

**ADDENDUM NO. 01 – PORTAGE PUBLIC SCHOOLS – HAVERHILL ELEMENTARY SCHOOL BP 6:
CONSTRUCTION**

July 27th, 2023

The following items are changes, clarifications, corrections of errors, etc., with respect to the Contract Documents previously issued. This addendum shall be a part of the Contract Documents.

Items listed below may or may not affect the cost of the Contractor's Proposal. Changes in cost shall be incorporated in the Contractor's Proposal.

ITEM No.1

DRAWING AND SPECIFICATION CHANGES AS NOTED BY TOWER PINKSTER - ATTACHED

- See Tower Pinkster write up
- Specification Sections: 08 7100
- Drawings: S002, S102, S103, S111, S112, S211, S212, S213, S500, S501, S511, S600, S601, S606, S607, S609, A111, A311, A401, E101A, E101D, E102D, E201A, E504, T101A, T101B, T101C, T101D, T102A, T102C, T441

ITEM No.2

Pre-Bid RFI's & Bid Scope Clarifications – ATTACHED

ITEM No.3

Pre-Bid Meeting Minutes & Sign-In Sheet - ATTACHED

ADDENDUM NO. 1 (BP 6)

DATE OF ISSUANCE:	July 26, 2023
PROJECT:	Haverhill Elementary School Bid Package 6: Construction 6633 Haverhill Avenue Portage, MI 49024
OWNER:	Portage Public Schools
ARCHITECT'S PROJECT NO.:	21-237.20
ORIGINAL BID ISSUE DATE:	June 30, 2023

SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes six (6) pages of text and the following documents:

- Bidding Documents: **None**
- Contract Conditions: **None**
- Specification Sections: **08 7100**
- Drawings: **S002, S102, S103, S111, S112, S211, S212, S213, S500, S501, S511, S600, S601, S606, S607, S609, A111, A311, A401, E101A, E101D, E102D, E201A, E504, T101A, T101B, T101C, T101D, T102A, T102C, T441**

CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

CHANGES TO BIDDING REQUIREMENTS

None.

CHANGES TO CONTRACT CONDITIONS

None.

CHANGES TO SPECIFICATIONS

ADD-1 Item No. S-1 - Door Hardware

Refer to Specification Section: 08 7100 Door Hardware

Revised the following hardware sets: 2.0, 4.0, 11.0, 17.1, 20.0, 55.1, 62.0.

CHANGES TO DRAWINGS

ADD-1 Item No. D-1 - General Notes II

Refer to Sheet(s): S002

Revised note RD-3 to account for special roof attachment zone on low roof

ADD-1 Item No. D-2 - Second Floor Framing Plan

Refer to Sheet(s): S102

Coordinated roof drain and rooftop equipment locations

Added additional rows of diagonal joist type bracing to account for eccentric loading on wide flange beams

Eliminated horizontal bracing at low roof and replaced with special roof attachment zone and revised beam size

Revised canopy framing

ADD-1 Item No. D-3 - Roof Framing Plan

Refer to Sheet(s): S103

Coordinated roof drain and rooftop equipment locations

Added additional rows of diagonal joist type bracing to account for eccentric loading on wide flange beams

Removed unnecessary drag strut connections, replaced former WF drag struts with joists

ADD-1 Item No. D-4 - First Floor CMU Plan

Refer to Sheet(s): S111

Visually clarified pier locations as previously required per sheet notes and details

Revised pier requirement beneath posts bearing on CMU walls

Clarified missing lintel sizes

Revised various lintel lengths and sizes as required per revised details in S500 and S600 series

ADD-1 Item No. D-5 - Second Floor CMU Plan

Refer to Sheet(s): S112

Visually clarified pier locations

Revised pier requirement beneath posts bearing on CMU walls

Clarified missing lintel sizes

Revised various lintel lengths and sizes as required per revised details in S500 and S600 series

Revised post size as required per revised details in S500 and S600 series

ADD-1 Item No. D-6 - Typical Slab on Grade Details

Refer to Sheet(s): S211

Clarified intent at depressed slab on grade

ADD-1 Item No. D-7 - Gathering Stair Partial Plan, Sections, and Schedule

Refer to Sheet(s): S212, S213

Added stair nosings per architectural drawings

Clarified attachment between secondary and primary gathering stair concrete pours

ADD-1 Item No. D-8 - Typical Steel Column Details

Refer to Sheet(s): S500

Clarified baseplate requirements at interior HSS4X4 posts

Clarified baseplate requirements at exterior HSS posts bearing on 12" CMU walls

ADD-1 Item No. D-9 - Steel Column Details

Refer to Sheet(s): S501

Revised canopy connection details

Provided detail for flange plates at exterior lintels supported by HSS posts

ADD-1 Item No. D-10 - Steel Beam Details

Refer to Sheet(s): S511

Revised canopy connection details

Provided detail to clarify requirements at skewed drag strut condition

Provided detail showing additional requirements at long lintel bearing plates

ADD-1 Item No. D-11 - Typical Masonry Details

Refer to Sheet(s): S600

Revised lintel veneer support plate weld requirements

ADD-1 Item No. D-12 - Typical Masonry Wall Details

Refer to Sheet(s): S601

Reduced deck attachment details to align with typical requirements and eliminate overhead welding

Clarified condition at various different HSS corner post locations

Added bottom flange plate requirement at lintels supported by steel posts

Clarified pier zone requirements above and below HSS corner posts

ADD-1 Item No. D-13 - Exterior Wall Sections

Refer to Sheet(s): S606

Clarified requirements for long exterior lintels

ADD-1 Item No. D-14 - Exterior Wall Sections

Refer to Sheet(s): S607

Clarified requirements for long exterior lintels

Reduced deck attachment details to align with typical requirements and eliminate overhead welding

Clarified potential geometric conflicts at beams supporting walls above

Clarified condition at special roof attachment zone

ADD-1 Item No. D-15 - Elevator Sections

Refer to Sheet(s): S609

Clarified SOMD requirements

Revised hoist beam to more appropriate size

ADD-1 Item No. D-16 - Canopy Details

Refer to Sheet(s): A111, A311

Updated canopy details 2/A111 and 3/A111. Added callout to building section 3/A311.

ADD-1 Item No. D-17 - Enlarged Toilet Plans

Refer to Sheet(s): A401

Provided depth of partition dimensions for Women's 153 and Men's 157.

Added keynote to Mirror, Toilet 243.

ADD-1 Item No. D-18 - Receptacle Circuit Adjustment

Refer to Sheet(s): E101A

Circuited receptacle to panel ER1B in Room Clinic 107

ADD-1 Item No. D-19 - Door Hardware

Refer to Sheet(s): E101A, T101A, T101C, T101D, T102C, T441

Updated door hardware configuration for doors 105B, 120, 130, 140, ST5B, and ST5D

ADD-1 Item No. D-20 - IT Room Receptacle Adjustments

Refer to Sheet(s): E101D, E102D, E504

Increase receptacles in DATA/IT Rooms D159 and 216

ADD-1 Item No. D-21 - Custodial Room EM Light

Refer to Sheet(s): E201A

Added EM light to Custodial Room 154

ADD-1 Item No. D-22 - Vestibule intercom and card reader

Refer to Sheet(s): T101A

Change the intercoms and card readers for doors V100A and 100A from mullion mount to standard wall mount, and to the adjacent wing walls.

ADD-1 Item No. D-23 - Data for Fire Panel

Refer to Sheet(s): T101A

Add one data drop for FAA & Generator Annunciator panel in Reception 100.

ADD-1 Item No. D-24 - Camera Locations

Refer to Sheet(s): T101A, T101B, T101C, T102A, T102C

Add new camera locations to Served 162, Receiving 168, Mechanical M170, first and second floors of Stair ST5, second floor of Stair ST3, and outside of Teacher Lounge 105. Relocate camera CE-07 to outside of Receiving 168.

END OF ADDENDUM.

SECTION 08 7100 - DOOR HARDWARE

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 commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding doors.
 - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Automatic operators.
 - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Hollow Metal Doors and Frames".
 - 2. Division 08 Section "Flush Wood Doors".
 - 3. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
 - 4. Division 28 Section "Access Control".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
 - 8. Michigan Building Code 2015, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

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1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
 1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.

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- c. Wiring instructions for each electronic component scheduled herein.
 - 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
 - D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
 - E. Informational Submittals:
 - 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
 - F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.
- 1.4 QUALITY ASSURANCE
- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
 - B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
 - C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
 - D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
 - E. Automatic Operator Supplier Qualifications: Power operator products and accessories are required to be supplied and installed through the Norton Preferred Installer (NPI) program. Suppliers are to be factory trained, certified, and a direct purchaser of the specified power operators and be responsible for the installation and maintenance of the units and accessories indicated for the Project.
 - F. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- G. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.
- H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.
 2. Plans for existing and future key system expansion.
 3. Requirements for key control storage and software.
 4. Installation of permanent keys, cylinder cores and software.
 5. Address and requirements for delivery of keys.
- I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 3. Review sequence of operation narratives for each unique access controlled opening.
 4. Review and finalize construction schedule and verify availability of materials.
 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- J. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
 - B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
 - C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
 - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

- C. Please note that ASSA ABLOY is transitioning the Yale Commercial brand to Arrow. This affects only the brand name; the products and product numbers will remain unchanged. The brand transition is expected to be complete in or about May of 2024, and products shipping after that time will be branded Arrow.
- D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches
 - Three Hinges: For doors with heights 61 to 90 inches
 - Four Hinges: For doors with heights 91 to 120 inches
 - For doors with heights more than 120 inches provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches
 - Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
 - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
 - 4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
 - 5. Manufacturers:
 - a. McKinney (MK) - TA/T4A Series, 5 knuckle.
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
 - 1. Where specified, provide modular continuous geared hinges that ship in two or three pieces and form a single continuous hinge upon installation.
 - 2. Manufacturers:
 - a. Pemko (PE).

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2.3 POWER TRANSFER DEVICES

- A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets with a 1-year warranty. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
1. Manufacturers:
 - a. McKinney (MK) - QC (# wires) Option.
- B. Electrified Quick Connect Continuous Geared Transfer Hinges: Provide electrified transfer continuous geared hinges with a removable service panel cutout accessible without de-mounting door from the frame. Furnish with Molex™ standardized plug connectors with sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
1. Manufacturers:
 - a. Pemko (PE) - SER-QC (# wires) Option.
- C. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
1. Manufacturers:
 - a. Securitron (SU) - EL-CEPT Series.
- D. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.
1. Manufacturers:
 - a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
 2. Furnish dust proof strikes for bottom bolts.
 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
 5. Manufacturers:
 - a. Rockwood (RO).
- B. Coordinators: ANSI/BHMA A156.3 door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
1. Manufacturers:
 - a. Rockwood (RO).
- C. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
1. Push/Pull Plates: Minimum .050 inchthick, size as indicated in hardware sets,with beveled edges, secured with exposed screws unless otherwise indicated.
 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 4. Pulls, where applicable, shall be provided with a 10" clearance from the finished floor on the push side to accommodate wheelchair accessibility.
 5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
 6. Manufacturers:
 - a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
1. Threaded mortise cylinders with rings and cams to suit hardware application.
 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
 4. Tubular deadlocks and other auxiliary locks.
 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 6. Keyway: Match Facility Restricted Keyway.

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- C. Cylinders for exterior doors: ASSA cylinders provided by Portage Public Schools.
- D. Cylinders for interior doors: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.
 - 1. Manufacturers:
 - a. Sargent (SA) - XC.
 - b. No Substitution.
- E. Keying System: Each type of lock and cylinders to be factory keyed.
 - 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 - 3. New System: Key locks to a new key system as directed by the Owner.
- F. Key Quantity: Provide the following minimum number of keys:
 - 1. Change Keys per Cylinder: Two (2)
 - 2. Master Keys (per Master Key Level/Group): Five (5).
 - 3. Construction Keys (where required): Ten (10).
- G. Construction Keying: Provide construction master keyed cylinders.
- H. Key Registration List (Bitting List):
 - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
 - 2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
 - 1. Manufacturers:
 - a. Lund Equipment (LU).
 - b. MMF Industries (MM).
 - c. Telkee (TK).

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
1. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180-degree viewing angle with protective covering to prevent tampering.
 2. Manufacturers:
 - a. Sargent Manufacturing (SA) - 8200 Series.
 - b. No Substitution.

2.8 ELECTROMECHANICAL LOCKING DEVICES

- A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below and in the hardware sets.
1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
 2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 3. Manufacturers:
 - a. Sargent Manufacturing (SA) - 8200 Series.
 - b. No Substitution.

2.9 ELECTRIC STRIKES

- A. Standard Electric Strikes: Electric strikes conforming to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability, fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
1. Manufacturers:
 - a. HES (HS) - 1500/1600 Series.

- B. Surface Mounted Rim Electric Strikes: Surface mounted rim exit device electric strikes conforming to ANSI/BHMA A156.31, Grade 1, and UL Listed for both Burglary Resistance and for use on fire rated door assemblies. Construction includes internally mounted solenoid with two heavy-duty, stainless steel locking mechanisms operating independently to provide tamper resistance. Strikes tested for a minimum of 500,000 operating cycles. Provide strikes with 12 or 24 VDC capability supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike. Strike requires no cutting to the jamb prior to installation.
1. Manufacturers:
 - a. HES (HS) - 9400/9500/9600/9700/9800 Series.
- C. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.10 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
 5. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
 6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 10. Rail Sizing: Provide exit device rails factory sized for proper door width application.

ADDENDUM NO. 1

11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets.

1. Exit devices shall have no catch points.
2. Exit devices shall have no visible plastic.
3. Exit devices shall have concealed hex key dogging.
4. Exit devices shall have dogging and chassis indicators as specified in the hardware sets. Chassis indicator to show locked/unlocked status of exterior trim, dogging indicator to have both passive and active options.
5. Exit Devices shall be constructed of all stainless steel.
6. Exit device latch to be stainless steel, pullman type, with deadlock feature and a 10-year warranty.
7. Exit devices shall have narrow or wide style exterior trim as specified in the hardware sets.
8. Concealed vertical rod exit devices shall have center case adjustability.
9. Exit devices shall not require wire routing through the door for electromechanical functions.
10. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - PED4000 / PED5000 Series.
 - b. No Substitution.

C. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.

1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.
3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
4. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - PED4000 / PED5000 Series.
 - b. No Substitution.

2.11 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

ADDENDUM NO. 1

3. Cycle Testing: Provide closers which have surpassed 15 million cycles.
 4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
 5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
 7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard..
1. Manufacturers:
 - a. Norton Rixson (NO) - 7500 Series.
 - b. No Substitution.

2.12 SURFACE MOUNTED CLOSER HOLDERS

- A. Electromagnetic Door Holders: ANSI A156.15 electromagnetic door holder/releases with a minimum 20 to 40 pounds holding power and single coil construction able to accommodate 12VDC, 24VAC, 24VDC and 120VAC. Coils to be independently wound, employing an integral fuse and armatures to include a positive release button.
1. Manufacturers:
 - a. Norton Rixson (RF) - 980/990 Series.

2.13 ARCHITECTURAL TRIM

- A. Door Protective Trim
1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

ADDENDUM NO. 1

3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inchthick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
 - a. Rockwood (RO).

2.14 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 1. Manufacturers:
 - a. Rockwood (RO).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
 1. Manufacturers:
 - a. Norton Rixson (RF).

2.15 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
 1. Pemko (PE).

2.16 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.17 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

ADDENDUM NO. 1

- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

ADDENDUM NO. 1

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 1. Quantities listed are for each pair of doors, or for each single door.
 2. The supplier is responsible for handing and sizing all products.
 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. OT - Other
4. RO - Rockwood
5. RU - Corbin Russwin
6. SA - SARGENT
7. AD - Adams Rite
8. AA - ASSA High Security Locks
9. HS - HES
10. RF - Rixson
11. NO - Norton
12. SU - Securitron

Hardware Sets

Set: 1.0

Doors: V160A

2	Continuous Hinge	CFM__SLF-HD1-M x QC12		PE	08 7100	⚡
1	Removable Mullion	910KM		RU	08 7100	
1	Rim Exit Device, Exit Only	PED5200 EO M110 MELR M48 M52	630	RU	08 7100	⚡
1	Rim Exit Device, Exit Only	PED5200 EO M110 M91 MELR M48 M52	630	RU	08 7100	⚡
3	Mortise Cylinder	- Provided by Owner		AA	08 7100	
2	Vandal Resistant Trim	VRT22	US32D	RO	08 7100	
2	Conc Overhead Stop	6-X36	630	RF	08 7100	
1	Automatic Opener (double door)	D6021 (D2) - confirm head detail	689	NO	087113	⚡
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
2	Sweep	29326CNB x TKSP8		PE	08 7100	
1	Removable Mullion Seal	5110BL x height of mullion		PE	08 7100	
2	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
2	ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK	08 7100	⚡
1	Door Switch	505 (6" x 6")		NO	08 7100	⚡
1	Door Switch	504 - vestibule		NO	08 7100	⚡
2	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡

ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 19
7/26/2023**

1	Power Supply	- Provided by Security Contractor	SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor	00	281300	

Notes: Operation Description:

Door normally closed and locked. Valid use of card reader outside retracts latch bolt of active leaf permitting entry. Dogging of latch bolts controlled by use of key inside. No key outside.

Activating actuator switch in vestibule retracts the latch bolt of the exit device, if locked, and initiates automatic operator cycle.

Activating exterior actuator switch will initiate cycle of automatic operator if the latch bolt is in the retracted position (push /pull operation). Utilize latch bolt monitor in exit device for this function.

After hours - access by valid use of card reader outside / automatic operator will only operate if card reader is authorized first.

Automatic operators and exit devices shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 2.0

Doors: 150C

24	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
4	Continuous Hinge	CFM__SLF-HD1-M x QC12		PE	08 7100	⚡
1	Removable Mullion	910KM		RU	08 7100	
1	Rim Exit Device, Exit Only	PED5200 EO M110 M48-M52 M51	630	RU	08 7100	
1	Rim Exit Device, Nightlatch	PED5200 K157ET M110 MELR-M48 M52 M51	630	RU	08 7100	⚡
13	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Rim Cylinder	- Provided by Owner		AA	08 7100	
1	Vandal Resistant Trim	VRT22 C	US32D	RO	08 7100	
2	Surface Closer	CPS7500 x 6890 x 6891	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
2	Sweep	29326CNB x TKSP8		PE	08 7100	
1	Removable Mullion Seal	5110BL x height of mullion		PE	08 7100	
4	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
4	ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK	08 7100	⚡
2	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
4	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
4	Card Reader	- Provided by Security Contractor		00	281300	
4	Electric Power Transfer	EL-CEPT	630	SU	08 7100	⚡

ADDENDUM NO. 1

~~Notes: Operation Description: Doors normally closed and locked. Key override outside retracts latch bolt of active leaf. Valid use of card reader outside temporarily retracts latch bolt of exit device electronically allowing access. Free egress always permitted.~~

Set: 3.0

Doors: V100B, V100C

1	Continuous Hinge	CFM__SLF-HD1-M x QC12		PE	08 7100	⚡
1	Fixed Mullion	In Frame		OT		
1	Rim Exit Device, Exit Only	PED5200 EO M110 MELR M48 M52	630	RU	08 7100	⚡
1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Vandal Resistant Trim	VRT22	US32D	RO	08 7100	
1	Conc Overhead Stop	6-X36	630	RF	08 7100	
1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO	08 7100	⚡
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK	08 7100	⚡
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡

Notes: ** Fixed mullion in frame.

Doors normally closed and locked. Key inside controls manual dogging of latch bolt for push / pull operation. Doors shall unlock upon schedule as determined in access control system. Free egress always permitted.

Automatic operators and exit devices shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 4.0

Doors: V100A

1	Continuous Hinge	CFM__SLF-HD1-M x QC12		PE	08 7100	⚡
1	Rim Exit Device, Nightlatch	PED5200 K157ET M110 M91 MELR M48 M52	630	RU	08 7100	⚡

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 21
7/26/2023**

1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Rim Cylinder	- Provided by Owner		AA	08 7100	
1	Vandal Resistant Trim	VRT22 C	US32D	RO	08 7100	
1	Conc Overhead Stop	6-X36	630	RF	08 7100	
1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO	08 7100	⚡
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK	08 7100	⚡
1	Intercom / Video Station	- Provided by Security Contractor		OT		
24	Door Switch	505 (6" x 6")		NO	08 7100	⚡
4	Door Switch (jamb mount)	503		NO	08 7100	⚡
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor		00	281300	

Notes: Operation Description:

Door normally closed and locked. Valid use of card reader outside or activation of remote push button in intercom system shall unlock exit device permitting entry. Dogging of latch bolt controlled by use of key inside. Door may be unlocked and used as push / pull door as programmed by access control system and then relocked at scheduled times.

Activating actuator switch in vestibule retracts the latch bolt of the exit device, if locked, and initiates automatic operator cycle.

Activating exterior actuator switch will initiate cycle of automatic operator if the latch bolt is in the retracted position (push /pull operation). Utilize latch bolt monitor in exit device for this function.

After hours - access by valid use of card reader outside / automatic operator will only operate if card reader is authorized first.

Automatic operator and exit device shall be connected to smoke alarm system. Upon activation of smoke alarm, the door shall unlock and the automatic operator shall cycle open immediately. Door shall remain open until system is manually reset.

Set: 5.0

Doors: M170B

2	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
1	Removable Mullion	910KM		RU	08 7100	
1	Rim Exit Device, Exit Only	PED5200 EO M110 M48 M52	630	RU	08 7100	

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**DOOR HARDWARE
08 7100 - 22
7/26/2023**

1	Rim Exit Device, Nightlatch	PED5200 K157ET M110 M48 M52	630	RU	08 7100	
3	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Rim Cylinder	- Provided by Owner		AA	08 7100	
1	Vandal Resistant Trim	VRT22 C	US32D	RO	08 7100	
2	Surface Closer	CPS7500 x 6890 x 6891	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
2	Sweep	29326CNB x TKSP8		PE	08 7100	
2	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡

Notes: Function: Doors normally closed and locked. Key outside active leaf retracts latch bolt. Exit devices equipped with keyed cylinder inside to control dogging of latch bolt (push / pull operation). Free egress always permitted.

Set: 6.0

Doors: E172B

1	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
1	Rim Exit Device, Nightlatch	PED5200 K157ET M110 M48 M52	630	RU	08 7100	
1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Rim Cylinder	- Provided by Owner		AA	08 7100	
1	Vandal Resistant Trim	VRT22 C	US32D	RO	08 7100	
1	Surface Closer	CPS7500 x 6890 x 6891	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡

Notes: Function: Key outside retracts latch bolt. Keyed cylinder inside controls latch bolt dogging. Free egress always permitted.

Set: 7.0

Doors: 112E, 116B, 120, 130, 140

1	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
1	Rim Exit Device, Exit Only	PED5200 EO M110 M48 M52	630	RU	08 7100	
1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Electric Strike	9600	630	HS	08 7100	⚡

ADDENDUM NO. 1

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**DOOR HARDWARE
08 7100 - 23
7/26/2023**

1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100	⚡
1	Vandal Resistant Trim	VRT22	US32D	RO	08 7100	
1	Surface Closer	CPS7500 x 6890 x 6891	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor		00	281300	

Notes: Door normally closed and locked. Valid use of card reader outside unlocks electric strike permitting entry. Keyed cylinder inside controls dogging of latch bolt. No key outside. Free egress always permitted.

Set: 8.0

Doors: ST4B, ST5C

1	Continuous Hinge	10BEFM__SLF-HD1-M		PE	08 7100	
1	Rim Exit Device, Exit Only	PED5200 EO M110 M48 M52	613E	RU	08 7100	
1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Surface Closer	CPS7500 x 6890 x 6891	613E	NO	08 7100	
1	Threshold	253x4-10BE-FG MSES25SS		PE	08 7100	
1	Sweep	29326-10BE-NB x TKSP		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡

Notes: Exit only. Keyed cylinder inside controls dogging of latch bolt. Free egress always permitted.

Set: 9.0

Doors: 105B

1	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
1	Paddle Operator	4591 ("PUSH")	US26D	AD	08 7100	
1	Deadlatch	4900	628	AD	08 7100	

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 24
7/26/2023**

1	Electric Strike	7410M ELX	630	AD	08 7100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	Push Bar	RM3112 Mtg-Type 11XHD	US32D-316	RO	08 7100	
1	Vandal Resistant Trim	VRT22	US32D	RO	08 7100	
1	Surface Closer	CPS7500	689	NO	08 7100	
1	Blade Stop Spacer	6891	689	NO	08 7100	
1	Arm Support Bracket	6890	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor		00	281300	

Notes: Door normally closed and locked. Valid use of card reader outside releases electric strike permitting entry. No key outside.
Free egress always permitted.

Set: 9.1

Doors: 168C

1	Continuous Hinge	CFM__SLF-HD1-M		PE	08 7100	
1	Paddle Operator	4591 ("PUSH")	US26D	AD	08 7100	
1	Deadlatch	4900	628	AD	08 7100	
1	Electric Strike	7410M ELX	630	AD	08 7100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	Push Bar	RM3112 Mtg-Type 11XHD	US32D-316	RO	08 7100	
1	Vandal Resistant Trim	VRT22	US32D	RO	08 7100	
1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO	08 7100	⚡
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡

ADDENDUM NO. 1

**PROJECT NO. 21237.20
HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 25
7/26/2023**

1	Position Switch	- Provided by Security Contractor	SU	08 7100	⚡
1	Power Supply	- Provided by Security Contractor	SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor	00	281300	

Notes: Door normally closed and locked. Valid use of card reader outside releases electric strike permitting entry. No key outside.

Free egress always permitted.

Automatic operator and electric strike shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operator shall cycle open immediately. Door shall remain open until system is manually reset.

Set: 10.0

Doors: [V100E](#), [V100F](#)

1	Continuous Hinge	CFM__SLF-HD1-M x QC12	PE	08 7100	⚡
1	Fixed Mullion	In Frame	OT		
1	Rim Exit Device, Exit Only	PED5200 EO M110 MELR M48 M52	630	RU 08 7100	⚡
1	Mortise Cylinder	- Provided by Owner	AA	08 7100	
1	Vandal Resistant Trim	VRT22	US32D	RO 08 7100	
1	Conc Overhead Stop	6-X36	630	RF 08 7100	
1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO 08 7100	⚡
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)	MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to exit device rail)	MK	08 7100	⚡
1	Power Supply	- Provided by Security Contractor	SU	08 7100	⚡

Notes: ** Fixed mullion in frame.

Doors normally closed and locked. Key inside controls manual dogging of latch bolt for push / pull operation. Doors shall unlock upon schedule as determined in access control system.

Free egress always permitted.

Automatic operators and exit devices shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 11.0

Doors: [V100D](#)

1	Continuous Hinge	CFM__SLF-HD1-M x QC12	PE	08 7100	⚡
1	Rim Exit Device, Nightlatch	PED5200 K157ET M110 M91 MELR	630	RU 08 7100	⚡

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 26
7/26/2023**

	M48 M52			
1 Mortise Cylinder	- Provided by Owner		AA 08 7100	
1 Rim Cylinder	- Provided by Owner		AA 08 7100	
1 Vandal Resistant Trim	VRT22 C	US32D	RO 08 7100	
1 Conc Overhead Stop	6-X36	630	RF 08 7100	
1 Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO 08 7100	⚡
1 ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK 08 7100	⚡
1 ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK 08 7100	⚡
4 Intercom / Video Station	- Provided by Security Contractor		OT	
2 Door Switch	503 505 (6" x 6")		NO 08 7100	⚡
4 Door Switch (jamb mount)	503		NO 08 7100	⚡
1 Power Supply	- Provided by Security Contractor		SU 08 7100	⚡
1 Card Reader	- Provided by Security Contractor		00 281300	

Notes: Operation Description:

Door normally closed and locked. Valid use of card reader in vestibule ~~or activation of remote release button in intercom system~~ shall unlock exit device permitting entry. Dogging of latch bolt controlled by use of key inside. Door may be unlocked and used as push / pull door as programmed by access control system and then relocked at scheduled times.

Activating actuator switch in corridor retracts the latch bolt of the exit device, if locked, and initiates automatic operator cycle.

Activating actuator switch in vestibule will initiate cycle of automatic operator if the latch bolt is in the retracted position (push /pull operation). Utilize latch bolt monitor in exit device for this function.

After hours - access by valid use of card reader in vestibule / automatic operator will only operate if card reader is authorized first.

Automatic operator and exit device shall be connected to smoke alarm system. Upon activation of smoke alarm, the door shall unlock and the automatic operator shall cycle open immediately. Door shall remain open until system is manually reset.

Provide rough-in only for future intercom system

Set: 12.0

Doors: **V160B**

2 Continuous Hinge	CFM__SLF-HD1-M		PE 08 7100	
2 Push Bar	RM3112 Mtg-Type 11XHD	US32D-316	RO 08 7100	
2 Vandal Resistant Trim	VRT22	US32D	RO 08 7100	
2 Conc Overhead Stop	6-X36	630	RF 08 7100	
1 Automatic Opener (double door)	D6021 (D2) - confirm head detail	689	NO 087113	⚡
1 Door Switch (jamb mount)	503		NO 08 7100	⚡

ADDENDUM NO. 1

Notes: Doors are push / pull operation. Activation of door switch in vestibule or on corridor side of door shall cycle automatic operator on one leaf.

Automatic operators shall be connected to smoke alarm system. Upon activation of smoke alarm, the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 13.0

Doors: 120H, 140H, 220H, 240H

1	Continuous Hinge	CFM__HD1-M		PE	08 7100	
1	Continuous Hinge	CFM__HD1-M x PT		PE	08 7100	
1	Fire Rated Conc Vert Rod, Exit Only	PED5860B EO M55 M110	630	RU	08 7100	
1	Fire Rated Conc Vert Rod, Storeroom	PED5860B N959PT M55 M110 MELR	630	RU	08 7100	⚡
1	Rim Cylinder	11 34 GGMK	US15	SA	08 7100	
2	Surface Closer	7500 - pull side mount	689	NO	08 7100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
2	Electromagnetic Holder	994M	689	RF	08 7100	⚡
1	Smoke / Sound Seal	S88BL - head and jams		PE	08 7100	
1	Meeting Edge Seal	S772C x height of door		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to exit device lever trim)		MK	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor		00	281300	
1	Electric Power Transfer	EL-CEPT	630	SU	08 7100	⚡

Notes: Doors normally held open by electromagnetic door holders on adjacent walls. Power for electromagnetic holders shall be connected to fire alarm system and lockdown system in order that doors close immediately.

Doors can be manually closed at select times to prevent access to the learning spaces during after hours activities.

When doors are closed and locked, key override outside retracts latch bolt of active leaf. Valid use of card reader outside temporarily retracts latch bolt of active leaf permitting entry. Free egress always permitted.

Set: 15.0

Doors: E172A, M170A

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100	
1	Exit Device (rim, storeroom)	PED5200A N959PT M110	630	RU	08 7100	

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 28
7/26/2023**

1	Rim Cylinder	11 34 GGMK	US15	SA	08 7100
1	Surface Closer	PR7500	689	NO	08 7100
1	Arm Support Bracket	6890	689	NO	08 7100
1	Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100

Notes:>(* Size hinges accordingly for 180 degree swing.

Key outside retracts latch bolt. Outside lever rigid.
Free egress always permitted.

Set: 17.0

Doors: [ST4A](#), [ST4C](#)

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Exit Device (rim, passage)	PED5200A N910PT M110	630	RU	08 7100
1	Surface Closer	7500 - pull side mount	689	NO	08 7100
1	Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Passage lever trim.
Free egress always permitted.

Set: 17.1

Doors: [ST3E](#)

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Exit Device (rim, passage)	PED5200A N910PT M110	630	RU	08 7100
1	Electric Strike	9500-LBSM	630	HS	08 7100 ⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100 ⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100 ⚡
1	Automatic Opener (single door)	6011 - confirm head detail	689	NO	08 7100 ⚡
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100 ⚡

ADDENDUM NO. 1

1	Power Supply	--Provided by Security Contractor Use door operator power supply for electric strike	SU	08 7100	⚡
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Notes: Passage lever trim.
 Free egress always permitted.

Automatic operator and electric strike shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operator shall cycle open immediately. Door shall remain open until system is manually reset.

Set: 18.0

Doors: 122A, 126, 132A, 134A, 144A, 146, 222A, 226, 232A, 234A, 244A, 246

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Exit Device (rim, classroom security)	PED5242 N942PT M110 M47	630	RU	08 7100
1	Mortise Cylinder	11 41 GGK	US15	SA	08 7100
1	Rim Cylinder	11 34 GGK	US15	SA	08 7100
1	Surface Closer	J7500H (H.O.) x mounting plate to suit application	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
1	Threshold	173A		PE	08 7100
1	Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1	Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Key outside retracts latch bolt. Key inside locks or unlocks outside lever trim.
 Free egress always permitted.

Set: 19.0

Doors: 112A

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Fire Exit Device (rim, classroom security)	PED5242A N942PT M110 M47	630	RU	08 7100
1	Mortise Cylinder	11 41 GGK	US15	SA	08 7100
1	Rim Cylinder	11 34 GGK	US15	SA	08 7100
1	Surface Closer	J7500 x mounting plate to suit application	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 30
7/26/2023**

1	Threshold	173A	PE	08 7100
1	Sound Seal	350CSPK TKSP - head and jamb	PE	08 7100
1	Conc. Auto. Door Bottom	STC411APK x door width	PE	08 7100

Notes: ** Door 112A - size hinges accordingly for 180 degree swing.

Key outside retracts latch bolt. Key inside locks or unlocks outside lever trim.
Free egress always permitted.

Set: 19.1

Doors: 116A

6	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Removable Mullion	CR908BKM		RU	08 7100
1	Fire Rated Rim Exit, Exit Only	PED5200A EO M110	630	RU	08 7100
1	Fire Exit Device (rim, classroom security)	PED5242A N942PT M110 M47	630	RU	08 7100
2	Mortise Cylinder	11 41 GGMK	US15	SA	08 7100
1	Rim Cylinder	11 34 GGMK	US15	SA	08 7100
2	Surface Closer	J7500 x mounting plate to suit application	689	NO	08 7100
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
2	Wall Stop	406	US32D	RO	08 7100
1	Threshold	173A		PE	08 7100
1	Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
2	Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100
1	Meeting Edge Seal	S772C x height of door		PE	08 7100

Notes: Active Leaf (RHR leaf): Key outside retracts latch bolt. Key inside locks or unlocks outside lever trim.
Free egress always permitted.
Inactive Leaf (LHR leaf): Exit only.

Set: 20.0

Doors: 160A

2	Continuous Hinge	CFM__HD1-M x PT		PE	08 7100
1	Removable Mullion	910KM		RU	08 7100
2	Rim Exit Device, Classroom	ED5200 N955ET M110 MELR	630	RU	08 7100 ⚡
1	Mortise Cylinder	11 41 GGMK	US15	SA	08 7100
2	Rim Cylinder	11 34 GGMK	US15	SA	08 7100

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 31
7/26/2023**

1	Automatic Opener (double door)	D6021 (D2) - confirm head detail	689	NO	087113	⚡
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
2	Wall Stop	406	US32D	RO	08 7100	
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100	
1	Removable Mullion Seal	5110BL x height of mullion		PE	08 7100	
2	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
2	ElectroLynx Harness	QC-C (power transfer to exit device rail)		MK	08 7100	⚡
1	Power Supply	–Provided by Security Contractor Use door operator power supply for electric strike		SU	08 7100	⚡
2	Electric Power Transfer	EL-CEPT	630	SU	08 7100	⚡

Notes: Key outside locks or unlocks lever trim. Free egress always permitted.

Automatic operators and exit devices shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 21.0

Doors: [E145](#), [E245](#)

6	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Top Flush Bolt	2905	US26D	RO	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
2	Surf Overhead Stop	9-X36	652	RF	08 7100
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
2	Silencer	608 / 609		RO	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 22.0

Doors: [M171](#)

6	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Top Flush Bolt	2905	US26D	RO	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Coordinator	2672	US28	RO	08 7100
1	Filler Bar	FB-1 / FB-2	US28	RO	08 7100
2	Mounting Bracket	2601AB / 2601C	US28	RO	08 7100

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 32
7/26/2023**

2	Surface Closer	PR7500	689	NO	08 7100
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
2	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
1	Meeting Edge Seal	S772C x height of door		PE	08 7100

Notes: ** Size hinges accordingly for 180 degree swing.

Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 23.0

Doors: 116K, 164

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 24.0

Doors: E173

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Surface Closer	CPS7500	689	NO	08 7100
1	Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 25.0

Doors: 104, 106, 108

Description: Office

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Office Lock	11 V01 8205 LNL GGMK x LB thumb	US26D	SA	08 7100

ADDENDUM NO. 1

	turn			
1 Wall Stop	406	US32D	RO	08 7100
3 Silencer	608 / 609		RO	08 7100

Notes: Latch operated by lever either side, unless outside lever is locked or unlocked by key outside or thumb turn inside. Outside lever is unlocked by key outside or thumb turn inside. Latch is retracted by key outside when outside lever is locked. Inside lever always free.

Set: 25.1

Doors: 102, 107

Description: Office

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1 Office Lock	11 V01 8205 LNL GGMK x LB thumb turn	US26D	SA	08 7100
1 Conc Overhead Stop	2-X36	652	RF	08 7100
3 Silencer	608 / 609		RO	08 7100

Notes: Latch operated by lever either side, unless outside lever is locked or unlocked by key outside or thumb turn inside. Outside lever is unlocked by key outside or thumb turn inside. Latch is retracted by key outside when outside lever is locked. Inside lever always free.

Set: 26.0

Doors: 105A

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1 Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100
1 Wall Stop	406	US32D	RO	08 7100
3 Silencer	608 / 609		RO	08 7100

Notes: Key from either side locks and unlocks lever outside.
Key from either side retracts latch bolt.
Lever outside retracts latch bolt, except when outside lever is locked by key.
Lever inside always retracts latch bolt for egress.

Set: 28.0

Doors: 100T, 122T, 126T, 127-5T, 128T, 131T, 143-5T, 227-5T, 243-5T

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 34
7/26/2023**

1	Privacy Lock	V21 8265 LNL x LB thumb turn	US26D	SA	08 7100
1	Surface Closer	7500 - pull side mount	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100
1	Coat Hook	RM828	US32D	RO	08 7100

Notes: Install coat hook at 48" centerline above floor.

Set: 28.1

Doors: 107T

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Privacy Lock	V21 8265 LNL x LB thumb turn	US26D	SA	08 7100
1	Surface Closer	CPS7500	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100
1	Coat Hook	RM828	US32D	RO	08 7100

Notes: Install coat hook at 48" centerline above floor.

Set: 29.0

Doors: D159

3	Hinge, Full Mortise	TA2714 (NRP)	US26D	MK	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Electric Strike	1500C	630	HS	08 7100 ⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100 ⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100 ⚡
1	Surface Closer	7500 - pull side mount	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100 ⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100 ⚡
1	Card Reader	- Provided by Security Contractor		00	281300

Notes: Door normally closed and locked. Valid use of card reader outside temporarily unlocks electric strike

ADDENDUM NO. 1

permitting access. Key override outside retracts latch bolt.
Free egress always permitted.

Set: 30.1

Doors: [D216](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100	
1 Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100	
1 Electric Strike	1500C	630	HS	08 7100	⚡
1 SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1 ElectroLynx Adaptor	2004M		HS	08 7100	⚡
1 Surface Closer	7500 - pull side mount	689	NO	08 7100	
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
1 Wall Stop	406	US32D	RO	08 7100	
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100	
1 ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1 Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1 Card Reader	- Provided by Security Contractor		00	281300	

Notes: Door normally closed and locked. Valid use of card reader outside temporarily unlocks electric strike permitting access. Key override outside retracts latch bolt.
Free egress always permitted.

Set: 31.0

Doors: [127-1T](#), [127-2T](#), [127-3T](#), [127-4T](#), [143-1T](#), [143-2T](#), [143-3T](#), [143-4T](#), [227-1T](#), [227-2T](#), [227-3T](#), [227-4T](#), [243-1T](#), [243-2T](#), [243-3T](#), [243-4T](#)

3 Hinge (spring)	1502	US26D	MK	08 7100	
1 Privacy Lock	V21 8265 LNL x LB thumb turn	US26D	SA	08 7100	
1 Wall Stop	406	US32D	RO	08 7100	
3 Silencer	608 / 609		RO	08 7100	

Set: 32.1

Doors: [110S](#), [150S](#), [161](#)

6 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100	
1 Top Flush Bolt	2905	US26D	RO	08 7100	

ADDENDUM NO. 1

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HAVERHILL ELEMENTARY SCHOOL BID PACKAGE 6 - CONSTRUCTION
PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 36
7/26/2023**

1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Coordinator	2672	US28	RO	08 7100
1	Filler Bar	FB-1 / FB-2	US28	RO	08 7100
1	Mounting Bracket	2601AB / 2601C	US28	RO	08 7100
2	Surface Closer	PR7500	689	NO	08 7100
2	Armor Plate	K1050 36" high CSK BEV	US32D	RO	08 7100
2	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
1	Meeting Edge Seal	S772C x height of door		PE	08 7100

Notes: ** Door 161 - Size hinges accordingly for 180 degree swing.

Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 33.0

Doors: 141, 154, 241, E217

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Surface Closer	7500 - pull side mount	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 33.1

Doors: 162B

3	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Surface Closer	PR7500	689	NO	08 7100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Electromagnetic Holder	994M	689	RF	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

ADDENDUM NO. 1

Door held open by electromagnetic door holder on adjacent wall. Power for electromagnetic holder shall be connected to fire alarm system in order that door closes immediately upon activation of fire alarm.

(Electromagnetic holder has tri-volt coils for field selectable power: 120VAC, 24VAC/DC, 12VDC)

Set: 34.0

Doors: [M260A](#), [M261](#), [M270](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Threshold	173A		PE	08 7100
1 Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1 Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 35.0

Doors: [E117](#), [E271](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1 Surface Closer	PR7500	689	NO	08 7100
1 Arm Support Bracket	6890	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: ** Size hinges accordingly for 180 degree swing.

Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Set: 38.0

Doors: [151](#), [155](#), [216](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
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ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 38
7/26/2023**

1 Office Lock	11 V01 8205 LNL GGMK x LB thumb turn	US26D	SA	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Latch bolt by lever either side, unless outside lever is locked.
Outside lever locked or unlocked by thumb turn inside. Latch bolt retracted by key when outside lever is locked.
Auxiliary latch deadlocks latch bolt.
Inside lever always free for egress.

Set: 41.1

Doors: 114

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Classroom Lock	11 8237 LNL GGMK	US26D	SA	08 7100
1 Conc Overhead Stop	1-X36	652	RF	08 7100
3 Silencer	608 / 609		RO	08 7100

Notes: Function: Latch bolt by lever either side unless outside lever is locked by key outside. Outside lever remains locked unless unlocked by key. Inside lever always free for egress.

Set: 42.0

Doors: 116S, 153, 157

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Classroom Lock	11 8237 LNL GGMK	US26D	SA	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Function: Latch bolt by lever either side unless outside lever is locked by key outside. Outside lever remains locked unless unlocked by key. Inside lever always free for egress.

Set: 43.0

Doors: 123, 124, 128A, 131, 135, 136A, 137A, 138, 142A, 221, 224, 228A, 231, 236A, 238, 242A

ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 39
7/26/2023**

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Threshold	173A		PE	08 7100
1 Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1 Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Key from either side locks and unlocks lever outside.
Key from either side retracts latch bolt.
Lever outside retracts latch bolt, except when outside lever is locked by key.
Lever inside always retracts latch bolt for egress.

Set: 45.0

Doors: 133, 139, 233, 237

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100
1 Conc Overhead Stop	1-X36	652	RF	08 7100
1 Threshold	173A		PE	08 7100
1 Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1 Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Key from either side locks and unlocks lever outside.
Key from either side retracts latch bolt.
Lever outside retracts latch bolt, except when outside lever is locked by key.
Lever inside always retracts latch bolt for egress.

Set: 46.0

Doors: 111, 115, 214, 215

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Threshold	173A		PE	08 7100
1 Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1 Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Key from either side locks and unlocks lever outside.
Key from either side retracts latch bolt.

ADDENDUM NO. 1

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**DOOR HARDWARE
08 7100 - 40
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Lever outside retracts latch bolt, except when outside lever is locked by key.
Lever inside always retracts latch bolt for egress.

Set: 49.0

Doors: 169T, 211T

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Privacy Lock	V21 8265 LNL x LB thumb turn	US26D	SA	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Set: 50.0

Doors: 112D

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Store Door Lock	11 8226 LNL GGMK	US26D	SA	08 7100
1 Conc Overhead Stop	1-X36	652	RF	08 7100
1 Threshold	173A		PE	08 7100
1 Sound Seal	350CSPK TKSP - head and jamb		PE	08 7100
1 Conc. Auto. Door Bottom	STC411APK x door width		PE	08 7100

Notes: Latch bolt operated by lever either side when deadbolt is in retracted position. Deadbolt projected or retracted by key either side. No simultaneous retraction of deadbolt and latch bolt.

Set: 52.0

Doors: 101, 150B, 219

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1 Electric Strike	1500C-DLMS	630	HS	08 7100 ⚡
1 SMART Pac Bridge Rectifier	2005M3		HS	08 7100 ⚡
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
3 Silencer	608 / 609		RO	08 7100
1 Card Reader	- Provided by Security Contractor		00	281300

ADDENDUM NO. 1

Notes: Valid use of card reader in vestibule unlocks electric strike to gain access. Key override outside lever retracts latch bolt. Free egress always permitted.

Door is not monitored.

Card reader, connection to electric strike, conductor, power supply, and access control system by Access Control Provider.

Set: 54.0

Doors: 165S, 168B

1	Continuous Hinge	CFM__HD1-M		PE	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Armor Plate	Palladium Rigid Vinyl Sheet	TBD	IP	
1	Wall Stop	406	US32D	RO	08 7100
3	Silencer	608 / 609		RO	08 7100

Notes: Door normally closed and locked. Key outside retracts latch bolt. Outside lever always rigid. Inside lever always free for egress.

Set: 55.1

Doors: 168A

1	Continuous Hinge	CFM__HD1-M		PE	08 7100
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100
1	Electric Strike	1500C-DLMS	630	HS	08 7100 ⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100 ⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100 ⚡
1	Automatic Opener (single door)	6011 - confirm head detail	689	NO	08 7100 ⚡
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1	Wall Stop	406	US32D	RO	08 7100
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100 ⚡
1	Power Supply	–Provided by Security Contractor Use door operator power supply for electric strike		SU	08 7100 ⚡

Notes: ** Install electric strike as "fail safe".

Door normally closed and locked. Key outside retracts latch bolt. Outside lever always rigid. Inside lever always free for egress.

ADDENDUM NO. 1

Automatic operators and electric strike shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 57.0

Doors: 100B

1	Continuous Hinge	CFM__HD1-M		PE	08 7100	
1	Communicating Lock	11 10XG30 LL	US26D	SA	08 7100	
1	Electric Strike	1500C-DLMS	630	HS	08 7100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100	⚡
1	Conc Overhead Stop	1-X36	652	RF	08 7100	
1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO	08 7100	⚡
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
2	Door Switch (jamb mount)	503		NO	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Remote Release Button	- Provided by Security Contractor		OT	281300	
1	Card Reader	- Provided by Security Contractor		00	281300	

Notes: ** Card reader located on push side of door.

Free ingress during day. Valid use of card reader inside or activation of remote release button unlocks electric strike permitting exit into school corridor.

Activation of door switch in corridor shall unlock electric strike and cycle automatic operator.

Activation of door switch in reception shall only cycle automatic operator when electric strike is in unlocked position (may use electric strike monitor switches for this function)

Set: 58.0

Doors: 100A

1	Continuous Hinge	CFM__HD1-M		PE	08 7100	
1	Storeroom Lock	11 8204 LNL GGMK	US26D	SA	08 7100	
1	Electric Strike	1500C-DLMS	630	HS	08 7100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100	⚡
1	Conc Overhead Stop	1-X36	652	RF	08 7100	

ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 43
7/26/2023**

1	Automatic Opener (single door)	6021 (D) - confirm head detail	689	NO	08 7100	⚡
1	Kick Plate	K1050 10"high CSK BEV	US32D	RO	08 7100	
1	Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100	
1	Crimp Tool	QC-R003		MK	08 7100	⚡
1	Repair Kit	QC-R001		MK	08 7100	⚡
2	Extractor Tool	QC-R002		MK	08 7100	⚡
1	Intercom / Video Station	- Provided by Security Contractor		OT		
2	Door Switch (jamb mount)	503		NO	08 7100	⚡
1	Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1	Card Reader	- Provided by Security Contractor		00	281300	

Notes: Valid use of card reader in vestibule or activation of remote switch in intercom system unlocks electric strike to gain access. Key override outside lever retracts latch bolt. Free egress always permitted.

Activation of door switch inside reception shall unlock electric strike and cycle automatic operator.
Activation of door switch in vestibule shall only cycle automatic operator when electric strike is in unlocked position (may use electric strike monitor switches for this function)

Set: 59.0

Doors: 115-1S, 115-2S, 122B, 132B, 144B, 222B, 232B, 244B

Description: sliding

1	Sliding Door Track and Hardware	- Provided by Sliding Door Assembly Manufacturer		OT		
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Set: 60.0

Doors: 112B

Description: sliding

1	Sliding Door Track and Hardware	- Provided by Sliding Door Assembly Manufacturer		OT		
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Set: 61.0

Doors: 112C, 162A

Description: OHD

1	Hardware	- Provided by Overhead Door Section		OT		
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Set: 62.0

Doors: 160B

ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 44
7/26/2023**

1	Continuous Hinge	CFM__HD1-M		PE	08 7100	
1	Continuous Hinge	CFM__HD1-M x PT		PE	08 7100	
1	Top Flush Bolt	2905	US26D	RO	08 7100	
1	Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100	
1	Electric Strike	1500C-DLMS	630	HS	08 7100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	08 7100	⚡
1	ElectroLynx Adaptor	2004M		HS	08 7100	⚡
1	Automatic Opener (double door)	D6021 (D2) - confirm head detail	689	NO	087113	⚡
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
2	Wall Stop	406	US32D	RO	08 7100	
2	Silencer	608 / 609		RO	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to electric strike location)		MK	08 7100	⚡
1	Power Supply	– Provided by Security Contractor Use door operator power supply for electric strike		SU	08 7100	⚡
1	Electric Power Transfer	EL-CEPT	630	SU	08 7100	⚡

Notes: ** Install electric strike as "fail safe".

Key from either side locks and unlocks lever outside.

Key from either side retracts latch bolt.

Lever outside retracts latch bolt, except when outside lever is locked by key.

Lever inside always retracts latch bolt for egress.

Automatic operators and electric strike shall be connected to smoke alarm system. Upon activation of smoke alarm, the doors shall unlock and the automatic operators shall cycle open immediately. Doors shall remain open until system is manually reset.

