

A New Fire Station for
Harmonville Fire Company – Plymouth Valley Station

DOCUMENT 00 9001 - ADDENDUM NUMBER 2 – 3/28/25

Re: A New Fire Station for Harmonville Fire Company – Plymouth Valley Station

From: Kelly Clough Bucher & Associates, Inc.
8 East Broad Street
Hatfield, PA 19440

To: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated 3/6/25 as noted below. Acknowledge receipt of this addendum when you submit your bid on PennBid. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of **4** pages, including as attachments- **2** pages of 8.5” x 11” sheets and **11** drawing sheets.

CHANGES TO THE BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT

There are no changes to the bidding requirements, contract forms and conditions of the contract in this Addendum.

CHANGES TO THE SPECIFICATIONS

9001.01 MULTIPLE CONTRACT SUMMARY

Modify Item 1.7, A, 19 to read – “Roofing, including roof insulation, coverings, flashings, downspouts, roof specialties, roof accessories, and roof curbs for future Plymovent equipment, including noted roof penetrations.”

9001.02 MULTIPLE CONTRACT SUMMARY

Modify Item 1.7, A, 29 to read – “Structural reinforcement of bar joist in the Plymouth Community Ambulance building, including coordination of the disconnecting and reinstallation of equipment, systems or devices mounted to the bar joist, or in the way of performing the work.”

9001.03 MULTIPLE CONTRACT SUMMARY

Add Item 1.9, A, 18 – “Coordinate with GC and temporarily disconnect and reposition any HVAC and/or vehicle exhaust system components in the way of the work required to structurally reinforce the bar joist in the Plymouth Community Ambulance building.”

9001.04 MULTIPLE CONTRACT SUMMARY

Add Item 1.10, A, 12 – “Coordinate with GC and temporarily disconnect and reposition any components/devices in the way of the work required to structurally reinforce the bar joist in the Plymouth Community Ambulance building.”

9001.05 MULTIPLE CONTRACT SUMMARY

Modify Item 1.10, A, 4 to read – “Electrical service and distribution, including all trenching and backfill.”

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- 9001.06 TABLE OF CONTENTS
Remove Section 05 1213 ARCHITECTURALLY EXPOSED STRUCTURAL STEEL FRAMING from the TABLE OF CONTENTS. Note that AESS requirements are located in specification Section 05 1200 under 2.7 Fabrication.
- 9001.07 SECTION 32 3129.13 WOOD RAIL FENCES
See attached for the above noted specification section that is to be added to Volume 1.

CHANGES TO THE DRAWINGS

- 9001.08 Drawing sheet A2.01 note that “BB” designations have been added to the plan to indicate where CMU block should have bullnosed corners.
- 9001.09 Drawing sheet A2.01 note that the MB 8’ has been removed from Conference 200, and General Note #7 is to be removed. There are no Marker Boards as part of this project.
- 9001.10 Drawing sheet A2.01 note that the CMU wall thickness has been adjusted.
- 9001.11 Drawing sheet A2.02 note that at the northwest corner preparation for a second future Plymovent motor have been removed, so no roof curbs or penetrations are required in this location.
- 9001.12 Drawing sheet A3.04 Section Detail 8 the CMU thickness has been changed.
- 9001.13 Drawing sheet A3.05 Section Detail 9 the CMU thickness has been changed.
- 9001.14 Drawing sheet A8.01 Detail D and E have been updated to reflect the change of cmu thickness and placement.
- 9001.15 Drawing sheet A8.02 Detail J has been updated to reflect the change of the cmu thickness and placement.
- 9001.16 Drawing sheet A8.03 Detail 10 and 11 have been updated to reflect the change of the cmu thickness and placement.
- 9001.17 Drawing Sheet S0.01 has been updated to provide a note on the specifics of the microsynthetic fibers that is to be added to the concrete.
- 9001.18 Drawing sheet S2.01 has various updates related to the pier schedule and details.
- 9001.19 Drawing sheet S2.02 has an added note regarding the microsynthetic fibers.
- 9001.20 Drawing sheet S3.01 foundation details have been updated to coordinate with the drawings.

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- 9001.21 Drawing sheet P2.1 and P3.1 note the following regarding if Alternate #1 is selected:
- Waste connections for 2nd floor fixtures:
 - Cap SK-1 waste piping 6" abv. flr.
 - Install shower drains in slab, but cap piping in 1st floor ceiling space.
 - Cap 4" sanitary 12" abv. flr.
 - Provide floor sleeves for LMB-1 and MB-1.
 - Supply connections for 2nd floor fixtures in case of alternate:
 - Sleeve locations behind MB-1, SK-1 and between the showers.
 - Provide capped and valved connections at active mains within four pipe diameters of main.
 - All capped connections shall be within the first floor clg space.
- 9001.22 Drawing sheet P7.1 note the following applicable to "DETAIL AT WATER SERVICE":
Site Contractor/GC shall provide 2" cold water main and 6" fire protection, terminating within Mech 102 with flanged connections 12" A.F.F. Coordinate exact locations in the field. PC shall connect and provide all downstream piping.
- 9001.23 Drawing sheet E3.1 note the following additions and clarifications:
1. Radio 101, plan SW corner: Provide two vertically stacked television boxes 4/E7.1 with receptacle in each.
 2. Radio 101, plan NW corner: Provide two vertically stacked television boxes 4/E7.1 with receptacle in each.
 3. Gym 106, plan N wall: At receptacle tagged "T", provide television box 4/E7.1.
 4. Conference 200, plan NE corner: Provide television box 4/E7.1 with receptacle.
 5. Conference 200, plan E wall: At receptacle tagged "T", provide television box 4/E7.1.
 6. Day Room 202, plan NE corner: Provide television box 4/E7.1 with receptacle.
- 9001.24 Drawing sheet E4.1 note the following additions and clarifications:
1. Apparatus 100, plan west wall: Provide three television boxes 4/E7.1 with television jack and data jack in each. Locate plan south of each overhead door.
 2. Apparatus 100, plan east wall: Provide television box 4/E7.1 with television jack and data jack. Locate between overhead doors.
 3. Radio 101, plan SW corner: Provide two vertically stacked television boxes 4/E7.1 with television jack and data jack in each.
 4. Radio 101, plan NW corner: Provide two vertically stacked television boxes 4/E7.1 with television jack and data jack in each.
 5. Day Room 202, plan: NE corner: Provide television box 4/E7.1 with television jack and data jack.

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CLARIFICATIONS

- 9001.25 Gas service trench, backfill and restoration is to be by GC. Coordinate as needed with PECO.
- 9001.26 PC is responsible for concrete work associated with the oil separator.
- 9001.27 Bid cost is lump sum. This is to include any/all speculation of potential inflation and/or impact of tariffs. No change orders will be issued as a result of material cost increases over the course of the project.
- 9001.28 Bollard covers are only required on the two indicated on the civil plans. All other bollards are to have galvanized steel finish.
- 9001.29 Mega press is not approved for use.
- 9001.30 Exposed piping and other mechanical ducts and equipment are to be painted. This is in GC's scope of work.

END OF DOCUMENT 00 9001

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SECTION 32 3129.13 - WOOD RAIL FENCES

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes wood rail fences with the following components:
 - 1. Concrete posts set in compacted earth.
 - 2. Wood fence rails.
- B. Related Sections include the following:
 - 1. Division 31 Section "Earth Moving": Excavation and compaction requirements.

1.2 SUBMITTALS

- A. Product Data: Include data on posts, rails, accessories, and fasteners.
- B. Shop Drawings: Indicate plan layout, spacing of components, dimensions, post anchorage, attachment and bracing.
- C. Verification Samples: 8-inch long, full size section of wood rail, finished as specified.

PART 2 PRODUCTS

1.3 WOOD RAIL FENCES

- A. General: Provide complete wood rail fence system including posts, and rails as indicated on Drawings.
- B. Fence Height: To match existing fence.
- C. Fabrication: Complete cutting and fabrication of treated items before treatment.

1.4 MATERIALS

- A. Concrete Posts, General: Precast concrete units of configuration indicated, with notched openings to receive wood fence rails. Cast posts using materials complying with the following:
 - 1. Portland Cement: ASTM C 150, Type I or Type III. Use only one brand, type, and color of cement from the same mill throughout Project.
 - 2. Normal-Weight Aggregates: ASTM C 33.
 - 3. Water: Potable; free from deleterious material that may affect color stability, setting, or strength of concrete.
- B. Concrete Mix for Posts: Proportion mixes to provide normal-weight concrete with the following properties:
 - 1. Compressive Strength (28-Day): 5000 psi.
 - 2. Maximum Water-Cement Ratio at Point of Placement: 0.40.
- C. Concrete Post Fabrication: Fabricate precast concrete units straight and true to size and shape with exposed edges and corners precise and true.

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1. Reinforcement: Comply with the recommendations of CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
 2. Finish: Smooth-surface finish free of pockets, sand streaks, and honeycombs, with uniform color and texture.
- D. Wood Rails: Sawn solid stock, free of disfiguring knots and splits wider than 1/8 inch.
1. Species: Pressure-preservative-treated southern pine; SPIB.

PART 3 EXECUTION

1.5 EXAMINATION

- A. Verify location of underground utilities and adjust location of posts to avoid damaging utilities.
- B. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grades, and other conditions affecting performance.
 1. Proceed with installation only after unsatisfactory conditions have been corrected.

1.6 INSTALLATION

- A. Install fences before landscaping has been completed, unless otherwise indicated.
- B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- C. Install fence components level, plumb and in alignment, with posts securely embedded in compacted backfill at locations indicated on Drawings.
 1. Provide temporary supports and bracing as required to maintain position, stability, and alignment as fence components are being permanently connected.
 2. Complete field assembly of wood rails as necessary. Coat cut end with preservative treatment.
- D. Post Spacing: Space posts uniformly at intervals not exceeding 8 feet, unless another spacing is indicated on Drawings.

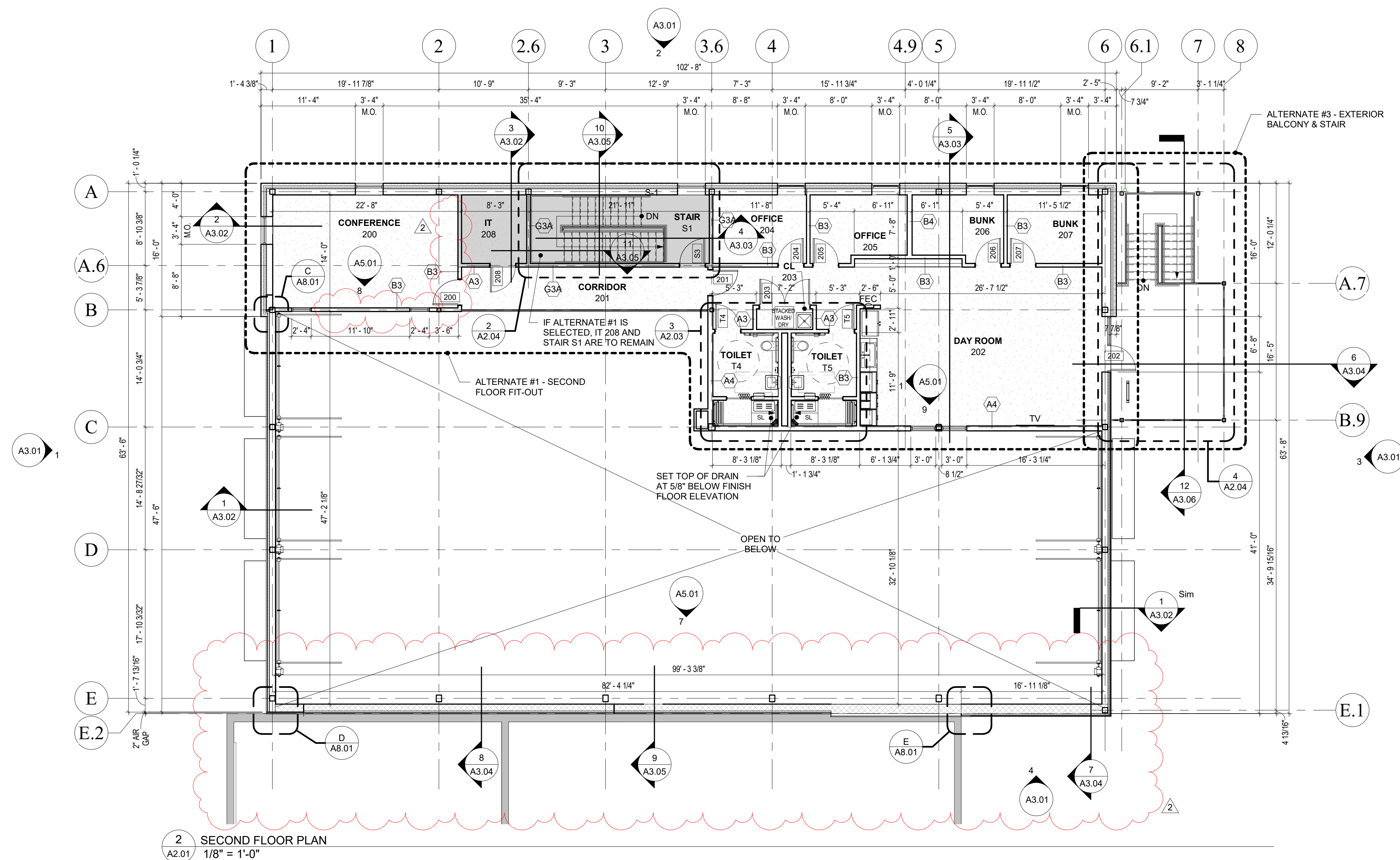
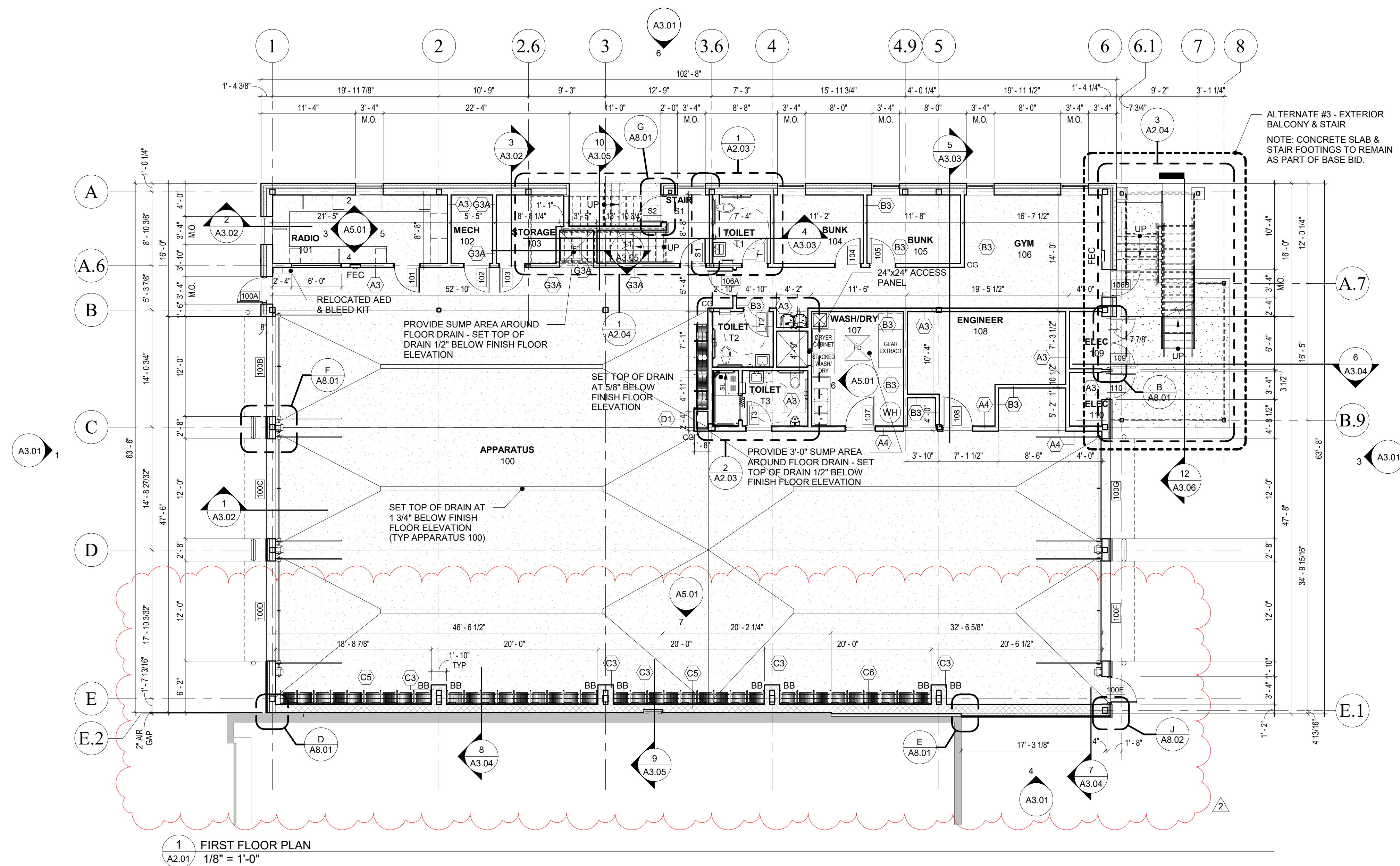
1.7 ERECTION TOLERANCES

- A. Posts; Maximum Variation From Plumb: 1/2 inch.
- B. Rails; Maximum Offset From Indicated Position: 1 inch.
- C. Rails; Maximum Variation From Indicated Height: 1/2 inch.

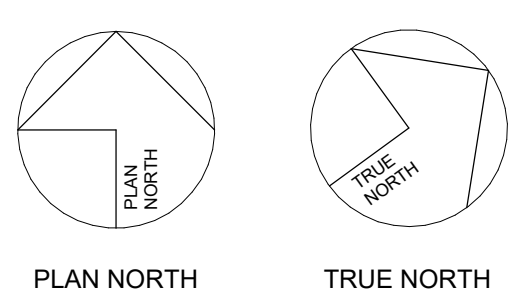
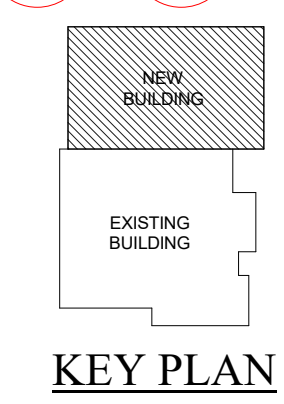
1.8 ADJUSTING AND CLEANING

- A. After completing fence installation, inspect components. Remove spots, dirt and debris. Repair damage or replace component.

END OF SECTION 32 312



- GENERAL NOTES**
- CJ - CONTROL JOINT
 - DS - DOWN SPOUT
 - WALL TYPE DESIGNATION. REFER TO WALL TYPE SCHEDULE
 - SYMBOL INDICATES INTERIOR ELEVATIONS. REFER TO A5 SERIES SHEETS FOR INTERIOR ELEVATIONS
 - EW - INDICATES ELECTRIC WATER COOLER LOCATION
 - TB - INDICATES TACKBOARD LOCATION. SEE SHEET A5.1 GENERAL NOTES FOR ADDITIONAL INFORMATION.
 - NOT USED
 - REFERENCE STRUCTURAL DRAWINGS FOR CORRECT COLUMN ORIENTATION
 - ALL DIMENSIONS ARE TO THE FACE OF CMU OR STUD UNLESS OTHERWISE NOTED
 - CMU
 - GWB
 - BRICK
 - FEX = WALL-MTD. FIRE EXTINGUISHER LOCATION
FEC = WALL-MTD. RECESSED FIRE EXTINGUISHER CABINET LOCATION.
 - RWC = RAINWATER CONDUCTOR. COORDINATE EXACT LOCATION W/ PLUMBING CONTRACTOR BEFORE ERECTING CMU WALL CONSTRUCTION.
 - COORD. BOLLARD TYPE 1 LOCATIONS W/ CIVIL DWGS. COORD. UTILITY LOCATIONS W/ CIVIL AND MEP DWGS.
 - CG = STEEL CORNER GUARD.
 - BB = BULLNOSE MASONRY CORNER TO BE USED.



ISSUED FOR BIDDING

FIRST AND SECOND FLOOR PLANS

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DATE 03.06.2025
SHEET NO.

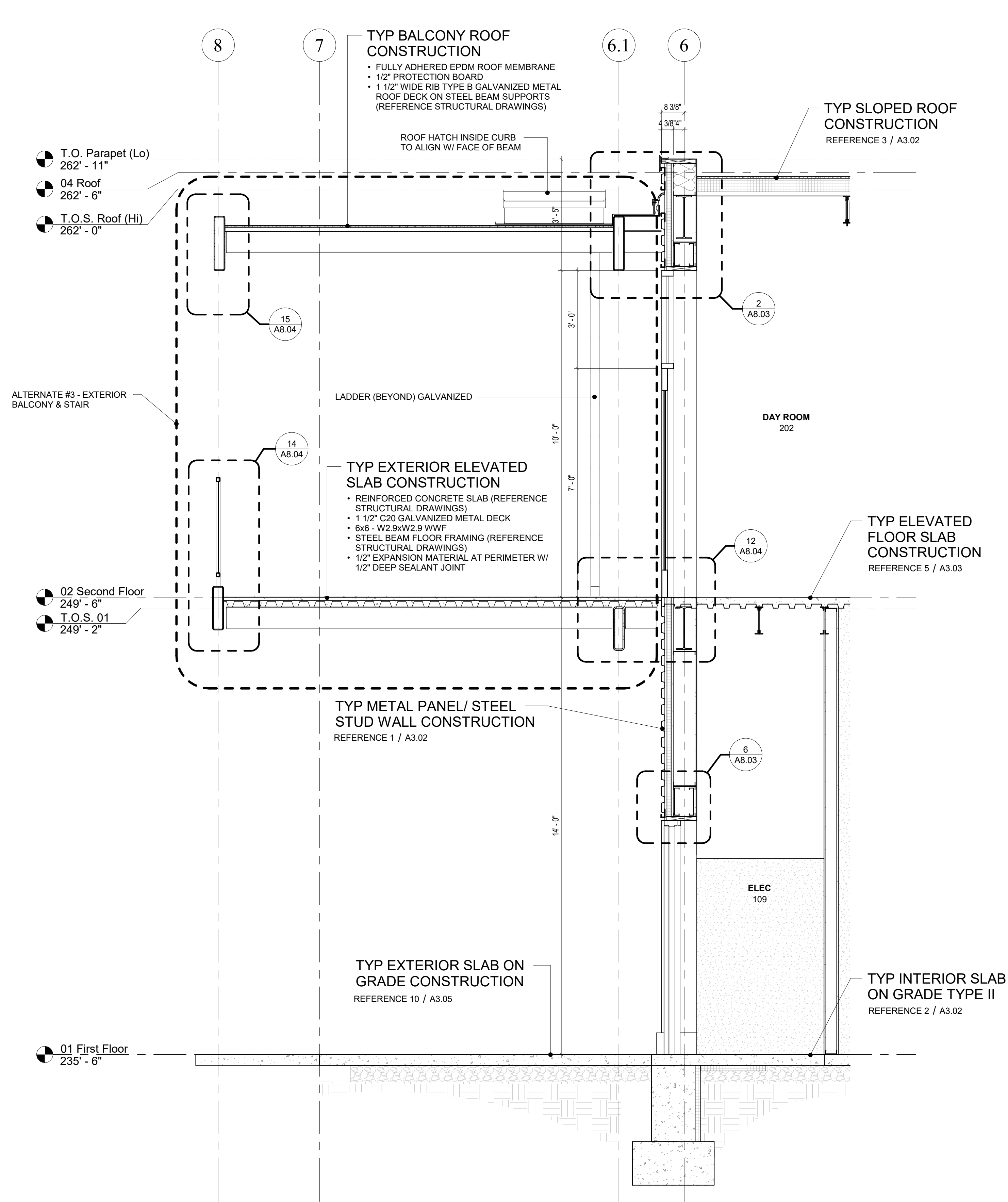
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NEW FIRE STATION
FOR THE
THE HARMONVILLE FIRE COMPANY
TOWNSHIP OF PLYMOUTH MONTGOMERY COUNTY, PA

