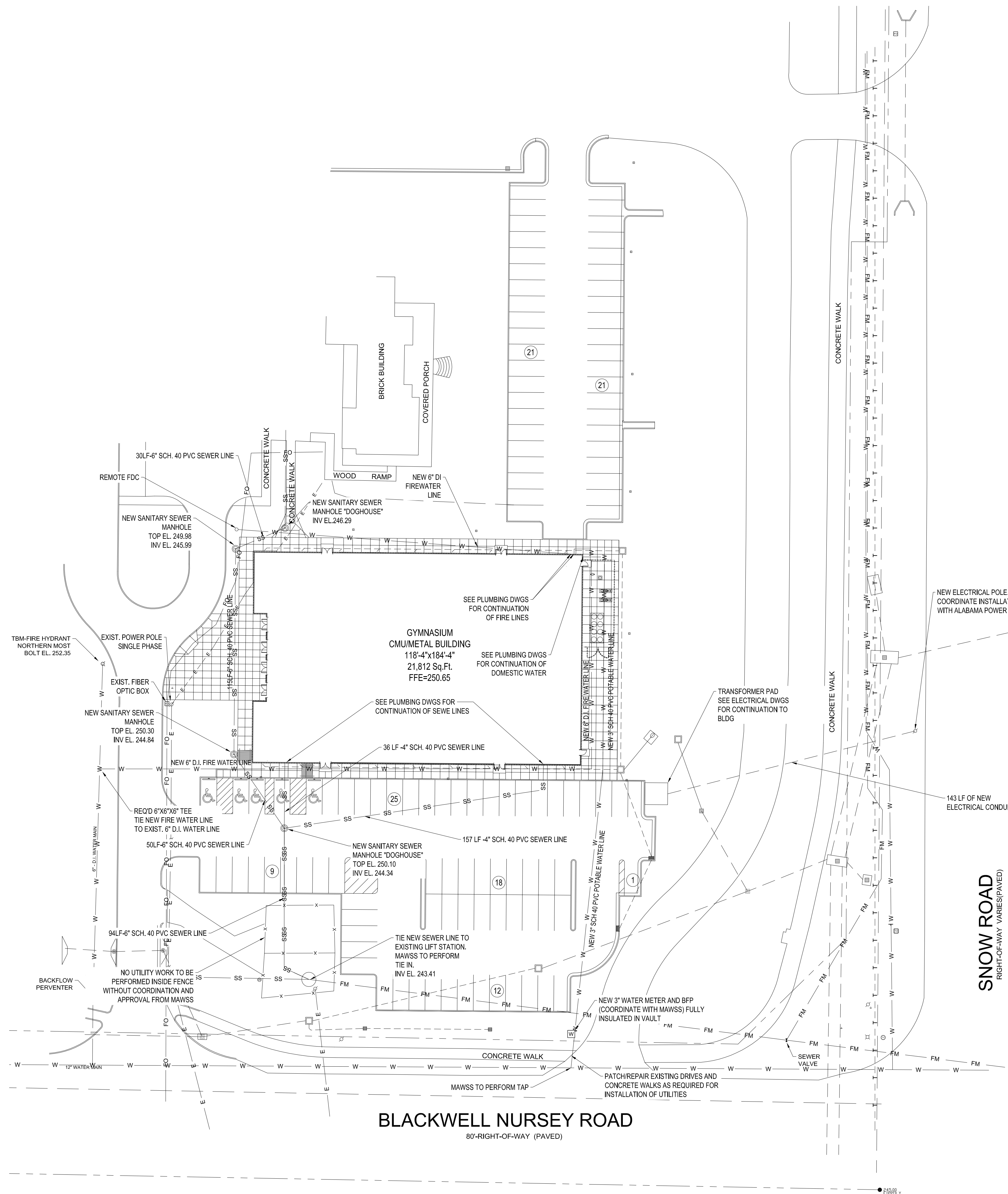
CONCRETE WASH OUT PIT
SCALE: NONE

- NOTES:**
AFTER WASH DOWN AND WASH WATER HAS EVAPORATED OR VACUUMED OFF,
REMOVE HARDEN SOLIDS FROM PIT TO OFF SITE. IF LINER IS DAMAGED, REPAIR
OR REPLACE LINER AS REQUIRED FOR NEXT USE:

[illegible]

PROJECT NUMBER:	28
DRAWN BY:	D
CHECKED BY:	C
ISSUE DATE:	8-19



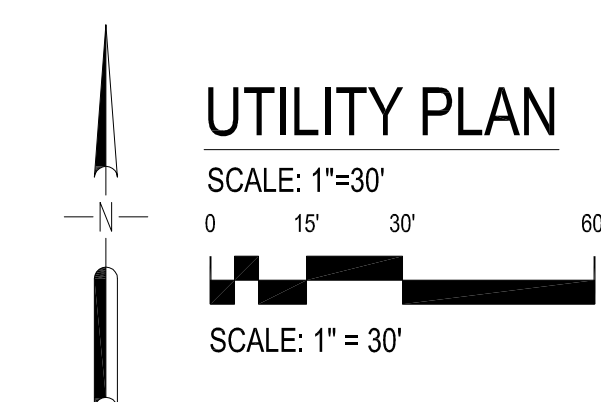


OUTAGE NOTE:

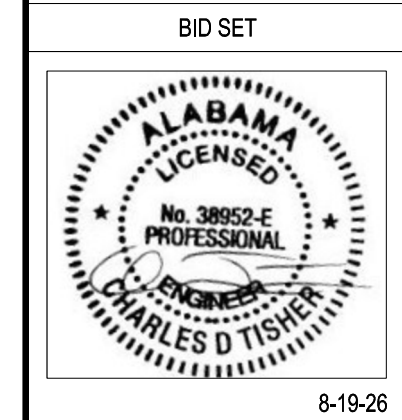
ANY OUTAGES NEEDED FOR INSTALLATION OF UTILITIES
MUST BE COORDINATED WITH MCPSS.

POWER NOTE:

COORDINATE NEW POWER SERVICE WITH ALABAMA POWER
FOR LOCATION OF ANY POLES/TRANSFORMERS AND ALL
POWER LINES.

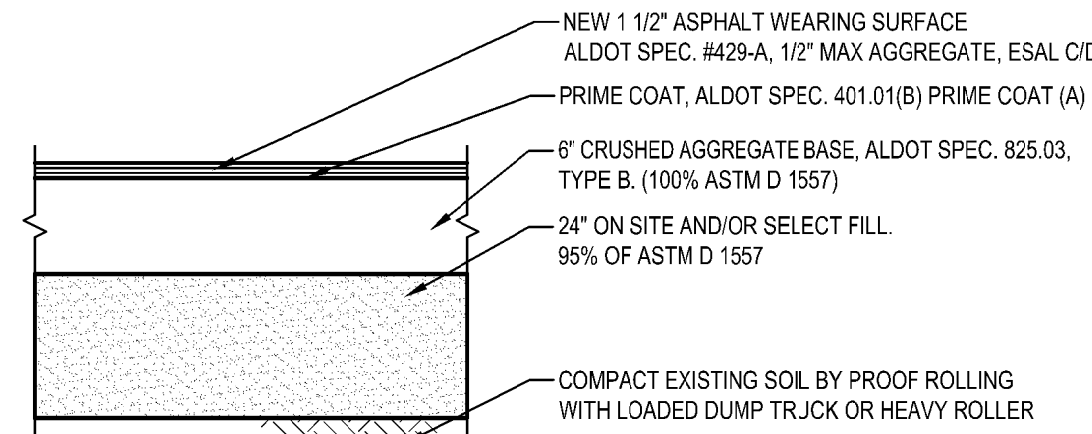
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PROJECT NUMBER:	2629
DRAWN BY:	dsc
CHECKED BY:	CDT
ISSUE DATE:	8-19-26



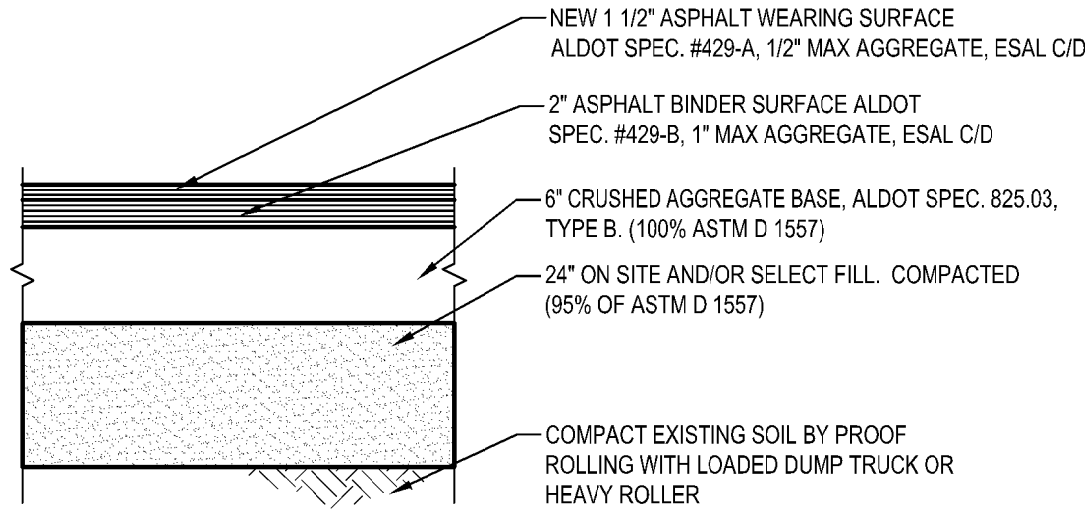
SHEET TITLE:
Utility Plan

SHEET NUMBER:
C-4.0



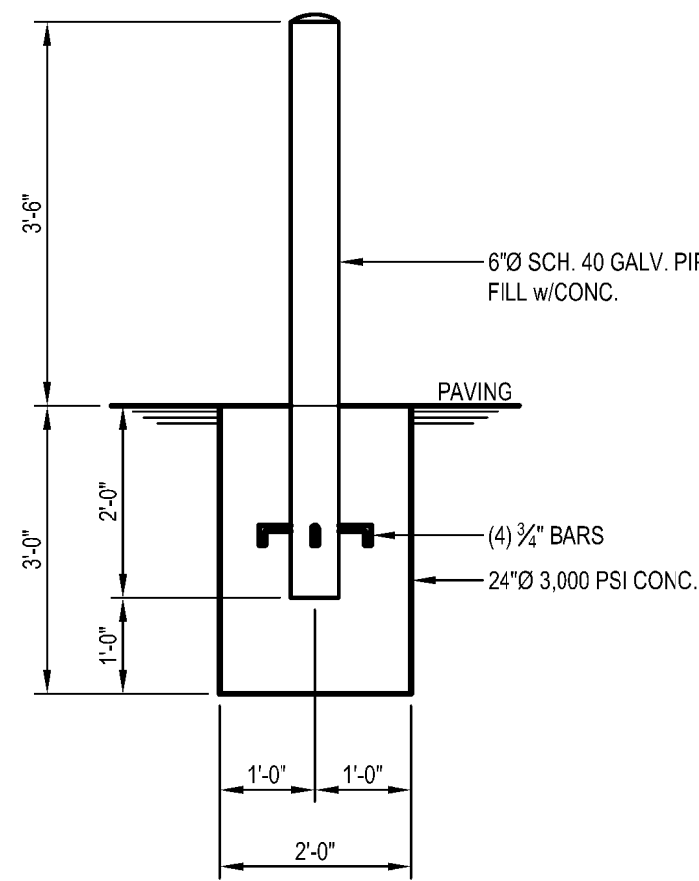
SECTION - ASPHALT PAVING - LIGHT DUTY

SCALE: NONE



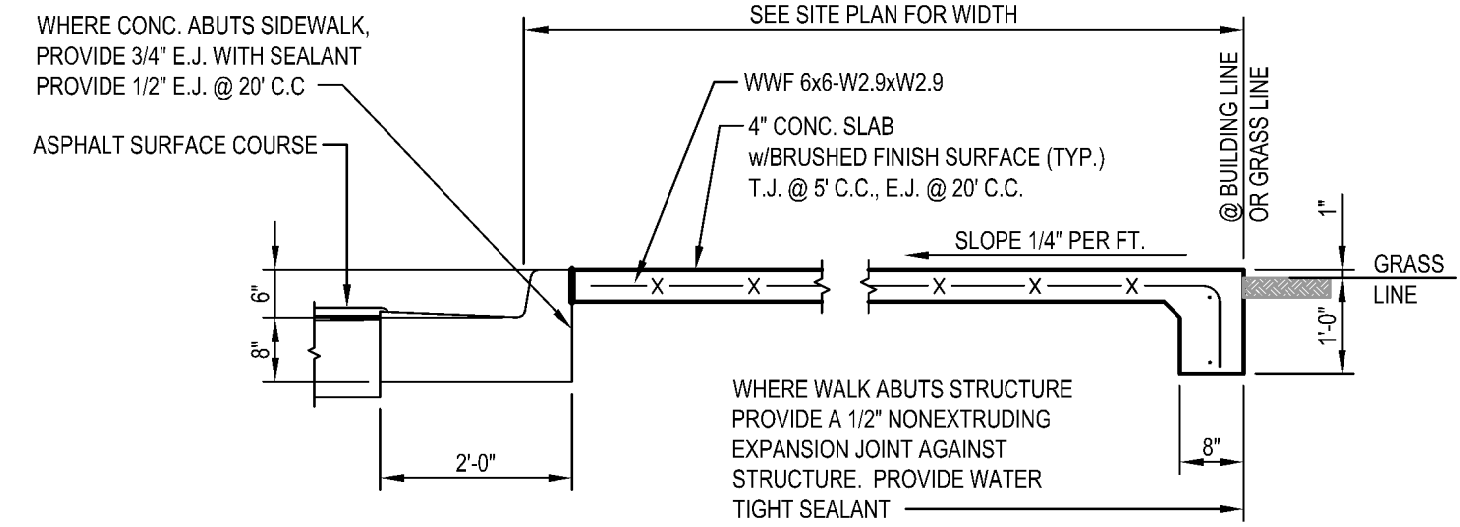
SECTION - ASPHALT PAVING - MEDIUM DUTY

SCALE: NONE



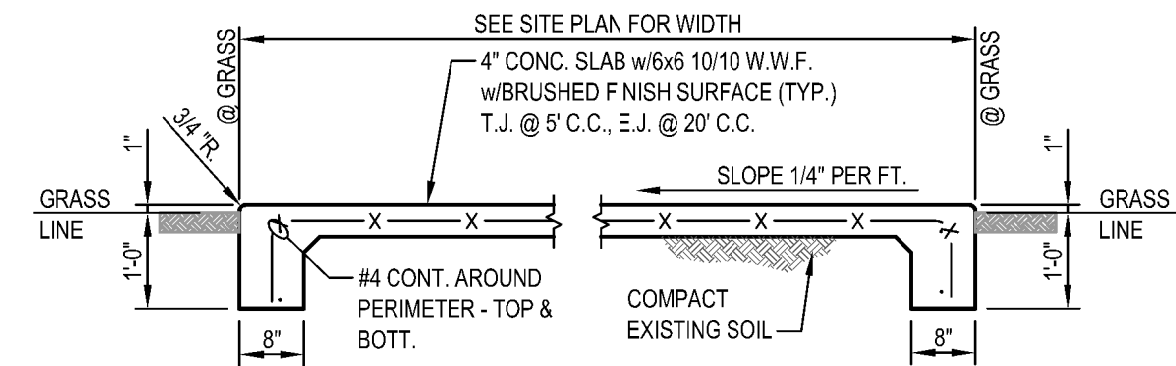
TYP. 6" BOLLARD DETAIL

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



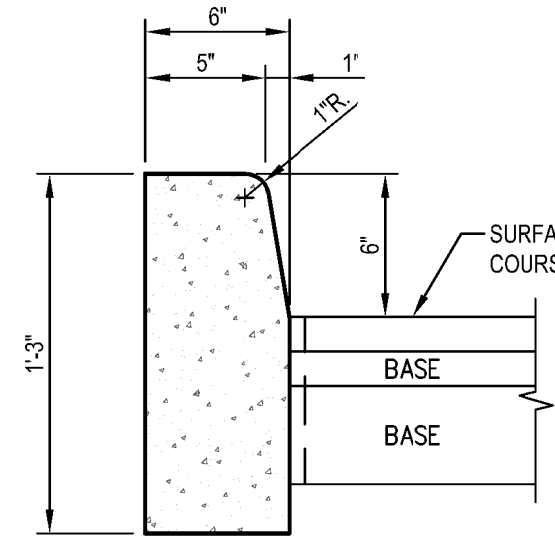
BRUSHED CONCRETE WALK
SECTION - AT CURB AND GUTTER

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



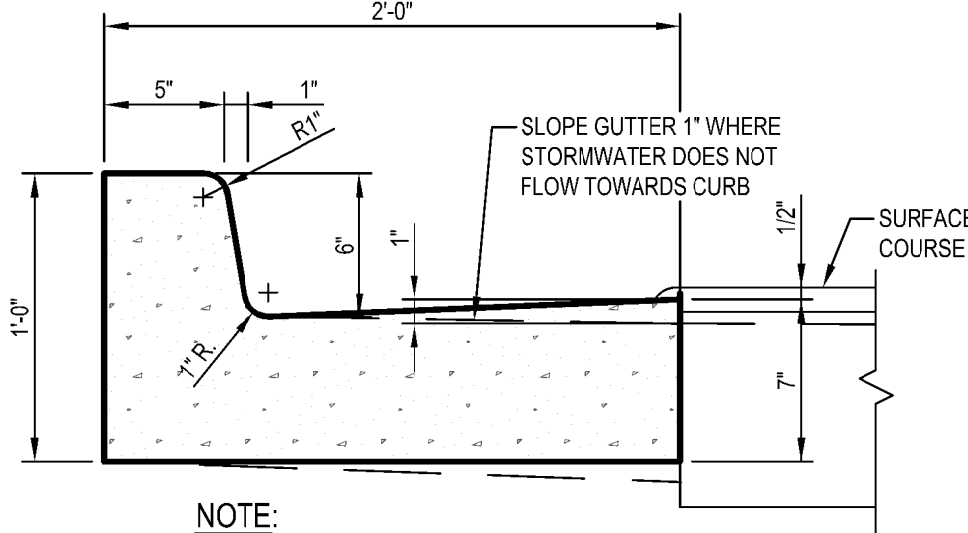
BRUSHED CONCRETE WALK SECTION - TYPE I

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



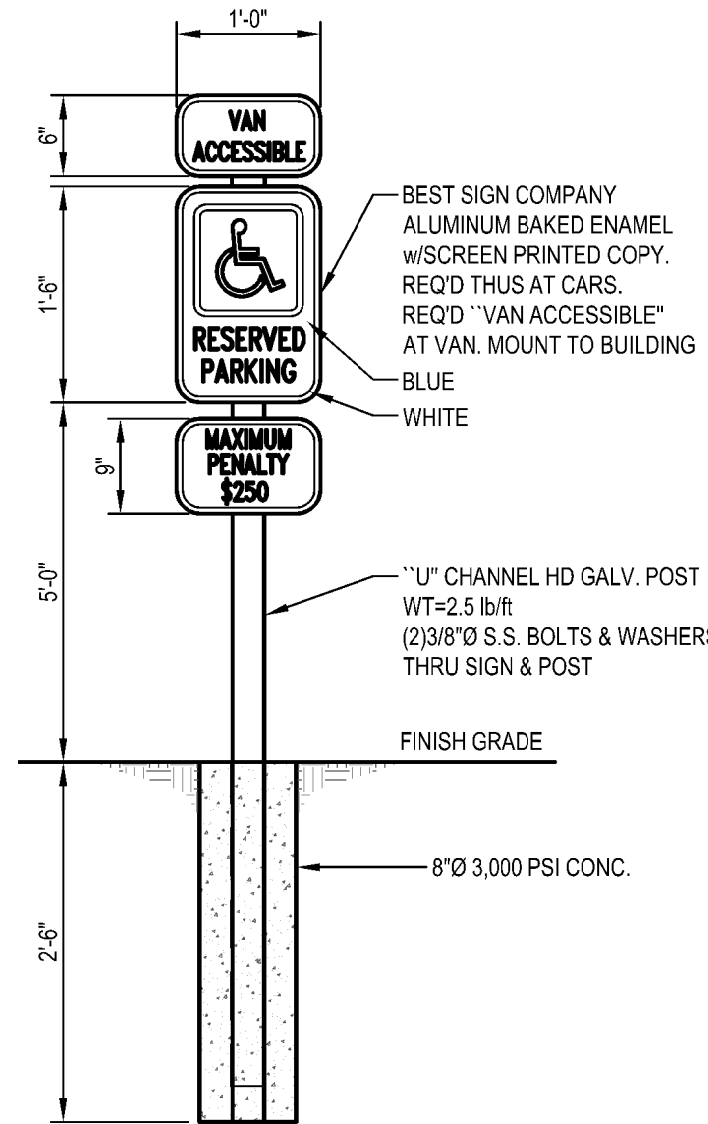
RIBBON CURB SECTION

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



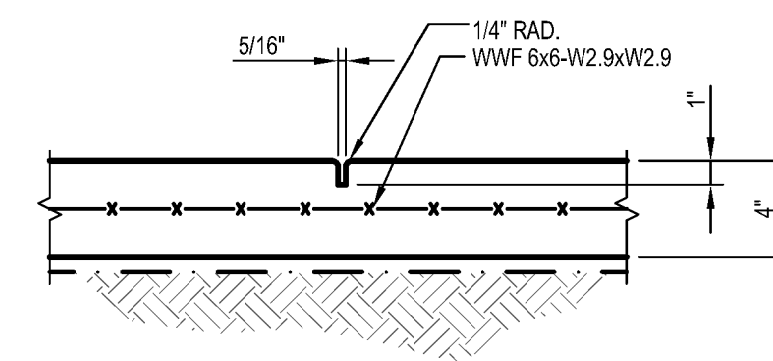
CONCRETE CURB & GUTTER DETAIL

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



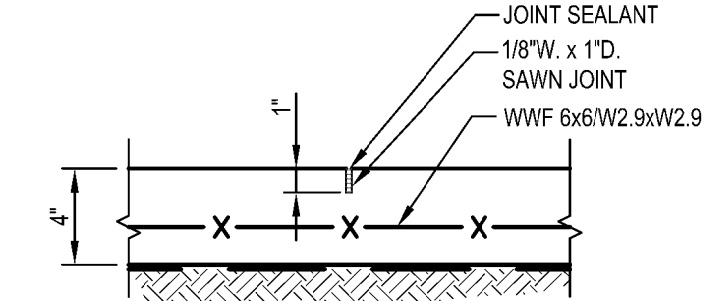
HANDICAP PARKING SIGN

SCALE: NONE



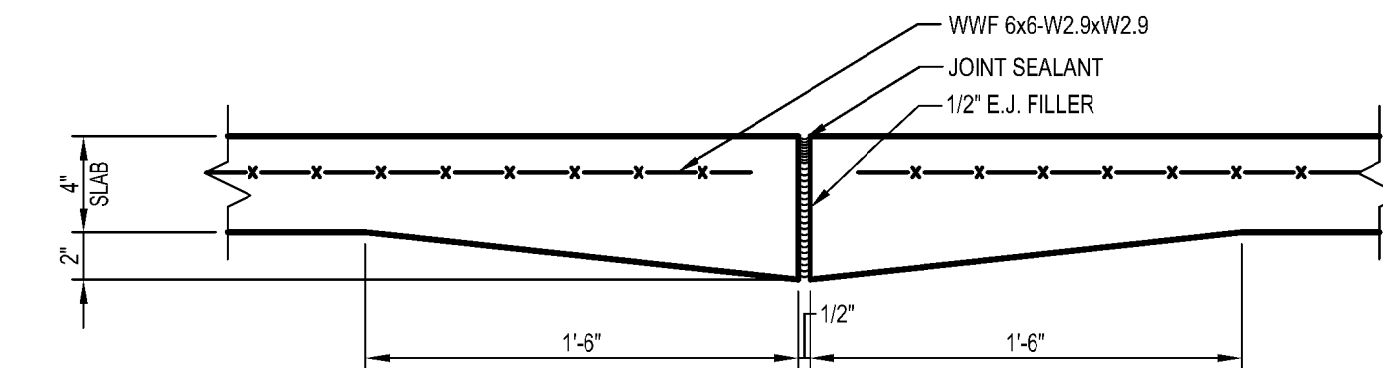
DETAIL - TOOL JOINT (TJ)

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



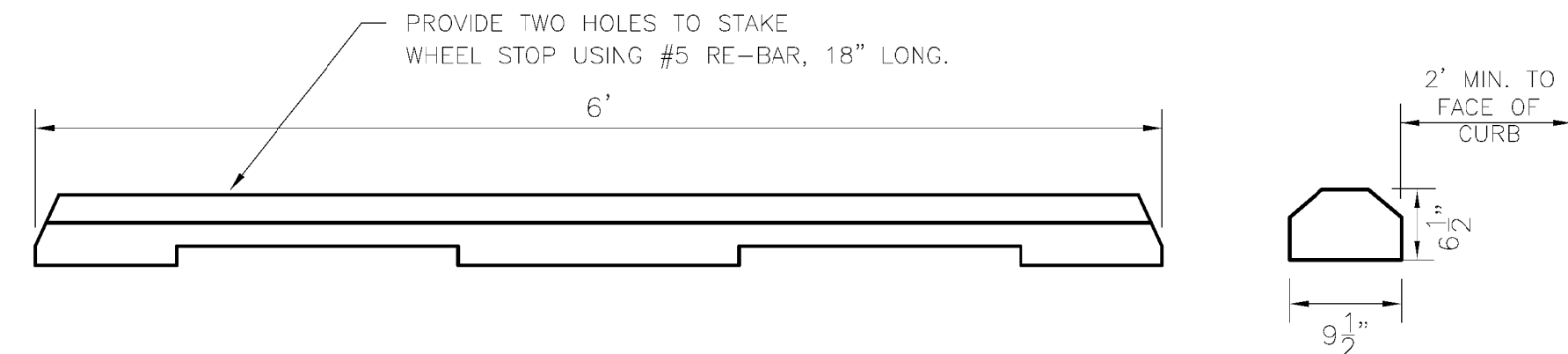
DETAIL - SAWN JOINT (SJ)

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



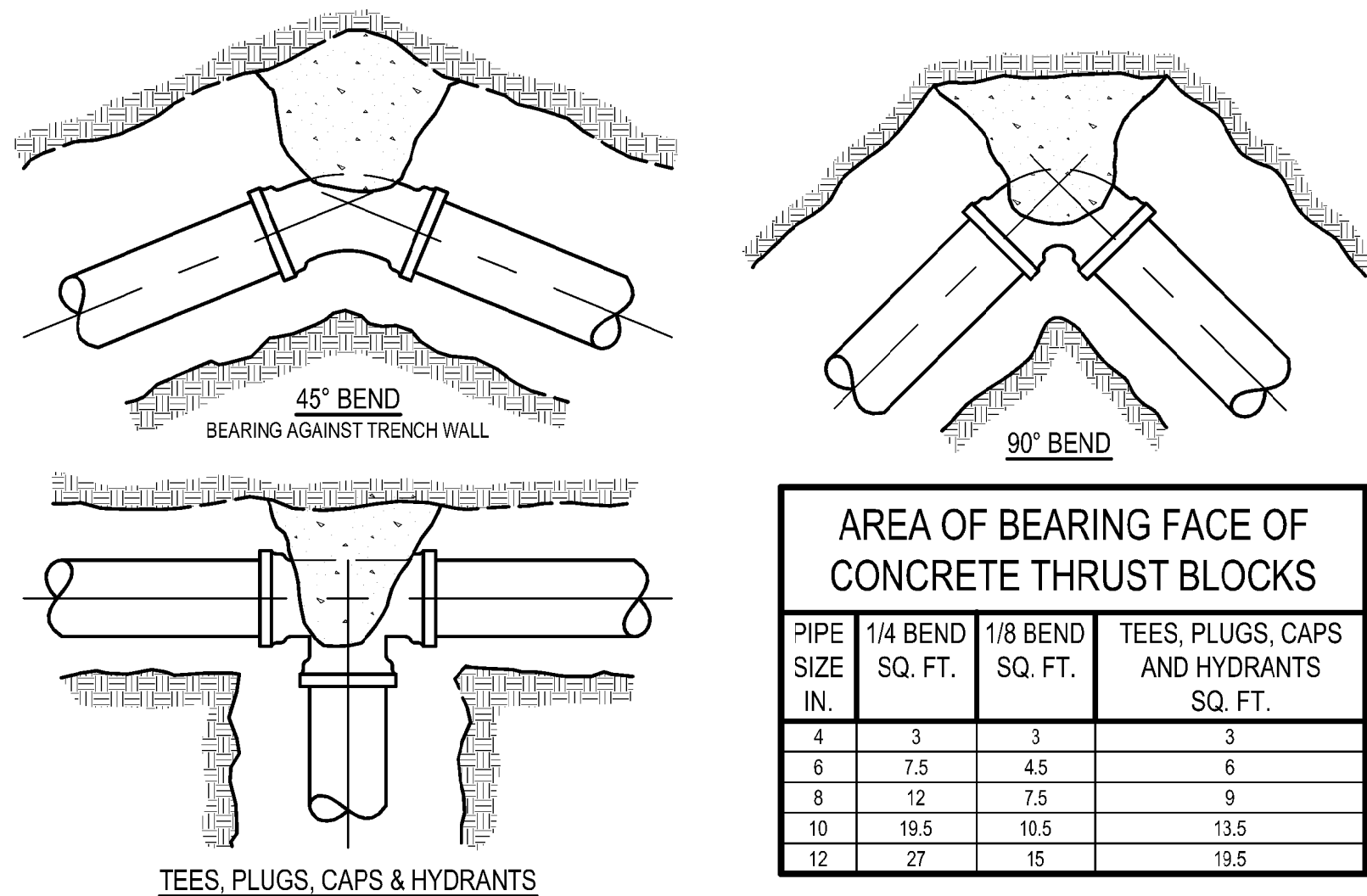
DETAIL - EXPANSION JOINT (EJ)

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



WHEEL STOP DETAIL

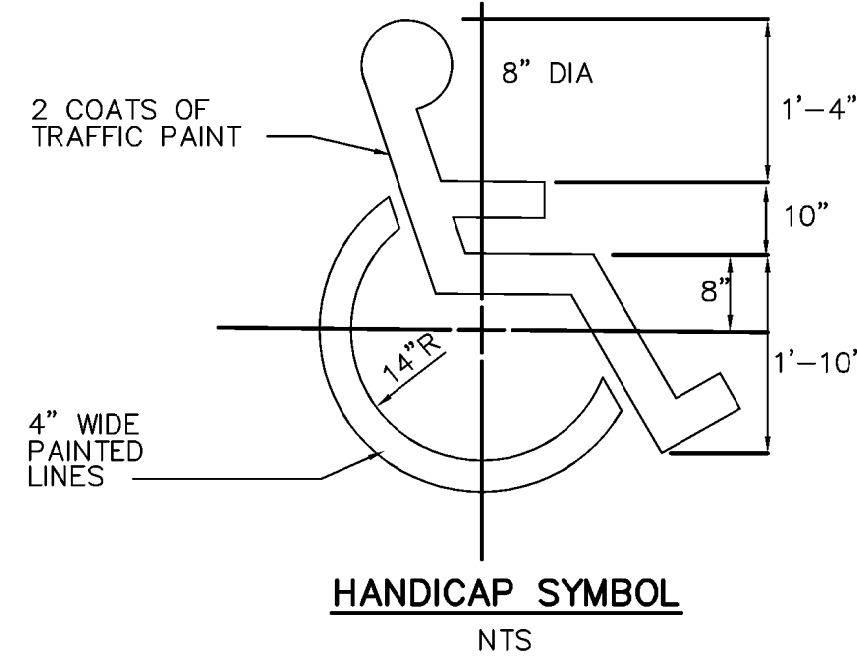
SCALE: NOT TO SCALE



THRUST BLOCK DETAIL

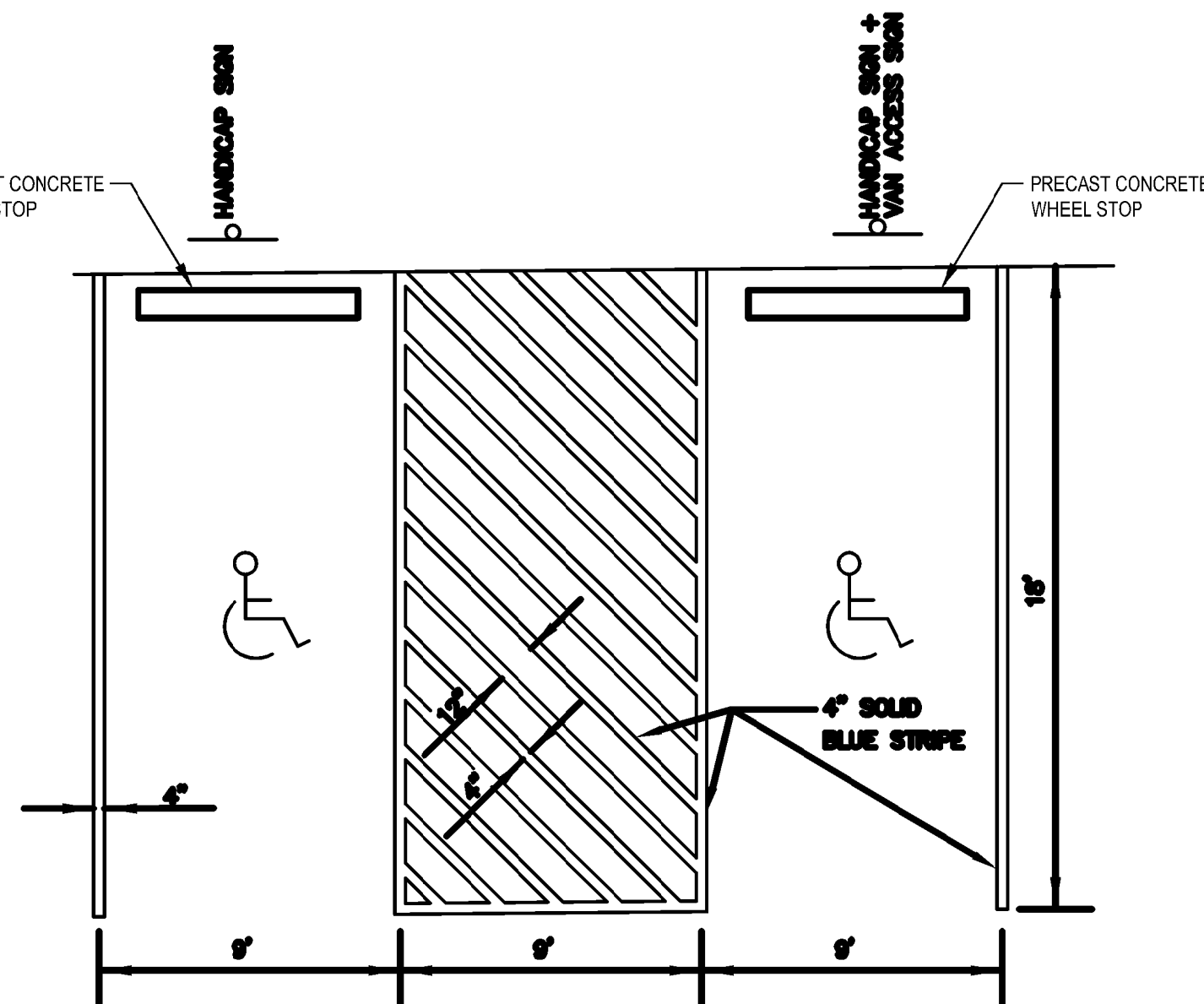
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AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS			
PIPE SIZE IN.	1/4 BEND SQ. FT.	1/8 BEND SQ. FT.	TEES, PLUGS, CAPS AND HYDRANTS SQ. FT.
4	3	3	3
6	7.5	4.5	6
8	12	7.5	9
10	19.5	10.5	13.5
12	27	15	19.5