Set: 63.0

Doors: **150A**

6	Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100	
1	Top Flush Bolt	2905	US26D	RO	08 7100	
1	Classroom Security Intruder Lock	11 V01 8238 LNL GGMK	US26D	SA	08 7100	
1	Coordinator	2672	US28	RO	08 7100	
1	Filler Bar	FB-1 / FB-2	US28	RO	08 7100	
2	Mounting Bracket	2601AB / 2601C	US28	RO	08 7100	
2	Surface Closer	PR7500	689	NO	08 7100	

ADDENDUM NO. 1

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PORTAGE PUBLIC SCHOOLS**

**DOOR HARDWARE
08 7100 - 45
7/26/2023**

2 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
2 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100
1 Meeting Edge Seal	S772C x height of door		PE	08 7100

Notes: ** Door 150A - size hinges accordingly for 180 degree opening.

Key from either side locks and unlocks lever outside.

Key from either side retracts latch bolt.

Lever outside retracts latch bolt, except when outside lever is locked by key.

Lever inside always retracts latch bolt for egress.

Set: 64.0

Doors: [ST5A](#), [ST5E](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100
1 Fire Rated Rim Exit, Exit Only	PED5200A EO M110	630	RU	08 7100
1 Surface Closer	7500 - pull side mount	689	NO	08 7100
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100
1 Wall Stop	406	US32D	RO	08 7100
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100

Notes: Exit only.

Set: 65.0

Doors: [ST5B](#), [ST5D](#)

3 Hinge (heavy weight)	T4A3786 (NRP)	US26D	MK	08 7100	
1 Electrified Rim Exit, Fail Safe	PED5200A N9903ET M110	630	RU	08 7100	⚡
1 Rim Cylinder	11 34 GGMK	US15	SA	08 7100	
1 Surface Closer	7500 - pull side mount	689	NO	08 7100	
1 Kick Plate	K1050 10" high CSK BEV	US32D	RO	08 7100	
1 Wall Stop	406	US32D	RO	08 7100	
1 Smoke / Sound Seal	S88BL - head and jambs		PE	08 7100	
1 ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1 ElectroLynx Harness	QC-C (power transfer to exit device lever trim)		MK	08 7100	⚡
1 Position Switch	- Provided by Security Contractor		SU	08 7100	⚡
1 Power Supply	- Provided by Security Contractor		SU	08 7100	⚡
1 Card Reader	- Provided by Security Contractor		00	281300	

ADDENDUM NO. 1

1 Electric Power Transfer EL-CEPT 630 SU 08 7100 ⚡

Notes: Door normally closed and locked. Valid use of card reader temporarily unlocks lever trim for access.
 Fail-safe lever. Loss of power to lever trim unlocks lever.
 Activation of fire alarm immediately unlocks lever trim
 Free egress always permitted.

Set: 66.0

Doors: M260B

1	Continuous Hinge	CFM__SLF-HD1-M x QC12		PE	08 7100	⚡
1	Storeroom Lock	LC RX 8204 LNL	US26D	SA	08 7100	⚡
1	Mortise Cylinder	- Provided by Owner		AA	08 7100	
1	Surface Closer	CPS7500	689	NO	08 7100	
1	Blade Stop Spacer	6891	689	NO	08 7100	
1	Arm Support Bracket	6890	689	NO	08 7100	
1	Threshold	253x4AFG MSES25SS		PE	08 7100	
1	Weatherstrip	- integral within construction of door and frame assembly		00	08 4113	
1	Sweep	29326CNCB x TKSP8		PE	08 7100	
1	ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)		MK	08 7100	⚡
1	ElectroLynx Harness	QC-C (power transfer to lock location)		MK	08 7100	⚡
1	Position Switch	- Provided by Security Contractor		SU	08 7100	⚡

Notes: ** Install key side of lock on interior side of door. Free egress from roof into mechanical room.

Function: Latch bolt operated by key outside or lever inside. Outside lever always rigid. Inside lever always free for egress.

Door is monitored. Turning outside lever shunts door monitoring upon entry.

END OF SECTION 08 7100

SC STRUCTURAL STEEL CONNECTIONS

SC-1 ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC-LOAD AND RESISTANCE FACTOR DESIGN.

SC-2 ALL CONNECTIONS, UNLESS INDICATED AS BEING COMPLETELY DESIGNED ON THE STRUCTURAL DRAWINGS, SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND SPECIFICATION SECTIONS.

SC-3 UNLESS INDICATED AS BEING COMPLETELY DESIGNED, DETAILS ON DRAWINGS INDICATE GENERAL CRITERIA FOR DESIGN AND DETAILING OF CONNECTIONS AND ARE NOT INTENDED TO CONVEY COMPLETE CONNECTOR SIZES, PLATE SIZES, WELD SIZES, NUMBER OF BOLTS, OR ANY OTHER SPECIFIC INFORMATION THAT IS OBTAINED THROUGH DESIGNING OF AN INDIVIDUAL CONNECTION FOR A GIVEN SET OF LOADS. DETAILS DO NOT SHOW ERECTION AIDS. PROVIDE ERECTION AIDS AS REQUIRED AND REMOVE THEM AFTER WORK IS COMPLETE.

SC-4 SUBMIT CONNECTIONS NOT SPECIFICALLY INDICATED AS COMPLETELY DESIGNED ON THE DRAWINGS TO THE SER FOR REVIEW PRIOR TO REVIEW OF SHOP DRAWINGS. FOR BIDDING PURPOSES, WHERE NO MOMENT IS INDICATED ON DRAWINGS PROVIDE FULL MOMENT CAPACITY OF MEMBER (9 Fy Z) AND WHERE NO VERTICAL SHEAR IS INDICATED ON DRAWINGS PROVIDE FULL SHEAR CAPACITY (.54 Fy d tw).

SC-5 ALTERNATE CONNECTIONS TO THOSE SHOWN ON DRAWINGS WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

SC-6 FOR CONNECTION DESIGN AND DETAILING, SET CONNECTION WORK POINT AT INTERSECTION OF MEMBER CENTERLINES, UON.

SC-7 DESIGN ALL CONNECTIONS FOR FORCES INDICATED ON THE DRAWINGS. CONNECTION DESIGN FORCES INDICATED ON THE DRAWINGS ARE FACTORED PER LRFD DESIGN BASIS UON.

SC-8 USE NO MORE THAN TWO BOLT DIAMETERS, ALL BOLTS OF THE SAME DIAMETER SHALL BE OF THE SAME GRADE, SKIP ONE SIZE BETWEEN DIAMETERS. BOLTS FOR THIS PROJECT SHALL BE:

3/4" DIAMETER F3125 GRADE A325 OR F1852 OR 1" DIAMETER F3125 GRADE A490 OR F2280

SC-9 BEAM CONNECTION DESIGN NOTES:

SEE PLANS AND ELEVATIONS FOR BEAM REACTIONS AND MOMENTS.

DEVELOP THE LARGER OF THE BEAM SHEAR REACTION SHOWN ON PLANS OR ELEVATIONS. IF NO SHEAR REACTIONS ARE SHOWN ON PLANS OR ELEVATIONS THEN ALLOW FOR SHEAR CONNECTION WITH FULL SHEAR CAPACITY (.54 Fy d tw).

DEVELOP THE LARGER OF THE MOMENT SHOWN ON PLANS OR ELEVATIONS. IF NO MOMENT REACTIONS ARE SHOWN ON PLANS OR ELEVATIONS THEN ALLOW FOR MOMENT CONNECTION THAT DEVELOPS THE FULL BEAM SECTION MOMENT CAPACITY (.9FyZ).

DEVELOP THE LARGER OF THE AXIAL FORCE DENOTED AS P OR TF SHOWN ON PLANS OR ELEVATIONS. SEE STEEL BEAM LEGEND.

ALL BEAM REACTIONS, AXIAL FORCES AND MOMENTS SHOWN ACT CONCURRENTLY. UON, BEAM REACTIONS ACT IN GRAVITY DIRECTION WHILE AXIAL FORCES AND MOMENTS ARE TO BE CONSIDERED REVERSIBLE.

WHERE NO AXIAL FORCE IS SHOWN, ALL BEAM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM AXIAL FORCE EQUAL TO 5% OF THE FACTORED DEAD LOAD PLUS LIVE LOAD VERTICAL BEAM SHEAR. FOR THE PURPOSES OF DESIGNING FOR THIS MINIMUM AXIAL FORCE, THE VERTICAL BEAM SHEAR AND CORRESPONDING MINIMUM AXIAL FORCE NEED NOT BE CONSIDERED TO ACT CONCURRENTLY AND BEARING BOLTS IN CONNECTIONS WITH SHORT SLOTTED HOLES PARALLEL TO THE AXIAL FORCE ARE PERMITTED. SHEAR CONNECTIONS INDICATED AS COMPLETELY DESIGNED IN THESE DRAWINGS HAVE BEEN DESIGNED TO MEET THESE MINIMUM AXIAL FORCE REQUIREMENTS.

EXCEPT WHERE "SNUG TIGHT" INSTALLATION IS SPECIFICALLY PERMITTED ON DRAWINGS OR "SLIP CRITICAL" DETAILING IS REQUIRED, ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED AS FULL PRETENSIONED BOLTS.

AT A MINIMUM ALL BOLTED MOMENT AND AXIAL CONNECTION SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES.

BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS.

DO NOT USE OVERSIZED OR SLOTTED HOLES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY THE SER.

SC-10 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, ANSII/AWS D1.1, LATEST EDITION. ALL WELD SIZES SHALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION FORCES, THE MINIMUM SIZE PER ANSII/AWS D1.1, OR 3/16 INCH MINIMUM FILLET WELD UON. ANY WELD SIZES SHOWN ON THE DESIGN DRAWINGS ARE CONSIDERED EFFECTIVE WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH AWS AS REQUIRED BY GAPS OR SKEWS BETWEEN COMPONENTS.

SC-11 USE RUNOFF TABS AT ALL BEVEL AND COMPLETE JOINT PENETRATION WELDS. REMOVE RUNOFF TABS BY NEAT CUTS AFTER WELD IS COMPLETED. GRIND SMOOTH WHERE REQUIRED BY DETAIL.

SC-12 WHERE REQUIRED BY DETAIL REMOVE WELD BACK UP BARS AND GRIND SMOOTH AFTER WELD IS COMPLETED.

SC-13 DESIGN, DETAIL, FURNISH AND INSTALL STIFFENERS, CONTINUITY PLATES, DOUBLER PLATES, OR OTHER NECESSARY ADDITIONAL LOCAL STRENGTHENING MEASURES AS REQUIRED. MEMBER SIZES INDICATED ON THE DRAWINGS ARE BASED ON MEMBER BEHAVIOR AWAY FROM CONNECTIONS.

SJ OPEN WEB STEEL JOISTS AND JOIST GIRDERS

SJ-1 DESIGN, MANUFACTURE, AND ERECT JOISTS AND BRIDGING IN ACCORDANCE WITH THE "STANDARD SPECIFICATION FOR OPEN WEB JOISTS" OF THE STEEL JOIST INSTITUTE (SJI), CURRENT EDITION, AS A MINIMUM.

SJ-2 JOISTS AND JOIST GIRDERS SHALL BE DESIGNED AND PROVIDED BY CONTRACTOR PER THE SJI SPECIFICATIONS AS INDICATED ON THE DRAWINGS. SEE DRAWINGS FOR JOIST SPACING, LOAD CRITERIA, AND DEPTH LIMITATIONS.

SJ-3 BRIDGING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR PER THE SJI SPECIFICATIONS.

SJ-4 BEFORE STEEL DECK IS PLACED, ATTACH ALL BRIDGING TO THE JOISTS AND ANCHOR ALL BRIDGING TERMINATING AT WALLS OR BEAMS TO THE WALLS OR BEAMS. WELD OR BOLT ALL BRIDGING CONNECTIONS TO STEEL JOISTS AND BEAMS.

SJ-5 DESIGN AND DETAIL STEEL JOISTS AND JOIST CONNECTIONS TO CARRY THE MOST SEVERE COMBINATION OF DIAPHRAGM FORCES, KICKER FORCES, GRAVITY LOADS, SNOW LOADS, AND WIND UPLIFT FORCES SHOWN ON THE DRAWINGS. IT IS NOT ACCEPTABLE TO DESIGN JOISTS FOR SJI STANDARD LOADS IN LIEU OF THE LOADS SHOWN ON THE DRAWINGS. IN ADDITION TO THE LOADS SHOWN ON THE DRAWINGS, JOISTS SHALL BE DESIGNED FOR:

- A. A MINIMUM NET UPLIFT FORCE OF 16 PSF (STRENGTH LEVEL), UON
- B. ADDITIONAL SERVICE POINT LOAD AT ANY PANEL POINT OF 300 LBS FOR K-SERIES JOISTS AND 700 LBS FOR LH AND DLH-SERIES JOISTS

SJ-6 DESIGN JOISTS TO LIMIT DEFLECTION UNDER TOTAL LOAD TO SPAN LENGTH DIVIDED BY 240, UON. DESIGN JOISTS TO LIMIT DEFLECTION UNDER LIVE LOAD TO SPAN LENGTH DIVIDED BY 360, UON.

SJ-7 CAMBER JOISTS PER SJI STANDARDS, UON.

SJ-8 PROVIDE DOUBLE ANGLE TOP AND BOTTOM CHORDS.

SJ-9 HANGING AND POINT BEARING LOADS AT JOISTS SHALL ONLY BE PERMITTED AS INDICATED ON THE DRAWINGS. DESIGN JOIST FOR HANGING AND POINT BEARING LOADS AT ANY ADJACENT PANEL POINT. COORDINATE HANGING AND POINT BEARING LOADS WITH ARCHITECTURAL AND MEP DRAWINGS.

SJ-10 EXTEND BOTTOM CHORDS OF JOISTS AND JOIST GIRDERS AT COLUMNS, SEE JOIST DETAILS FOR ADDITIONAL INFORMATION. COORDINATE BOTTOM CHORD EXTENSIONS WITH ARCHITECTURAL DRAWINGS.

SJ-11 AT EDGE CONDITIONS EXTEND JOIST TOP CHORDS BEYOND SUPPORTING BEAMS TO PERIMETER ANGLE OR BENT PLATE, UON.

SJ-12 JOIST SERIES, SEAT, AND SUPPORT INFORMATION SHOWN ON THE DRAWINGS IS A MINIMUM. JOIST DESIGN ENGINEER TO REVIEW ALL SJI REQUIREMENTS AND NOTIFY ENGINEER OF RECORD IF SELECTED SYSTEM DIFFERS FROM CONTRACT DOCUMENTS PRIOR TO FABRICATION OF JOISTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION BETWEEN SELECTED JOIST SYSTEM AND OTHER TRADES.

SD STEEL DECK GENERAL REQUIREMENTS

SD-1 THE MANUFACTURE AND ERECTION OF STEEL DECK AND ITS ANCHORAGE SHALL, AT A MINIMUM, BE IN ACCORDANCE WITH "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS" OF THE STEEL DECK INSTITUTE (SDI), CURRENT EDITION AND "SPECIFICATIONS FOR DESIGN OF LIGHT GAGE COLD FORMED STEEL STRUCTURAL MEMBERS" AS PUBLISHED BY THE AMERICAN IRON AND STEEL INSTITUTE (AISI), CURRENT EDITION.

SD-2 CONFIGURE ALL STEEL DECK USING THREE SPAN CONTINUOUS LAYOUTS WHEREVER POSSIBLE.

SD-3 CONFIGURE ALL STEEL DECK AS SHOWN ON THE DRAWINGS.

RD STEEL ROOF DECK

RD-1 STEEL ROOF DECK SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES:

ASTM A653-HOT-DIPPED GALVANIZED CONFORMING TO ASTM A924 G60

ROOF DECK SHALL BE HOT-DIP GALVANIZED, UON

FABRICATE STEEL DECK UNITS AND ACCESSORIES FROM STEEL SHEET CONFORMING TO ASTM A653 STRUCTURAL QUALITY GRADE 50, WITH A MINIMUM YIELD STRENGTH OF 50 KSI.

RD-2 PROVIDE STEEL ROOF DECK WITH DEPTH AND MINIMUM GAGE INDICATED ON DRAWINGS. PROVIDE ANCHORAGE TO SUPPORTING MEMBERS AS INDICATED ON DRAWINGS.

RD-3 ROOF DECK AND ITS ANCHORAGE TO SUPPORTING MEMBERS SHALL MEET THE FOLLOWING MINIMUM FASTENING REQUIREMENTS UON ON PLAN, A1:

- A. AT ENDS OF UNITS AND AT ALL INTERMEDIATE SUPPORTS: BY PUDDLE WELDS NOT LESS THAN 5/8 INCH DIAMETER SPACED NOT MORE THAN 12 INCHES ON CENTER MAX.
- B. SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BY SIDE SEAM WELDING OR SIDELAP SCREWS SPACED AT 24 INCHES ON CENTER MAX. ARC SEAM WELDS SHALL BE A MINIMUM OF 1-1/2 INCH BY 1/2 INCH.

RD-4 NO LOADS SHALL BE HUNG DIRECTLY FROM STEEL ROOF DECK WITHOUT PRIOR WRITTEN APPROVAL OF THE DECK SUPPLIER AND REVIEW BY THE SER.

RD-5 CHECKING CONTRACTOR SHALL COORDINATE DECK OPENING SIZES AND LOCATIONS FROM ARCHITECTURAL AND MEP CONTRACT DOCUMENTS, PROVIDE HEADER MEMBERS OR REINFORCEMENT AS REQUIRED BY TYPICAL DETAILS EVEN IF NOT SHOWN ON THE PLANS, AND SUBMIT PROPOSED OPENINGS THROUGH SLAB/DECK FOR REVIEW BY THE DESIGN PROFESSIONALS.

AC ARCHITECTURAL CLADDING

AC-1 TYPICAL DETAILS INDICATE GENERAL CRITERIA FOR ASSUMED CONNECTIONS OF ARCHITECTURAL CLADDING TO BASE BUILDING STRUCTURE. PROVIDE DESIGNS THAT MEET INDICATED CRITERIA AND CONFORM TO LISTED CODES AND STANDARDS. REFER TO SUBMITTALS SECTION IN THESE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

PA POST-INSTALLED ANCHORS

PA-1 ADHESIVE ANCHOR SYSTEMS USED FOR DESIGN:

SEISMIC DESIGN CATEGORY A - F

ADHESIVE: HILTI HIT-HY 200 V3

THREADED ROD: HILTI HAS OR

THREADED ROD: HILTI HIT-Z

OVERHEAD AND/OR CONSTANT TENSION ADHESIVE ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT BE PERMITTED UNLESS EACH CONDITION IS REVIEWED AND APPROVED IN WRITING BY THE SER.

PA-2 PROOF TESTING OF ADHESIVE ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, ADHESIVE ANCHOR PROOF TENSION LOADS SHALL BE PER THE ADHESIVE ANCHOR PROOF SCHEDULES.

PA-3 FIELD DRILLED EXPANSION ANCHOR SYSTEMS USED FOR DESIGN:

HILTI KWIK BOLT T22

PA-4 PROOF TESTING OF EXPANSION ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, EXPANSION ANCHOR PROOF TORQUE LOADS SHALL BE PER THE EXPANSION ANCHOR PROOF SCHEDULES.

PA-5 FIELD DRILLED THREADED SCREW ANCHOR SYSTEMS USED FOR DESIGN:

HILTI KH-EZ

PA-6 ALTERNATIVE SYSTEM EQUIVALENT TO OR EXCEEDING THE PROPERTIES OF THE SYSTEMS ABOVE WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

PA-7 ANCHORS ARE TO BE MINIMUM 3/4" DIAMETER WITH A MINIMUM EMBEDMENT OF 6", UON.

PA-8 INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE CURRENT MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPI).

PA-9 LOCATE, BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONALS.

PA-10 INSTALL ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT LEAST ONE COURSE ABOVE TO ONE COURSE BELOW THE ANCHOR, UON.

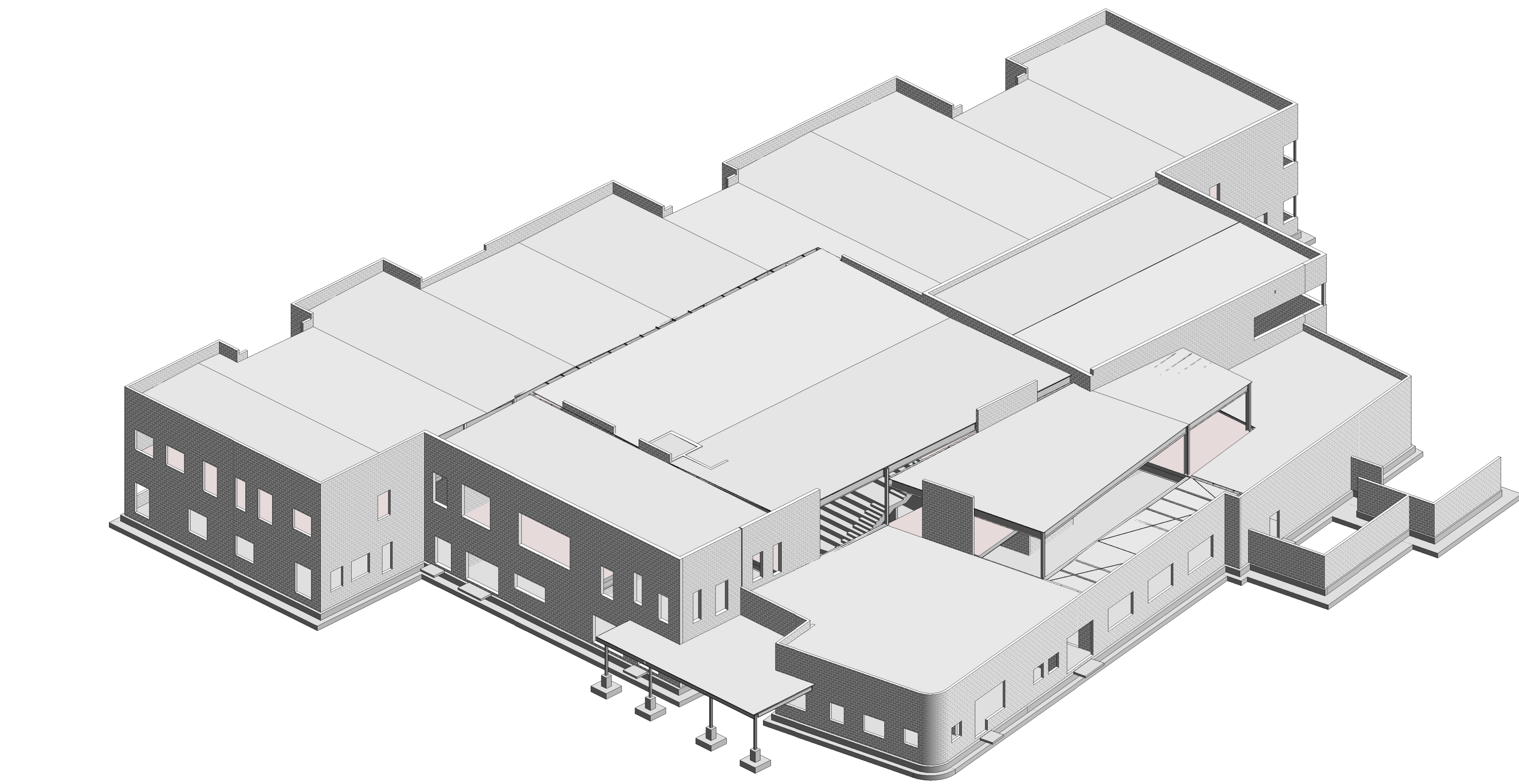
PA-11 SEE PROJECT SPECIFICATIONS FOR POST-INSTALLED ANCHOR INSPECTION REQUIREMENTS.

BN BID NOTES

BN-1 DRAWINGS HAVE BEEN ISSUED FOR PROCUREMENT OF BELOW GRADE FOUNDATION ELEMENTS ONLY. CONTRACTOR TO COORDINATE DELINEATION OF SCOPE.

BN-2 PRICING TO BE PROVIDED BASED ON QUANTITIES AND DESIGN INFORMATION SHOWN IN DRAWINGS. FINAL COORDINATION OF CMU DOWEL LOCATIONS AND AND OTHER EMBEDDED ELEMENTS TO BE ISSUED WITH 100% CONTRACT DOCUMENTS.

BN-3 SOG IS NOT INCLUDED IN THIS PACKAGE AND WILL BE INCLUDED IN SUPERSTRUCTURE PACKAGE.



Thornton Tomasetti

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ADD No. 1 JUL 26, 2023

ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL

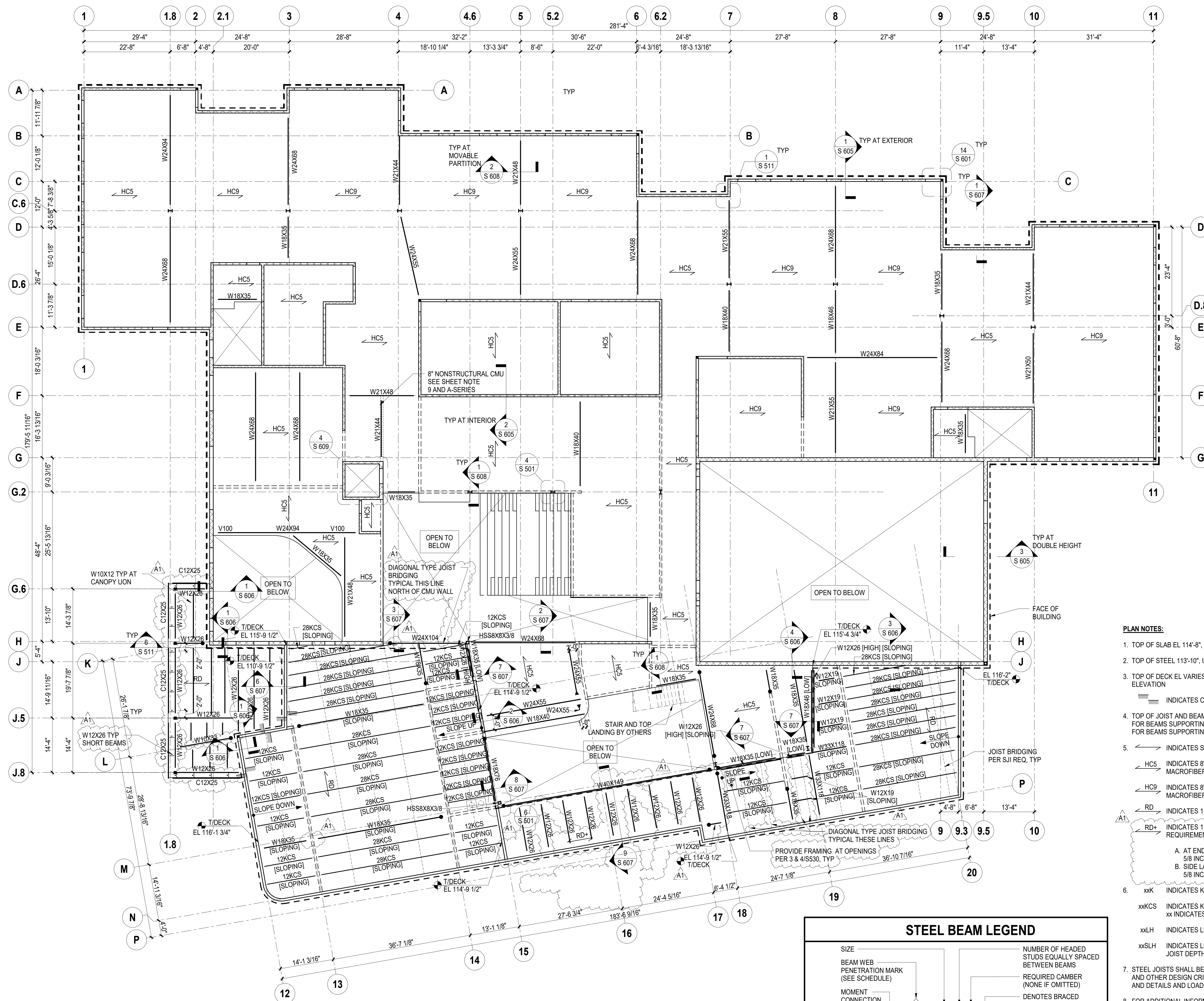
OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
GENERAL NOTES II

DATE
JUNE 30, 2023

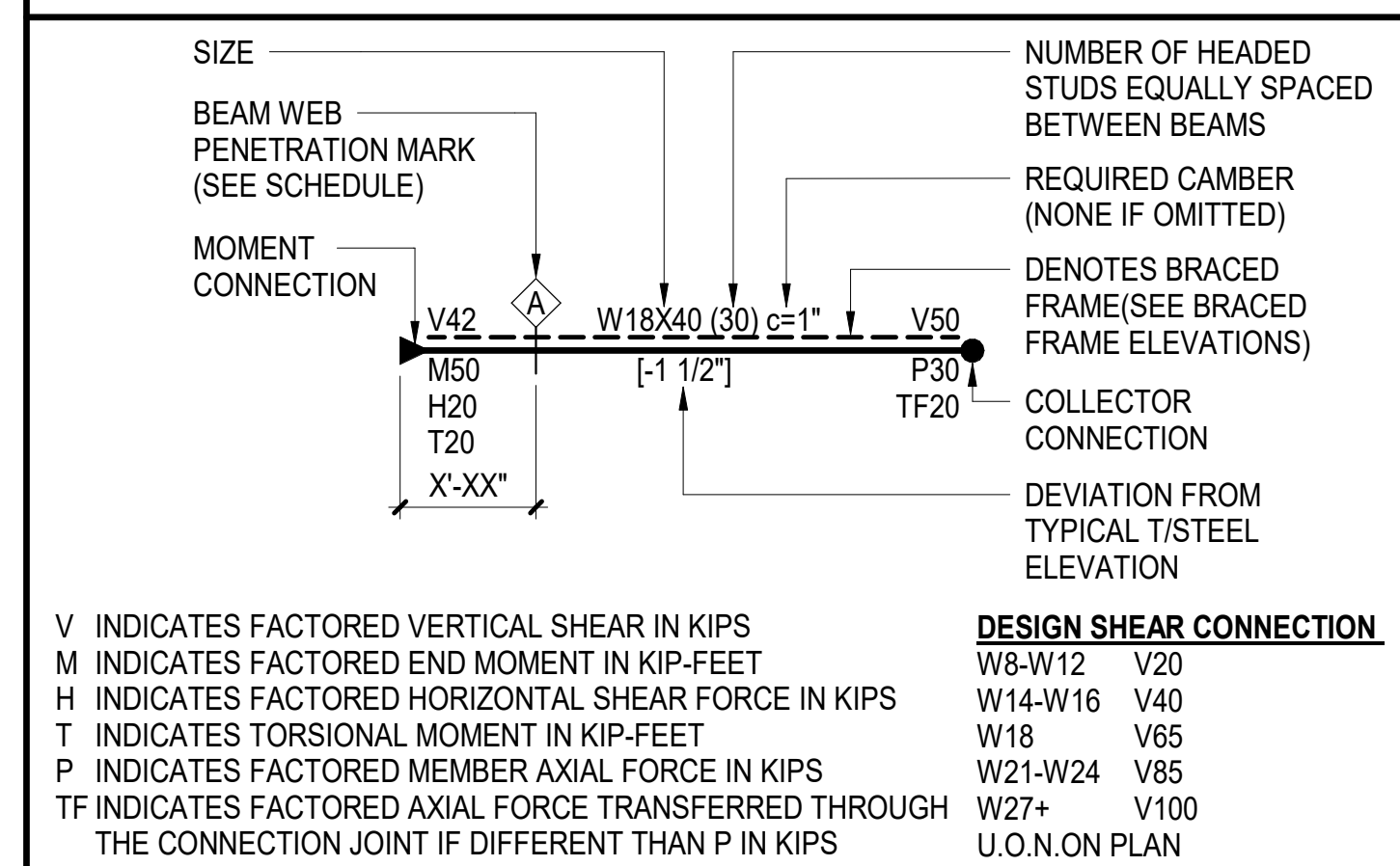
SHEET NUMBER
S 002
21-237.25



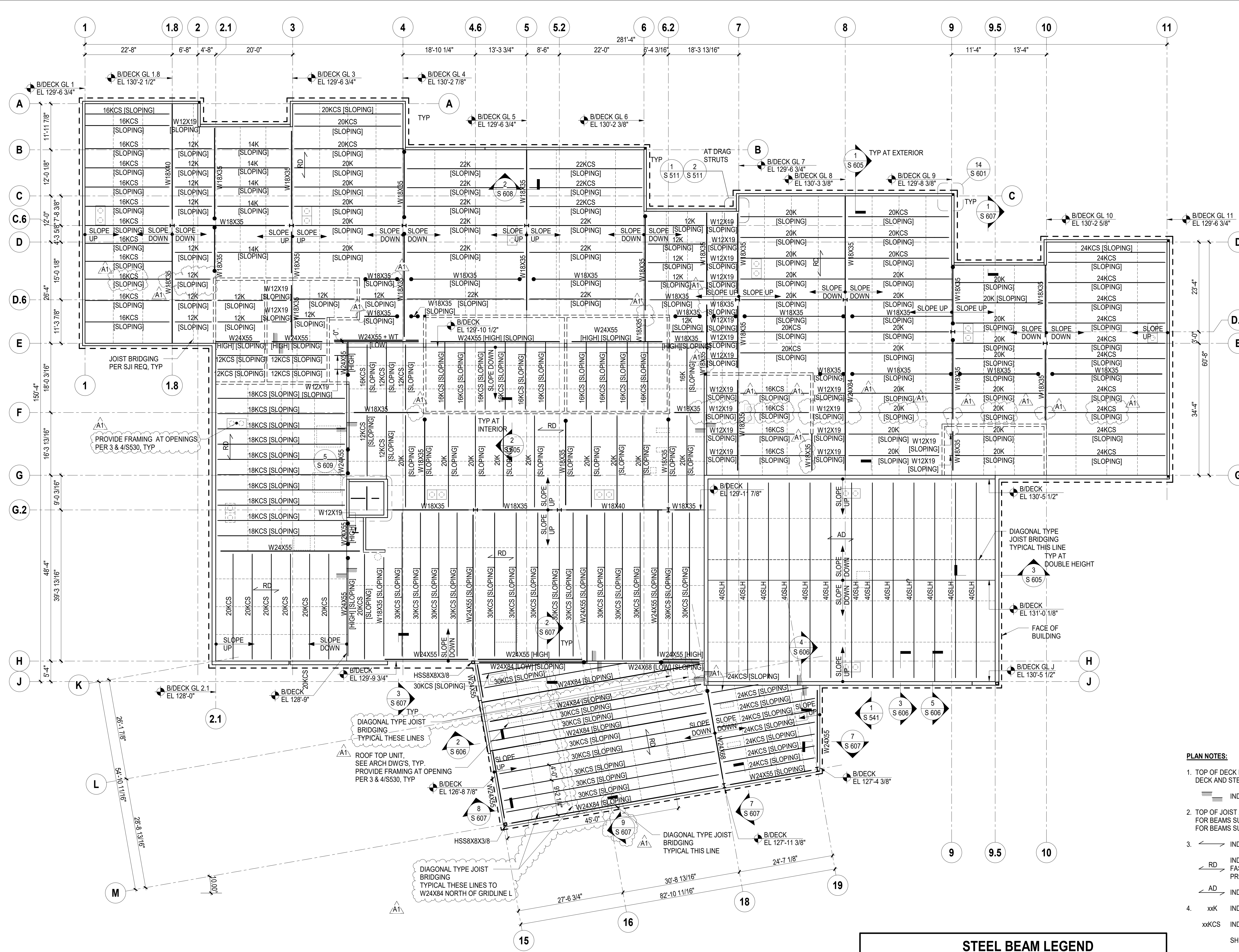
PLAN NOTES:

- TOP OF SLAB EL 114'-8"; UNO
- TOP OF STEEL 113'-10"; UNO
- TOP OF DECK EL VARIES, SEE PLAN. DECK AND STEEL FRAMING SLOPE BETWEEN POINTS OF UNEQUAL ELEVATION
 - INDICATES CHANGE IN BIDECK ELEVATION
- TOP OF JOIST AND BEAM EL = BOTTOM OF DECK ELEVATION, UNO
 FOR BEAMS SUPPORTING K- AND KCS-SERIES JOISTS T/B EAM EL = B/DECK EL MINUS 2 1/2" UNO
 FOR BEAMS SUPPORTING LH- AND SLH-SERIES JOISTS T/B EAM EL = B/DECK EL MINUS 5" UNO
- INDICATES SLAB/DECK SPAN DIRECTION
 HCS INDICATES 8" NWC (KCS) HOLLOWCORE SLAB WITH 4" NWC TOPPING, PROVIDE SYNTHETIC MACROFIBERS AT 4 PCY IN TOPPING
 HC9 INDICATES 8" NWC (KCS) HOLLOWCORE SLAB WITH 4" NWC TOPPING, PROVIDE SYNTHETIC MACROFIBERS AT 4 PCY IN TOPPING
 RD INDICATES 1 1/2" GALVANIZED ROOF DECK TYPE B, 18 GA MIN
 RD+ INDICATES 1 1/2" GALVANIZED ROOF DECK TYPE B, 18 GA MIN WITH INCREASED ATTACHMENT REQUIREMENTS
- xxK INDICATES K-SERIES STEEL JOIST, xx INDICATES JOIST DEPTH, SEE NOTE 7
 xxKCS INDICATES KCS-SERIES STEEL JOIST DESIGNED FOR CONSTANT MOMENT AND SHEAR, xx INDICATES JOIST DEPTH, SEE NOTE 7
 xxLH INDICATES LH-SERIES STEEL JOIST, xx INDICATES JOIST DEPTH, SEE NOTE 7
 xxSLH INDICATES LH-SERIES DOUBLE-PITCHED TOP CHORD STEEL JOIST, xx INDICATES MAXIMUM JOIST DEPTH, SEE NOTE 7 AND 1/S 541
- STEEL JOISTS SHALL BE DESIGNED BY CONTRACTOR BASED ON LOADING, MEMBER DEPTH SEAT DEPTH, AND OTHER DESIGN CRITERIA INDICATED ON THE STRUCTURAL DOCUMENTS. REFER TO JOIST SCHEDULE AND DETAILS AND LOADING DIAGRAMS.
- FOR ADDITIONAL INFORMATION, REFER TO THE FOLLOWING DRAWINGS:
 DRAWING LIST, GENERAL NOTES, AND LOADING DIAGRAMS
 TYPICAL FOUNDATION DETAILS
 STEEL SUPERSTRUCTURE SCHEDULES AND DETAILS
 MASONRY DETAILS
 S0 SERIES DRAWINGS
 S2 SERIES DRAWINGS
 S5 SERIES DRAWINGS
 S6 SERIES DRAWINGS
- REFER TO S 112 FOR LOCATIONS OF ALL STRUCTURAL CMU WALLS. ALL CMU WALLS SHOWN IN STRUCTURAL DRAWINGS ARE TO BE CONSIDERED LOAD-BEARING CMU WALLS AS DETAILED IN THE STRUCTURAL DRAWINGS. WALLS NOT INDICATED ON STRUCTURAL DRAWINGS SHALL BE OF THE WALL TYPE SPECIFIED IN THE ARCHITECTURAL DRAWINGS. ANY CMU WALLS SHOWN IN THE ARCHITECTURAL PLANS AND NOT INDICATED IN THE STRUCTURAL DRAWINGS AND SHALL BE DETAILED AS CMU-4 TYPE. NON-LOAD-BEARING CMU WALLS ARE PERMITTED ON SECOND LEVEL FRAMING UNO ON PLAN. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- ALL STEEL EXPOSED TO WEATHER, INCLUDING CANOPY FRAMING AND V-COLUMNS SHALL BE HOT DIP GALVANIZED.

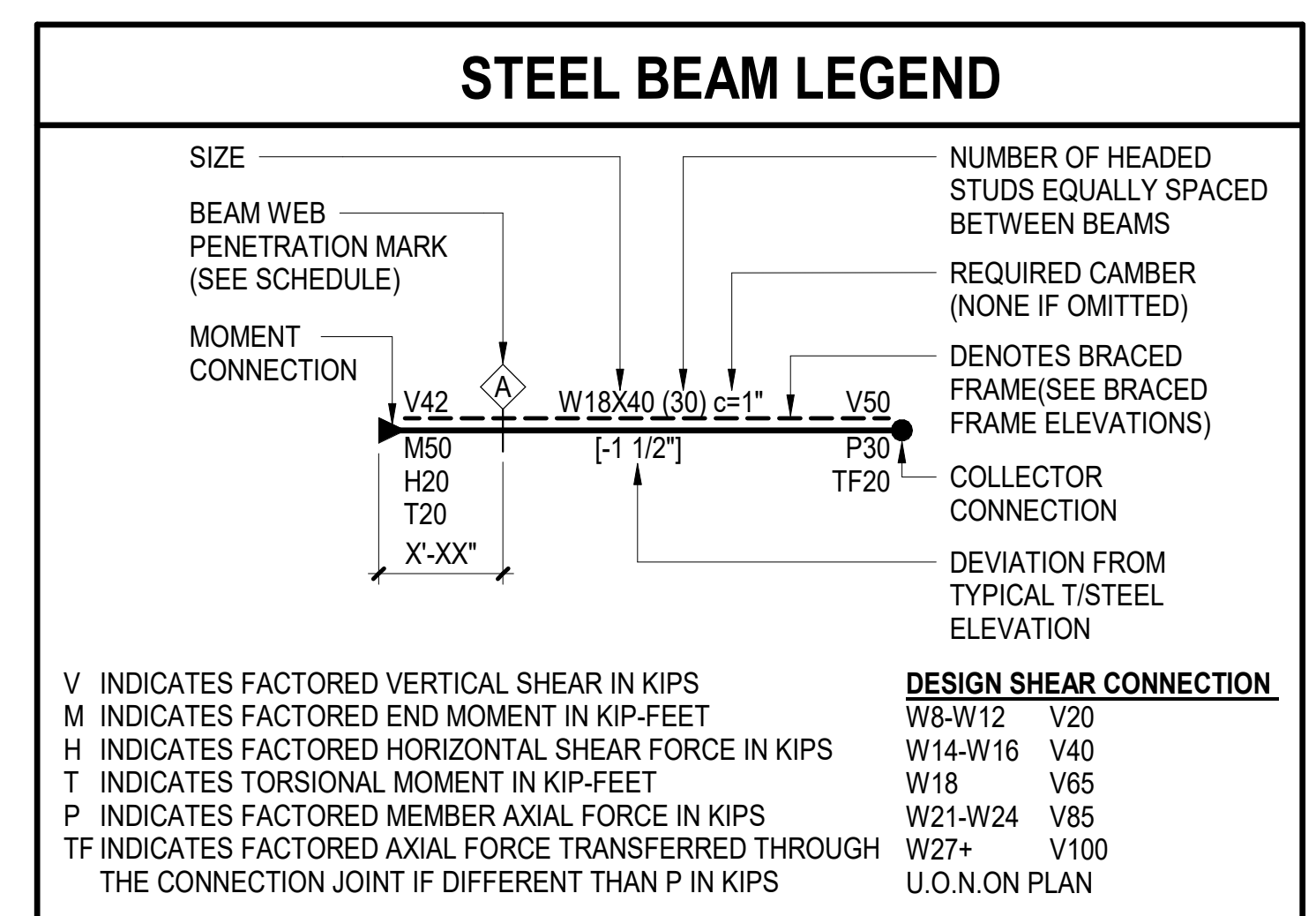
STEEL BEAM LEGEND



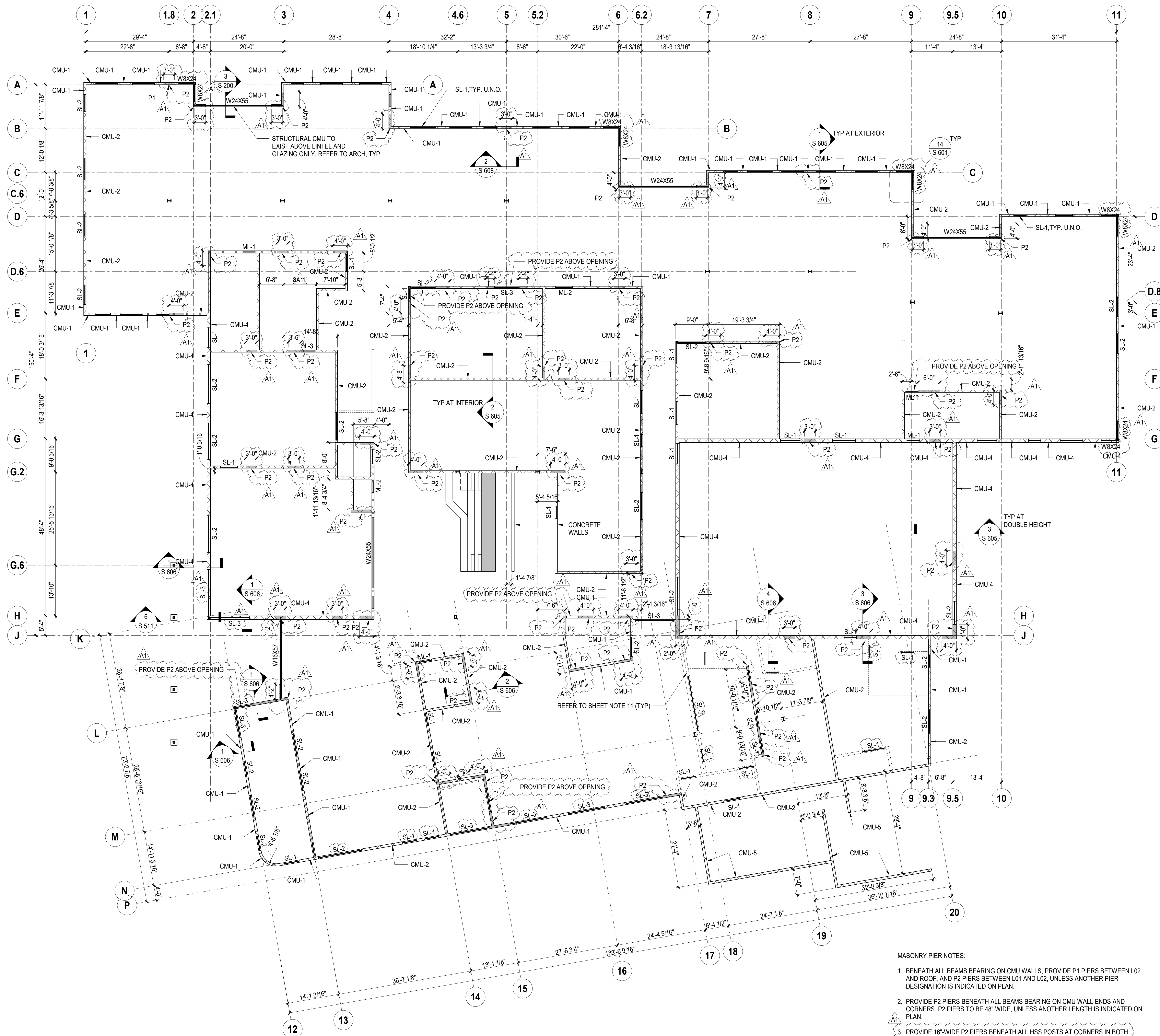
1 SECOND FLOOR FRAMING PLAN
 3/32" = 1'-0"



- PLAN NOTES:**
- TOP OF DECK EL VARIES. SEE PLAN DECK AND STEEL FRAMING SLOPE BETWEEN POINTS OF UNEQUAL ELEVATION
 INDICATES CHANGE IN B/DECK ELEVATION
 - TOP OF JOIST AND BEAM EL - BOTTOM OF DECK ELEVATION. UNO FOR BEAMS SUPPORTING K- AND KCS-SERIES JOISTS T/BEAM EL = B/DECK EL MINUS 2 1/2" UNO FOR BEAMS SUPPORTING LH- AND SLH-SERIES JOISTS T/BEAM EL = B/DECK EL MINUS 5" UNO
 - INDICATES SLAB/DECK SPAN DIRECTION
 RD INDICATES 1 1/2" GALVANIZED ROOF DECK TYPE B, 18 GA MIN. FASTEN TO SUPPORTS VIA 5/8" VISIBLE DIA. ARC SPOT WELDS AT 12" O.C. MAX. PROVIDE SIDELAP CONNECTIONS VIA #10 SCREWS AT 24" O.C. MAX.
 AD INDICATES ACOUSTIC ROOF DECK. PROPERTIES AND ATTACHMENTS TO MATCH RD.
 - xxK INDICATES K-SERIES STEEL JOIST, xx INDICATES JOIST DEPTH. SEE NOTE 5
 xxKCS INDICATES KCS-SERIES STEEL JOIST DESIGNED FOR CONSTANT MOMENT AND SHEAR, xx INDICATES JOIST DEPTH. SEE NOTE 5
 xxLH INDICATES LH-SERIES STEEL JOIST, xx INDICATES JOIST DEPTH. SEE NOTE 5
 xxSLH INDICATES LH-SERIES DOUBLE-PITCHED TOP CHORD STEEL JOIST, xx INDICATES MAXIMUM JOIST DEPTH. SEE NOTE 5 AND 1 / S 541
 - STEEL JOISTS SHALL BE DESIGNED BY CONTRACTOR BASED ON LOADING, MEMBER DEPTH SEAT DEPTH, AND OTHER DESIGN CRITERIA INDICATED ON THE STRUCTURAL DOCUMENTS. REFER TO JOIST SCHEDULE AND DETAILS AND LOADING DIAGRAMS.
 - FOR ADDITIONAL INFORMATION, REFER TO THE FOLLOWING DRAWINGS:
 DRAWING LIST, GENERAL NOTES, AND LOADING DIAGRAMS
 TYPICAL FOUNDATION DETAILS
 STEEL SUPERSTRUCTURE SCHEDULES AND DETAILS
 MASONRY DETAILS
 S0 SERIES DRAWINGS
 S2 SERIES DRAWINGS
 S5 SERIES DRAWINGS
 S6 SERIES DRAWINGS
 - ALL CMU WALLS SHOWN IN STRUCTURAL DRAWINGS ARE TO BE CONSIDERED LOAD-BEARING CMU WALLS AS DETAILED IN THE STRUCTURAL DRAWINGS. WALLS NOT INDICATED ON STRUCTURAL DRAWINGS SHALL BE OF THE WALL TYPE SPECIFIED IN THE ARCHITECTURAL DRAWINGS. ANY CMU WALLS SHOWN IN THE ARCHITECTURAL PLANS AND NOT INDICATED IN THE STRUCTURAL DRAWINGS AND SHALL BE DETAILED AS PER CMU-4 TYPE, NON-LOAD-BEARING CMU WALLS ARE NOT PERMITTED ON SECOND LEVEL FRAMING UNO ON PLAN. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS.