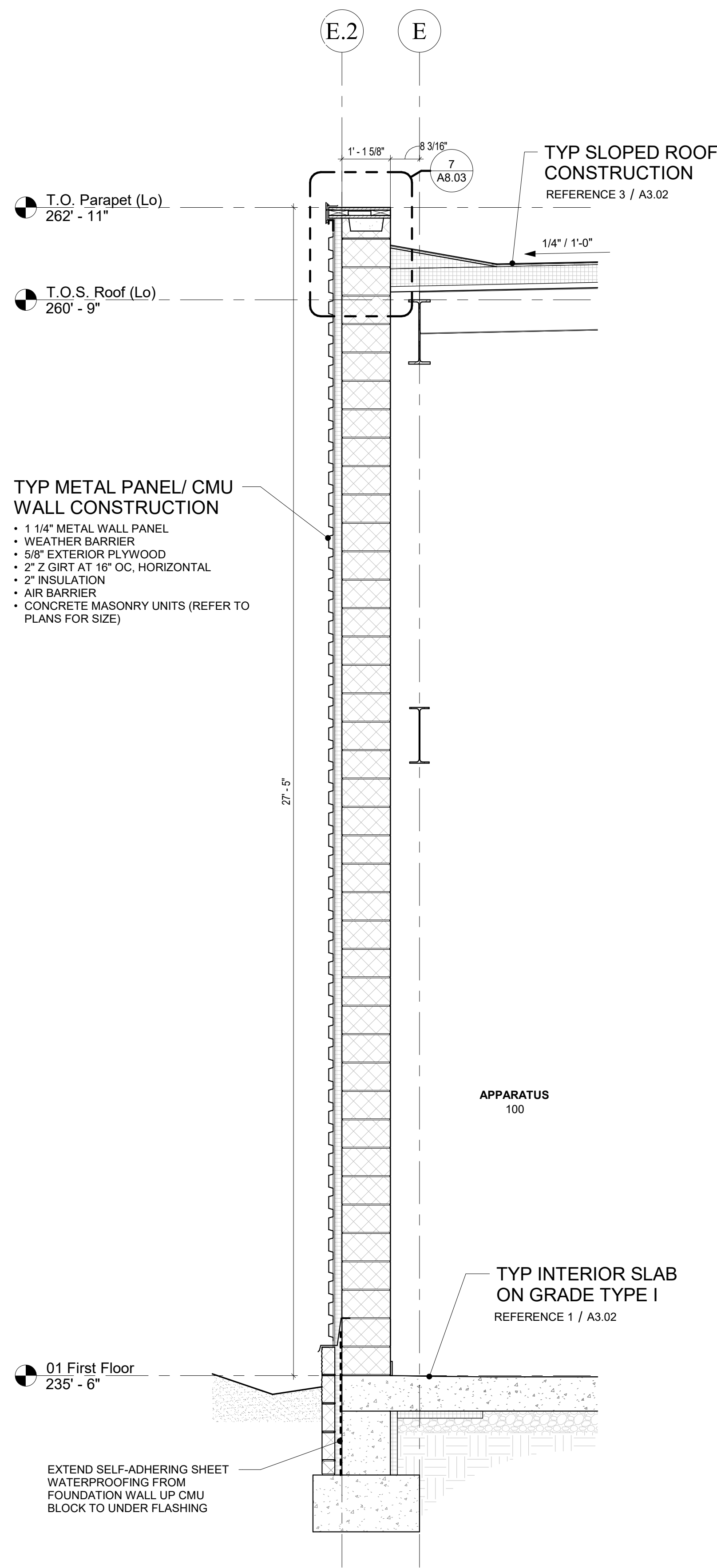
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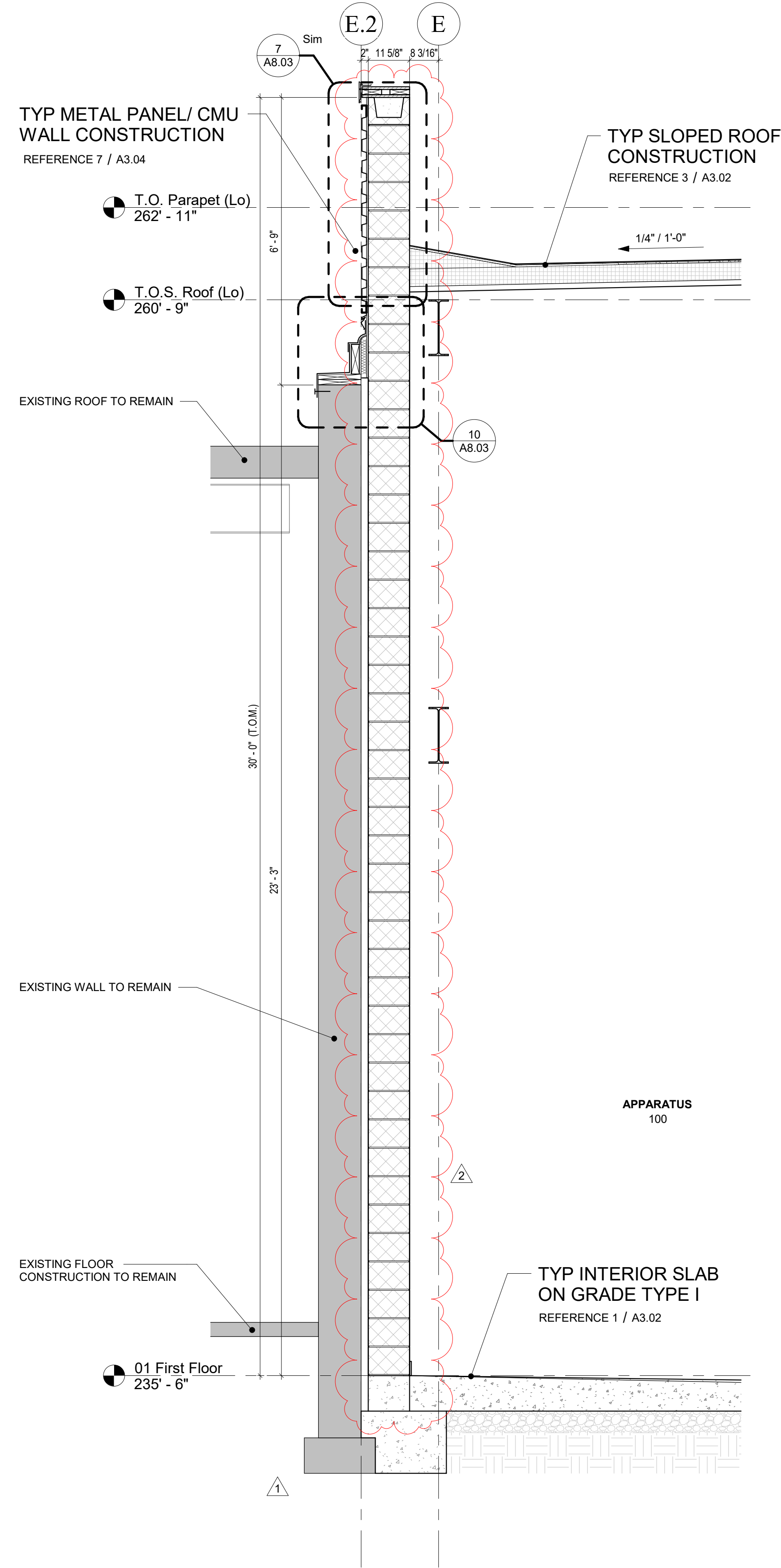
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6 WALL SECTION 6 - EXTERIOR STAIR & BALCONY
A3.04 1/2" = 1'-0"



7 WALL SECTION 7
A3.04 1/2" = 1'-0"



8 WALL SECTION 8
A3.04 1/2" = 1'-0"

ISSUED FOR BIDDING

WALL SECTIONS 6 - 8

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DATE 03.06.2025
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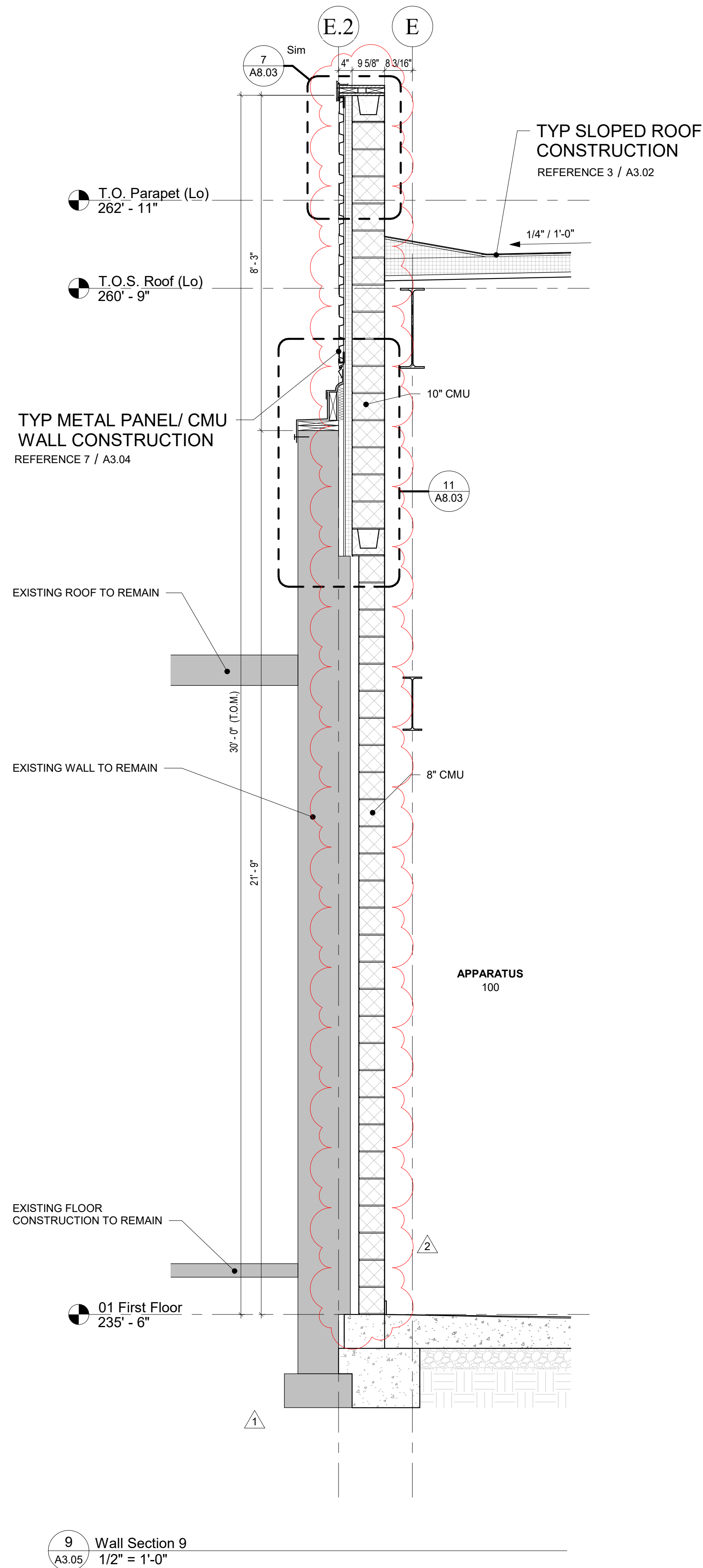
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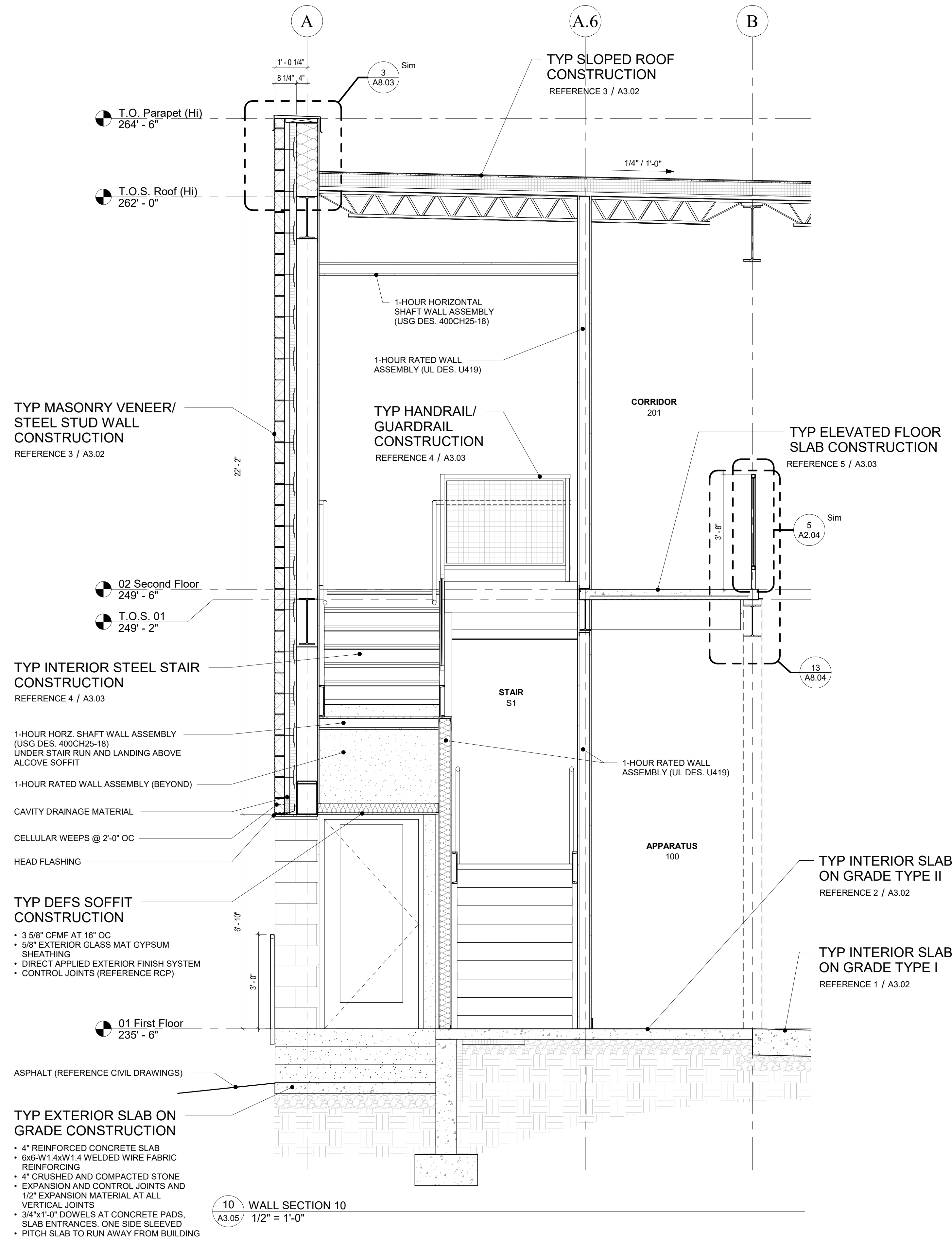
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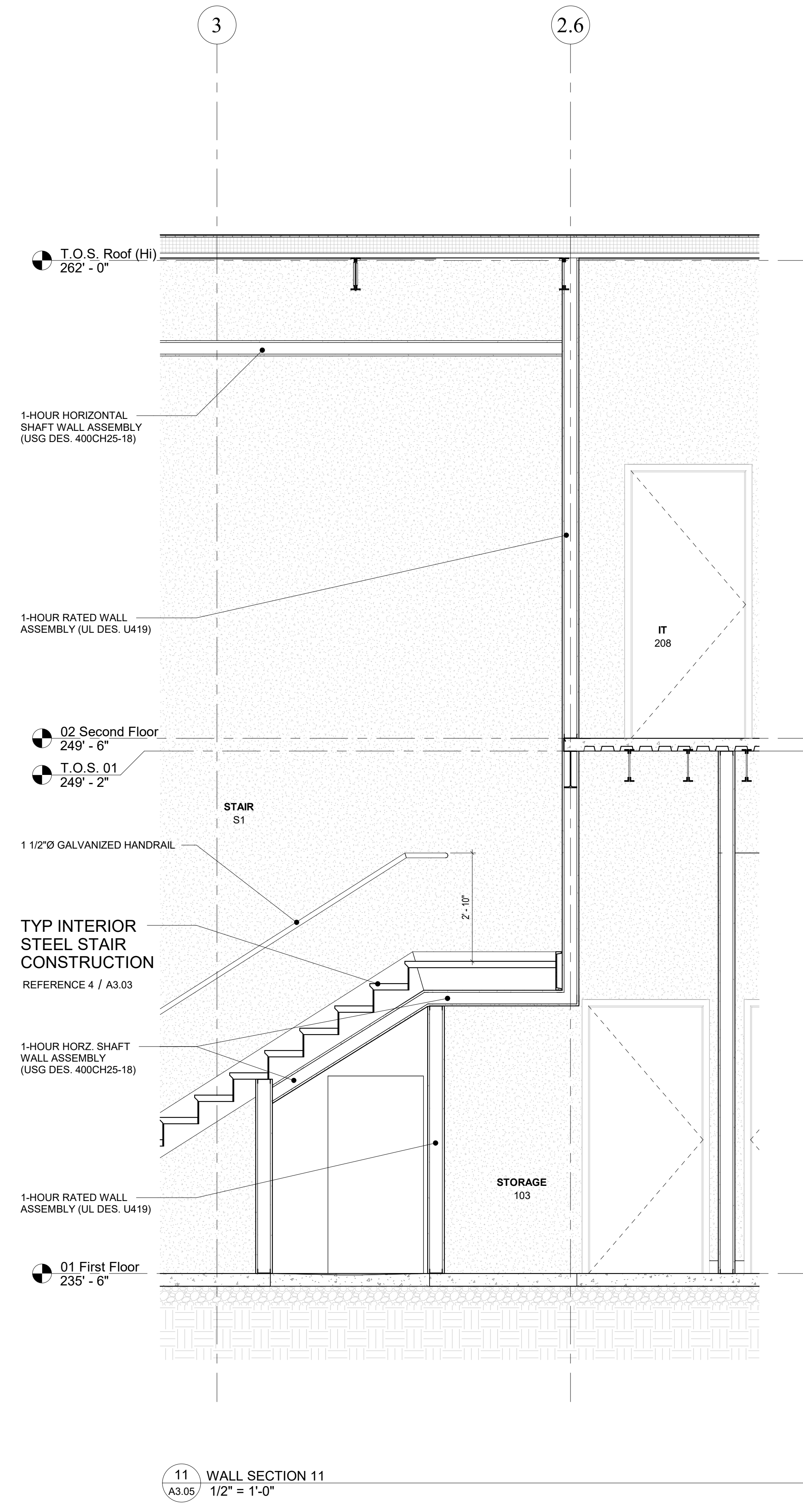
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9 Wall Section 9
A3.05 1/2" = 1'-0"



10 WALL SECTION 10
A3.05 1/2" = 1'-0"



11 WALL SECTION 11
A3.05 1/2" = 1'-0"

ISSUED FOR BIDDING

WALL SECTIONS 9 - 11

JOB NO. 2587.00
DATE 03.06.2025
SHEET NO.

A3.05

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TOWNSHIP OF PLYMOUTH MONTGOMERY COUNTY, PA

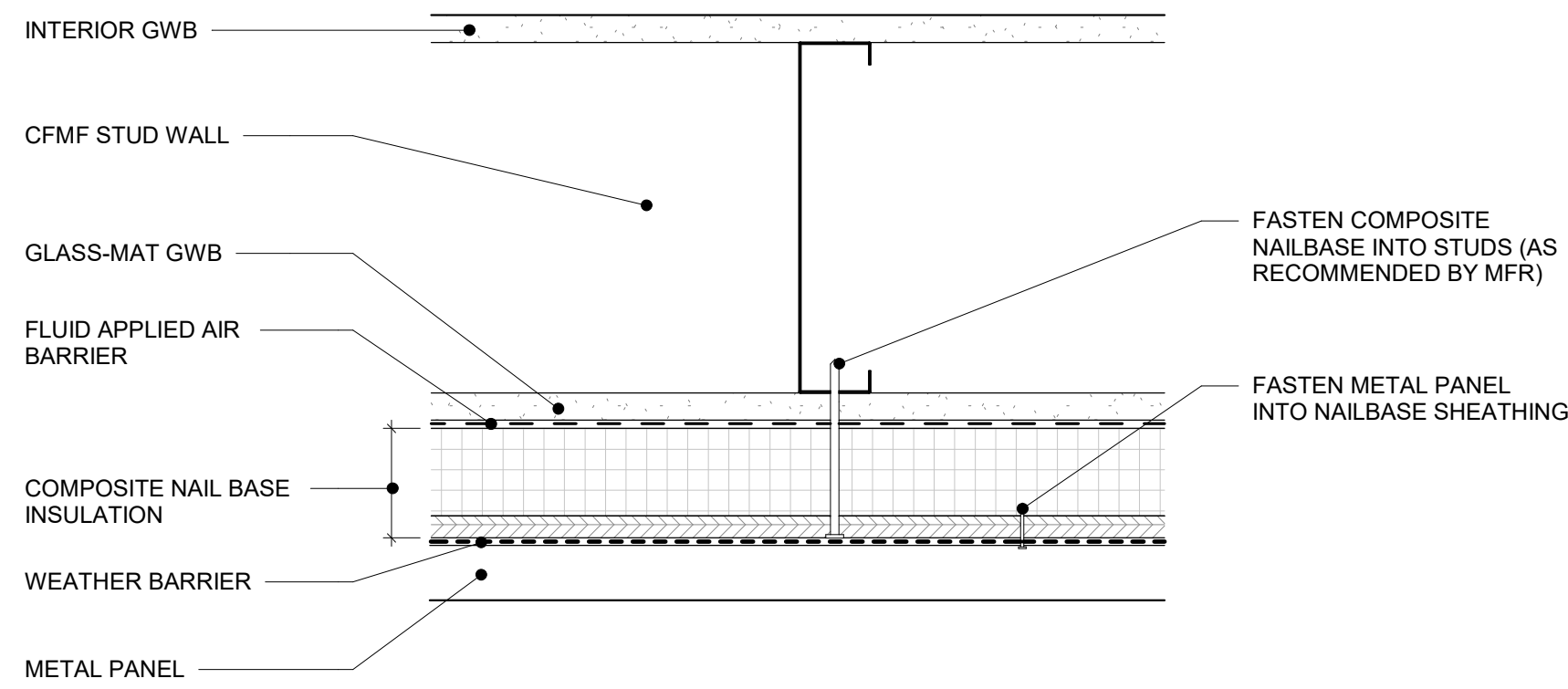
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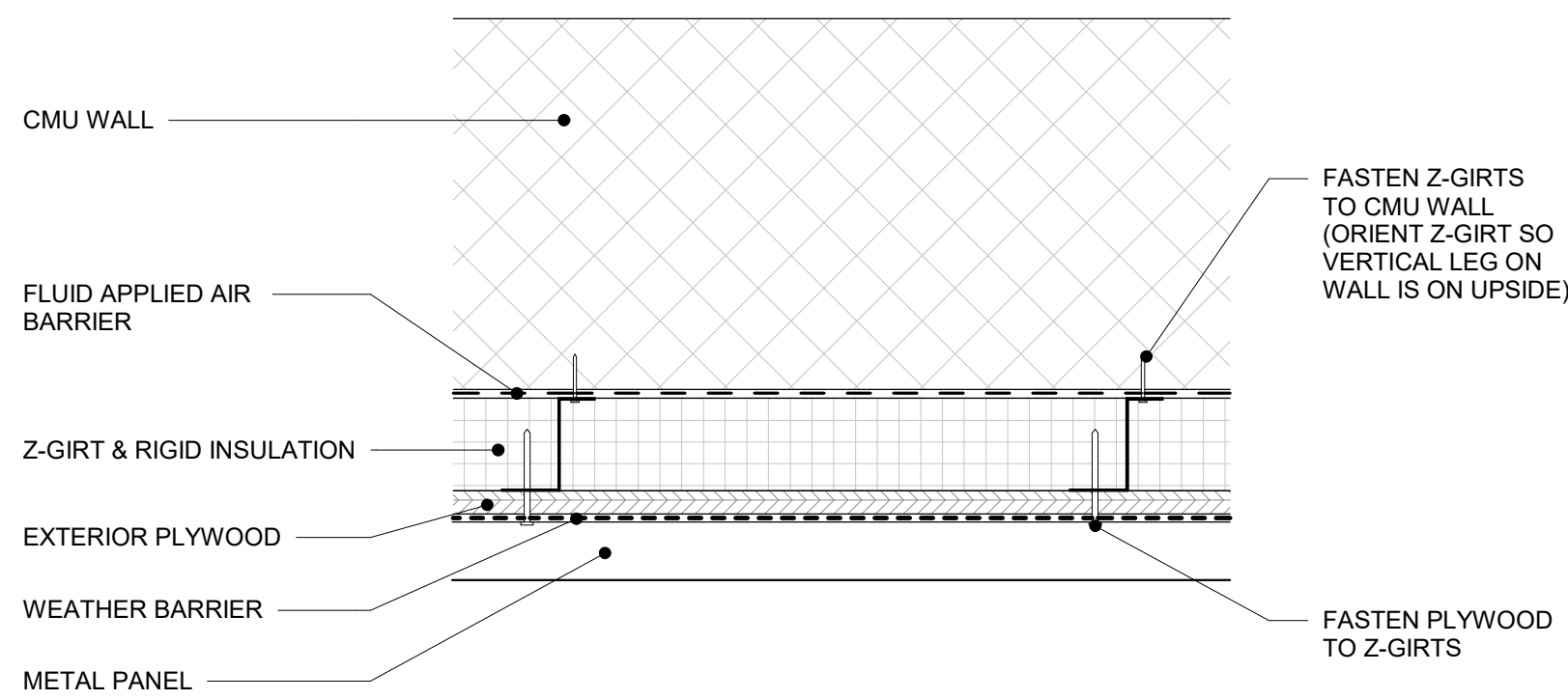
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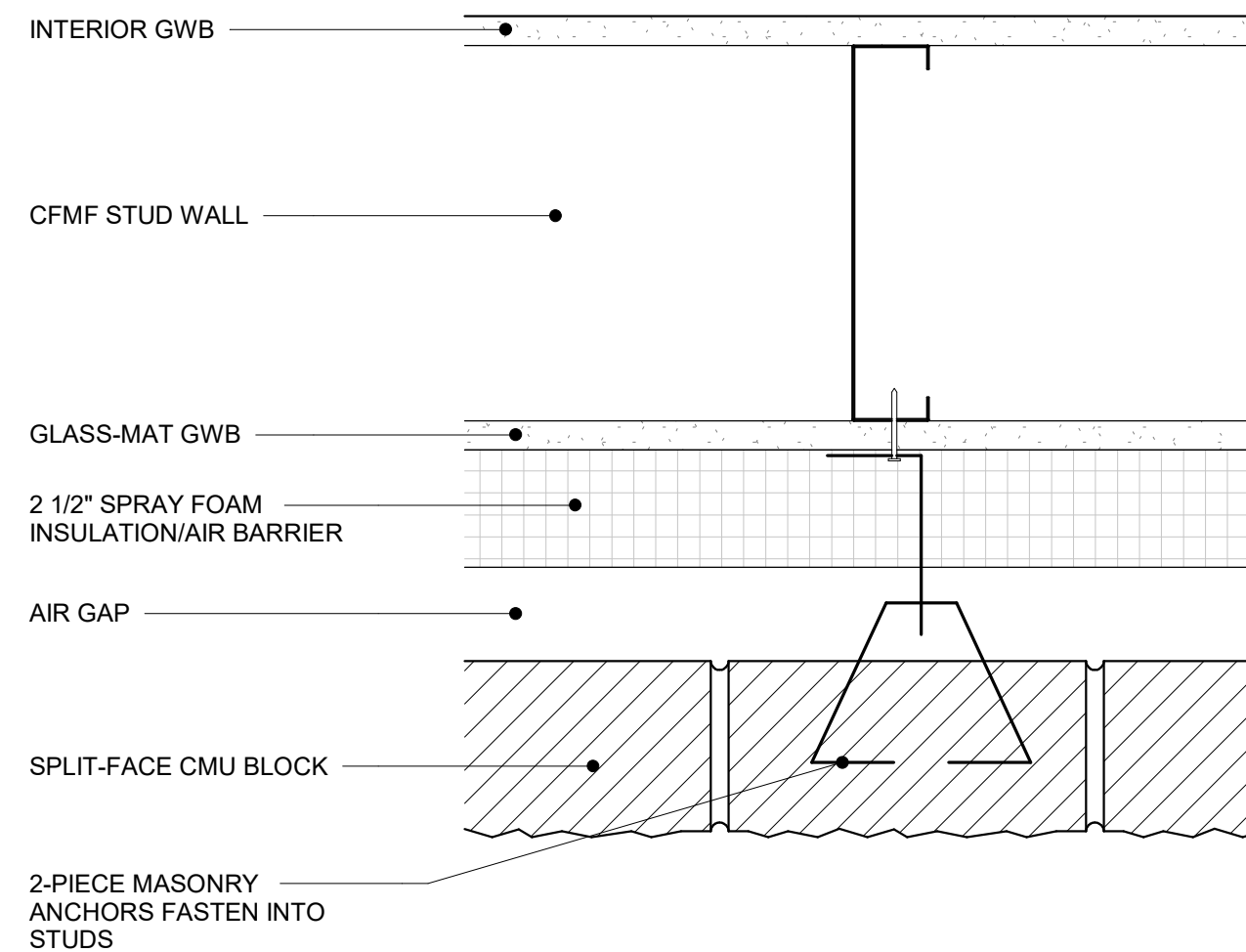
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TYPICAL METAL PANEL ON STUD WALL