HANDICAP SYMBOL DETAIL

SCALE: NOT TO SCALE



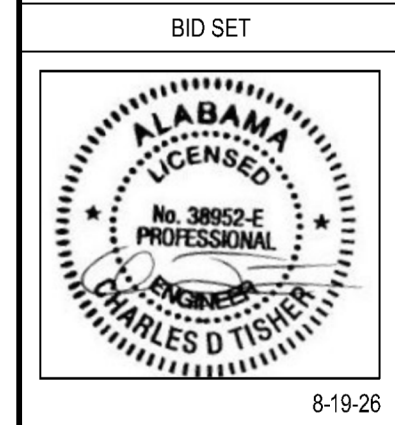
HANDICAPPED PARKING STRIPING DETAIL

NOTES:

1. ALL PAINTED LINES SHALL BE BLUE UNLESS OTHERWISE NOTED.
2. CROSS HATCHING IN ACCESS AISLE SHALL BE 4" WIDE SOLID BLUE LINES.
3. ONE OF EVERY 8 HANDICAP SPACES SHALL BE VAN ACCESSIBLE.
4. A SEPARATE SIGN SHALL BE PROVIDED FOR EACH HANDICAP

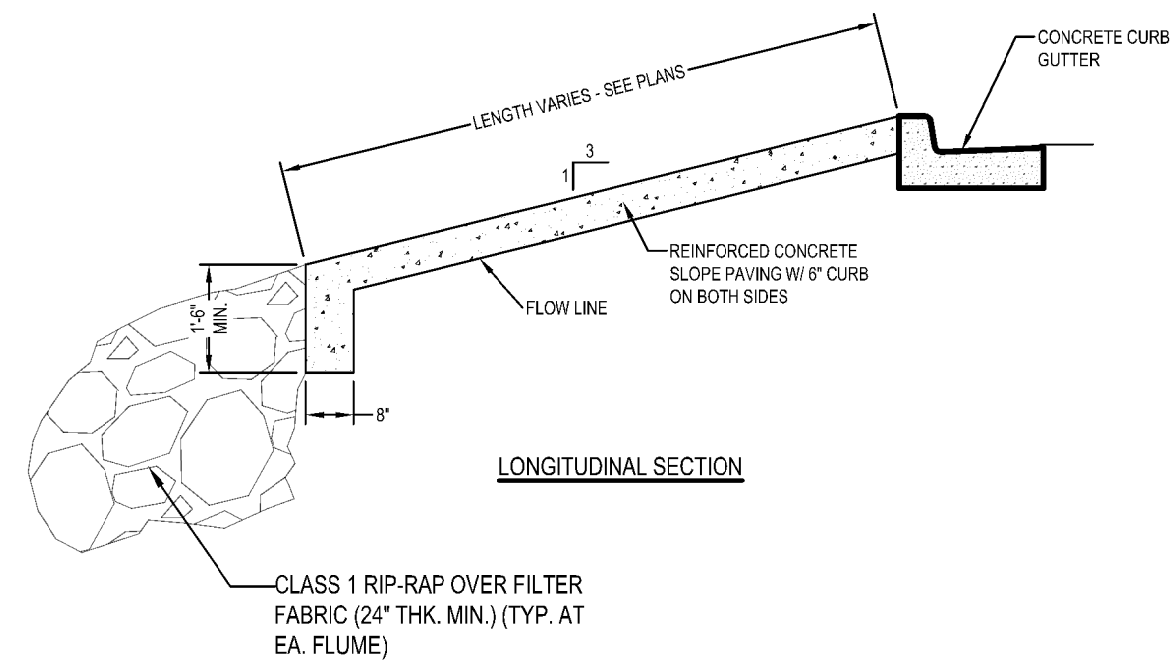
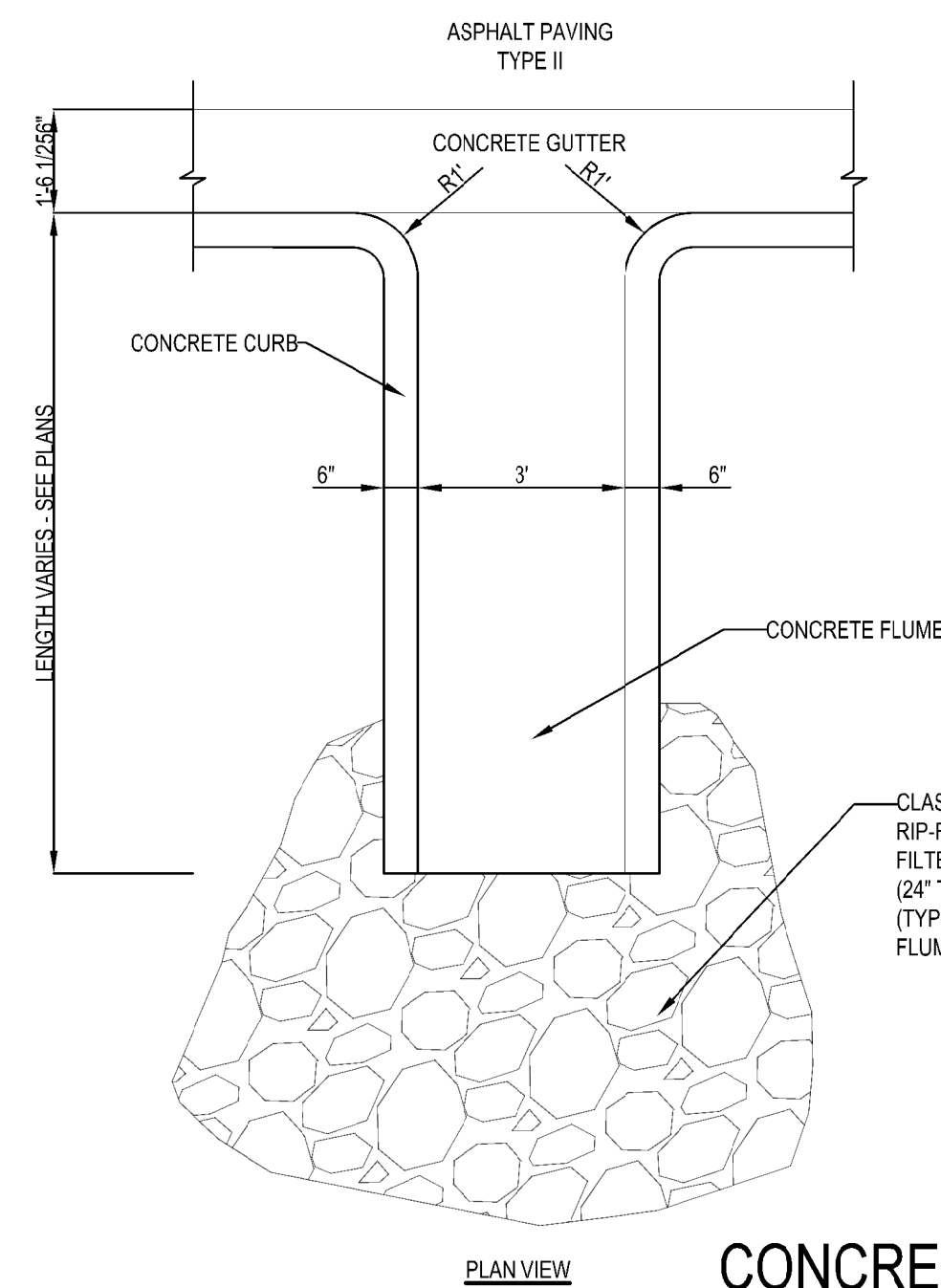
REVISION LOG	
REV	DATE BY DESCRIPTION

PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26



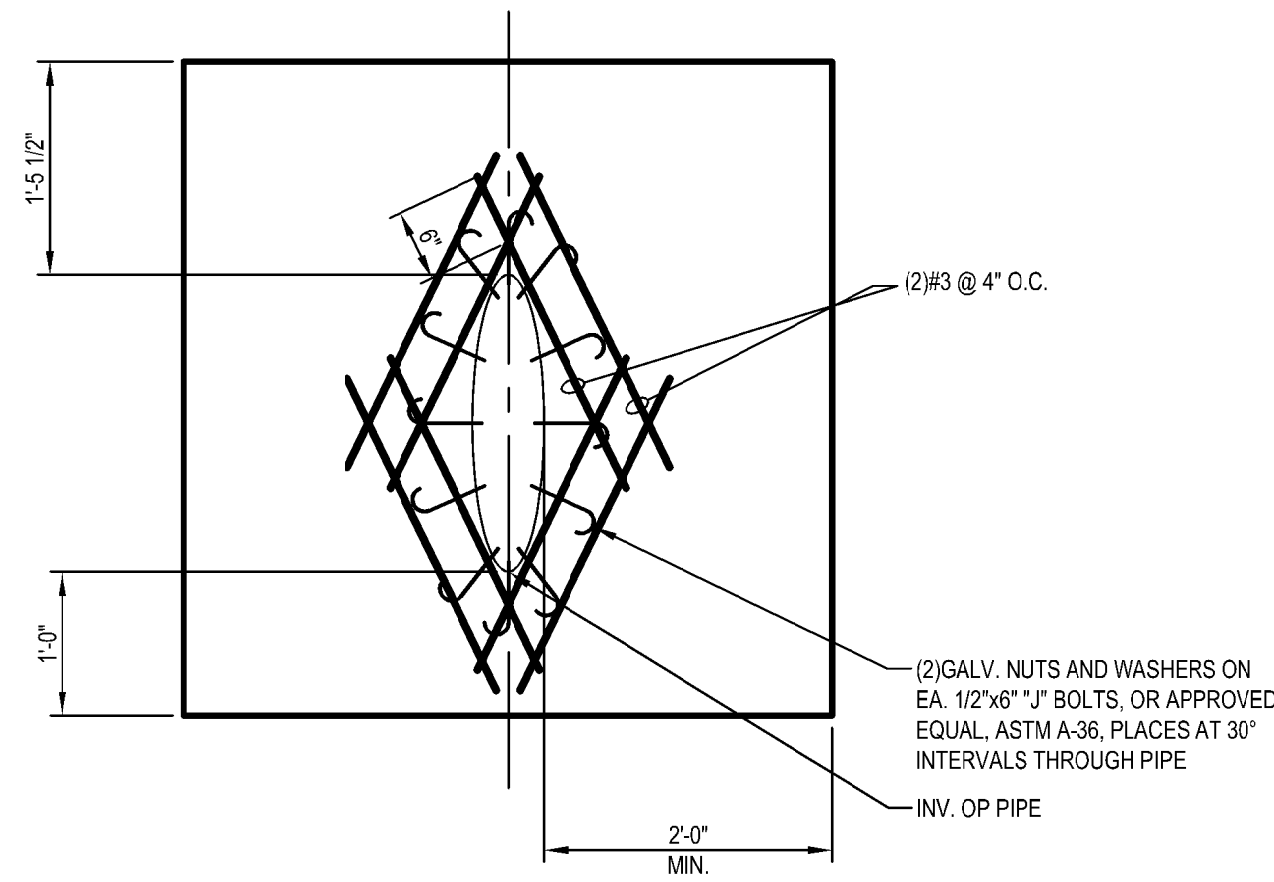
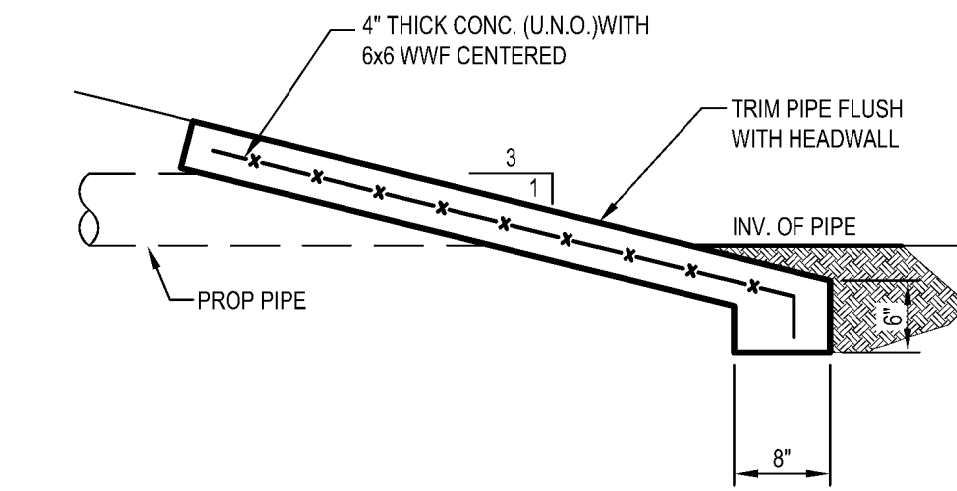
SHEET TITLE:
SECTIONS & DETAILS

SHEET NUMBER:
C-5.0



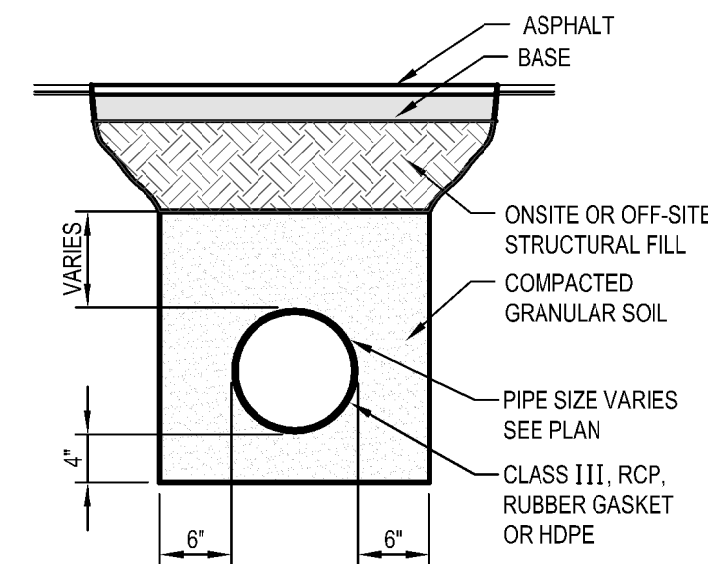
CONCRETE DRAINAGE FLUME

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



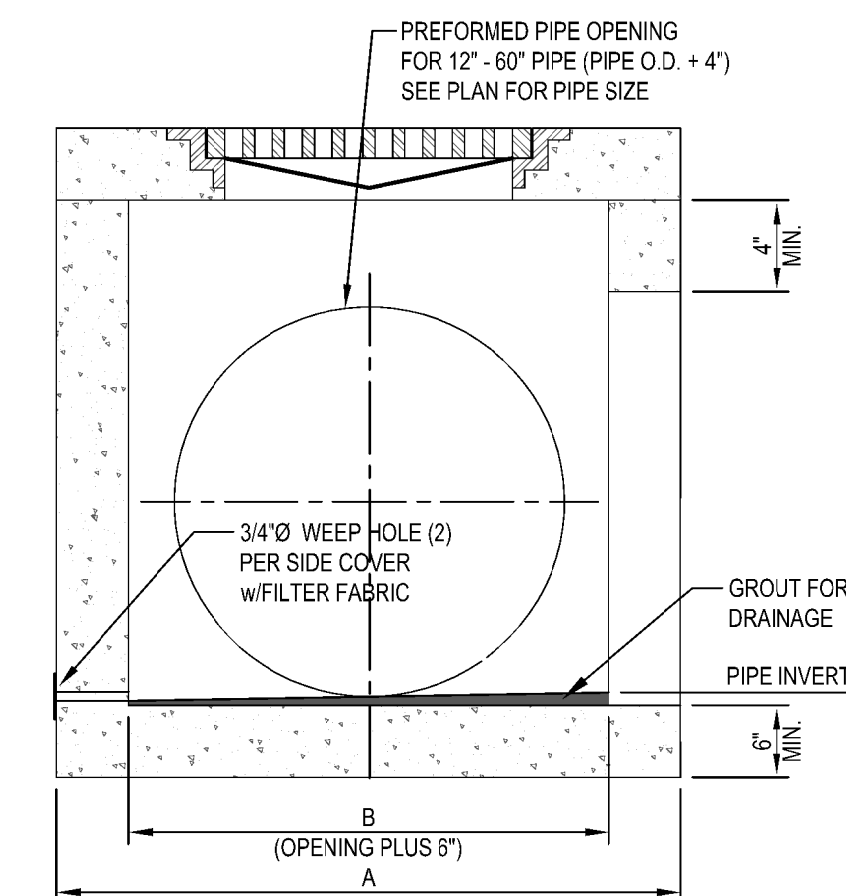
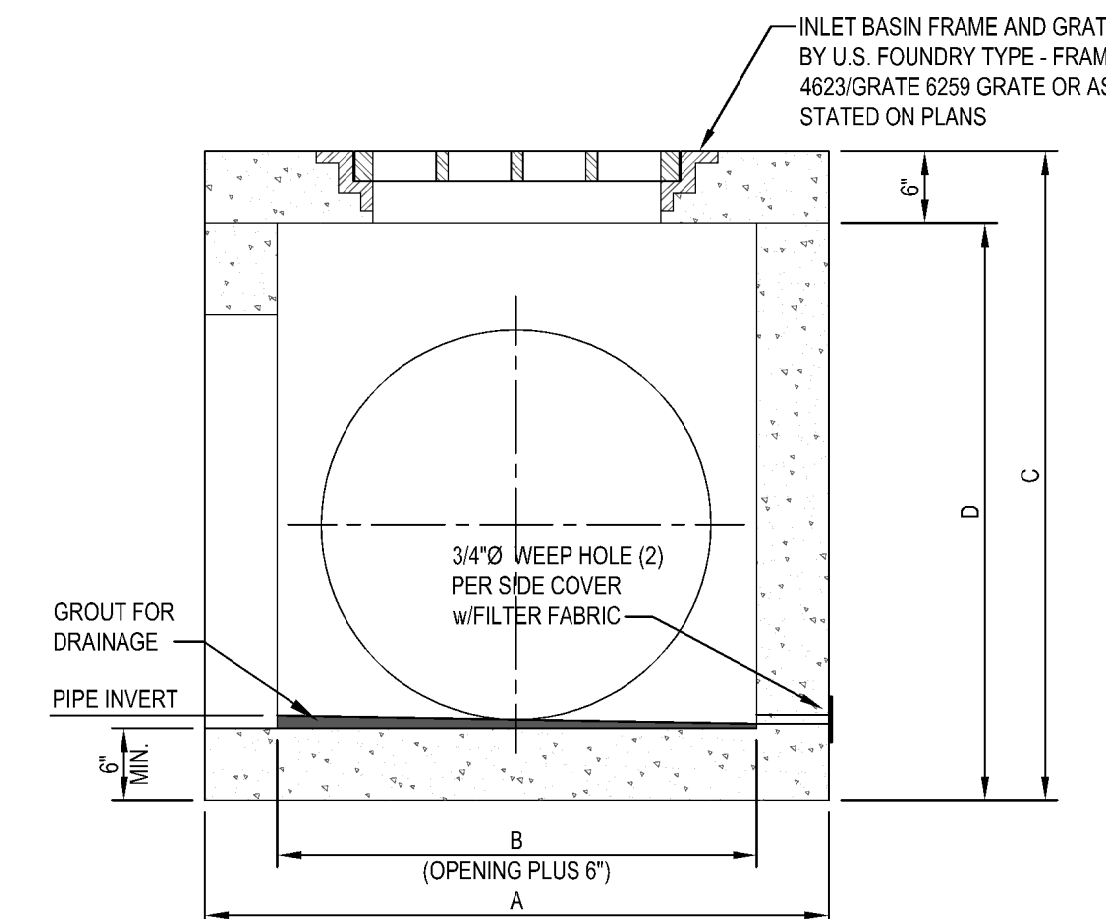
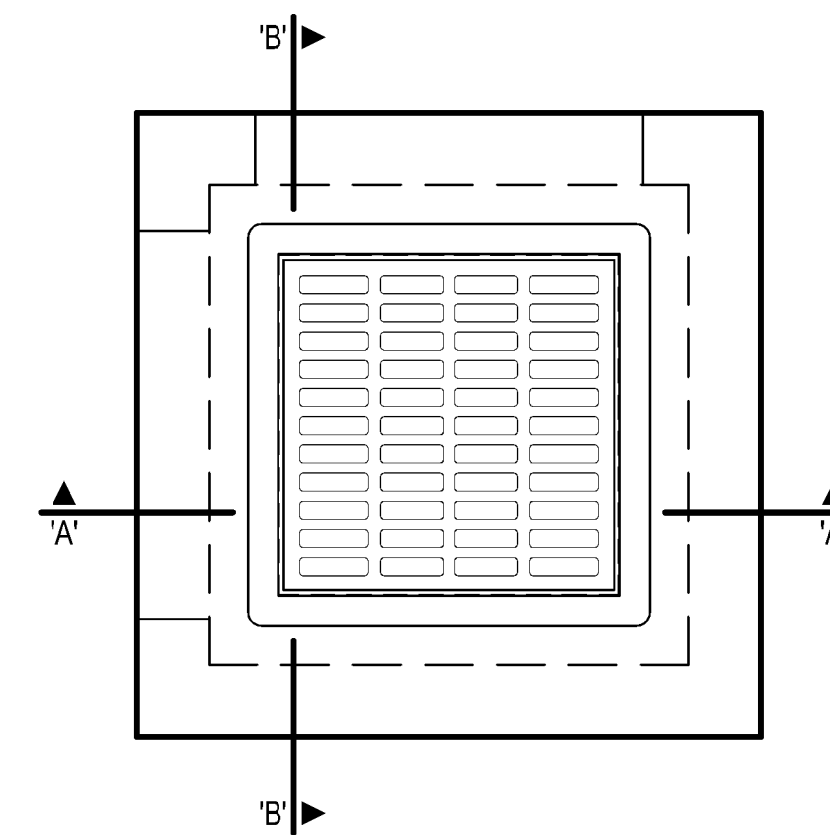
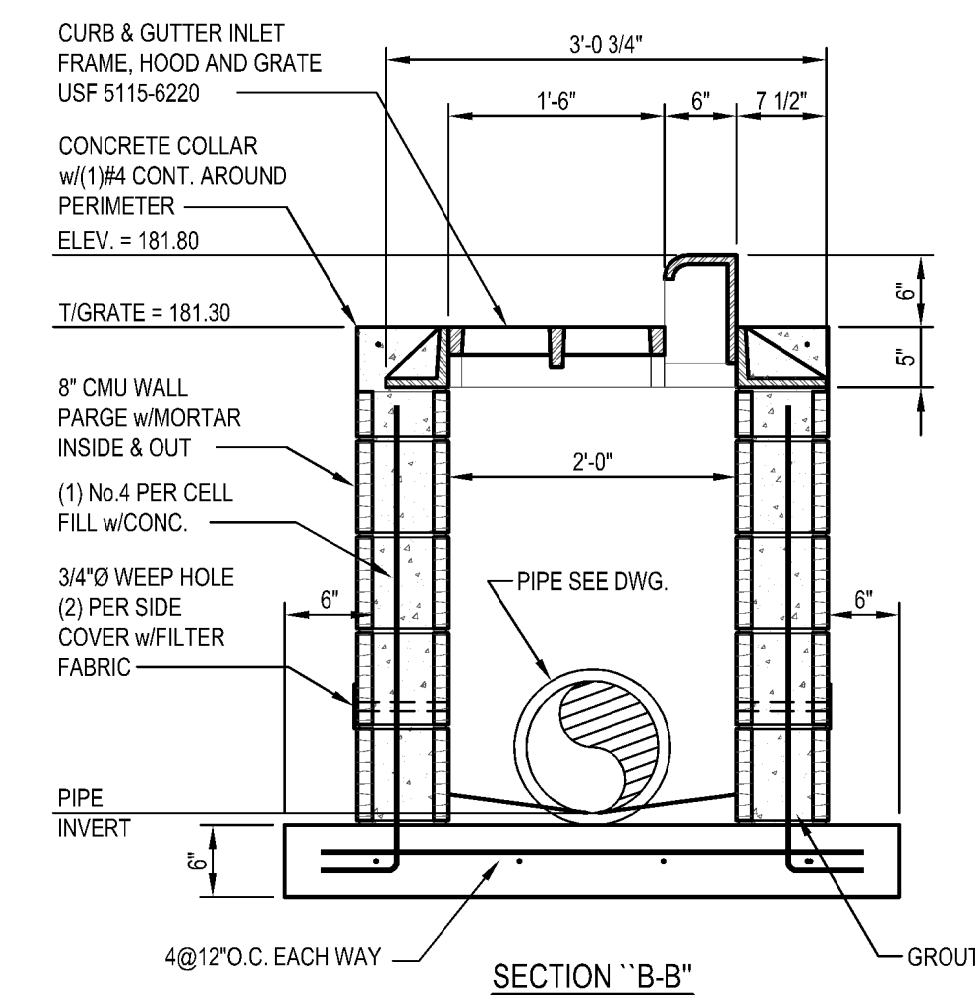
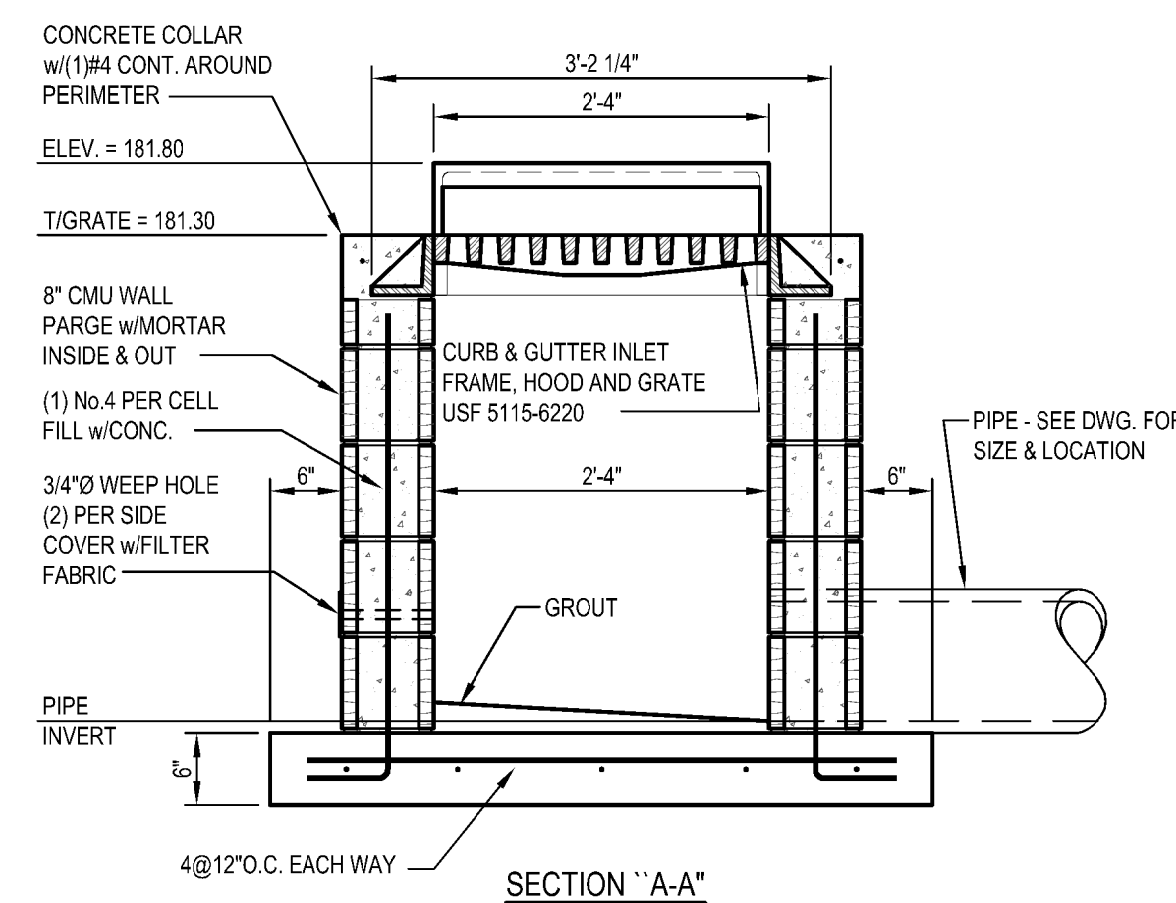
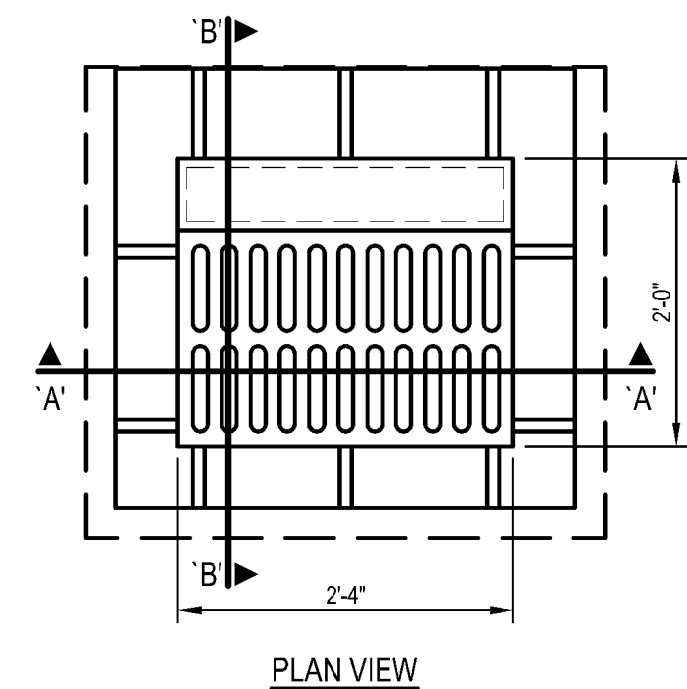
SLOPED CONC. HEADWALL

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



PIPE BEDDING DETAIL

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



- NOTES:**
1. CONTRACTOR SHALL VERIFY THAT FRAMES BEAR ON WALLS WITH CATCH BASIN AND PIPE SIZE PRIOR TO CONSTRUCTION. IF FRAMES DO NOT BEAR ON WALLS, THEN THE CONTRACTOR SHALL SUBMIT NEW PROPOSED LID PLAN AND DETAIL FOR APPROVAL, SHOWING THAT THE LID AND GRADE CAN HANDLE THE PROPER AHS-10 AND HS-20 WHEEL LOADINGS AT NO COST TO THE OWNER.
 2. IF USED FOR JUNCTION BOX, PROVIDE SOLID MANHOLE COVER HAVING A MINIMUM OPENING OF 24" DIA.
 3. 4,000 PSI CONCRETE, GRADE 60 REINFORCEMENT, MINIMUM 2" CONSISTENT COVER ON REBAR.
 4. ALL PICK UP POINTS AND PIPE OPENINGS TO BE GROUNTED BY CONTRACTOR WITH ENGINEER APPROVED NON-SHRINK GROUT.
 5. JOINT SEALANT: 1 1/4" CONCEAL SEALANT BUTYL RUBBER SS-S-00210 OR EQUIVALENT
 6. PROVIDE CAST IRON STEPS ON CATCH BASINS & CONC. INLET STRUCTURES GREATER THAN 4' DEEP
 7. FLOOR THICKNESS TO BE AS REQUIRED FOR BEARING BUT NOT LESS THAN 6" THK. WALL THICKNESS TO BE NOT LESS THAN 6" THK BUT NOT LESS THAN 6" THK.