1 ROOF FRAMING PLAN
 3/32" = 1'-0"



CMU WALL LINTELS:

- SEE ARCHITECTURAL DRAWINGS FOR CMU WALL OPENING DIMENSIONS.
- ML-xx INDICATES MASONRY LINTEL
 SL-xx INDICATES STEEL LINTEL
 # - INDICATES EXTENSION OF LINTEL TO MATCH EXTENT OF OPENING BELOW - SEE DETAIL 4 / S 600
- ALL LINTELS TO BE SL-1, U.O.N. ON PLAN
- PROVIDE STEEL BEAM LINTELS AS INDICATED ON THIS DRAWING
 SL-1 INDICATES W8X10
 SL-2 INDICATES W16X26
 SL-3 INDICATES W16X36
- PROVIDE LINTELS AT ALL WALL OPENINGS AND RECESSES, INCLUDING MECHANICAL OPENINGS AND PENETRATIONS, CABINETS RECESSED INTO THE WALL, ETC.
- SEE ARCHITECTURAL AND MEP DRAWINGS AND OTHER PROJECT DOCUMENTS FOR ADDITIONAL WALL OPENINGS AND PENETRATIONS NOT SHOWN ON THIS DRAWING. THIS DRAWING DOES NOT SHOW ALL THE OPENINGS THAT ARE REQUIRED.
- SEE ARCHITECTURAL DRAWINGS FOR BRICK VENEER AND VENEER OPENINGS.

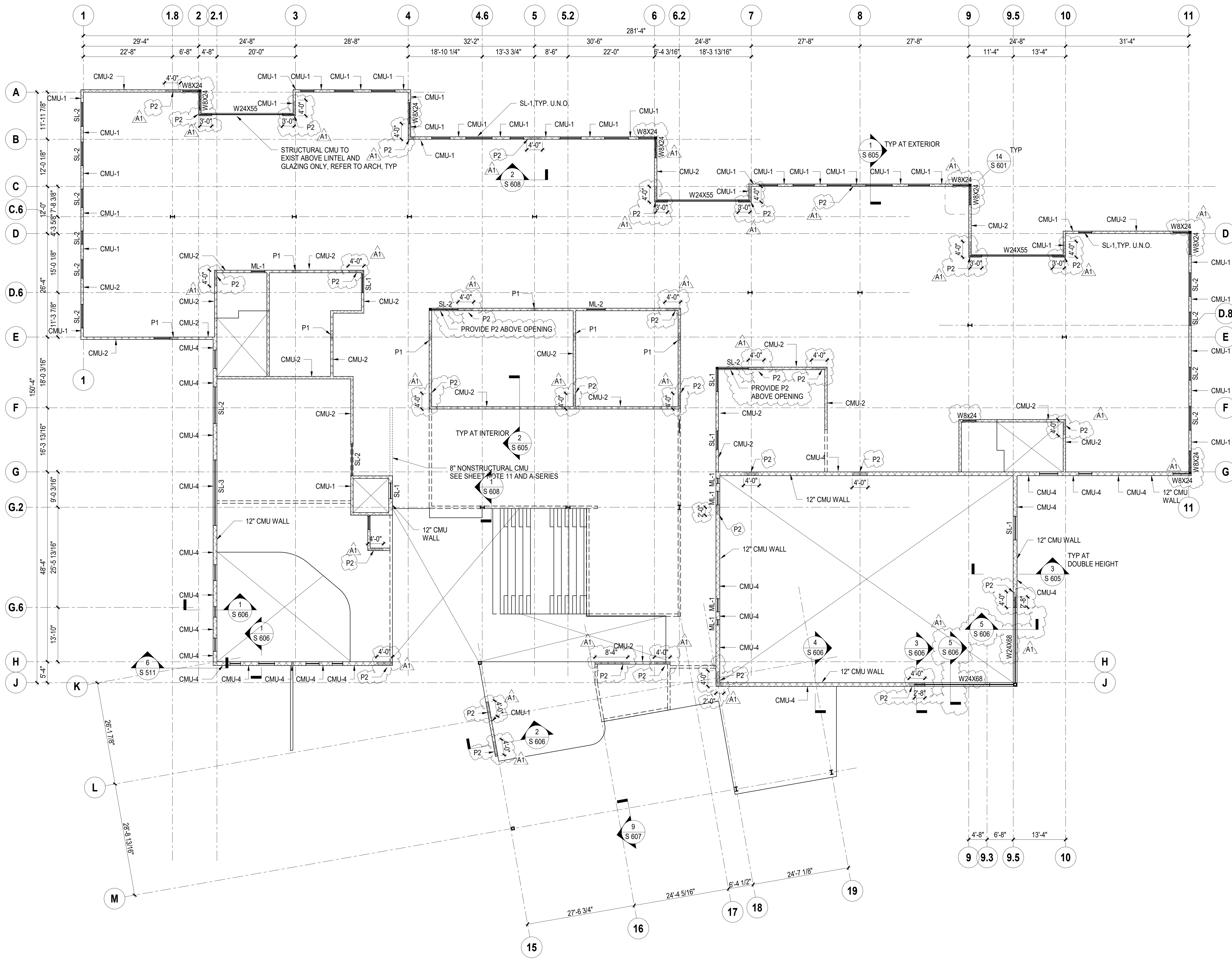
PLAN NOTES:

- SEE ARCH FOR CMU WALL DIMENSIONS INCLUDING ENDS OF WALL AND EDGES OF WALL AT CMU OPENINGS.
- CMU-X INDICATES CMU WALL TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR NON-STRUCTURAL DCMU APPLICATION.
 P-X INDICATES PIER, TYPE PER 8 / S 600
- WCJ INDICATES WALL CONTROL JOINT. ASSUME WCJ @ 25'-0" MAX.
- WCJ DIMENSIONS SHOWN ARE NOMINAL. ADJUST AS NECESSARY FOR ACTUAL MASONRY UNIT SIZES BUT NOT MORE THAN 2" AND SO THAT NO REMAINING PIER IS LESS THAN 2'-6" IN WIDTH.
- WCJ DIMENSIONS FROM OPENING ARE FROM END OF CMU, NOT FROM FACE BRICK
- ANY WALL SEGMENTS OF 3'-0" OR LESS SHALL BE WALL TYPE CMU-1.
- WALL ENDS SUPPORTING SPANDRELS SHALL BE WALL TYPE CMU-1 FOR A LENGTH OF 4'-6" FROM END OF WALL. PROVIDE AN ADDITIONAL #5 VERTICAL BAR FULL HEIGHT IN THE CELLS DIRECTLY BELOW THE BEARING OF THE SPANDREL BEAM FRAMING IN.
- PROVIDE WALL TYPE CMU-2 ABOVE OPENINGS
- SEE LEVEL ABOVE FOR LOCATION OF WCJ AND MATCH.
- SEE SHEET S 600 FOR CMU WALL TYPE SCHEDULE
- ALL CMU WALLS SHOWN IN STRUCTURAL DRAWINGS ARE TO BE CONSIDERED LOAD-BEARING CMU WALLS AS DETAILED IN THE STRUCTURAL DRAWINGS. WALLS NOT INDICATED ON STRUCTURAL DRAWINGS SHALL BE OF THE WALL TYPE SPECIFIED IN THE ARCHITECTURAL DRAWINGS. ANY CMU WALLS SHOWN IN THE ARCHITECTURAL PLANS AND NOT INDICATED IN THE STRUCTURAL DRAWINGS AND SHALL BE DETAILED AS CMU-4 TYPE. NON-LOAD-BEARING CMU WALLS ARE NOT PERMITTED ON SECOND LEVEL FRAMING UNLESS INDICATED IN ARCHITECTURAL RECORD OF ANY DISCREPANCIES BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS.

MASONRY PIER NOTES:

- BENEATH ALL BEAMS BEARING ON CMU WALLS, PROVIDE P1 PIERS BETWEEN L02 AND ROOF, AND P2 PIERS BETWEEN L01 AND L02, UNLESS ANOTHER PIER DESIGNATION IS INDICATED ON PLAN.
- PROVIDE P2 PIERS BENEATH ALL BEAMS BEARING ON CMU WALL ENDS AND CORNERS. P2 PIERS TO BE 48" WIDE, UNLESS ANOTHER LENGTH IS INDICATED ON PLAN.
- PROVIDE 16"-WIDE P2 PIERS BENEATH ALL HSS POSTS AT CORNERS IN BOTH DIRECTIONS UNLESS INDICATED ON PLAN. REFER TO 14 / S 601
- PROVIDE (2) #5 MIN. WITH FULLY GROUTED FIRST CELL ON EITHER SIDE OF ALL MASONRY WALL OPENINGS, UNLESS ANOTHER PIER DESIGNATION IS INDICATED ON PLAN.

1 FIRST FLOOR CMU PLAN
 3/32" = 1'-0"



- CMU WALL LINTELS:**
- SEE ARCHITECTURAL DRAWINGS FOR CMU WALL OPENING DIMENSIONS.
 - ML-xx INDICATES MASONRY LINTEL
SL-xx INDICATES STEEL LINTEL
- INDICATES EXTENSION OF LINTEL TO MATCH EXTENT OF OPENING BELOW - SEE DETAIL 4 / S 600
 - ALL LINTELS TO BE SL-1, U.O.N. ON PLAN
 - PROVIDE STEEL BEAM LINTELS AS INDICATED ON THIS DRAWING
SL-1 INDICATES W8X10
SL-2 INDICATES W16X26
SL-3 INDICATES W16X36
 - PROVIDE LINTELS AT ALL WALL OPENINGS AND RECESSES, INCLUDING MECHANICAL OPENINGS AND PENETRATIONS, CABINETS RECESSED INTO THE WALL, ETC.
 - SEE ARCHITECTURAL AND MEP DRAWINGS AND OTHER PROJECT DOCUMENTS FOR ADDITIONAL WALL OPENINGS AND PENETRATIONS NOT SHOWN ON THIS DRAWING. THIS DRAWING DOES NOT SHOW ALL THE OPENINGS THAT ARE REQUIRED.
 - SEE ARCHITECTURAL DRAWINGS FOR BRICK VENEER AND VENEER OPENINGS.

- PLAN NOTES:**
- SEE ARCH FOR CMU WALL DIMENSIONS INCLUDING ENDS OF WALL AND EDGES OF WALL AT CMU OPENINGS.
 - CMU-X INDICATES CMU WALL TYPE. DCMU-X INDICATES DCMU WALL TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR NON-STRUCTURAL DCMU APPLICATION. P-X INDICATES PIER, TYPE PER 8 / S 600
 - WCJ INDICATES WALL CONTROL JOINT. ASSUME WCJ @ 25'-0" MAX.
 - WCJ DIMENSIONS SHOWN ARE NOMINAL. ADJUST AS NECESSARY FOR ACTUAL MASONRY UNIT SIZES BUT NOT MORE THAN 2" AND SO THAT NO REMAINING PIER IS LESS THAN 2'-6" IN WIDTH.
 - WCJ DIMENSIONS FROM OPENING ARE FROM END OF CMU, NOT FROM FACE BRICK
 - ANY WALL SEGMENTS OF 3'-0" OR LESS SHALL BE WALL TYPE CMU-1.
 - WALL ENDS SUPPORTING SPANDRELS SHALL BE WALL TYPE CMU-1 FOR A LENGTH OF 4'-6" FROM END OF WALL. PROVIDE AN ADDITIONAL #5 VERTICAL BAR FULL HEIGHT IN THE CELLS DIRECTLY BELOW THE BEARING OF THE SPANDREL BEAM FRAMING IN.
 - PROVIDE WALL TYPE CMU-2 ABOVE OPENINGS
 - SEE LEVEL ABOVE FOR LOCATION OF WCJ AND MATCH.
 - SEE SHEET S 600 FOR CMU WALL TYPE SCHEDULE

- MASONRY PIER NOTES:**
- BENEATH ALL BEAMS BEARING ON CMU WALLS, PROVIDE P1 PIERS BETWEEN L02 AND ROOF, AND P2 PIERS BETWEEN L01 AND L02, UNLESS ANOTHER PIER DESIGNATION IS INDICATED ON PLAN.
 - PROVIDE P2 PIERS BENEATH ALL BEAMS BEARING ON CMU WALL ENDS AND CORNERS. P2 PIERS TO BE 48" WIDE, UNLESS ANOTHER LENGTH IS INDICATED ON PLAN.
 - PROVIDE 16"-WIDE P2 PIERS BENEATH ALL HSS POSTS AT CORNERS IN BOTH DIRECTIONS UO ON PLAN. REFER TO 14 / S 601.
 - PROVIDE (2) #5 MIN. WITH FULLY GROUTED FIRST CELL ON EITHER SIDE OF ALL MASONRY WALL OPENINGS, UNLESS ANOTHER PIER DESIGNATION IS INDICATED ON PLAN.

ADD No. 1 JUL 26, 2023
 ISSUED FOR DATE

PROJECT TITLE
 HAVERHILL ELEMENTARY SCHOOL

OWNER
 PORTAGE PUBLIC SCHOOLS

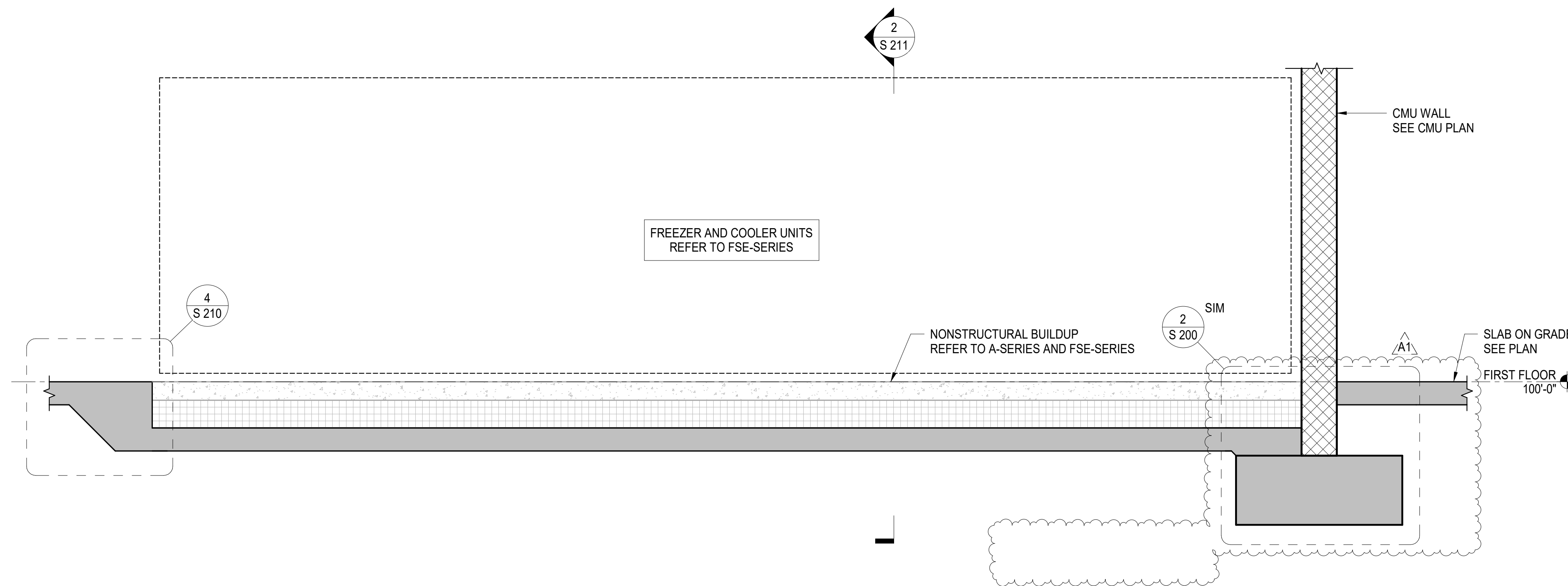
SHEET TITLE
 SECOND FLOOR CMU PLAN

Portage, Michigan

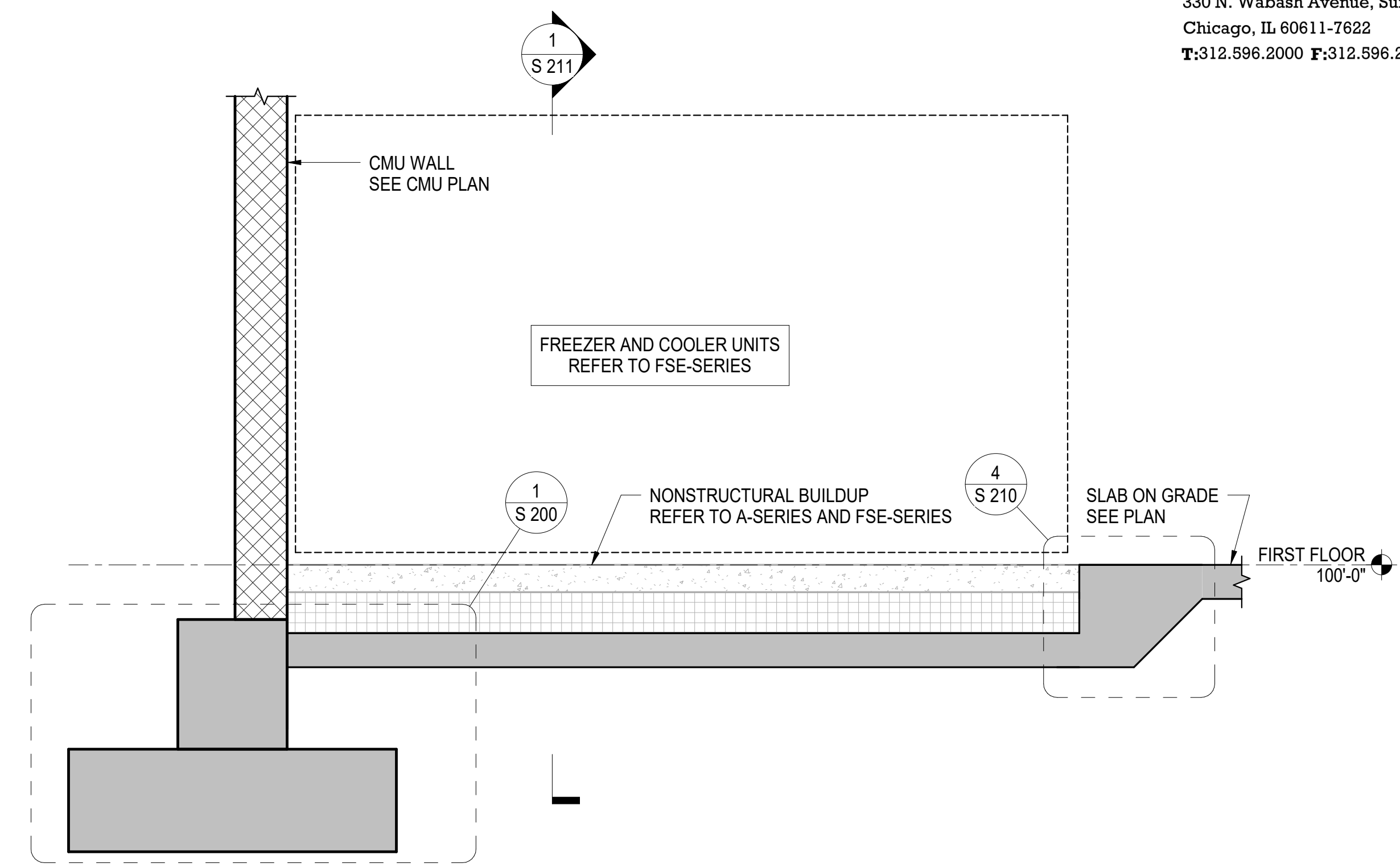
DATE
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SHEET NUMBER
 S 112
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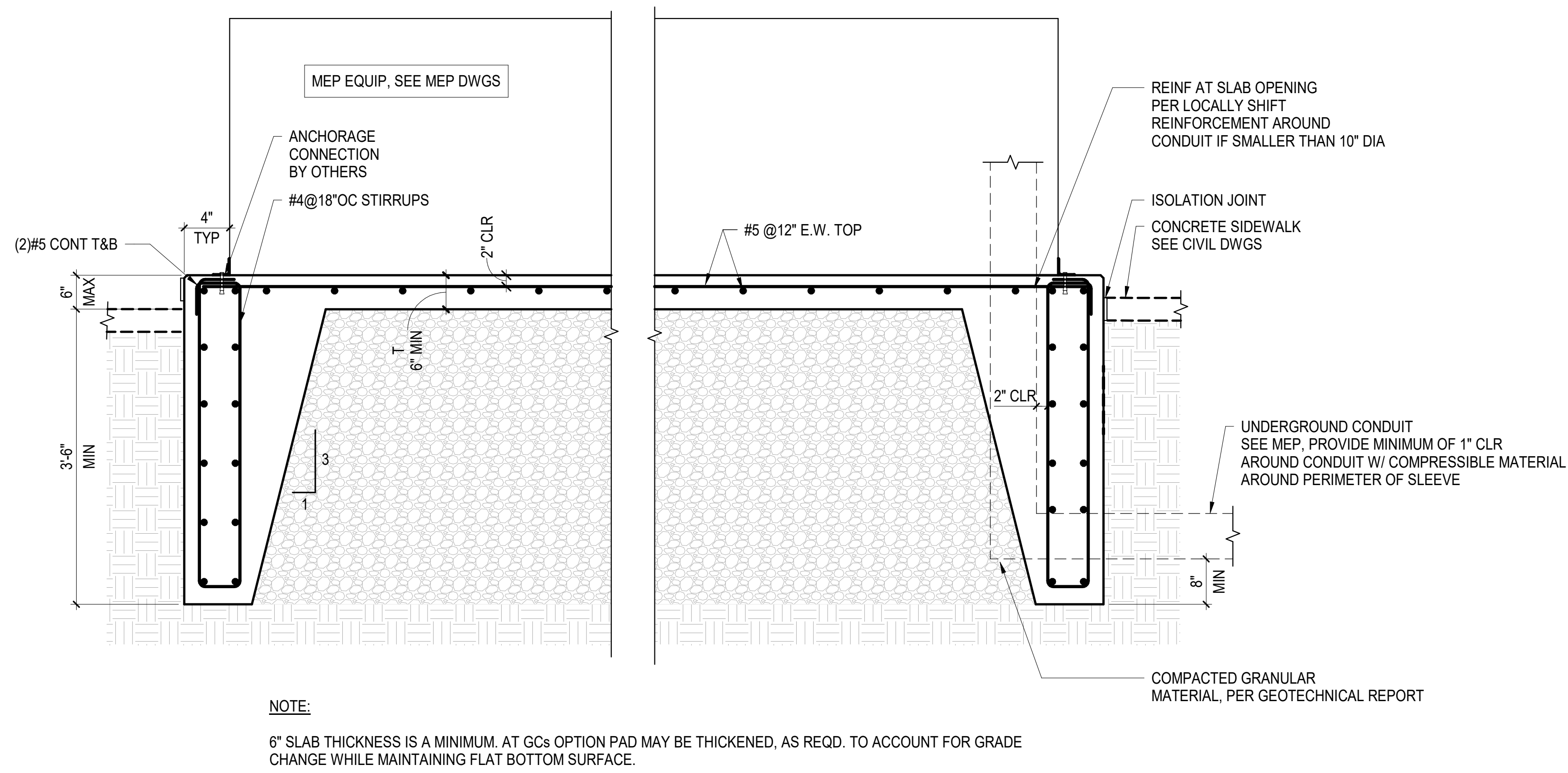
1 SECOND FLOOR CMU PLAN
 3/32" = 1'-0"



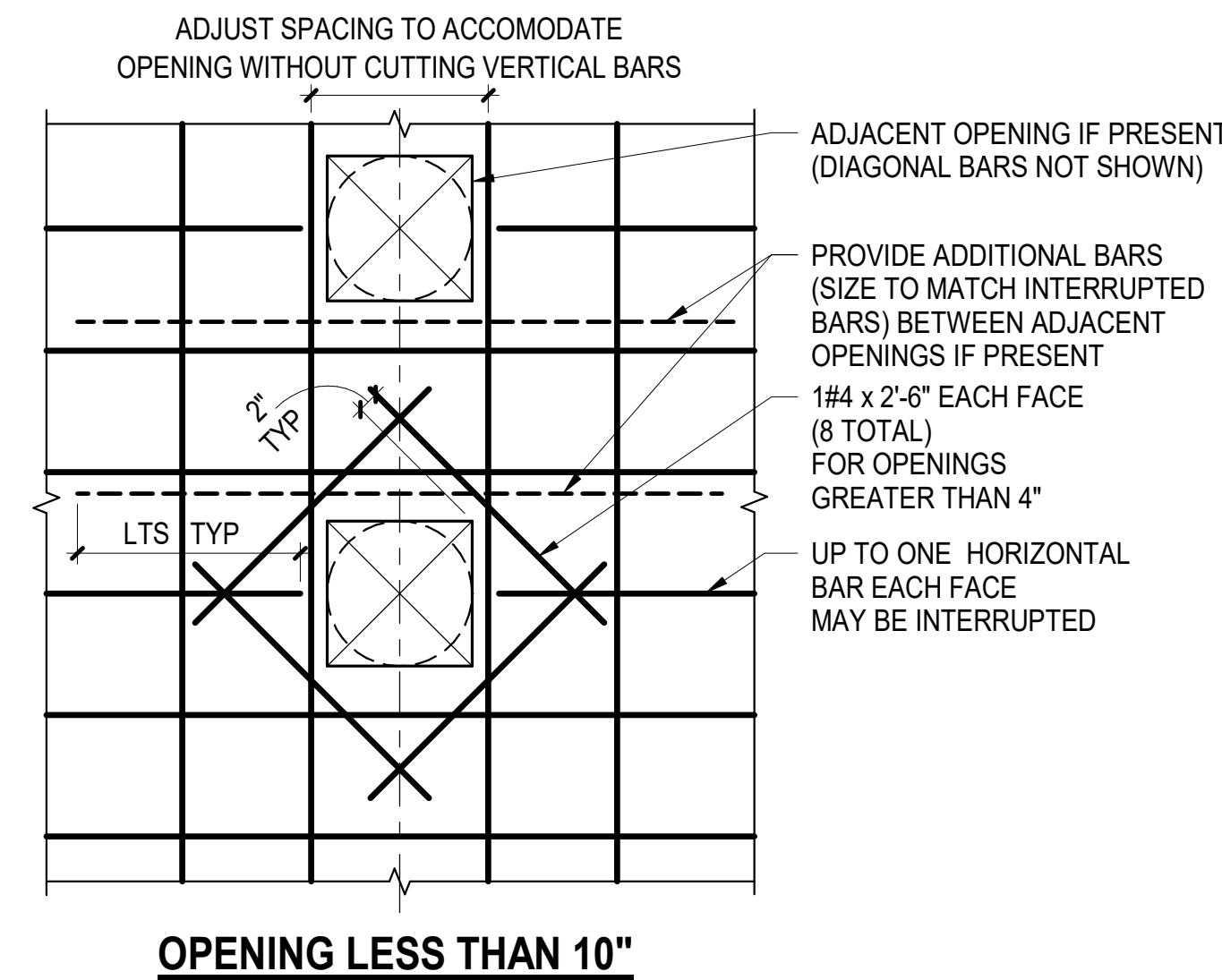
2 SECTION AT FREEZER/COOLER
 3/4" = 1'-0"



1 SECTION AT FREEZER/COOLER
 3/4" = 1'-0"



3 GENERATOR PAD DETAIL
 3/4" = 1'-0"



- NOTES:**
1. MINIMUM CLEAR DISTANCE BETWEEN OPENINGS IS 2 TIMES MAXIMUM OPENING SIZE
 2. FOR OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS, CONTRACTOR TO SUBMIT LOCATIONS AND SPACING TO STRUCTURAL ENGINEER FOR WRITTEN APPROVAL

4 TYPICAL WALL OPENING DETAILS
 NOT TO SCALE

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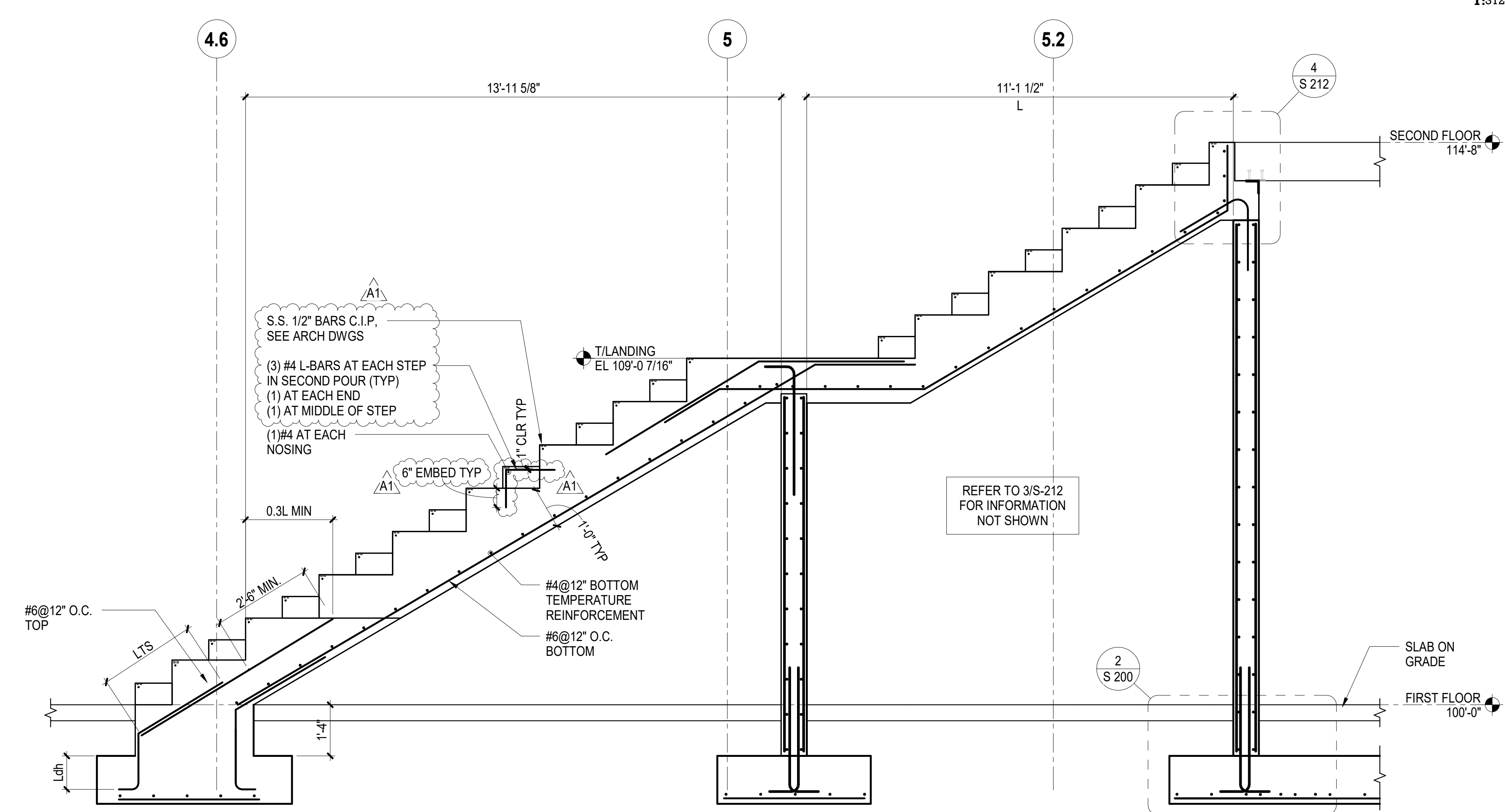
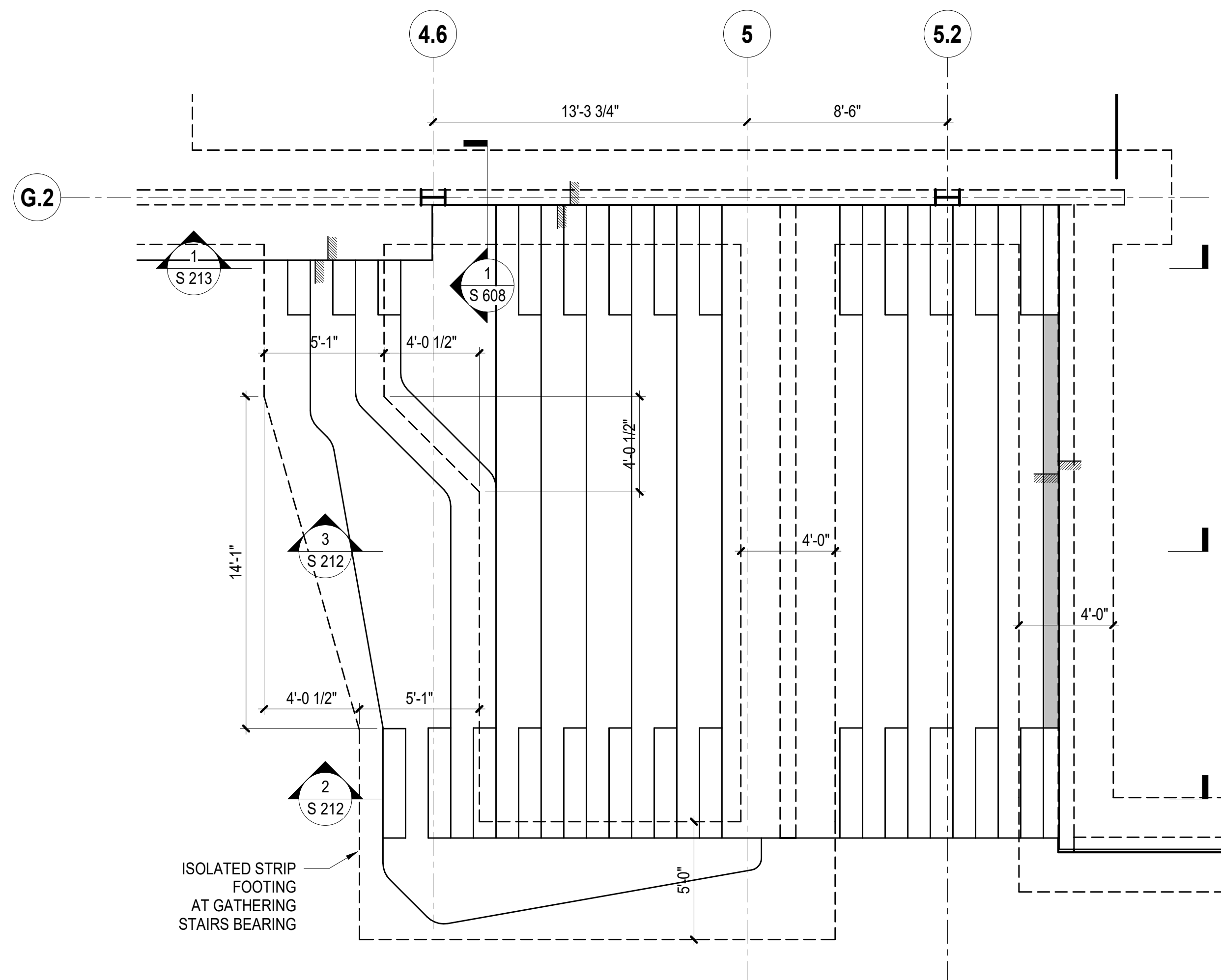
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 HAVERHILL ELEMENTARY SCHOOL

OWNER
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Portage, Michigan

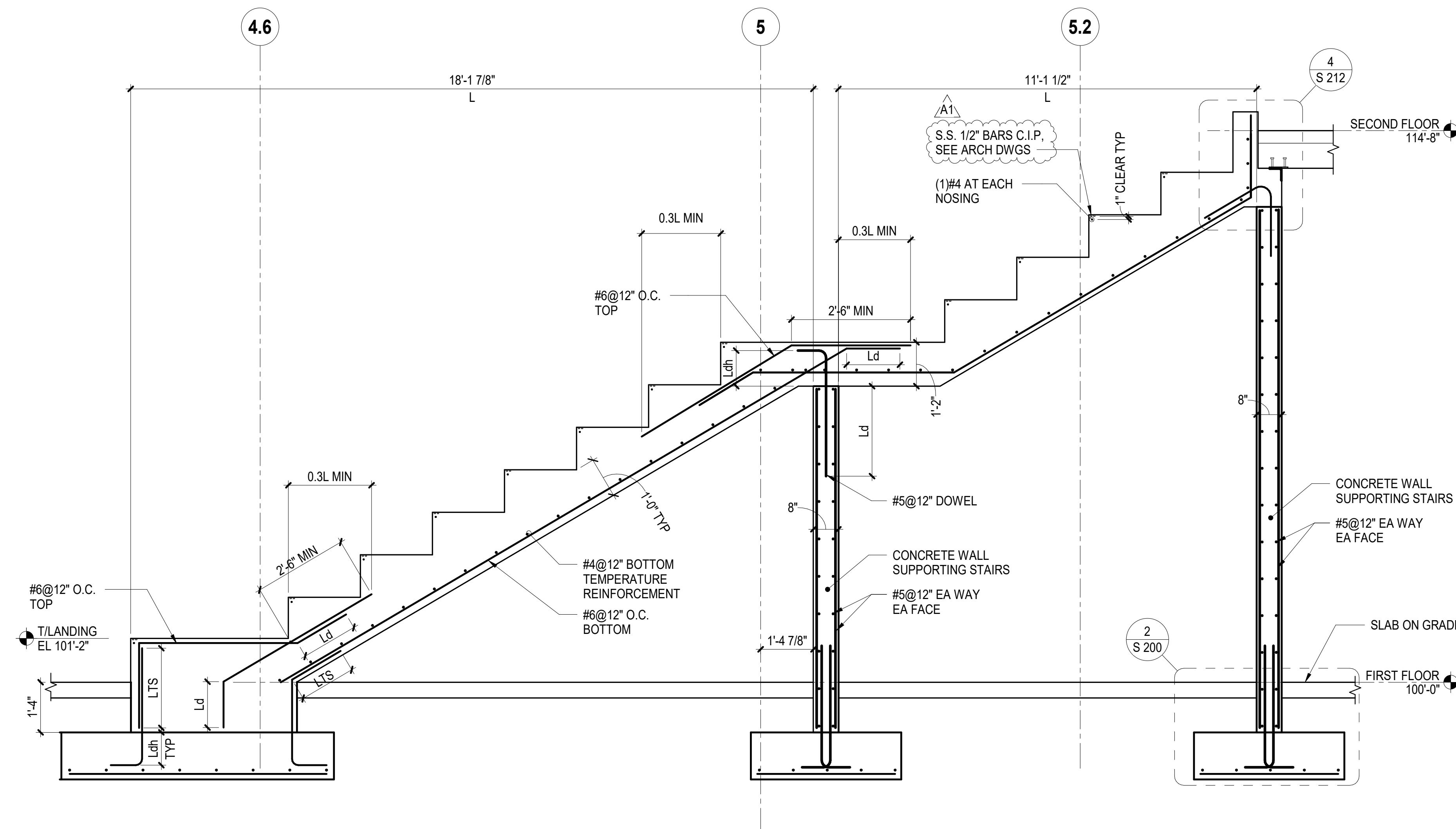
SHEET TITLE
 TYPICAL SLAB ON GRADE DETAILS

SHEET NUMBER
S 211
 DATE
 JUNE 30, 2023
 21-237.25

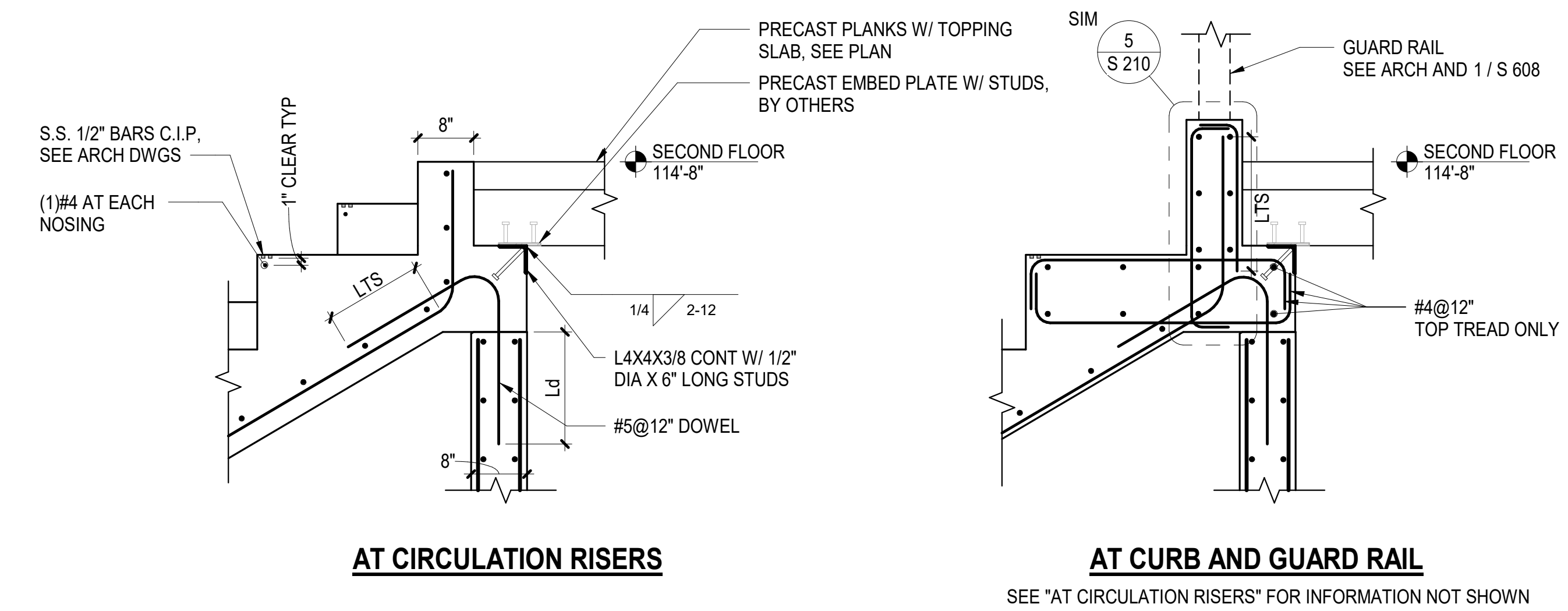


1 GATHERING STAIR PARTIAL PLAN
 1/4" = 1'-0"

2 GATHERING STAIR SECTION
 1/2" = 1'-0"



3 GATHERING STAIR SECTION
 1/2" = 1'-0"

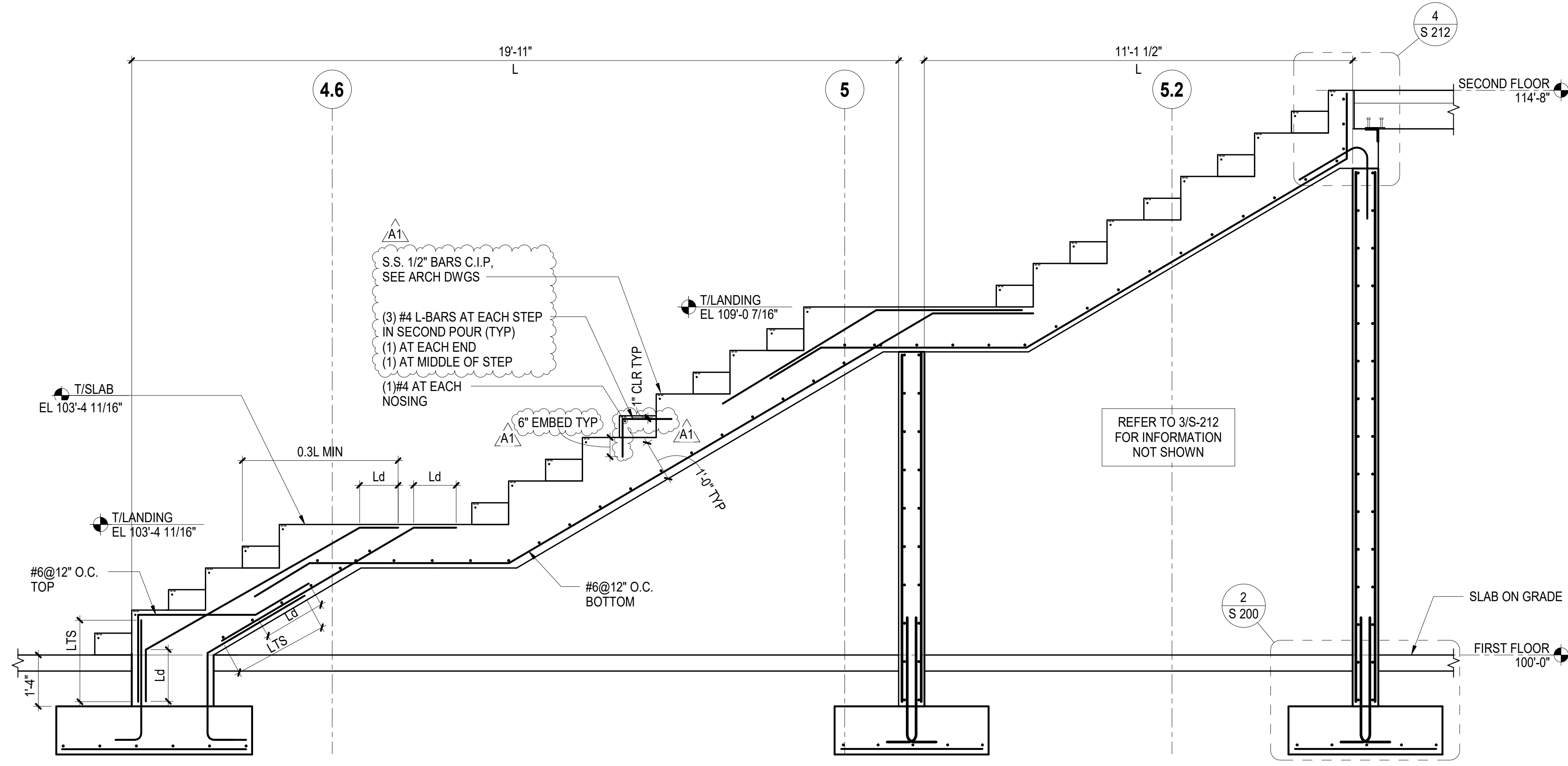


4 DETAIL AT TOP OF GATHERING STAIR
 3/4" = 1'-0"

AT CIRCULATION RISERS

AT CURB AND GUARD RAIL

SEE "AT CIRCULATION RISERS" FOR INFORMATION NOT SHOWN



1 GATHERING STAIR SECTION
 1/2" = 1'-0"

ADD No. 1 JUL 26, 2023
 BP5 ADD. No. 1 JUN 15, 2023
 ISSUED FOR DATE

PROJECT TITLE
 HAVERHILL ELEMENTARY SCHOOL

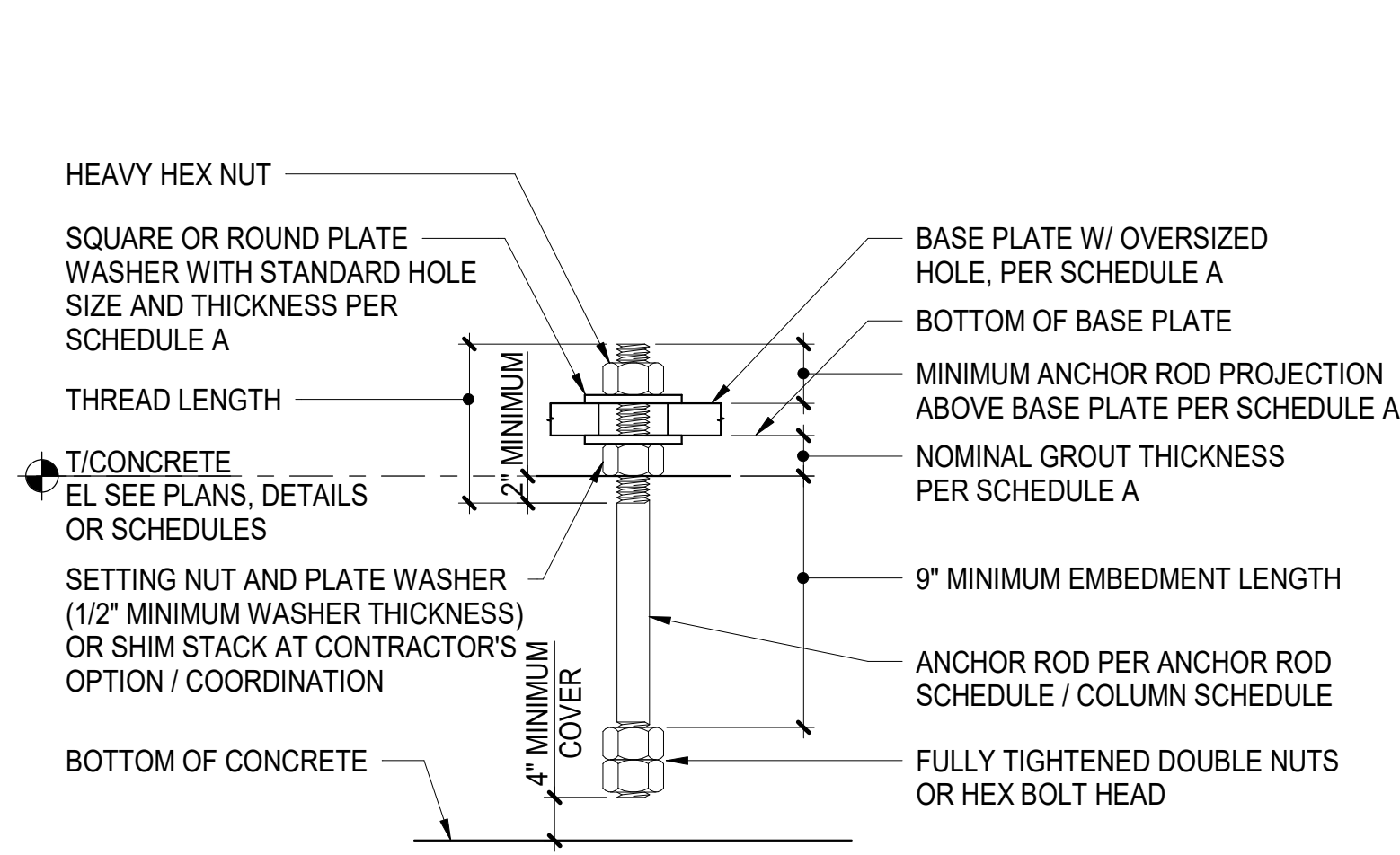
OWNER
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