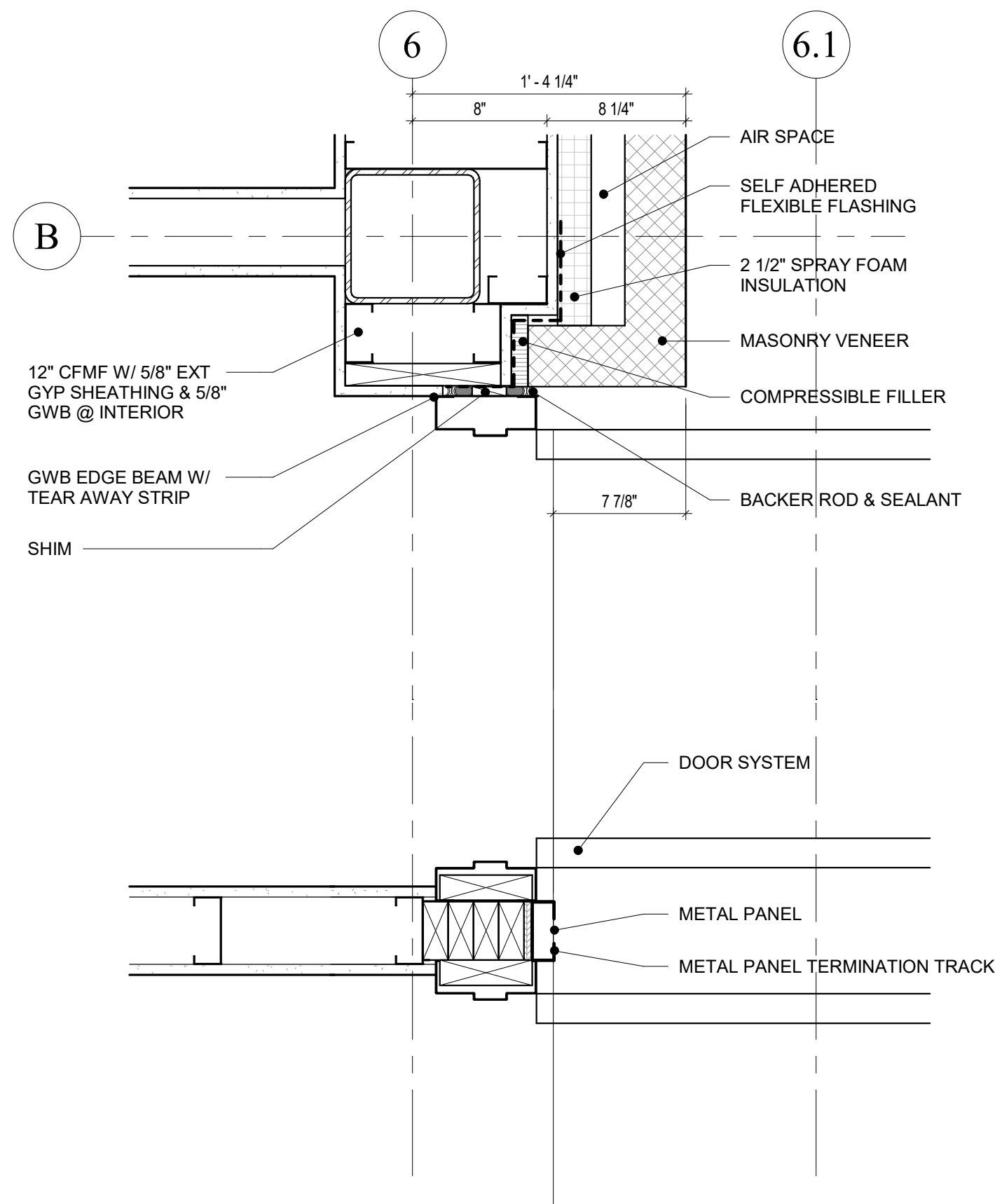


TYPICAL METAL PANEL ON CMU WALL

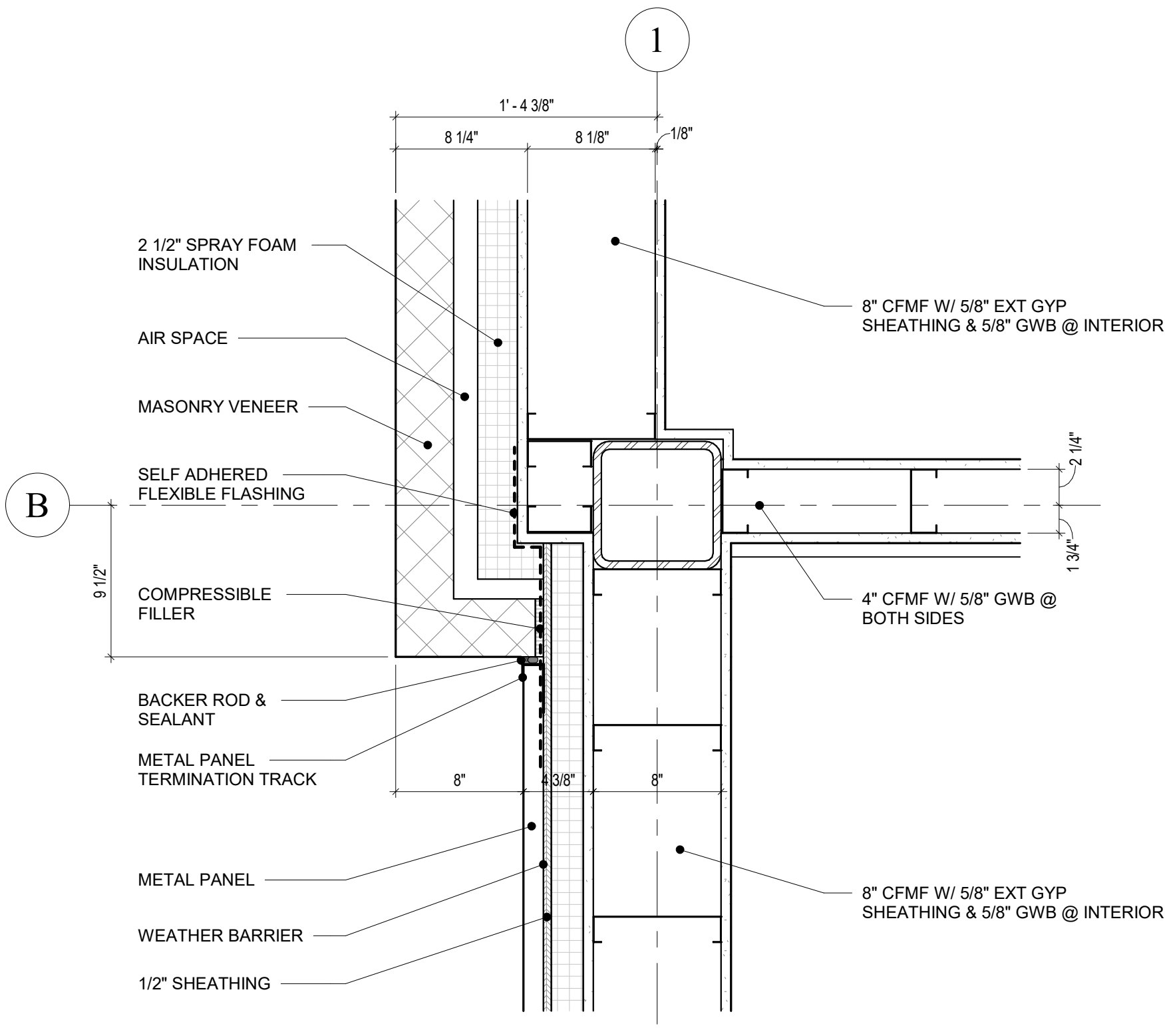


TYPICAL MASONRY VENEER ON STUD WALL

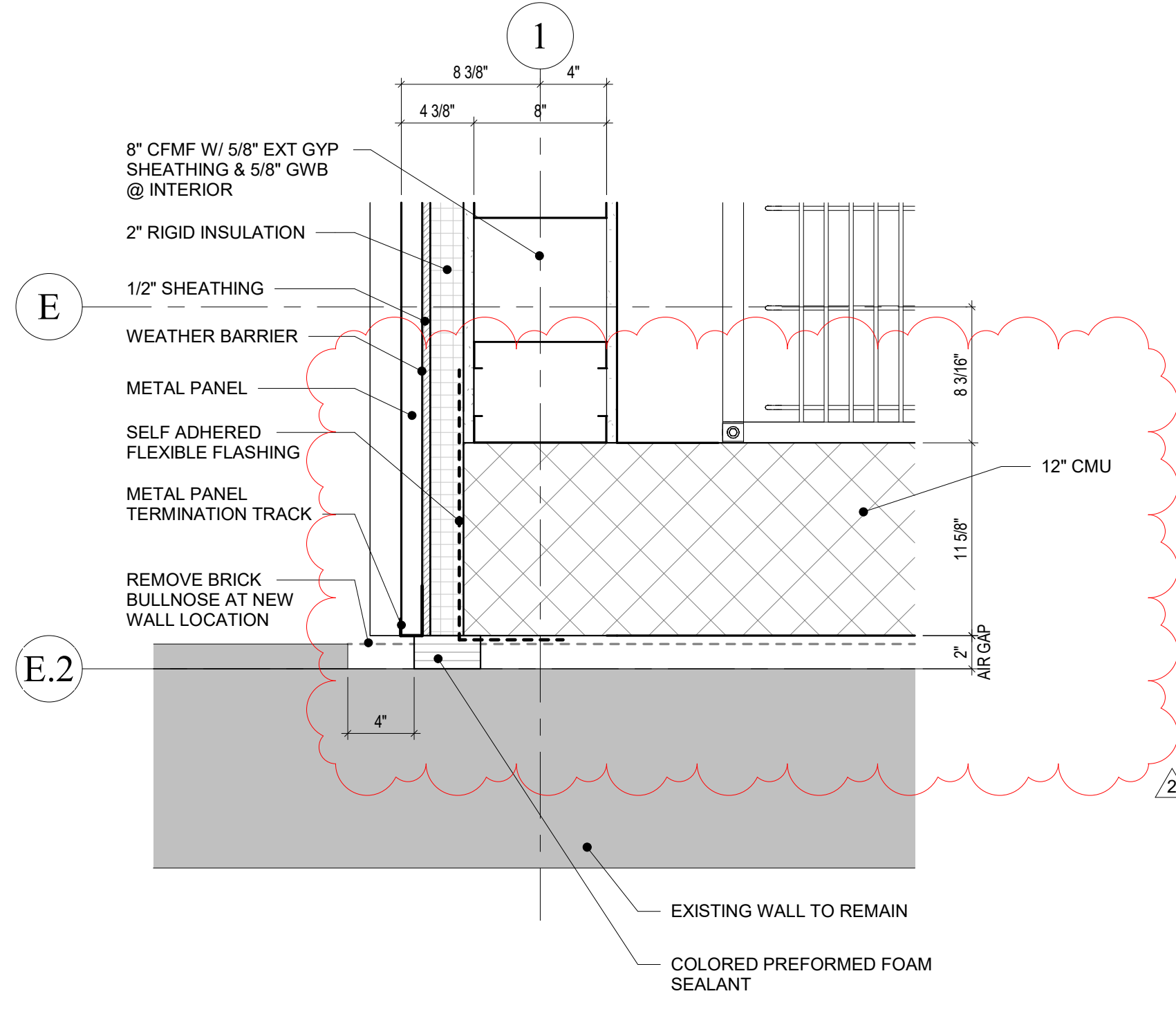
A
A8.01
TYPICAL WALL ASSEMBLY DETAILS
3" = 1'-0"



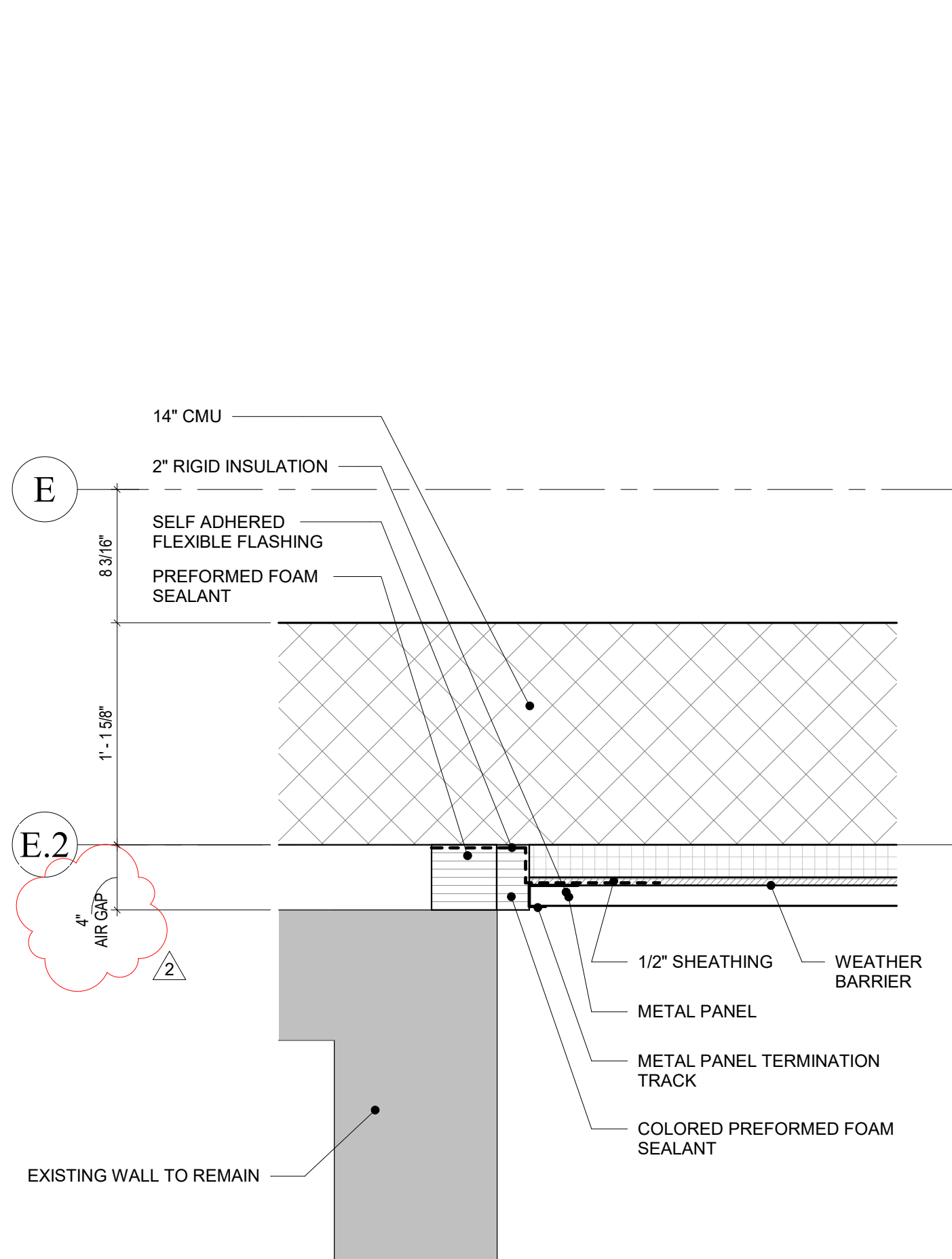
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PLAN DETAIL
1 1/2" = 1'-0"



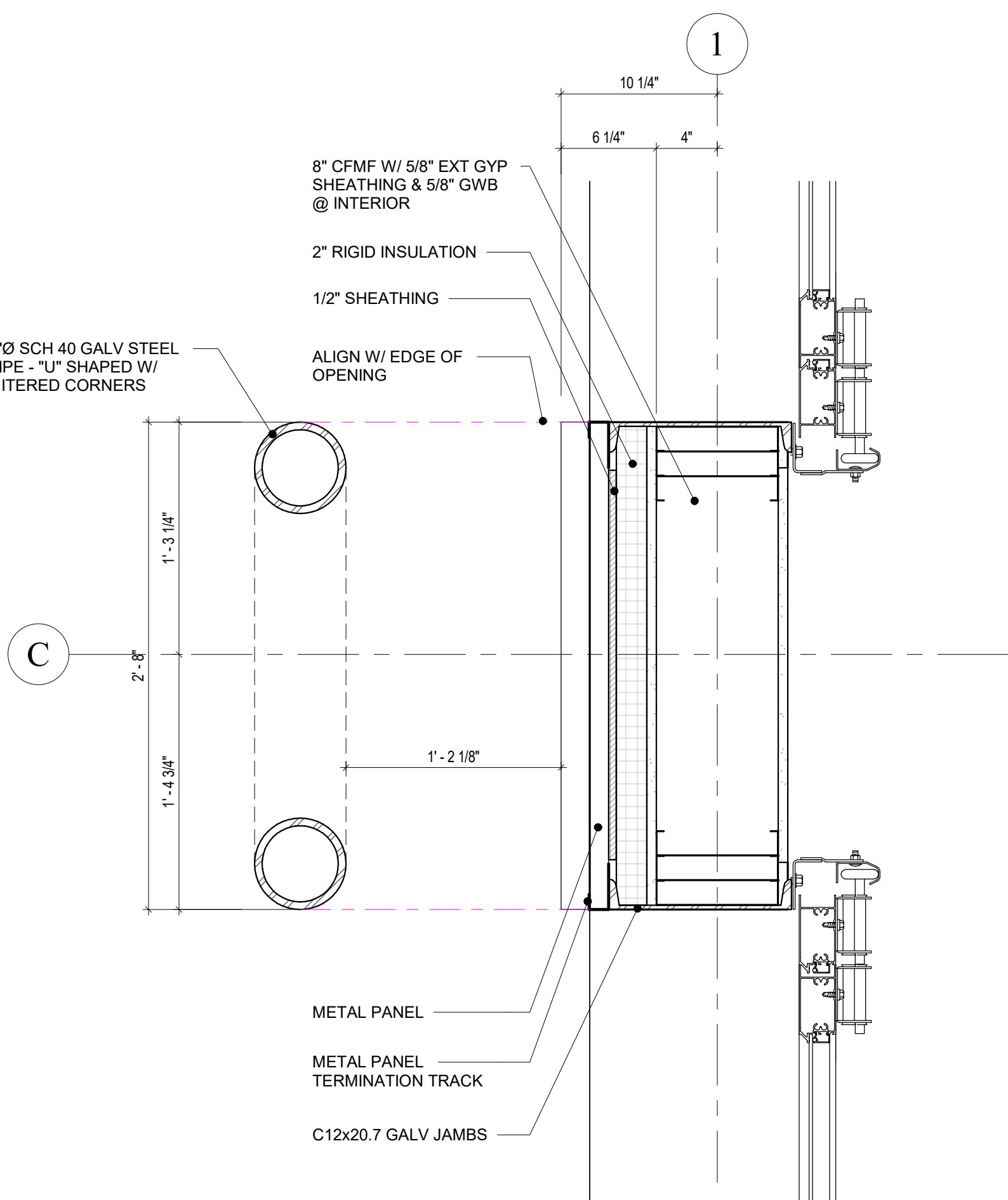
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PLAN DETAIL
1 1/2" = 1'-0"



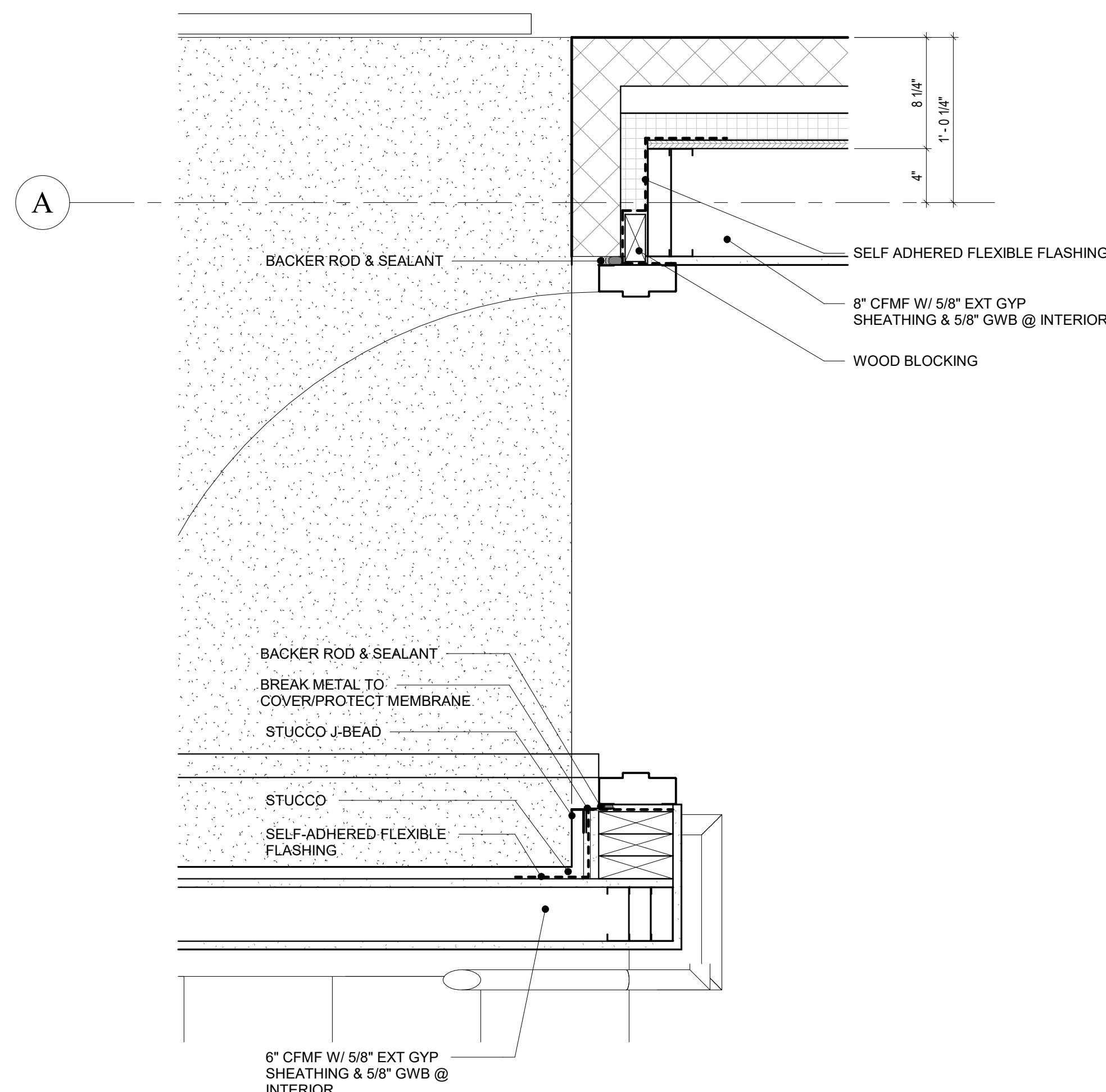
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PLAN DETAIL
1 1/2" = 1'-0"