TYPICAL CATCH BASIN OR JUNCTION BOX DETAIL (PRE-CAST)

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

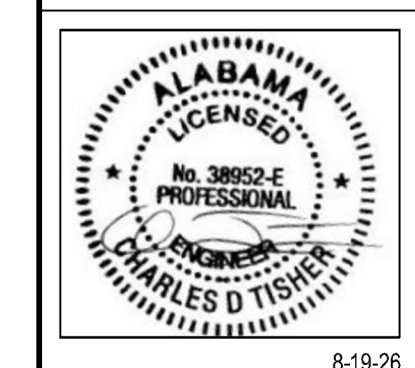


A NEW GYMNASIUM FOR
MARY G MONTGOMERY
4275 SNOW ROAD N
SEMMIES, AL 36575

[illegible]

PROJECT NUMBER:	2629
DRAWN BY:	DSC
CHECKED BY:	CDT
ISSUE DATE:	8-19-26

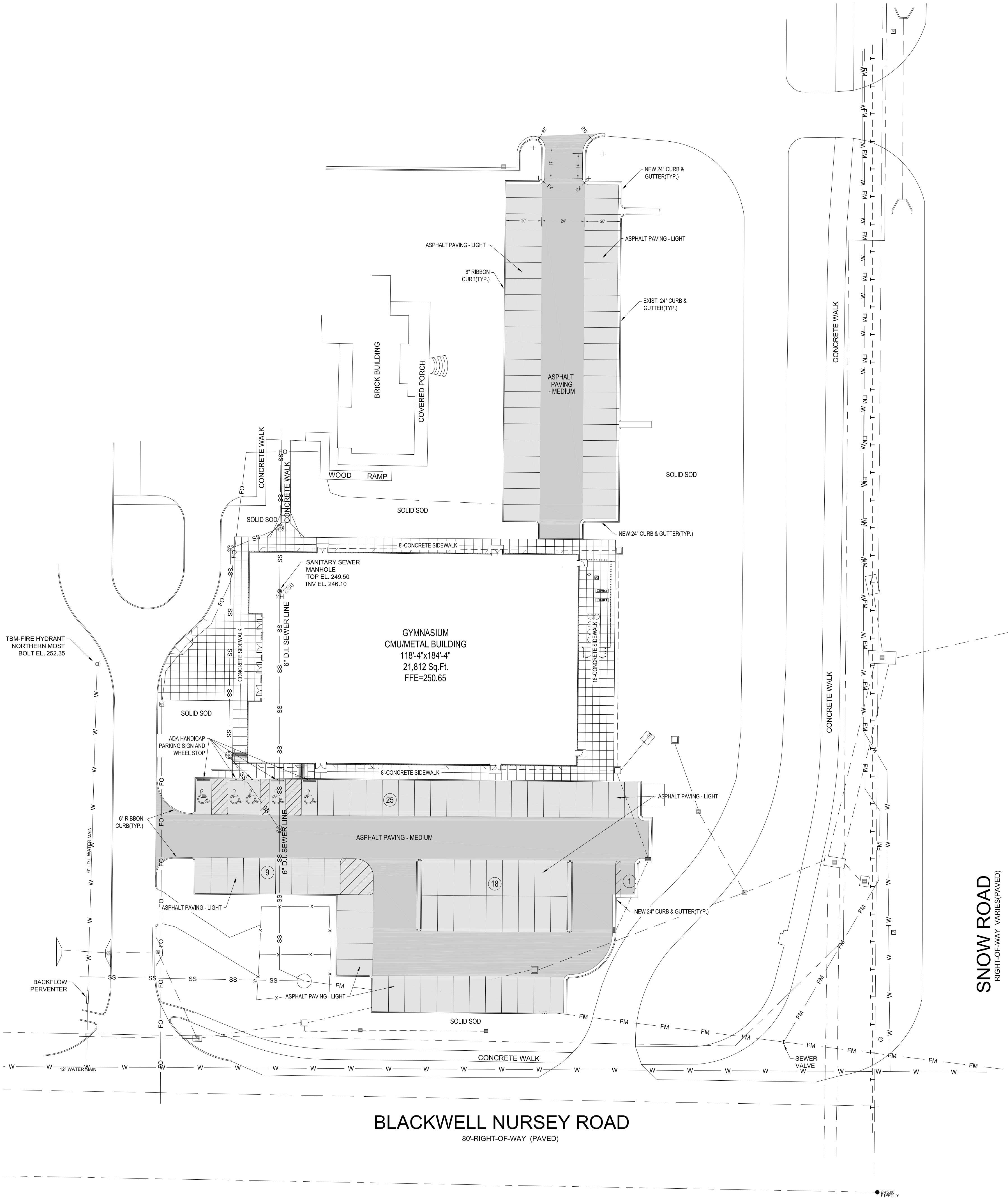
BID SET



SHEET TITLE:

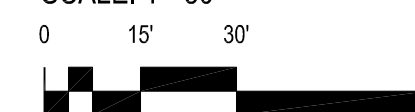
SECTIONS & DETAILS

SHEET NUMBER:
C-5.1



LANDSCAPE PLAN

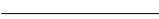
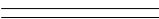
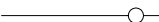
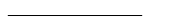
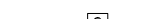
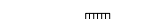
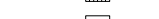
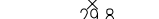
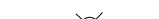
SCALE: 1"=30'

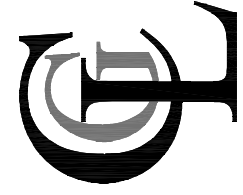


SCALE: 1" = 30'

<u>SITE DATA:</u>	
SITE DATA:(AFFECTED AREA)	108716.8 Sq. Ft. (2.49 AC)
<u>LAND USE - (EXISTING):</u>	
ASPHALT CONCRETE	69,833.8SQ.FT. 36.4%
GRASSLANDSCAPE	69,133.0SQ.FT. 63.6%
	108,716.8SQ.FT. 100%
<u>LAND USE - (NEW):</u>	
BUILDING	21,812.0SQ.FT. 20.1%
CONCRETE WALKS/PADS	8,001.3SQ.FT. 7.3%
ASPHALT CONCRETE CURBS	39,757.7SQ.FT. 36.2%
LANDSCAPE AREA	39,365.7SQ.FT. 36.2%
	108,716.7SQ.FT. 100%

LEGEND

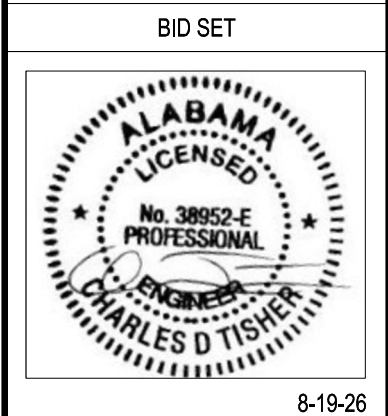
EDGE OF ASPHALT		PROPERTY LIMITS	
CURB LINES		NEW CONTOUR	
EXIST. FENCE		NEW SPOT ELEVATION	
NEW FENCE		DEPRESSIONS	
BUILDINGS		POWER POLE	
NEW GRASSSED SWALE		GUY ANCHOR	
SIGNS		TRANSFORMER	
MAN HOLES		MONUMENT	
GAS METERS		SURVEY MARK (HUB)	
CURB INLET		IRON PIN	
CATCH BASINS		GLOW LINE	
JUNCTION BOX		ASPHALT PAVING	
EXISTING CONTOUR		LIGHT DUTY	
EXISTING SPOT ELEVATION		ASPHALT PAVING	
FLOW DIRECTION		MEDIUM DUTY	
FIRE HYDRANT		SOLID SOD	
HIGH POINT			



A NEW GYMNASIUM FOR
MARY G MONTGOMERY
4275 SNOW ROAD N
SEMMES, AL 36575

[illegible]

PROJECT NUMBER:	2629
DRAWN BY:	CDT
CHECKED BY:	CDT
ISSUE DATE:	8-19-26



SHEET TITLE:

Landscape Plan

SHEET NUMBER:
C-6.0

GENERAL NOTES

- Contractor shall compare Structural drawings and Architectural drawings. Any omissions or discrepancies between plans, details, and specifications shall be brought to the attention of the Architect or Engineer before bidding.
- Structural drawings or parts of the structural drawings may not be used as shop drawings without prior written approval.
- Contractor proposed changes to details must be clearly noted on the first sheet of all shop drawings.
- Construction shown is stable after the building is complete including interior and exterior finishes. The Contractor is responsible for temporary bracing of the structure during construction.
- Intersections of new and old construction illustrate interpretations of drawings on previous projects. Before starting any construction, verify all existing conditions.
- Site visits by Engineer of Record are not considered inspections or special inspections, rather are observations for general compliance with contract documents.
- Design contract is for design of foundations only. No PEMB reactions were provided at the time of foundation design. Foundation design is based on assumed PEMB reactions. Design to be verified once PEMB reactions are supplied. Any changes in foundation design as a result of the supplied PEMB reactions will not result in any additional cost to the owner. No other design or analysis of the PEMB or its structural components has been made. Barnett/Jones/Wilson, LLC has no control or responsibility for the entire building and therefore is not the structural engineer of record for the metal building elements.
- Electronic submittal of shop drawings is required. Review of submittal information shall be for general conformance with the contract documents and shall not include checking of detailed dimensions or detailed quantities.

DESIGN LOADS

- Reference code for loading
IBC 2018 & ASCE/SEI 7-16
- Building Classification
III
- Wind Load
162 mph
- Basic Wind Speed (3 sec gust)
162 mph
- Wind Exposure
C
- Internal Pressure Coefficient
+/- 0.18
- Velocity Pressure (q_z)
48.54 psf
- Components & Cladding Pressures
See table and diagram
- Service Level loads provided
Take minimum Dead Load as 20 psf
 $h = 32' - 33'$
 $a = 12' - 11'$
- Roof Snow Load
a. Flat Roof Snow Load (P_f)
0 psf
- Seismic Load
a. Importance Factor
1.25
b. Mapped Spectral Response Accelerations
1. S_s
0.098
2. S_1
0.062
c. Site Class
D
d. Spectral Response Coefficients
1. S_{SD}
0.104
2. S_{SI}
0.099
e. Seismic Design Category
B
- Live Load
a. Roof
20 psf
b. Slabs on grade
100 psf
c. Mechanical Mezzanine
100 psf
d. Stairs and exitways
100 psf

FOUNDATIONS

- Foundation design for this project was based on soils information provided by Southern Earth Sciences, Inc. project number M26-047.
 - Bearing value of soil: 2000psf
 - All footings are to be on undisturbed soil or engineered fill as directed by the geotechnical report.
 - Foundation design is based on the GC fully following the site/soil work outlined in the geotechnical report.
 - Provide 8'-0" long top steel reinforcing, same size and spacing as bottom steel, at transitions between engineered fill and undisturbed soil locations.
 - Install corner bars at all footing intersections and corners (Provide lap length s.w.).
 - Step all footings where necessary to provide a minimum of 1'-6" below the finish grade or 0'-8" below finish floor.
 - Unless noted otherwise, footings extend 8" beyond end of CMU walls that do not terminate at corners.
 - All footing elevations are given to the top of the footings.
 - Footing steps shown on the plans are furnished as a guide for estimating quantities. Final elevations are to be set in the field. Bearing elevations must be approved by a Soils Engineer before any concrete is placed.
 - Coordinate foundation elevations with plumbing requirements. Step footings down as required to clear plumbing lines.
 - Slabs on grade should be supported on 4" minimum compacted dense graded base material (ALDOT 825B, #8910, or equivalent), compacted to a minimum of 98% compaction and +/- 3% optimum moisture based on ASTM D698, unless noted otherwise in construction documents or geotechnical report.
- ## REINFORCING STEEL AND CONCRETE
- All concrete work is to be in accordance with the *Building Code Requirements for Structural Concrete (ACI 318-19)*.
 - All detailing work is to be in accordance with the *ACI Detailing Manual (MNL-66(20))*.
 - Use of calcium chloride, chloride ions, or other salts in concrete are prohibited.
 - Concrete Properties: See schedule.
 - All concrete must obtain 7 day strength of 70% of design strength.
 - Concrete mixes may replace cement with other cementitious materials; submit these for approval.
 - Concrete mixes may use water reducers, accelerators, or retarders with prior approval.
 - Do not provide air entrainment in concrete mixes for interior slabs.
 - All steel reinforcement shall be of deformed bars of billet steel conforming to ASTM A615, Grade 60 in all concrete.
 - Welded wire fabric (WWF) shall be ASTM A185 and shall lap (2) cross wires or 6", whichever is greater on all sides. All laps shall be wired together.
 - Provide (2) #4 bars x 4'-0" at re-entrant corner locations TYP. Locate 3" away from corner and space 0'-6" apart.
 - All slabs on grade are 4" unless noted otherwise. Slabs are to be placed on 10 MI, PVC vapor barrier over 4" of porous fill. Reinforce slabs with 6x6 W1.4xW14 WWF placed 1" from top of slab. Unless noted otherwise, slabs shall have joints placed at a maximum of 10'-0". The aspect ratio should not exceed 1.5:1. Joints may be control joints or construction joints. See Architectural Plans for floor slopes and recesses for hard tile.
 - All reinforcing steel must be chaired, bricked and CMU are not adequate chairs per owner's request.
 - Minimum concrete cover for reinforcement:
 - Footings
3" bottom & sides, 2" top
 - Slabs on grade
3/4"
 - Slabs on deck
3/4"
 - Grade Beams, Cast-In-Place Walls, & Column Piers
2" - #6 and greater, 1-1/2" - #5 and smaller
a. Surfaces exposed to weather or soil
3/4"
 - Other surfaces
3/4"
 - Provide corner bars at all wall and footing intersections.
 - Contractor shall include an allowance of (2) tons of reinforcing steel and (40) cubic yards of concrete in addition to the steel & concrete shown on the contract documents in the base bid. This material is to be acquired, detailed, fabricated, and placed at no additional cost to the Owner in sizes and at locations as directed by the Architect or Engineer. Unused materials will be credited to the Owner.
 - No openings shall be allowed to penetrate any concrete work, unless it is shown on the structural framing plans, without prior written approval. Contractor shall submit for review locations of proposed openings not shown 30 days prior to pouring any concrete.
 - Do not run conduit or pipe in slabs or beams unless noted otherwise on the plans or specific prior approval from the Engineer.
 - Provide a continuous water bar at all wall construction joints below ground level.
 - Use 3/4" chamfer for all exposed corners unless noted otherwise.
 - Mechanical openings through the floor have not been shown on the Structural drawings. See Mechanical plans for size and location of openings. Reinforcing at opening will be coordinated at time of placement.
 - Contractor to provide PEMB reactions for footing verification before reinforcing steel shop drawings are submitted.

MASONRY

- All masonry work to be in accordance with *Building Code Requirements and Specification for Masonry Structures (TMS 402/602-16)*.
- Fill all concrete masonry units with concrete or grout from the top of the footing to the finish floor or to 8" above finish grade, whichever is higher.
- Use ladder-type joint reinforcement at 16" o.c. in all cavity walls where brick is used for one or more of the wythes.
- All masonry to be laid in running bond pattern. "Wet" masonry is not permitted to be installed until it is dry.
- Use Type "M" or "S" mortar in accordance with IBC Table 2103.2.1, unless noted or approved otherwise.
- Minimum compressive strength of concrete masonry 1" = 2000 psi in accordance with the unit strength method and TMS 402/602-16. Submit for review test data on strength of units before starting any masonry work.
- Minimum compressive strength of grout 1" = 2000 psi. Use 3/8" max size aggregate. See Special Inspection Schedule for any testing requirements. Grout slump shall be 8" to 11".
- Use "Fine" grout for all reinforced piers and reinforced wall in accordance with ASTM C476.
- Each grout lift shall not exceed 5'-0" unless cleanouts are provided in the bottom course.
- Fill cells under all lintels with grout.
- Provide lintels over all openings through wall. See lintel details for reinforcement.
- Unless noted otherwise, provide control joints in all walls 4'-0" from wall intersections or corners and at 20'-0" o.c.
- Provide continuous bond beam at 8'-0" o.c. vertical spacing and at top of wall, TYP.
- Extend all horizontal steel and bond beams through control joints.
- Vertical reinforcement shall extend into the bond beam and terminate with an ACI standard 90° degree hook.
- Rebar positions to be coordinated during submittals and used unless approved otherwise.
- Unless noted, all vertical bars are to be located at the center of cell. Where bars are specified at each face, provide 3/4" clear space between reinforcement and CMU face shell.
- Anchor bolt into grouted cell locations only, unless noted otherwise.
- Non-load bearing interior CMU walls shall be reinforced #4 bars in fully grouted cells @ 48" o.c. Provide Bond Beam at top of wall and every 8'-0" o.c. vertically. Brace top of wall per typical details.
- Owner requires all mechanical rooms to have fully grouted block walls.

STRUCTURAL STEEL

- All structural steel work to be in accordance with the *Specification for Structural Steel Buildings (ANSI/AISC 360-16)* and the *Structural Welding Code - Steel (AWS D1.1)*.
- All seismic force-resisting systems work to be in accordance with the *Seismic Provisions for Structural Steel Buildings (ANSI/AISC 341-16)*.
- Fabricator shall be AISC Certified or shall pay for Special Inspections on Shop Fabricated items.
- All reactions shown are ASD loads.
- All structural steel W shapes shall be ASTM A992.
- All structural steel Tube sections shall be ASTM A500 Grade C.
- All structural steel channels, angles and other sections shall be ASTM A36, unless noted otherwise.
- Headed Studs shall be Type B Shear Connectors.
- Shop and field connections shall be welded with E70XX electrodes or bolted with 3/4" dia. A325-N or A325-X bolts, unless noted otherwise.
- Use ASTM F1554 Grade 36 anchor bolts for all PEMB frames, unless noted otherwise.
- If anchor rods are installed without quite enough projection, contractor may submit elongated Elocone nuts for approval as a potential means to correct the issue.
- Structural steel shall be shop primed per SSPC-SP 7 / NACE No. 4. Primer shall be SSPC paint with a minimum thickness of 2.0 mils. Omit paint at surfaces to be fireproofed.
- If steel sizes do not meet specified U.L.L. listing (See Arch), thickness of fire protection shall be increased as required.
- All steel exposed to weather shall be hot dipped galvanized per ASTM A123.
- All steel exposed to earth shall receive bitumen coating.
- Contractor shall include an allowance of 1/2 tons of structural steel in place in addition to the steel shown on the contract documents in the base bid. This material is to be acquired, detailed, fabricated, and placed at no additional cost to the Owner in sizes and at locations as directed by the Architect or Engineer. Unused materials will be credited to the Owner.
- Contractor shall include an allowance of 300 lineal feet of L4x4x1/4 angle in place in addition to the steel shown on the contract documents in the base bid.
- Stairs, handrails, guardrails, and other miscellaneous steel items not specifically detailed on these drawings are the responsibility of the Contractor.

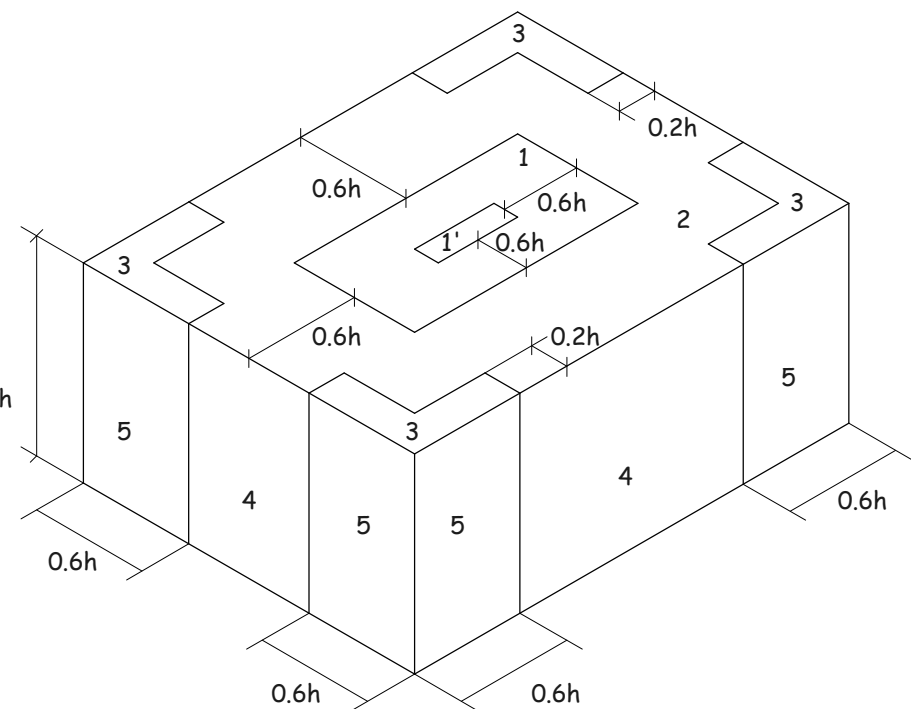
STEEL JOISTS

- All steel joists shall conform to the standard specifications for the joist noted, as adopted by the Steel Joist Institute.
- Contractor must furnish design calculations sealed by a Professional Engineer for steel bar joist designs.
- Joist designation Joist depth/Series/Total Load/Live Load.
- There are no uplift requirements for interior joists on this project.
- Joist supplier has the option of combining joist sizes to a larger section.
- K Series joists shall be welded to bearing plates or steel members with (2) 1/8" fillet welds with a minimum length of 2" each.
- All K Series joists supported by concrete or masonry walls are to be supported by a 3/8" x 4" x 0'-8" embed plate with (2) 1/2" x 4" headed studs at each joist unless noted otherwise.
- Design cantilever ends of joist and joist outriggers for a uniform load of 50 psf and concentrated load on the end of section of 50 pft unless noted otherwise.
- Weights of mechanical units are not included in the joist loading designation shown. Design joist for loading shown plus the weight of mechanical units with Mechanical Subcontractor before submitting shop drawings.

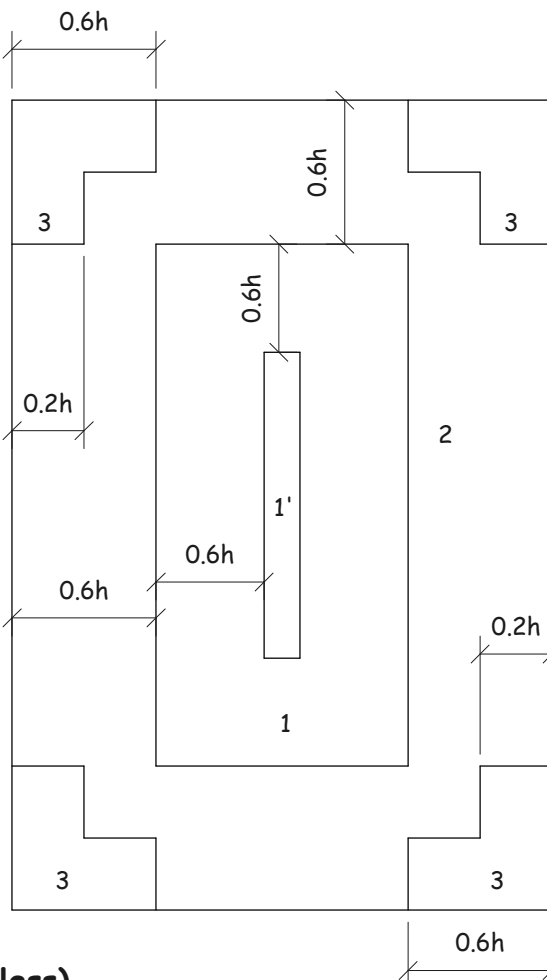
METAL BUILDING

- Metal building manufacturer shall be a member of the Metal Building Manufacturer's Association (MBMA) and be accredited according to the Inspections Program for Manufacturers of Metal Building Systems (AC472).
- Reference Design Loads for Live, Wind, Snow, and Seismic loads on PEMB.
- Building design shall include accommodation of basketball goals and other PEMB-mounted equipment plus an allowance of 10 psf superimposed dead load on the roof structure.
- A wind beam is required at the top of all perimeter CMU that is not supporting mezzanine. This wind beam should be captured as part of the PEMB drawings. See plans and sections for loading and deflection criteria.
- Owner will be responsible for the cost incurred in foundation changes due to unforeseen soil conditions or bearing pressure issues.
- All structural design of foundations is based on an assumed metal building with pin-based columns.
- Plans shall be reviewed and adjusted to correspond to the building manufacturer's requirements. Contractor will be responsible for the cost incurred in foundation changes due to change in detail or loading.
- Building Manufacturer to submit complete design calculations for review before fabrication of any components.
- Metal building and metal building components are not part of the design contract. Barnett/Jones/Wilson, LLC has no control or responsibility for the metal building and therefore should not be considered to be the Structural Engineer of Record for the metal building elements.

Components & Cladding Wind Loads - Roofs Sloped 7° or Less												
Area	Zone 1 (+)	Zone 1 (-)	Zone 1' (+)	Zone 1' (-)	Zone 2 (+)	Zone 2 (-)	Zone 3 (+)	Zone 3 (-)	Zone 4 (+)	Zone 4 (-)	Zone 5 (+)	Zone 5 (-)
10 SF	16.0 psf	-91.3 psf	16.0 psf	-52.4 psf	16.0 psf	-120.4 psf	16.0 psf	-164.0 psf	39.8 psf	-62.1 psf	39.8 psf	-76.7 psf
20 SF	16.0 psf	-86.4 psf	16.0 psf	-52.4 psf	16.0 psf	-113.1 psf	16.0 psf	-147.1 psf	37.4 psf	-59.7 psf	37.4 psf	-71.8 psf
50 SF	16.0 psf	-76.7 psf	16.0 psf	-52.4 psf	16.0 psf	-103.4 psf	16.0 psf	-127.7 psf	34.0 psf	-55.8 psf	34.0 psf	-64.6 psf
100 SF	16.0 psf	-71.8 psf	16.0 psf	-52.4 psf	16.0 psf	-95.1 psf	16.0 psf	-113.1 psf	31.1 psf	-53.4 psf	31.1 psf	-59.7 psf
500 SF	16.0 psf	-57.3 psf	16.0 psf	-28.2 psf	16.0 psf	-76.7 psf	16.0 psf	-76.7 psf	25.2 psf	-47.6 psf	25.2 psf	-47.6 psf

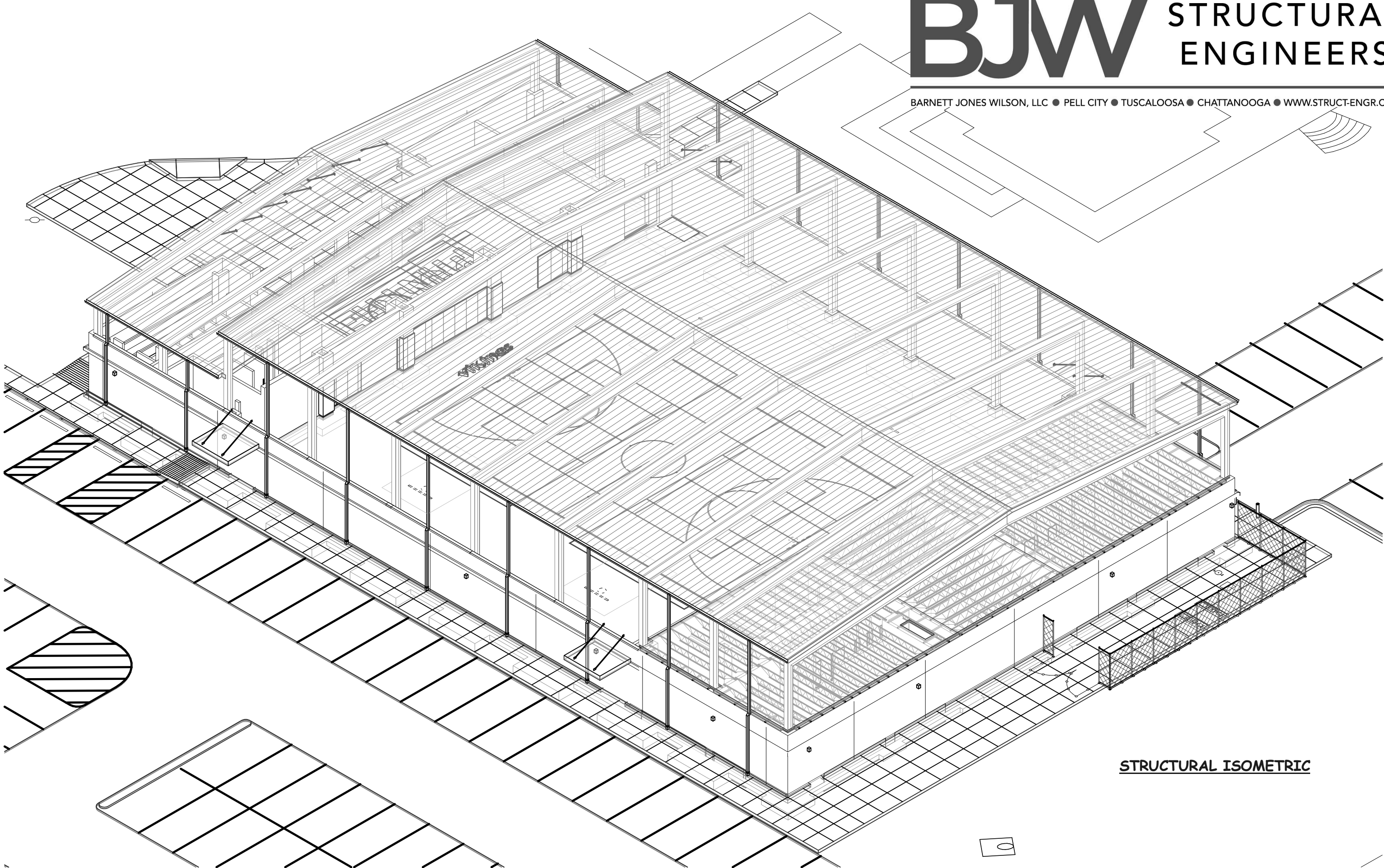


Flat/Hip/Gable (7° or less)



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STRUCTURAL ISOMETRIC

DELEGATED DESIGN - COLD-FORMED METAL STUDS

- All cold-formed steel work to be in accordance with *North American Specification for the Design of Cold-Formed Steel Structural Members (AIS1 S100-16(2020))* and the *North American Standard for Cold-Formed Steel Structural Framing (AIS1 S240-20)*.
- All studs, joists, tracks, bridging, and accessories shall be a minimum of 660 galvanized and have minimum yield strength of 33ksi, unless noted otherwise.
- Top and bottom tracks to be same gauge as studs unless noted otherwise.
- Provide double studs at all wall intersections, jamps, corners, and intersections.
- At all openings in walls, provide additional studs each side of opening to replace members cut at the opening.
- Provide blocking or strapping at a maximum of 4'-0" - see typical detail.
- All wall studs to have full bearing at top and bottom of stud.
- Limit deflection of studs supporting brick to H/600.
- Use a minimum of 18 gauge for studs used with brick anchors.
- Limit deflection of all studs not supporting brick to H/360.
- Unless otherwise indicated, all cold-formed metal stud information should be considered schematic in nature. Final design is to be provided by the contractor's stud supplier.

DELEGATED DESIGN - ALUMINUM AWNINGS/CANOPIES

- Reference Architectural drawings for layout, location, size, configuration, etc. for all awnings and canopies.
- Contractor to provide blocking details at frame and tie rod connection points and then field locate blocking based on connection points shown in awning shop drawing submittal.
- Provide shop drawings showing: product data, cut sheets, structural properties, plan views, section views, detail views, and calculations for all members, connections of members to members, and connections of members to primary structure.

DELEGATED DESIGN - STAIRS, LADDERS, HANDRAILS, AND GUARDRAILS

- Design Loads for design of stairs, ladders, handrails, and guardrails.
 - Handrails/Guardrails
 - 200 lb force applied in any direction at any point on handrail or top rail
 - 50 pft force applied in any direction at any point on handrail or top rail
 - 50 psf force on intermediate rails, openings, and space between rails
 - Ladders
 - 300 lb force applied in any direction at any point, with a minimum of (1) 300 lb force every 10 ft of ladder height
 - 100 lb force in any direction at any height at each side rail extension
 - Ships ladders with treads to be designed for same loads as Stairs
 - Grab Bars
 - 250 lb force applied in any direction at any point on grab bar
- Provide shop drawings showing: product data, cut sheets, structural properties, plan views, section views, detail views, and calculations for all members, connections of members to members, and connections of members to primary structure.

EPOXY AND MECHANICAL ANCHORS

- All anchors shall be installed per Manufacturer's Printed Installation Instructions (MPII).
- Contractor must get pre-approval from Engineer of Record before using post-installed adhesive or mechanical anchors not detailed or specified in these drawings. All post-installed anchors must have an evaluation report showing code compliance with the intended application.
- Adhesive anchors into concrete to be Simpson SET-35 or approved equal. Adhesive anchors into masonry to be Simpson SET-XP. Typical Embedment shall be 12 x dia. Design bond strength has been based on cracked concrete, ACI 308.4 Temperature Category B and installations into dry holes drilled into concrete that has cured for at least 21 days using a drill bit and technique that is qualified by the manufacturer.
- All mechanical anchors to be Simpson TITEN HD Screw Anchors or approved equal. Typical Embedment shall be 8 x dia.
- All Powder Actuated Fasteners (PAF) to be 0.157 Simpson PDPA pins w/ 1/4" minimum embedment into concrete or masonry. For installations into steel, PAF shall completely penetrate steel thickness.

TESTING

- The Owner will provide testing and special inspection under a separate contract. See the project specifications for schedule of special inspections.

REVISION - SHEET NUMBER

Sheet Number	Sheet Name	Current Revision	Current Revision Description
S000	GENERAL NOTES	2	ADD 2
S001	TYPICAL STEEL & CONCRETE DETAILS		
S002	TYPICAL MASONRY DETAILS		
S100	FOUNDATION PLAN	2	ADD 2
S101	SUPPLEMENTARY PLANS		
S200	MEZZANINE FRAMING PLANS		
S500	SECTIONS & DETAILS	2	ADD 2

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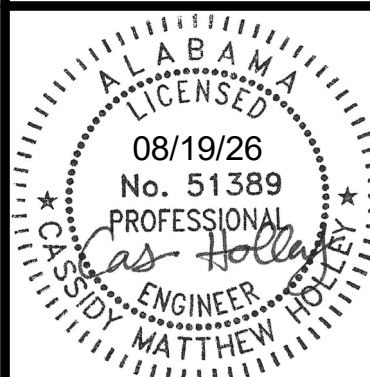
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MOBILE COUNTY PUBLIC SCHOOL SYSTEM

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BID SET

DATE: 08/19/26
PROJ NO: 25-138

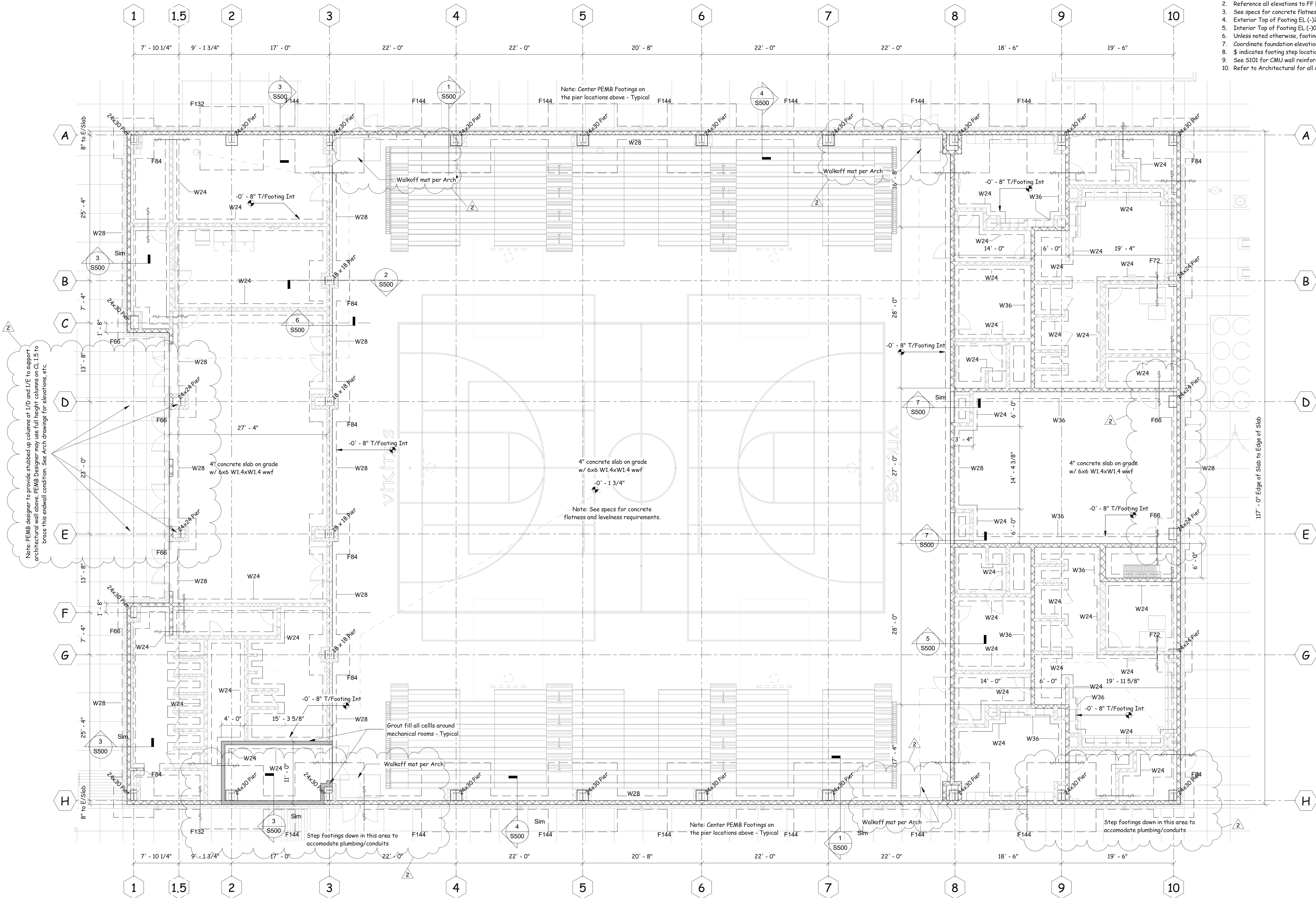
REVISIONS		
#	DESC	DATE
2	ADD 2	09/08/26

GENERAL NOTES

S000

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

- Plan Notes:
- See 50 Sheets for Typical Details & General Notes
 - Reference all elevations to FF EL (+)0'-0"
 - See specs for concrete flatness and levelness requirements.
 - Exterior Top of Footing EL (-)3'-0" below FF min /or/ 1'-0" below adjacent grade min, coordinate w/ Civil whichever is greater TYP
 - Interior Top of Footing EL (-)0'-8" below FF min TYP
 - Unless noted otherwise, footings extend 8" beyond end of CMU walls that do not terminate at corners.
 - Coordinate foundation elevations with plumbing requirements. Step footings down as required to clear plumbing lines.
 - \$ indicates footing step locations.
 - See S101 for CMU wall reinforcing information.
 - Refer to Architectural for all dimensions, slopes, elevations, etc. not illustrated on this plan. Coordinate all final dimensions and elevations with Architectural.