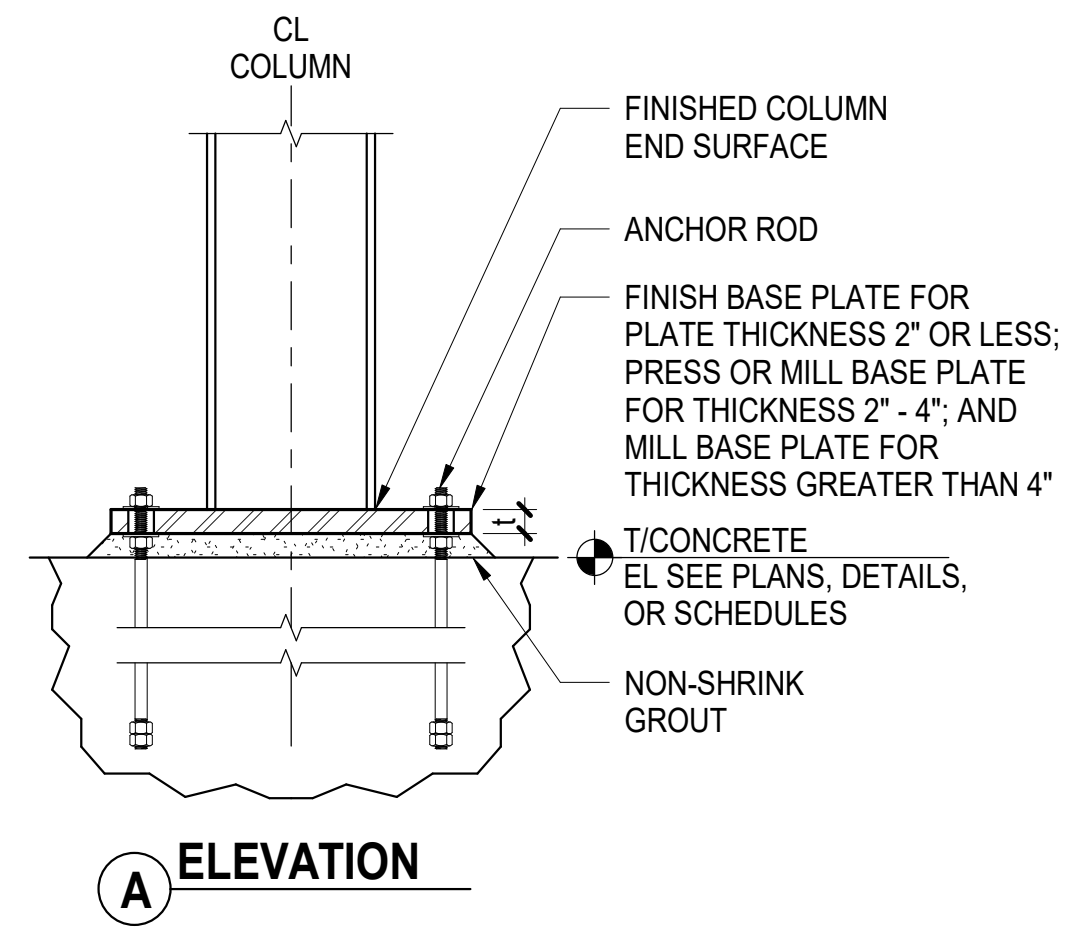
SHEET TITLE
 GATHERING STAIR SECTION

DATE
 JUNE 30, 2023

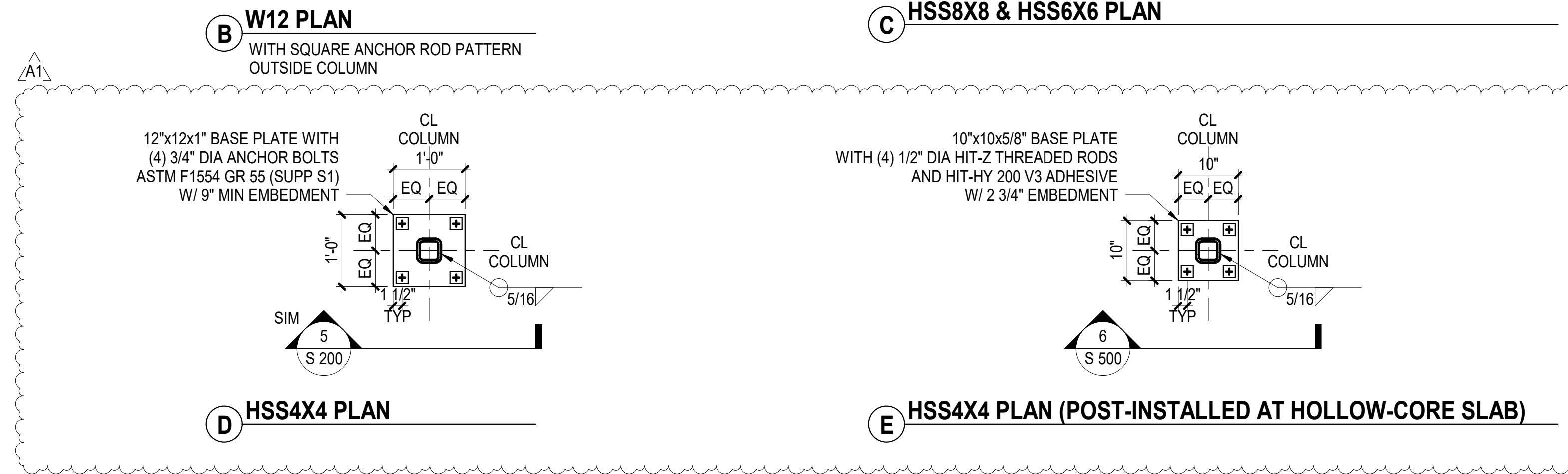
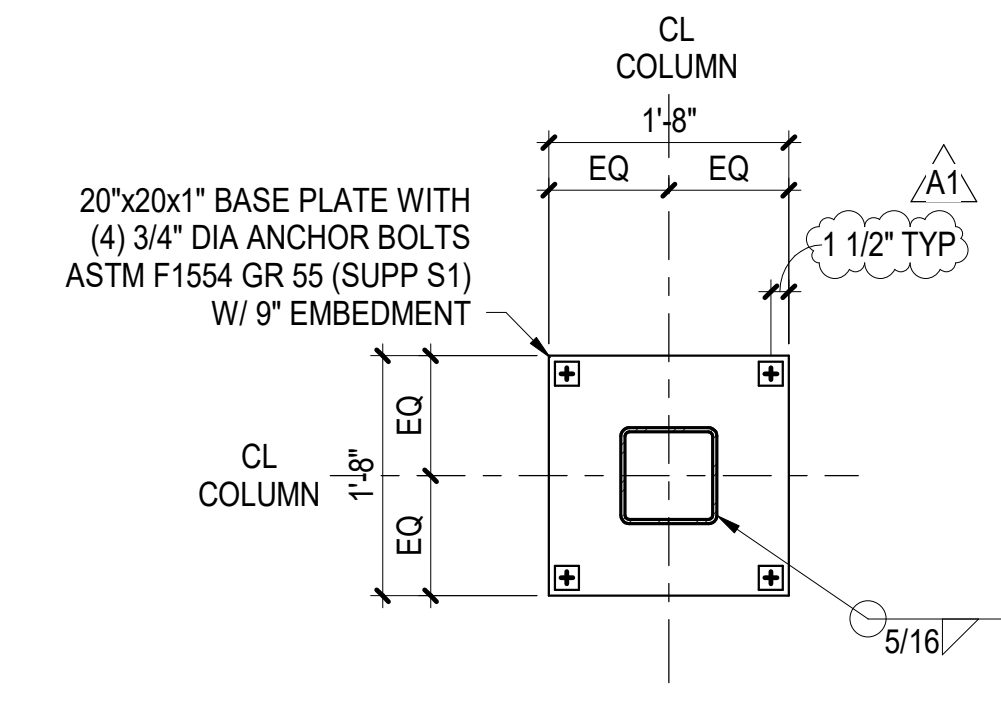
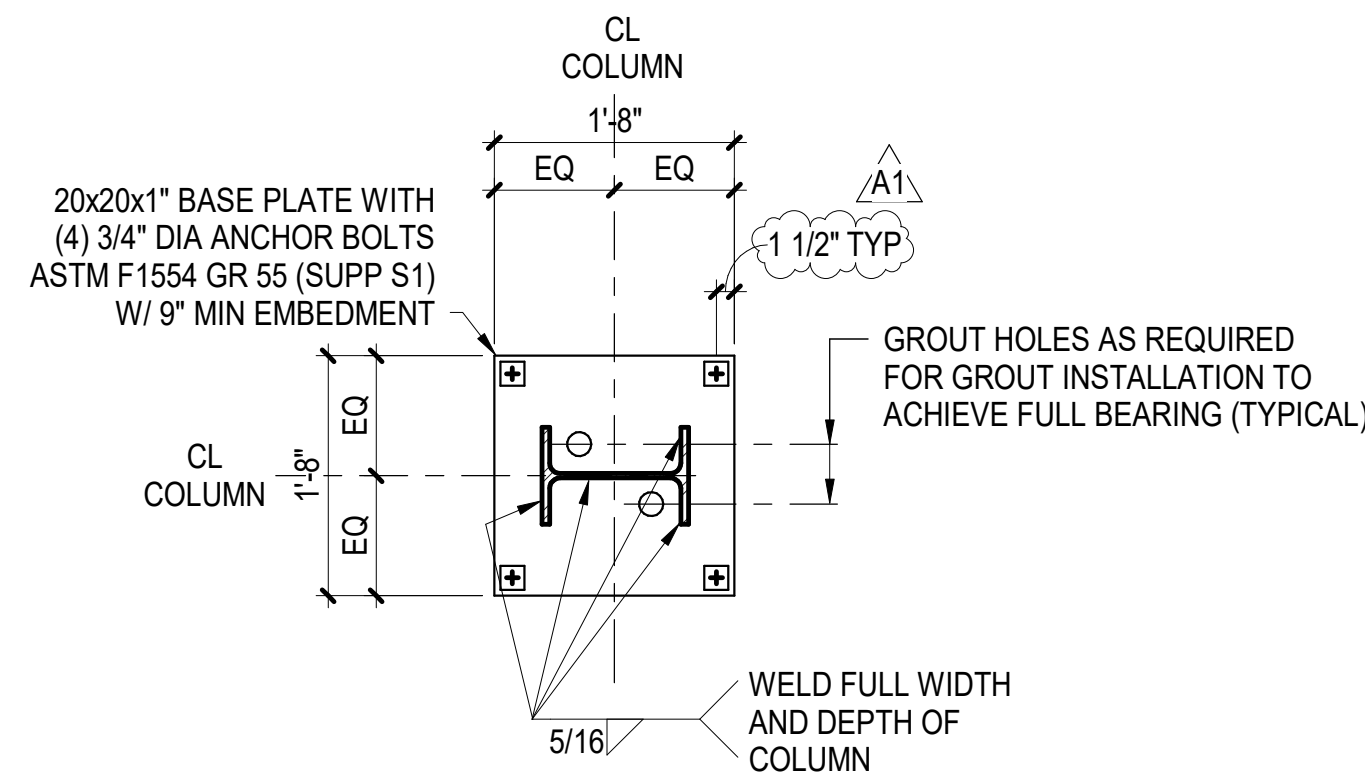
SHEET NUMBER
S 213
 21-237.25



SCHEDULE A					
ANCHOR ROD DIAMETER	BASE PL HOLE DIA	MIN WASHER SIZE	MIN WASHER t	MIN PROJ ABOVE BASE PL	NOMINAL GROUT THICKNESS
3/4"	1-5/16"	2"	1/4"	3"	2"

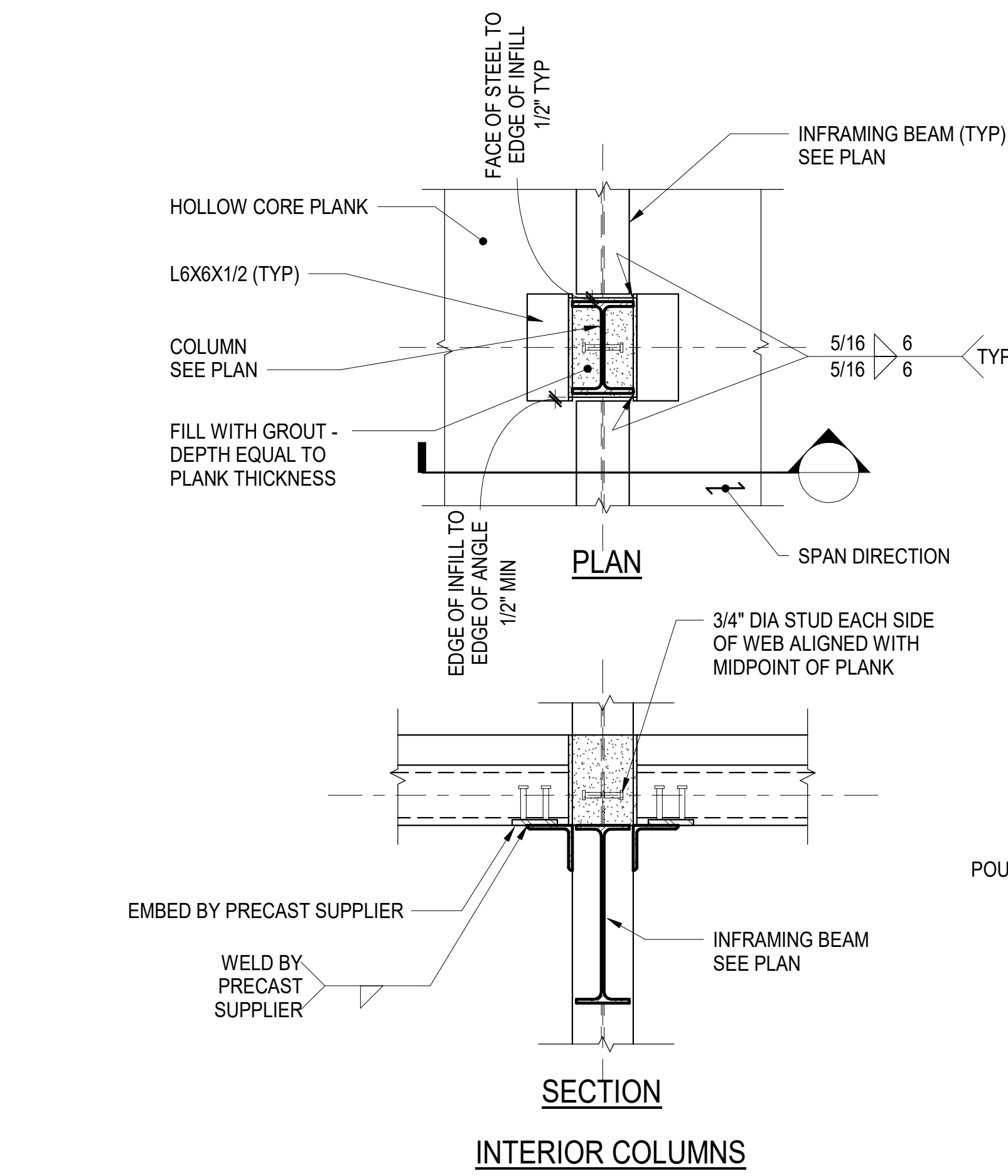


- NOTES:**
- BASE PLATE THICKNESS SHOWN IS A MINIMUM DIMENSION AFTER ALL MILLING IS COMPLETED
 - COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR
 - SEE ANCHOR ROD SCHEDULE AND TYPICAL ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION
 - ANCHOR ROD CONFIGURATION IS TO USE SQUARE PATTERN OUTSIDE COLUMN. IF SPECIFIED BASE PLATE SIZE DOES NOT PERMIT OUTSIDE PLACEMENT, USE SQUARE PATTERN INSIDE COLUMN. USE RECTANGULAR ANCHOR ROD CONFIGURATION WHERE NOTED.



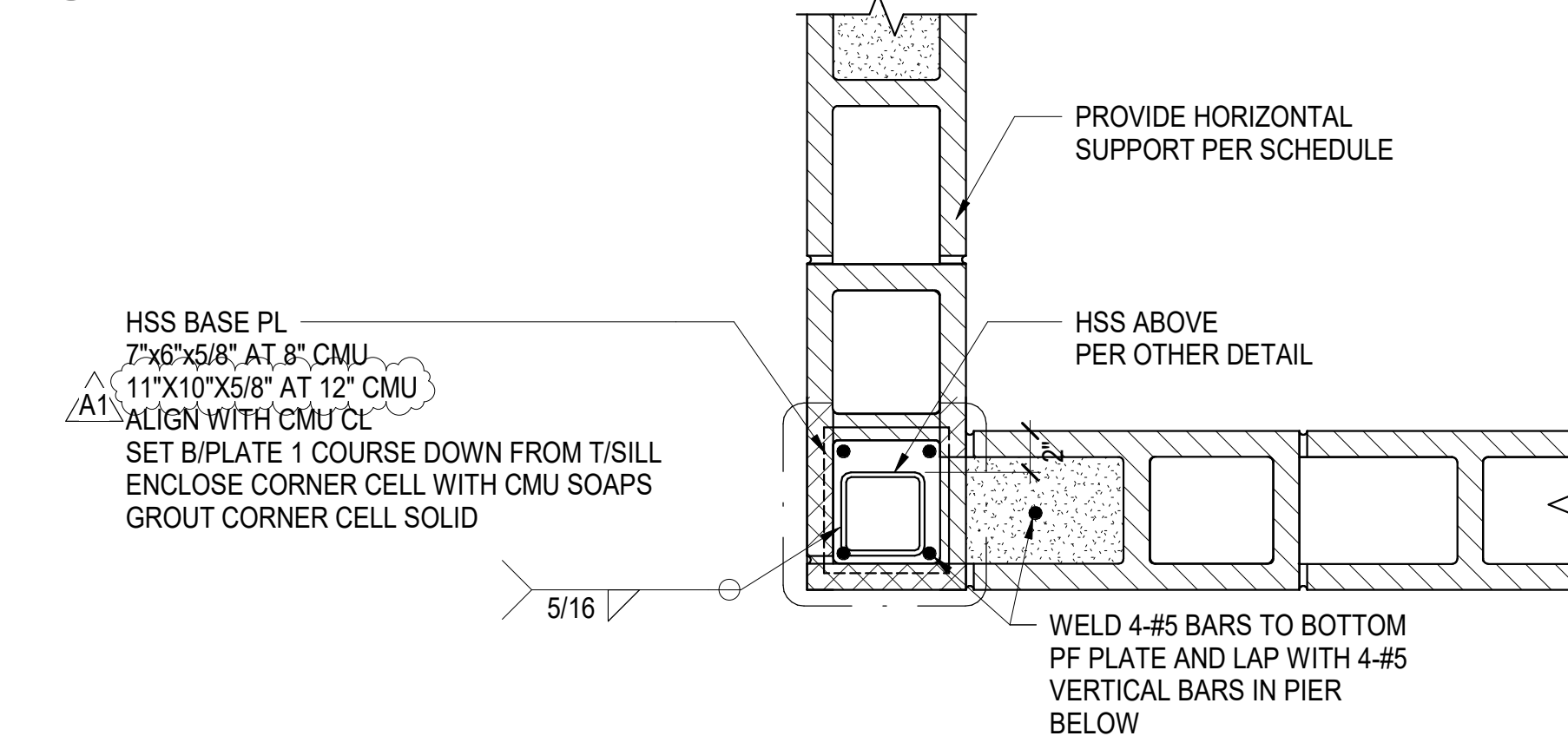
1 TYPICAL ANCHOR ROD DETAIL
 NOT TO SCALE

2 TYPICAL BASE PLATE DETAIL
 NOT TO SCALE

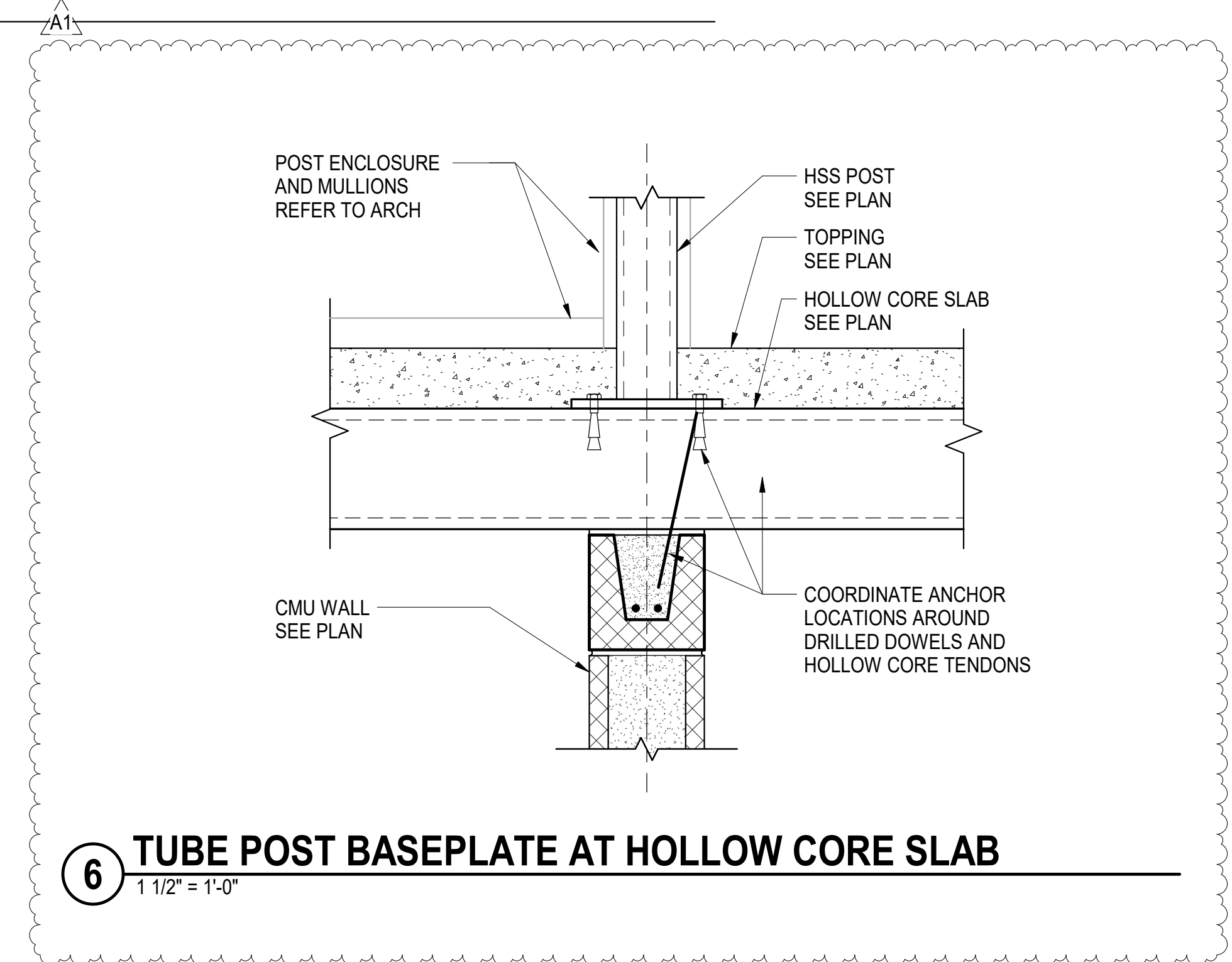


3 INFILL, SLAB SUPPORT, AND LATERAL BRACING AT COLUMNS
 3/4" = 1'-0"

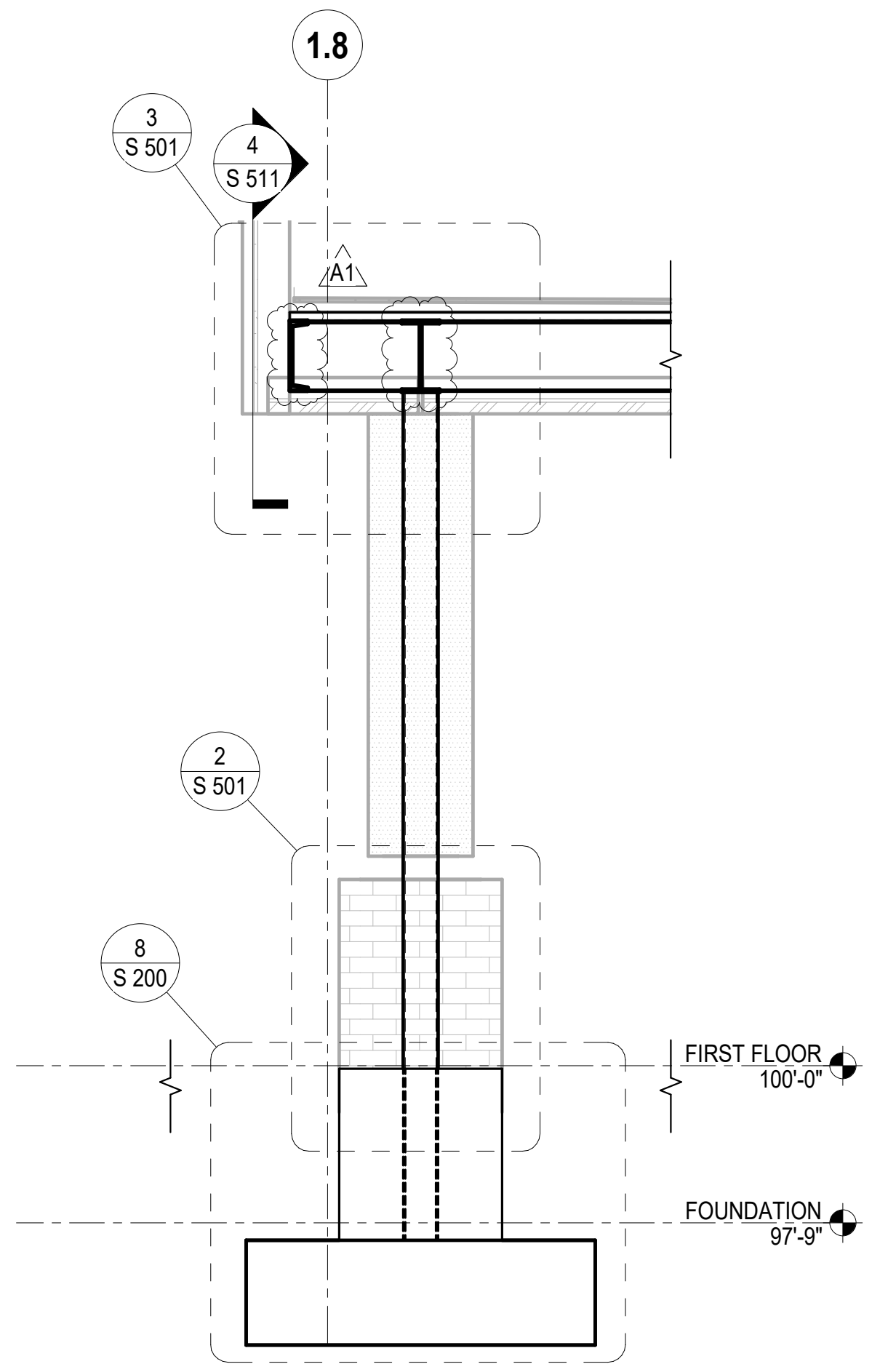
4 LINTELS AT CORNER SUPPORTED BY TUBE POST
 1 1/2" = 1'-0"



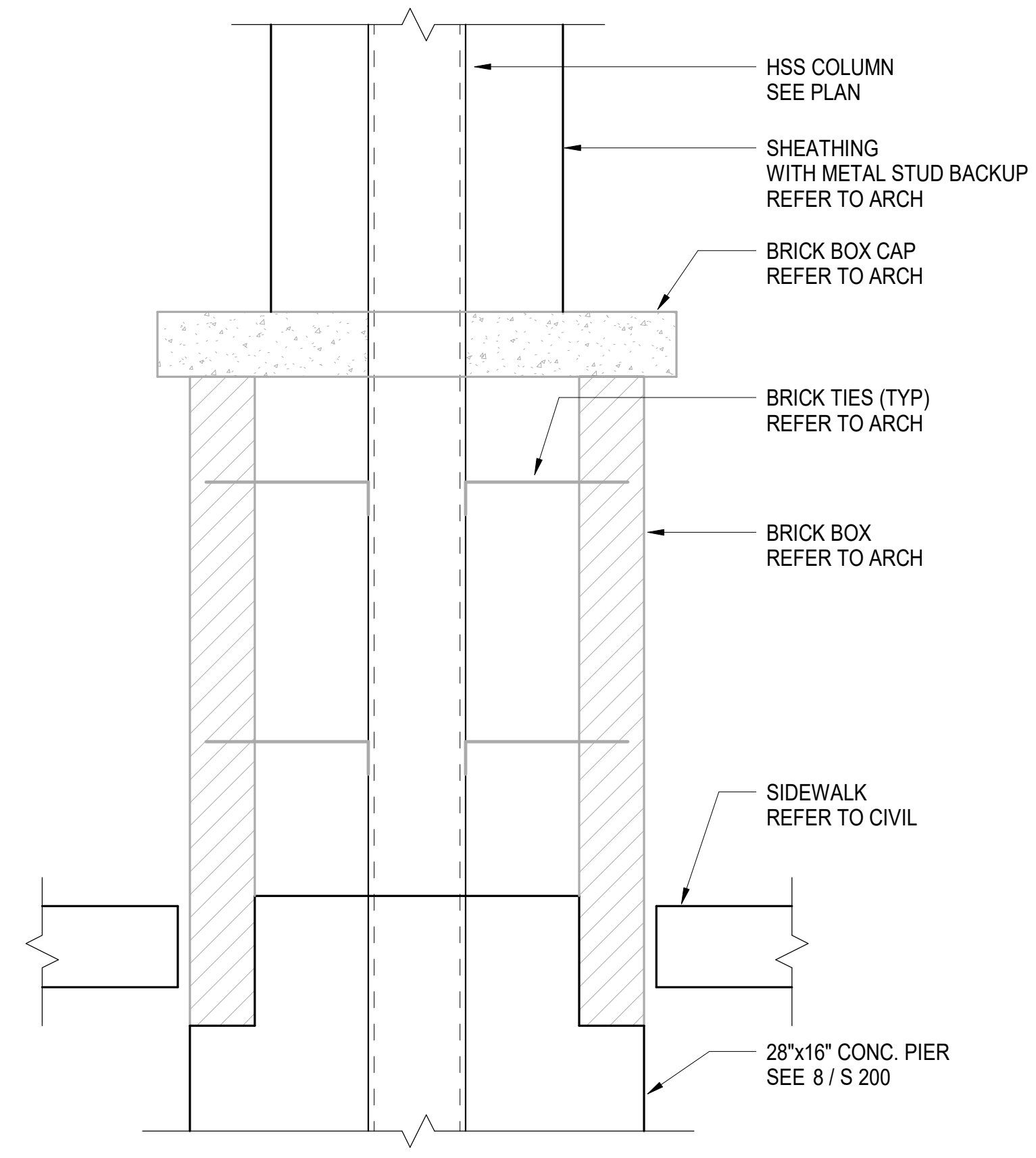
5 SILL AT CORNER WITH TUBE POST
 1 1/2" = 1'-0"



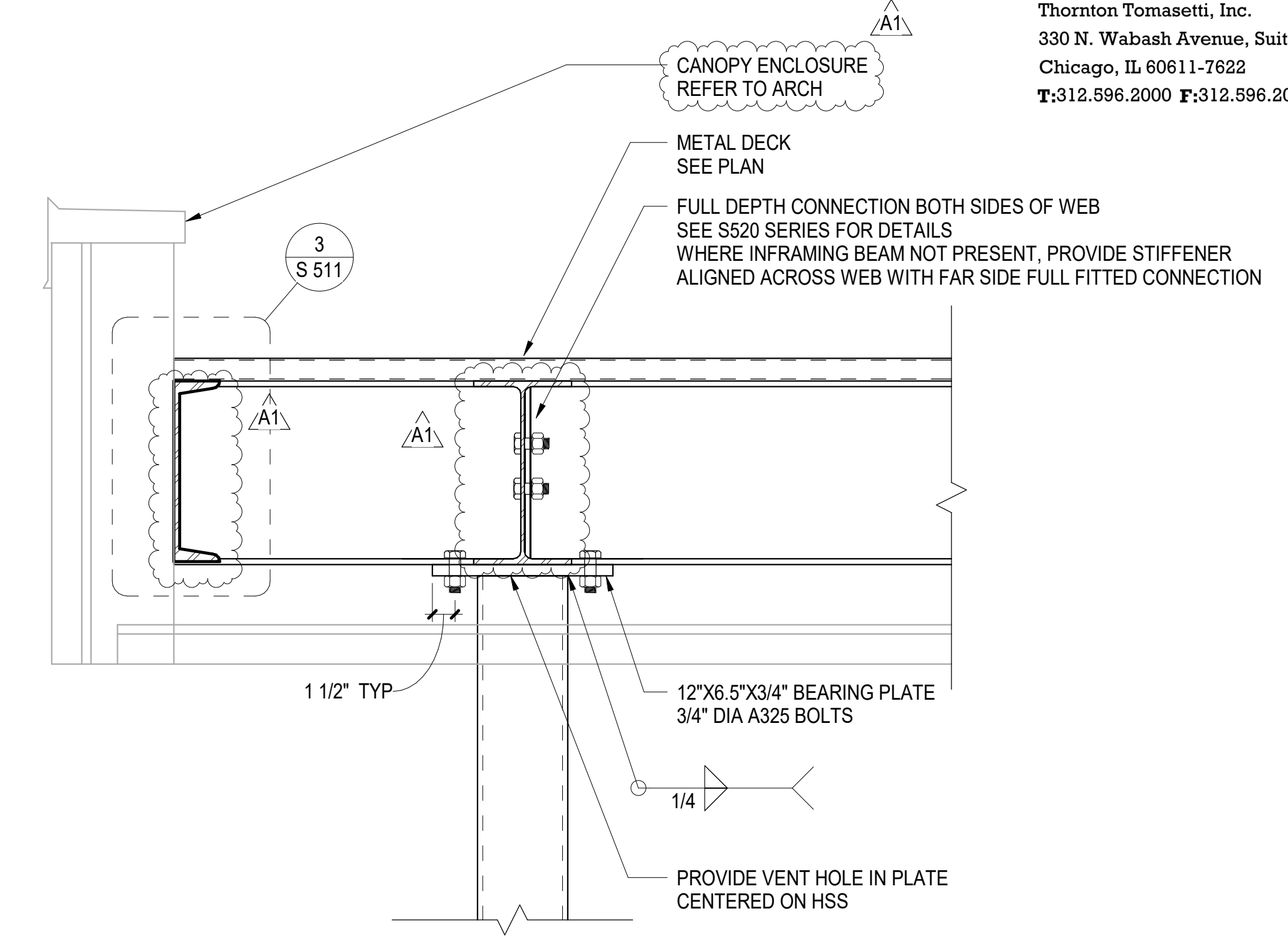
6 TUBE POST BASEPLATE AT HOLLOW CORE SLAB
 1 1/2" = 1'-0"



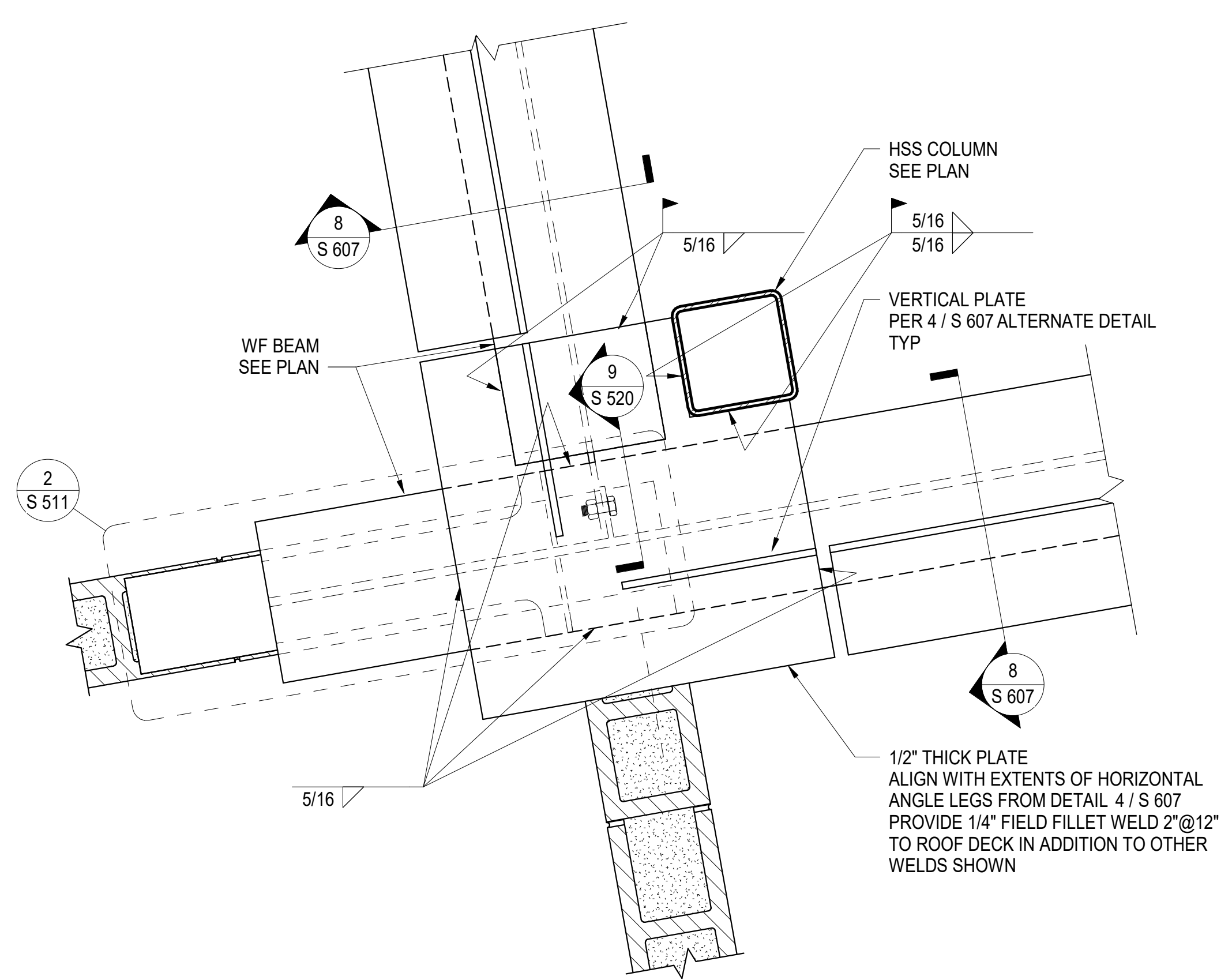
1 HSS POST AT CANOPY
1/2" = 1'-0"



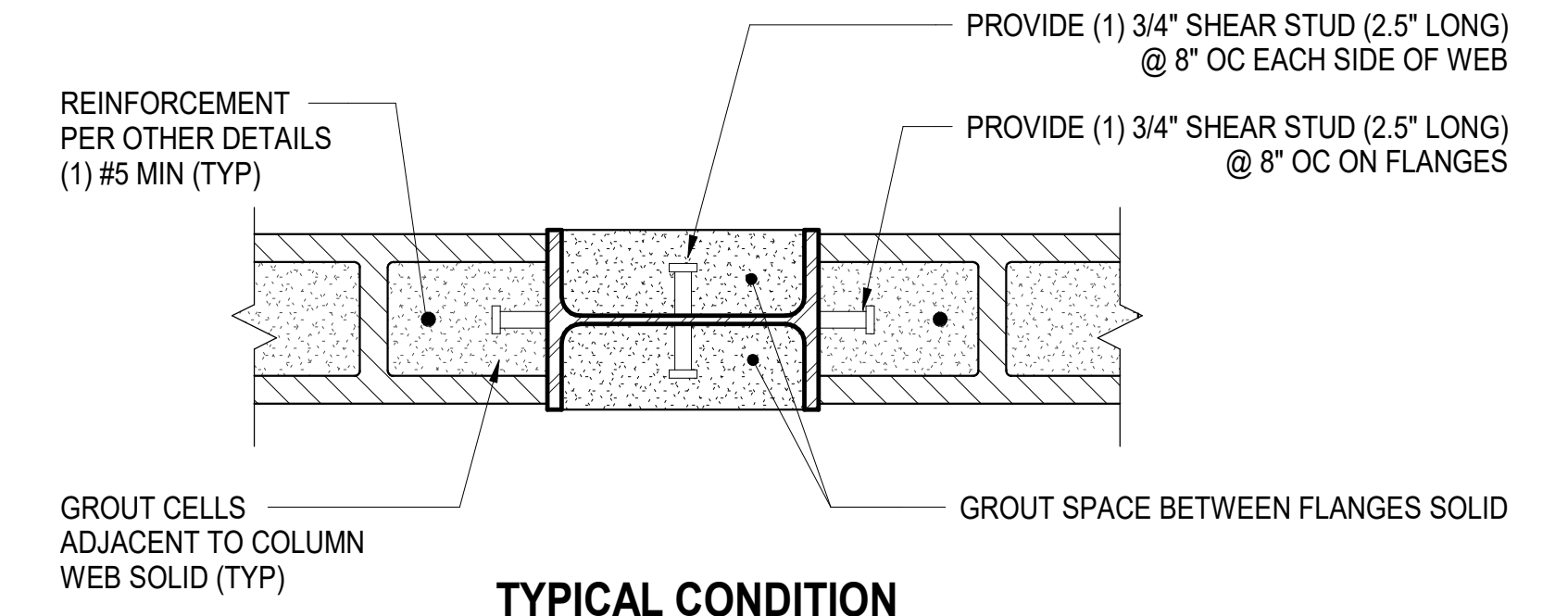
2 DETAIL AT CANOPY COLUMN BASE AND VENEER BOX
1 1/2" = 1'-0"



3 DETAIL AT CANOPY COLUMN TOP CONNECTION
1 1/2" = 1'-0"

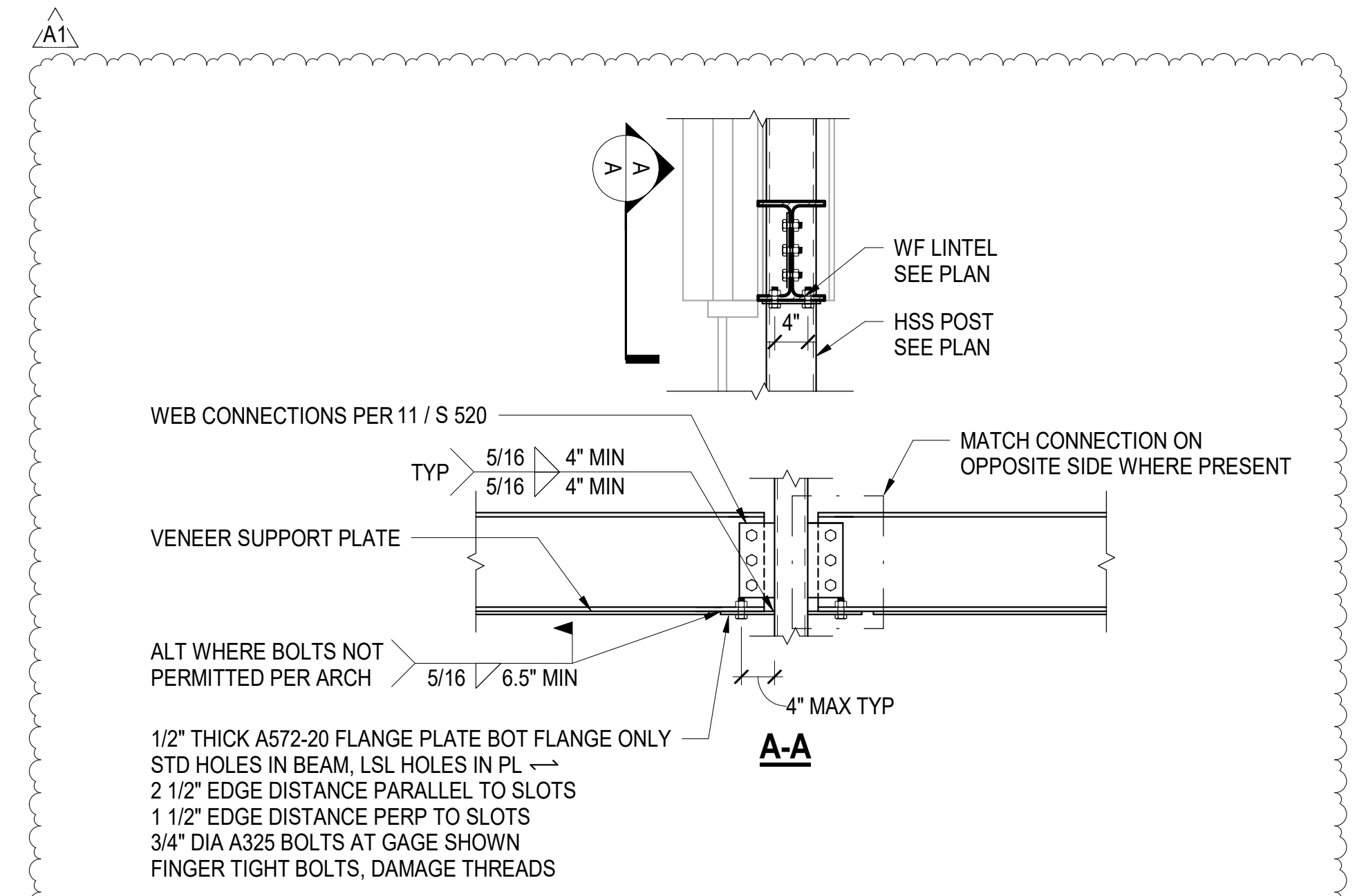


6 DETAIL AT OFFSET HSS POST
1 1/2" = 1'-0"



AT HORIZONTAL REINFORCEMENT (#3 AND GREATER)
SEE "TYPICAL CONDITION" FOR INFORMATION NOT SHOWN

4 COLUMN EMBEDDED WITHIN CMU WALL
1 1/2" = 1'-0"



8 FLANGE PLATES AT EXTERIOR LINTELS SUPPORTED BY STEEL POSTS
3/4" = 1'-0"

Thornton Tomasetti
Thornton Tomasetti, Inc.
330 N. Wabash Avenue, Suite 1500
Chicago, IL 60611-7622
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ADD No. 1 JUL 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL