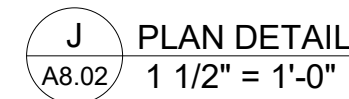
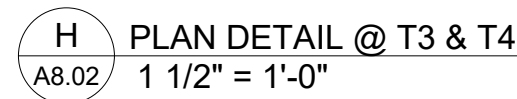
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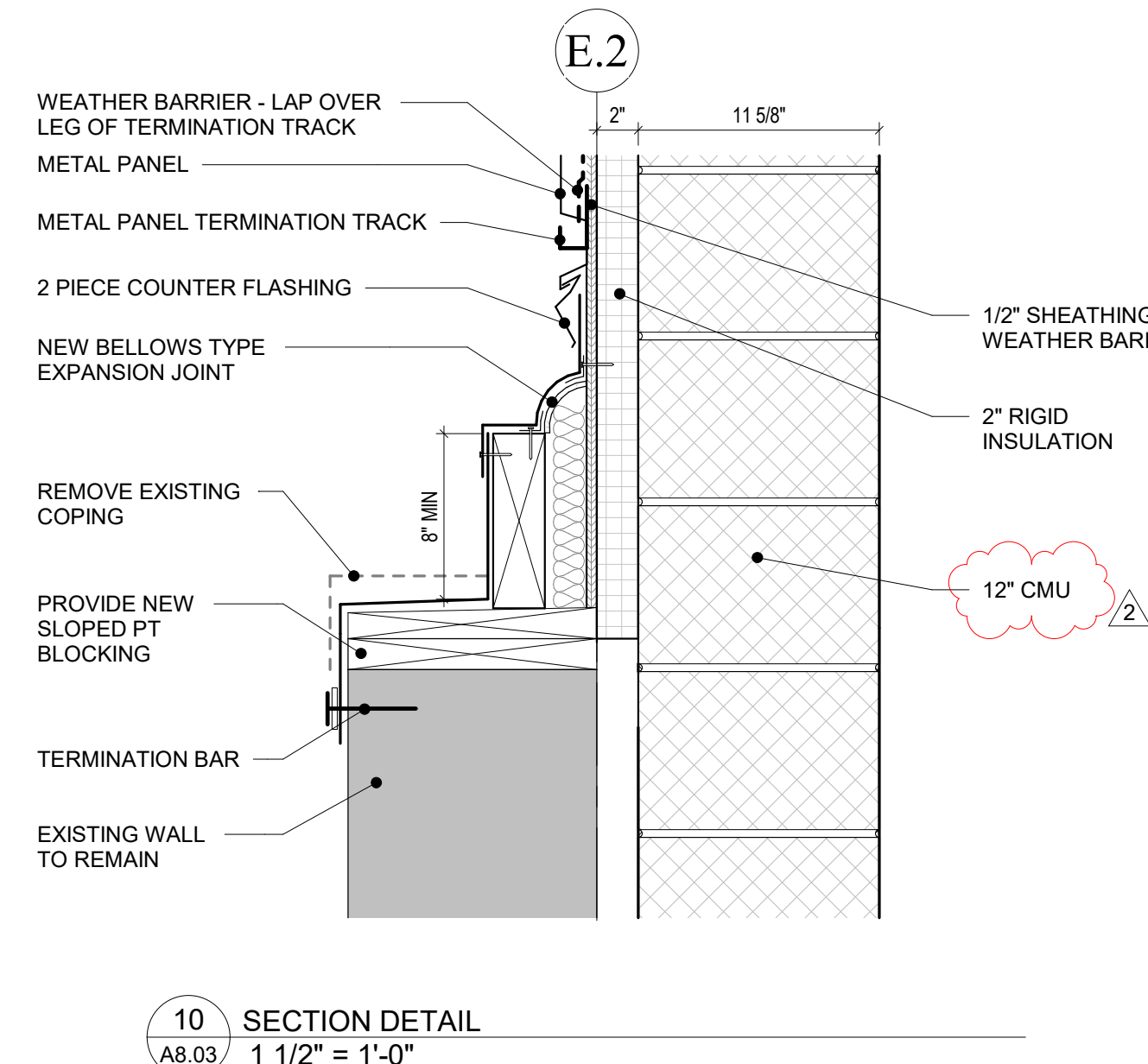
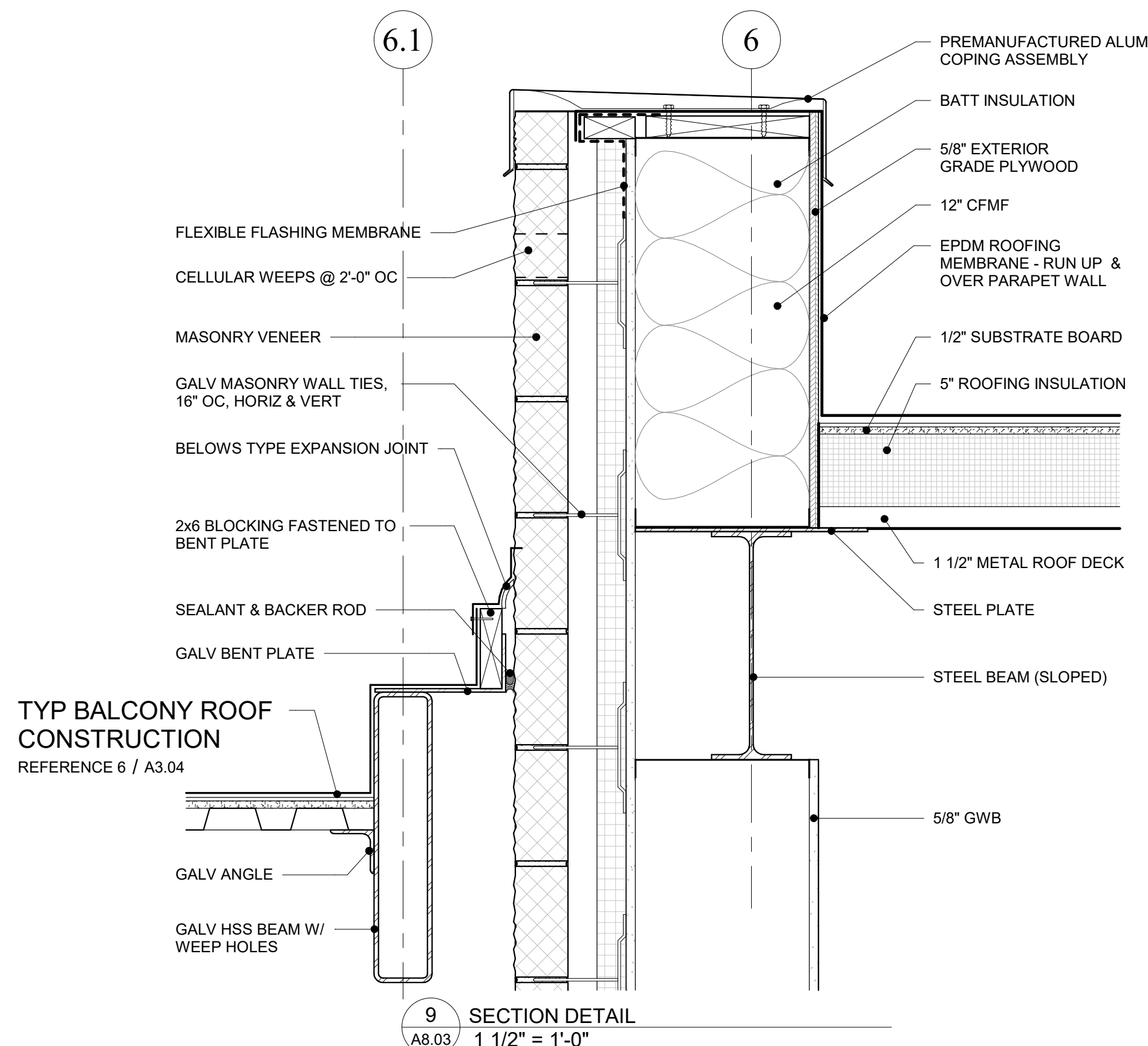
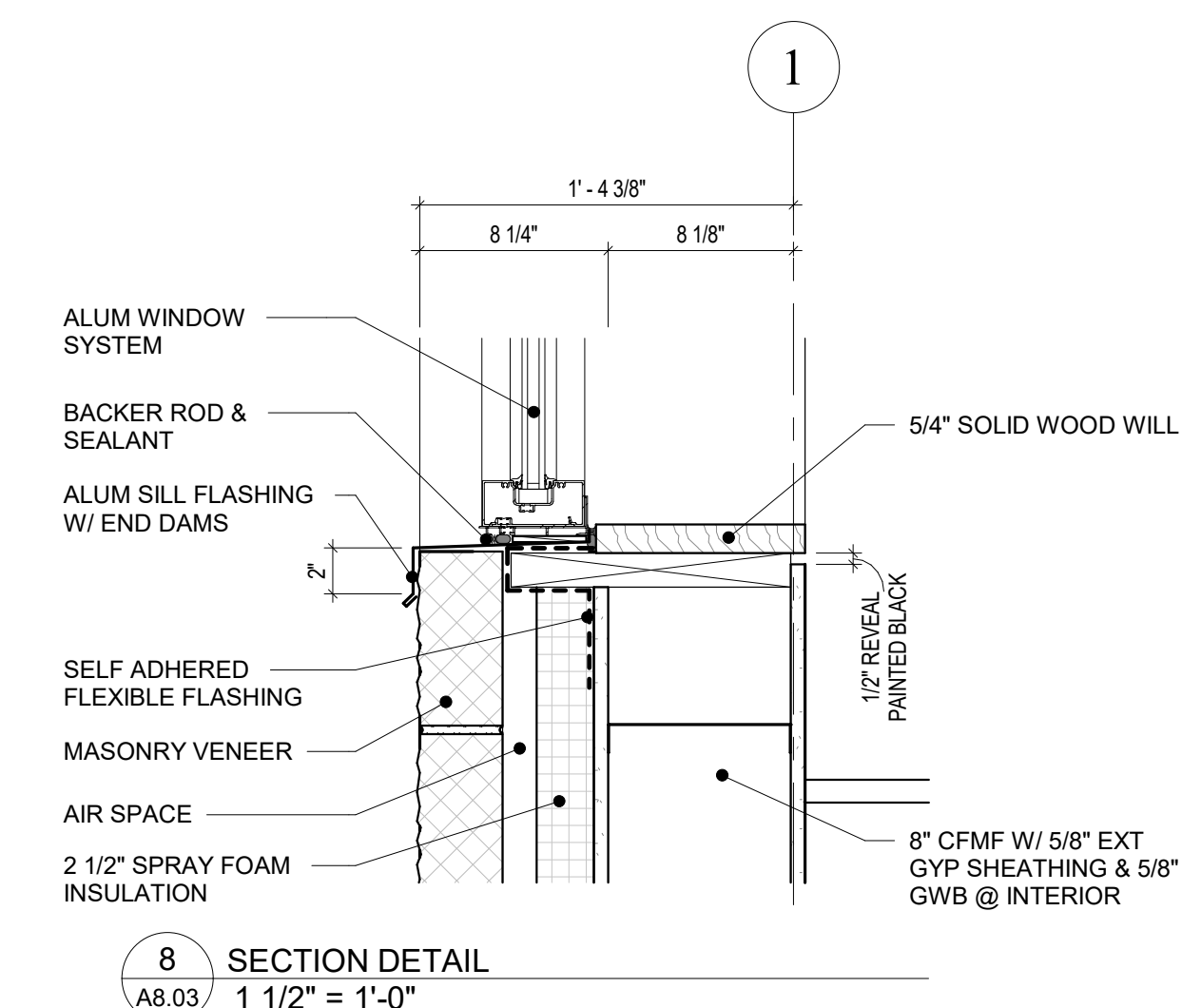
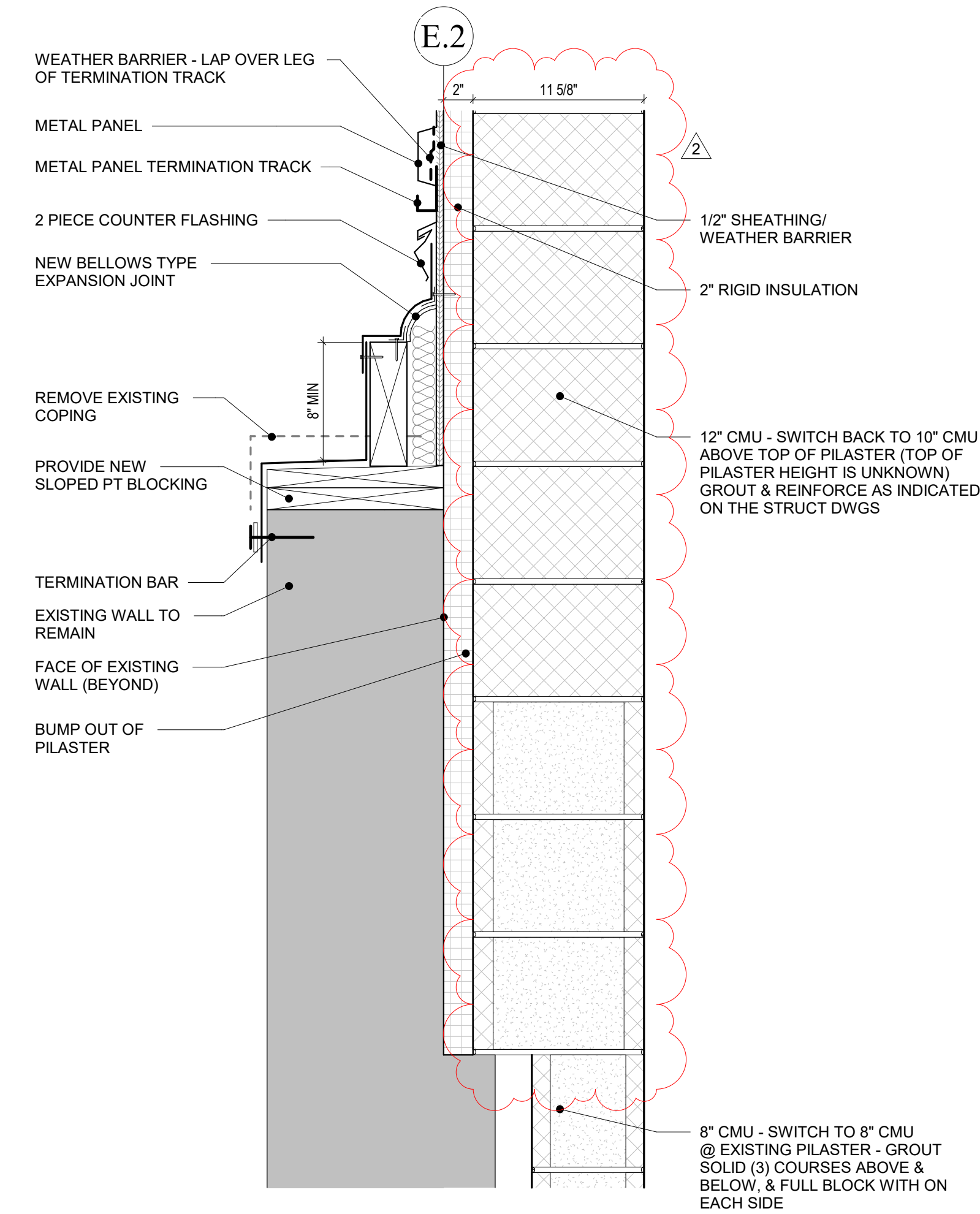
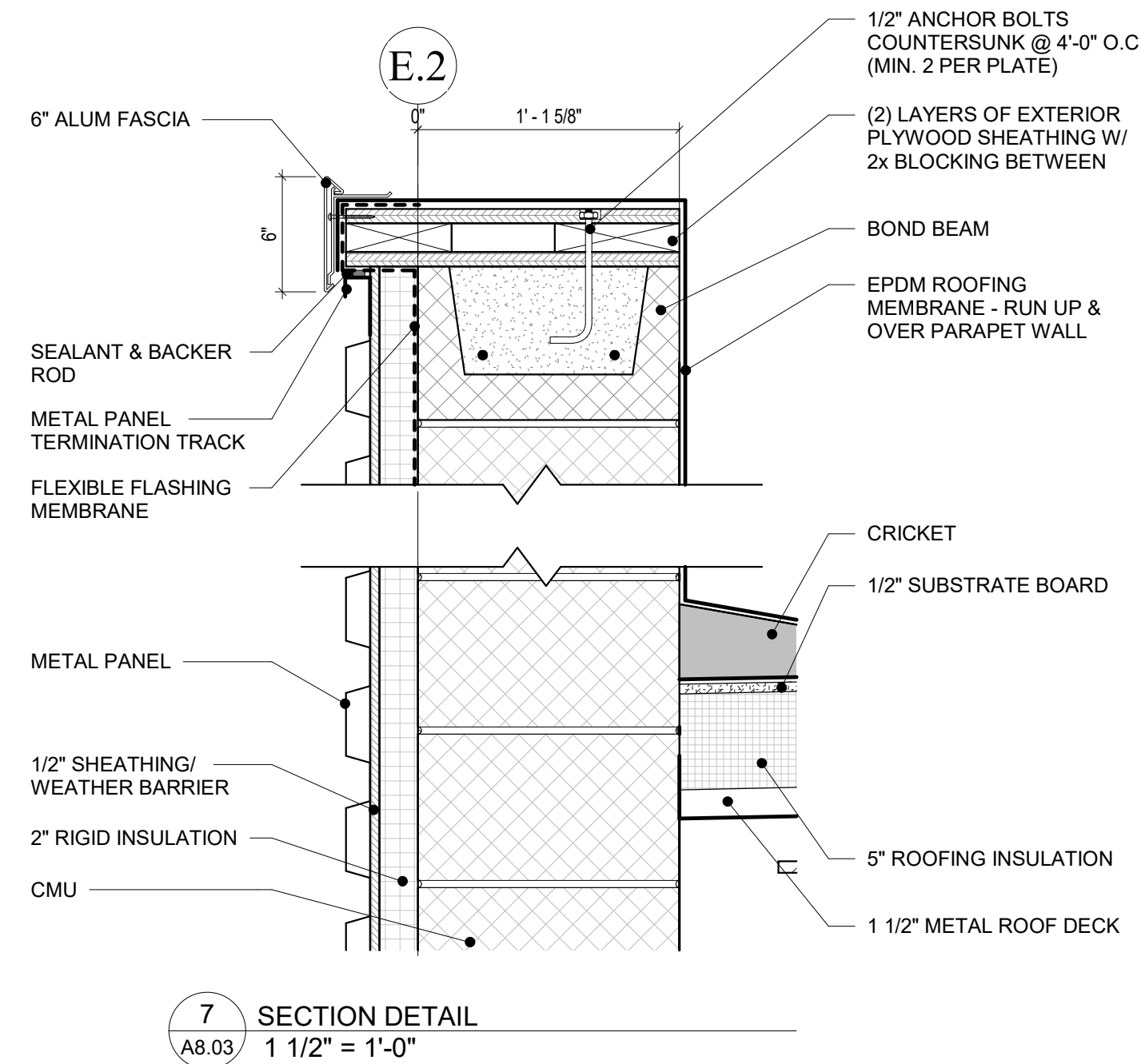
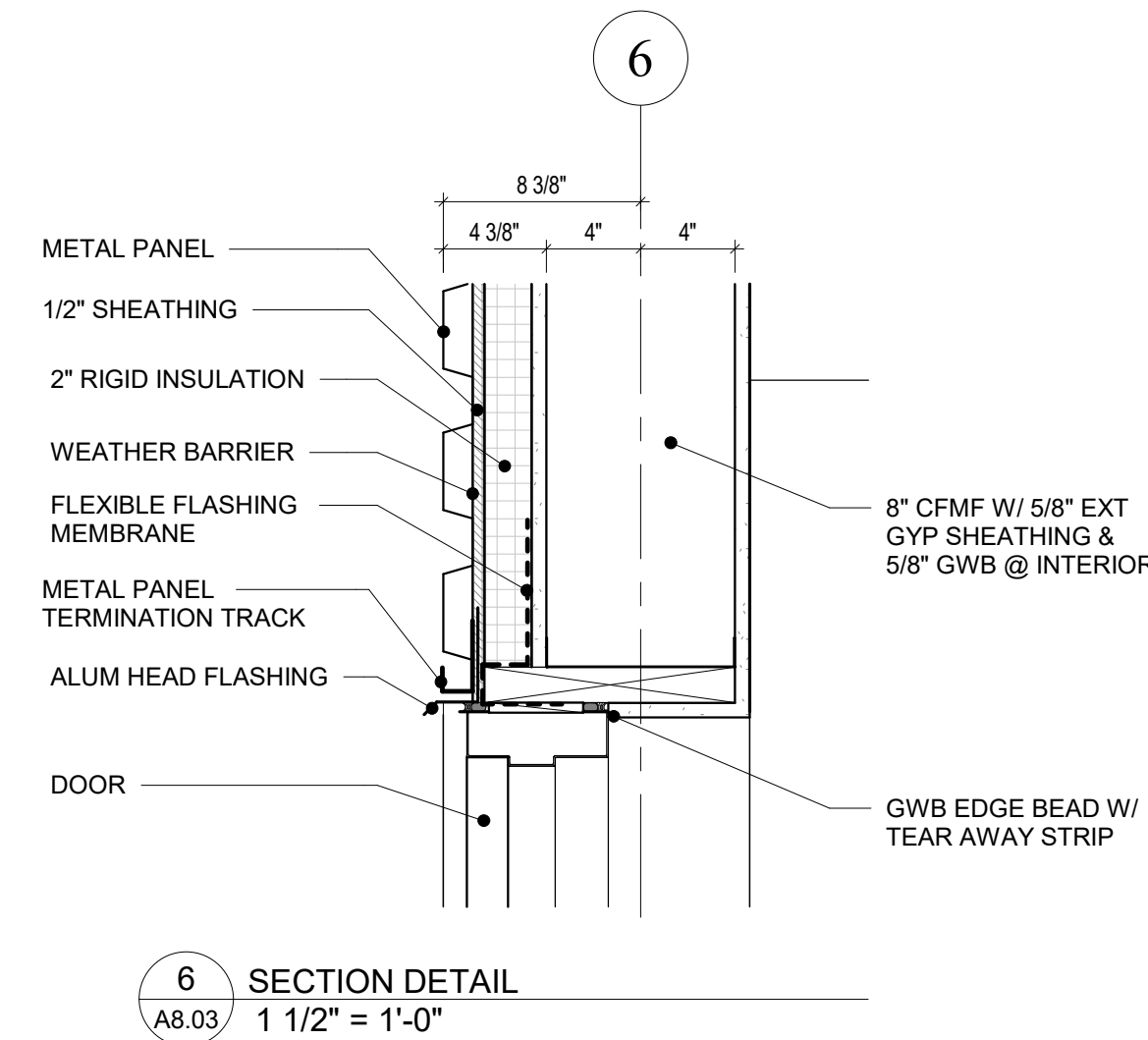
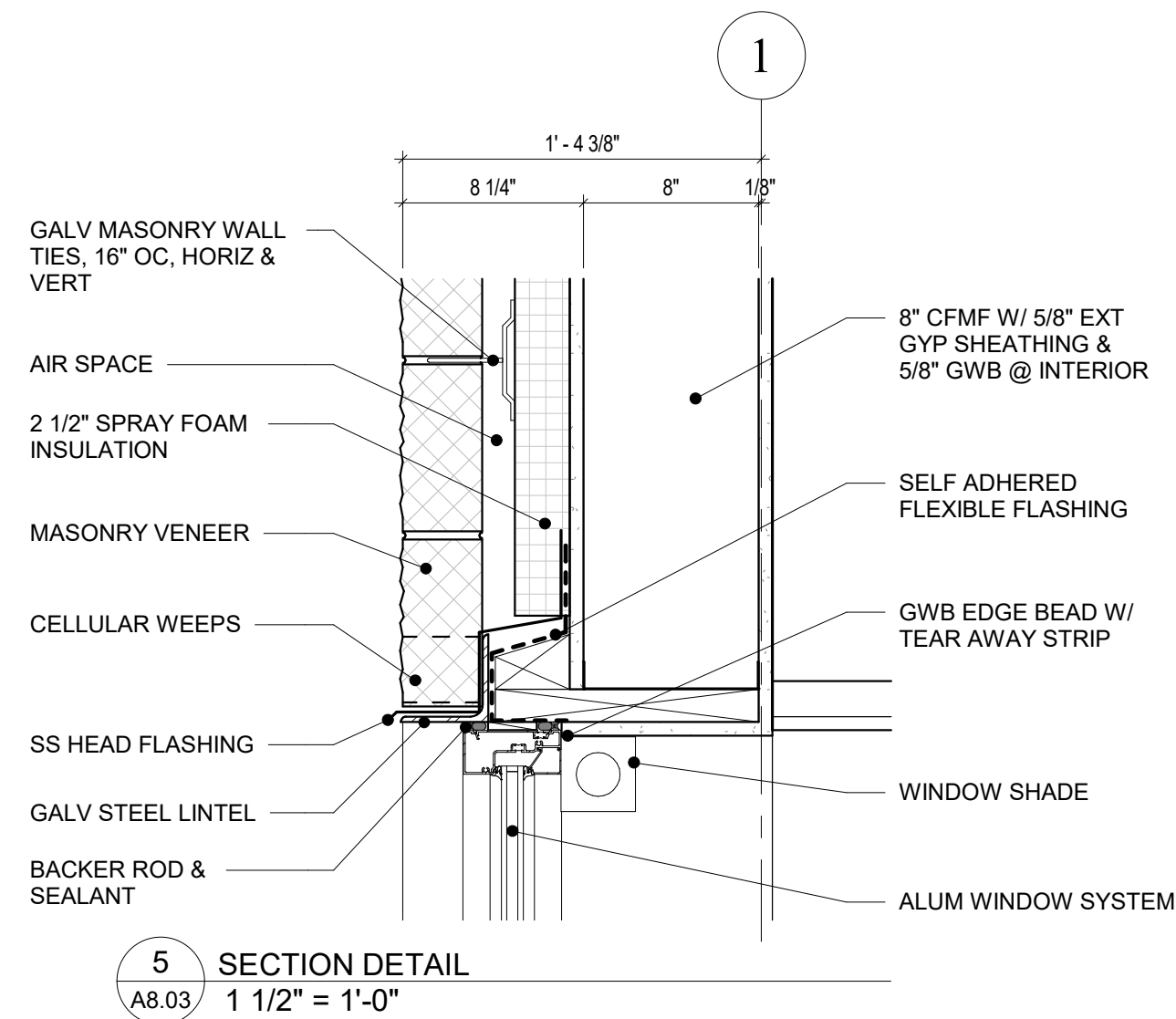
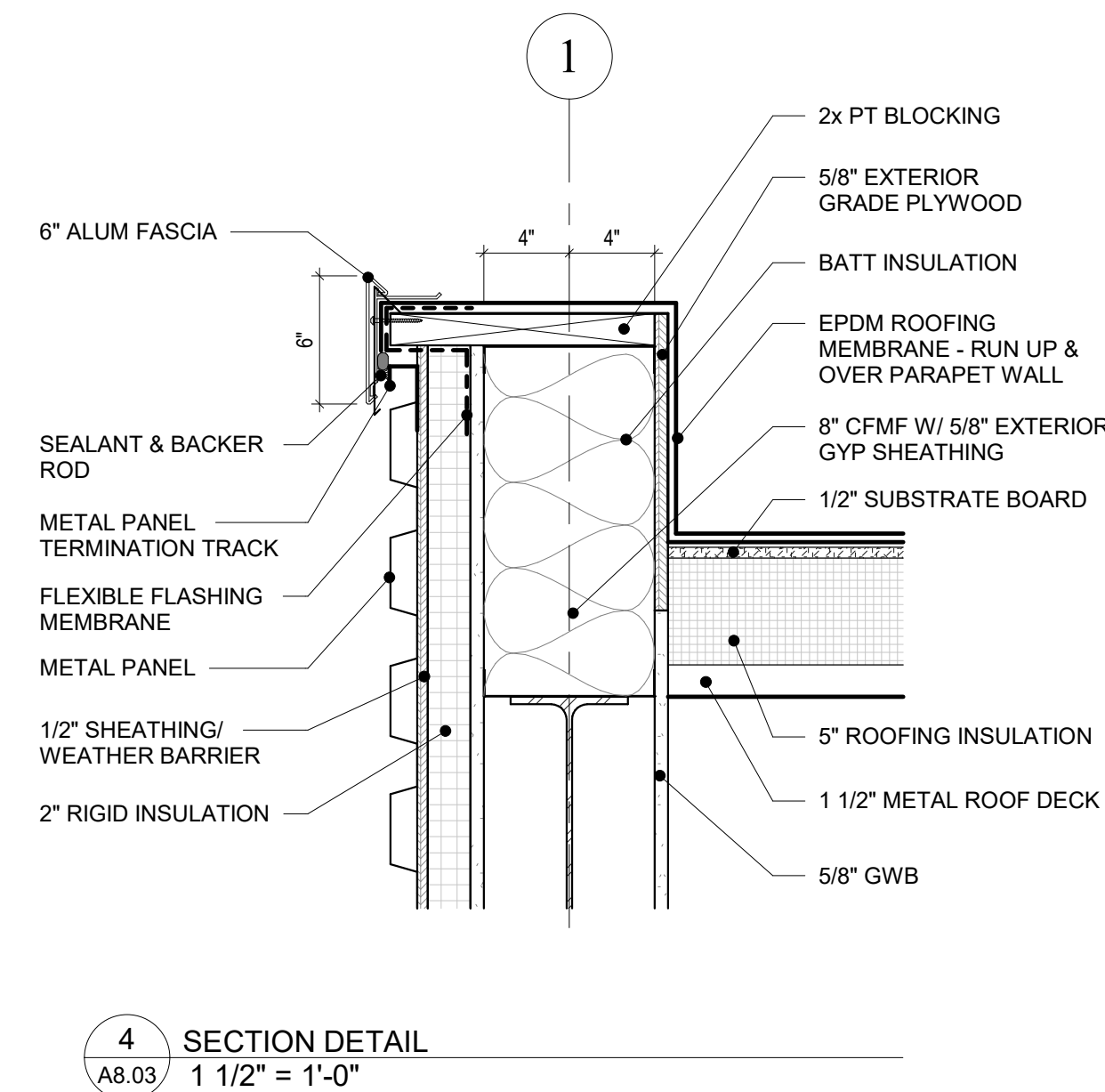
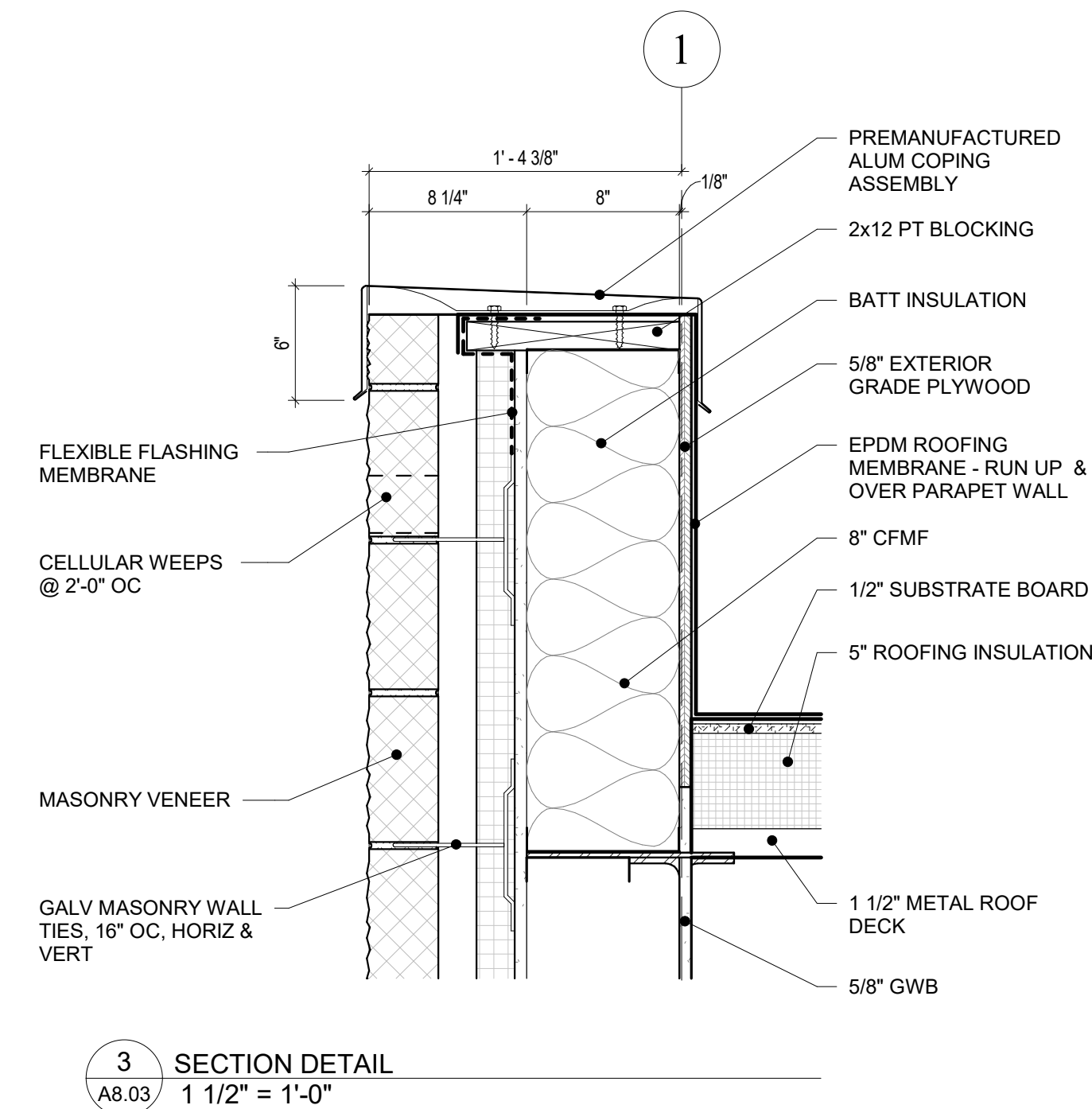
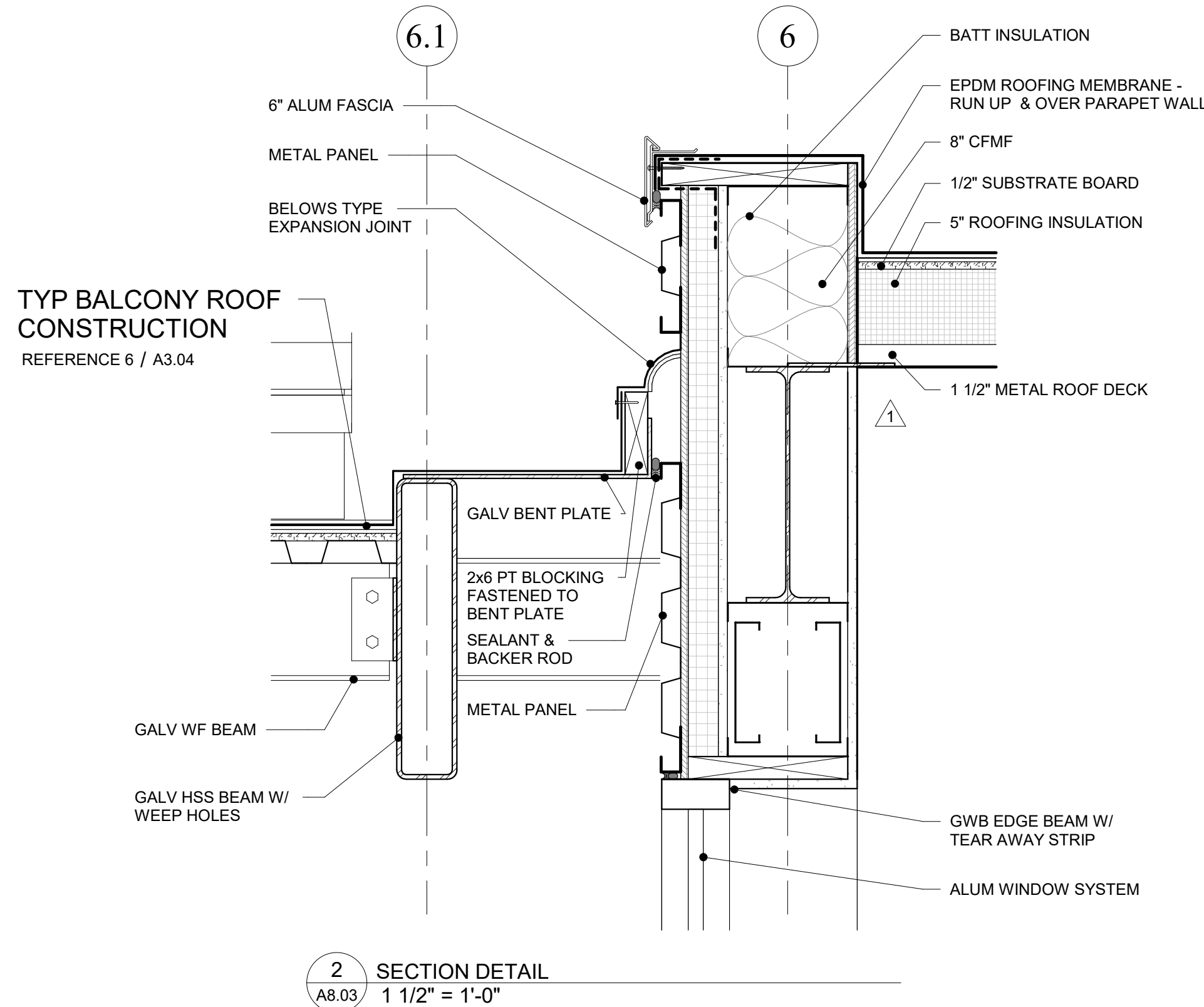
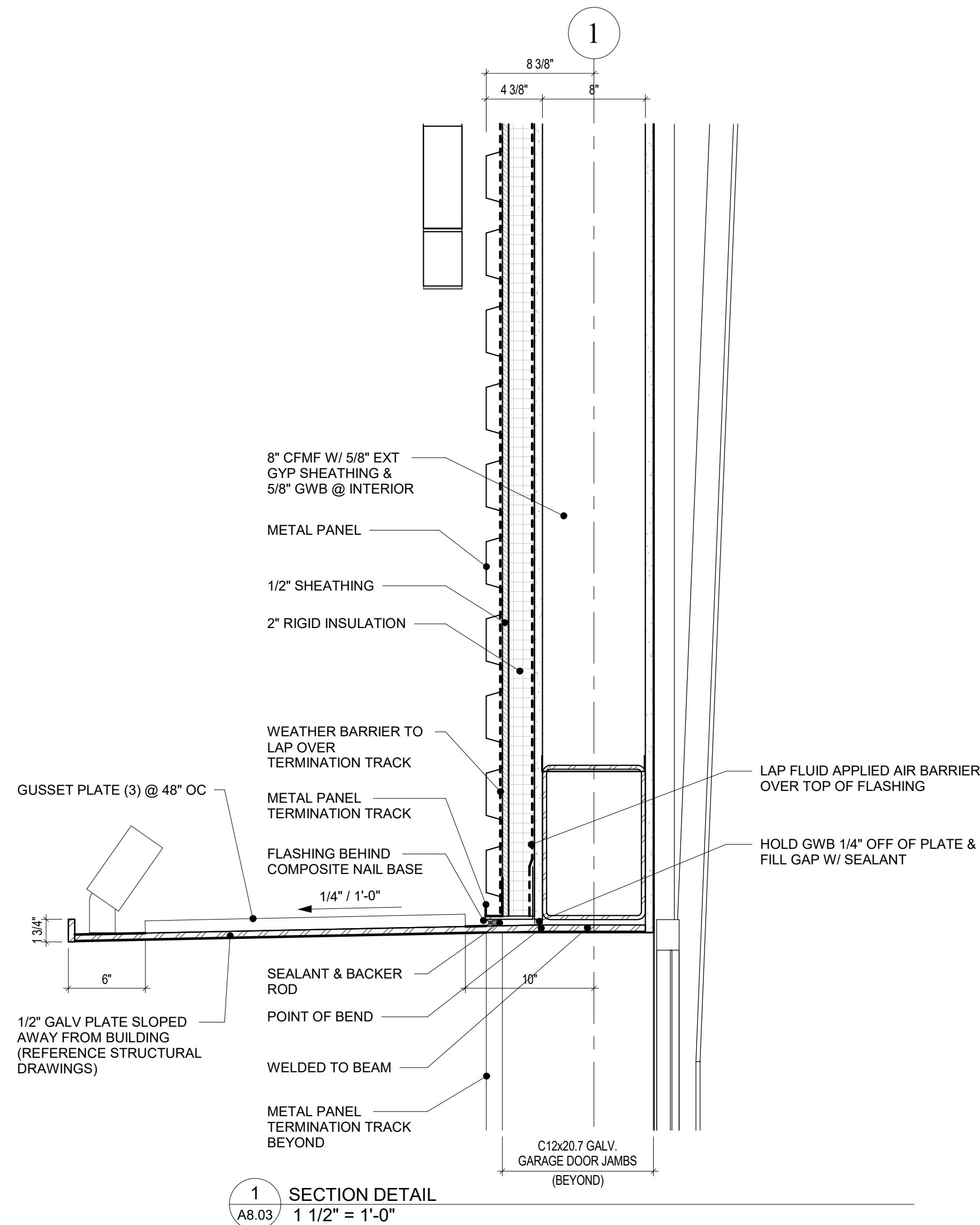