ESTIMATED PIER SCHEDULE	
Column Location Mark	Keynote
A-1	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-2	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-3	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-4	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-5	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-6	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-7	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-8	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.

ESTIMATED PIER SCHEDULE	
Column Location Mark	Keynote
A-9	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
A-10	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
B-3	18"x18" Concrete Pier w/ (8)#8 bars vert w/ (5)#3 ties @ top then @ 12" o.c.
B-10	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#4 ties @ top then @ 12" o.c.
C-1	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
D-15	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#4 ties @ top then @ 12" o.c.
D-3	18"x18" Concrete Pier w/ (8)#8 bars vert w/ (5)#3 ties @ top then @ 12" o.c.
D-10	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#4 ties @ top then @ 12" o.c.

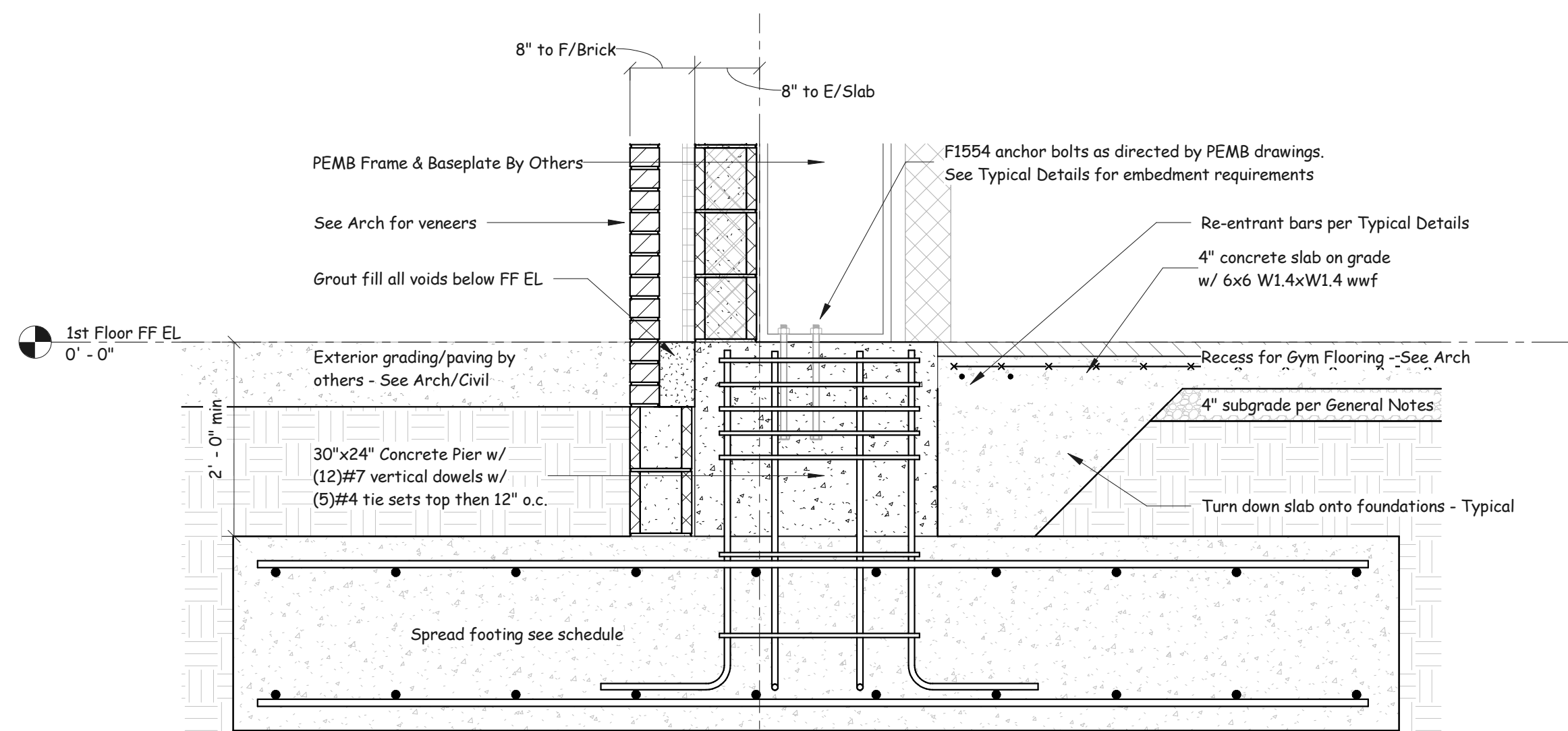
ESTIMATED PIER SCHEDULE	
Column Location Mark	Keynote
E-15	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#4 ties @ top then @ 12" o.c.
E-3	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
E-10	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#3 ties @ top then @ 12" o.c.
F-1	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
G-3	18"x18" Concrete Pier w/ (8)#8 bars vert w/ (5)#3 ties @ top then @ 12" o.c.
G-10	24"x24" Concrete Pier w/ (8)#8 bars vert w/ (5)#4 ties @ top then @ 12" o.c.
H-1	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-2	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.

ESTIMATED PIER SCHEDULE	
Column Location Mark	Keynote
H-3	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-4	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-5	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-6	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-7	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-8	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-9	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.
H-10	30"x24" Concrete Pier w/ (12)#7 vertical dowels w/ (5)#4 tie sets top then 12" o.c.

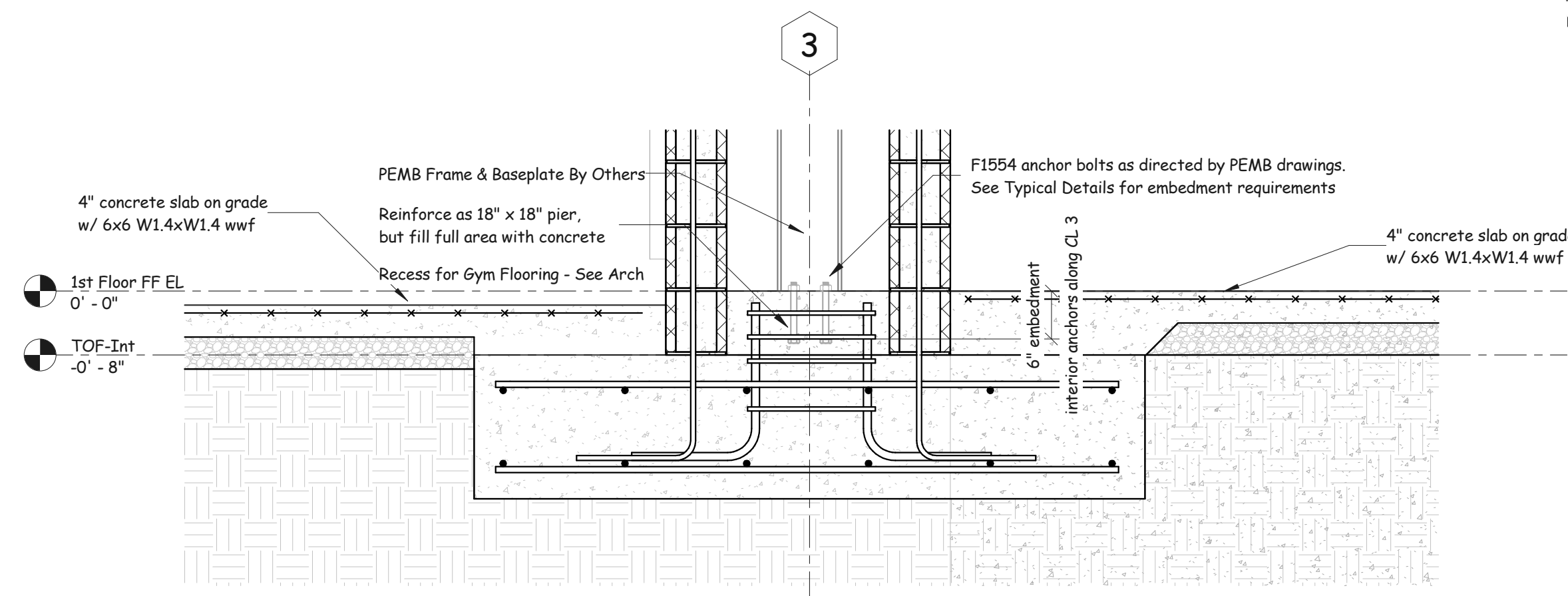
- Schedule Notes:
- Schedules are to be used as a guide for estimating only and should not be exclusively for takeoffs and bidding.
 - Schedules reflect major uses of materials, but do not necessarily contain all aspects of the project.
 - Refer to plans, sections, elevations, notes, details, and all other portions of the project documents for all items not scheduled.

STRIP FOOTING SCHEDULE			
Type	Width	Thickness	Reinforcing
W24	2' - 0"	1' - 0"	(3)#4 bars cont w/ #4 bars @ 12" o.c. Short
W28	2' - 4"	1' - 0"	(4)#4 bars cont w/ #4 bars @ 12" o.c. Short
W36	3' - 0"	1' - 0"	(4)#4 bars cont w/ #4 bars @ 10" o.c. Short

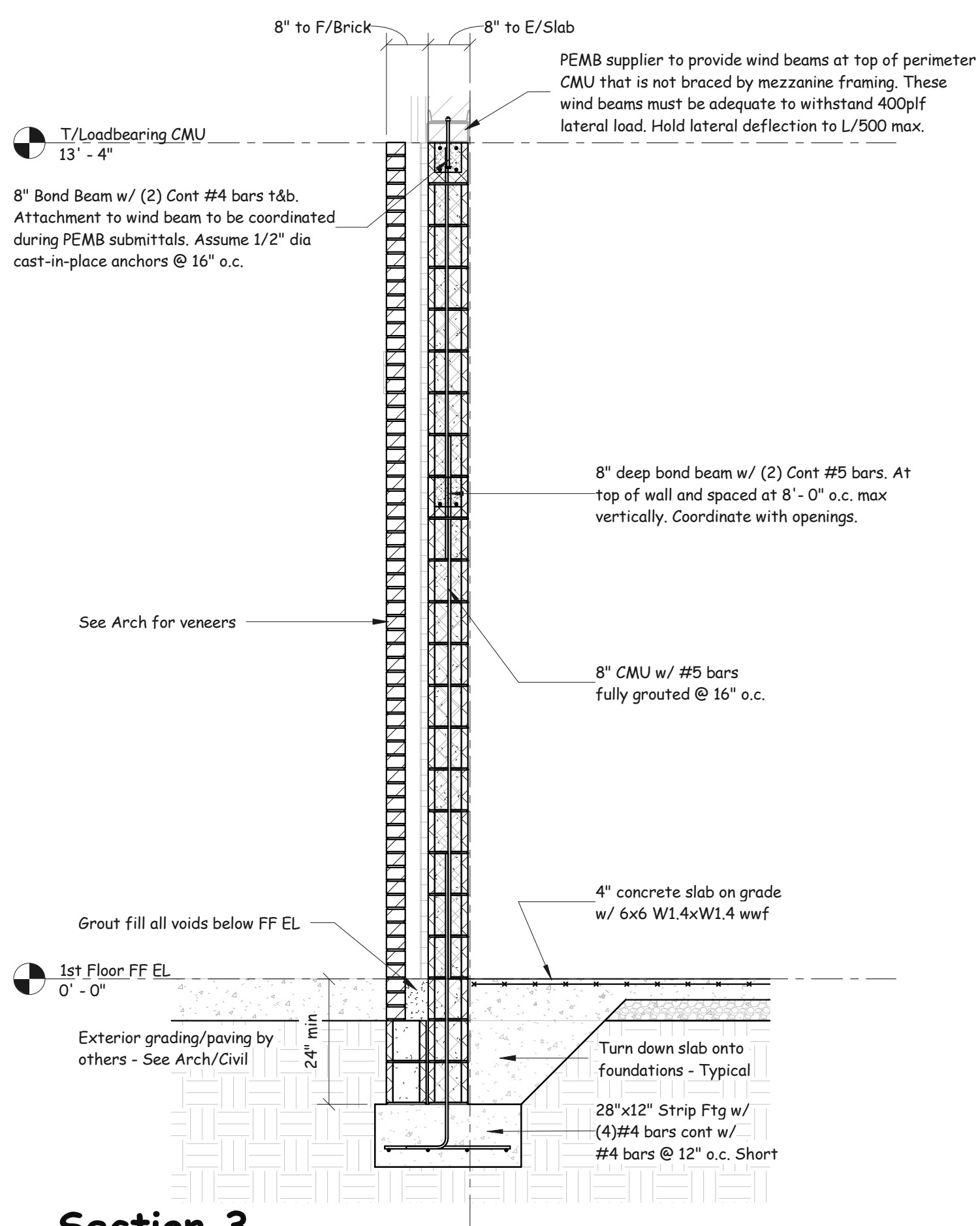
SPREAD FOOTING SCHEDULE					
Mark	Width	Length	Thickness	Reinforcing	Estimated Number Required
F66	5' - 6"	5' - 6"	1' - 0"	(6) #5 bars e.w. 14b	6
F72	6' - 0"	6' - 0"	1' - 0"	(7) #5 bars e.w. 14b	2
F84	7' - 0"	7' - 0"	1' - 6"	(6) #6 bars e.w. 14b	8
F132	11' - 0"	11' - 0"	2' - 0"	(11) #7 bars e.w. 14b	2
F144	12' - 0"	12' - 0"	2' - 0"	(10) #8 bars e.w. 14b	14



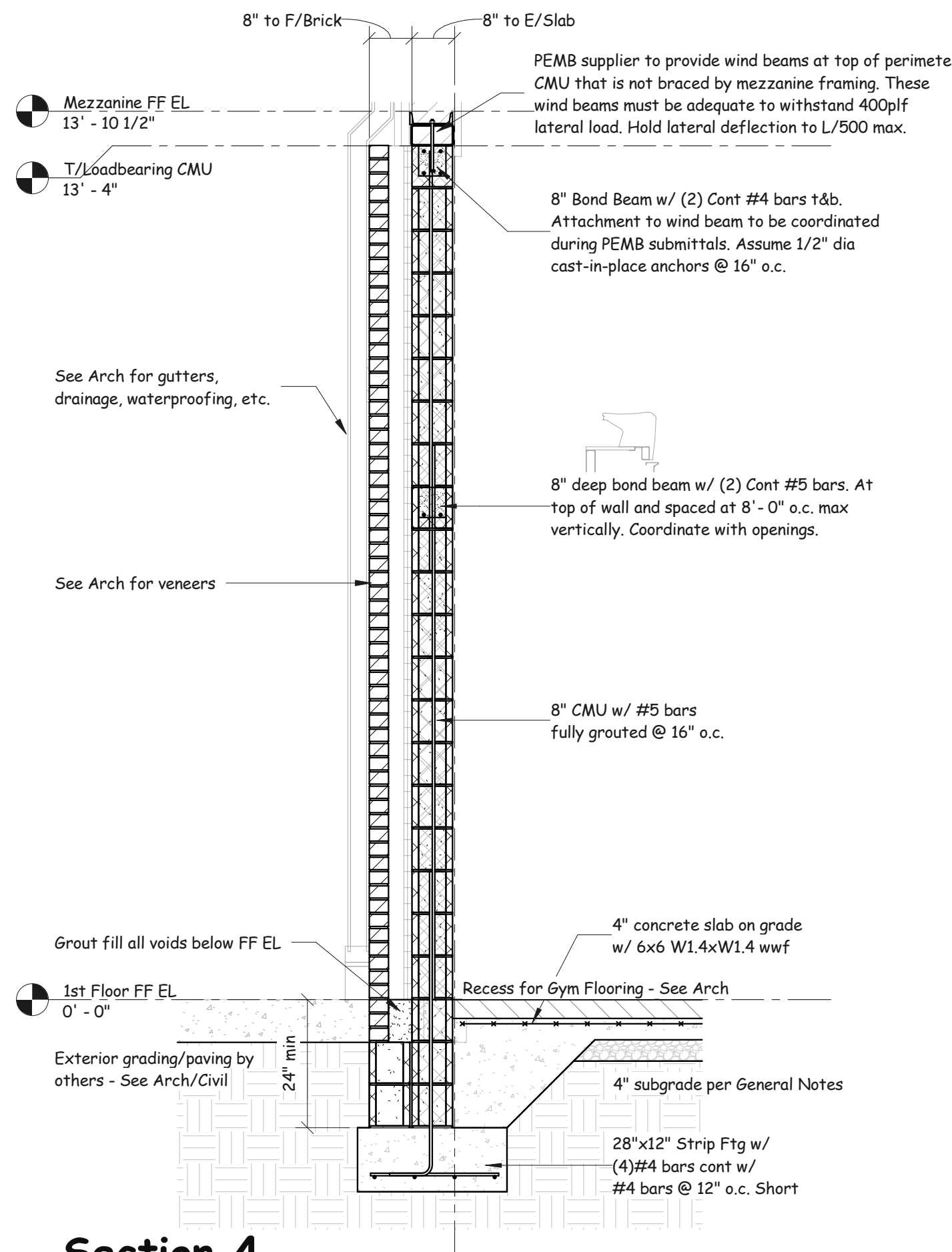
Section 1
3/4" = 1'-0"



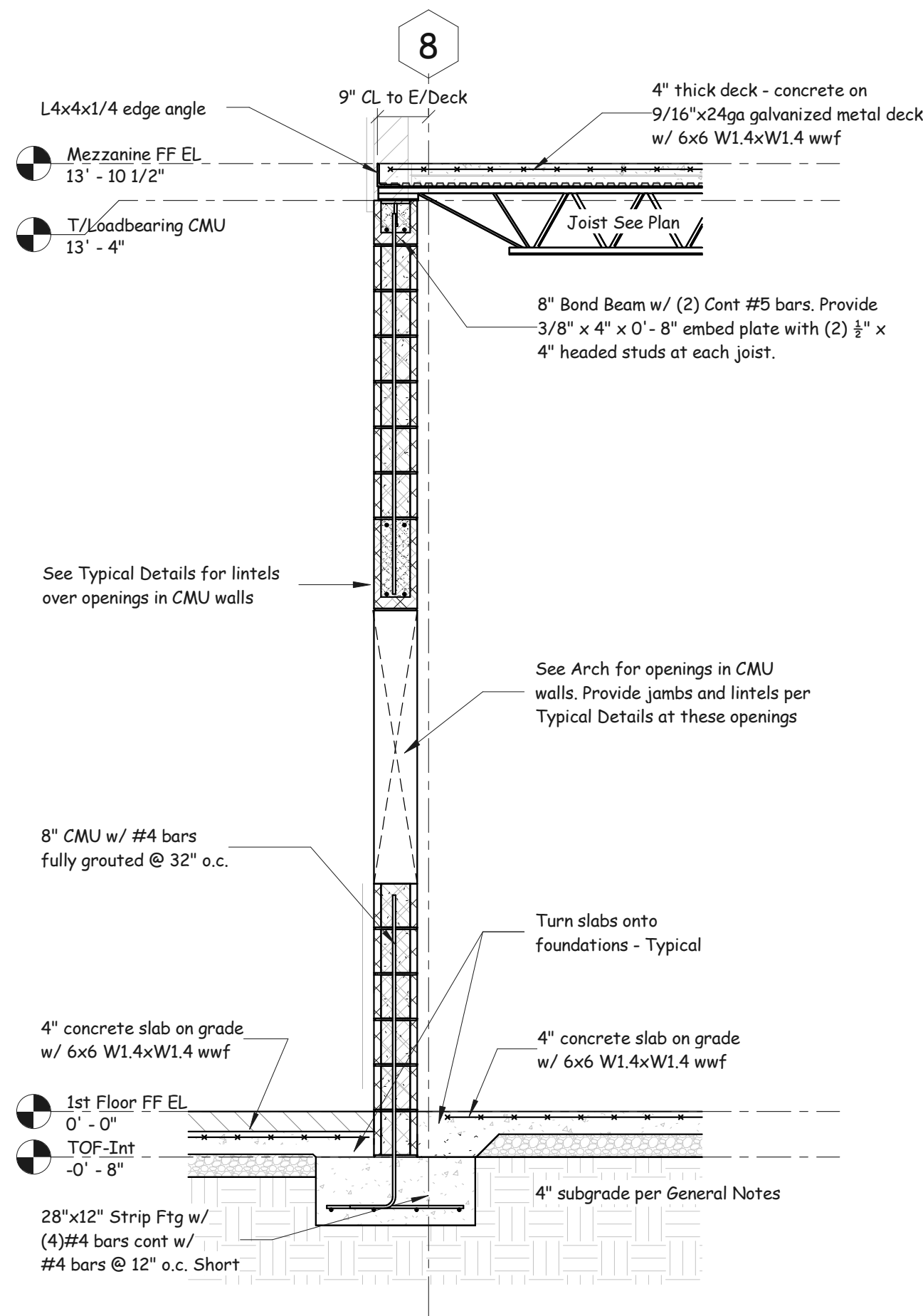
Section 2
3/4" = 1'-0"



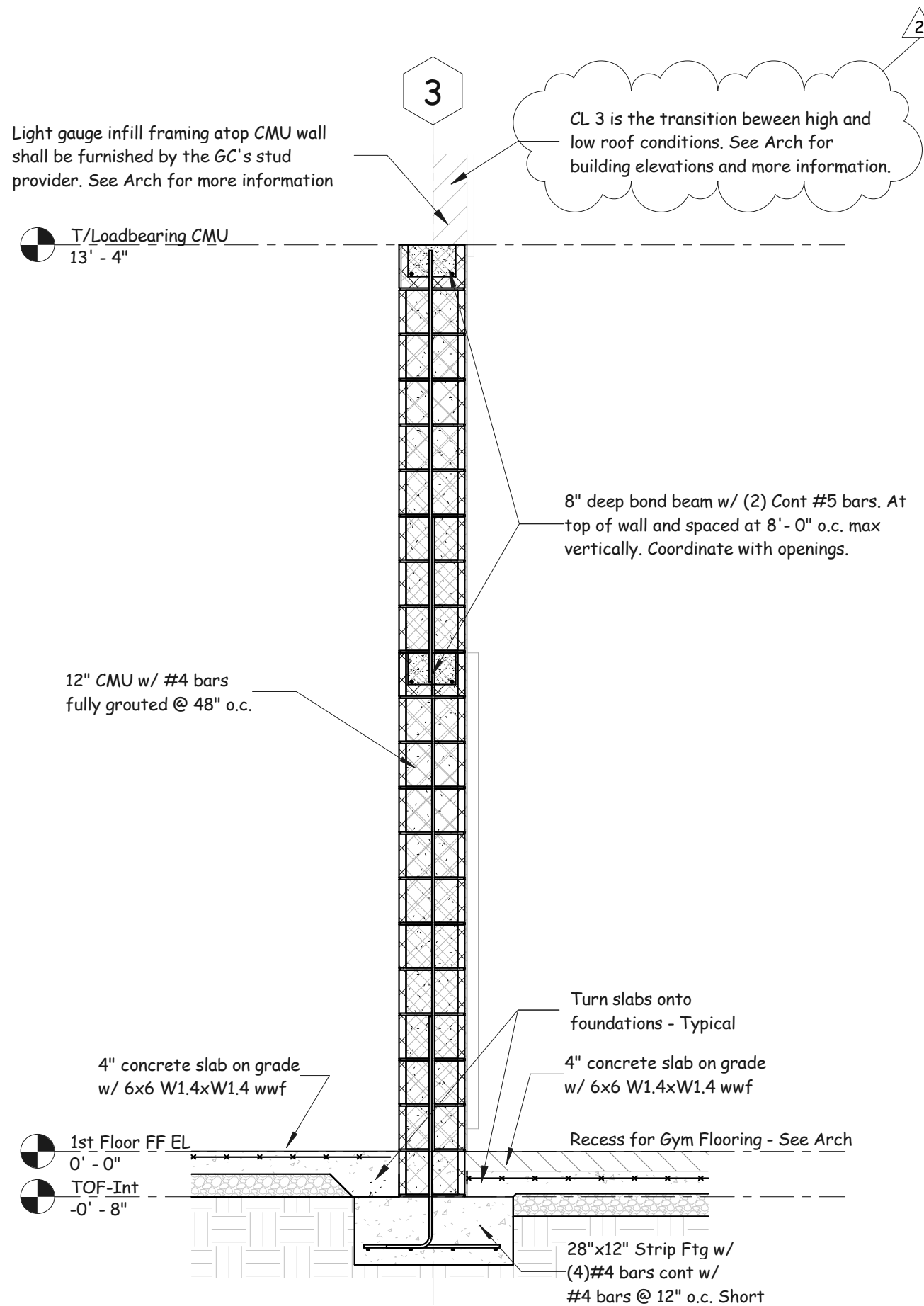
Section 3
1/2" = 1'-0"



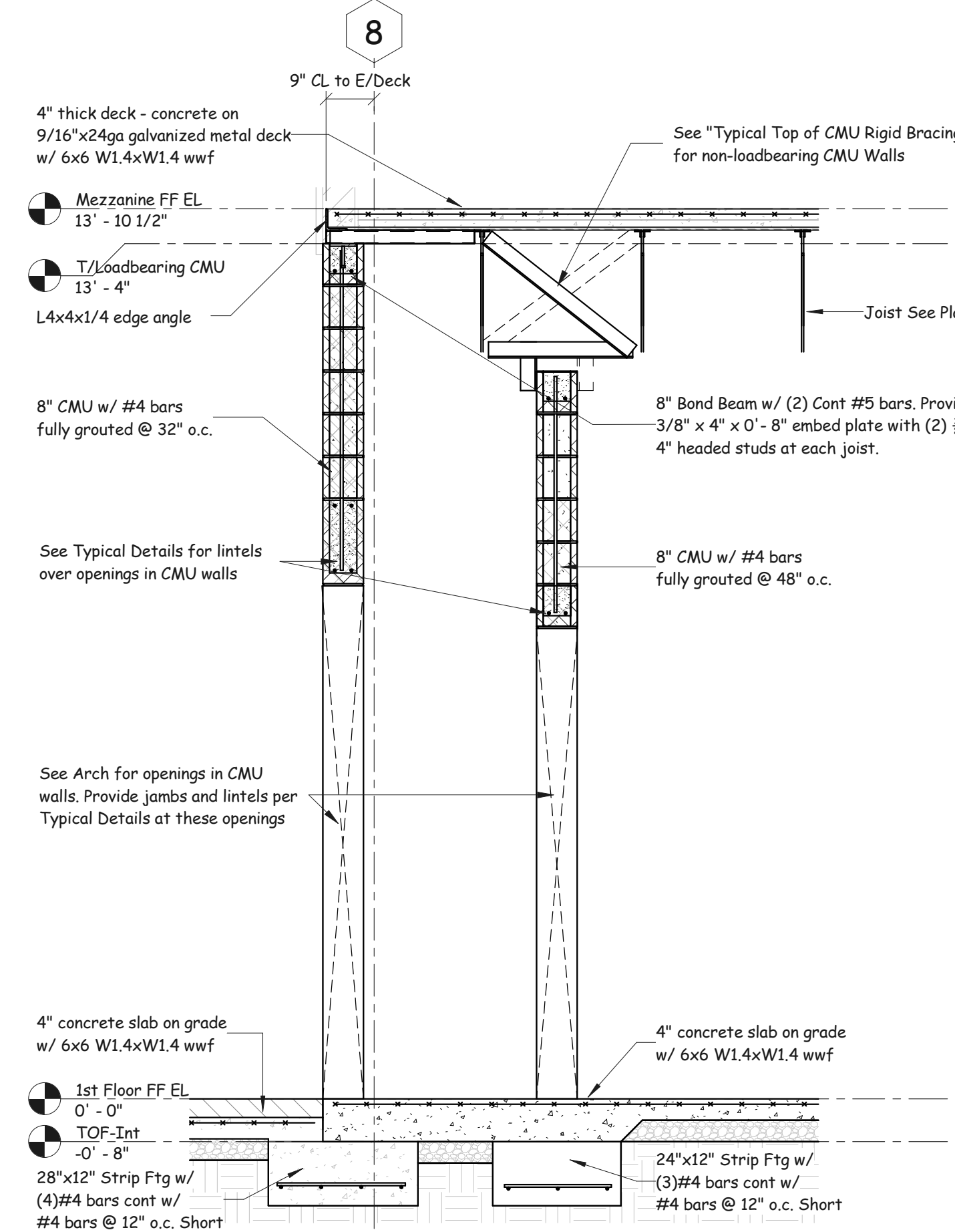
Section 4
1/2" = 1'-0"



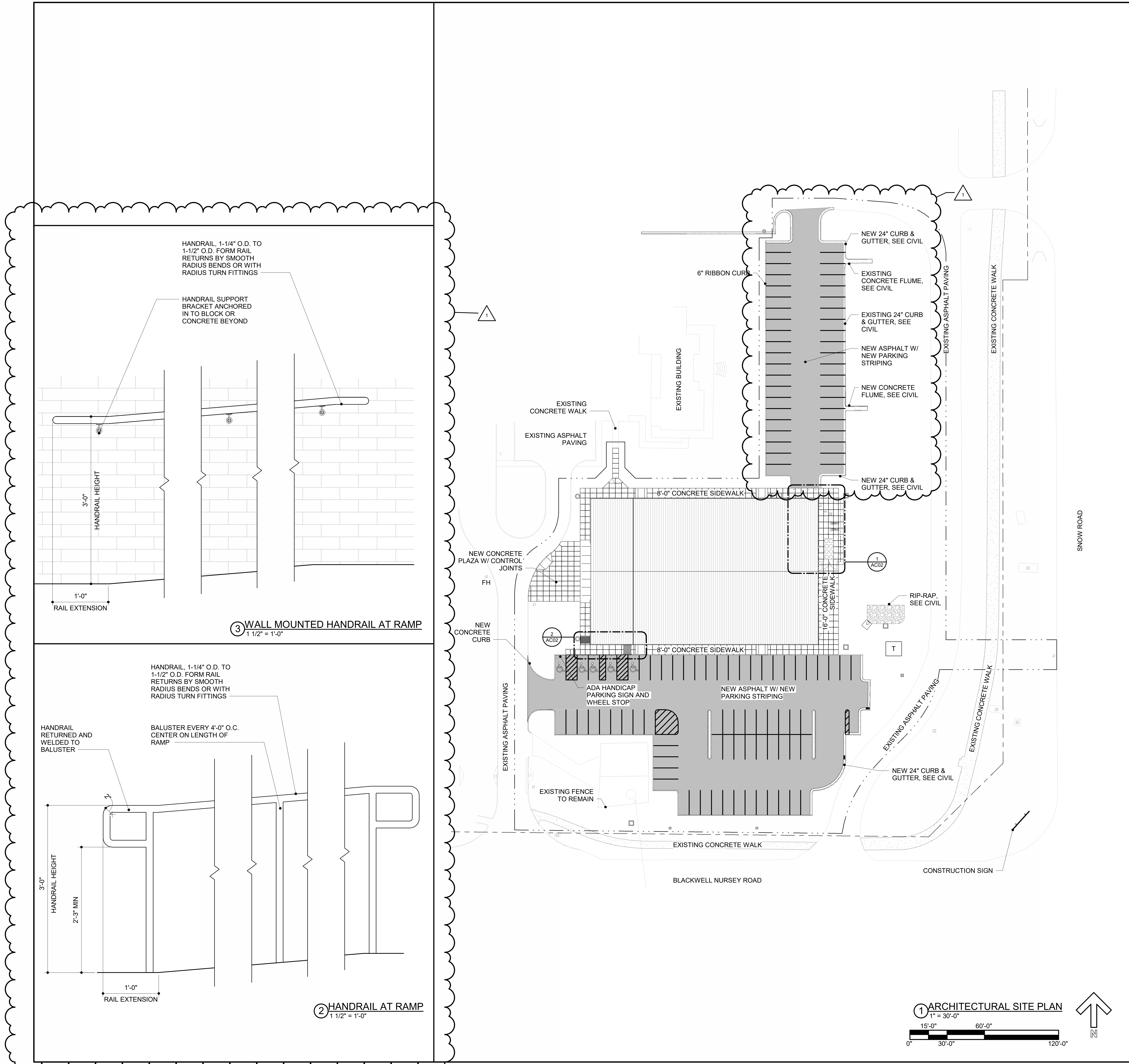
Section 5
1/2" = 1'-0"



Section 6
1/2" = 1'-0"

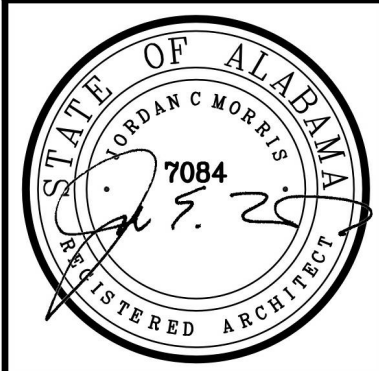


Section 7
1/2" = 1'-0"



LEGEND	
EDGE OF ASPHALT	—
CURB LINES	—
EXIST. FENCE	— X —
NEW FENCE	— ○ —
BUILDINGS	—
NEW GRASS SWALE	—
SIGNS	—
MAN HOLES	⊙
GAS METERS	⊙
CURB INLET	⊙
CATCH BASINS	⊙
JUNCTION BOX	⊙
EXIST. CONTOUR	— 1.34 —
EXIST. SPOT ELEVATION	⊙ 29.8
FLOW DIRECTION	—
FIRE HYDRANT	⊙ FH
HIGH POINT	H/P
PROPERTY LIMITS	—
LIMITS OF CONST.	—
NEW CONTOUR	—
NEW SPOT ELEVATION	⊙
DEPRESSIONS	—
POWER POLE	⊙
GUY ANCHOR	—
TRANSFORMER MONUMENT SURVEY MARK (HUB)	⊙
IRON PIN FLOW LINE	— F/P —
ASPHALT PAVING - EXIST.	—
ASPHALT PAVING - NEW	—