OWNER
PORTAGE PUBLIC SCHOOLS

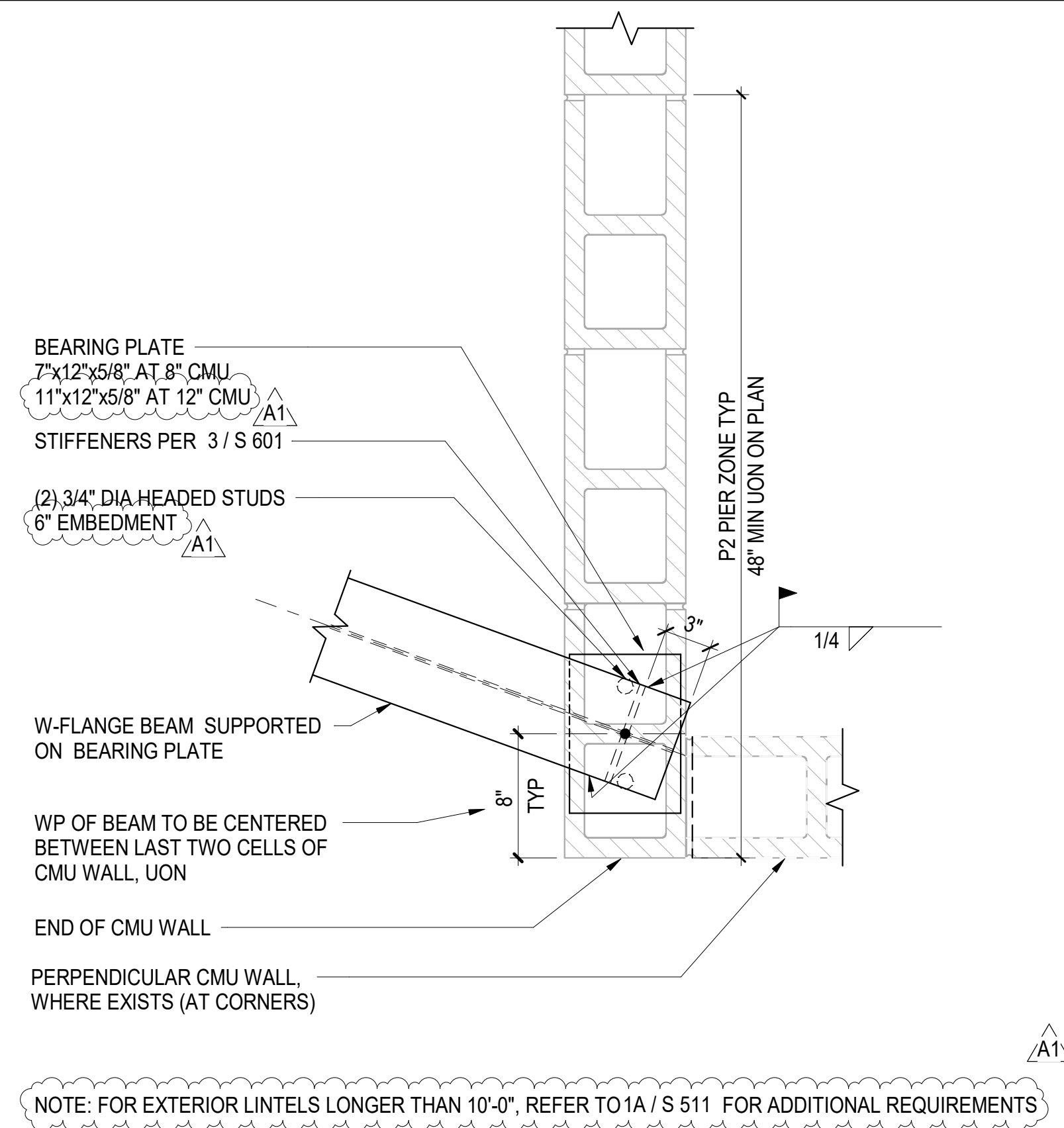
SHEET TITLE
STEEL COLUMN DETAILS

Portage, Michigan

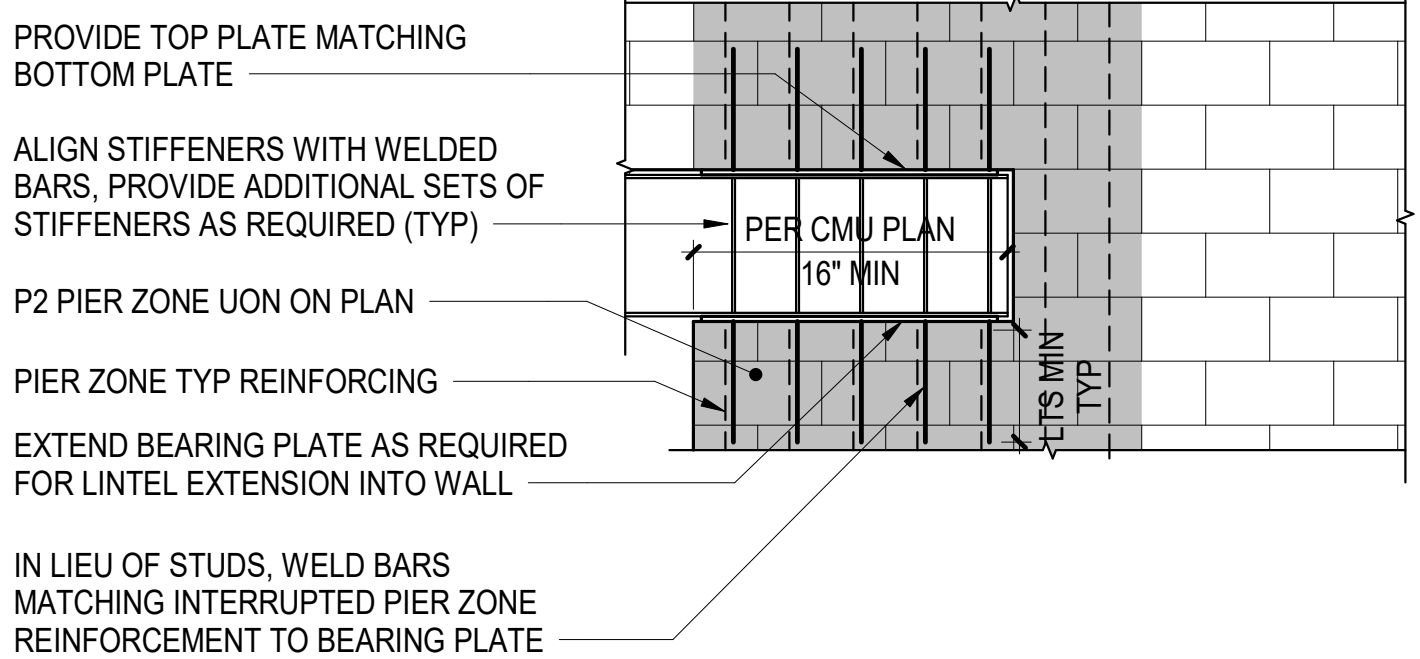
DATE
JUNE 30, 2023

SHEET NUMBER
S 501
21-237.25

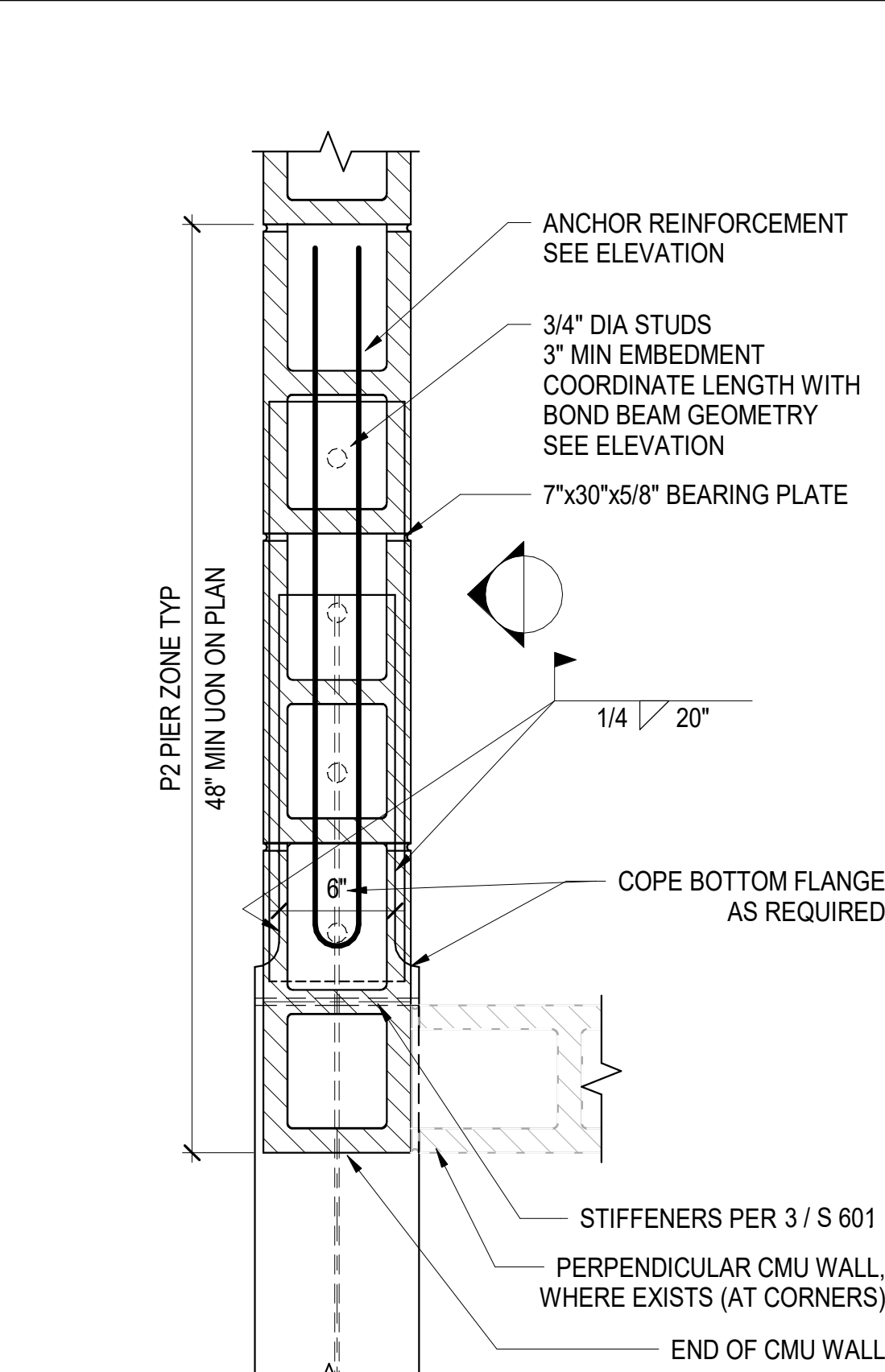
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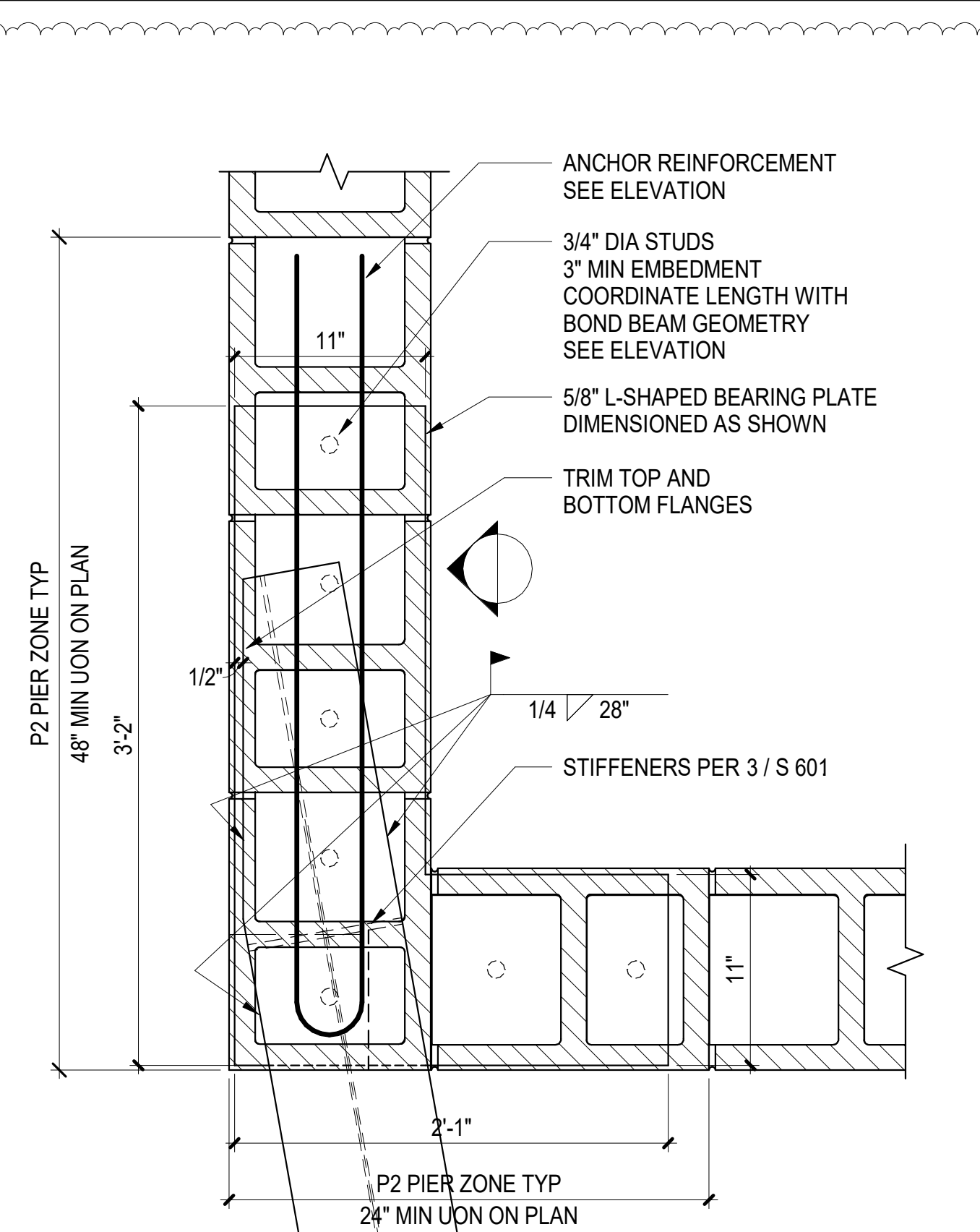
1 STEEL BEAM SUPPORTED BY END/CORNER OF CMU WALL
1 1/2" = 1'-0"



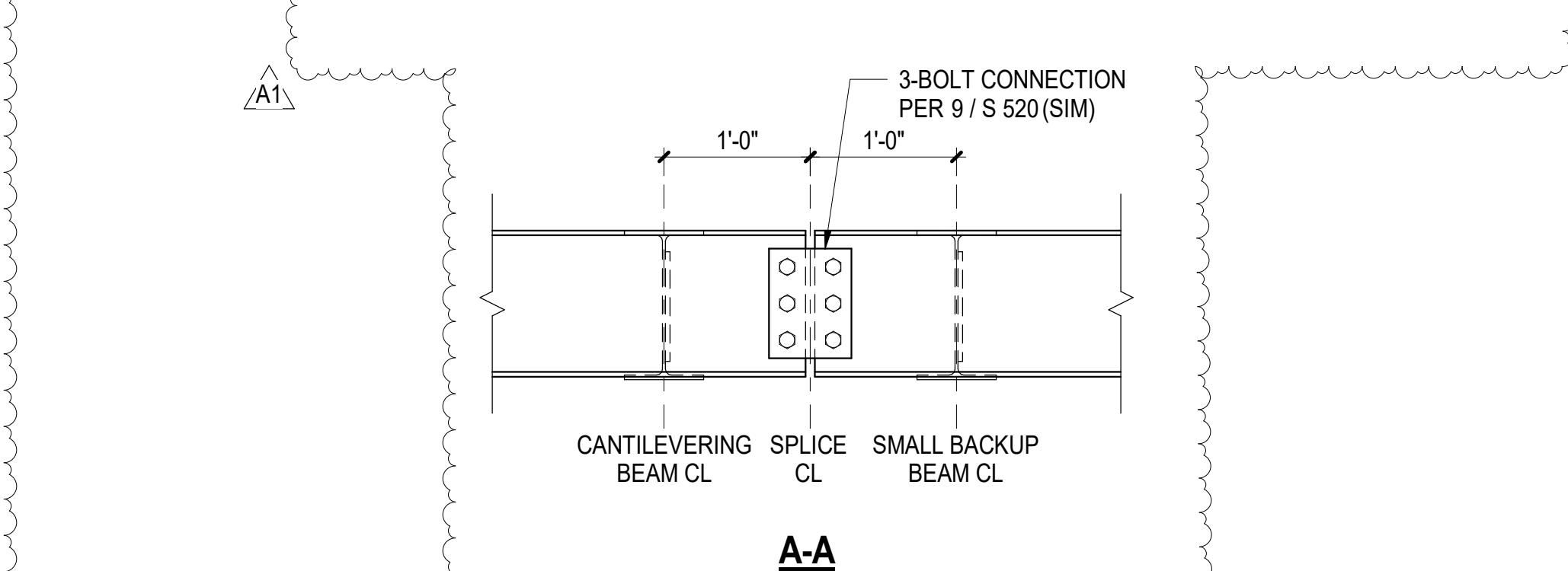
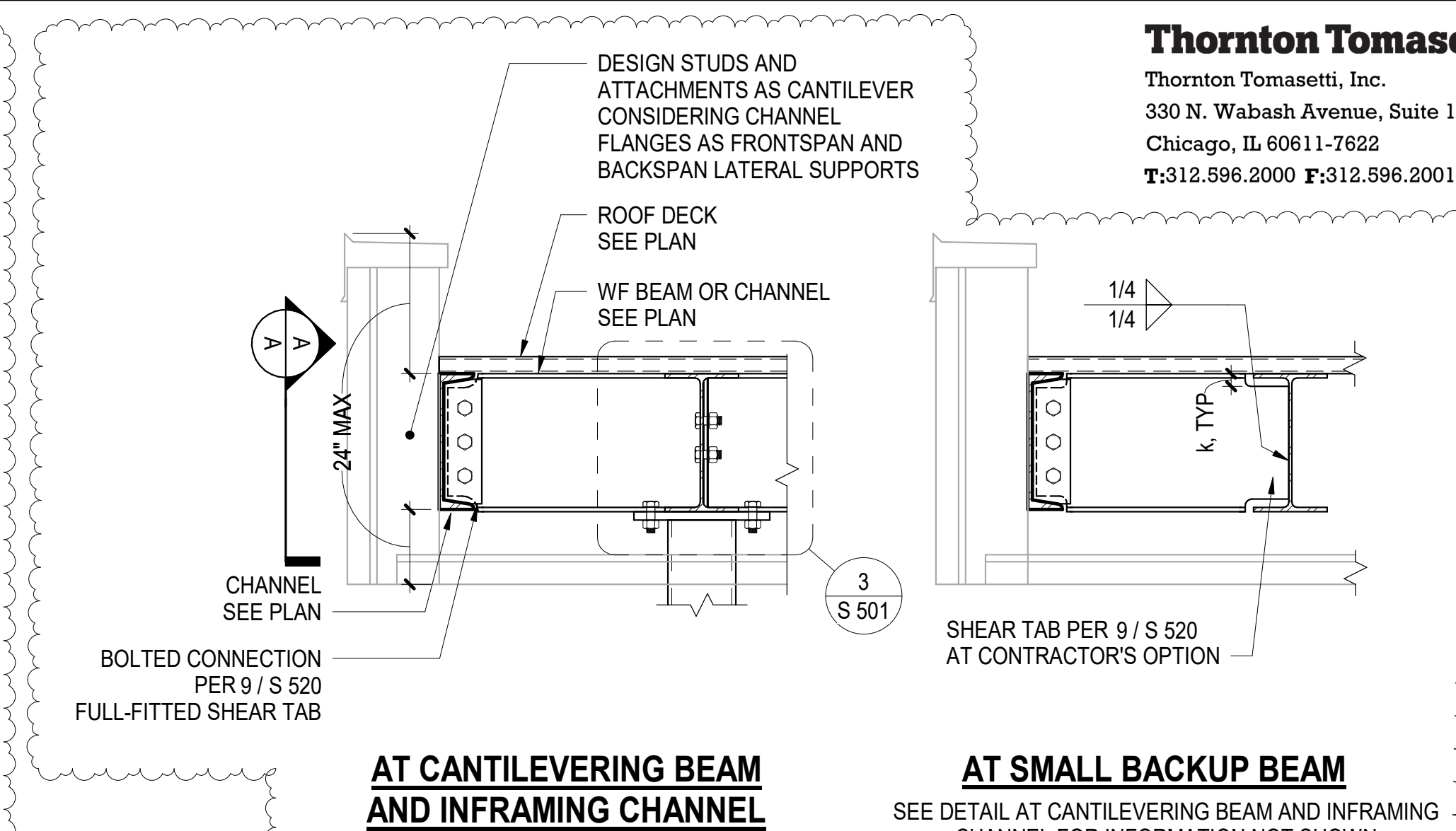
1A LONG EXTERIOR LINTEL ADD'L BEARING REQUIREMENTS
1/2" = 1'-0"



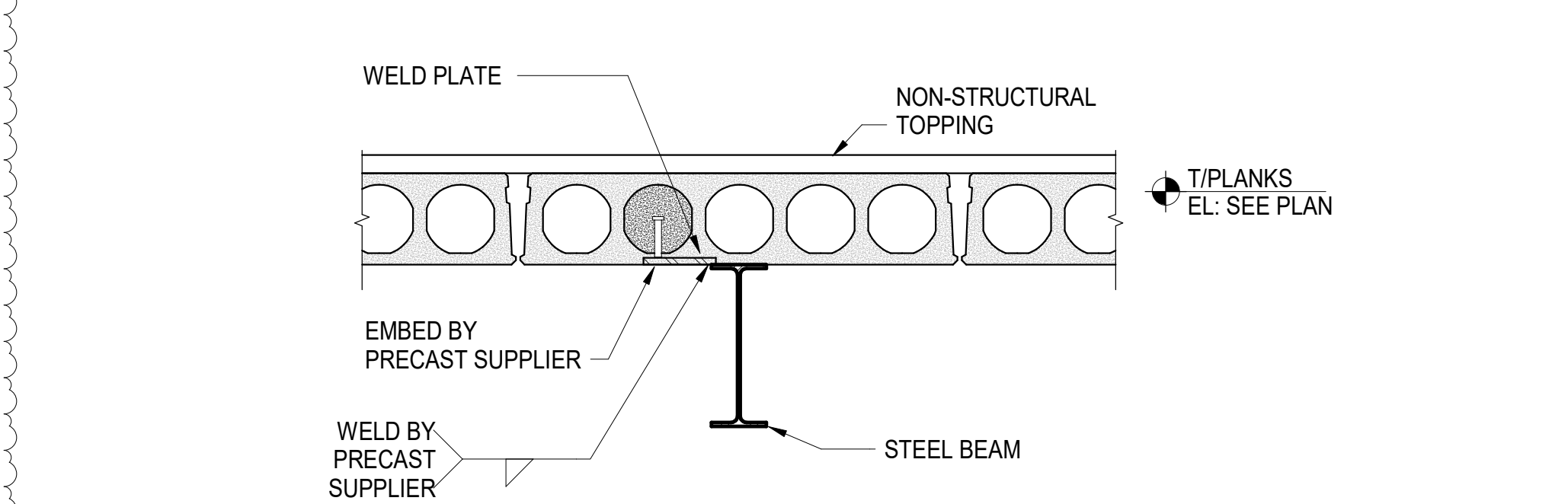
2 STEEL DRAG STRUT CONNECTION TO CMU WALL
1 1/2" = 1'-0"



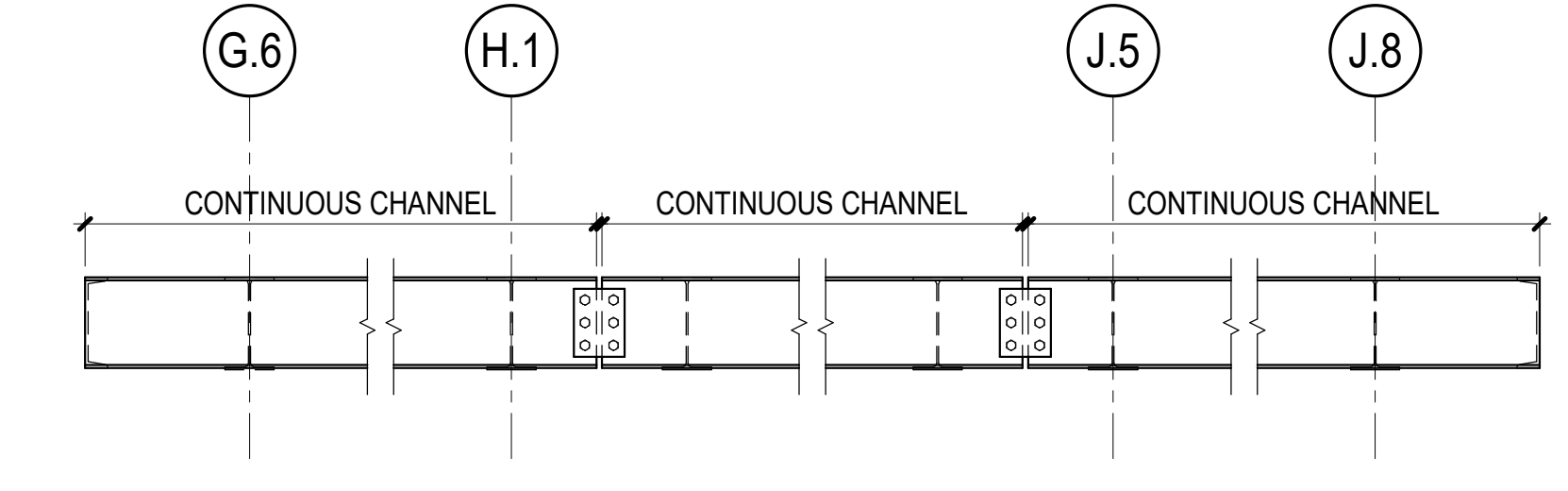
2A DRAG STRUT TO CMU WALL AT CORNER SKEWED CONDITION, 12\"/>



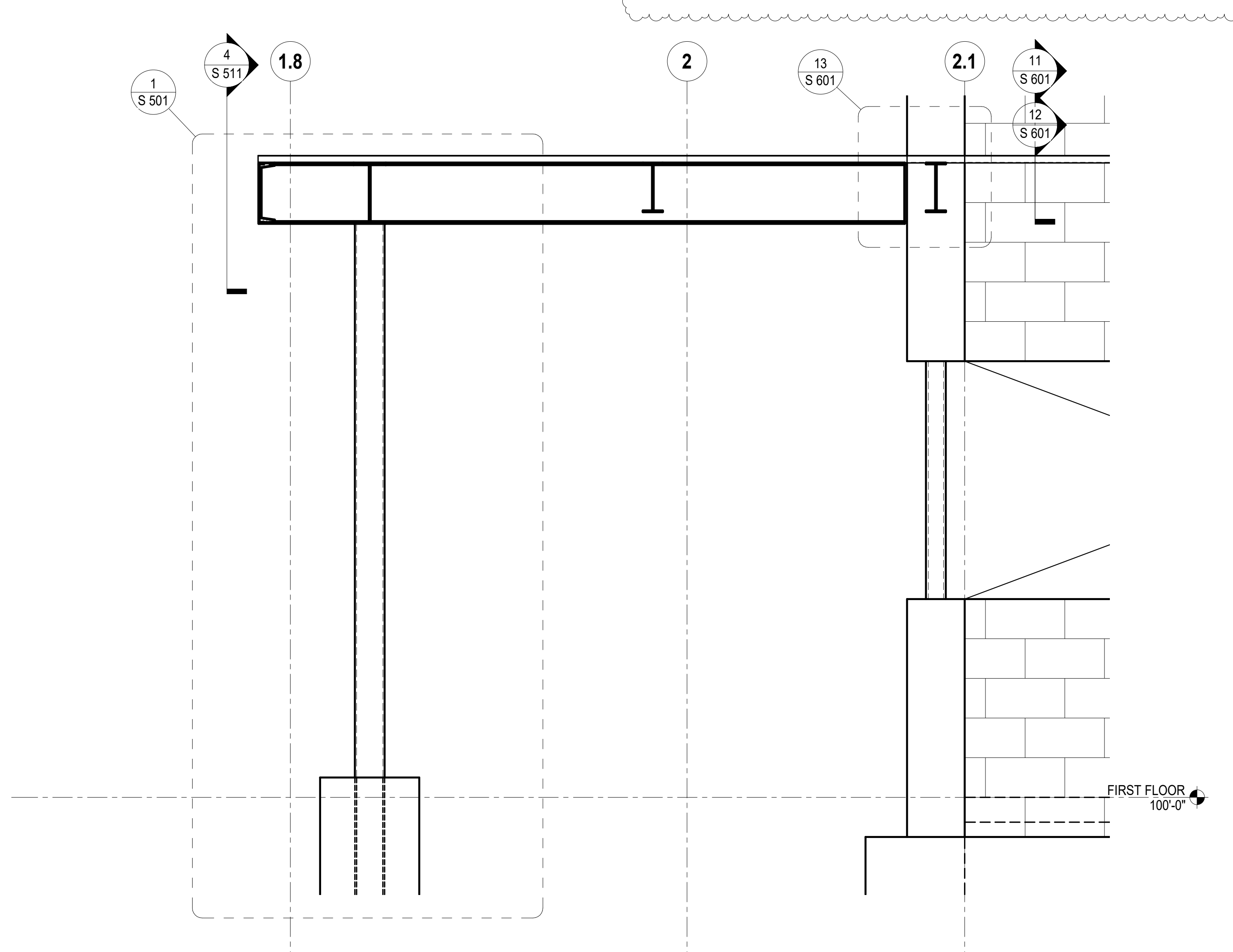
3 SECTION AT CANOPY SPANDREL CHANNEL
1" = 1'-0"



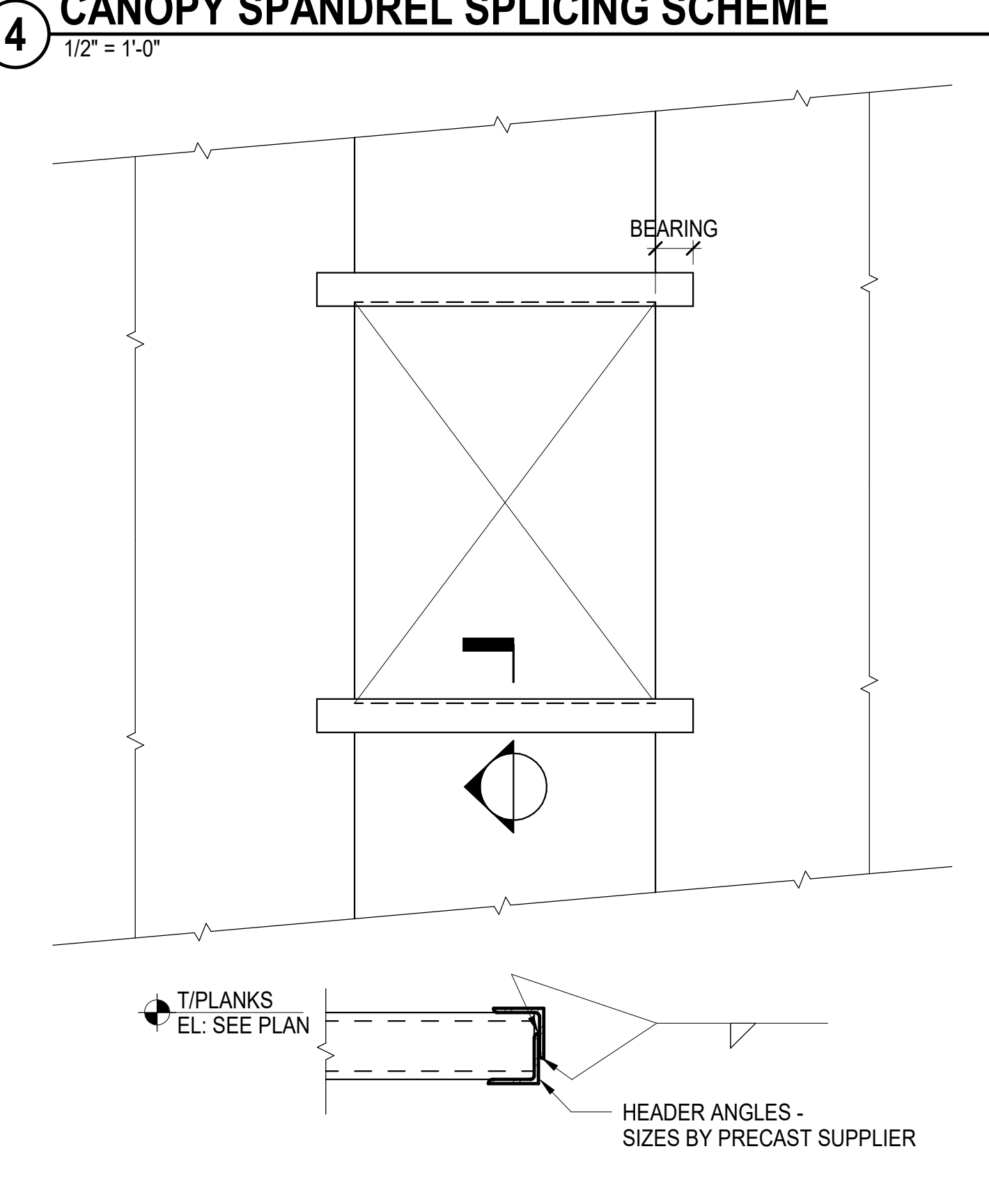
7 TYPICAL PLANK BEARING ON BEAM DETAIL, SPAN PERPENDICULAR
3/4" = 1'-0"



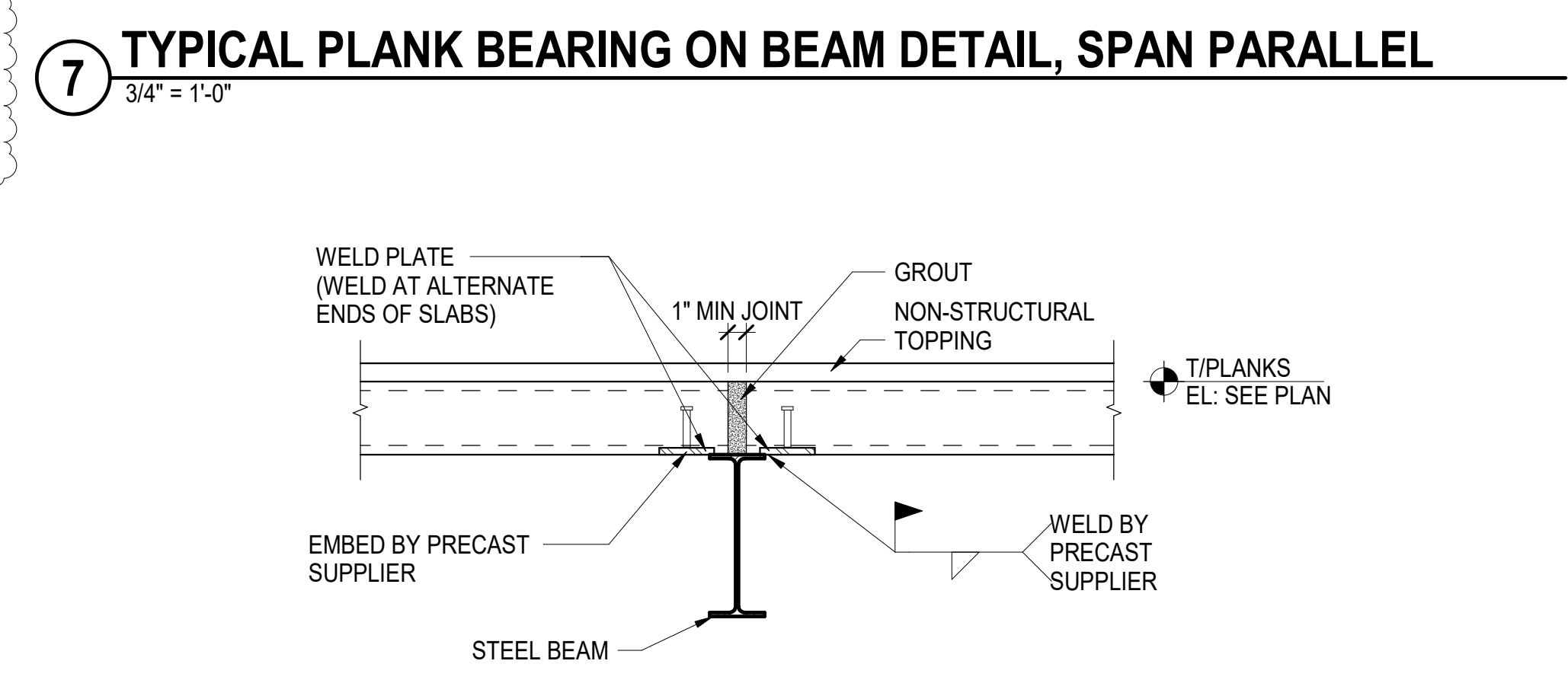
4 CANOPY SPANDREL SPLICING SCHEME
1/2" = 1'-0"



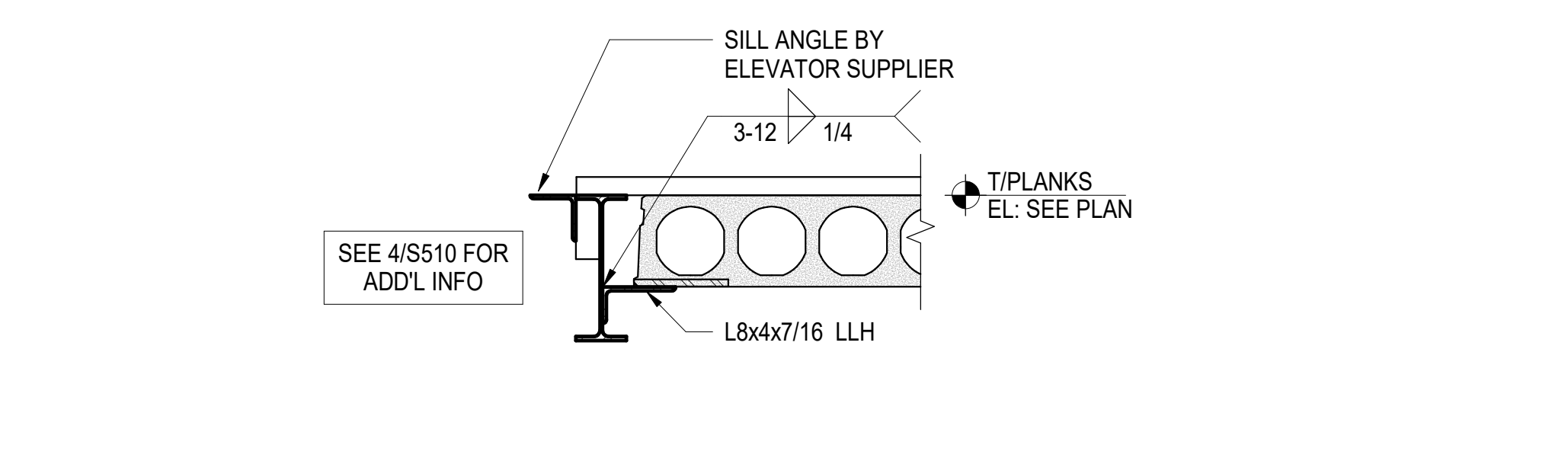
6 CANOPY SECTION
3/4" = 1'-0"



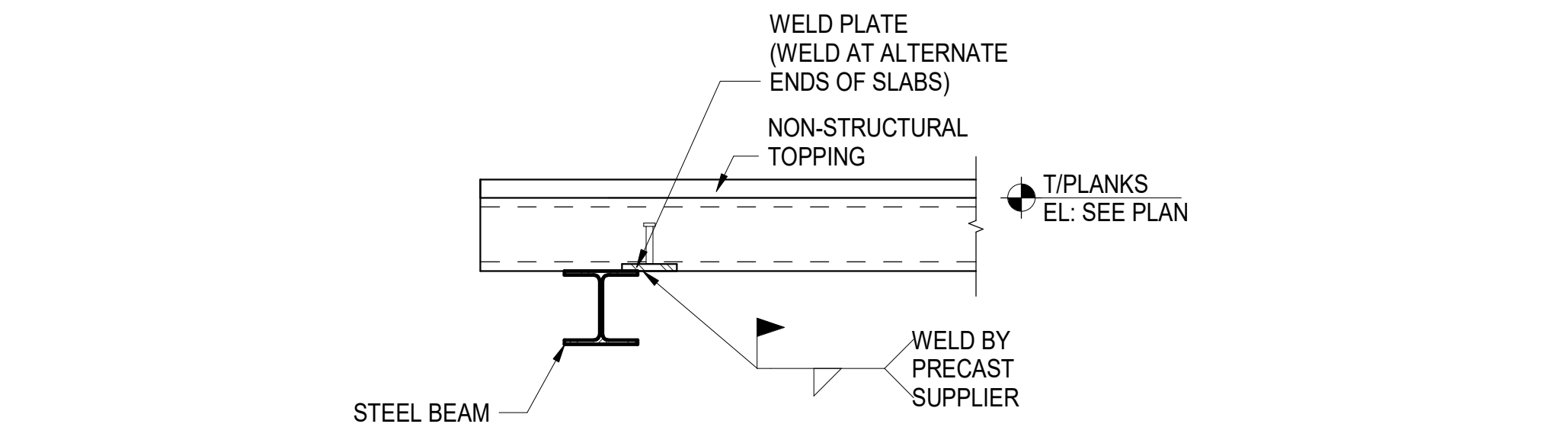
5 HOLLOW CORE AT OPENING
3/4" = 1'-0"



8 TYPICAL PLANK BEARING ON BEAM DETAIL, SPAN PERPENDICULAR
3/4" = 1'-0"

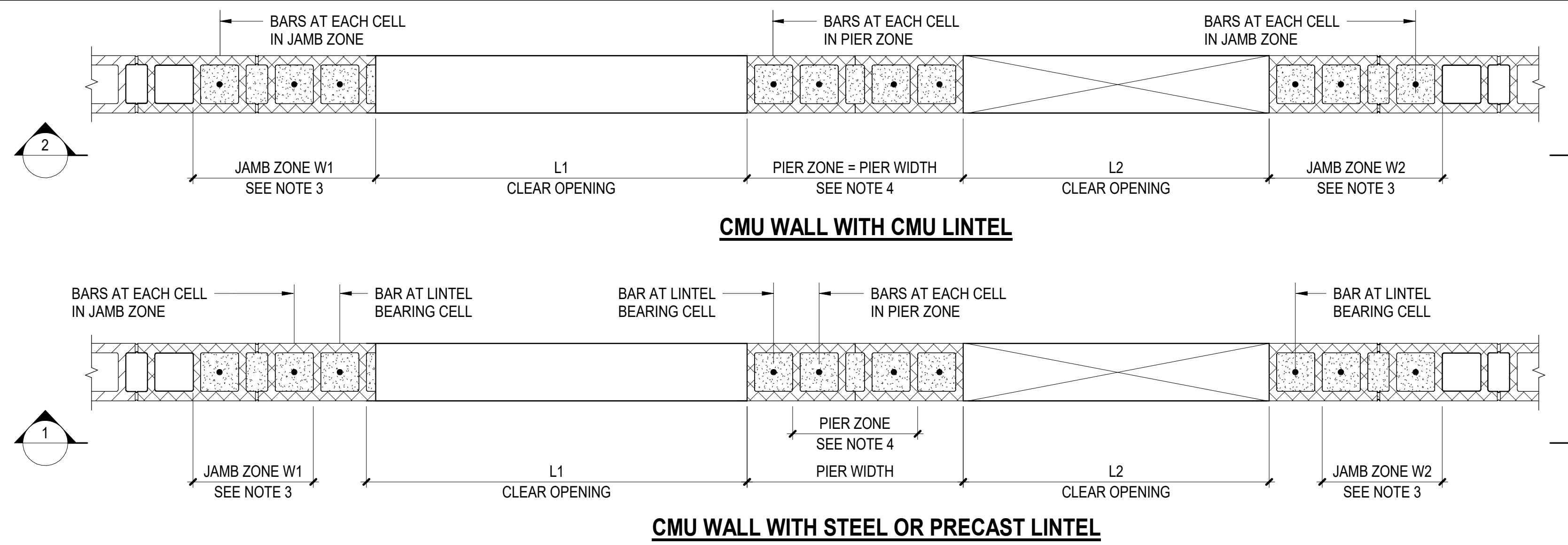


9 ELEVATOR SILL DETAIL
3/4" = 1'-0"



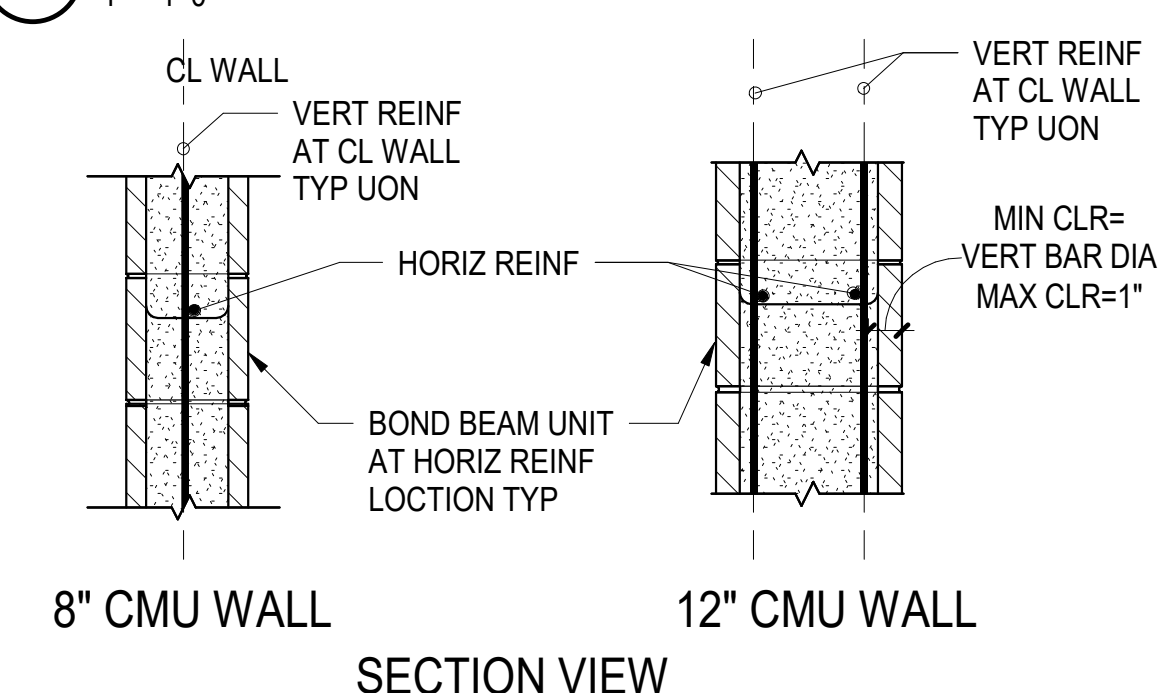
10 TYPICAL PLAN BEARING ON EDGE BEAM DETAIL
3/4" = 1'-0"

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- NOTES:**
- SEE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF MASONRY WALL OPENINGS
 - SUM OF OPENING WIDTHS L1 PLUS L2 ON EITHER SIDE OF PIER SHALL NOT EXCEED 24'-0", AND ANY INDIVIDUAL OPENING SHALL NOT EXCEED 12'-0" IN WIDTH. FOR CONDITIONS EXCEEDING THIS CRITERIA, ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO CONSTRUCTION
 - W1 AND W2 REFERS TO WIDTH OF JAMB ZONE BASED ON ADJACENT CLEAR OPENING L1 AND L2, RESPECTIVELY AS PER TYPICAL CMU NON-BEARING WALL JAMB AND PIER ZONE SCHEDULE
 - PIER ZONE REFERS TO MINIMUM WIDTH OF PIER AS SCHEDULED ON TYPICAL CMU NON-BEARING WALL JAMB AND PIER ZONE SCHEDULE
 - PROVIDE P1 TYPE REINFORCEMENT EITHER SIDE OF THE OPENING AS FOLLOWS:
 - UPTO 7'-0" WIDE OPENING - 16" WIDE PIER
 - UPTO 12'-0" WIDE OPENING - 24" WIDE PIER

1 TYPICAL CMU NON-BEARING WALL PLAN DETAIL AT ADJACENT WALL OPENINGS
 1" = 1'-0"

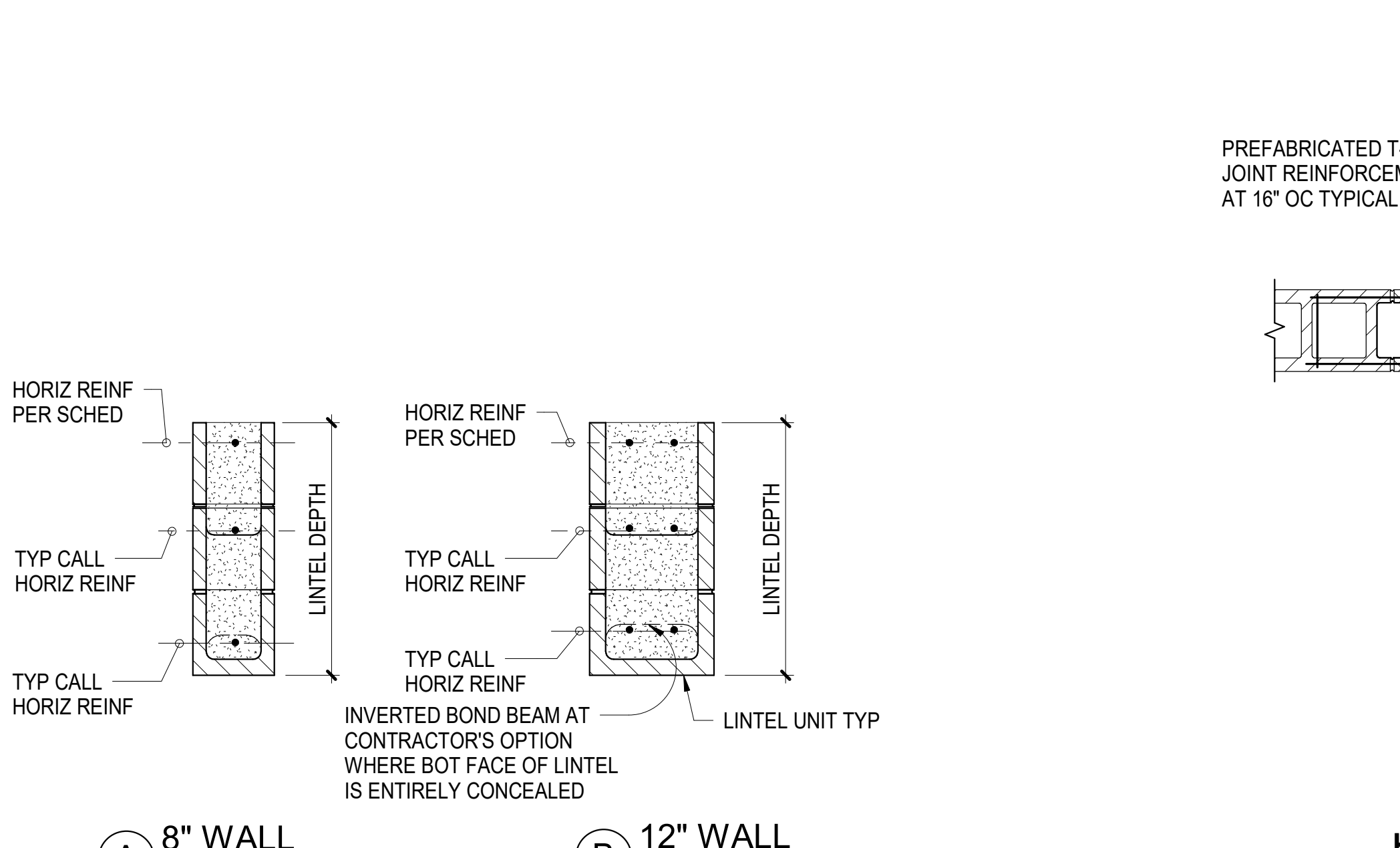


REINFORCING SCHEDULE FOR CONCRETE MASONRY WALL

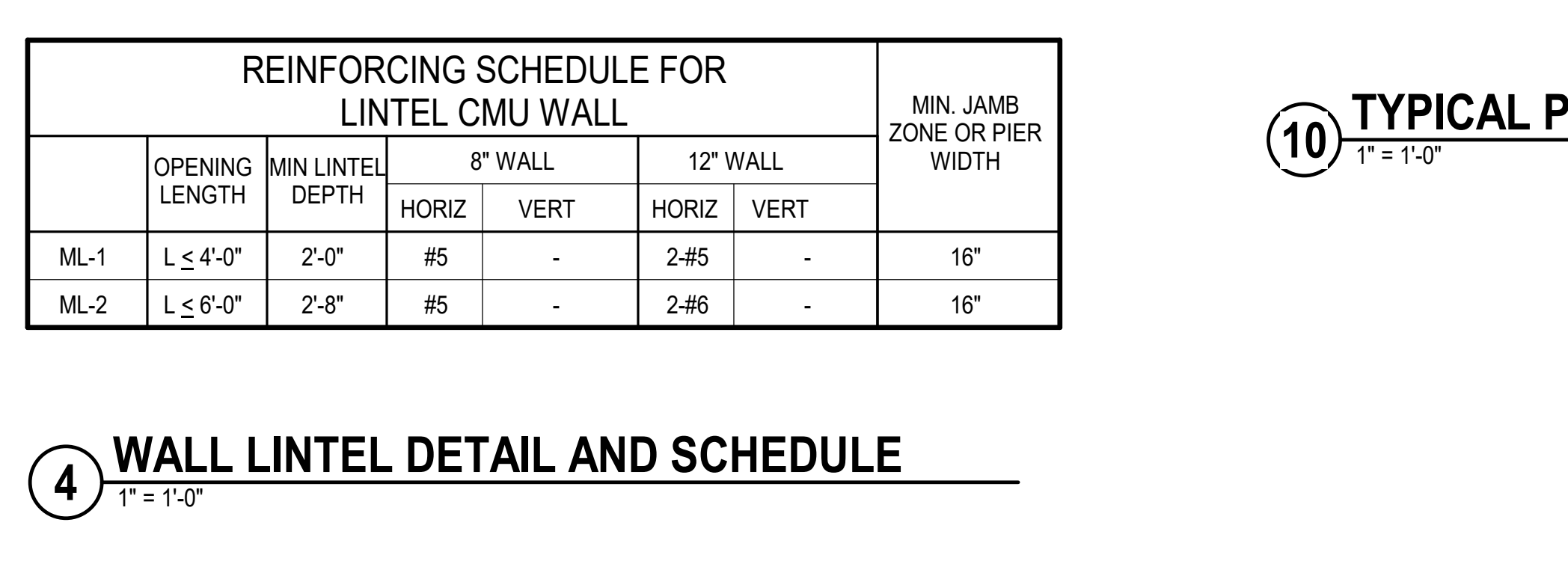
WALL TYPE	NOMINAL THICKNESS	VERTICAL REINF	HORIZONTAL REINF	No. OF REINF CURTAIN
DCMU/CMU-1	8"	#4 @ 32" OC	SEE NOTE 9	SINGLE
CMU-2	8"	#4 @ 48" OC	SEE NOTE 9	SINGLE
CMU-3	12"	#4 @ 48" OC	SEE NOTE 9	DOUBLE
CMU-4	8"/12"	#4 @ 72" OC	SEE NOTE 9	SINGLE
CMU-5	8"	#4 @ 8" OC	SEE NOTE 9	DOUBLE

- NOTES:**
- SEE PLANS FOR WALL TYPE LOCATIONS.
 - LAP SPLICE REINFORCING PER 5 / S 600
 - CMU SHALL BE RUNNING BOND & GROUTED IN CELLS W/ REINFORCEMENTS.
 - USE DOUBLE OPEN END BLOCKS TO THE EXTENT PRACTICAL TYP DO NOT PLACE CLOSED SIDES BACK TO BACK. CONTRACTOR OPTION TO PROPOSE ALTERNATE DETAIL WITHOUT USE OF OPEN END BLOCK.
 - SEE STRUCTURAL GENERAL NOTES FOR MATERIAL SPECIFICATIONS
 - FOR WALL CONSTRUCTION & CONTROL JOINT SEE DETAIL 7 / S 601
 - FOR WALL CORNERS & INTERSECTIONS SEE DETAIL 10 / S 600
 - DCMU DENOTES DECORATIVE CONCRETE MASONRY UNIT.
 - PROVIDE LADDER TYPE HORIZONTAL REINFORCING 2x W2.1(9 GAGE) FOR WALLS AT 16" OC AT WALLS BETWEEN CONTROL JOINTS.