F
A8.01
PLAN DETAIL
1 1/2" = 1'-0"



G
A8.01
PLAN DETAIL
1 1/2" = 1'-0"





GENERAL NOTES

1. REFER TO THE PROJECT MANUAL FOR GOVERNING JOB REQUIREMENTS AND MATERIAL SPECIFICATIONS. NOTES ARE SUPPLEMENTAL TO THE PROJECT MANUAL AND ARE NOT INTENDED TO REPLACE THEM. IN THE EVENT OF CONFLICTING REQUIREMENTS BETWEEN NOTES AND SPECIFICATIONS, CONTRACTOR IS TO OBTAIN THE ENGINEER'S WRITTEN CLARIFICATION.
2. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND REPORT, IN WRITING, ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
3. DETERMINE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO LOCATE AND PRESERVE UTILITIES.
4. UNDERPINNING MAY BE REQUIRED AT E LINE. REFER TO DRAWINGS AND SPECIFICATIONS FOR UNDERPINNING REQUIREMENTS OF EXISTING STRUCTURES. COORDINATE WITH GEOTECHNICAL ENGINEER AND INDICATE EXTENTS OF UNDERPINNING ON DRAWINGS.
5. DRAWINGS REPRESENT THE BUILDING'S FINAL CONDITION. CONTRACTOR TO ADEQUATELY BRACE AND SUPPORT THE BUILDING AS REQUIRED THROUGHOUT CONSTRUCTION UNTIL ALL STRUCTURAL ELEMENTS REQUIRED FOR STABILITY ARE EFFECTIVE. THESE ELEMENTS ARE AS FOLLOWS: FLOOR DECK, ROOF DECK, MOMENT CONNECTIONS, ETC. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF TEMPORARY SYSTEMS AND ARE TO BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA AND SUBMITTED TO ENGINEER FOR RECORD.
6. CONSTRUCTION AND ERECTION SEQUENCES ARE TO ACCOUNT FOR THERMAL MOVEMENT OF STRUCTURAL ELEMENTS UNTIL THE BUILDING ENCLOSURE IS TEMPERED.
7. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, SEQUENCE OF CONSTRUCTION, AND ADEQUACY OF THE BUILDING TO SUPPORT LOADS IMPOSED DURING CONSTRUCTION. LOADS IMPOSED ON THE BUILDING DURING CONSTRUCTION ARE NOT TO EXCEED THE DESIGN LOADS DEFINED ON S-001. REPAIRS TO THE BUILDING DURING CONSTRUCTION IS THE CONTRACTOR'S RESPONSIBILITY AND IS TO BE SUBMITTED, IN WRITING, FOR THE ENGINEER'S WRITTEN ACCEPTANCE.
9. CONTRACTOR TO REPORT, IN WRITING, ANY INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS TO THE ENGINEER FOR ACCEPTANCE PRIOR TO REMEDIAL OR CORRECTIVE WORK.
10. SECTIONS/DETAILS APPLY TO SIMILAR LOCATIONS AND CONDITIONS UNLESS OTHERWISE INDICATED.
11. (REFER TO THE ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZE OF CHASES, INSERTS, OPENINGS, SLEEVES, WASHES, DRIPS, REVEALS, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS.)
12. COORDINATE LOCATION AND SIZE OF EQUIPMENT PADS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS AND MANUFACTURERS.
13. EQUIPMENT OPERATING WEIGHTS AND/OR DIMENSIONS INDICATED ON DRAWINGS ARE ASSUMED. NOTIFY ENGINEER, IN WRITING AND PRIOR TO PURCHASING, IF ACTUAL WEIGHTS AND/OR DIMENSIONS ARE DIFFERENT.
14. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF OPENINGS. REPORT, IN WRITING, OPENINGS WITH A SIDE DIMENSION OF 2'-0" OR LARGER WHICH ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS TO THE ENGINEER FOR REVIEW.