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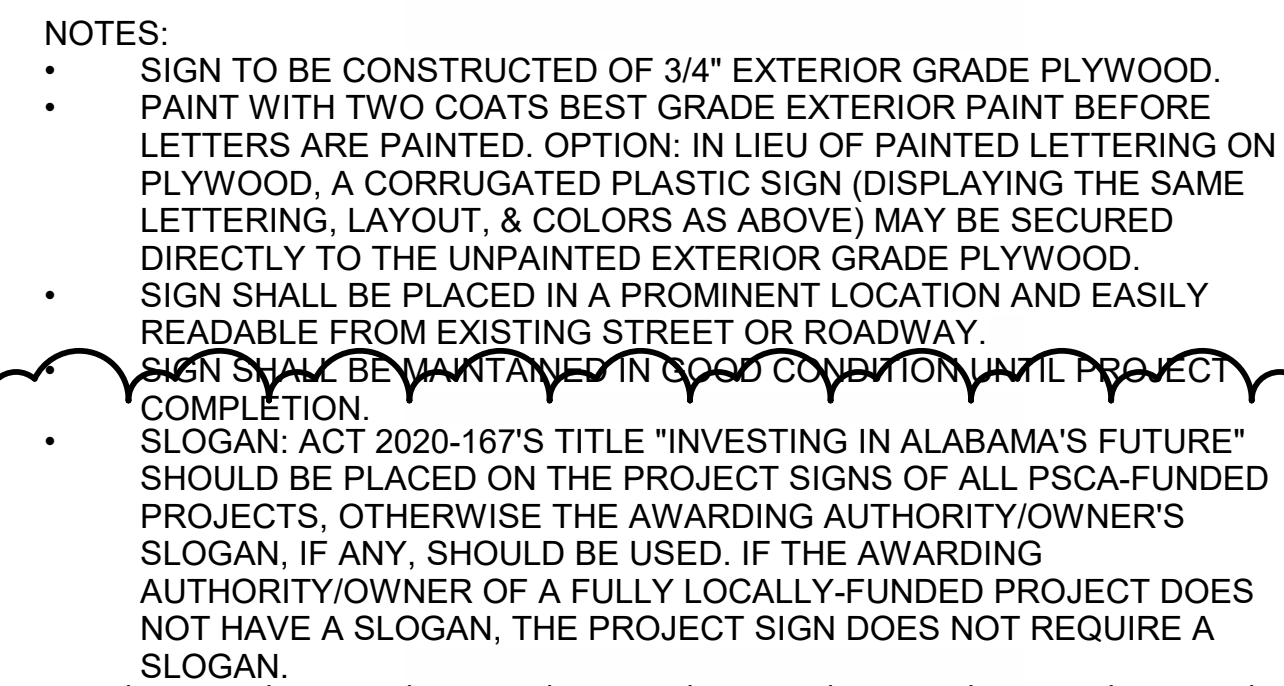
DATE: 08/19/26
PROJ NO: 25-138

REVISIONS		
#	DESC	DATE
1	ADD 2	09/09/26

ARCHITECTURAL
SITE PLAN

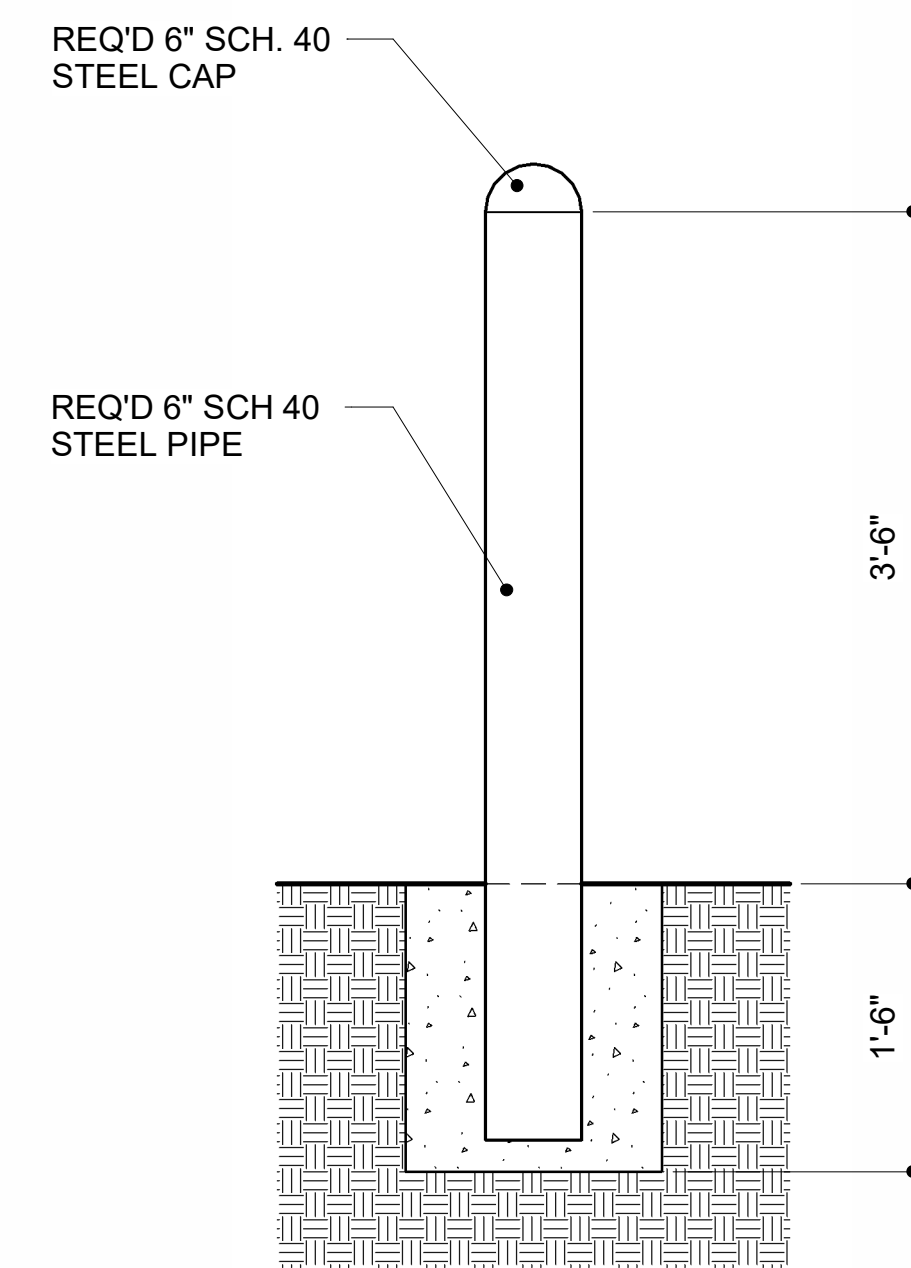
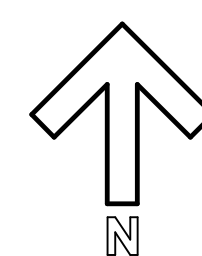
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Technical drawing of a ramp and stairs assembly. The drawing includes the following dimensions and labels:

- Dimensions:**
 - Overall width: 8'-0"
 - Stair width: 6'-0"
 - Stair riser: 1'-0"
 - Stair tread: 1'-1/2"
 - Ramp width: 5'-0"
 - Ramp slope: 6"
 - Overall height: 8'-0"
 - Handrail height: 1'-0"
- Labels:**
 - EXTERIOR HANDRAIL
 - RAMP
 - ADA HANDICAP PARKING SIGN AND WHEEL STOP



BOLLARDS AT 6' O.C.

17'-8"

50'-8"

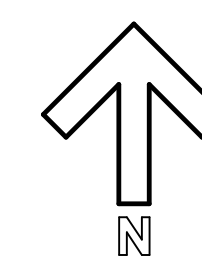
12'-0" GATE CENTERED

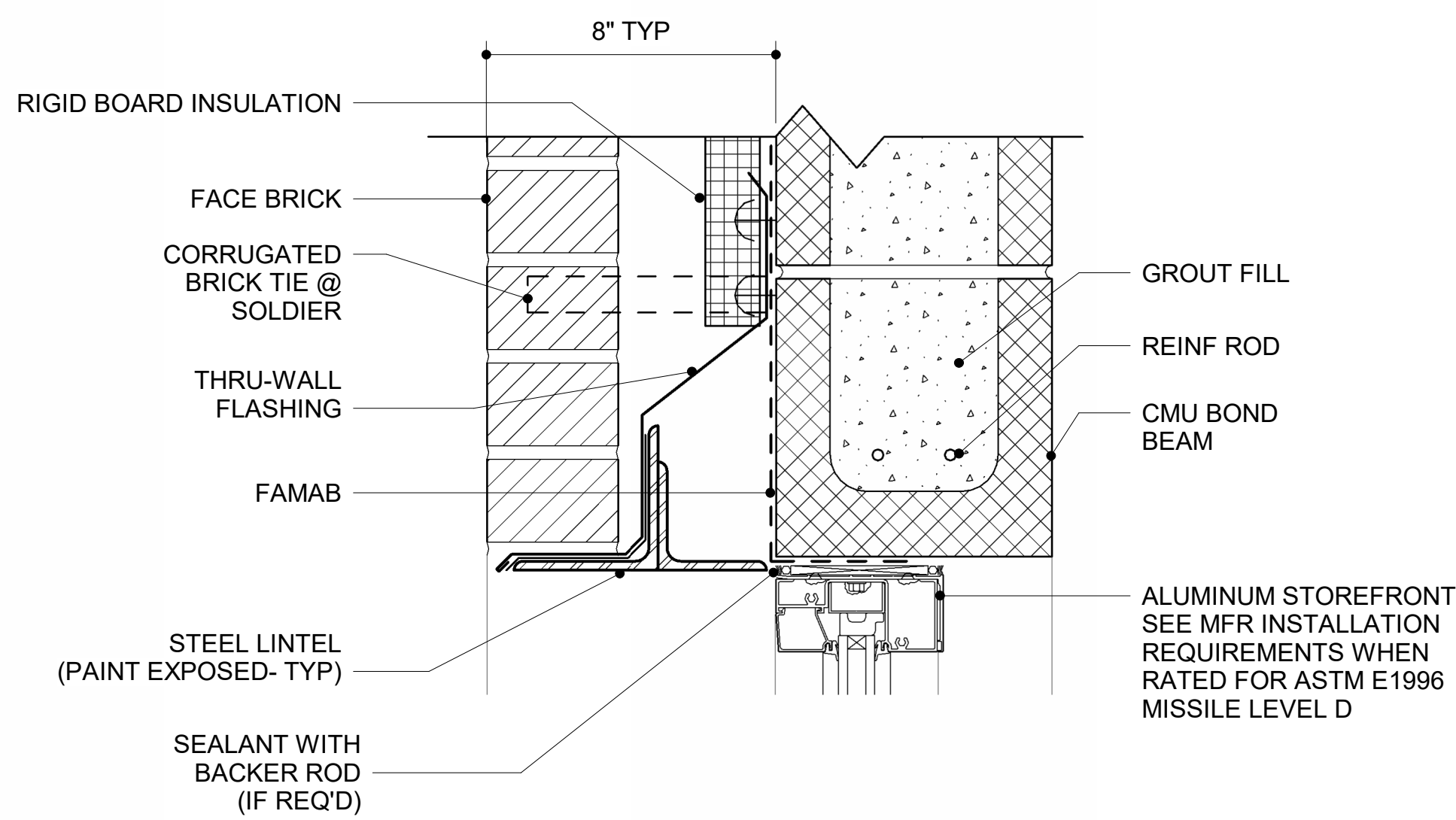
DEMOUNTABLE FENCE WITH POSTS AND TOP RAILS

MECH. YARD/ EQUIPMENT & SCREEN- FENCE OR WALL WITH ACCESS GATE

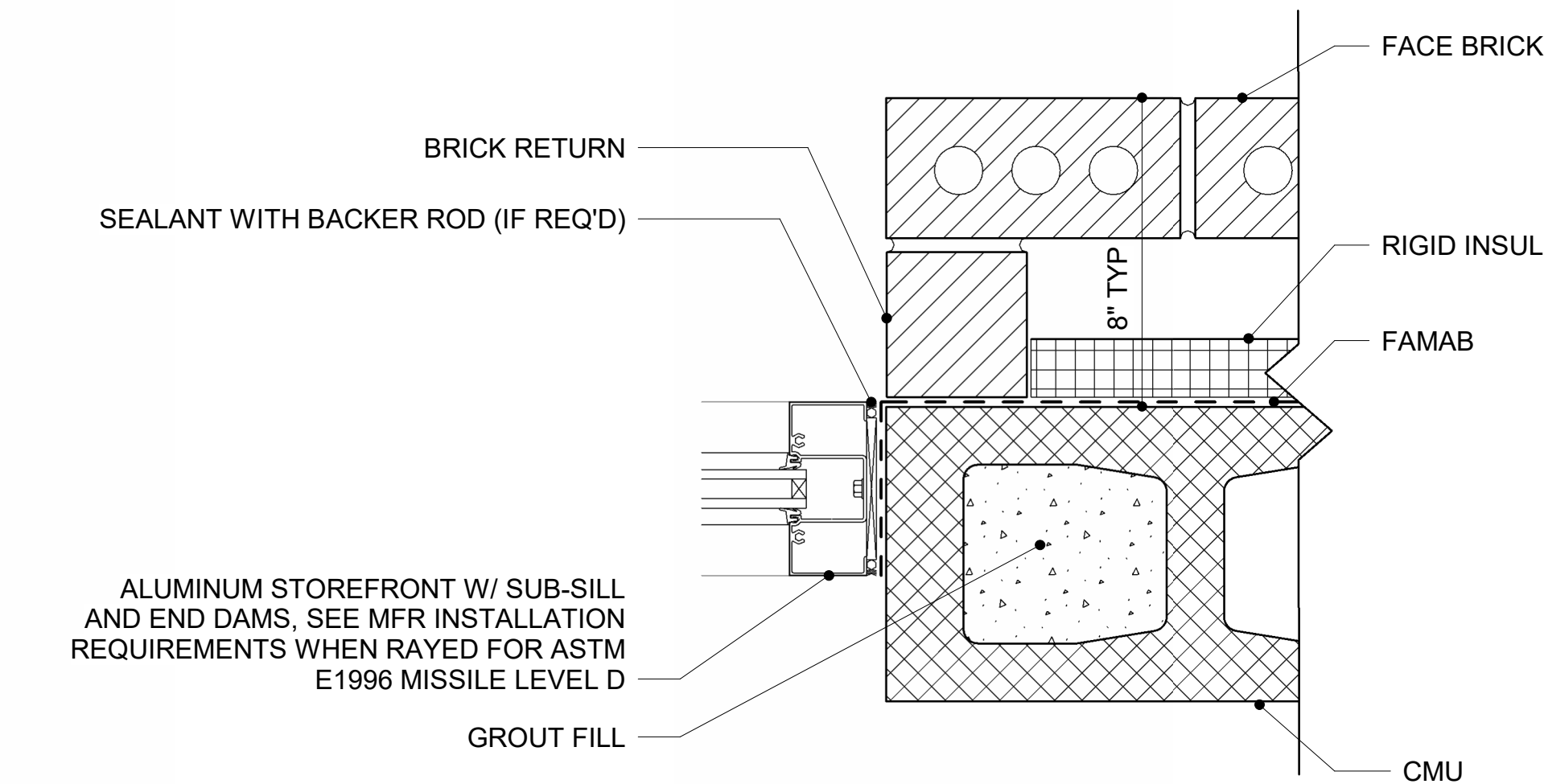
SEE MECHANICAL FOR CHILLER YARD EQUIPMENT AND PIPING

2 A002

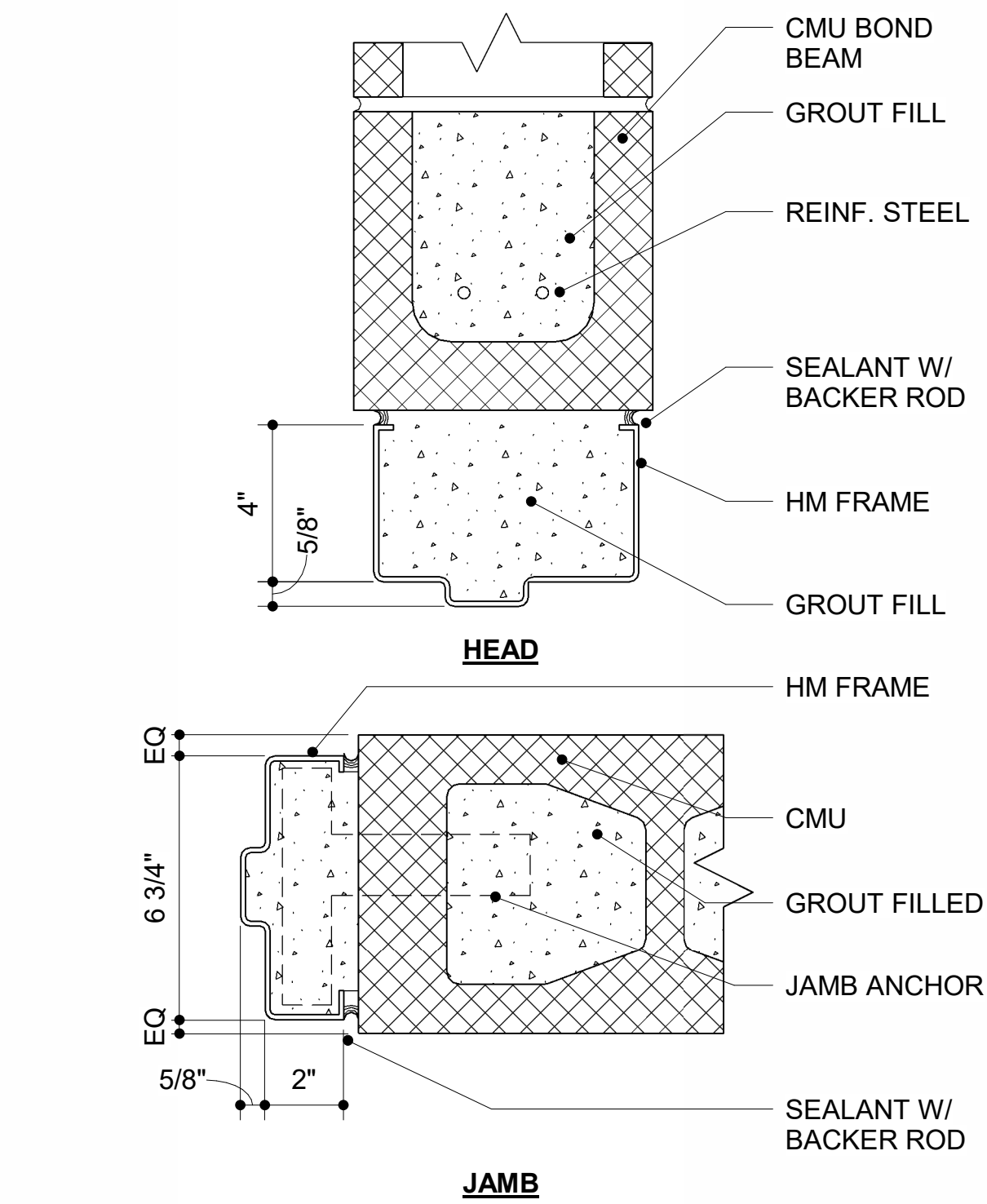




④ STOREFRONT HEAD AT BRICK ON CMU WALL
3" = 1'-0"



③ STOREFRONT JAMB AT BRICK ON CMU WALL
3" = 1'-0"



① HM FRAME AT INTERIOR CMU WALL
3" = 1'-0"

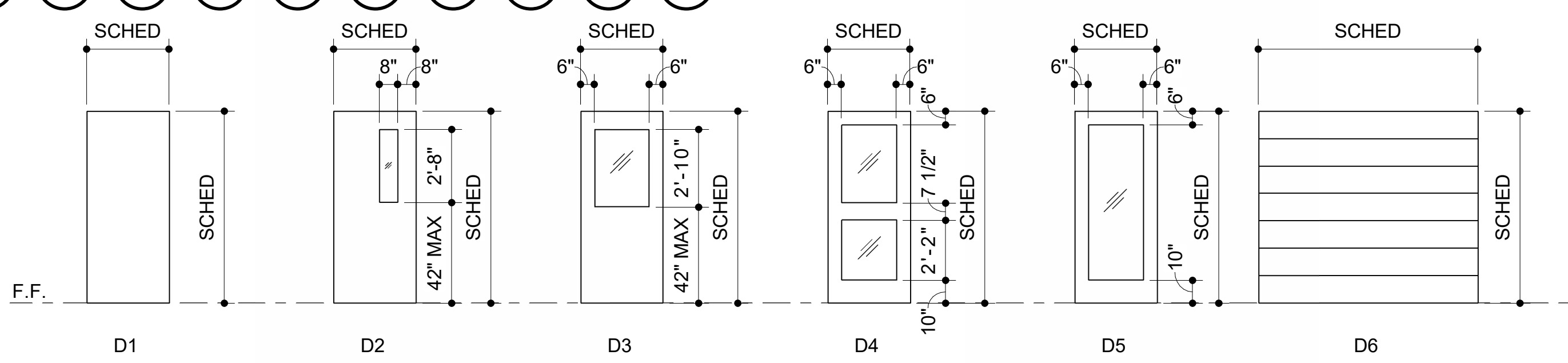
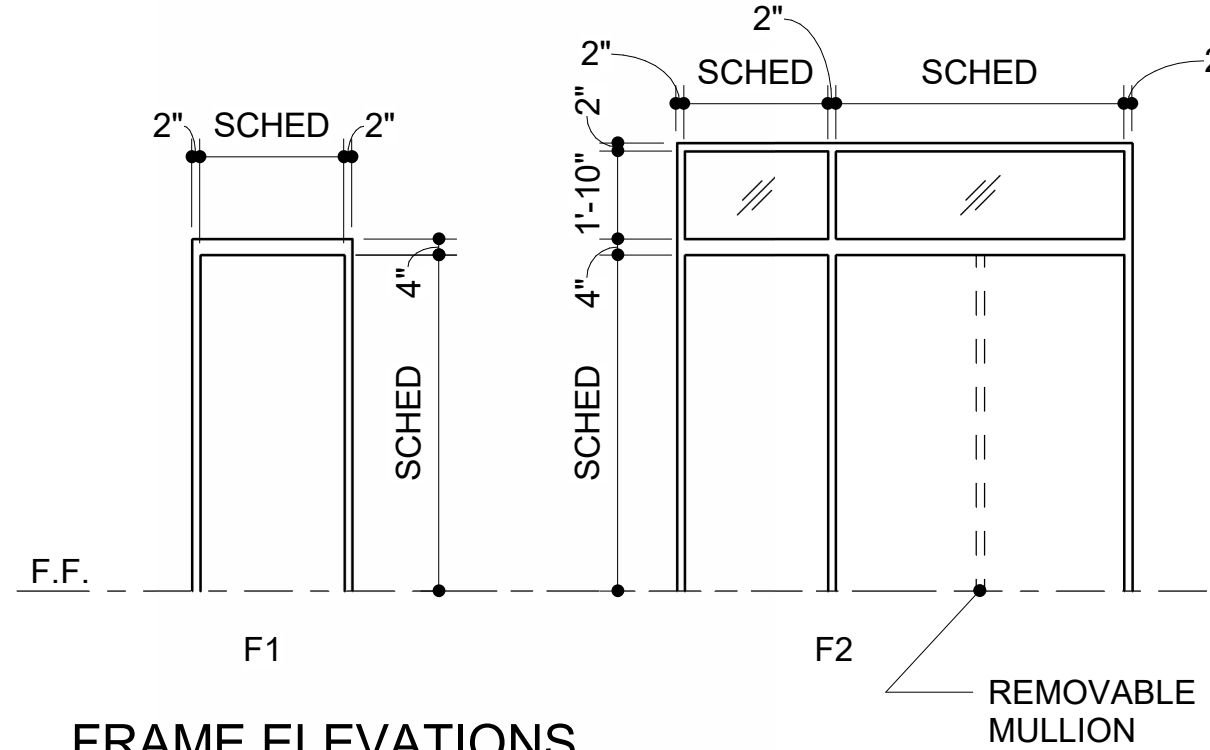
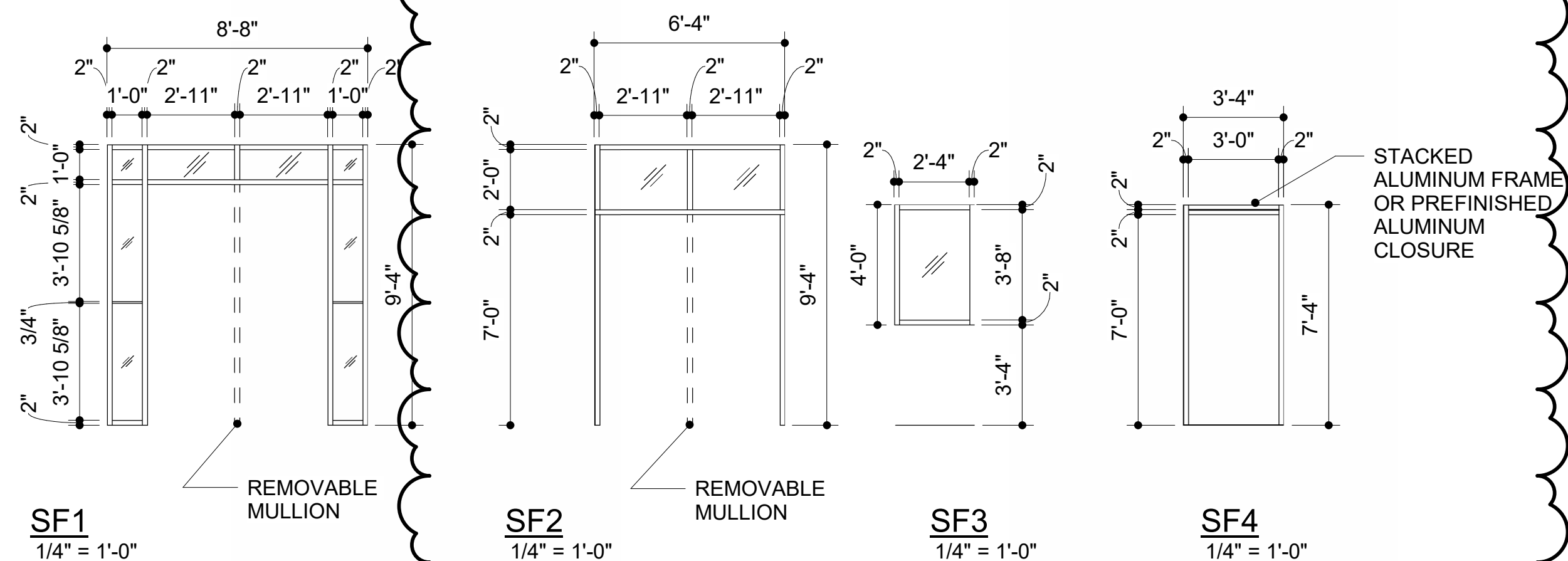
DOOR SCHEDULE													
DOOR NUMBER	FIRE RATING	DOOR		DOOR ELEV.	DOOR MATERIAL	DOOR GLAZING	FRAME		FRAME GLAZING	HARDWAR E	SIGNAGE	COMMENTS	DOOR NUMBER
		WIDTH	HEIGHT				ELEV.	MATERIAL					
1101A	--	6'-0"	8'-0"	D4	FRP	G3	SF1	ALUM	G3	SET #1	--	1, 3, 4	1101A
1101B	--	6'-0"	8'-0"	D4	FRP	G3	SF1	ALUM	G3	SET #1	--	1, 3, 4	1101B
1101C	--	6'-0"	8'-0"	D4	FRP	G3	SF1	ALUM	G3	SET #1	--	1, 3, 4	1101C
1101D	--	6'-0"	8'-0"	D4	FRP	G3	SF1	ALUM	G3	SET #1	--	1, 3, 4	1101D
1102A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #8	B	--	1102A
1102B	--	12'-0"	3'-10"	D6	MFR	--	MFR	MFR	--	SET #13	--	2	1102B
1103A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #6	--	--	1103A
1104A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #7	B	--	1104A
1105A	--	6'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #4	--	1	1105A
1106A	--	3'-0"	7'-0"	D2	WD	G1	F2	HM	--	SET #9	--	--	1106A
1106B	--	6'-0"	7'-0"	D2	WD	G1	F2	HM	--	SET #3	--	1	1106B
1106C	--	6'-0"	7'-0"	D2	WD	G1	F2	HM	--	SET #3	--	1	1106C
1106D	--	3'-0"	7'-0"	D2	WD	G1	F2	HM	--	SET #9	--	--	1106D
1106E	--	6'-0"	7'-0"	D4	FRP	G3	SF2	ALUM	G3	SET #1	--	1, 3, 4	1106E
1106F	--	6'-0"	7'-0"	D4	FRP	G1	SF2	ALUM	G3	SET #1	--	1	1106F
1106G	--	6'-0"	7'-0"	D4	FRP	G3	SF2	ALUM	G3	SET #1	--	1, 3, 4	1106G
1106H	--	6'-0"	7'-0"	D4	FRP	G3	SF2	ALUM	G3	SET #1	--	1, 3, 4	1106H
1107A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #10	--	--	1107A
1108A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #10	B	--	1108A
1109A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #11	A	--	1109A
1110A	--	3'-0"	7'-0"	D1	FRP	--	SF4	ALUM	--	SET #2	--	3, 4	1110A
1111A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #12	B	--	1111A
1113A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #7	--	5	1113A
1114A	--	3'-0"	7'-0"	D2	WD	G1	F1	HM	--	SET #8	B	--	1114A
1115A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #11	--	--	1115A
1116A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #6	--	--	1116A
1117A	--	3'-0"	7'-0"	D2	WD	G1	F1	HM	--	SET #10	B	--	1117A
1117B	--	3'-0"	7'-0"	D2	WD	G1	F1	HM	--	SET #10	B	--	1117B
1118A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #7	B	--	1118A
1119A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #6	B	--	1119A
1120A	--	3'-0"	7'-0"	D2	WD	G1	F1	HM	--	SET #8	B	--	1120A
1121A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #11	--	--	1121A
1122A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #6	--	--	1122A
1123A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #10	--	--	1123A
1124A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #10	B	--	1124A
1126A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #7	--	5	1126A
1127A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #10	B	--	1127A
1128A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #11	A	--	1128A
1129A	--	3'-0"	7'-0"	D1	FRP	--	SF4	ALUM	--	SET #2	--	3, 4	1129A
1130A	--	6'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #5	B	1	1130A
1132A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #12	A	--	1132A
1133A	--	2'-6"	7'-0"	D1	WD	--	F1	HM	--	SET #7	--	--	1133A
1134A	--	3'-0"	7'-0"	D1	WD	--	F1	HM	--	SET #12	A	--	1134A
1140A	--	8'-0"	7'-0"	D1	FRP	--	F3	HM	--	SET #14	--	6	1140A

DOOR SCHEDULE LEGEND:
ALUM - ALUMINUM
HM - HOLLOW METAL
MFR - MANUFACTURER'S STANDARD
WD - WOOD
FRP - FIBERGLASS REINFORCED PLASTIC

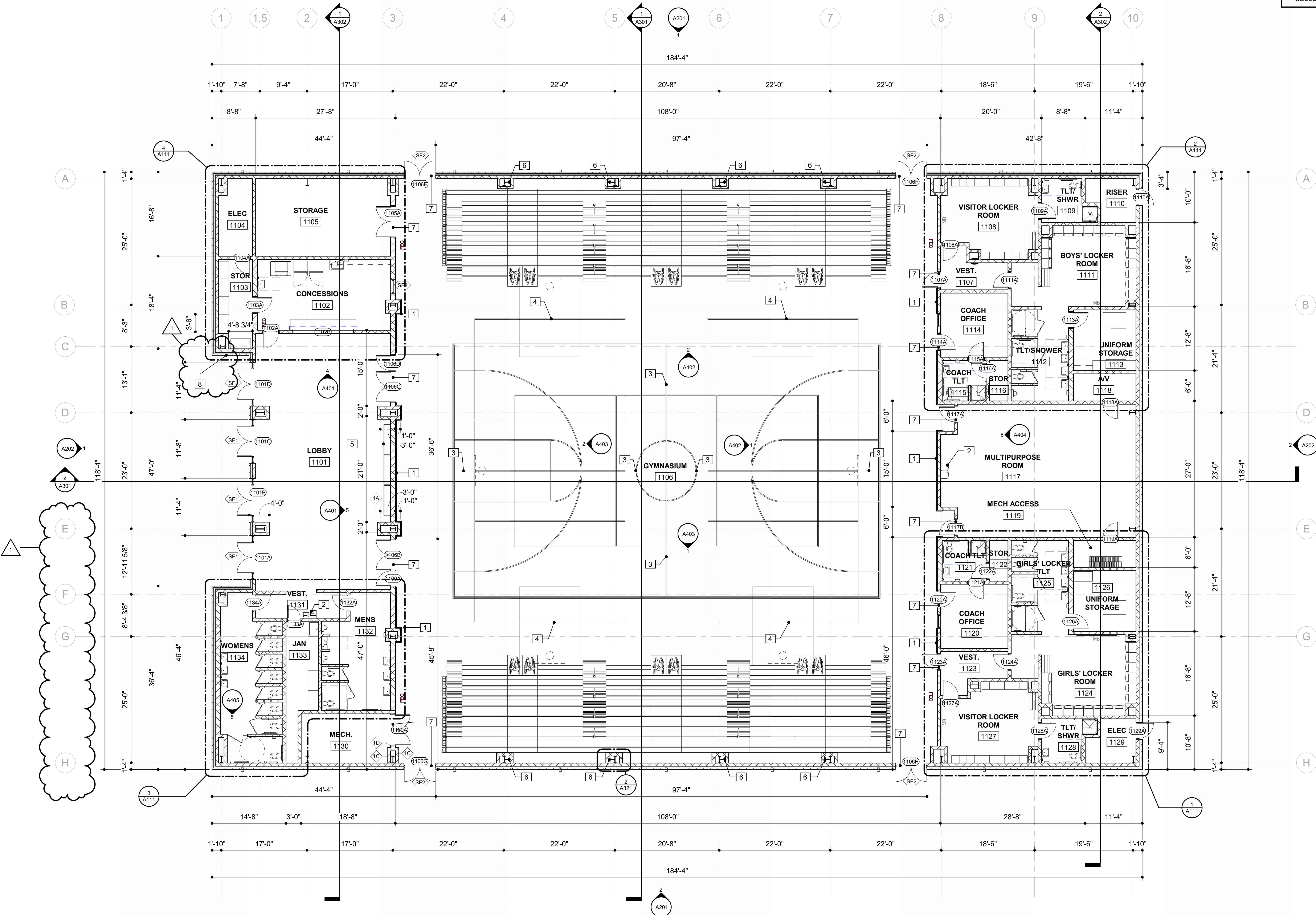
GLAZING LEGEND:
G1 - CLEAR TEMPERED GLASS
G2 - OMITTED
G3 - IMPACT RESISTANT GLASS

SCHEDULE COMMENTS:
1. PAIR OF DOORS
2. COUNTER-TOP COILING DOOR
3. LARGE MISSILE IMPACT RESISTANT DOOR MEETING ASTM E1996
4. LARGE MISSILE IMPACT RESISTANT FRAME MEETING ASTM E1996
5. SMOKE RESISTANT CONSTRUCTION WITH CLOSURE
6. PROVIDE A REMOVABLE GUARDRAIL IN FRONT OF DOORS ON INTERIOR

STOREFRONT SCHEDULE						
STOREFRONT MARK	FIRE RATING	WIDTH	HEIGHT	FRAME MATERIAL	FRAME GLAZING	COMMENTS
SF1	--	8'-8"	9'-4"	ALUM	G3	4
SF2	--	6'-4"	9'-4"	ALUM	G3	4
SF3	--	2'-8"	4'-0"	HM	G1	--
SF4	--	3'-4"	7'-4"	ALUM	--	4



DOOR ELEVATIONS
1/4" = 1'-0"



REFERENCE NOTES	
NUMBER	NOTE
1	WALL PADS; SEE SPECS
2	WATER FOUNTAIN WITH BOTTLE FILLER; SEE SPECS
3	RECESSED POST MOUNTS W/ COVERS; SEE SPECS
4	SEE A601 FOR STRIPING
5	DISPLAY CASE, SEE SPECS.
6	PEMB BRACING ELEMENT IS REQUIRED TO BE A PORTAL FRAME. STEEL X-BRACING WILL NOT BE ACCEPTED.
7	THRESHOLD BY WOOD GYM FLOORING PROVIDER
8	PROVIDE RECESSED BRONZE KNOX BOX EQUAL TO KNOXBOX 3200. LOCATE IN FIELD WITH OWNER. COORDINATE CONNECTION TO FIRE ALARM AS REQUIRED.