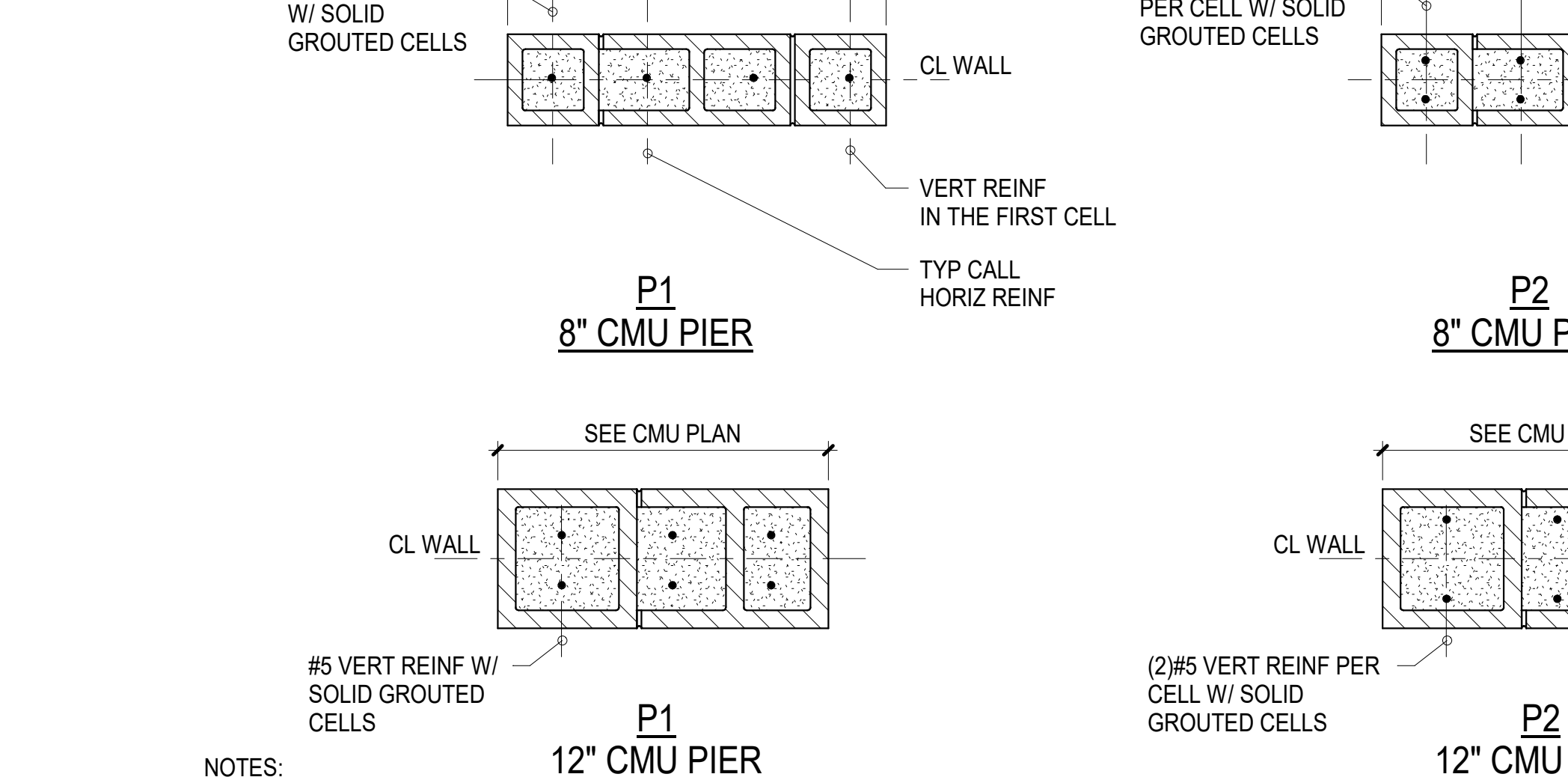
2 CMU WALL ELEVATION W/ OPENING
 1/2" = 1'-0"



3 TYPICAL PLAN DETAIL AT MASONRY WALL WITH INTERLOCKED INTERSECTIONS
 1" = 1'-0"

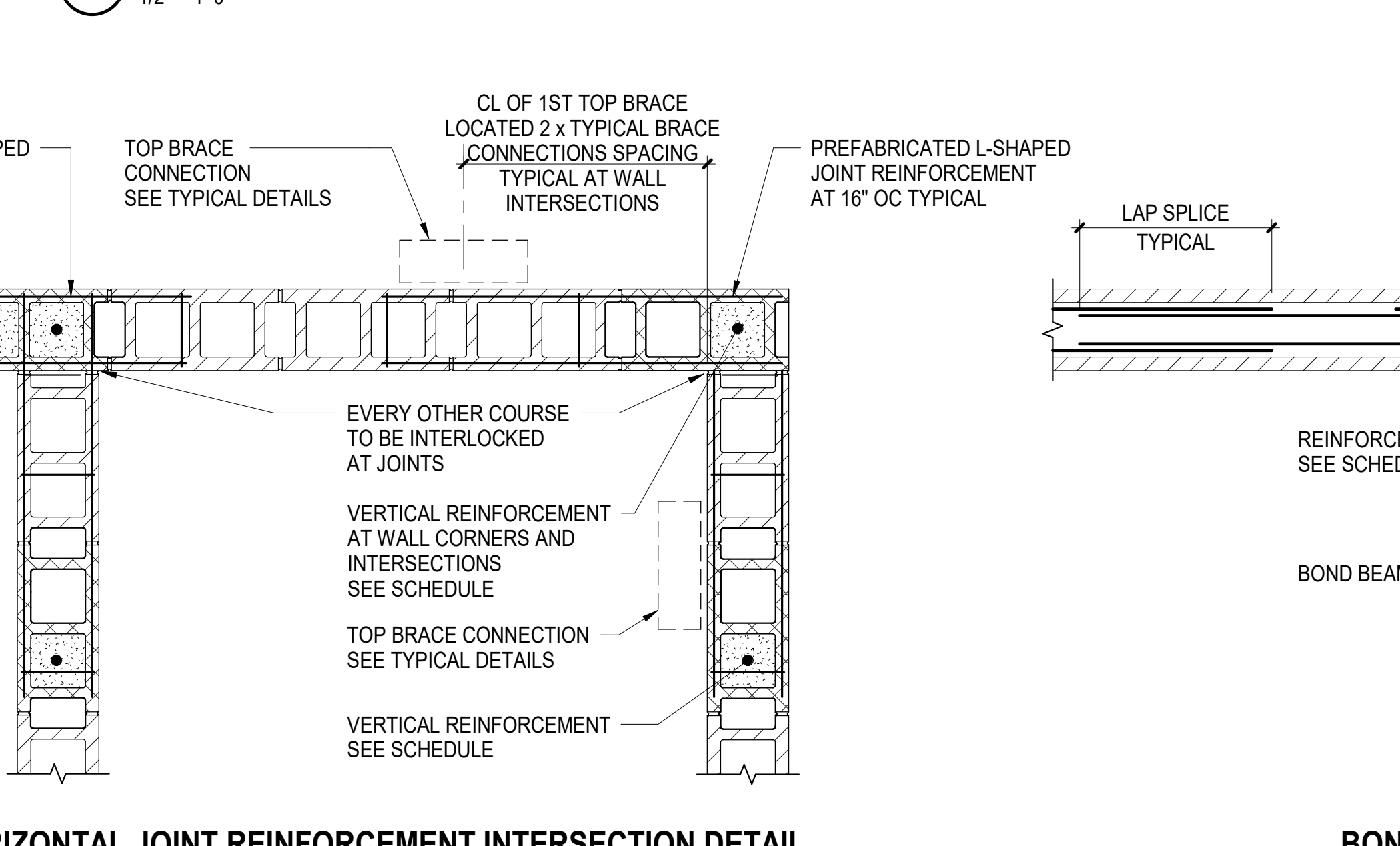


4 WALL LINTEL DETAIL AND SCHEDULE
 1" = 1'-0"

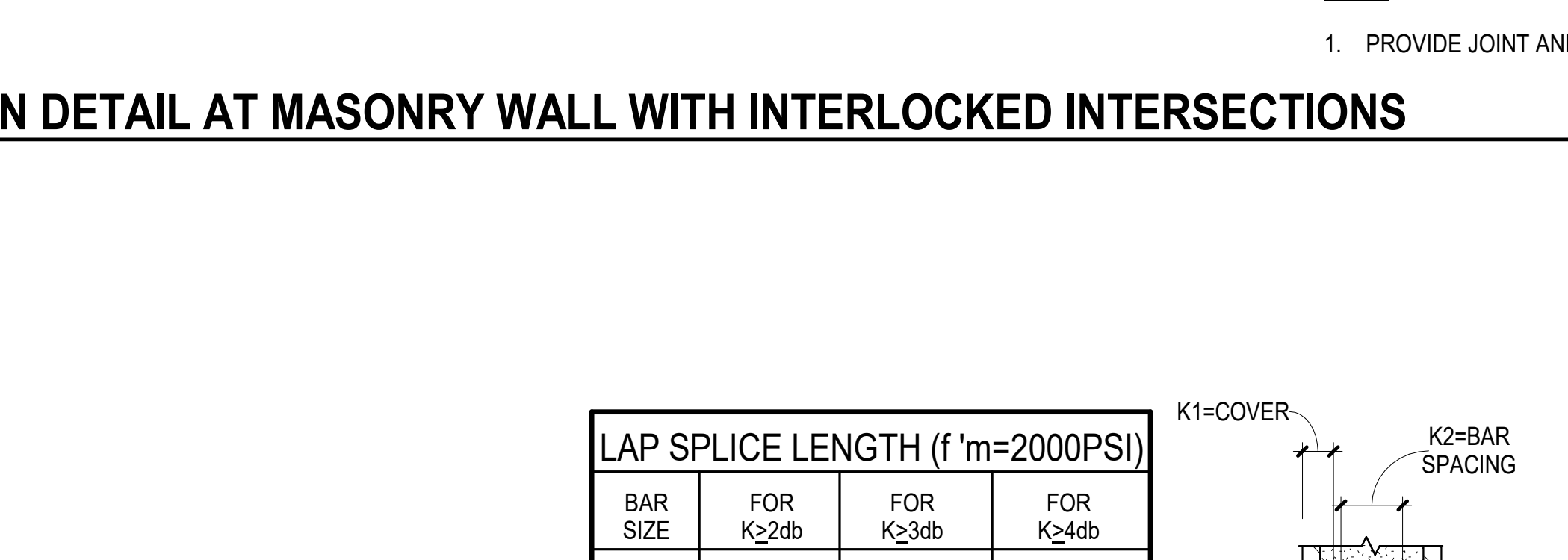


- NOTES:**
- USE WALL PIER DETAIL AS INDICATED ON CMU PLANS
 - EXTEND HORIZONTAL TIES LAP SPLICE LENGTH ABOVE & BELOW OPENING

10 TYPICAL PLAN DETAIL AT MASONRY WALL WITH INTERLOCKED INTERSECTIONS
 1" = 1'-0"

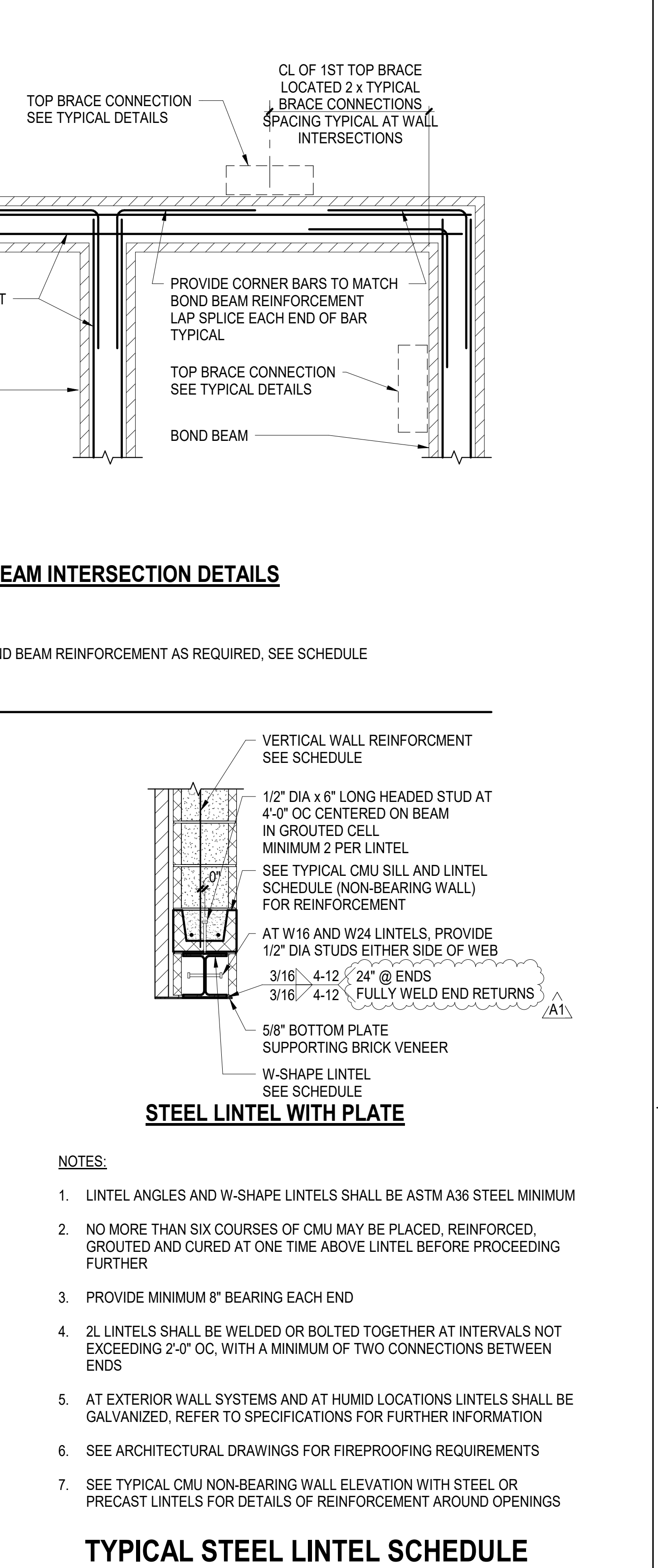


REBAR OFFSET AND LAP SPLICE CMU f 'm=2000 PSI
 1" = 1'-0"

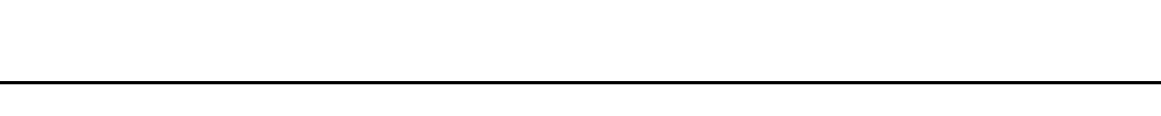


- NOTES:**
- "K" SHALL BE TAKEN AS THE CMU COVER DIMENSION OR THE CLEAR SPACING BETWEEN ADJACENT BARS, WHICHEVER IS LESS. SEE ABOVE.
 - WHERE EPOXY-COATED REINFORCING IS USED, INCREASE LAP SPLICE LENGTH BY 50%.
 - SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
 - SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.
 - "NA" MEANS "NOT ALLOWABLE" INCREASE "K" FOR ALLOWABLE LAP SPLICE.

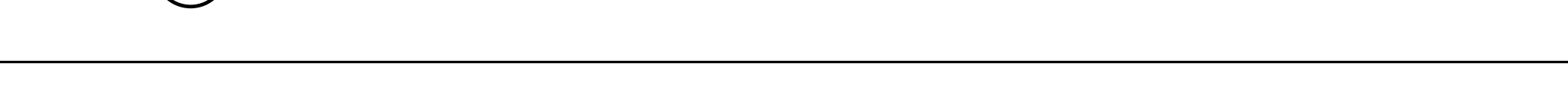
6 TYPICAL STEEL LINTEL SCHEDULE (NON-BEARING WALL)
 NOT TO SCALE



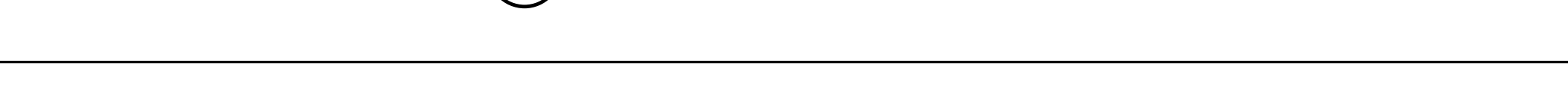
7 PILASTER DETAIL
 1" = 1'-0"



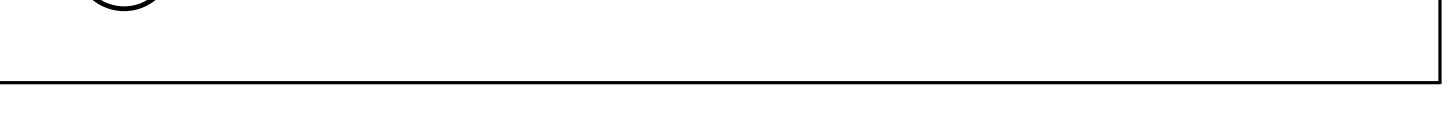
8 WALL PIER DETAIL
 1" = 1'-0"

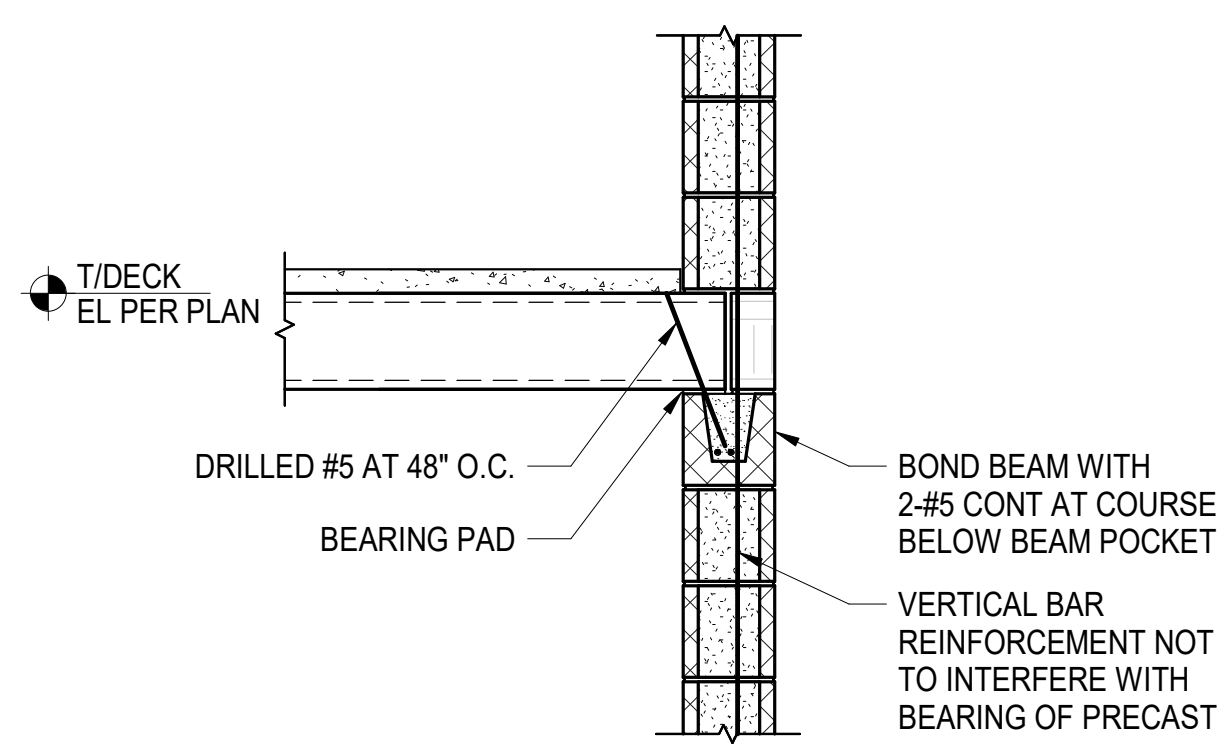


5 REBAR OFFSET AND LAP SPLICE CMU f 'm=2000 PSI
 1" = 1'-0"

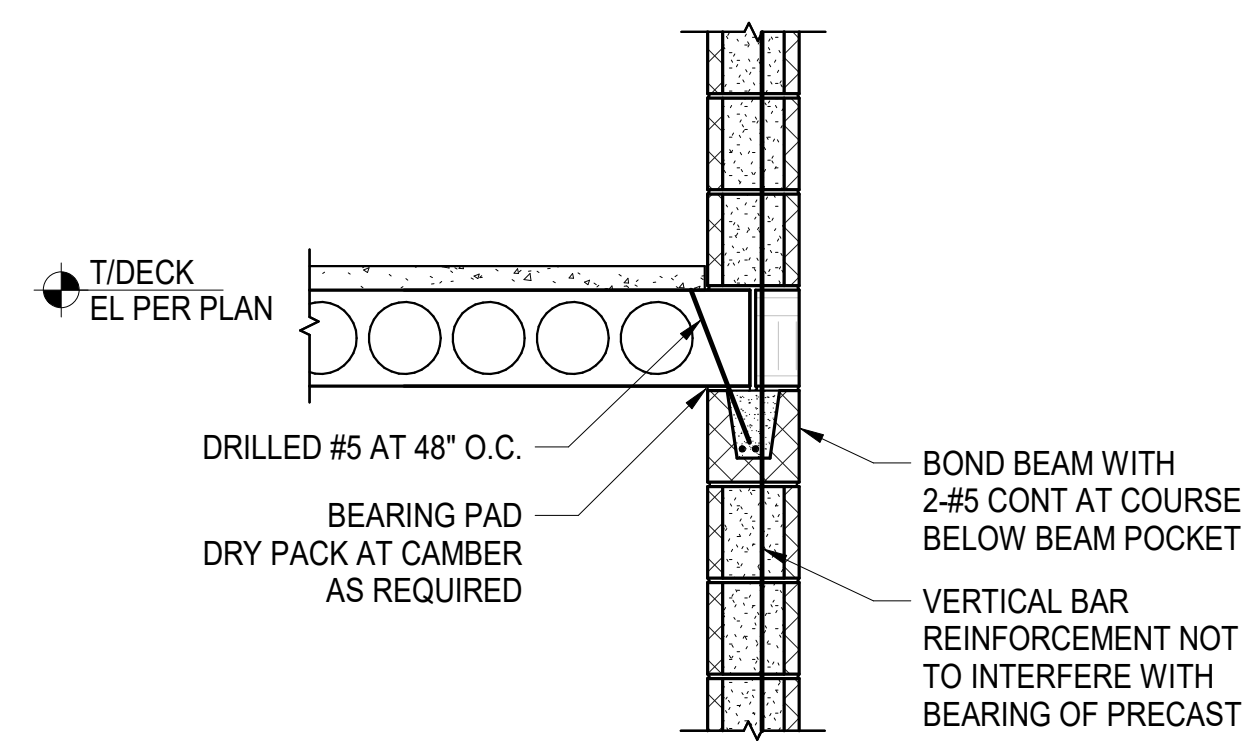


6 TYPICAL STEEL LINTEL SCHEDULE (NON-BEARING WALL)
 NOT TO SCALE

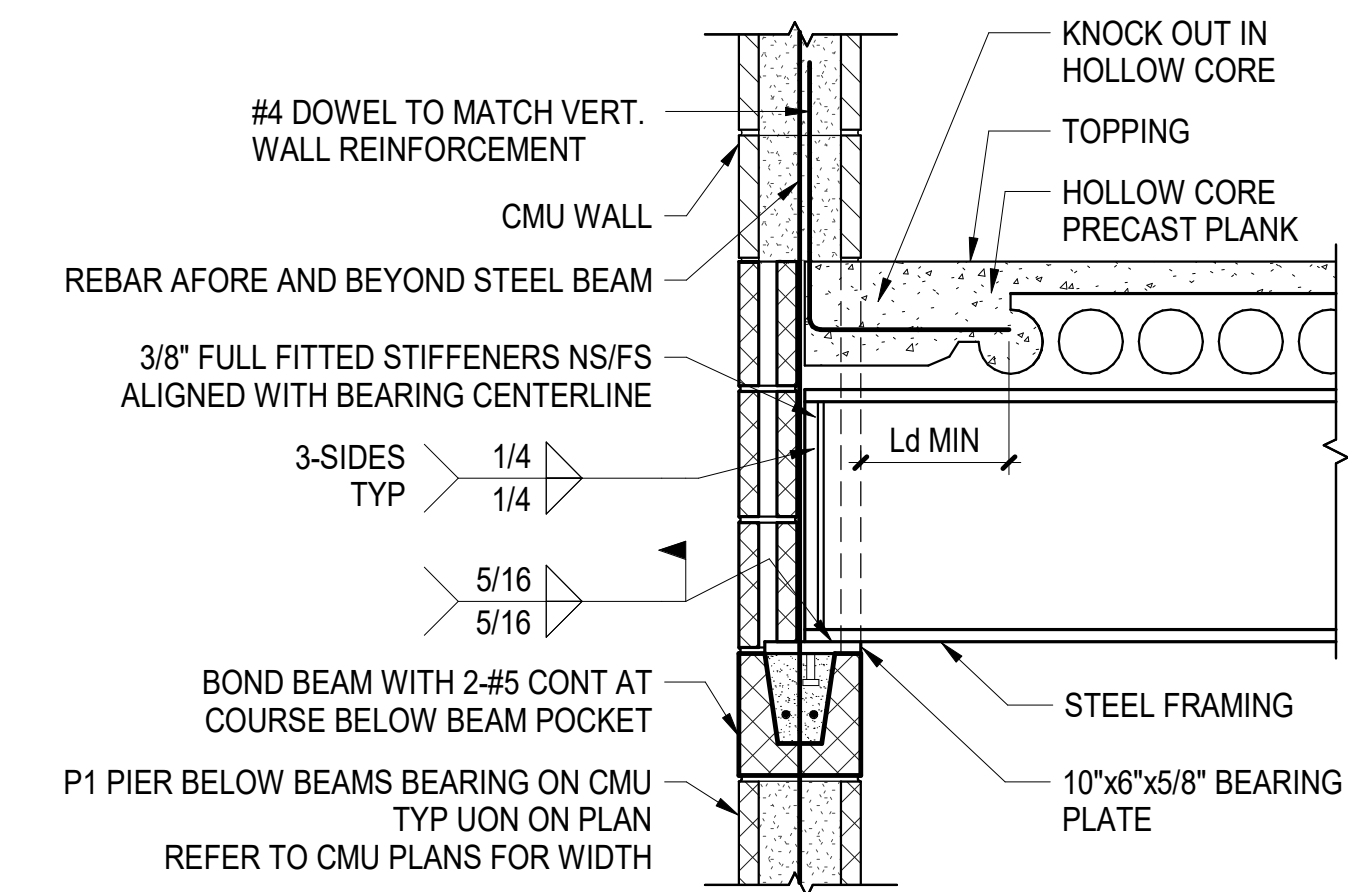




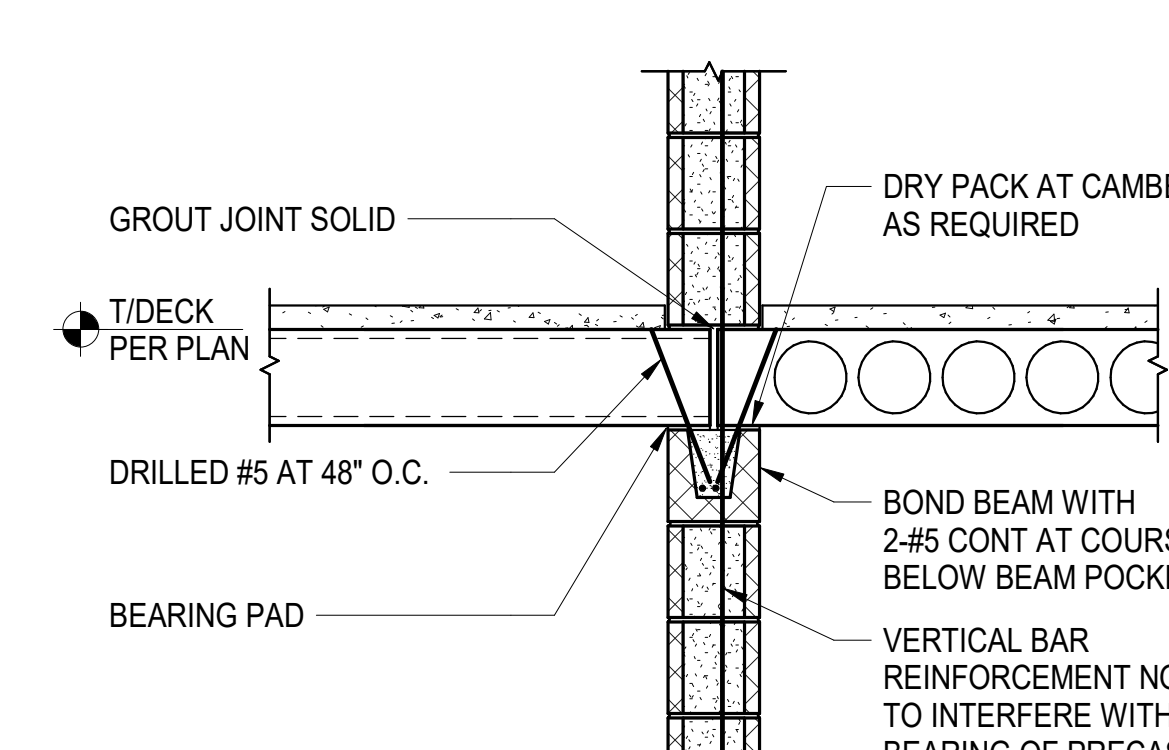
1 TYPICAL PLANK BEARING AT CMU DETAIL
 ONE SIDE, SPAN PERPENDICULAR
 3/4" = 1'-0"



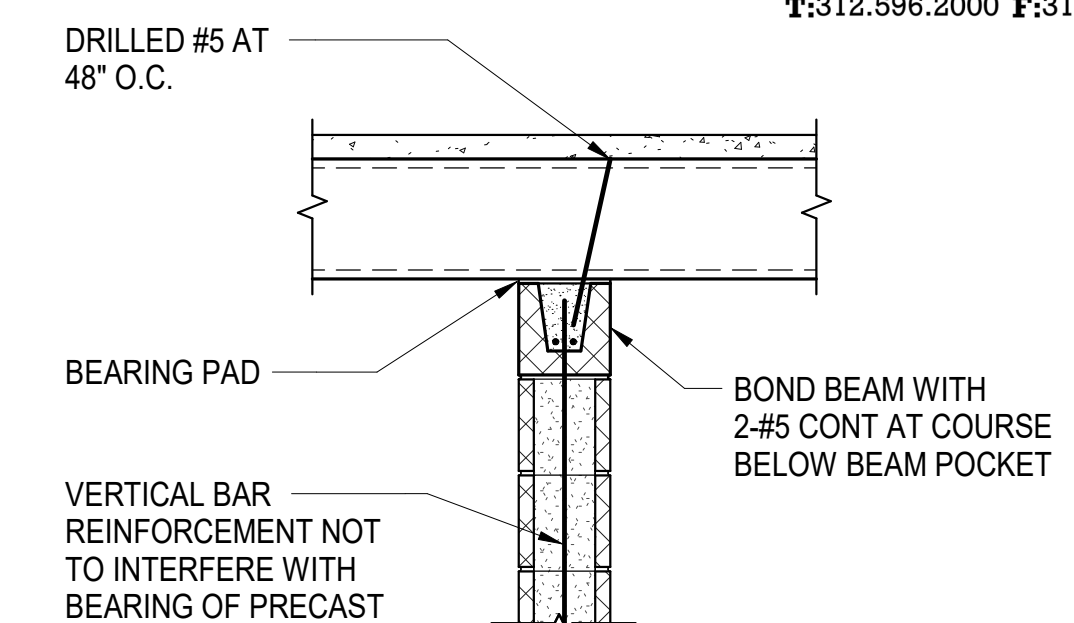
2 TYPICAL PLANK BEARING AT CMU DETAIL
 ONE SIDE, SPAN PARALLEL
 3/4" = 1'-0"



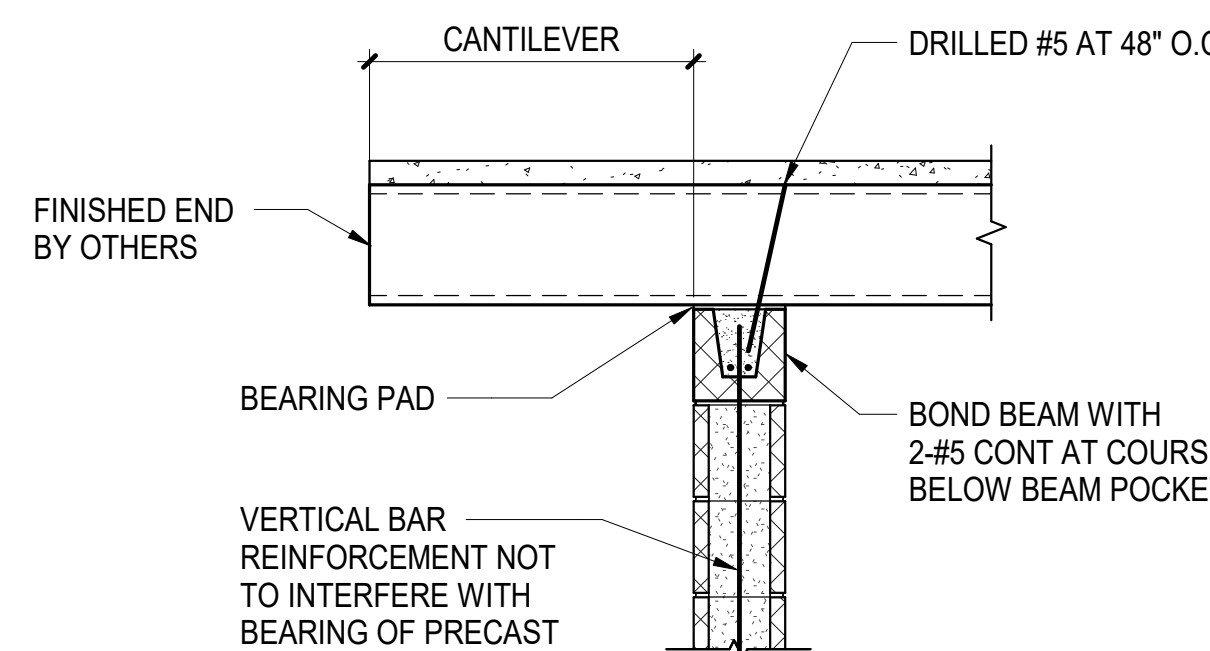
3 TYPICAL STEEL BEAM SUPPORTING
 PLANK BEARING AT CMU WALL, ONE SIDE
 1" = 1'-0"



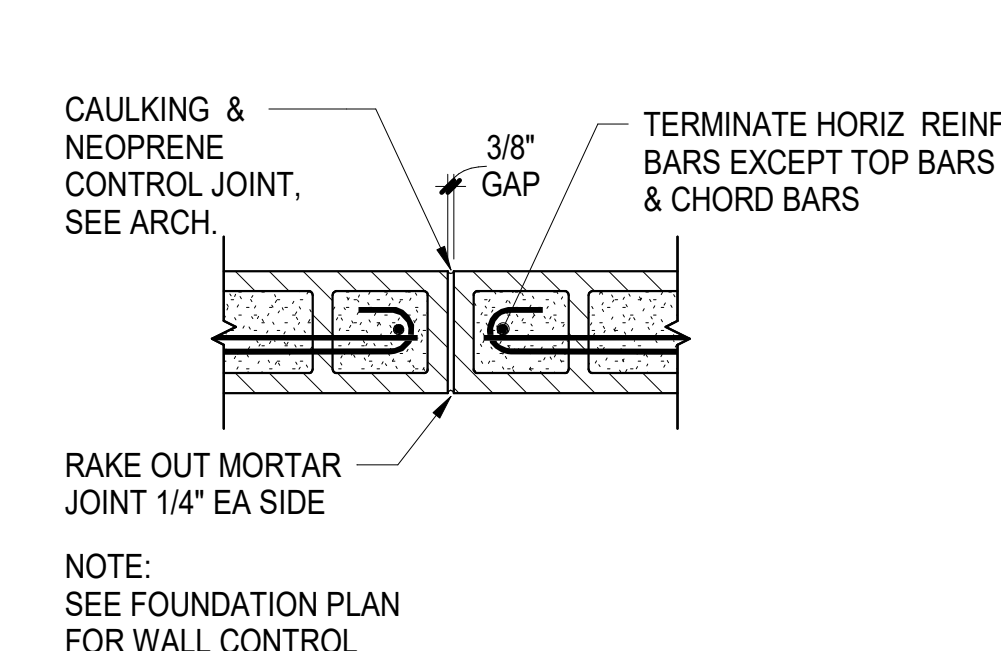
4 TYPICAL PLANK BEARING AT CMU DETAIL
 BOTH SIDES
 3/4" = 1'-0"



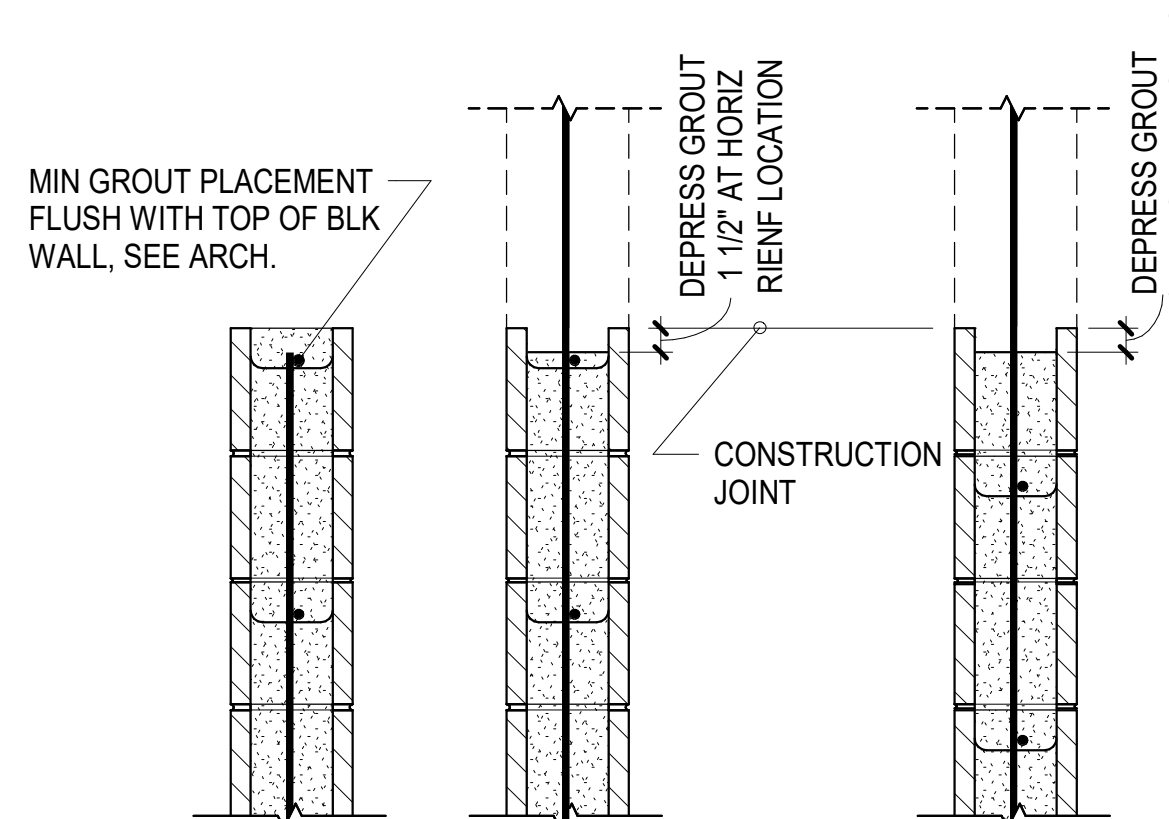
5 TYPICAL PLANK BEARING AT CMU DETAIL
 CONTINUOUS OVER WALL BELOW
 3/4" = 1'-0"



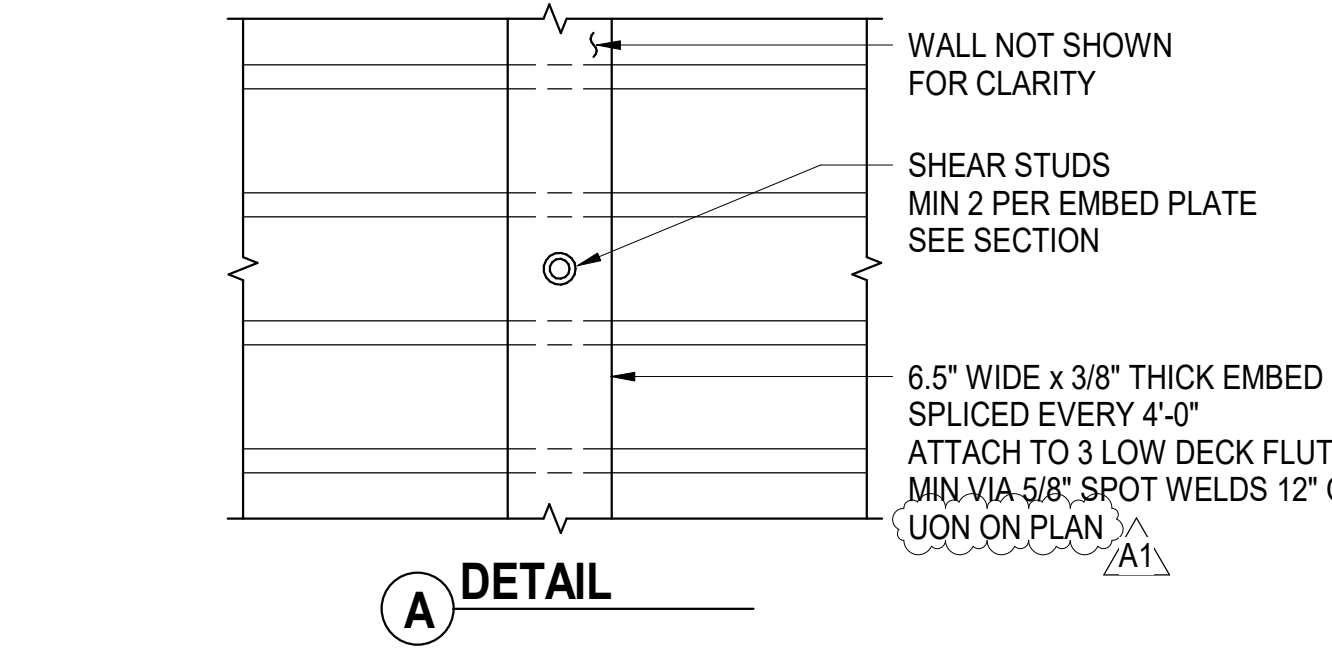
6 TYPICAL PLANK BEARING AT CMU DETAIL
 CANTILEVER CONDITION
 3/4" = 1'-0"



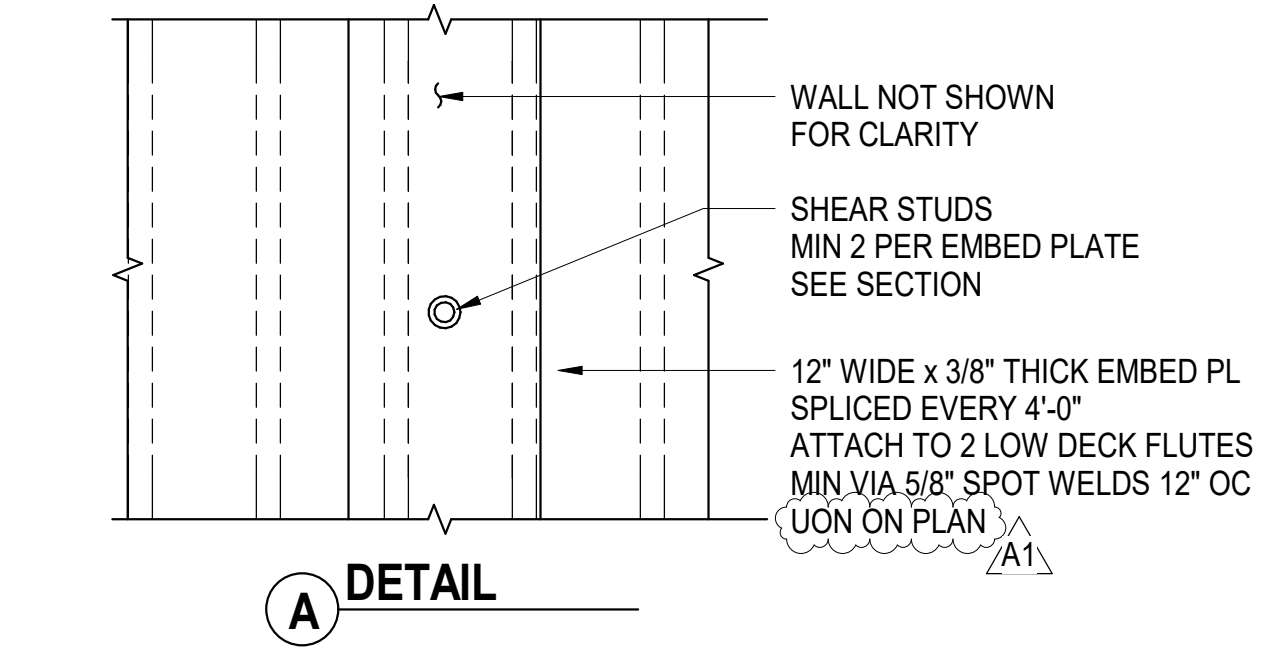
7 CMU WALL CONTROL JOINT
 1" = 1'-0"



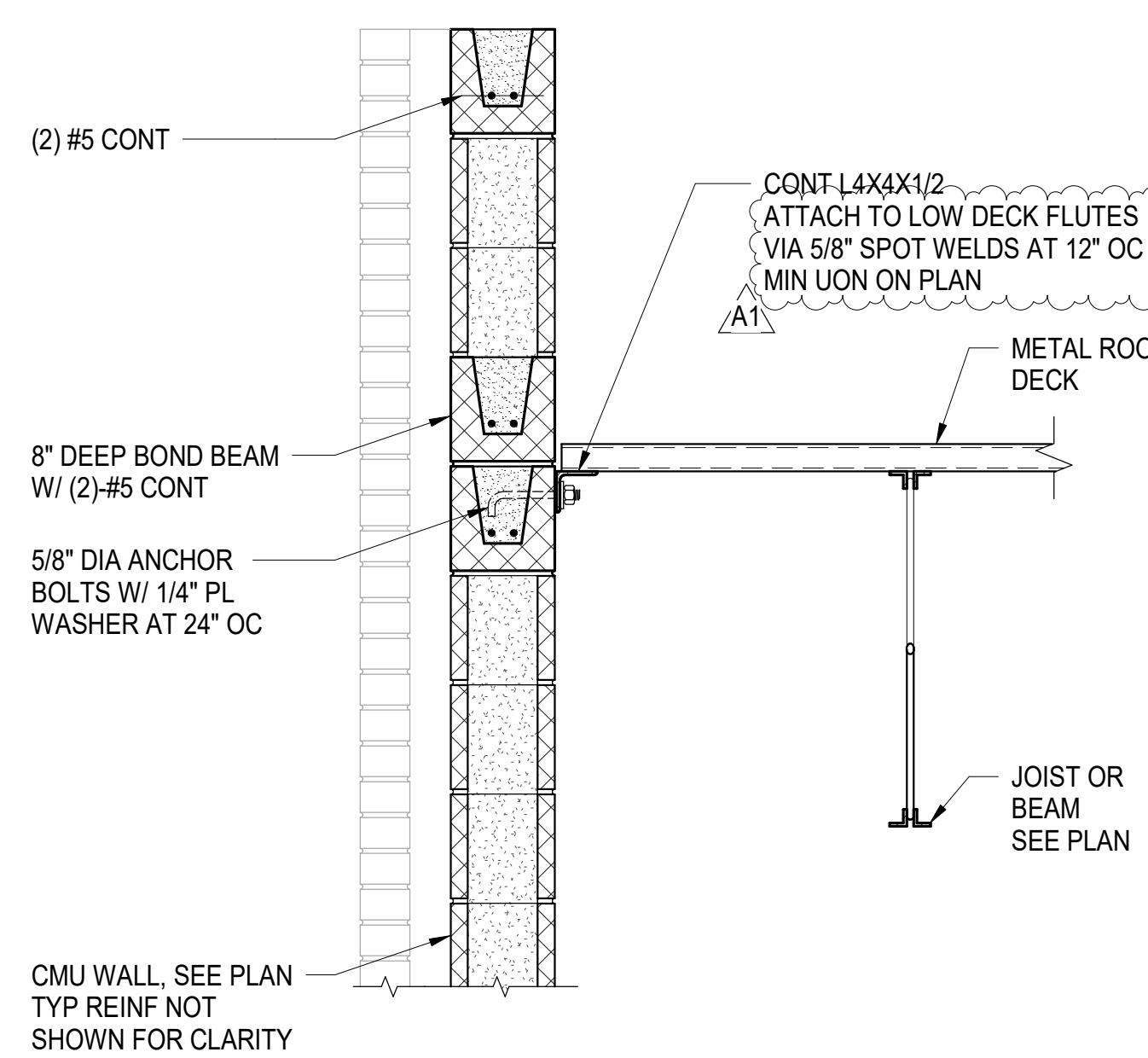
8 CMU WALL CONSTRUCTION JOINTS
 1" = 1'-0"