CAST-IN-PLACE CONCRETE NOTES

1. REFER TO DIVISION 3 OF THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
2. DETAIL, FABRICATE, LABEL, SUPPORT AND PLACE CONCRETE REINFORCEMENT IN ACCORDANCE WITH ACI 315 "GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," APPLICABLE EDITIONS. PLACE CONCRETE IN ACCORDANCE WITH ACI 117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY," APPLICABLE EDITION.
3. A QUALITY CONTROL PROGRAM OF SPECIAL INSPECTIONS AND TESTING WILL BE PERFORMED ON STRUCTURAL CONCRETE WORK IN ACCORDANCE WITH THE SPECIFICATIONS. SCHEDULE WORK AND PROVIDE ACCESS TO ALLOW THE TESTING REQUIREMENTS TO BE COMPLETED.
4. SUBMIT ENGINEERED CONCRETE MIX DESIGNS, INCLUDING REQUIRED BACKUP DATA, FOR EACH TYPE OF CONCRETE PROPOSED FOR USE TO THE ENGINEER/ARCHITECT FOR REVIEW. ALLOW ADEQUATE TIME FOR REVIEW PRIOR TO PERFORMING CONCRETE WORK.
5. SUBMIT DETAILED SHOP DRAWINGS INDICATING REINFORCEMENT SIZE, SPACING AND PLACEMENT TO THE ENGINEER/ARCHITECT FOR REVIEW PRIOR TO FABRICATION. INCLUDE DETAILS AND LOCATIONS OF ALL CURBS, CONSTRUCTION JOINTS, SLAB DEPRESSIONS, SLEEVES, OPENINGS, ETC.
6. PROVIDE CONSTRUCTION AND CONTROL JOINTS AS INDICATED. HORIZONTAL CONSTRUCTION JOINTS ARE NOT PERMITTED UNLESS SPECIFICALLY NOTED. SUBMIT JOINT PLAN TO ENGINEER/ARCHITECT PROPOSED JOINT PLAN FOR REVIEW.
7. PROVIDE CORNER BARS IN STRIP FOOTINGS AND WALLS, THE SAME SIZE AND NUMBER AS CONTINUOUS REINFORCEMENT UNLESS NOTED OTHERWISE.
8. PROVIDE 3/4"x3/4" CHAMFER AT ALL EXPOSED CORNERS UNLESS NOTED OTHERWISE.
9. REINFORCEMENT LAP SPLICE ARE TO BE CLASS B UNLESS NOTED OTHERWISE.
10. LAP WELDED WIRE REINFORCEMENT ONE FULL MESH +2 INCHES PANEL EXCEPT AT CONSTRUCTION JOINTS. PROVIDE TWO FULL MESH PANELS.
11. FOR STEEL FRAMED FLOORS, PROVIDE ADDITIONAL CONCRETE AS NECESSARY TO FINISH THE FLOORS TO WITHIN SPECIFIED TOLERANCES WHILE ACCOUNTING FOR METAL DECK AND STEEL BEAM DEFLECTIONS. ALLOW FOR AN AVERAGE OF AT LEAST 1/2 INCH EXTRA OF CONCRETE FOR EACH FLOOR.
12. PROVIDE FOUNDATION DOWELS TO MATCH WALL REINFORCEMENT SIZE AND SPACING.
13. COORDINATE WITH RESPECTIVE DISCIPLINE CONTRACTORS TO LOCATE OPENINGS/SLEEVES THROUGH WALLS AND SLABS. SHOW OPENINGS ON SHOP DRAWINGS AND PROVIDE ADDITIONAL REINFORCEMENT AS INDICATED. ADDITIONAL OPENINGS/SLEEVES ARE NOT PERMITTED BEYOND THOSE SHOWN ON THE REVIEWED SHOP DRAWINGS.
14. NO HOLES OR OPENINGS ARE PERMITTED THROUGH CONCRETE SLABS, OR WALLS EXCEPT AS FOLLOWS:
A. WHERE INDICATED AND AS DETAILED ON DRAWINGS.
B. MISCELLANEOUS HOLES THROUGH SLABS OR WALLS WHICH DO NOT DISPLACE REINFORCEMENT. THESE DO NOT REQUIRE ADDITIONAL REINFORCEMENT.
15. DO NOT PLACE CONDUITS WITHIN THE STRUCTURAL SLABS.
16. CENTER SINGLE LAYER OF VERTICAL WALL REINFORCEMENT WITHIN WALL UNLESS NOTED OTHERWISE.
17. REFER TO ACI 305 FOR REQUIREMENTS FOR PLACING CONCRETE IN HOT WEATHER AND TO ACI 306 FOR REQUIREMENTS FOR PLACING CONCRETE IN COLD WEATHER.
18. PLACE PIERS WHICH ARE INTEGRAL WITH FOUNDATION WALLS MONOLITHICALLY.
19. CONCRETE THAT WILL BE PLACED FURTHER THAN 16 FEET FROM THE END OF A CONCRETE TRUCK SHALL BE PUMPED WITH A COMMERCIAL CONCRETE PUMPING TRUCK OR OTHER PLACEMENT METHOD APPROVED BY THE ENGINEER. THE CONCRETE TRUCK SHALL NOT BE ALLOWED TO DRIVE OVER THE SUBGRADE OR THE SLAB REINFORCEMENT.
20. DO NOT WELD OR FIELD BEND REINFORCEMENT WITHOUT ENGINEER'S WRITTEN ACCEPTANCE.
21. PROVIDE A ROUGH CONCRETE SURFACE (1/4" MINIMUM AMPUTITUDE) AT THE INTERSECTION OF CONCRETE WALLS, STEM WALLS, AND PLASTER WITH THE TOP OF FOOTINGS. DO NOT PROVIDE A KEYWAY UNLESS SHOWN OR NOTED ON THE DRAWINGS.
22. LOCATE ADDITIONAL CONSTRUCTION JOINTS AS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. LOCATE WALL CONSTRUCTION JOINTS AT MASONRY CONTROL JOINTS WHERE POSSIBLE. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT. DETAIL JOINT AND SHOW ON SHOP DRAWINGS.
23. WHERE MASONRY VENEER IS LOCATED ADJACENT TO WALLS, STEM WALLS, & COLUMNS GREATER THAN 24 INCHES HIGH, PROVIDE FULL HEIGHT DOVETAIL SLOT INSERTS AT 2'-0" OC FOR MASONRY ANCHORS. PLACE ANCHORS AT 16" OC VERTICALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
24. NO PIPING OR CONDUITS SHALL BE INSTALLED IN ANY CONCRETE WITHOUT THE APPROVAL OF THE ENGINEER.

PROVIDE CLEAR COVER FOR ALL REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE IN THE DETAILS:

SPECIFIED COVER, INCHES				
CAST AGAINST EARTH AND PERMANENTLY IN CONTACT WITH GROUND			3	
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: NO. 6 THROUGH NO. 18 BARS NO. 5 BAR AND SMALLER OR WELDED WIRE REINFORCEMENT			2 1 1/2	
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, JOISTS, AND WALLS NO. 14 AND NO. 18 BARS NO. 11 BAR AND SMALLER BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS			1 1/2 3/4 1 1/2 1 1/2	

26. PROVIDE CONCRETE AND REINFORCING MATERIALS OF THE TYPES AND GRADES LISTED IN THE TABLE BELOW:

	EXPOSURE CLASS	28 DAY MINIMUM COMPRESSIVE STRENGTH		NOMINAL MAXIMUM AGGREGATE SIZE	AIR CONTENT PERCENT
		F2	F4		
FOUNDATIONS/FOOTINGS	F2	3,000 PSI	0.45	3/4"	6%
WALLS	F2	4,000 PSI	0.45	3/4"	6%
SLAB-ON-GROUND (INTERIOR)	F2	4,500 PSI	0.45	1"	6%
SLAB-ON-GROUND (EXTERIOR)	F2	4,500 PSI	0.45	1 1/2"	5.5%
FLOOR SLAB OVER METAL DECK	F2	4,000 PSI	0.45	1"	6%

- REINFORCEMENT
- TYPICAL BARS
- WELDED BARS
- WELDED WIRE REINFORCEMENT
27. MICROSYNTHETIC HOMO-POLYMER POLYPROPYLENE FIBRILLATED FIBERS SHALL CONFORM TO ASTM C116 TYPE III CONCRETE AND ASTM D7508. LENGTHS SHALL BE GRADED 0.75 TO 1.5". ASPECT RATIO 20 TO 78. STANDARD RECOMMENDED DOSAGE IS 1.5 - 3 LB/CU. YD.

STEEL NOTES

1. REFER TO DIVISION 5 SPECIFICATION SECTION - STRUCTURAL STEEL FRAMING - FOR ADDITIONAL INFORMATION.
2. DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL FRAMING IN ACCORDANCE WITH THE LATEST AISI STEEL CONSTRUCTION MANUAL AND ANSI/AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, APPLICABLE EDITIONS.
3. CONFORM TO AWS D1.1, STRUCTURAL WELDING CODE-STEEL, APPLICABLE EDITION FOR ALL WELDED CONNECTIONS.
4. ANY CONNECTIONS WITHOUT WELD SYMBOLS SHALL BE AT A MINIMUM WELDED ALL AROUND WITH THE MINIMUM FILLET OR BUTT WELD SIZE.
5. STRUCTURAL STEEL ANGLES, PLATES, ETC. SHALL CONFORM TO ASTM A36 REQUIREMENTS (36 KSI). STRUCTURAL STEEL W AND C SHAPES SHALL CONFORM TO ASTM A992 (50 KSI). STRUCTURAL TUBING AND PIPES SHALL CONFORM TO THE ASTM A500 GRADE C REQUIREMENTS (50 KSI).
6. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
7. CONNECTIONS:
A. ALL BOLTED CONNECTIONS ARE TO BE 3/4" MINIMUM DIAMETER A325 TYPE N OR SC BOLTS IN STANDARD HOLES UNLESS NOTED OTHERWISE OR AS DETERMINED BY THE CONNECTION DESIGNER OR NOTED ON THE PLANS. DESIGN USING STANDARD HOLES UNLESS OTHERWISE NOTED OR REQUIRED FOR ERECTION.
B. MINIMUM CAPACITY OF BEAM CONNECTIONS: FOR CONNECTIONS NOT DETAILED, PROVIDE CONNECTION CAPACITY OF AT LEAST THAT REQUIRED BY PART 3 OF THE AISI MANUAL. IN THE SECTION "MAXIMUM TOTAL UNIFORM LOAD TABLES" FOR LRFD DESIGN OR "ALLOWABLE LOADS ON BEAMS" FOR ALLOWABLE STRESS DESIGN, FOR THE GIVEN MEMBER AND STEEL SPECIFICATIONS. CONCENTRATED LOADS NEAR SUPPORTS MUST BE ADDED.
C. THE DESIGN SHEAR FOR EACH CONNECTION UNLESS NOTED ON THE DRAWINGS SHALL BE 10% OF THE REACTION FROM A UNIFORM LOAD OVER THE SPAN WHICH CREATES THE MAXIMUM DESIGN MOMENT FOR ROOF/FLOOR BEAM CONNECTIONS. THE MINIMUM REACTION SHALL BE 14 KIPS.
D. INDICATOR BOLTS EQUAL TO TENSION FOR CONTROL BOLTS OF THE L&L/ENR COMPANY OF BURNSVILLE, PENNSYLVANIA. (800-857-2558) SHALL BE USED.
E. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER. USE MINIMUM OF TWO 3/4" DIAMETER A325 BOLTS PER CONNECTION.
8. FRAME ALL OPENINGS IN ROOF DECK 8" OR LARGER WITH A STRUCTURAL STEEL MEMBER ON ALL SIDES EXCEPT WHERE A SIDE MAY BE WITHIN 1'-0" OF ANOTHER FRAMING MEMBER. FRAMING NOT REQUIRED FOR ROOF OPENINGS SMALLER THAN 8".
9. PROVIDE 3/8" STIFFENER PLATES ON EACH SIDE OF THE WEB OF ALL BEAMS AT ALL SUPPORTS THAT ARE BELOW THE BEAM, AND AT ALL COLUMNS THAT ARE ABOVE THE BEAM, OMITTING WHERE BEAMS INTERSECT.
10. SUBMITTALS:
A. PRODUCT DATA OR MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE FOLLOWING PRODUCTS. INCLUDE LABORATORY TEST REPORTS AND OTHER DATA TO SHOW COMPLIANCE WITH SPECIFICATIONS.
a. STRUCTURAL STEEL INCLUDING CERTIFIED COPIES OF MILL REPORTS COVERING CHEMICAL AND PHYSICAL PROPERTIES.
b. HIGH STRENGTH BOLTS (EACH TYPE), INCLUDING NUTS AND WASHERS, FOR INFORMATION ONLY.
c. STRUCTURAL STEEL PRIMER PAINT.
d. SHRINKAGE RESISTING GROUT.
B. SHOP DRAWINGS PREPARED UNDER SUPERVISION OF A LICENSED STRUCTURAL ENGINEER, INCLUDING COMPLETE DETAILS AND SCHEDULES FOR FABRICATION AND ASSEMBLY. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

STEELDECK NOTES

1. STEEL DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE CURRENT SPECIFICATION OF THE STEEL DECK INSTITUTE.
2. SHOP DRAWINGS SHALL INDICATE THE FINISH, TYPE, GAGE, DIMENSIONS, AND LAYOUT OF ALL DECK AND ACCESSORIES. DRAWINGS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.

FLOOR DECK NOTES

1. TYPICAL STEEL FLOOR DECK SHALL BE COMPOSITE STEEL FLOOR DECK. THIS DECK SHALL BE 1 1/2" DEEP, 20 GAUGE AND 9/16" DEEP, 20 GAUGE GALVANIZED DECK. REFER TO PROJECT SPECIFICATION.
2. THE STEEL FLOOR DECK SHALL BE SUPPLIED IN MINIMUM LENGTHS REQUIRED TO PROVIDE A "3 SPAN" CONDITION. END CLOSURES, CLOSURES AT PENETRATIONS, AND ALL OTHERS ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION ARE REQUIRED.
3. STEEL FLOOR DECK SHALL BE WELDED TO THE SUPPORTING STEEL (FRAME FASTENING) WITH 5/8" DIAMETER ARC SPOT FUSION WELDS IN A 36X PATTERN. INTERMEDIATE SIDE CONNECTIONS (STITCH FASTENING) AND PERIMETER EDGE FASTENING SHALL BE MADE WITH TWO (2) #10 SELF-TAPPING SCREW OR 1 1/2" LONG FILLET WELD PER SPAN. SPACING OF STITCH FASTENERS SHALL NOT EXCEED 18" ON CENTER, MAX.
4. CONCRETE FILL IN COMPOSITE METAL FLOOR DECK TO BE 2 1/2" THICK ABOVE DECK FLUTES/4" OVERALL THICKNESS OF DECK AND CONCRETE). REINFORCE CONCRETE WITH 6# W2 9/2.9 WELDED WIRE FABRIC SHEETS (ROLLS NOT PERMITTED) AT 3/4" BELOW TOP OF SLAB.
5. CONCRETE FILL IN METAL FORM DECK TO BE 2 1/2" THICK ABOVE DECK FLUTES 3 1/2" OVERALL THICKNESS OF DECK AND CONCRETE. REINFORCE WITH 6# W2 9/2.9 WELDED WIRE FABRIC SHEETS (ROLLS NOT PERMITTED) AT 3/4" BELOW TOP OF SLAB.

STEEL JOIST AND ROOF DECK NOTES

1. STEEL JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS FOR OPEN WEB JOISTS. MATERIAL SHALL BE DOMESTIC STEEL WITH ANGLES FOR BOTTOM CHORDS.
2. ROOF DECK SHALL BE TYPE B-20 GAGE AS SPECIFIED BY THE STEEL DECK INSTITUTE AND SHALL BE PAINTED. DECK SHALL BE WELDED TO SUPPORTS AT 6 INCHES ON CENTER AT LAPS AND ENDS, AND AT 12 INCHES ON CENTER SUPPORTS BETWEEN LAPS, WITH SIDELAP SCREWS AT MIDSPAN. DECK SHALL BE MODIFIED AS REQUIRED AT EDGE SUPPORTS PARALLEL TO THE RIBS SO THAT THE DECK CAN BE WELDED TO THE SUPPORT AT 24 INCHES ON CENTER. WELDS SHALL BE 9/8" FUSION WELDS WITH A MAXIMUM BURN-THROUGH OF 30 PERCENT AND WITH A MAXIMUM OF 10 PERCENT FAILING. ALL SCREWS SHALL BE TAKEN BY ITW BUILDK, OR APPROVED EQUAL. ALL SCREWS IN EXTERIOR WALLS SHALL BE ZINC PLATED WITH A TYPE II ASTM B 633 COATING.
3. ROOF DECK SHALL BE TYPE B-20 GAGE AS SPECIFIED BY THE STEEL DECK INSTITUTE AND SHALL BE PAINTED. DECK SHALL BE POWDER ACTUATED (RAMMED) TO SUPPORTS AT 8 INCHES ON CENTER AT LAPS, AT THE END OF THE SHEETS, AND AT 12 INCHES ON CENTER AT SUPPORTS BETWEEN LAPS WITH SIDELAP SCREWS AT MIDSPAN. DECK SHALL BE MODIFIED AS REQUIRED AT EDGE SUPPORTS PARALLEL TO THE RIBS SO THAT THE DECK CAN BE DRIVEN TO THE SUPPORT AT 24 INCHES ON CENTER. SIDELAP SCREWS SHALL BE #12 T&S. CONSULT ILTI FOR RECOMMENDED SYSTEM AND PIN SPECIFICATIONS OF POWDER DRIVEN NAILS THROUGH DECK ONTO STEEL OF EACH YIELD STRENGTH. ALL POWDER DRIVEN NAILS SHALL BE INSTALLED BY PERSONS TRAINED AND LICENSED BY ILTI. ALL SCREWS SHALL BE TAKEN BY ITW BUILDK, OR APPROVED EQUAL. ALL SCREWS IN EXTERIOR WALLS SHALL BE ZINC PLATED WITH A TYPE II ASTM B 633 COATING.
4. ALL JOISTS SHALL HAVE BOTTOM CHORD UPLIFT BRIDGING AT EACH END AND BE DESIGNED FOR 25 POUNDS PER SQUARE FOOT NET UPLIFT.
5. PROVIDE L3X3X1/4 AROUND ALL ROOF PENETRATIONS NOT SHOWN, 8 INCHES OR GREATER, FOR METAL DECK SUPPORT.
6. LOCATE CONCENTRATED LOADS ON JOISTS AND JOIST GIRDERS AT PANEL POINTS. PROVIDE ANGLE WEB MEMBERS TO CREATE INTERMEDIATE PANEL POINTS AS REQUIRED. MANUFACTURER SHALL DIRECT INSTALLER AS TO METHOD OF INSTALLATION AND MATERIAL REQUIRED. JOISTS SHALL BE SHOP REINFORCED FOR ALL LOADS PROVIDED ON DRAWINGS. FIELD REINFORCING SHALL BE PROVIDED AS DETAILED ON THE DRAWINGS.
7. VERIFY SIZE, LOCATION, AND NUMBER OF ROOF OPENINGS WITH MECHANICAL AND ELECTRICAL PLANS AND CONTRACTORS.
8. PROVIDE BRIDGING ANCHORS FIRMLY ANCHORED TO MASONRY WALLS, BEAMS, AND COLUMNS AT EACH END OF EACH ROW OF BRIDGING, TOP AND BOTTOM.
9. INSTALL JOISTS WITHIN A HORIZONTAL SWEEP TOLERANCE OF 1/4" IN 10 FEET.
10. STEEL JOIST SUBMITTALS:
A. PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF JOIST AND ACCESSORY. INCLUDE MANUFACTURER'S CERTIFICATION THAT JOISTS COMPLY WITH SJI SPECIFICATIONS.
B. SHOP DRAWINGS SHOWING JOIST LAYOUT, CONNECTIONS AND LOCATION AND SPACING OF BRIDGING. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
11. ROOF DECK SUBMITTALS:
A. PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF DECKING AND ACCESSORIES.
B. SHOP DRAWINGS SHOWING LAYOUT AND TYPES OF DECK UNITS, ANCHORAGE DETAILS AND CONDITIONS REQUIRING CLOSURE STRIPS AND OTHER ACCESSORIES. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

DESIGN CRITERIA

DESIGN LOADS ARE BASED ON THE ASCE 7.16 BUILDING DESIGN LOADS.

SECOND FLOOR DEAD LOADS:

2.9" SLAB ON 8" METAL DECK:	41 PSF
METAL DECK/PLUMB:	5 PSF
JOISTS/BEAMS:	9 PSF
SUSPENDED CEILING:	2 PSF
TOTAL:	57 PSF

ROOF DEAD LOADS:

EPDM ROOFING:	2 PSF
JOISTS/BEAMS:	8 PSF
METAL DECK:	2 PSF
METAL DECK/PLUMB:	5 PSF
INSULATION:	3 PSF
TOTAL:	20 PSF

FLOOR LIVE LOADS:

	UNIFORM	CONCENTRATED (UNIFORMLY DISTRIBUTED OVER 2 1/2 FEET BY 2 1/2 FEET)
GARAGE	250 PSF	16,000 POUNDS
OFFICE BUILDINGS		
CORRIDOR ABOVE FIRST FLOOR:	100 PSF	2,000 POUNDS
LOBBIES AND FIRST-FLOOR CORRIDORS:	100 PSF	2,000 POUNDS
SECOND FLOOR:	100 PSF	2,000 POUNDS
STAIRS AND EXITS:	100 PSF	300 POUNDS

ROOF LIVE LOAD:

20 PSF

ROOF SNOW LOAD:

GROUND SNOW LOAD, P _g	30 PSF
FLAT-ROOF SNOW LOAD, P _f	25.2 PSF
SNOW EXPOSURE FACTOR, C _e	1.0
SNOW LOAD IMPORTANCE FACTOR, I _s	1.2
WIND FACTOR, C _d	1.0
SLOPE FACTOR(S), C _s	1.0

DRIFT SURCHARGE LOADS, P_d AND WIDTH OF SNOW DRIFTS, W, REFER TO **\$2.04**.

WIND DESIGN DATA:

BASIC DESIGN WIND SPEED (3 SECOND GUST), V ₁	128 MPH
ALLOWABLE STRESS DESIGN WIND SPEED, V ₁₀	77 MPH
RISK CATEGORY:	IV
WIND EXPOSURE CATEGORY:	B
COORDINATE COMPONENTS AND CLADDING WIND PRESSURE, p, 27 PSF	+/- 0.18

EARTHQUAKE DESIGN DATA:

RISK CATEGORY:	IV
SEISMIC IMPORTANCE FACTOR, I _e	1.0
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:	
SITE CLASS:	S ₁ = 0.184
DESIGN SPECTRAL RESPONSE ACCELERATION:	S ₁ = 0.048
PARAMETERS:	
SEISMIC DESIGN CATEGORY:	S _{DS} = 0.196
BASIC SEISMIC FORCE-RESISTING SYSTEM(S):	S _{RS} = 0.077
	C
	ORDINARY MOMENT RESISTING FRAME

DESIGN SHEAR BASE(S):

21 KIPS

SEISMIC RESPONSE COEFFICIENT(S), C_s:

0.098

RESPONSE MODIFICATION FACTOR(S), R:

3 (STEEL)

ANALYSIS PROCEDURE USED:

EQUIVALENT LATERAL FORCE ANALYSIS

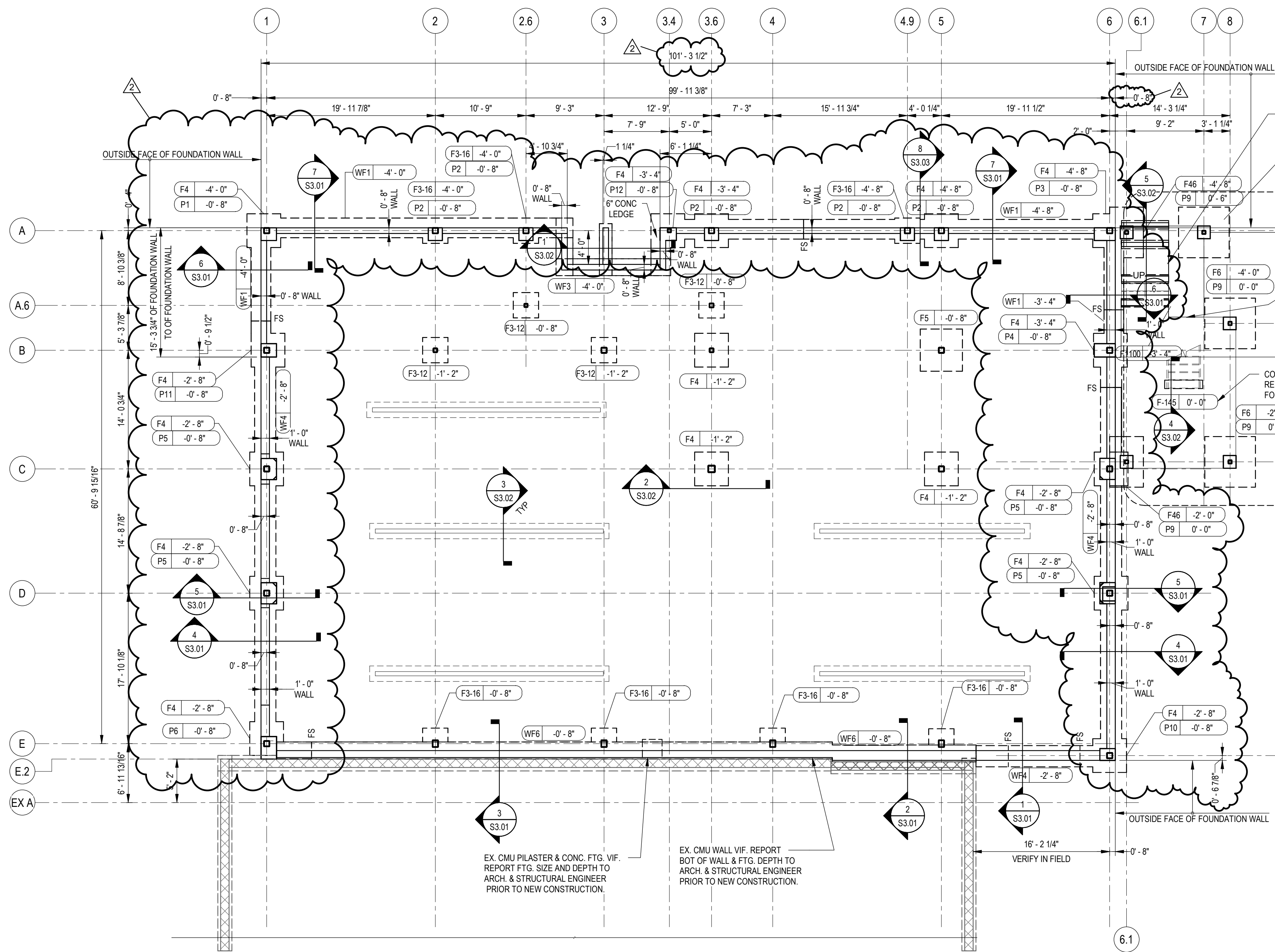
GEOTECHNICAL INFORMATION:

DESIGN ALLOWABLE SOIL BEARING PRESSURE:	4,000 PSF
MOIST UNIT WEIGHT OF BACKFILL:	125 PCF
INTERNAL FRICTION ANGLE OF BACKFILL:	34 DEGREES
COEFFICIENT OF "AT-REST" LATERAL EARTH PRESSURE:	0.56
COEFFICIENT OF "ACTIVE" LATERAL EARTH PRESSURE:	0.28
COEFFICIENT OF "PASSIVE" LATERAL EARTH PRESSURE:	3.54
MINIMUM SAFETY FACTOR AGAINST SLIDING AND OVERTURNING:	2.0

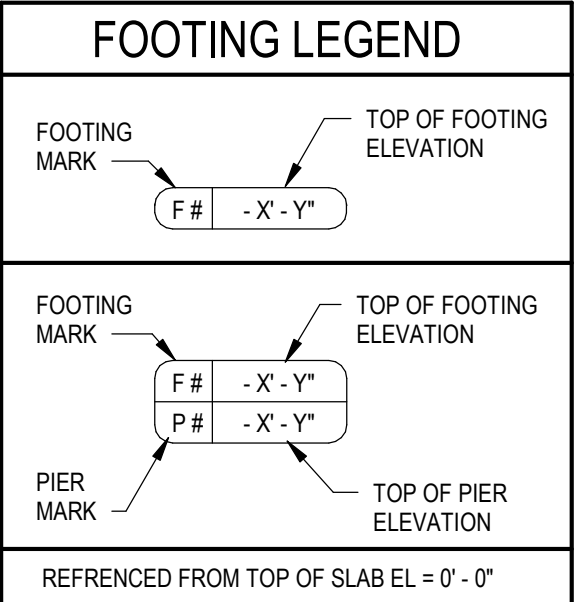
THIS BUILDINGS NOT DESIGNED FOR FLOOD LOADS.