DRAWING LEGEND:

- STUD WALL

- CMU WALL

SEE A314 FOR WALL PARTITION TYPES, ALL WALLS TYPICAL WALL TYPE U.N.O.

ALL DOORS ARE 4" FROM FACE OF WALL (ON HINGE SIDE) U.N.O.

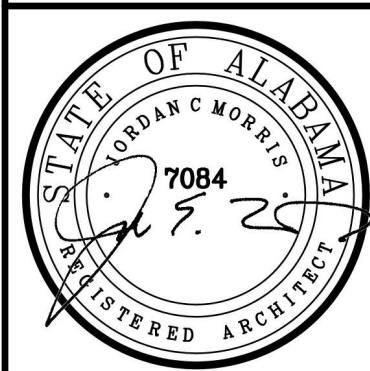
FOR ALL BATHROOM PARTITION WALLS BETWEEN STALLS, REINFORCE AND GROUT FIRST TWO CELLS, MIDDLE CELL, AND REAR CELL.

1 FLOOR PLAN - BASE BID
1/8" = 1'-0"

0' 4'-0" 8'-0" 16'-0" 32'-0"

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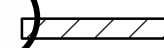
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FLOOR PLAN

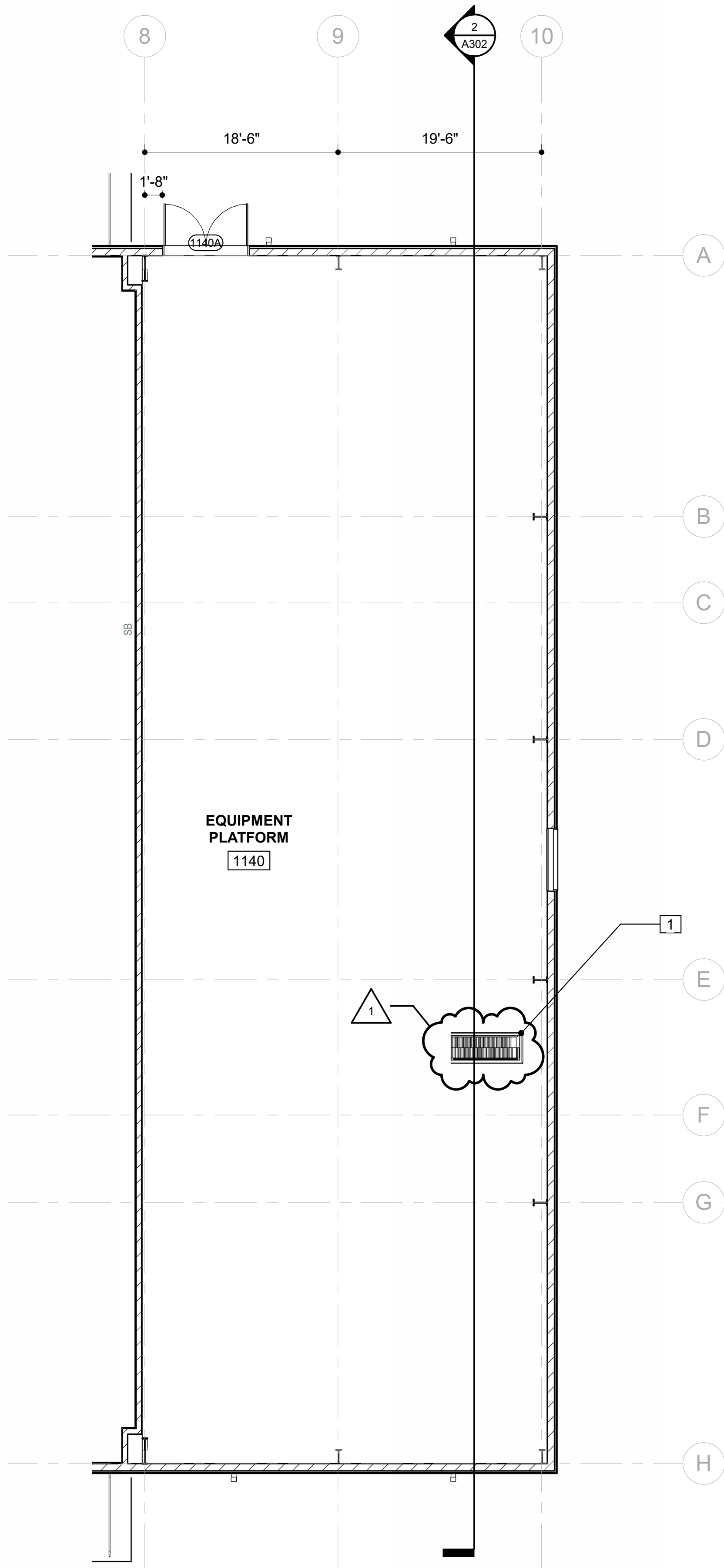
A101

REFERENCE NOTES	
NUMBER	NOTE
1	PROVIDE STEEL GUARDRAIL SYSTEM 42" MIN. ABOVE ADJACENT WALKING SURFACE, WITH OPENINGS SUCH THAT A 4" DIAMETER SPHERE CANNOT PASS THROUGH. DESIGN GUARD, POSTS, INFILL, CONNECTIONS, AND ANCHORAGE TO RESIST A MINIMUM 50 PLF LOAD APPLIED IN ANY DIRECTION AT TOP OF GUARD AND A 200-LB CONCENTRATED LOAD APPLIED AT ANY POINT, IN ACCORDANCE WITH APPLICABLE BUILDING CODE. PAINT ALL STEEL.

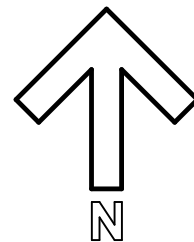
DRAWING LEGEND:

-  - STUD WALL
-  - CMU WALL

SEE A314 FOR WALL PARTITION TYPES.
ALL WALLS TYPICAL WALL TYPE U.N.O.
ALL DOORS ARE 4" FROM FACE OF
WALL (ON HINGE SIDE) U.N.O.

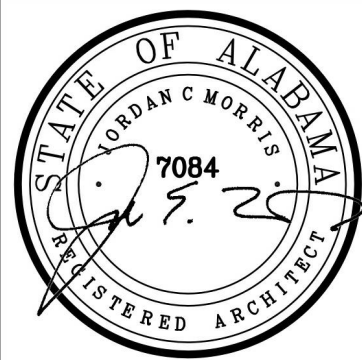


1 MECHANICAL
1/8" = 1'-0"



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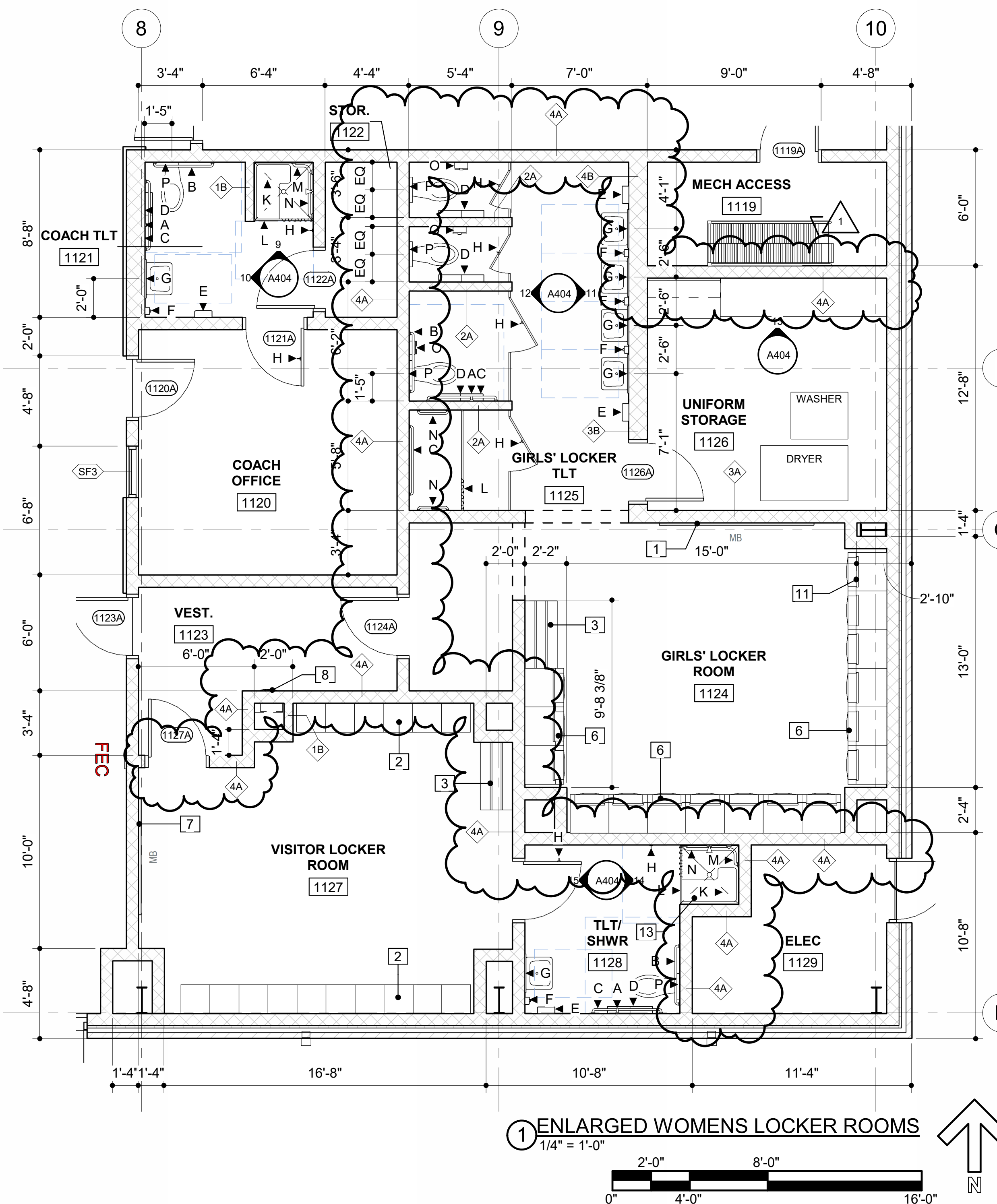
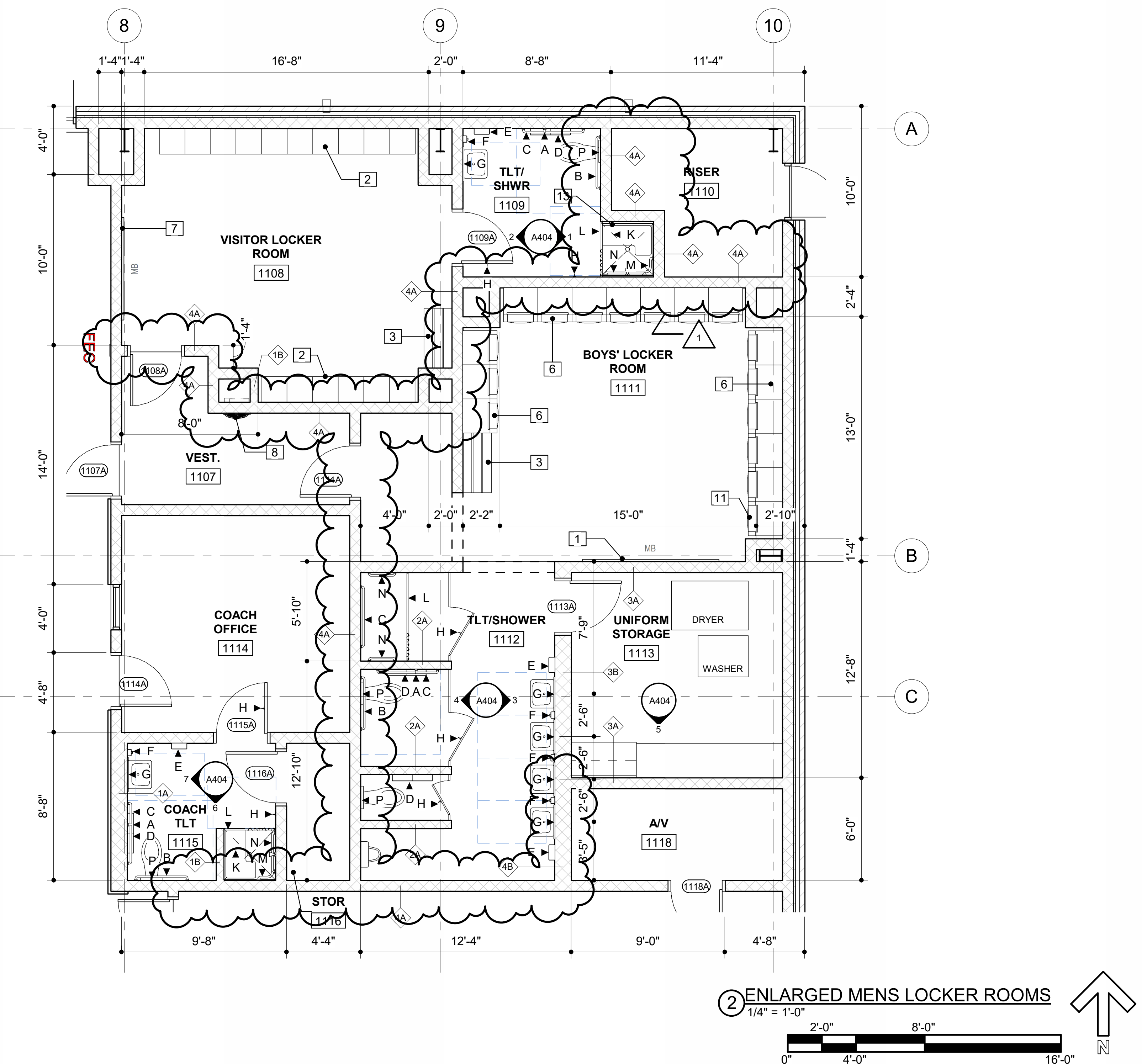
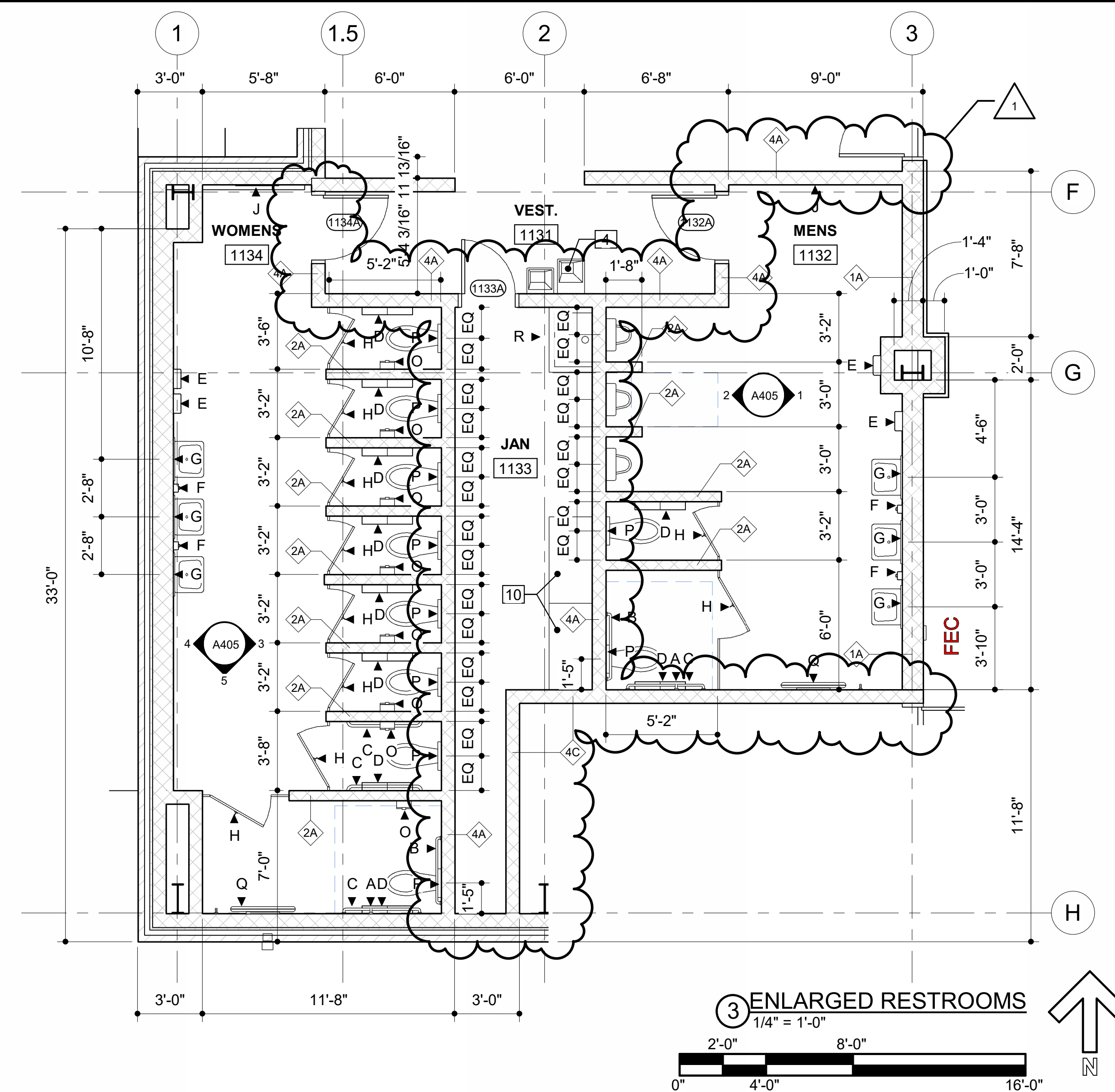
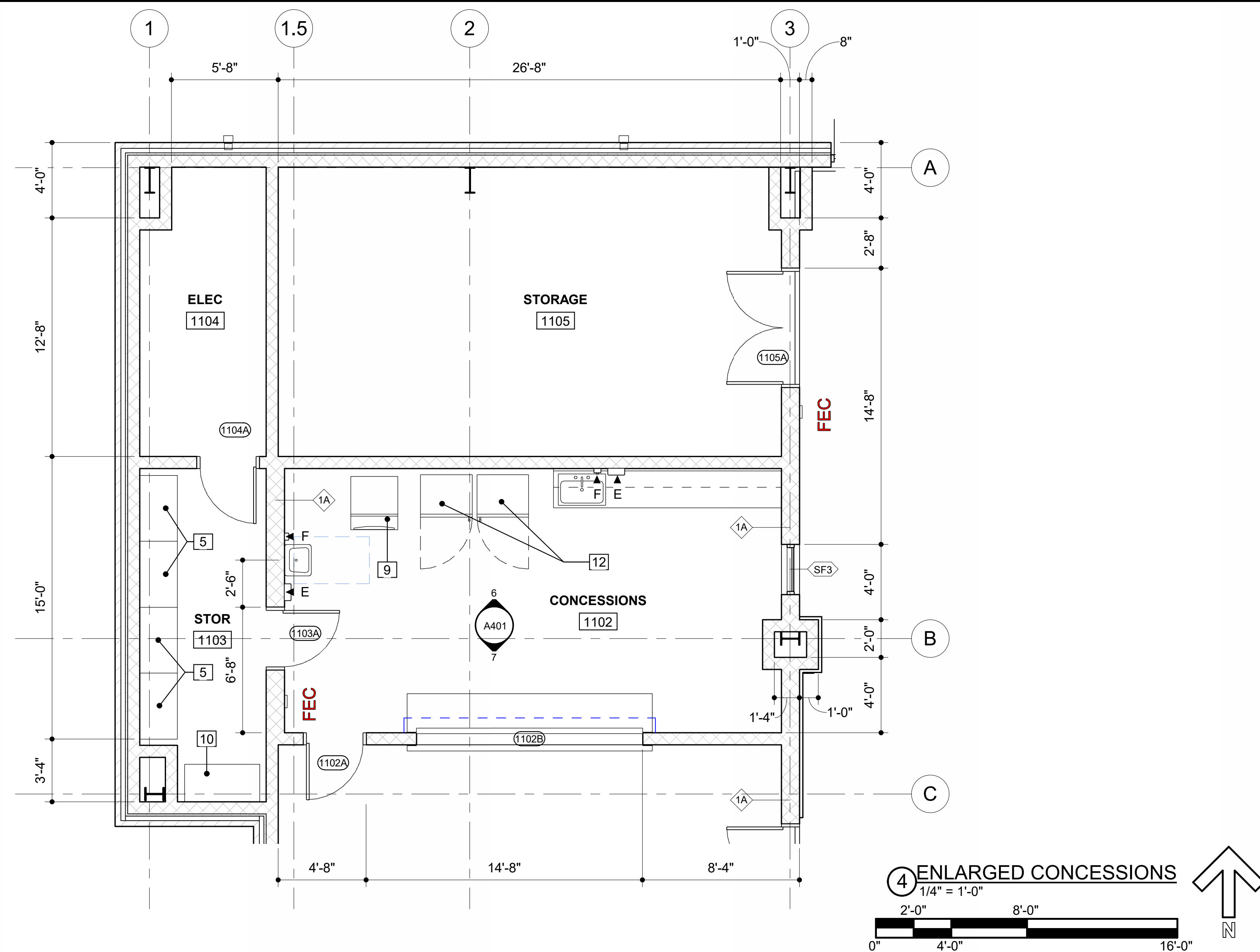
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EQUIPMENT
PLATFORM PLAN

A102



DRAWING LEGEND:

 - STUD WALL

 - CMU WALL

 - CMU WALL

SEE A314 FOR WALL PARTITION TYPES,
ALL WALLS TYPICAL WALL TYPE U.N.O.

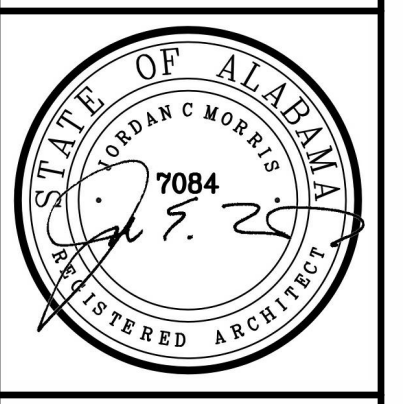
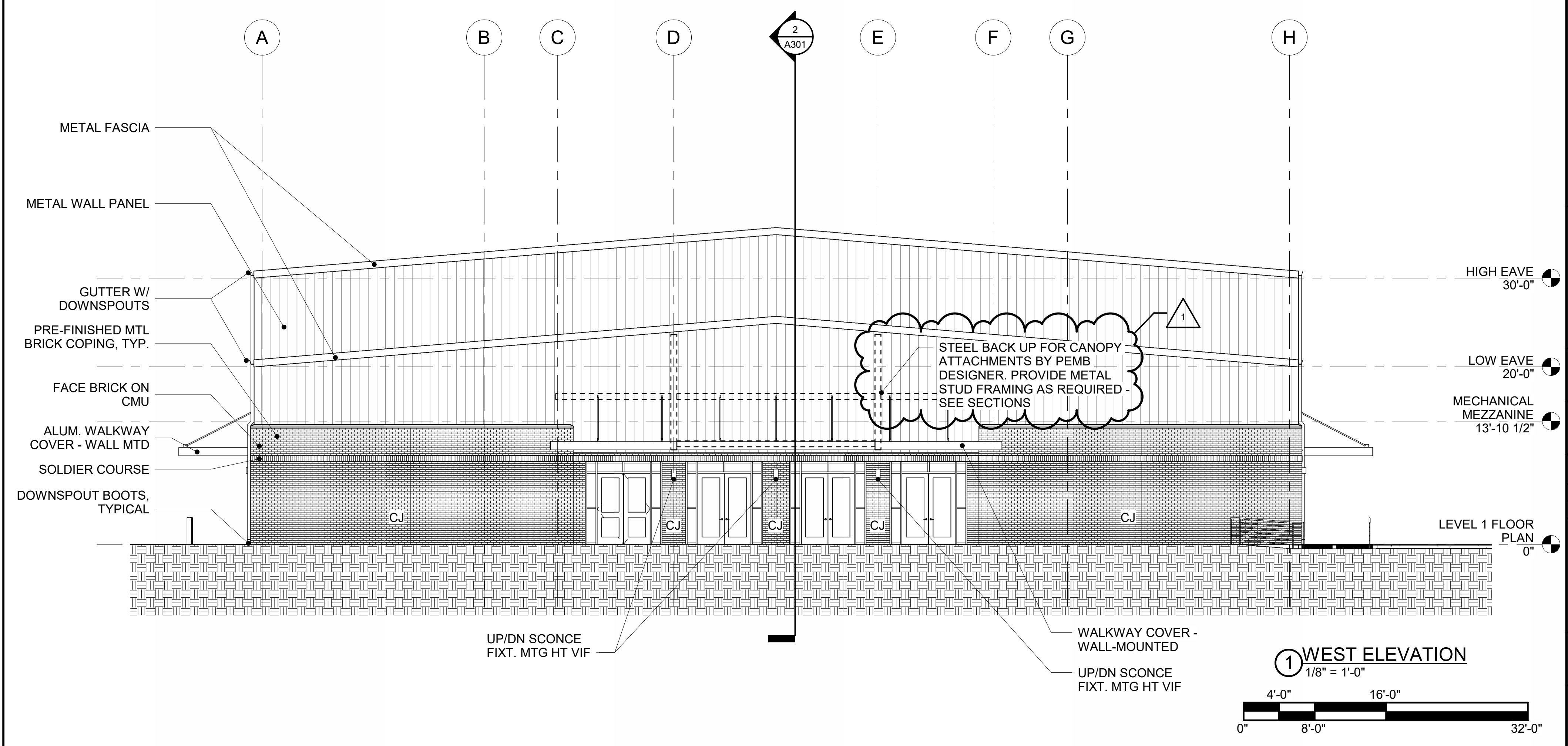
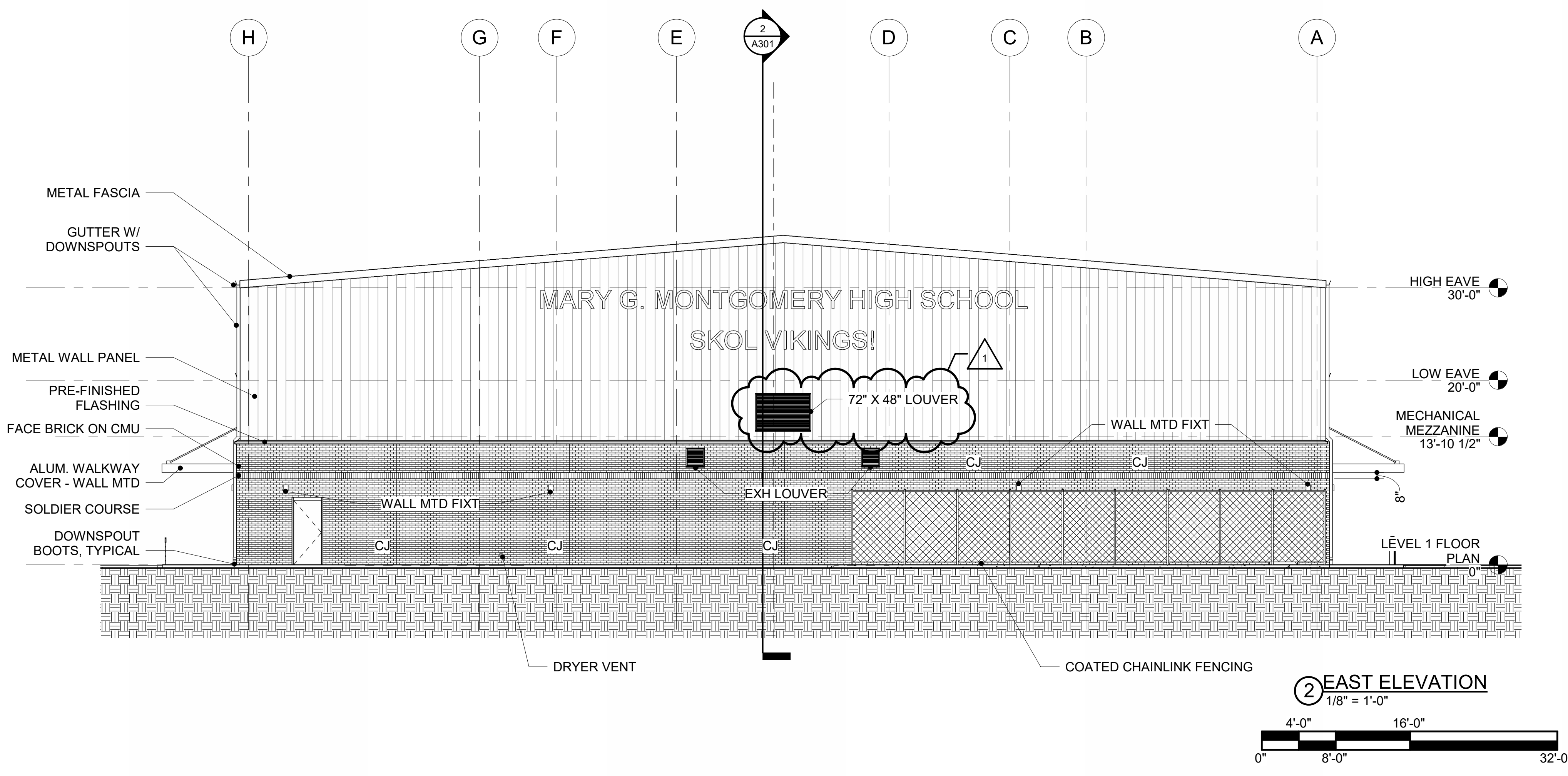
ALL DOORS ARE 4" FROM FACE OF WALL (ON HINGE SIDE) U.N.O.

FOR ALL BATHROOM PARTITION WALLS BETWEEN STALLS, REINFORCE AND GROUT FIRST TWO CELLS, MIDDLE CELL, AND REAR CELL.