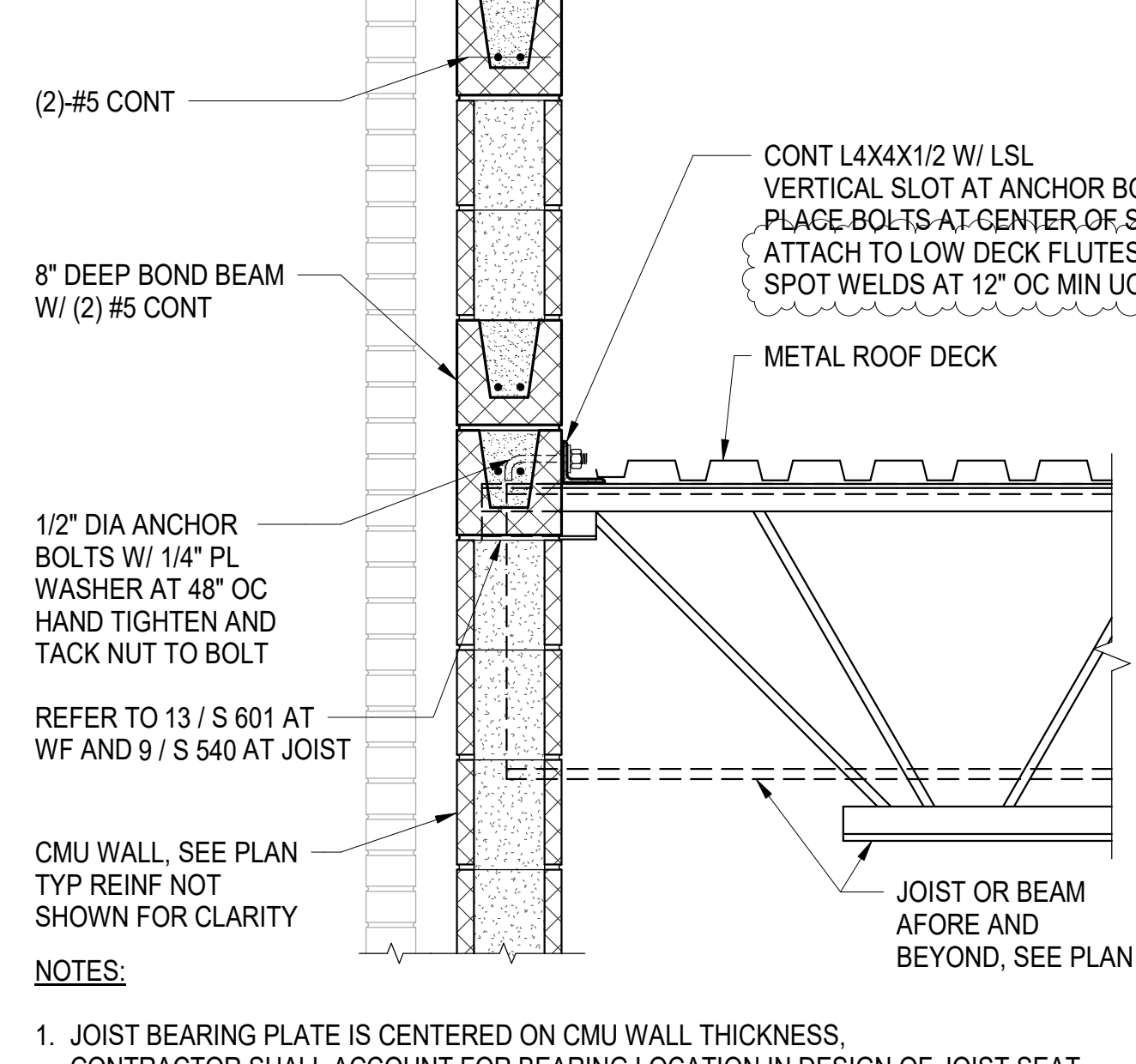
9 TYPICAL INTERIOR CMU WALL AT ROOF
 FLUTES PERPENDICULAR
 NOT TO SCALE



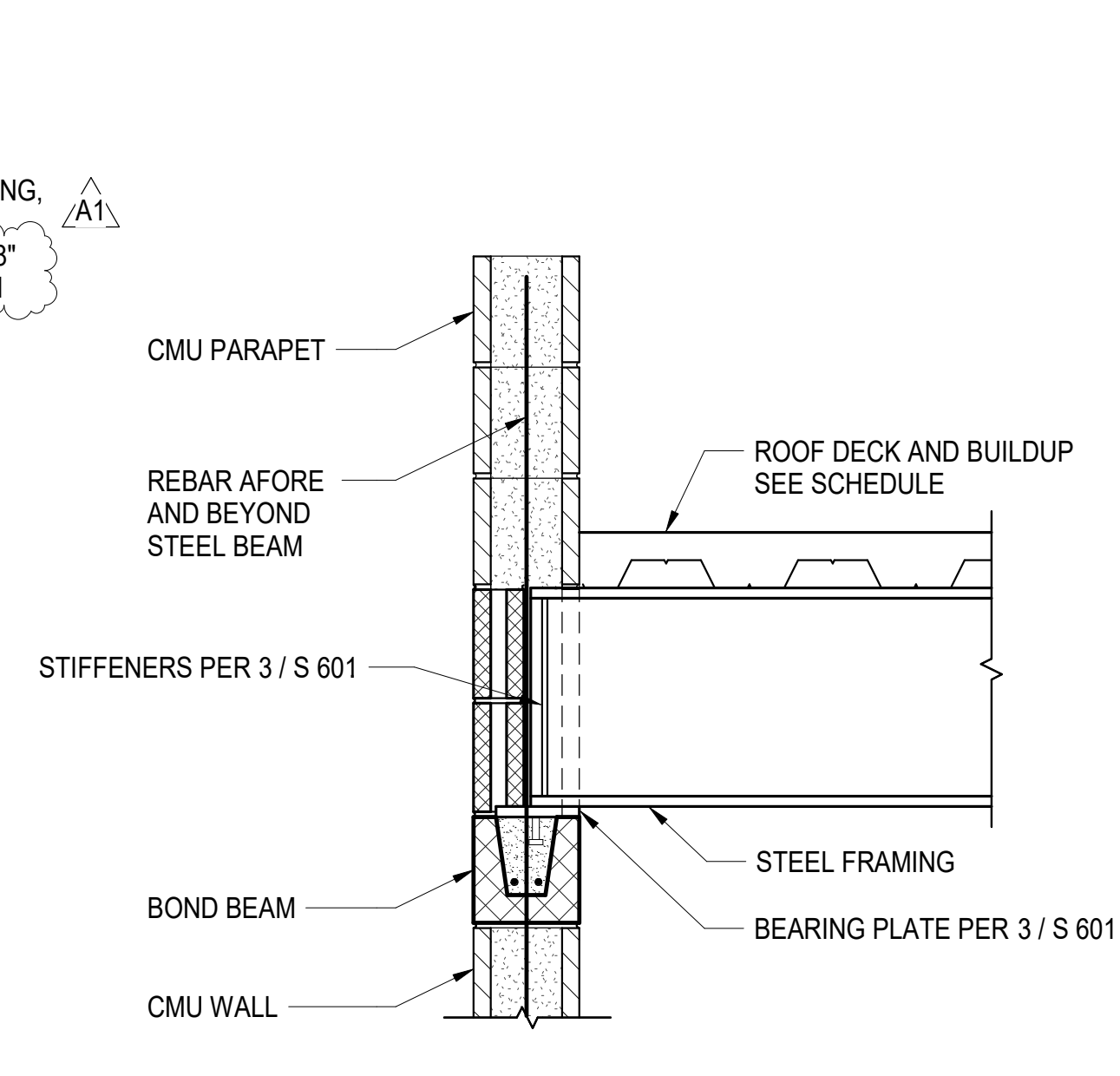
10 TYPICAL INTERIOR CMU WALL AT ROOF
 FLUTES PARALLEL
 NOT TO SCALE



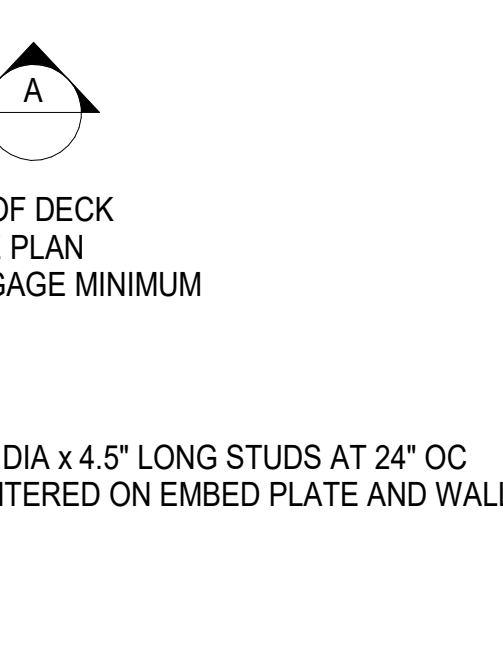
11 TYPICAL EXTERIOR CMU WALL AT ROOF
 FLUTES PERPENDICULAR
 NOT TO SCALE



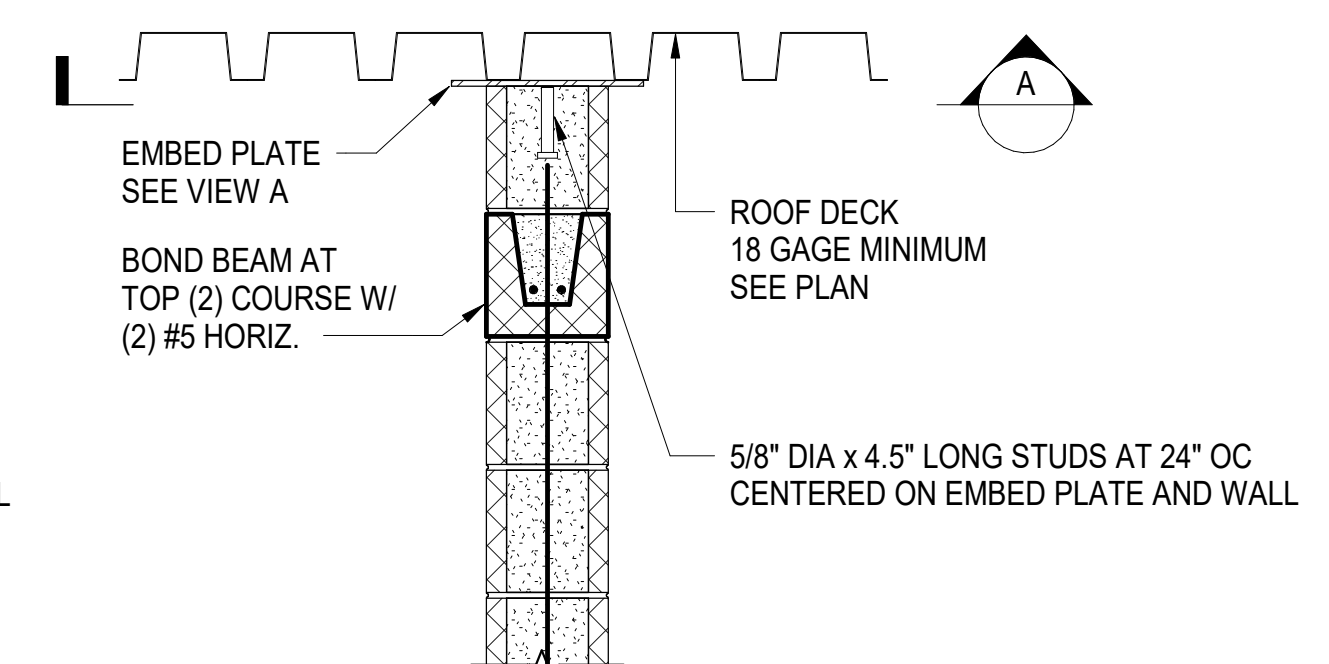
12 TYPICAL EXTERIOR CMU WALL AT ROOF
 FLUTES PARALLEL
 NOT TO SCALE



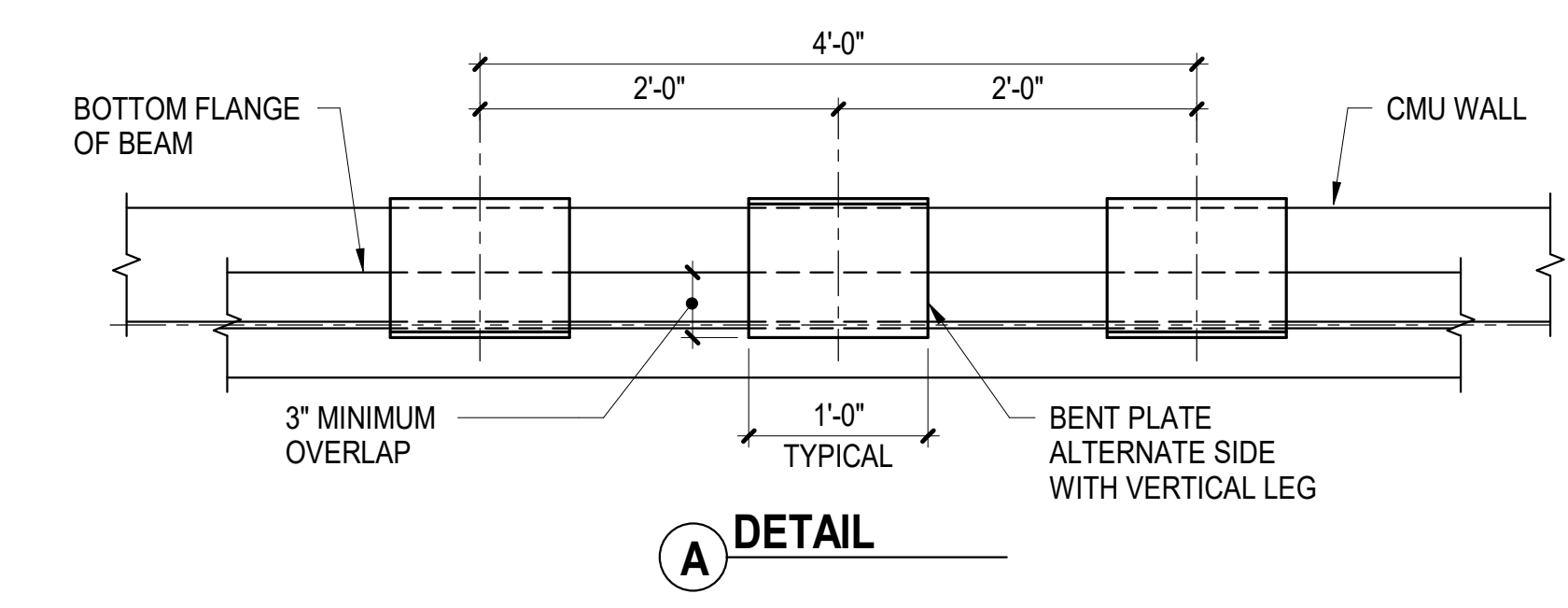
13 STEEL BEAM SUPPORTED BY
 PERPENDICULAR CMU WALL AT ROOF DECK
 1" = 1'-0"



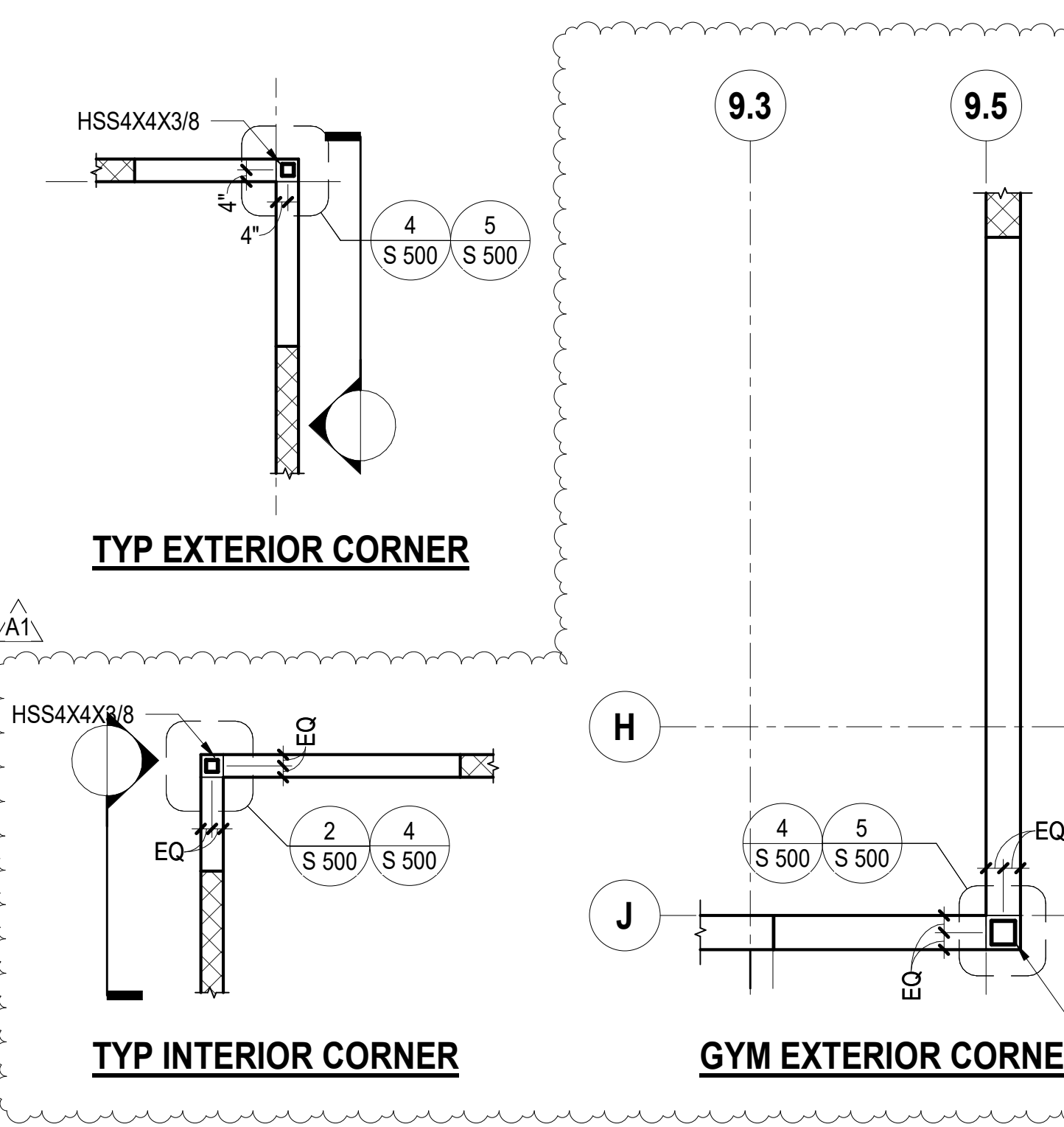
9 TYPICAL INTERIOR CMU WALL AT ROOF
 FLUTES PERPENDICULAR
 NOT TO SCALE



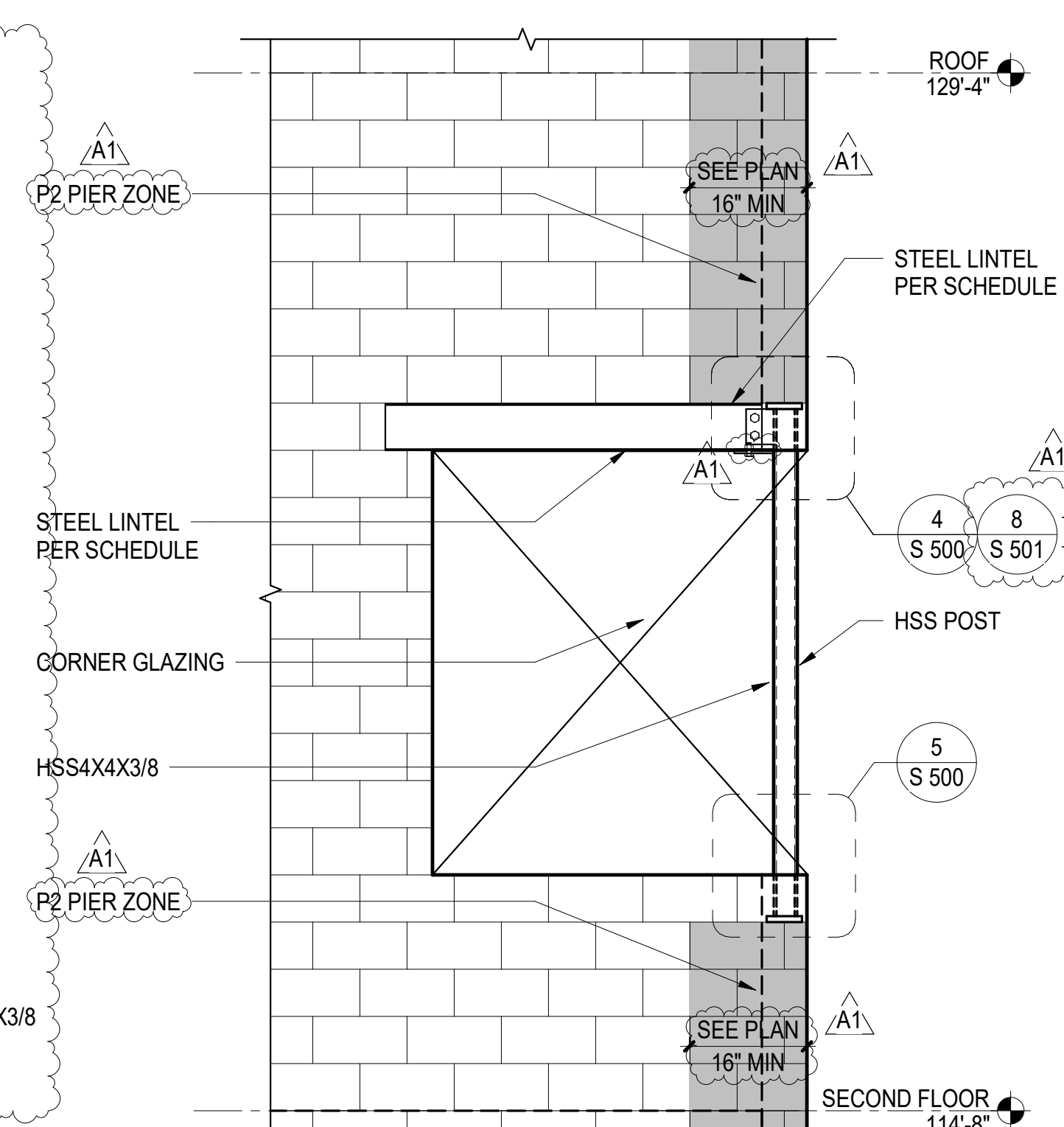
10 TYPICAL INTERIOR CMU WALL AT ROOF
 FLUTES PARALLEL
 NOT TO SCALE



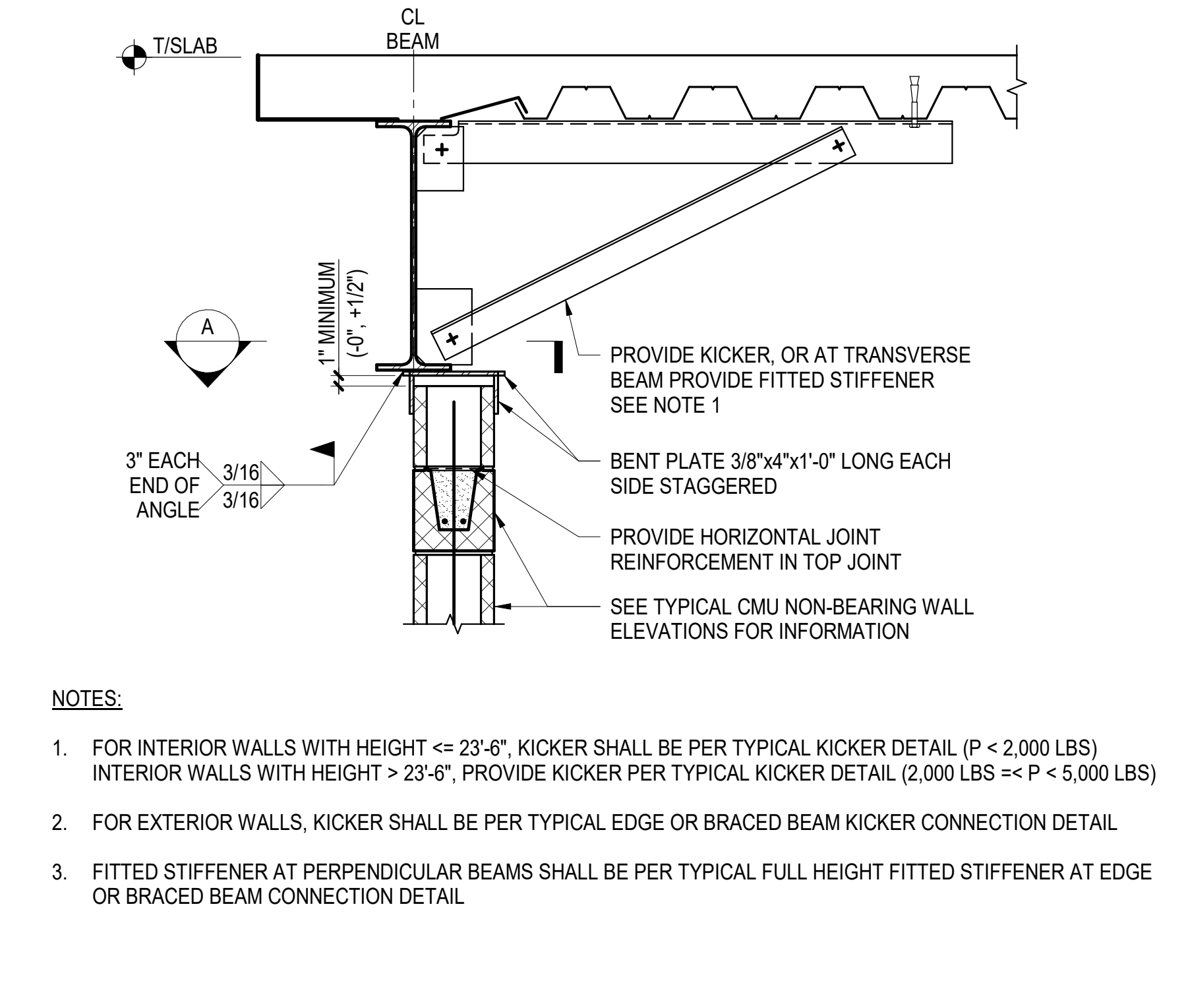
9 TYPICAL INTERIOR CMU WALL AT ROOF
 FLUTES PERPENDICULAR
 NOT TO SCALE



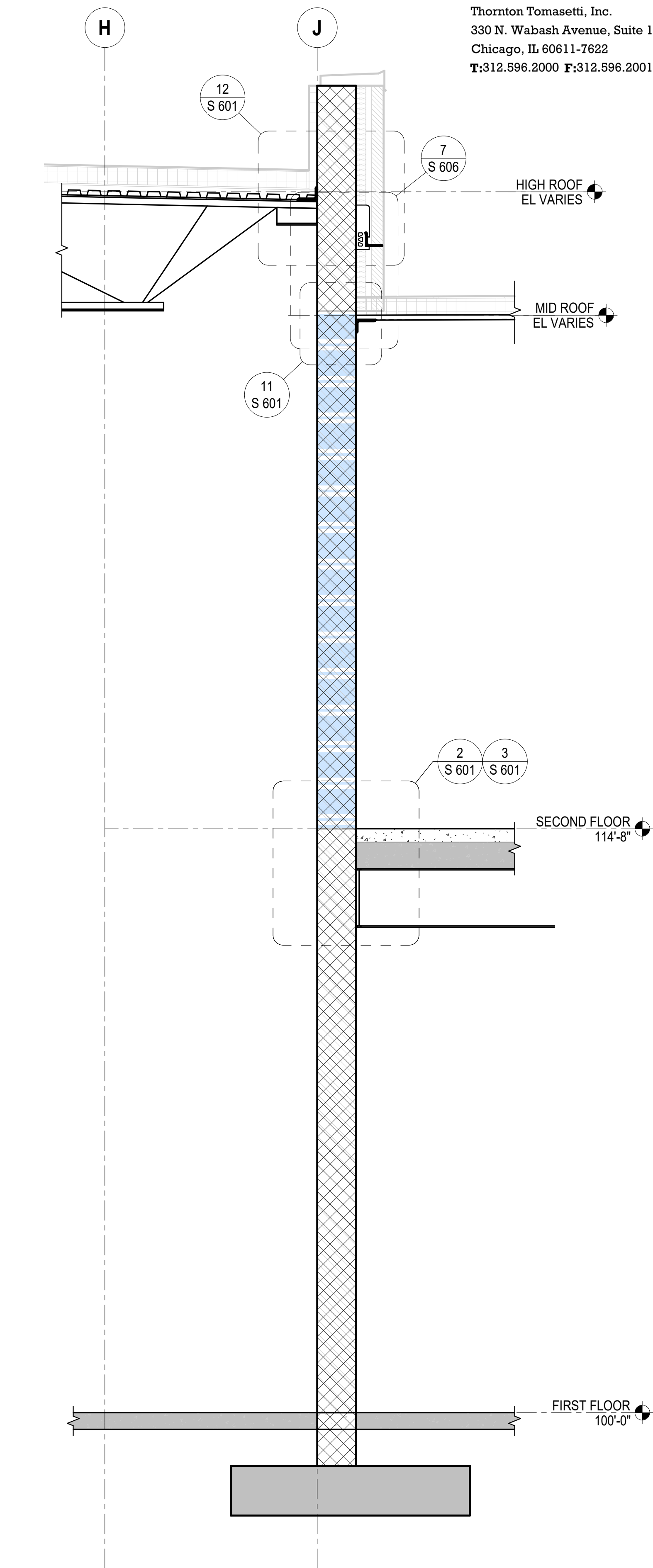
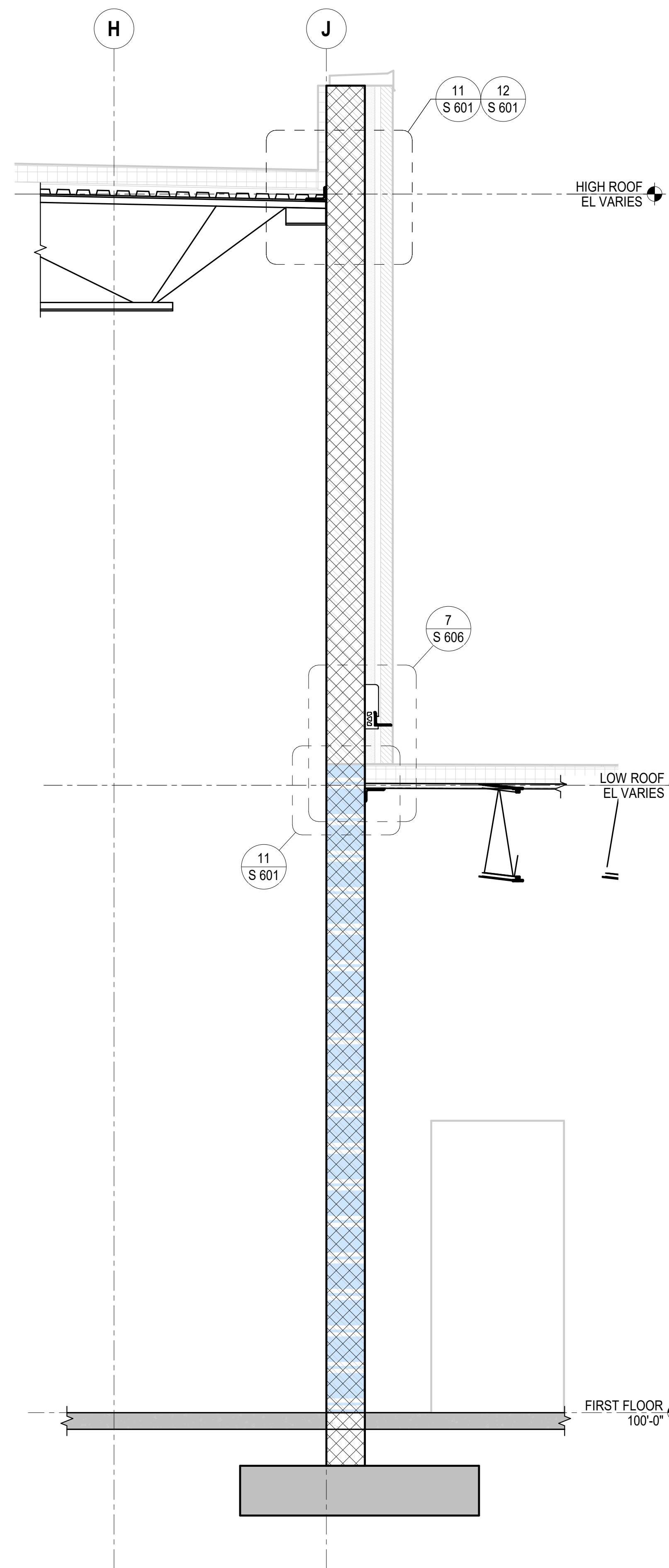
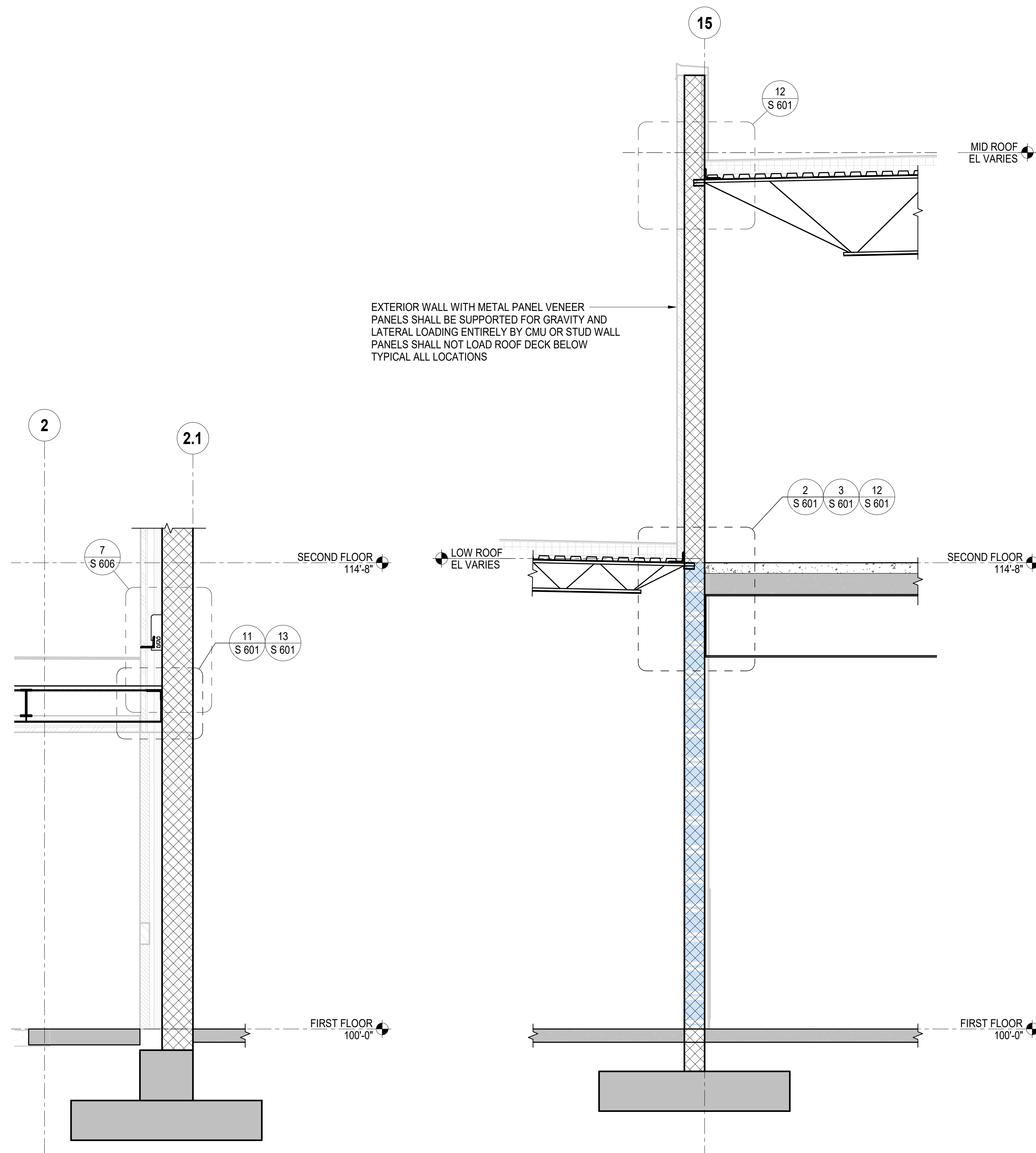
14 CORNER GLAZING CONDITION PLAN
 1/4" = 1'-0"



15 TYPICAL DETAIL OF CMU WALL AT PERPENDICULAR
 STEEL BEAM
 NOT TO SCALE



16 TYPICAL NON LOAD-BEARING CMU TOP BRACE DETAIL
 UNDER STEEL BEAM
 NOT TO SCALE

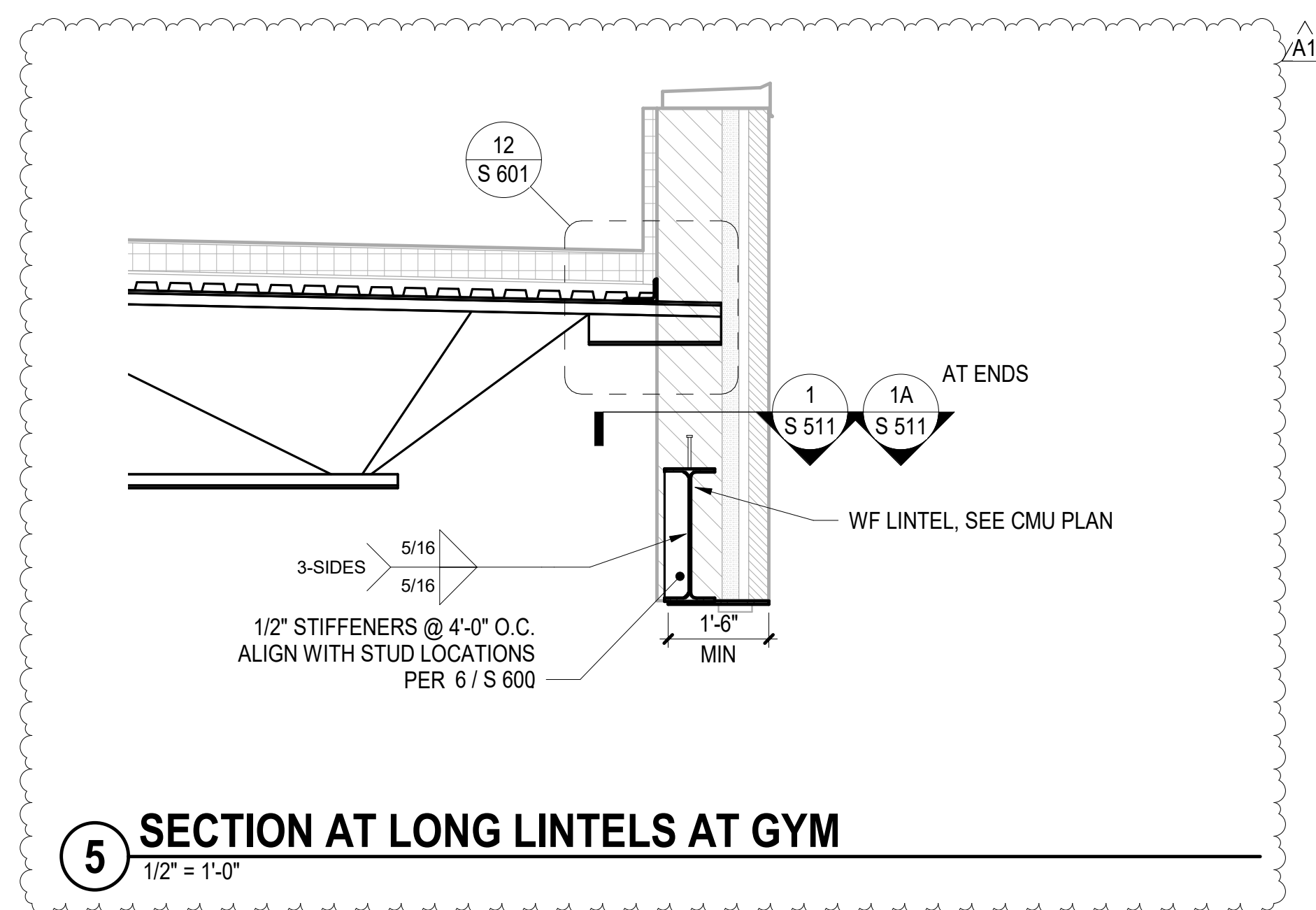


1 INTERFACE BETWEEN CANOPY AND STRUCTURAL CMU
 1/2" = 1'-0"

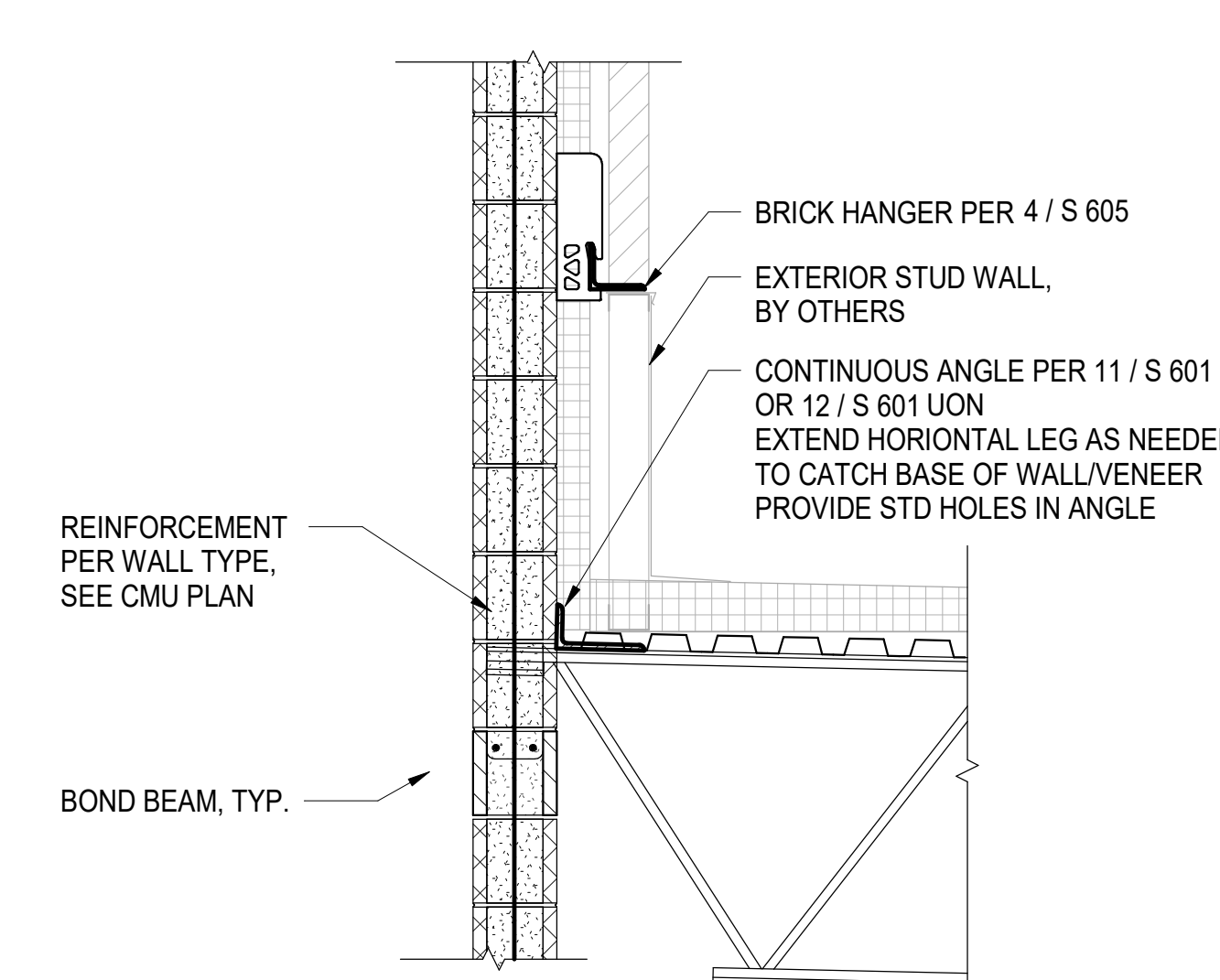
2 LOW ROOF INTERFACE AT STRUCTURAL CMU
 1/2" = 1'-0"

3 LOW ROOF INTERFACE AT STRUCTURAL CMU
 1/2" = 1'-0"

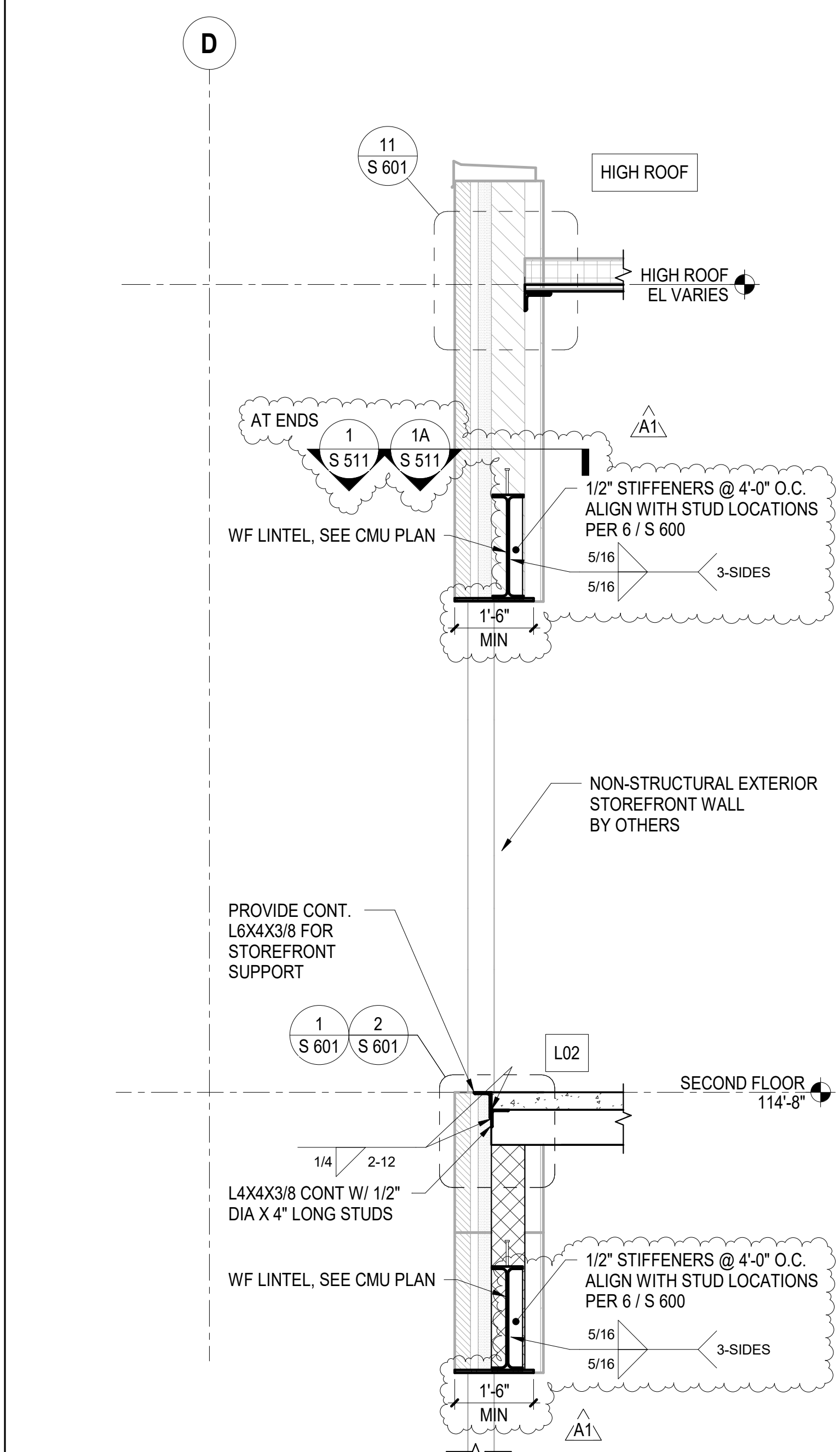
4 MID ROOF INTERFACE AT STRUCTURAL CMU
 1/2" = 1'-0"



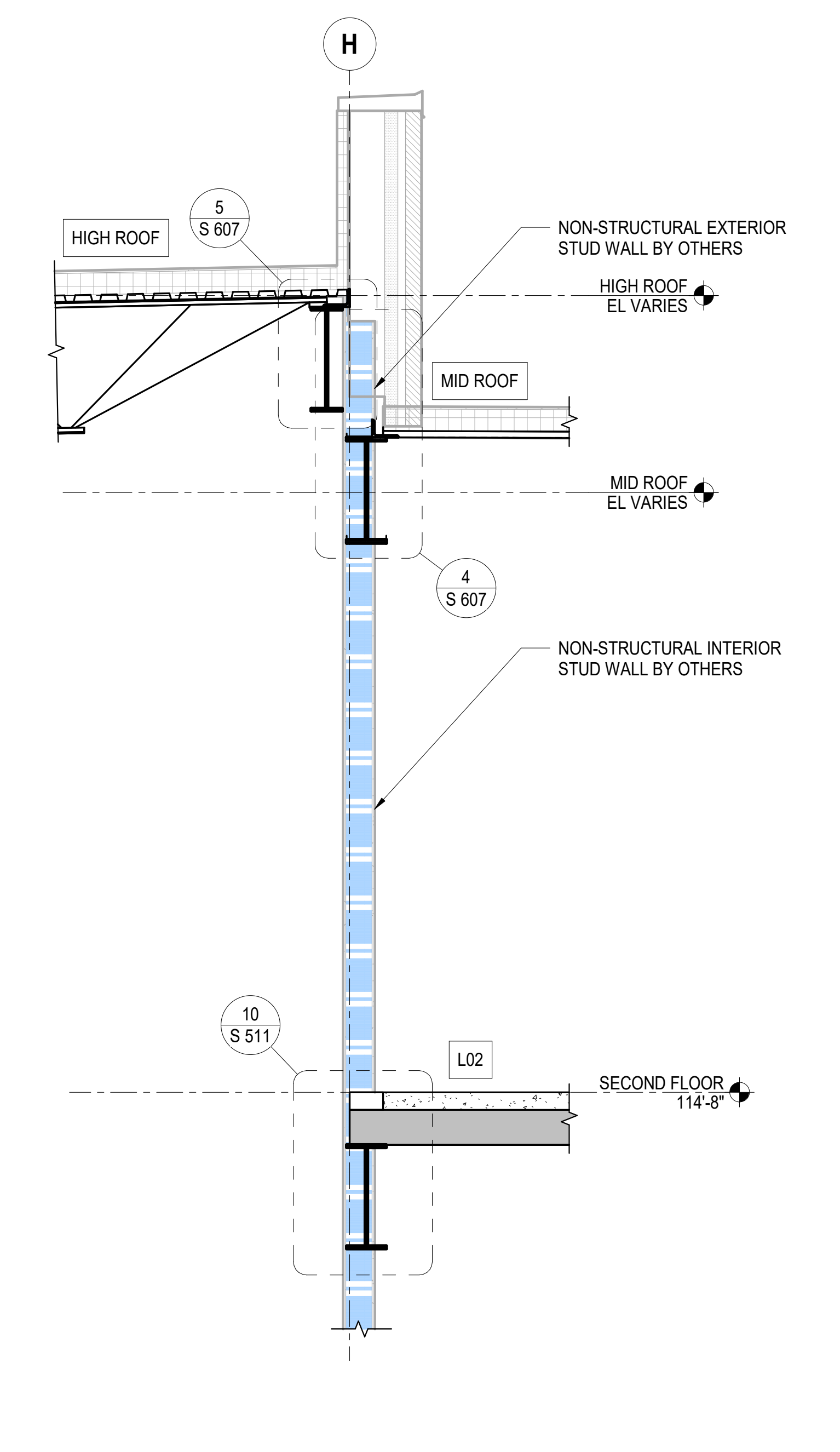
5 SECTION AT LONG LINTELS AT GYM
 1/2" = 1'-0"