ABBREVIATIONS

ADDITIONAL	A	MAX	MAXIMUM	M
ADHESIVE	A	MECH	MECHANICAL	M
ADJACENT	A	MEP	MECHANICAL - ELECTRICAL - PLUMBING	M
ABOVE FINISHED FLOOR	A	MFR	MANUFACTURER	M
ANCHOR	A	MIN	MINIMUM	M
ALTERNATE	A	MO	MASONRY OPENING	M
ALUMINUM	A	MTL	METAL	M
APPROXIMATE	A	OPNG	OPENING	O
ANCHOR ROD	A	NIC	NOT IN CONTRACT	N
ARCHITECT	A	NOM	NOMINAL	N
		NTS	NOT TO SCALE	N
		NWT	NORMAL WEIGHT	N
BACK TO BACK	B			
BEVEL	B			
BUILDING	B	OC	ON CENTER	O
BLOCKING	B	OD	OUTSIDE DIAMETER	O
BOTTOM OF	B	OF	OUTSIDE FACE	O
BOTTOM OF STEEL	B	OPNG	OPENING	O
BOTTOM	B	OPP	OPPOSITE	O
BASE PLATE	B			
BRIDGING	B	PAF	POWDER ACTUATED FASTENER	P
BEARING	B	POC	PRECAST CONCRETE	P
BASEMENT	B	PEMB	PRE-ENGINEERED METAL BUILDING	P
CANTILEVER	C	PL	PLATE	P
COLD FORMED METAL FRAMING	C	PLAT	PLATFORM	P
CHAMFER	C	PLF	POUNDS PER LINEAR FOOT	P
CONTROL JOINT	C	PREFAB	PREFABRICATED	P
COMPLETE JOINT PENETRATION	C	PRELIM	PRELIMINARY	P
CENTER LINE	C	PSF	POUNDS PER SQUARE FOOT	P
CAULKED JOINT	C	PT	PRESSURE TREATED	P
CLEAR	C	PUR	PURLINS	P
CONCRETE MASONRY UNIT	C	PVMT	PAVEMENT	P
CLEAN OUT	C			
COLUMN	C	QC	QUALITY CONTROL	Q
CONCRETE	C			
CONNECTION	C	R	RADIUS	R
CONSTRUCTION JOINT	C	RD	ROOF DRAIN	R
CONTINUOUS	C	RIG INS	RIGID INSULATION	R
COORDINATE	C	REF	REFERENCE	R
COUNTER SUNK	C	REIN	REINFORCING	R
CUBIC FEET	C	REM	REMAINDER	R
CUBIC YARD	C	REQD	REQUIRED	R
		RET	RETAINING	R
		RH	ROOF HATCH	R
		RO	ROUGH OPENING	R
DOUBLE	D			
DEMOLITION	D			
DETAIL	D			
DIAMETER	D	SCHED	SCHEDULE	S
DIMENSION	D	SF	SQ FEET	S
DEAD LOAD	D	SIM	SIMILAR	S
DOWN	D	SOG	SLAB ON GROUND	S
DRAWING	D	SPA	SPACE(S)	S
		SPEC	SPECIFICATION	S
EACH	E	SQ	SQUARE	S
EACH END	E	SST	STAINLESS STEEL	S
EACH FACE	E	STA	STATION	S
EXPANSION JOINT	E	STD	STANDARD	S
ELEVATION	E	STL	STEEL	S
ELECTRICAL	E			
EDGE OF DECK	E	T&B	TOP AND BOTTOM	T
EDGE OF SLAB	E	THK	TRENCH DRAIN	T
EXPANDED POLYSTYRENE	E	TEMP	TEMPORARY	T
EQUAL	E	THK	THICKNESS	T
EQUIPMENT	E	THRU	THROUGH	T
EACH WAY	E	TO	TOP OF	T
EXISTING	E	TOC	TOP OF CONCRETE	T
EXPANSION	E	TOS	TOP OF STEEL	T
EXTERIOR	E	TOSL	TOP OF SLAB	T
		TOW	TOP OF WALL	T
		TYP	TYPICAL	T
FABRICATE	F			
FURNISHED BY OTHERS	F			
FLOOR DRAIN	F	UNEX	UNEXCAVATED	U
FOUNDATION	F	UNO	UNLESS NOTED OTHERWISE	U
FLOOR	F			
FACE OF MASONRY	F	VERT	VERTICAL	V
FACE OF WALL	F	VIF	VERIFY IN FIELD	V
FRAMING	F	VR	VAPOR RETARDER	V
FOOTING STEP	F	W	WITH	W
FOOT	F	W/O	WITHOUT	W
FOOTING	F	WBL	WOOD BLOCKING	W
FIRE WALL	F	WF	WALL FOOTING	W
GAGE	G	WP	WORKING POINT	W
GALVANIZED	G	WS	WALL STEP	W
GENERAL CONTRACTOR	G	WWF	WELDED WIRE FABRIC	W
GIARD RAIL	G			
GRADE BEAM	G	X BRACE	CROSS BRACE	X
		XS	EXTRA STRONG	X
HANDRAIL	H	HXS	DOUBLE EXTRA STRONG	X
HORIZONTAL RAIL	H			
HIGH POINT	H			
INSIDE DIAMETER	I			
INSIDE FACE	I			
INCHES	I			
INFORMATION	I			
INSULATION	I			
INVERT	I			
ISOLATION JOINT	I			
JOIST BEARING ELEVATION	J			
KIPS	K			
KIP FEET	K			
KNEE BRACE	K			
KNOCKOUT	K			
KICK PLATE	K			
KIPS PER SQUARE FOOT	K			
KEY WAY	K			
POUNDS	L			
LOAD BEARING	L			
LONG	L			
LIVE LOAD	L			
LONG LEG BACK TO BACK	L			
LONG LEG HORIZONTAL	L			
LONG LEG VERTICAL	L			
LINTEL	L			
LONGITUDINAL	L			
LOW POINT	L			
LIGHTWEIGHT	L			



FOOTING SCHEDULE			
MARK	SIZE (LxWxTHICKNESS)	REINFORCING	REMARKS
F3-12	3'-0" x 3'-0" x 1'-0"	(5) - #5 EW BOT	
F3-16	3'-0" x 3'-0" x 1'-4"	(5) - #5 EW BOT	
F4	4'-0" x 4'-0" x 1'-4"	(6) - #5 EW BOT	
F5	5'-0" x 5'-0" x 1'-4"	(7) - #5 EW BOT	
F6	6'-0" x 6'-0" x 1'-6"	(8) - #5 EW BOT	
F46	4'-0" x 6'-0" x 1'-6"	(9) - #5 SW BOT (6) - #5 LW BOT	
F150	1'-0" x 5'-0" (F150)	(3) - #4 LW (7) - #4 SW	
F1100	1'-0" x 10'-0" (F1100)	(3) - #4 LW (14) - #4 SW	
F-145	1'-0" x 4'-6" x 3'-2"	#5 @ 12" VERT (4) #4 LONGWAY	
WF1	2'-4" x 1'-4"		
WF3	2'-0" x 1'-0"		
WF4	2'-6" x 1'-4"		
WF6	<VARIABLE>		



PIER SCHEDULE									
MARK	SIZE			TYPE	REINFORCEMENT		ANCHOR BOLT		REMARKS
	"A"	"B"	"C"		VERT	TIES	TYPE	QTY	
P1	22'	18'	14'	T2	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	D=14"
P2	18'	20'	14'	T1	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P3	18'	30'	14'	T2	10-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	D=22"
P4	30'	19'	22'	T1	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P5	22'	20'	14'	T1	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P6	22'	32'	14'	T2	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	D = 22"
P7	39'	24'	17'	T1	16-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P8	43'	24'	17'	T1	18-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P9	18'	18'	10'	T3	6-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P10	22'	16 7/8'	10'	T2	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	D=10"
P11	22'	19'	14'	T1	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	
P12	22'	24'	14'	T2	8-#7	#4 TIES @ 8" O.C.	SEE COLUMN SCHEDULE	SEE COLUMN SCHEDULE	D=5 1/4"

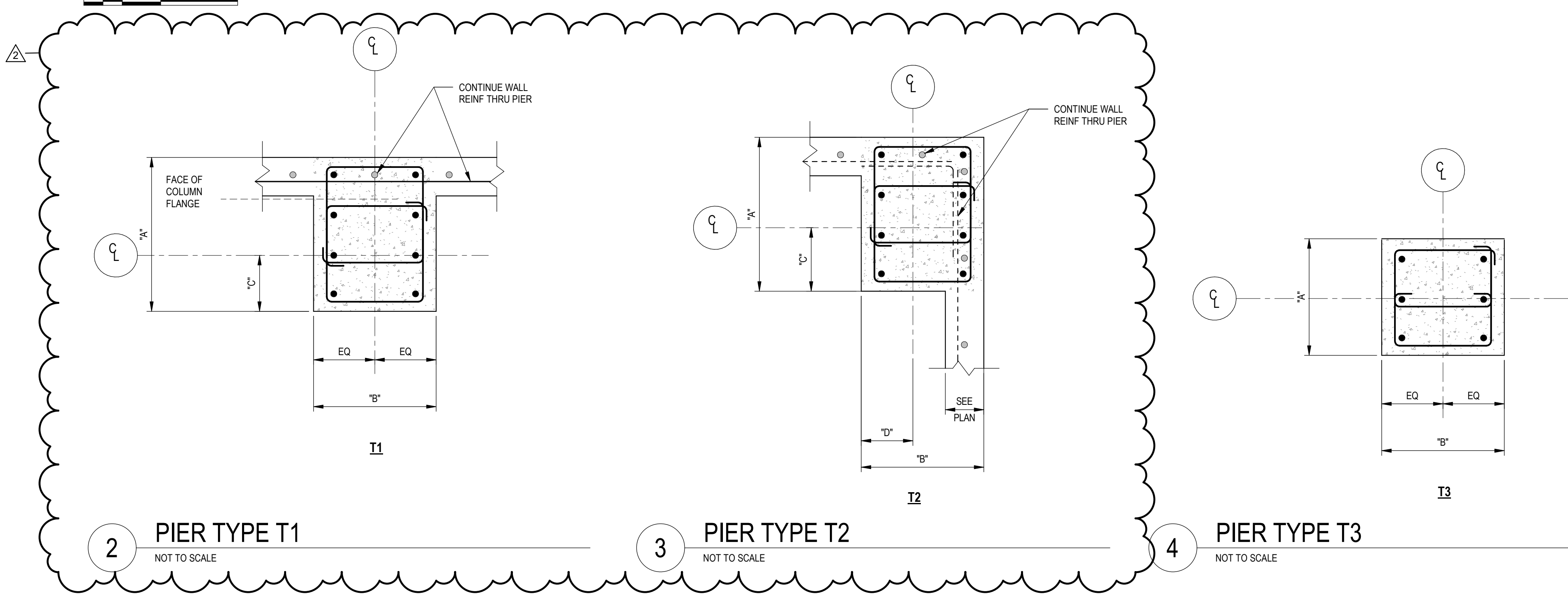
NOTES TO FOUNDATIONS:

1. FINISHED FLOOR ELEVATION = 235.5' REFERENCE FINISHED FLOOR ELEVATION = 0'-0"
2. BOTTOM OF PERIMETER STRIP AND SPREAD FOOTINGS TO BE (-) 3'-0" (MIN.) FROM FINISHED ADJACENT EXTERIOR GRADE, U.N.O.
3. REFER TO FOOTING & PIER LEGEND THIS DRAWING FOR TOP OF FOOTING & PIER NOTATIONS.
4. CONTRACTOR SHALL COORDINATE ALL VENDOR REQUIREMENTS FOR SPECIALIZED EQUIPMENT WITH STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE.
5. SEE THIS SHEET FOR FOUNDATION NOTES. SEE SHEET S0.01 FOR GENERAL NOTES AND SHEET S0.01 FOR THE COLUMN SCHEDULE.
6. PROVIDE (2) #4 x 4'-0" LONG REINFORCING BARS AT ALL RE-ENTRANT SLAB CORNERS. SEE DETAIL S0.03.
7. AT ALL LOCATIONS WHERE PIPING RUNS THROUGH FOUNDATION WALLS, DEEPEN FOOTINGS AS REQUIRED TO ALLOW 6" (MIN) CLEARANCE BETWEEN PIPE AND TOP OF FOOTING. SLEEVE PIPE. SEE DETAILS ON S3.03.
8. SEE SHEET S0.02 FOR SLAB ON GRADE PLAN.
9. WF# (EXAMPLE) REFERS TO WALL FOOTING MARK. SEE SCHEDULE ON THIS SHEET.
10. F# (EXAMPLE) REFERS TO SPECIAL FOUNDATION MARK. SEE SCHEDULE ON THIS SHEET.
11. F#25.3 (EXAMPLE) REFERS TO PIER TYPE AND TOP OF PIER ELEVATION. SEE PIER SCHEDULE THIS SHEET.
12. F# - DENOTES FOOTING STEP. SEE DETAIL ON S3.02.
13. REFER TO NOTE: "BRACING OF FOUNDATION WALLS PRIOR TO BACKFILLING" ON DRAWING S3.10 FOR WALL SHORING REQUIREMENTS AT FOUNDATION AND RETAINING WALLS.
14. UTILITIES ARE SHOWN FOR REFERENCE ONLY. REFER TO SPECIFIC MEP DRAWINGS FOR FINAL LOCATIONS AND INVERT ELEVATIONS.
15. CONTRACTOR COORDINATE BRICK LEDGE ELEVATIONS AT PERIMETER OF BUILDING BETWEEN ARCHITECTURAL AND CIVIL DRAWINGS. FINAL BRICK LEDGE ELEVATIONS ARE TO BE SET IN COORDINATION WITH FINAL SITE GRADING.

NOTE: ARCHITECTURAL PLAN. BACKGROUND INFORMATION IS SHOWN FOR REFERENCE AND COORDINATION ONLY. THE CONTRACTOR SHALL VERIFY ALL BACKGROUND DIMENSIONS, BUILDING COMPONENTS AND CONDITIONS WITH THE FINAL SET OF ARCHITECTURAL DRAWINGS ISSUED FOR CONSTRUCTION.

FOUNDATION PLAN

1/8" = 1'-0"



Project Status ISSUED FOR ADDENDUM 2 03/28/2025

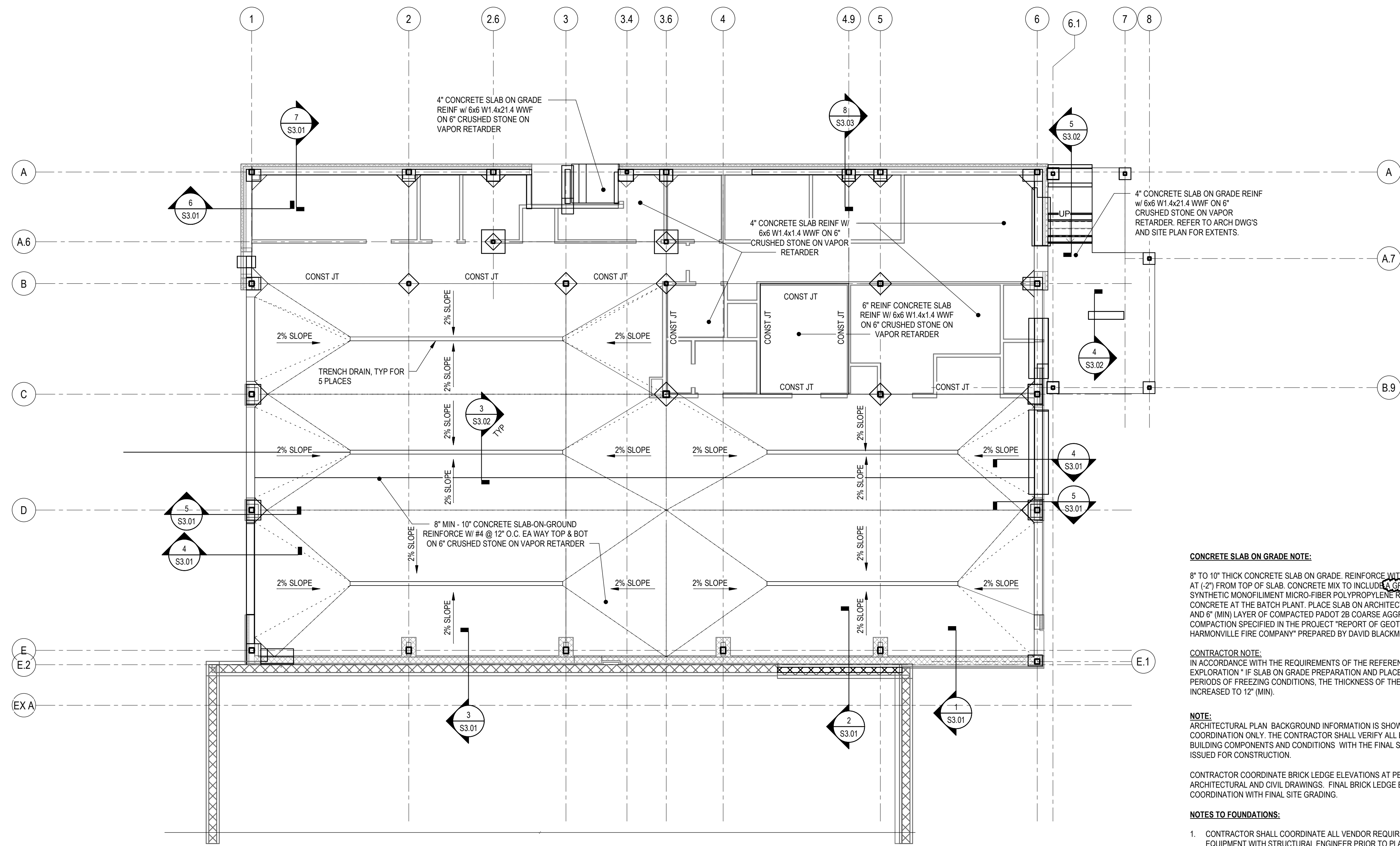
REVISIONS		SHEET TITLE	
MARK	DATE	DESCRIPTION	
1	3/21/25	ADDENDUM 1	
2	3/28/25	ADDENDUM 2	
FOUNDATION		FOUNDATION	
JOB NO.		91242	
DATE		03/06/2025	
SHEET NO.		S2.01	

NEW FIRE STATION
FOR THE

THE HARMONVILLE FIRE COMPANY
TOWNSHIP OF PLYMOUTH MONTGOMERY COUNTY, PA



KCB Architects
Eight East Broad Street
Plymouth, PA 15460-2471
P 215.388.5806
kcb-architects.com



CONCRETE SLAB ON GRADE NOTE:

8" TO 10" THICK CONCRETE SLAB ON GRADE. REINFORCE WITH #4 @ 12" O.C. EA WAY TOP & BOT AT (2") FROM TOP OF SLAB. CONCRETE MIX TO INCLUDE 4.0% CEMENT FIBER. 3/4" TO 1 1/2" LONG SYNTHETIC MONOFILAMENT MICRO-FIBER POLYPROPYLENE REINFORCEMENT ADDED TO THE CONCRETE AT THE BATCH PLANT. PLACE SLAB ON ARCHITECTURAL SPECIFIED VAPOR BARRIER AND 6" (MIN) LAYER OF COMPACTED PADOT 2B COARSE AGGREGATE. SUBGRADE TO COMPACTION SPECIFIED IN THE PROJECT "REPORT OF GEOTECHNICAL EXPLORATION HARMONVILLE FIRE COMPANY" PREPARED BY DAVID BLACKMORE & ASSOCIATES, INC.

CONTRACTOR NOTE:

IN ACCORDANCE WITH THE REQUIREMENTS OF THE REFERENCED "REPORT OF GEOTECHNICAL EXPLORATION" IF SLAB ON GRADE PREPARATION AND PLACEMENT ARE TO BE DONE DURING PERIODS OF FREEZING CONDITIONS, THE THICKNESS OF THE STONE CUSHION IS TO BE INCREASED TO 12" (MIN).

NOTE:

ARCHITECTURAL PLAN. BACKGROUND INFORMATION IS SHOWN FOR REFERENCE AND COORDINATION ONLY. THE CONTRACTOR SHALL VERIFY ALL BACKGROUND DIMENSIONS, BUILDING COMPONENTS AND CONDITIONS WITH THE FINAL SET OF ARCHITECTURAL DRAWINGS ISSUED FOR CONSTRUCTION.