TOILET ACCESSORY SCHEDULE:

- ◀ A 18" VERTICAL GRAB BAR
- ◀ B 36" GRAB BAR
- ◀ C 42" GRAB BAR
- ◀ D TOILET TISSUE DISPENSER OFCI.
- ◀ E PAPER TOWEL HOLDER OFCI.
- ◀ F SOAP DISPENSER OFCI.
- ◀ G 24" X 36" MIRROR
- ◀ H ROBE HOOK
- ◀ J 24" X 60" MIRROR
- ◀ K SHOWER SEAT
- ◀ L SHOWER CURTAIN AND ROD
- ◀ M 18" HORIZONTAL GRAB BAR
- ◀ N 30" HORIZONTAL GRAB BAR
- ◀ O SANITARY NAPKIN HOLDER OFCI.
- ◀ P TOILET SEAT COVER DISPENSER OFCI.
- ◀ Q BABY CHANGING STATION
- ◀ R MOP SINK

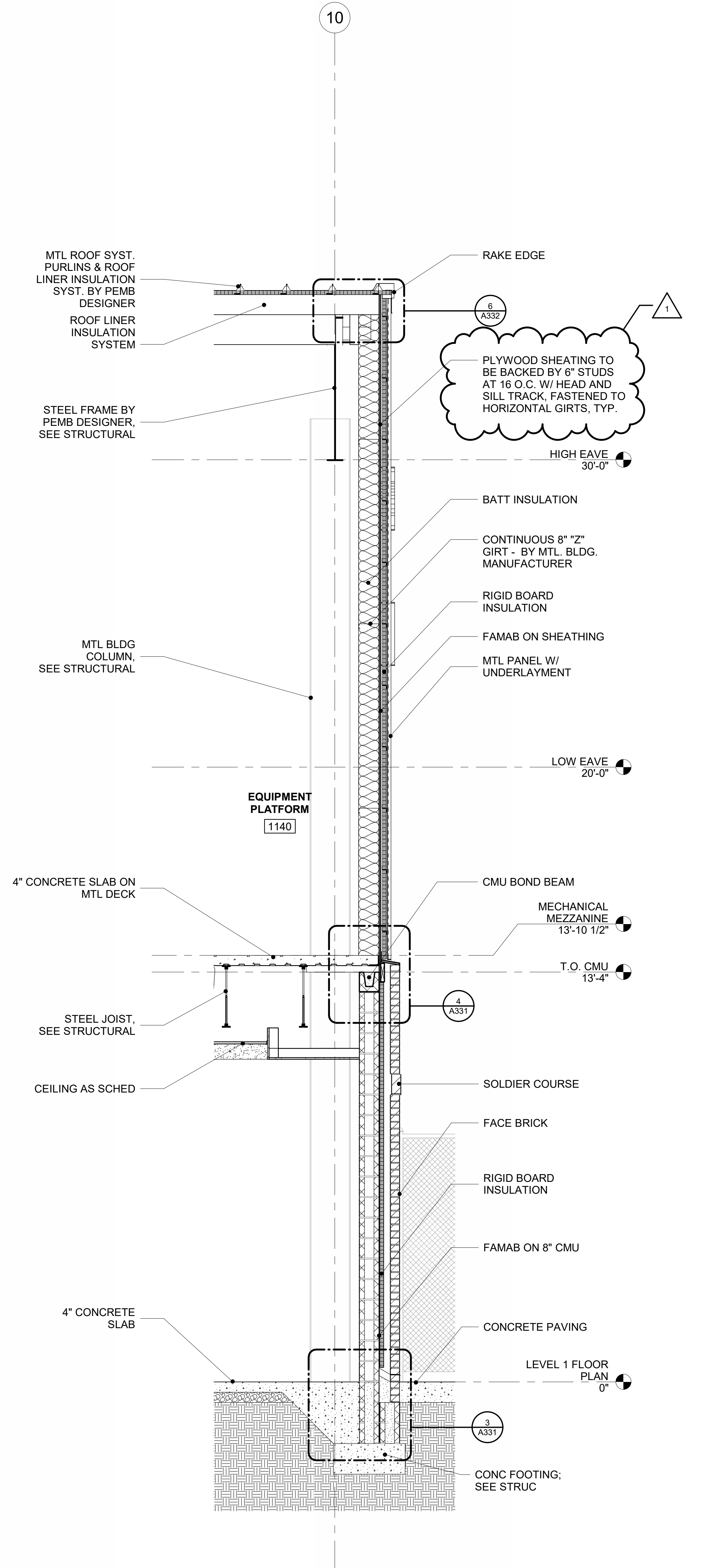
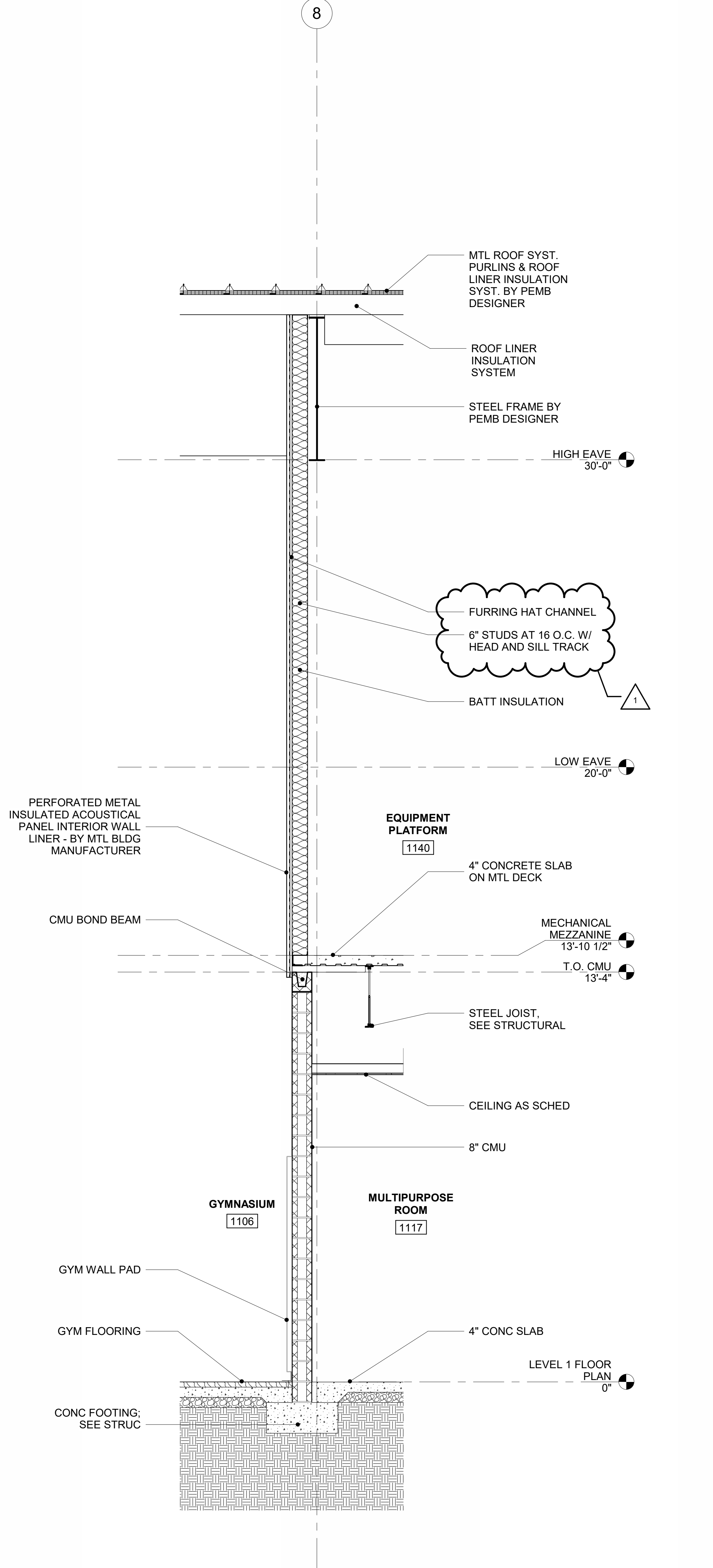
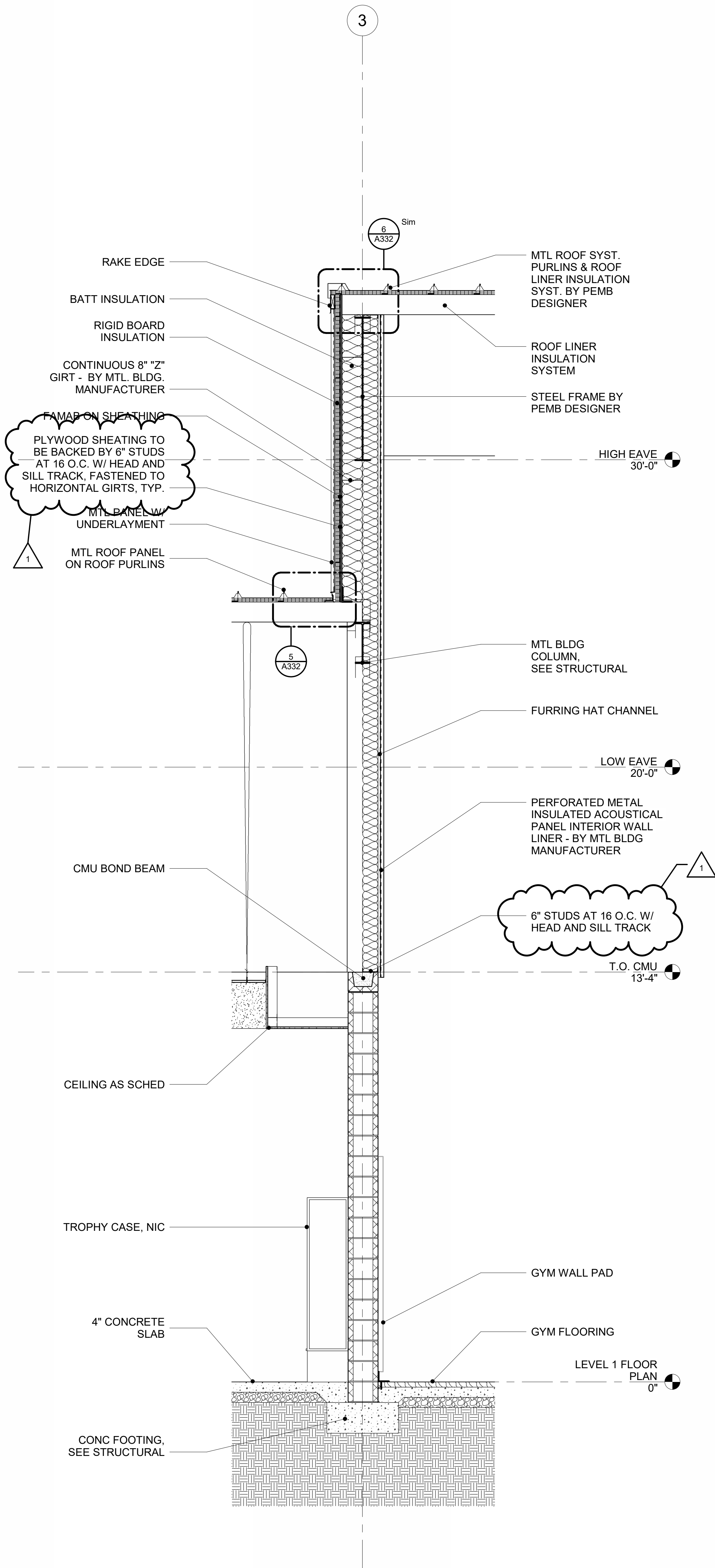
REFERENCE NOTES	
NUMBER	NOTE
1	4'x8' MARKERBOARD MOUNTED 36" A.F.F. TO CHALK TRAY; SEE SPECS
2	TWO TIER METAL LOCKERS; SEE SPECS.
3	ADA COMPLIANT BENCH; SEE SPECS
4	WATER FOUNTAIN WITH BOTTLE FILLER; SEE SPECS
5	24" x 42" WIRE SHELVING, SEE SPECS.
6	METAL SIT-IN LOCKER, SEE SPECS
7	4'x6' MARKERBOARD MOUNTED 36" A.F.F. TO CHALK TRAY; SEE SPECS
8	BOTTLE FILLER; SEE SPECS
9	ICE MACHINE, C.F.C.I.
10	24" x 48" WIRE SHELVING, SEE SPECS.
11	PROVIDE ADA COMPLIANT METAL SIT-IN LOCKER
12	COOLER, C.F.C.I.
13	FIBERGLASS SHOWER UNIT - SEE SPECS; COORDINATE ADJACENT WALLS W/ MANUFACTURER'S CLEAR WIDTH FOR INSTALLATION.

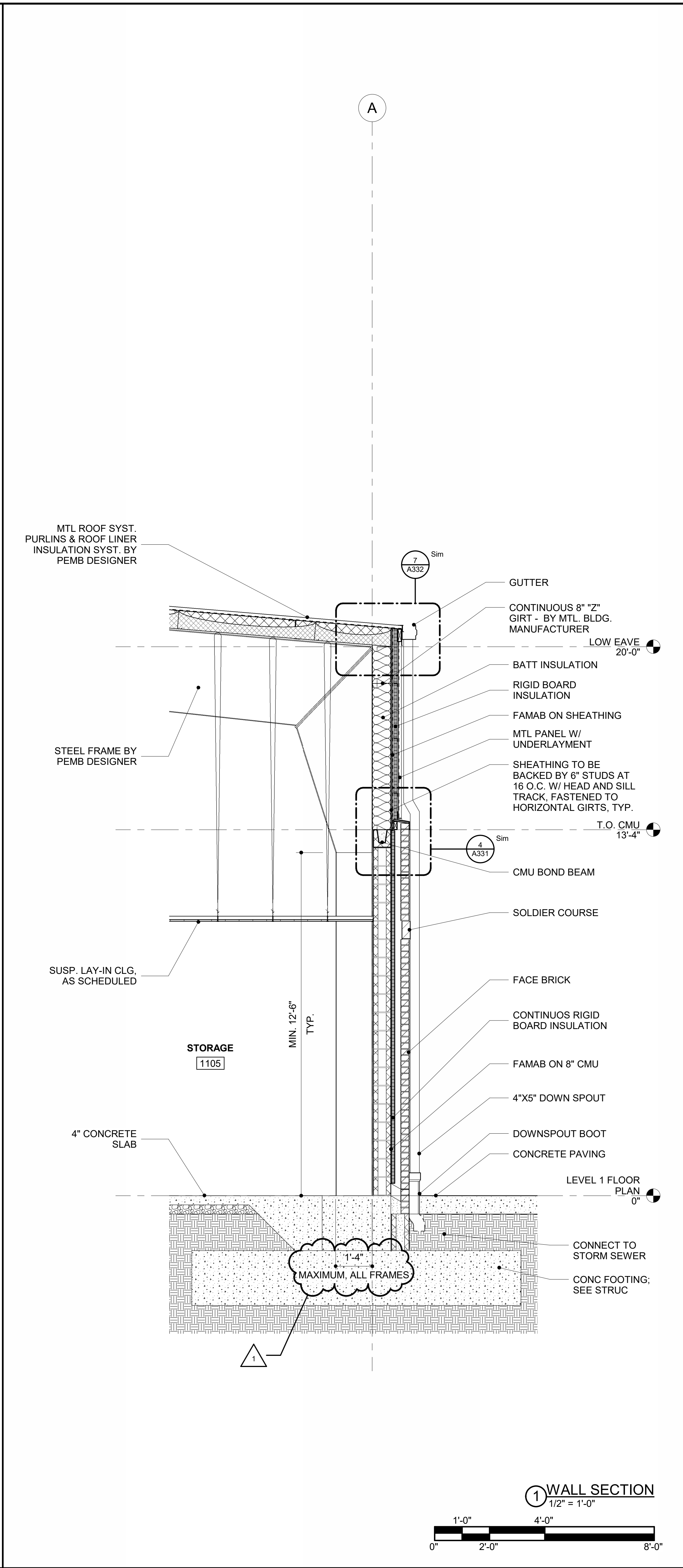
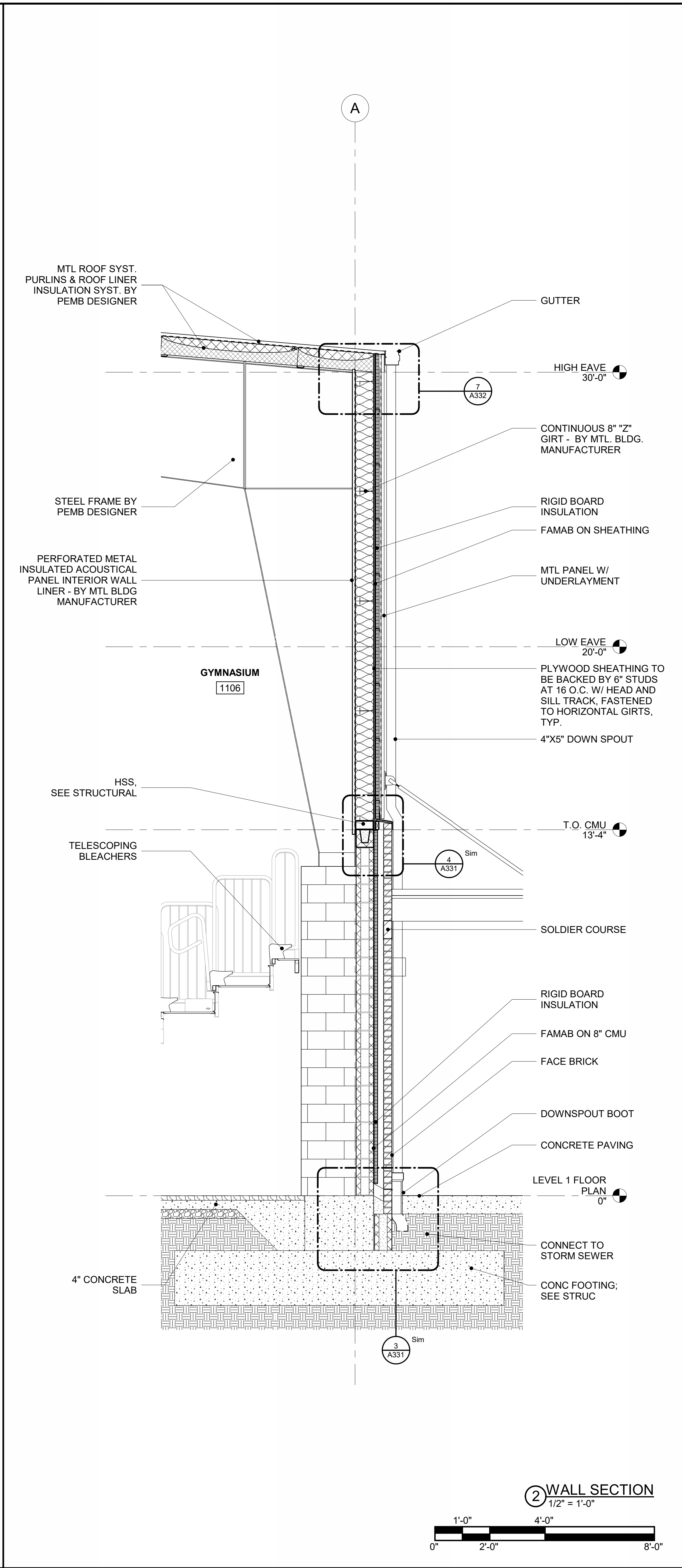
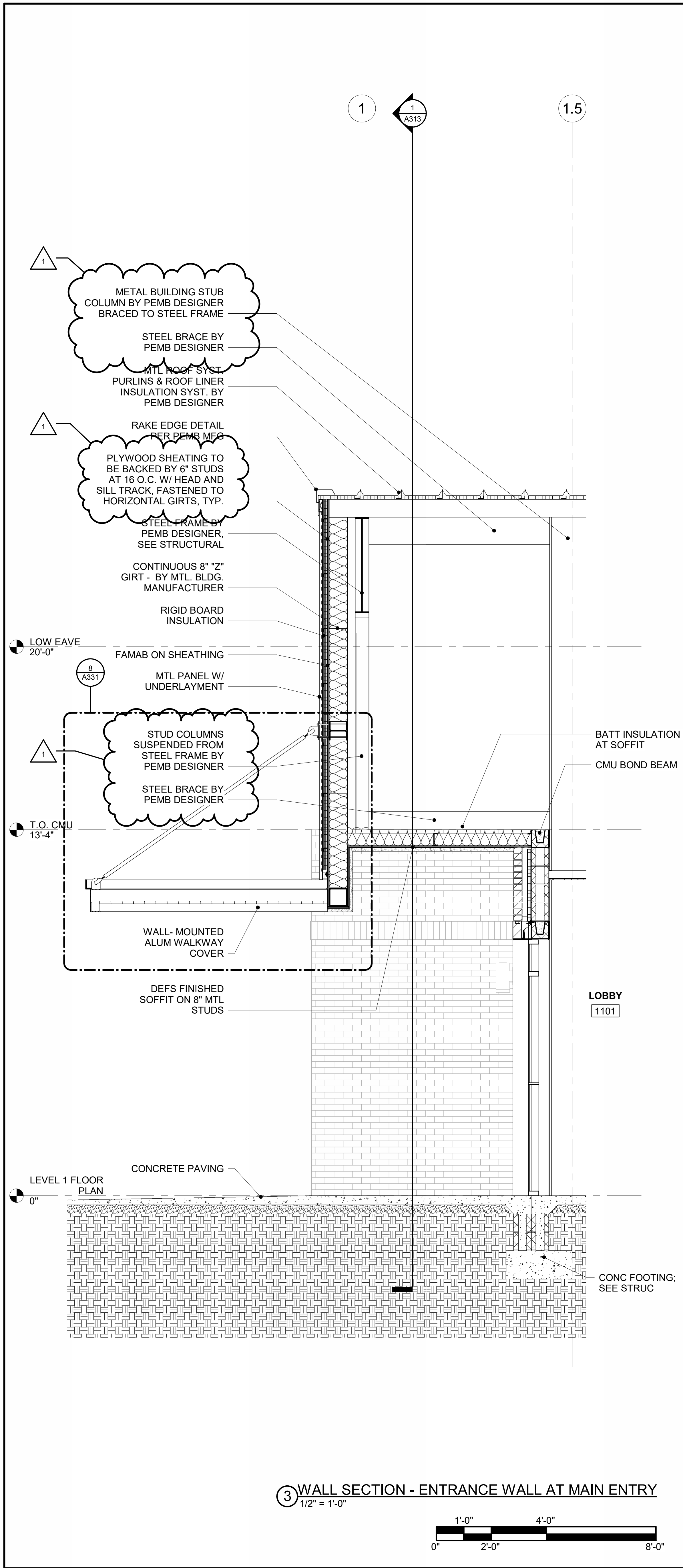


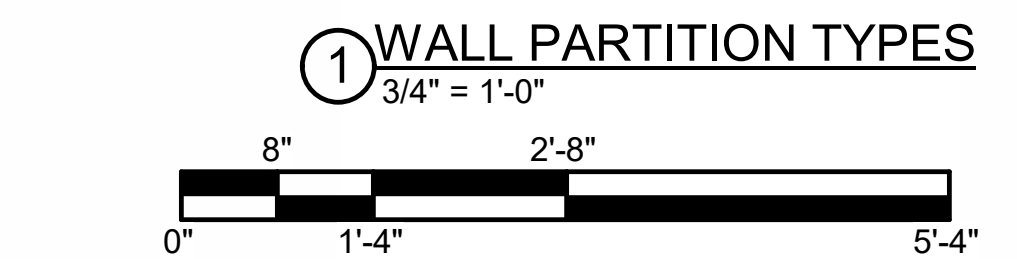
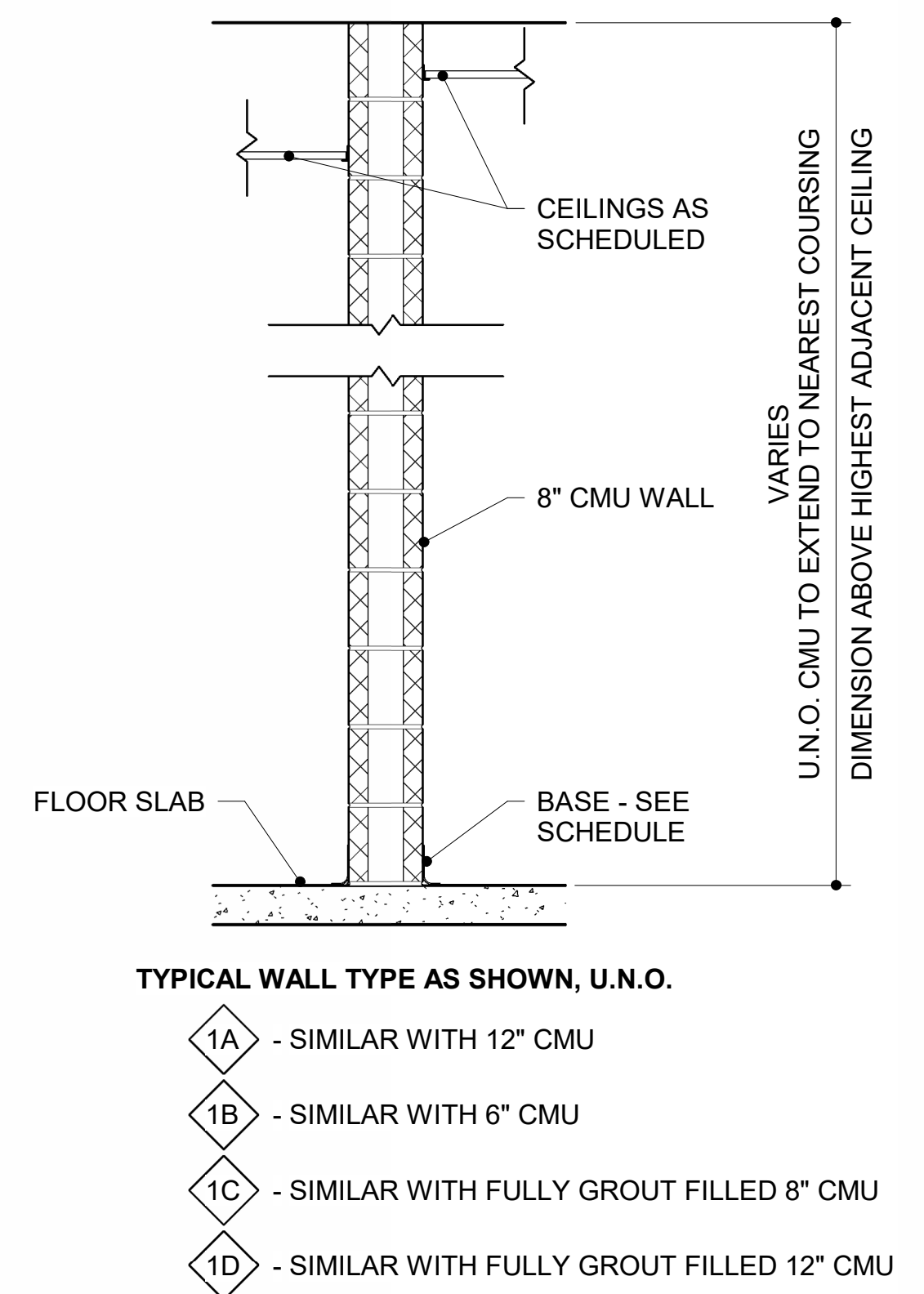
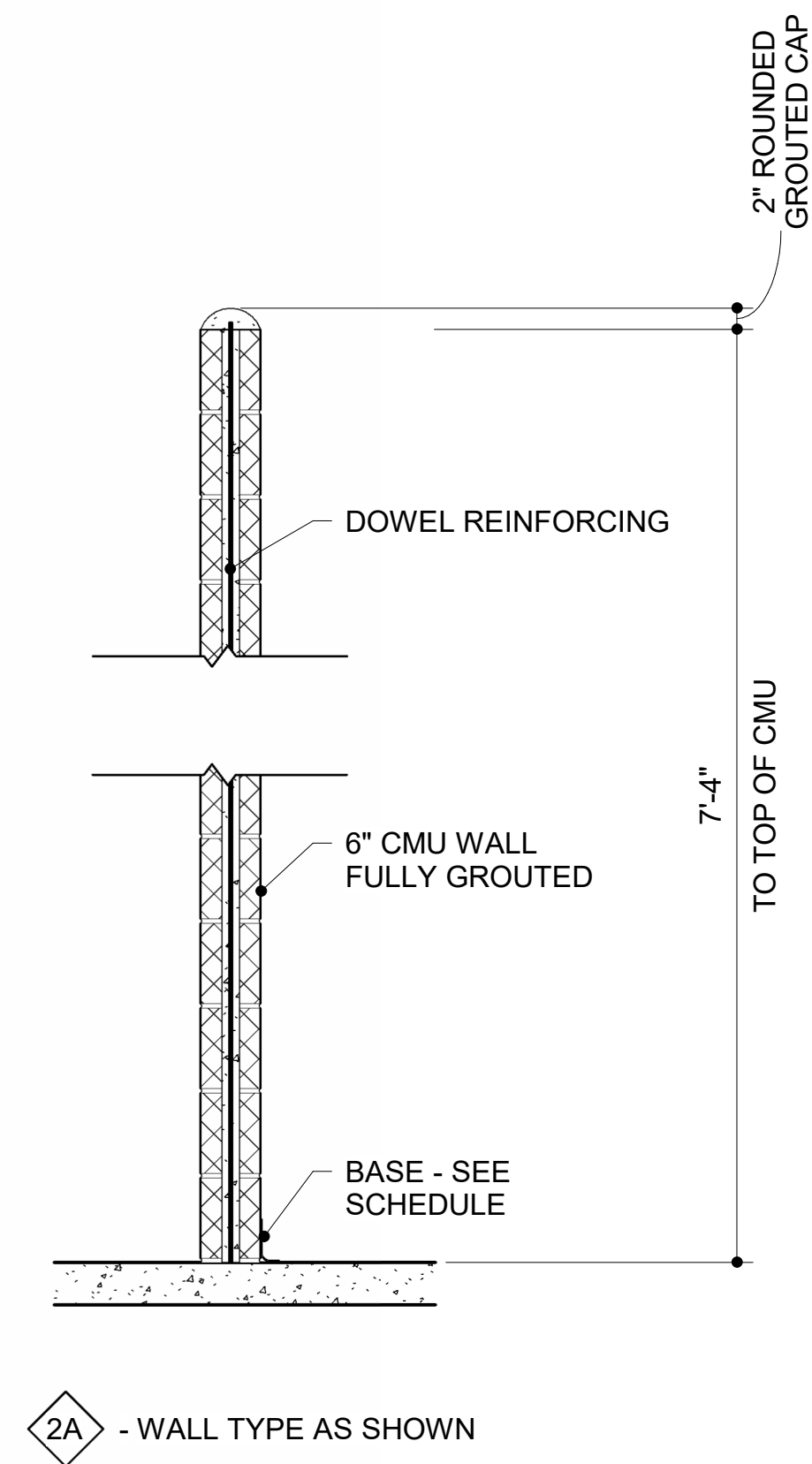
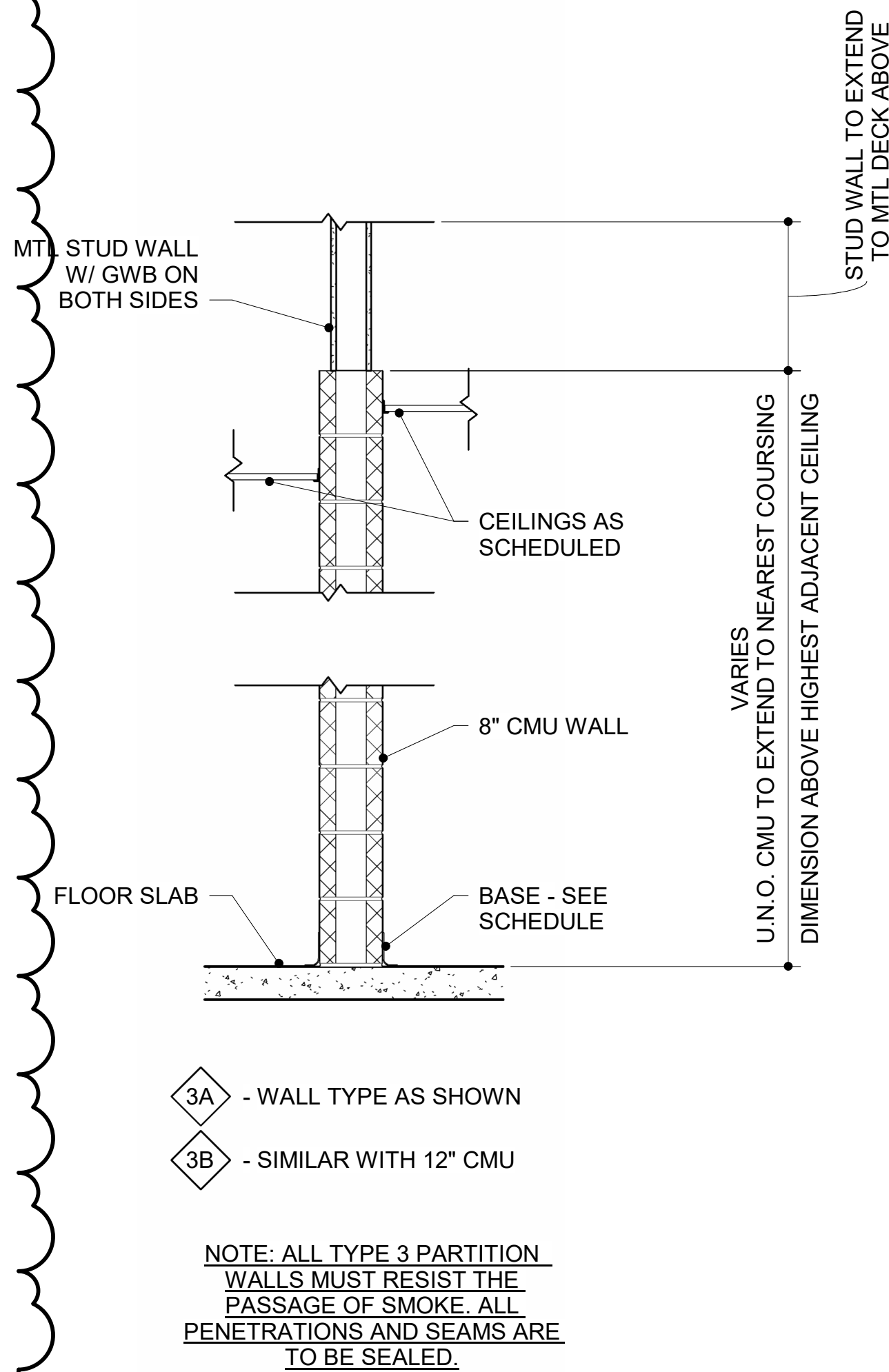
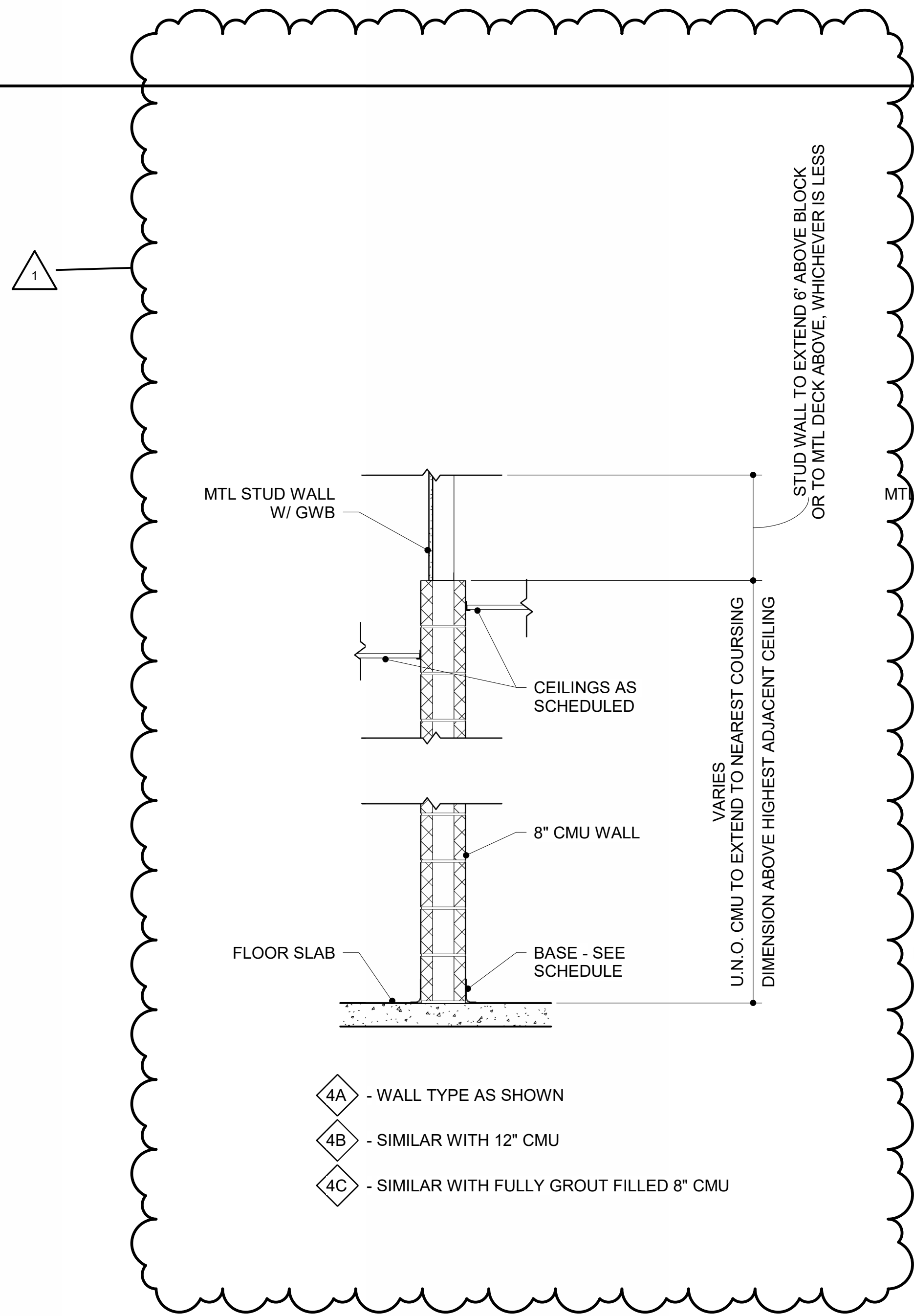
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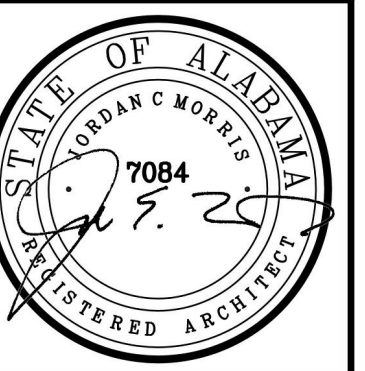
EXTERIOR
ELEVATIONS







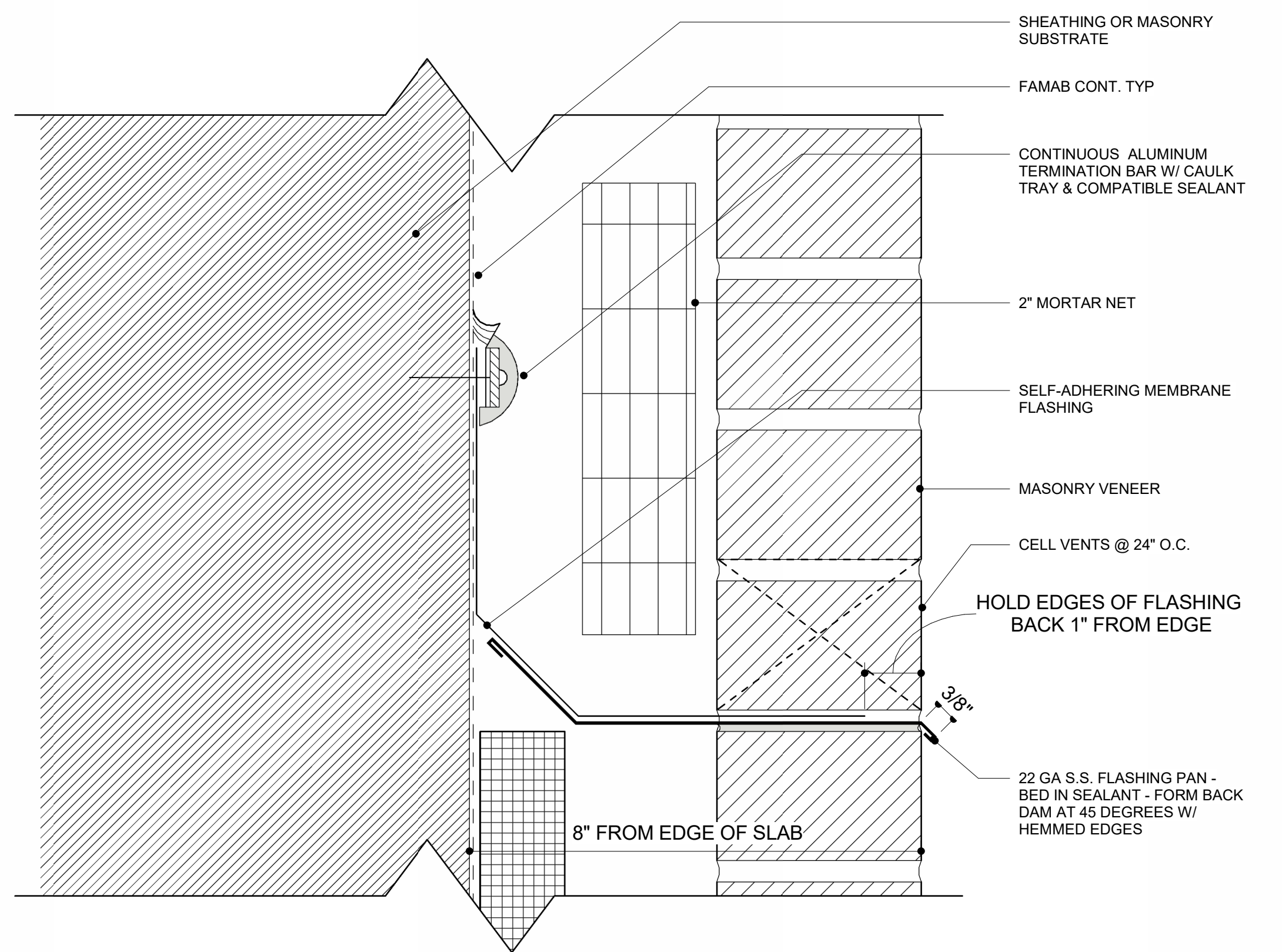
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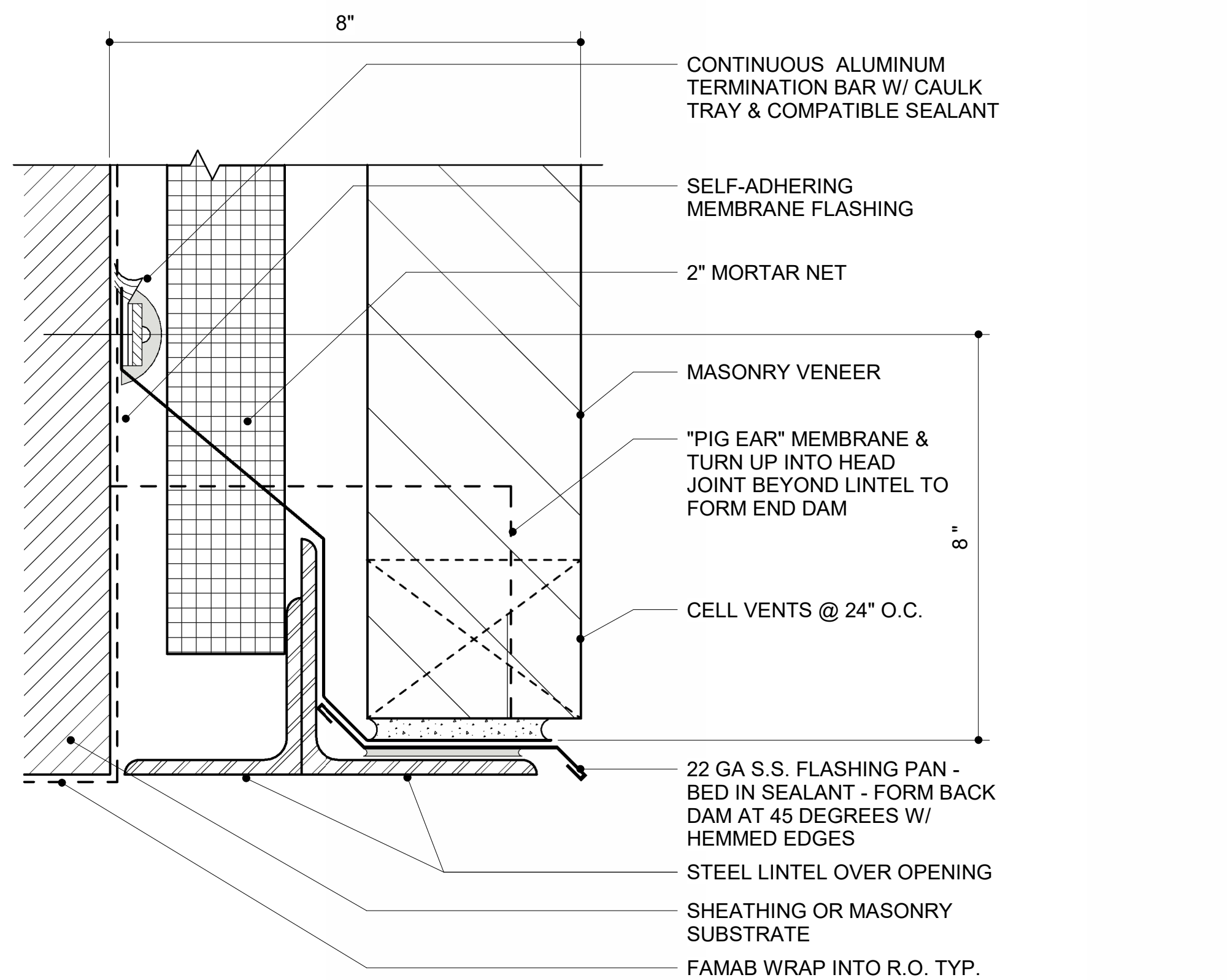
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WALL PARTITION
TYPES

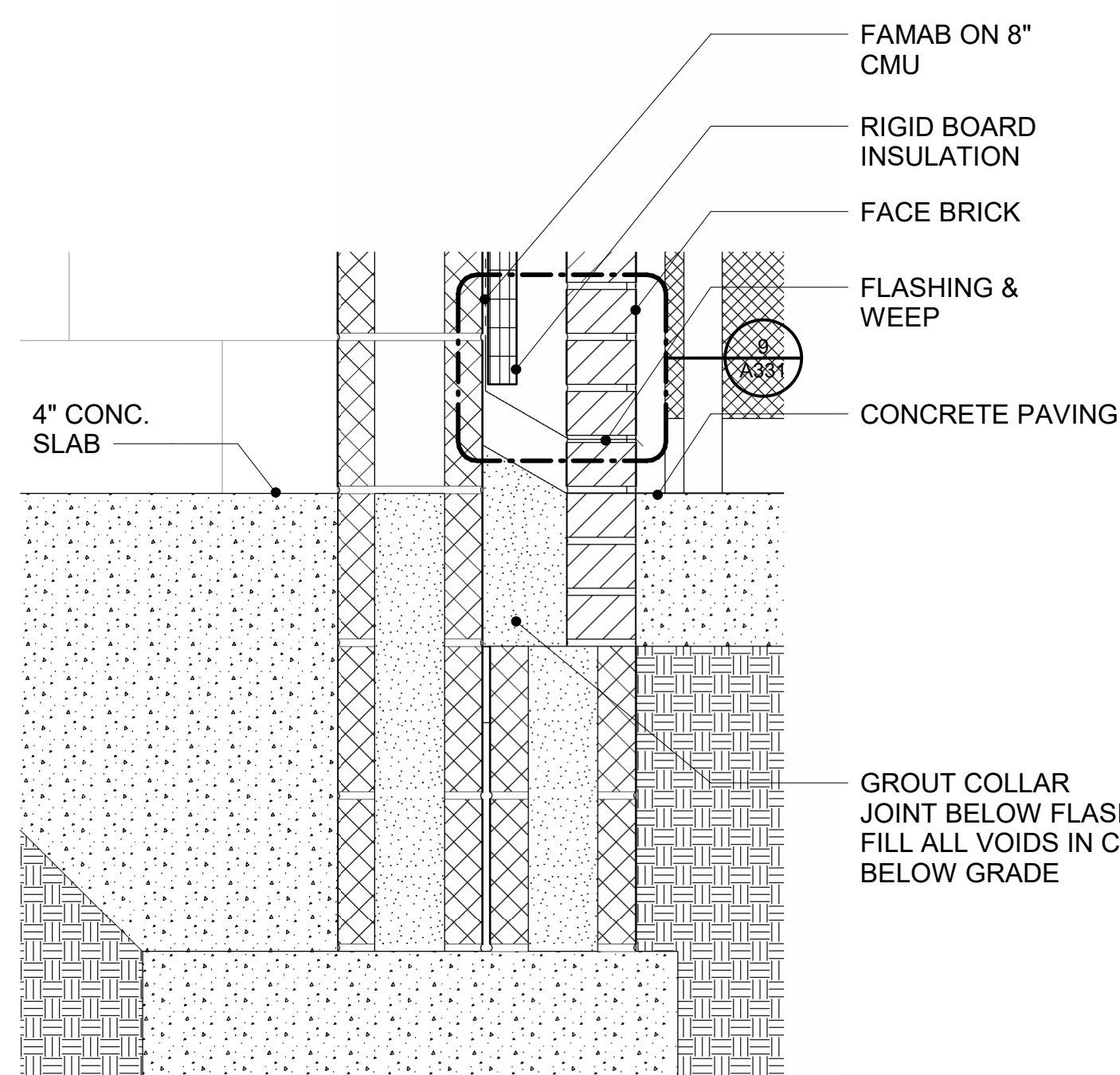
A314



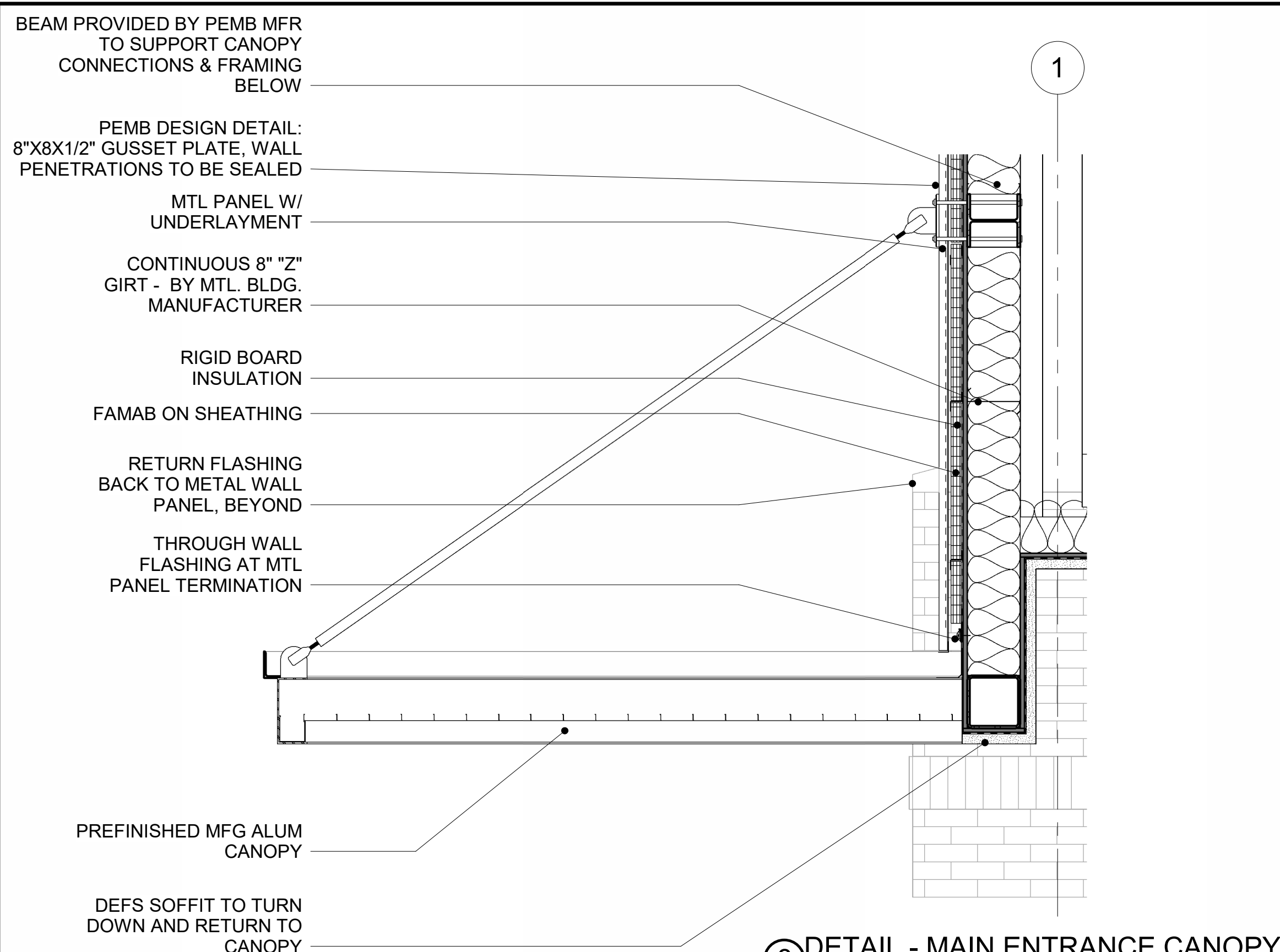
9 EMBEDDED FLASHING SYSTEM & WEEP
6' = 1'-0"



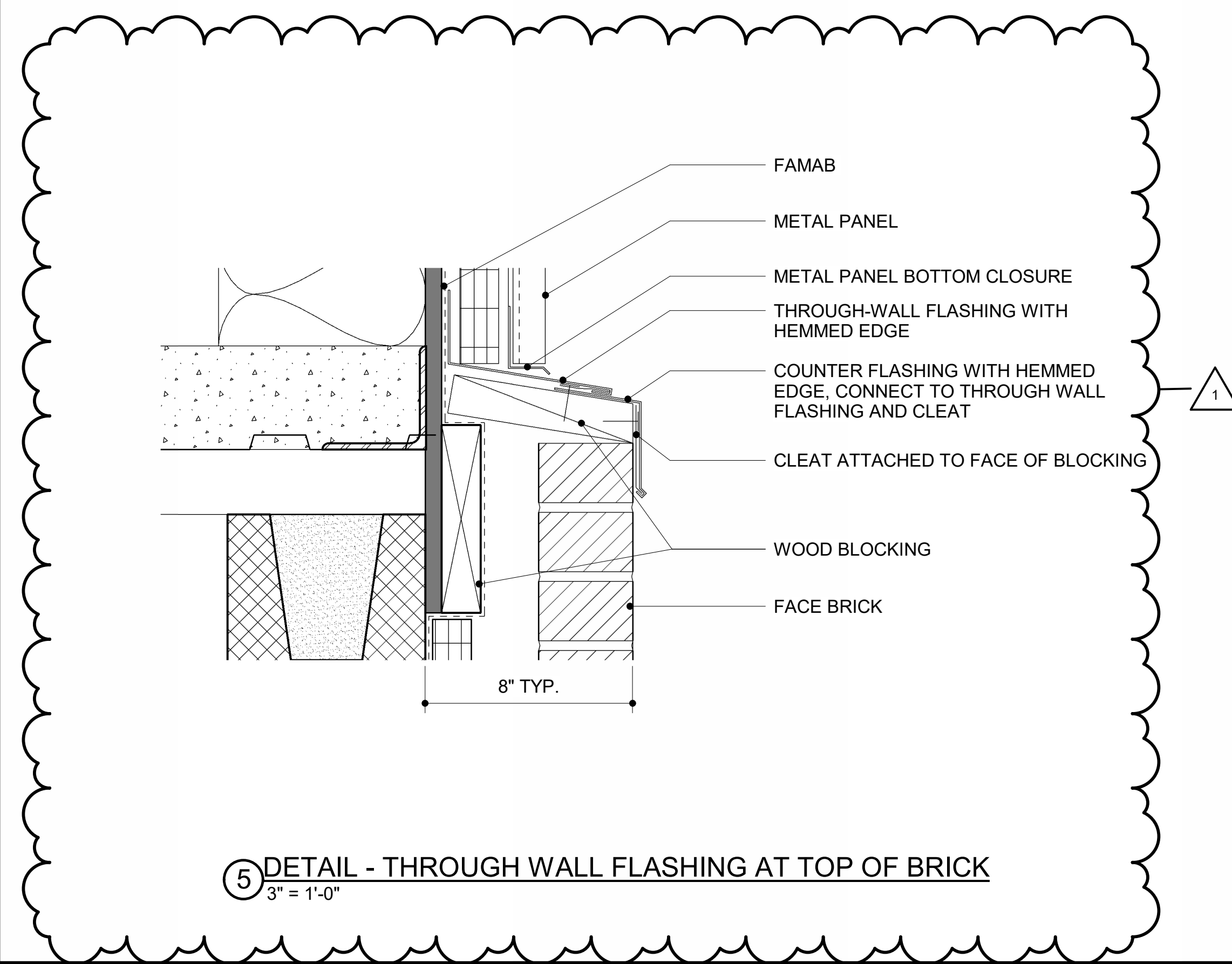
6 EMBEDDED FLASHING AT OPENING HEAD
6' = 1'-0"



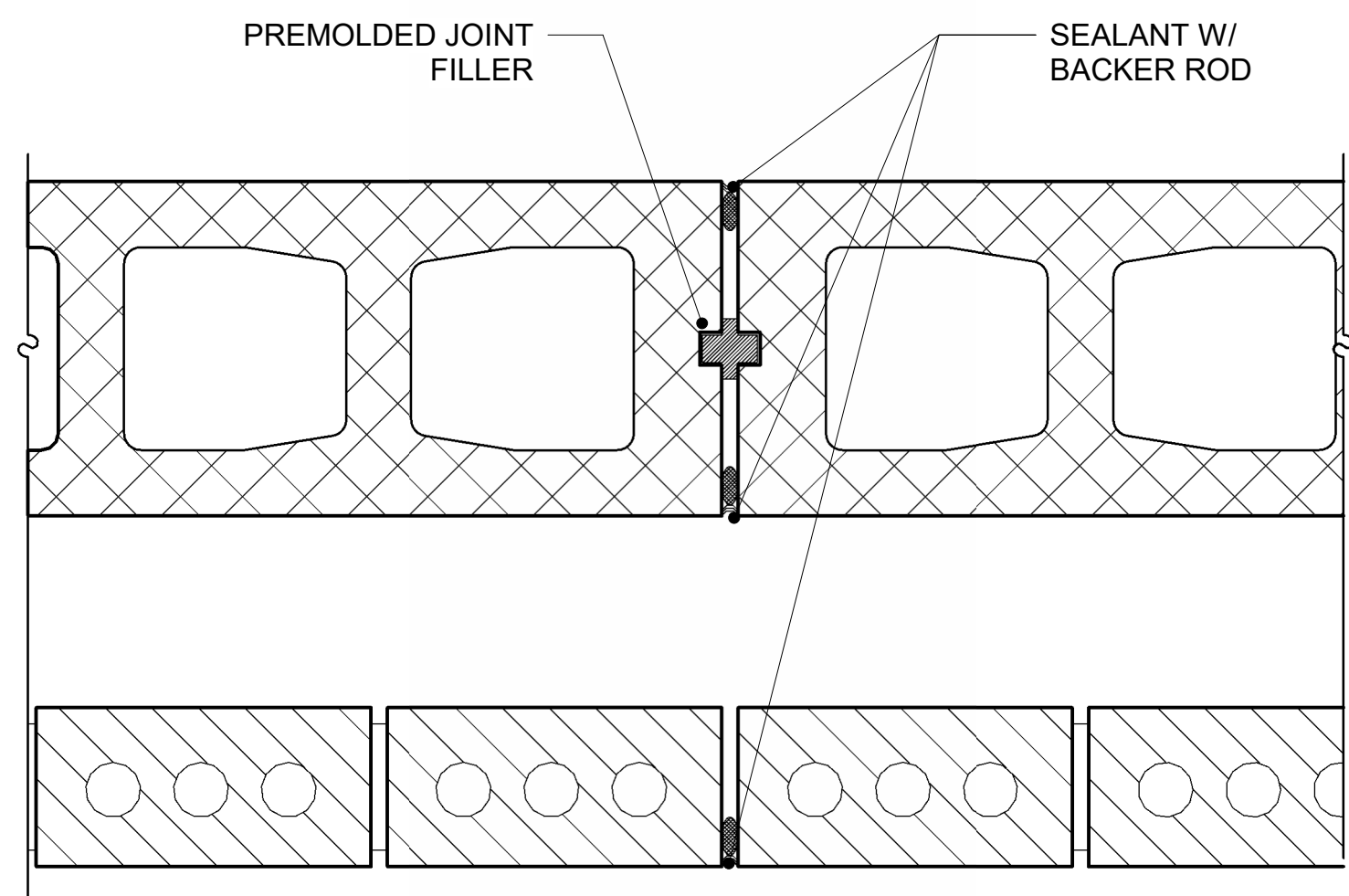
3 DETAIL - BASE OF WALL
1 1/2' = 1'-0"



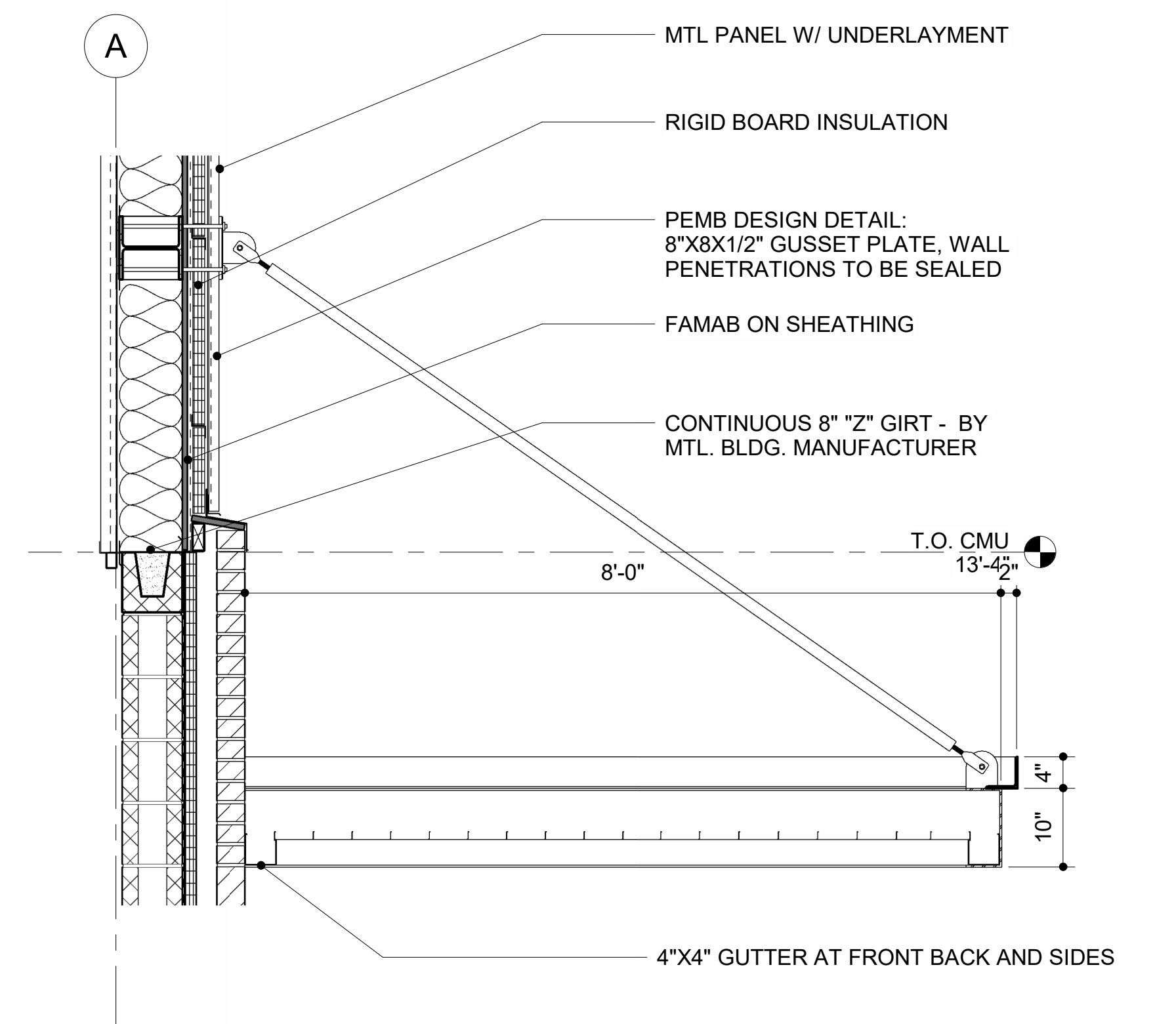
8 DETAIL - MAIN ENTRANCE CANOPY
3/4' = 1'-0"



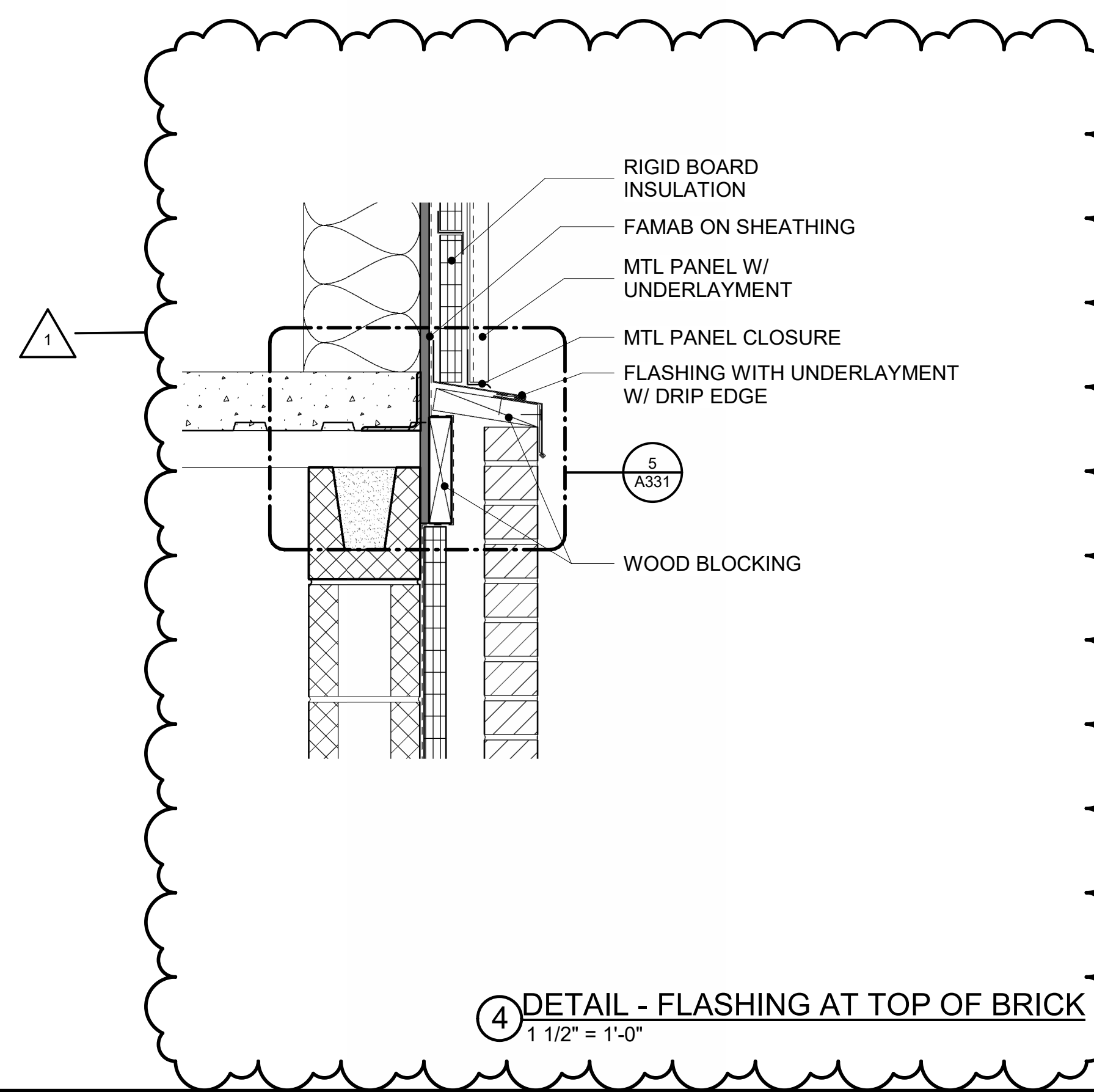
5 DETAIL - THROUGH WALL FLASHING AT TOP OF BRICK
3' = 1'-0"



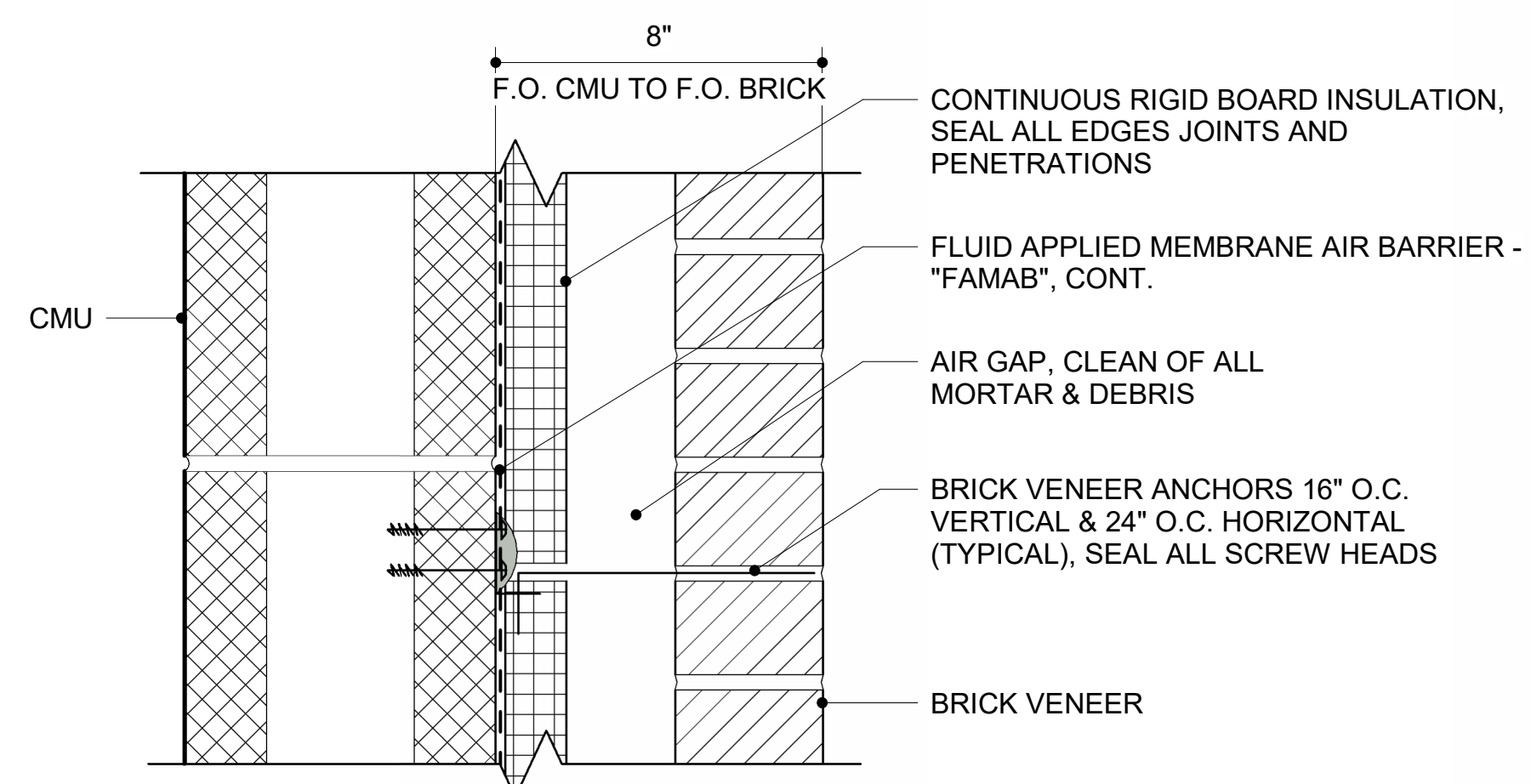
2 MASONRY CONTROL JOINT
3' = 1'-0"



7 DETAIL - SIDE ENTRY CANOPY
3/4' = 1'-0"



4 DETAIL - FLASHING AT TOP OF BRICK
1 1/2' = 1'-0"



NOTE: DRAWING EXPANDED FOR CLARITY

1 TYP. BRICK VENEER ON CMU WALL ASSEMBLY
3' = 1'-0"