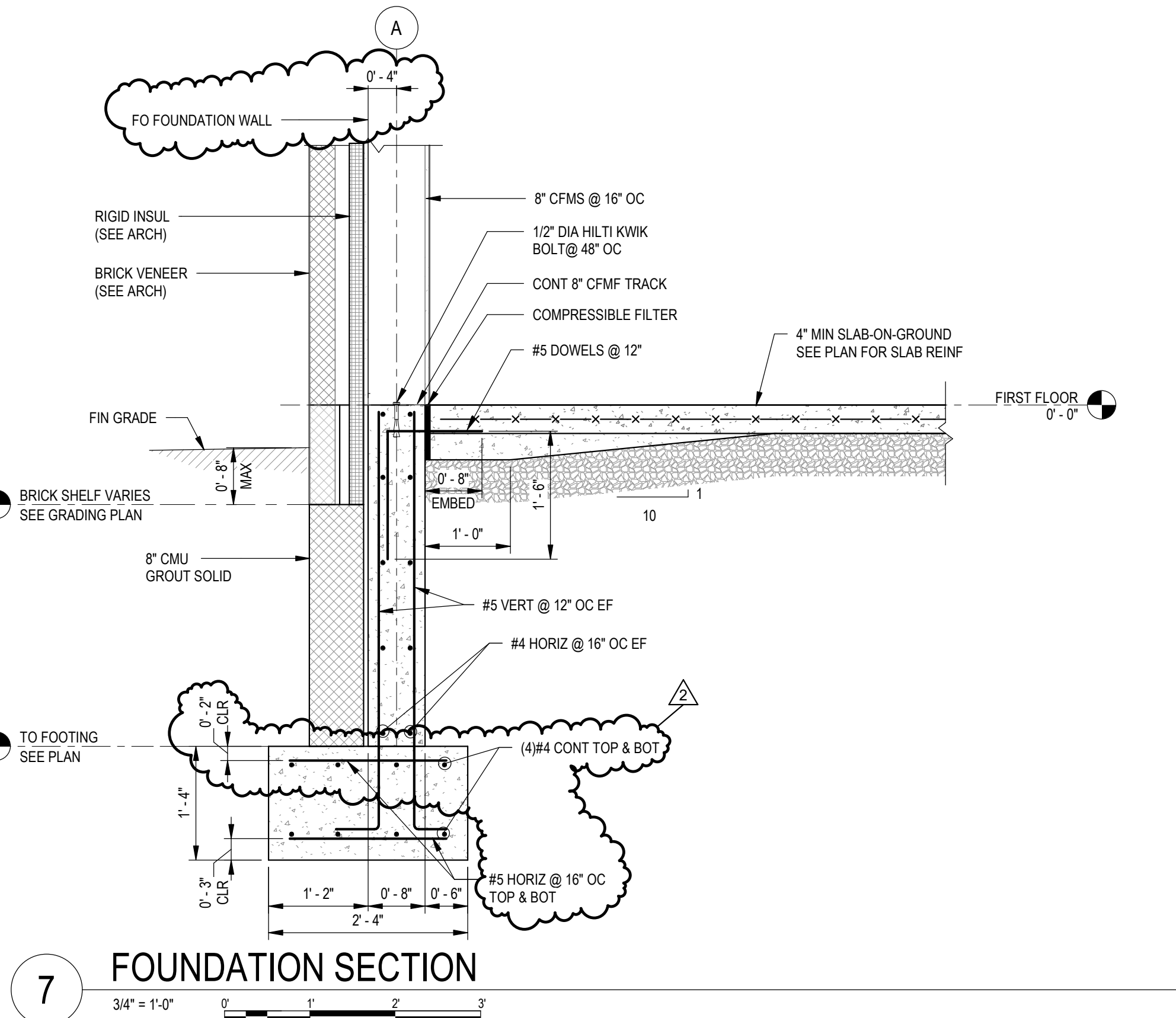
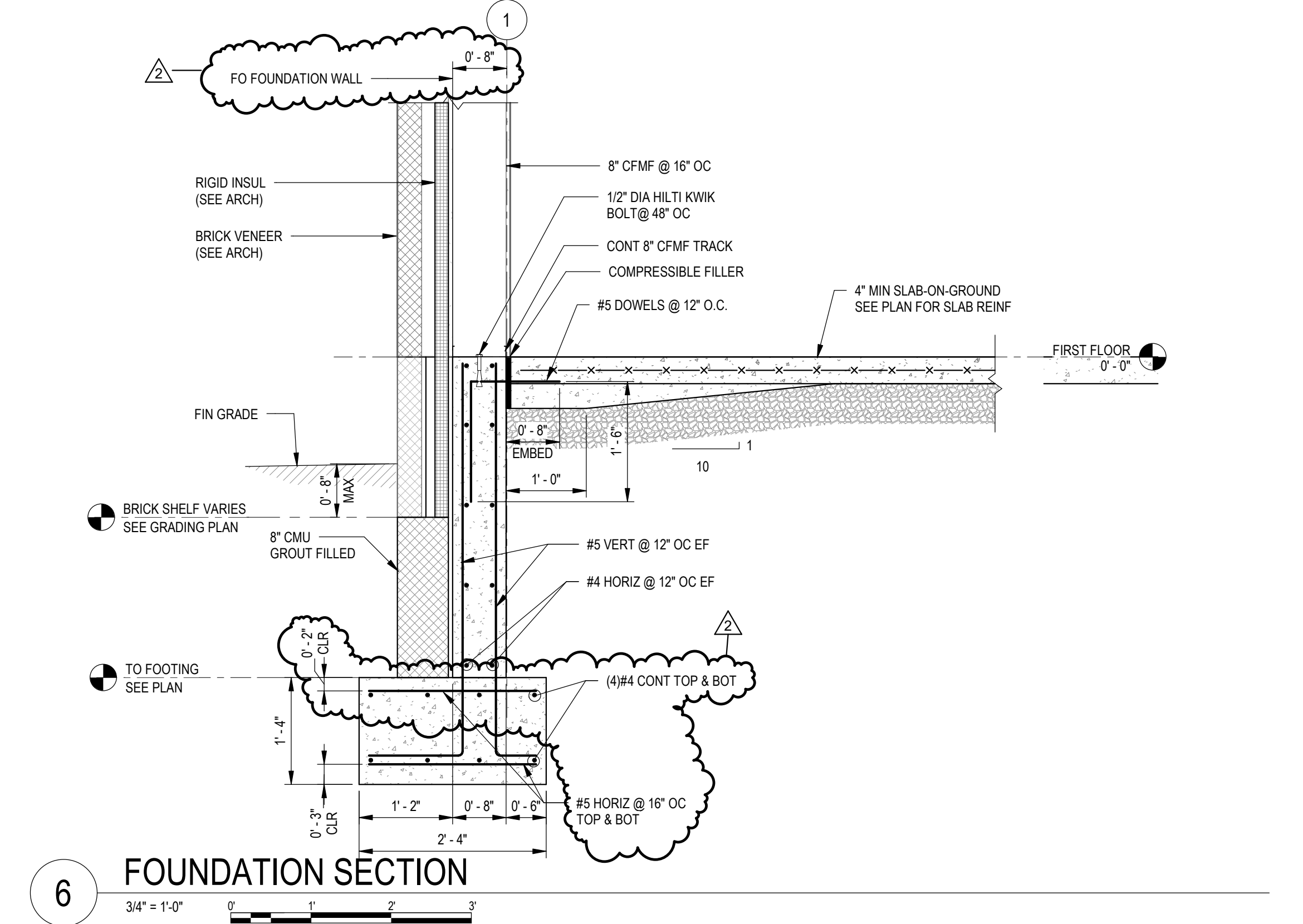
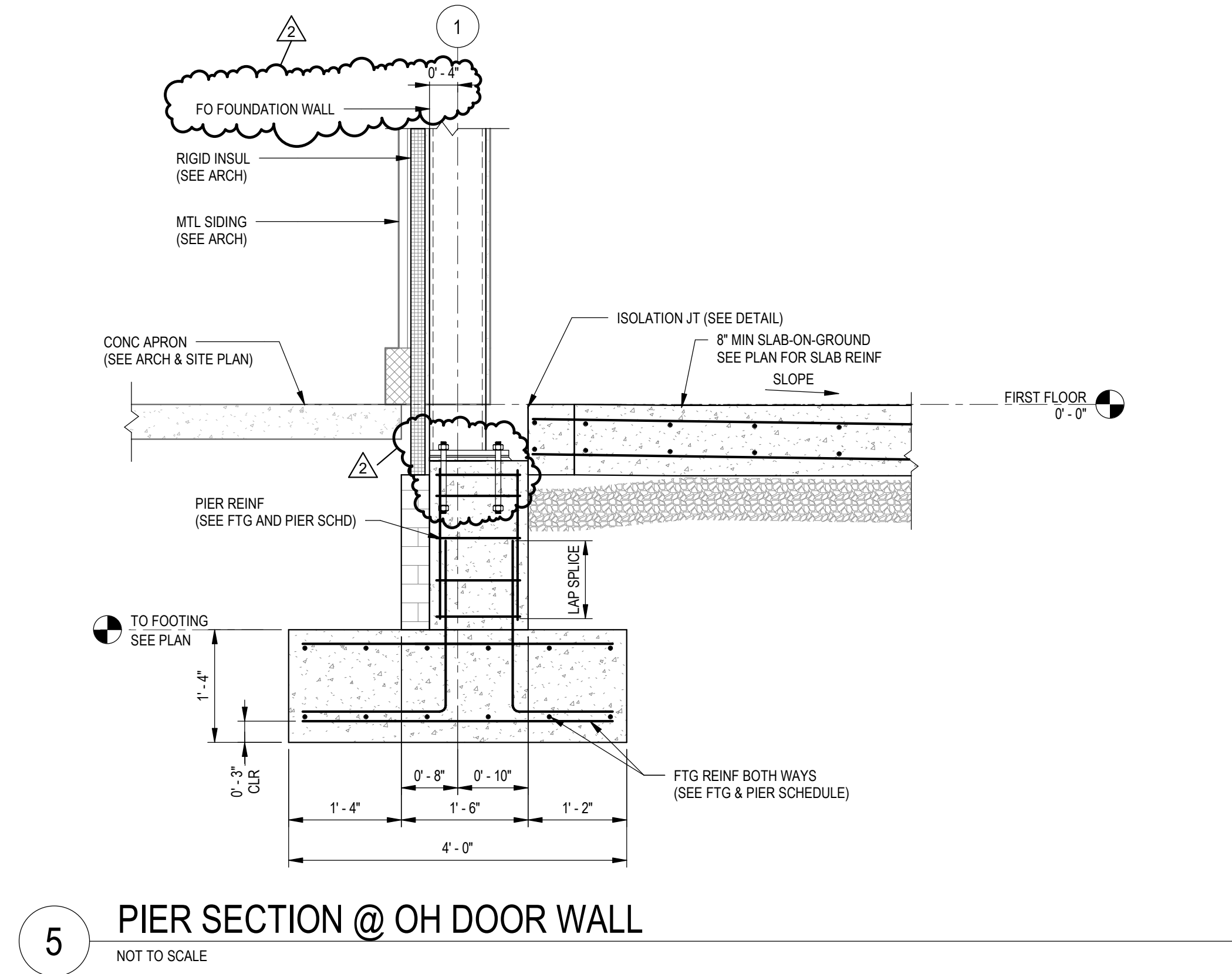
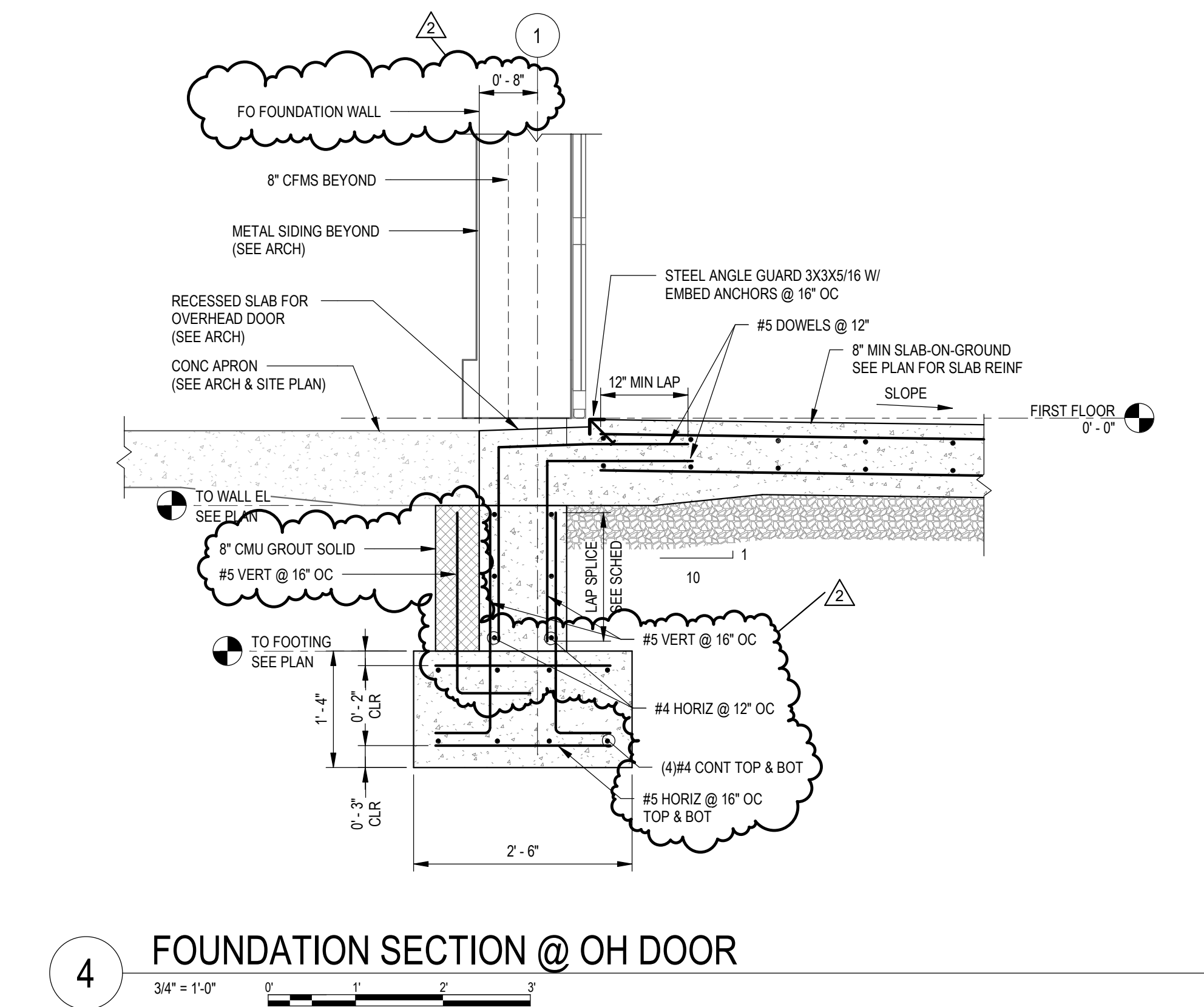
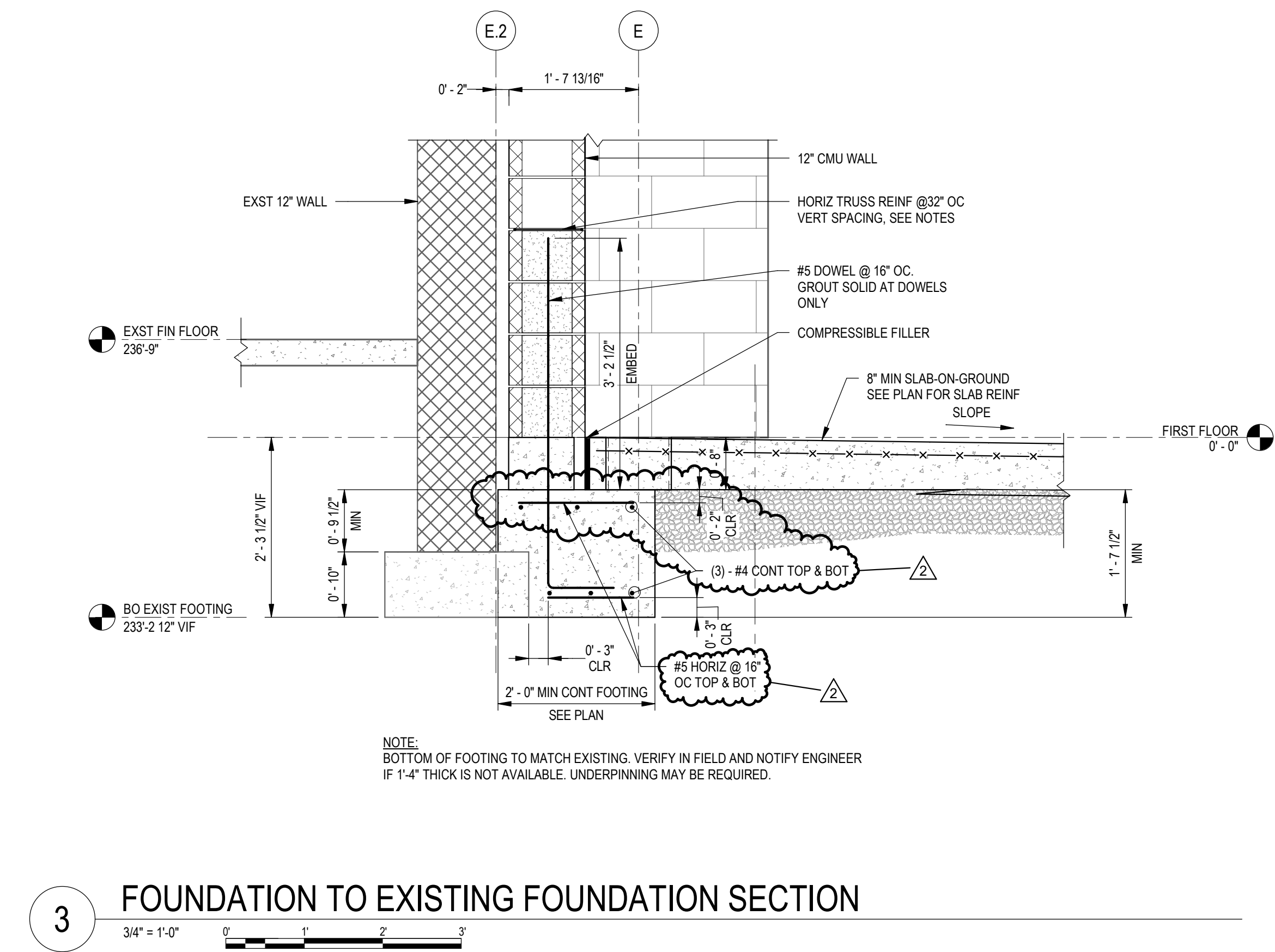
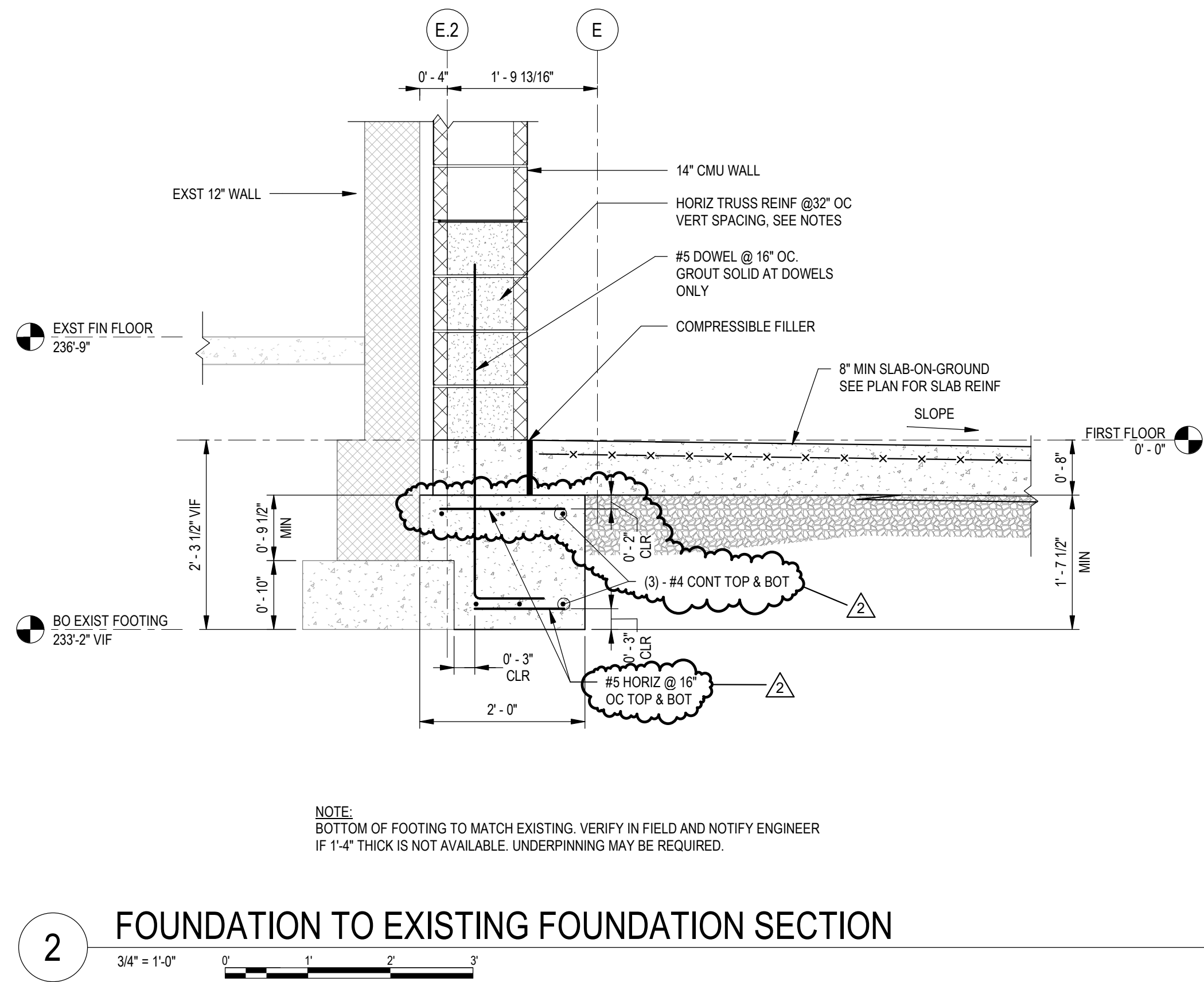
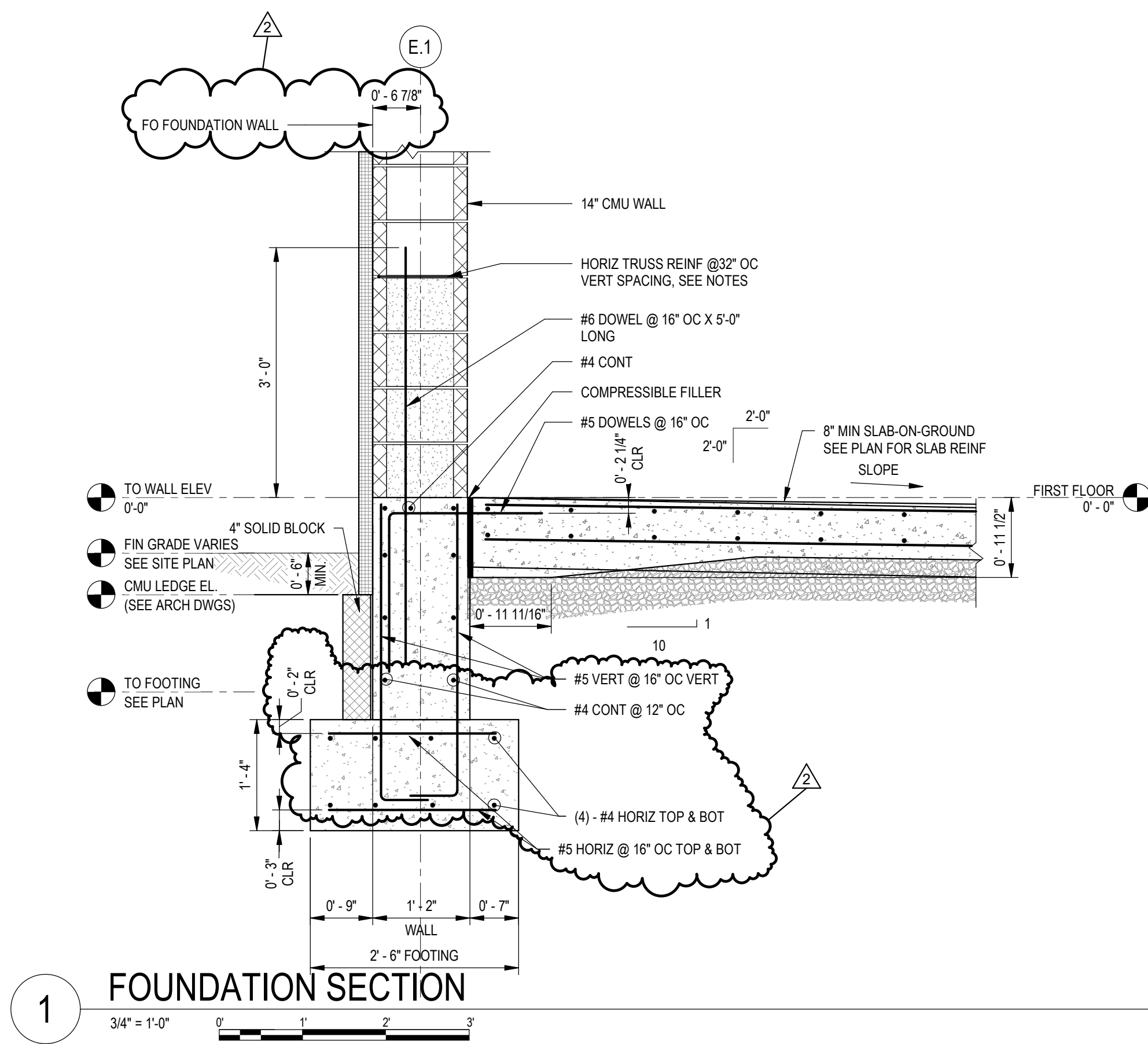
CONTRACTOR COORDINATE BRICK LEDGE ELEVATIONS AT PERIMETER OF BUILDING BETWEEN ARCHITECTURAL AND CIVIL DRAWINGS. FINAL BRICK LEDGE ELEVATIONS ARE TO BE SET IN COORDINATION WITH FINAL SITE GRADINGS.

NOTES TO FOUNDATIONS:

1. CONTRACTOR SHALL COORDINATE ALL VENDOR REQUIREMENTS FOR SPECIALIZED EQUIPMENT WITH STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE.
2. SEE SHEET S3.01 FOR GENERAL NOTES AND SHEET S3.01 FOR THE COLUMN SCHEDULE.
3. SEE DRAWINGS S3.03 AND S3.04 FOR TYPICAL SLAB, CONTROL JOINTS, AND CONSTRUCTION JOINT DETAILS.
4. PROVIDE (2) #4 x 4'-0" LONG REINFORCING BARS AT ALL RE-ENTRANT SLAB CORNERS. SEE DETAIL 6/S3.03.
5. CONTRACTOR SHALL SUBMIT LAY-OUT FOR SLAB ON GRADE CONSTRUCTION AND CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO PLACING CONCRETE. SEE SLAB DETAILS ON S3.04.
6. SEE ARCH DWGS. FOR DEPRESSION SLAB LOCATIONS AND DEPTHS. SEE SHEET S3.02 FOR CONSTRUCTION DETAILS.

REVISIONS	
MARK	DESCRIPTION
1	ADDENDUM 1
2	ADDENDUM 2

SHEET TITLE



Project Status ISSUED FOR ADDENDUM 2 03/28/2025

SECTIONS AND DETAILS

MARK	DATE	DESCRIPTION
1	3/21/25	ADDENDUM 1
2	3/28/25	ADDENDUM 2

SHEET TITLE

JOB NO.	91242
DATE	03/06/2025
SHEET NO.	

S3.01

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