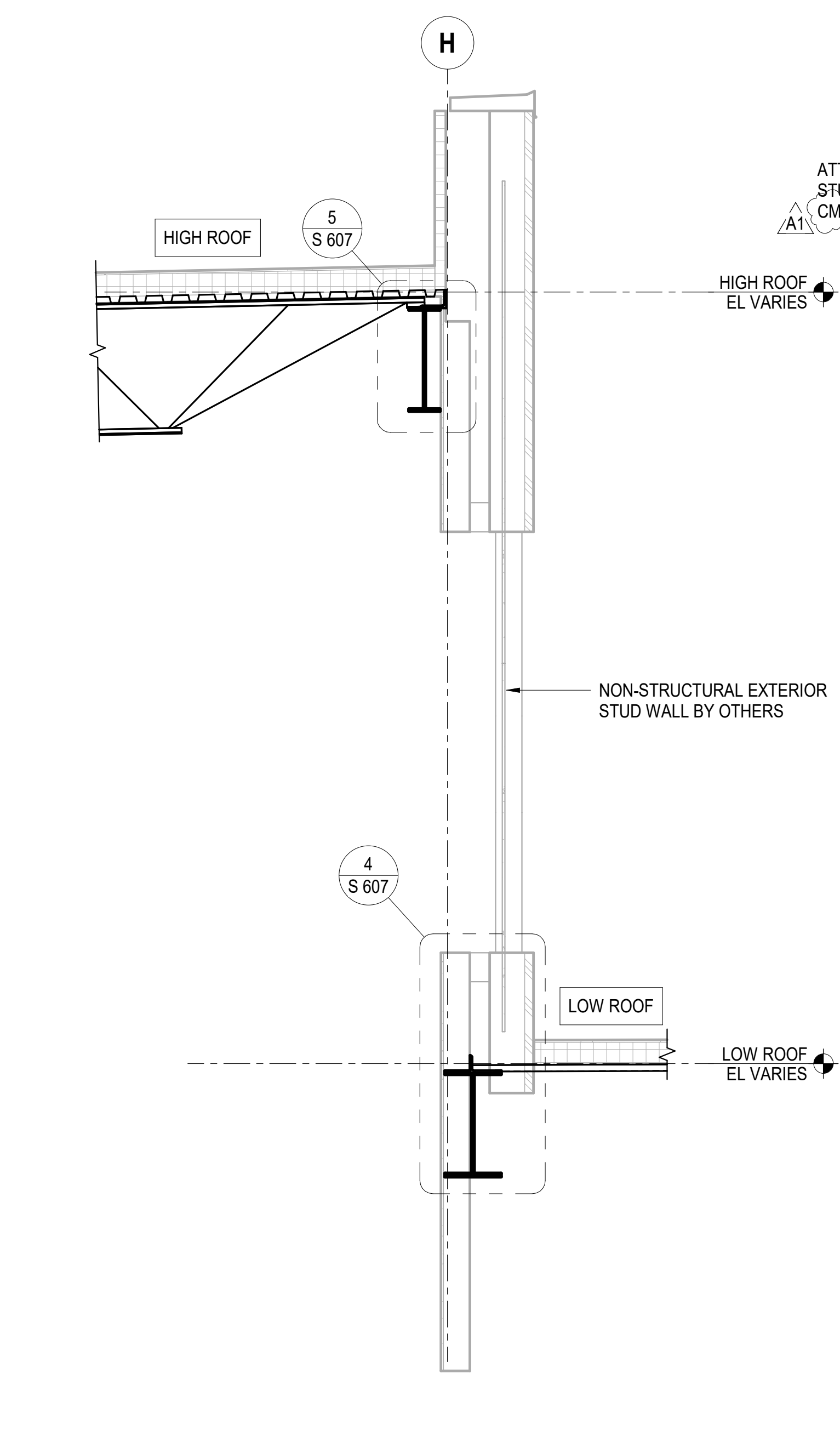
7 WALL DETAIL AT ROOF
 3/4" = 1'-0"



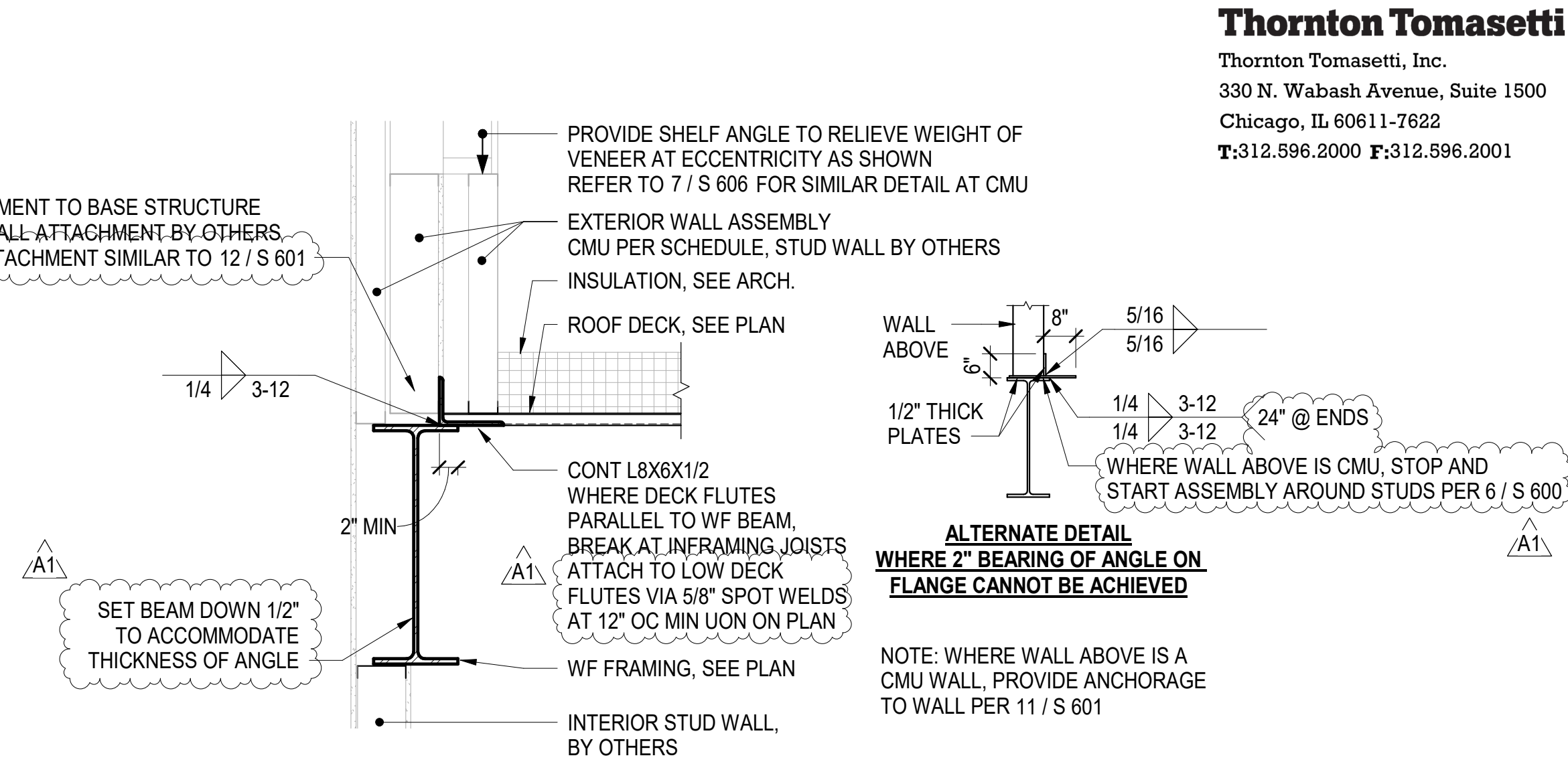
1 TYPICAL EXTERIOR STOREFRONT AT HIGH ROOF AND L02
 1/2" = 1'-0"



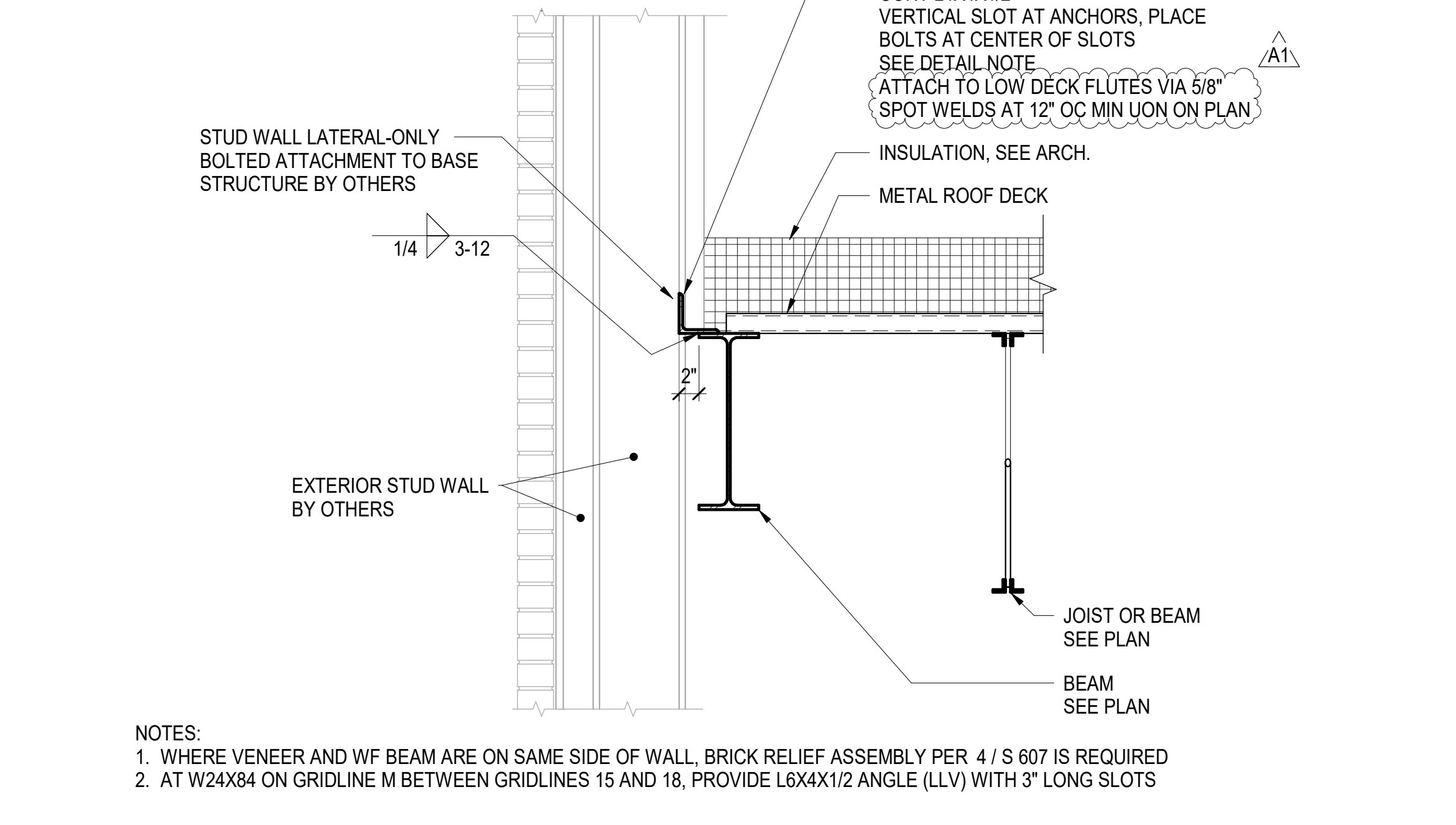
2 TYPICAL EXTERIOR STUD WALL AT HIGH / MID ROOF INTERFACE
 1/2" = 1'-0"



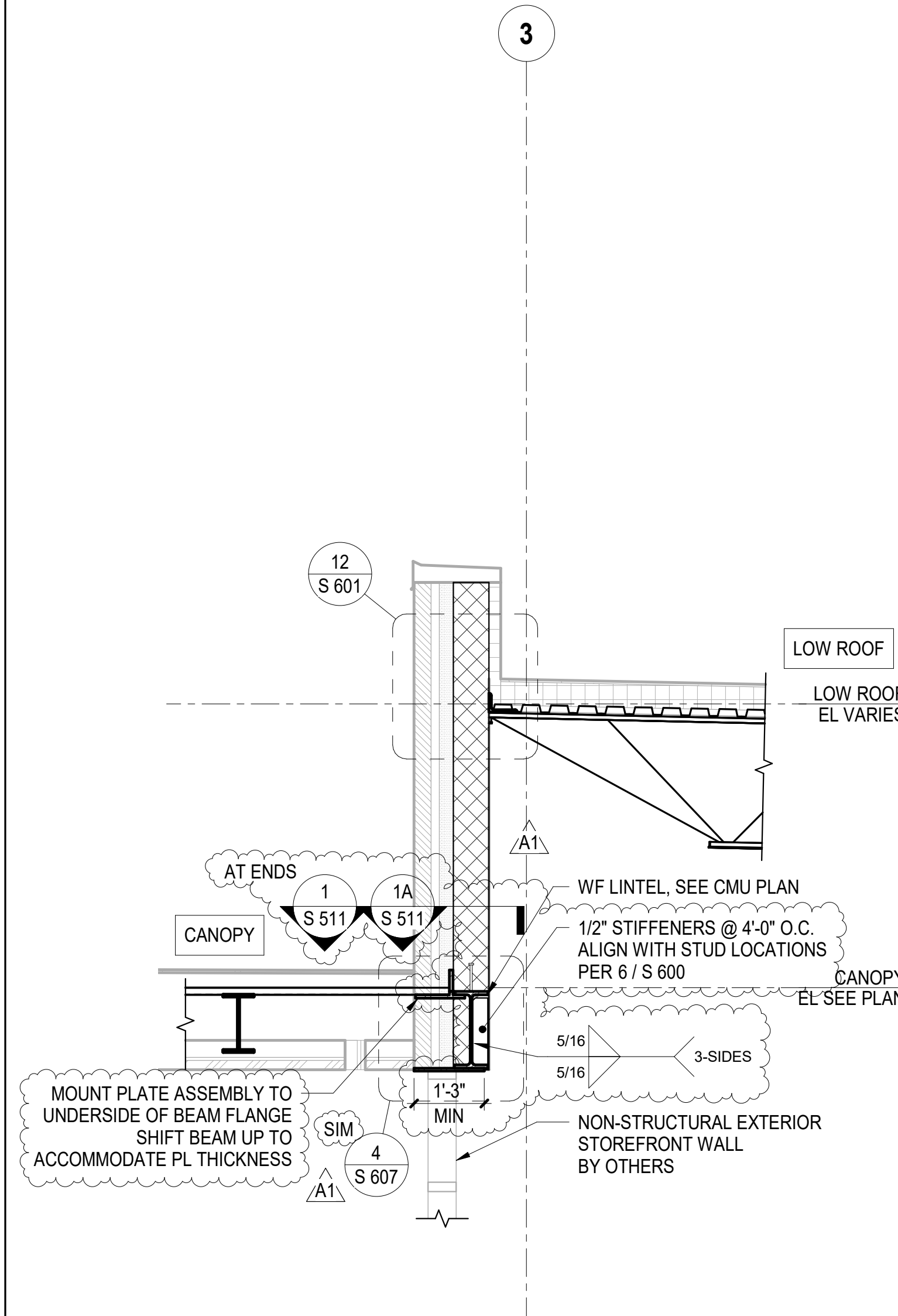
3 TYPICAL EXTERIOR STUD WALL AT HIGH / LOW ROOF INTERFACE
 1/2" = 1'-0"



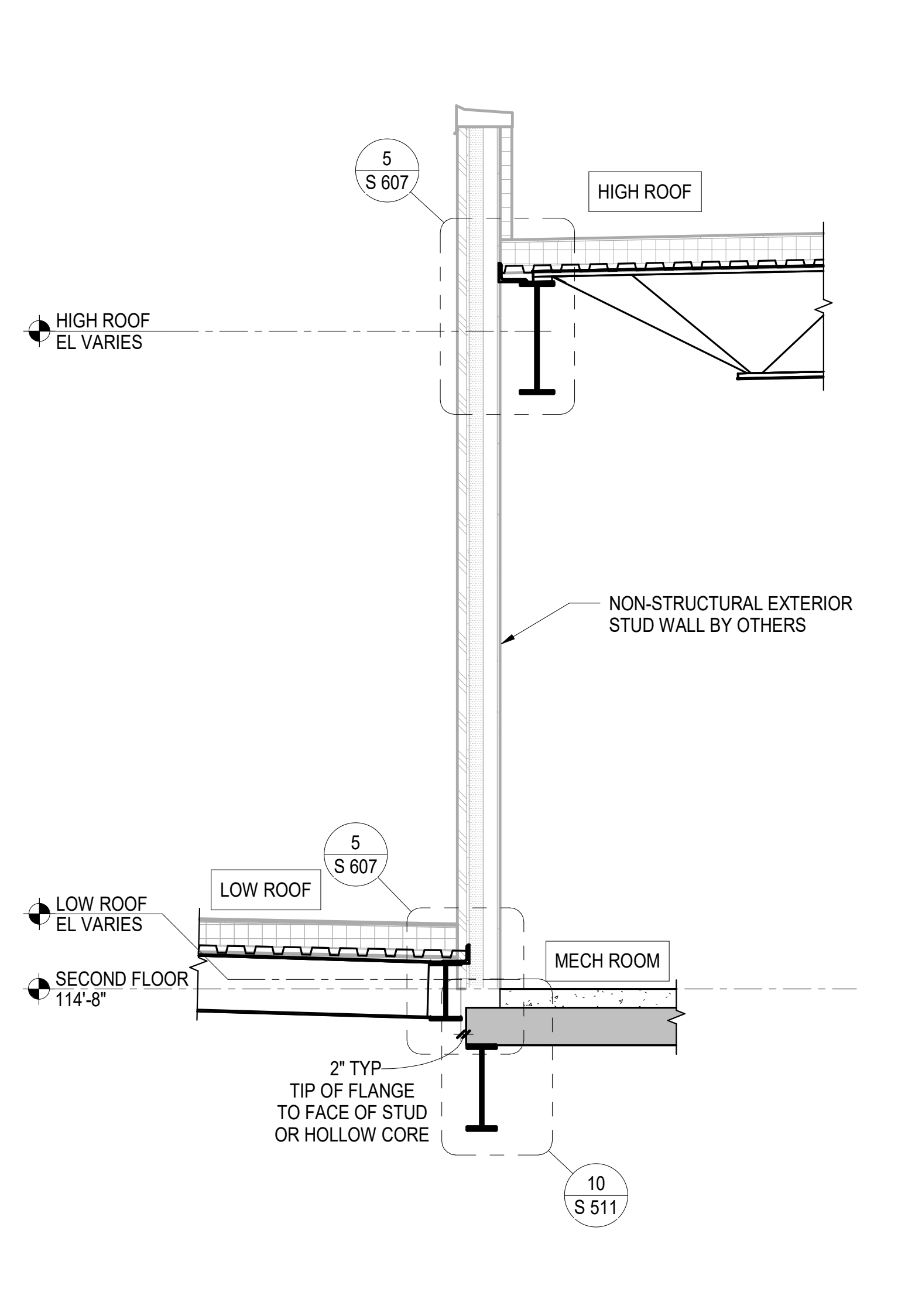
4 LATERAL-AND-GRAVITY WALL BASE ATTACHMENT AT ROOF
 3/4" = 1'-0"



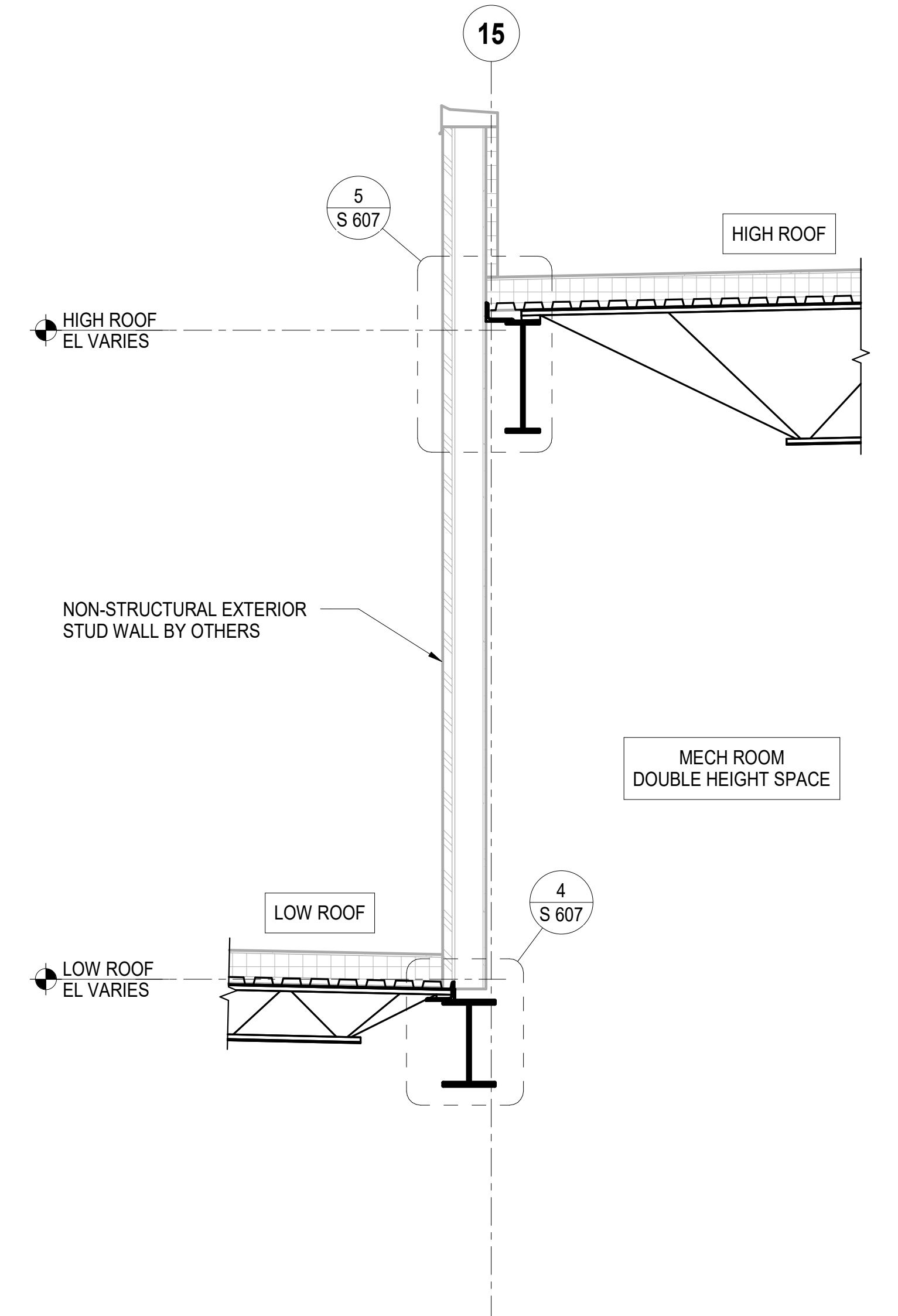
5 LATERAL-ONLY STUD WALL ATTACHMENT AT OFFSET WIDE FLANGE AT ROOF
 1" = 1'-0"



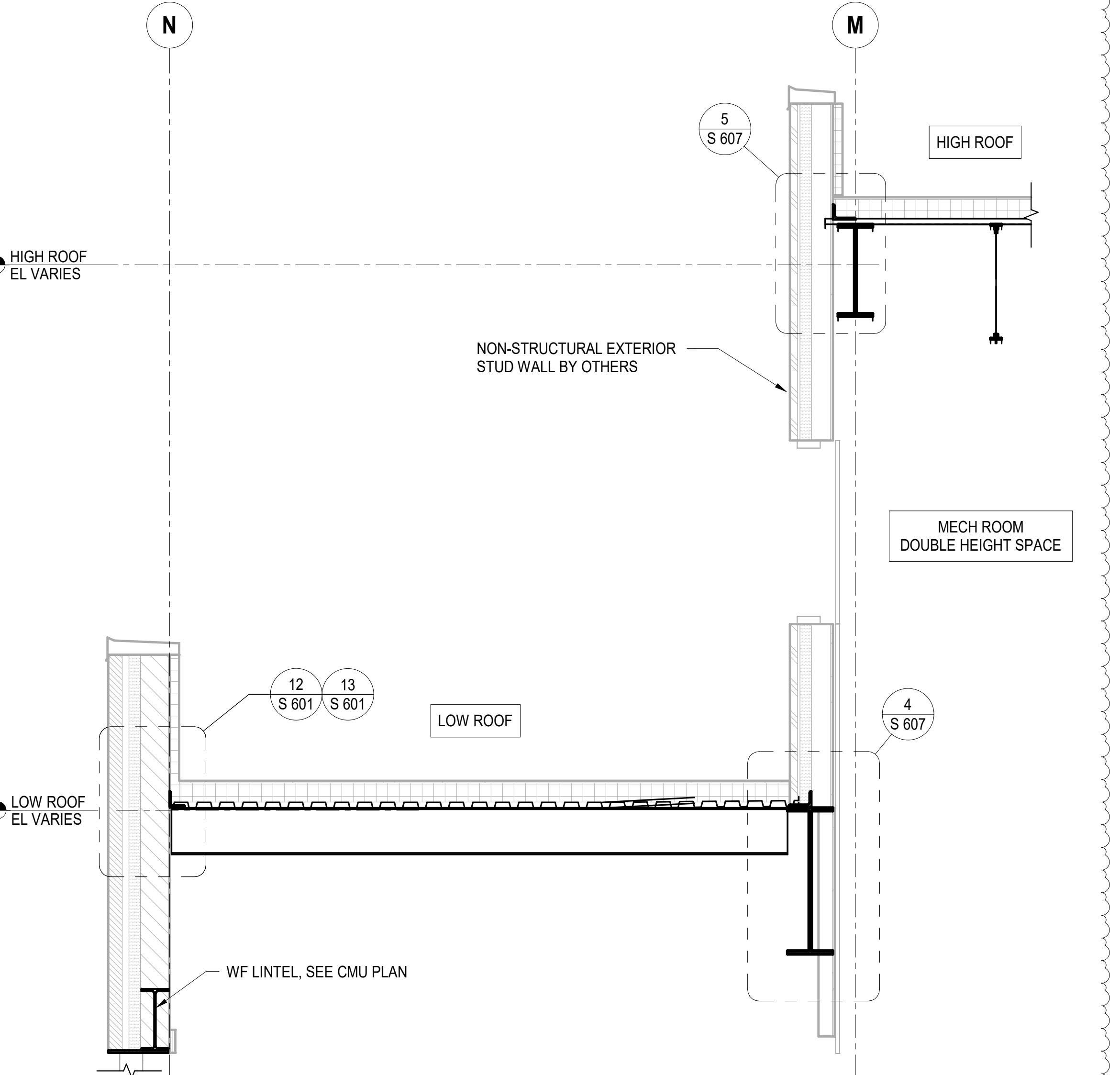
6 EXTERIOR STUD WALL AT LOW ROOF / CANOPY INTERFACE
 1/2" = 1'-0"



7 EXTERIOR STUD WALL AT MECHANICAL ROOM / LOW ROOF INTERFACE
 1/2" = 1'-0"



8 EXTERIOR STUD WALL AT MECHANICAL ROOM / LOW ROOF INTERFACE
 1/2" = 1'-0"



9 EXTERIOR STUD WALL AT MECHANICAL ROOM / LOW ROOF INTERFACE
 1/2" = 1'-0"

ADD No. 1 JUL 26, 2023
 ISSUED FOR DATE

PROJECT TITLE
 HAVERHILL ELEMENTARY SCHOOL

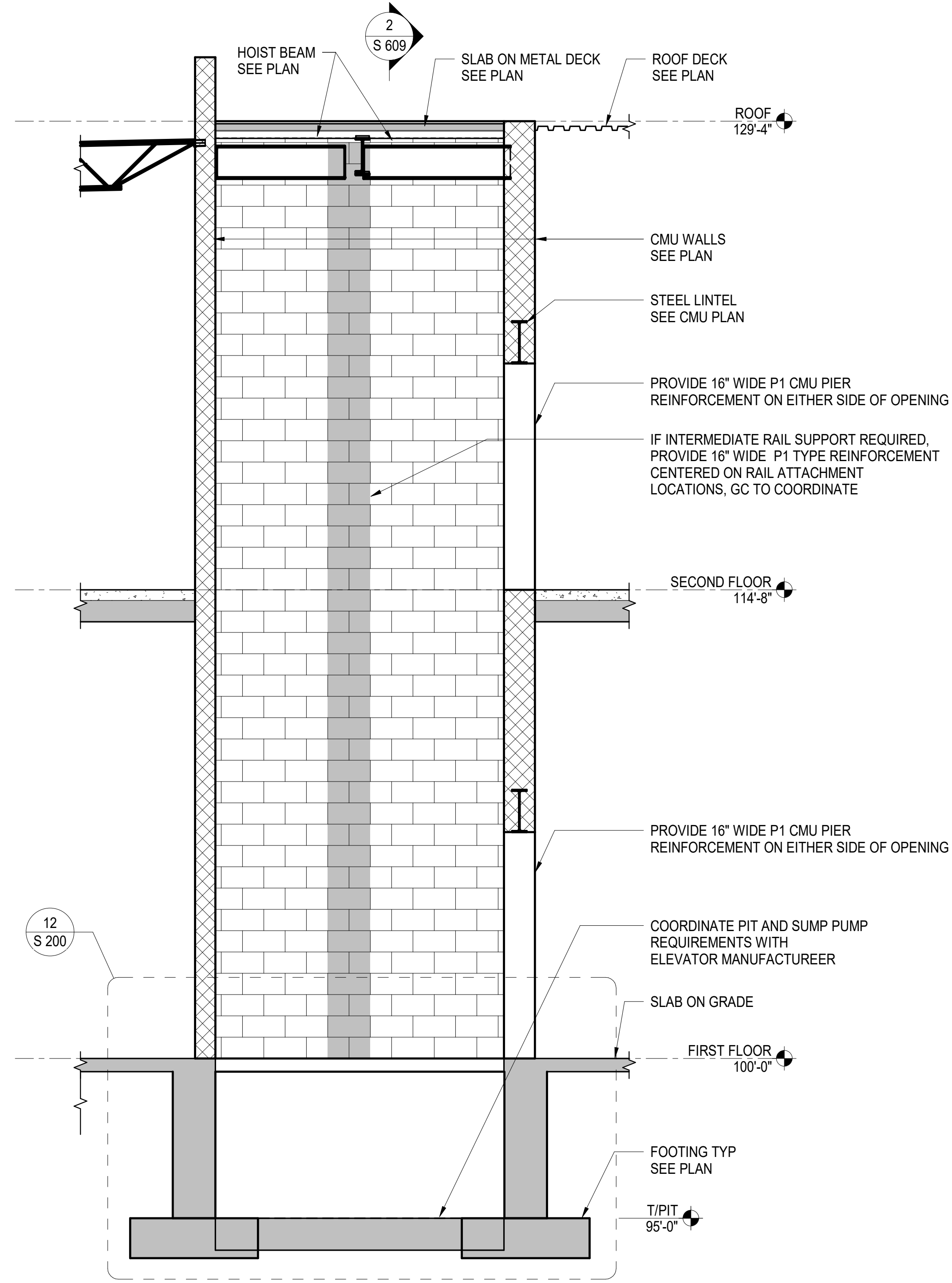
OWNER
 PORTAGE PUBLIC SCHOOLS

SHEET TITLE
 EXTERIOR WALL SECTIONS

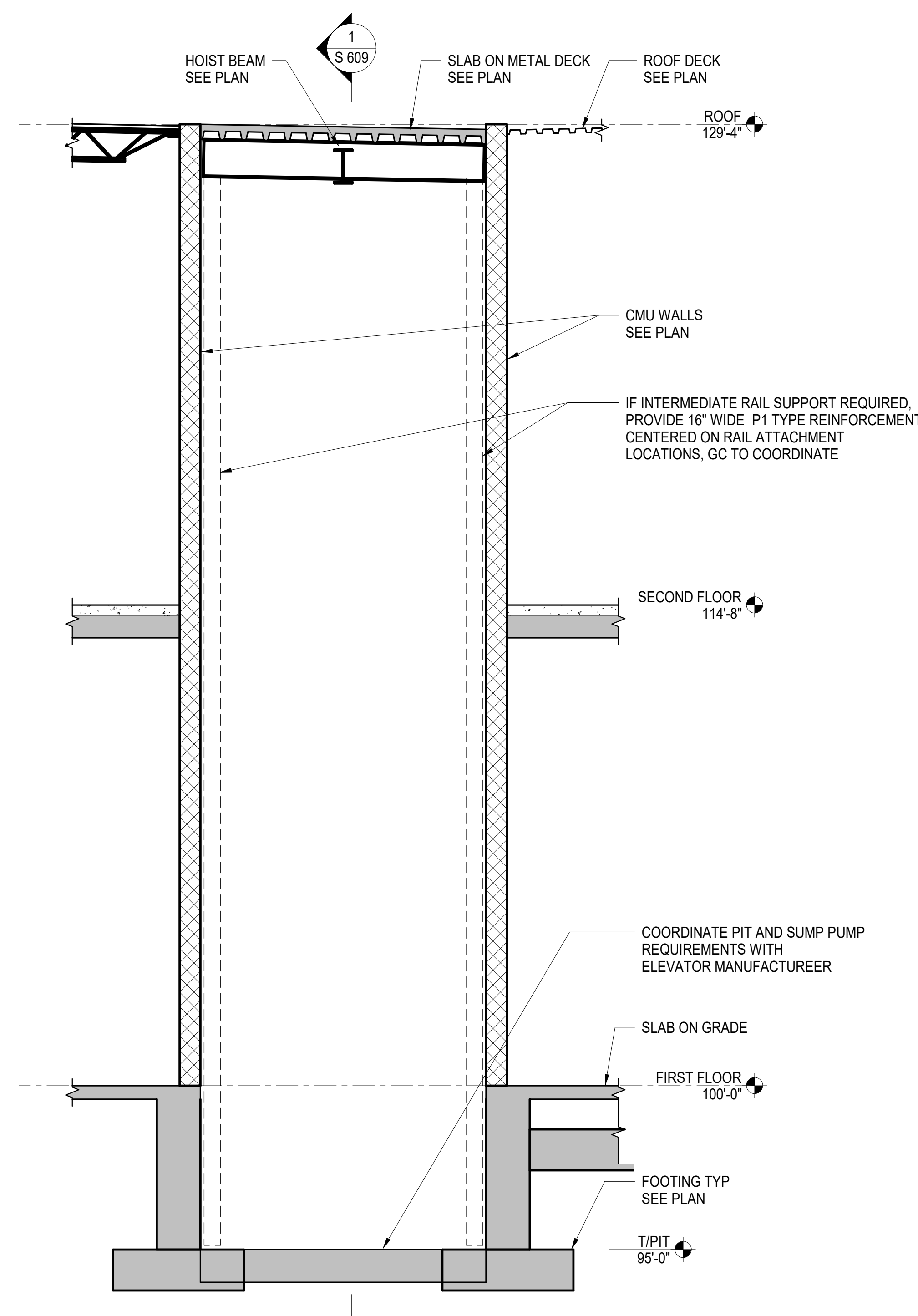
Portage, Michigan

DATE
 JUNE 30, 2023

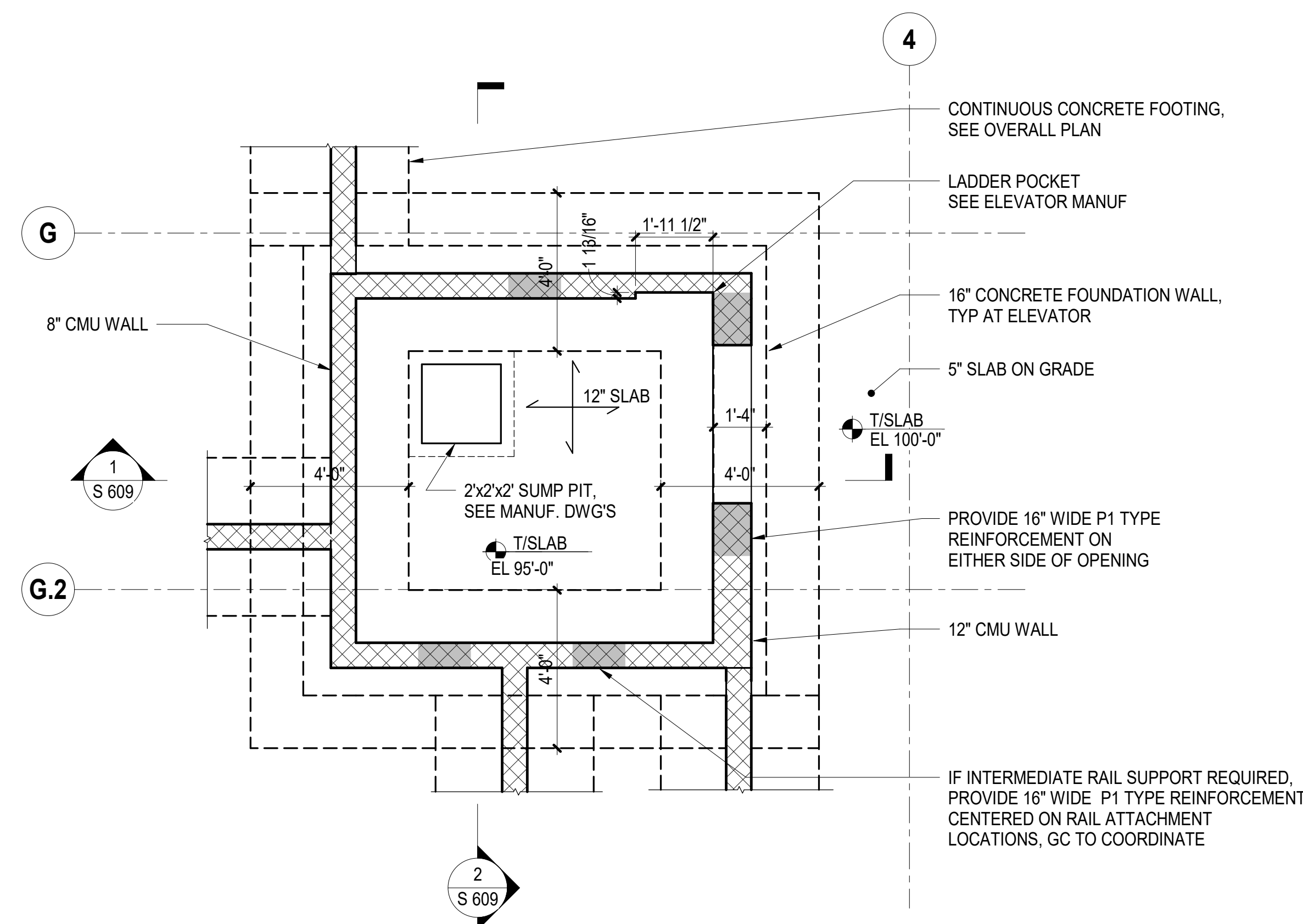
SHEET NUMBER
S 607
 21-237.25



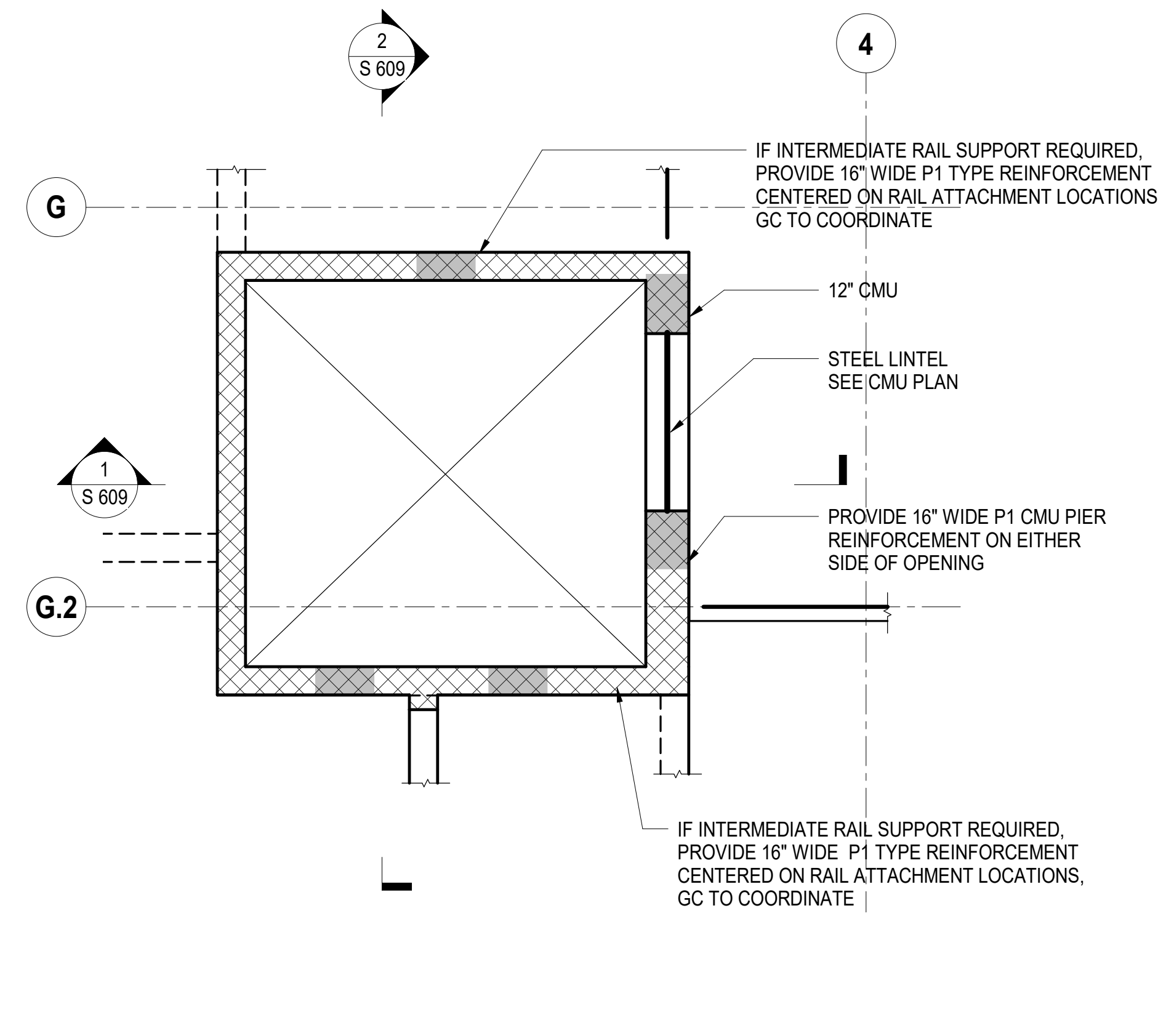
1 SECTION AT ELEVATOR SHAFT
 3/8" = 1'-0"



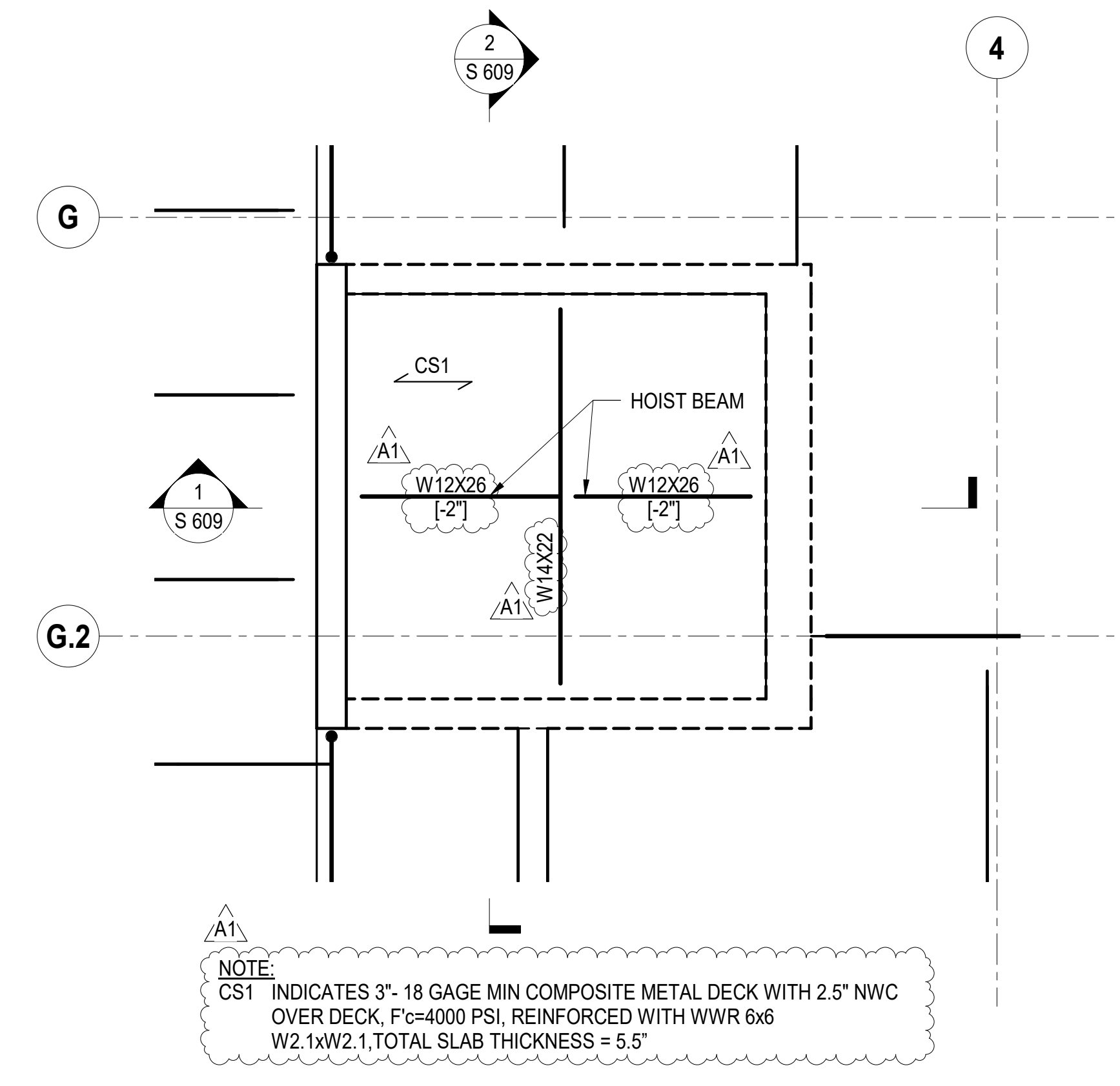
2 SECTION AT ELEVATOR SHAFT
 3/8" = 1'-0"



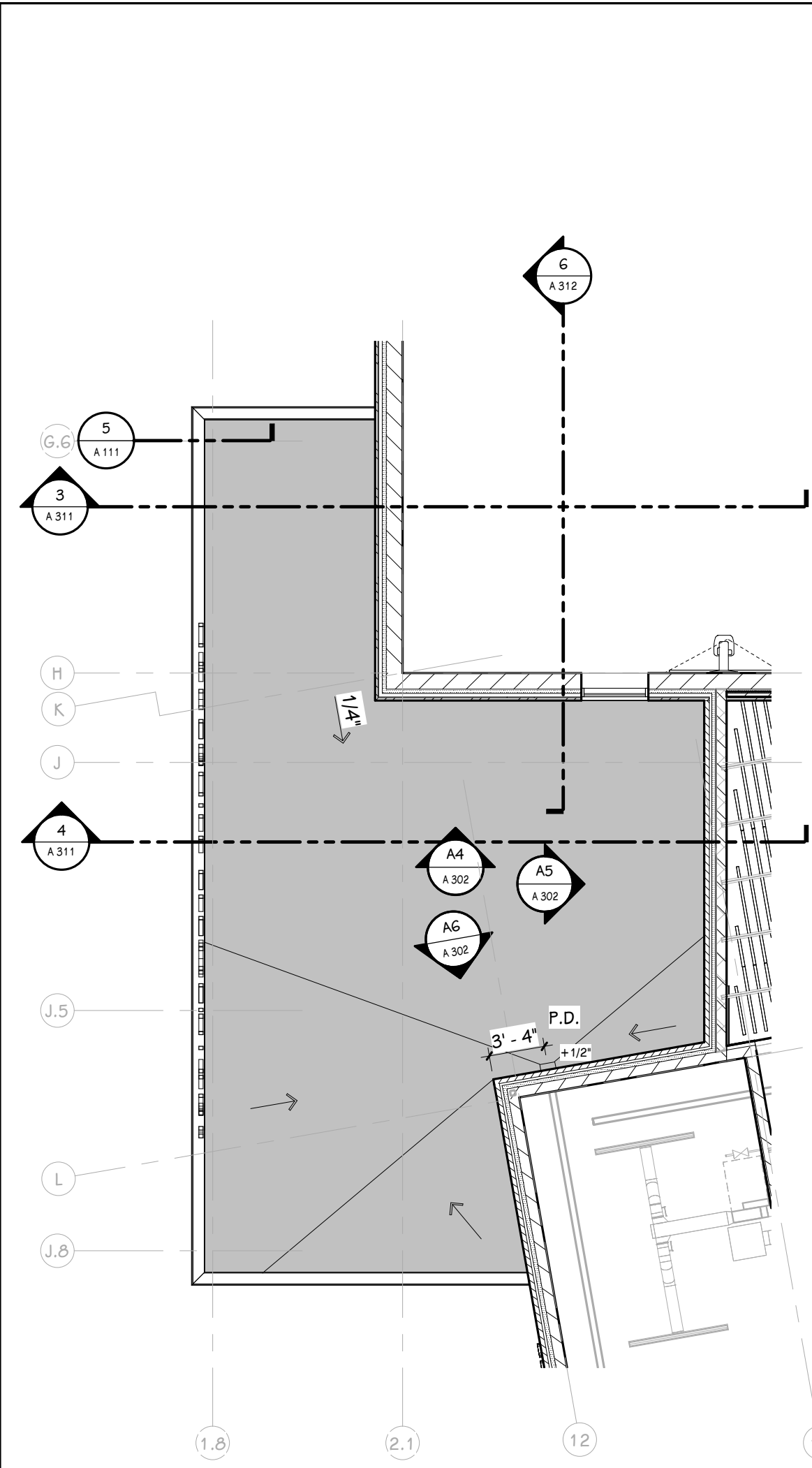
3 ELEVATOR PIT SLAB PARTIAL PLAN
 3/8" = 1'-0"



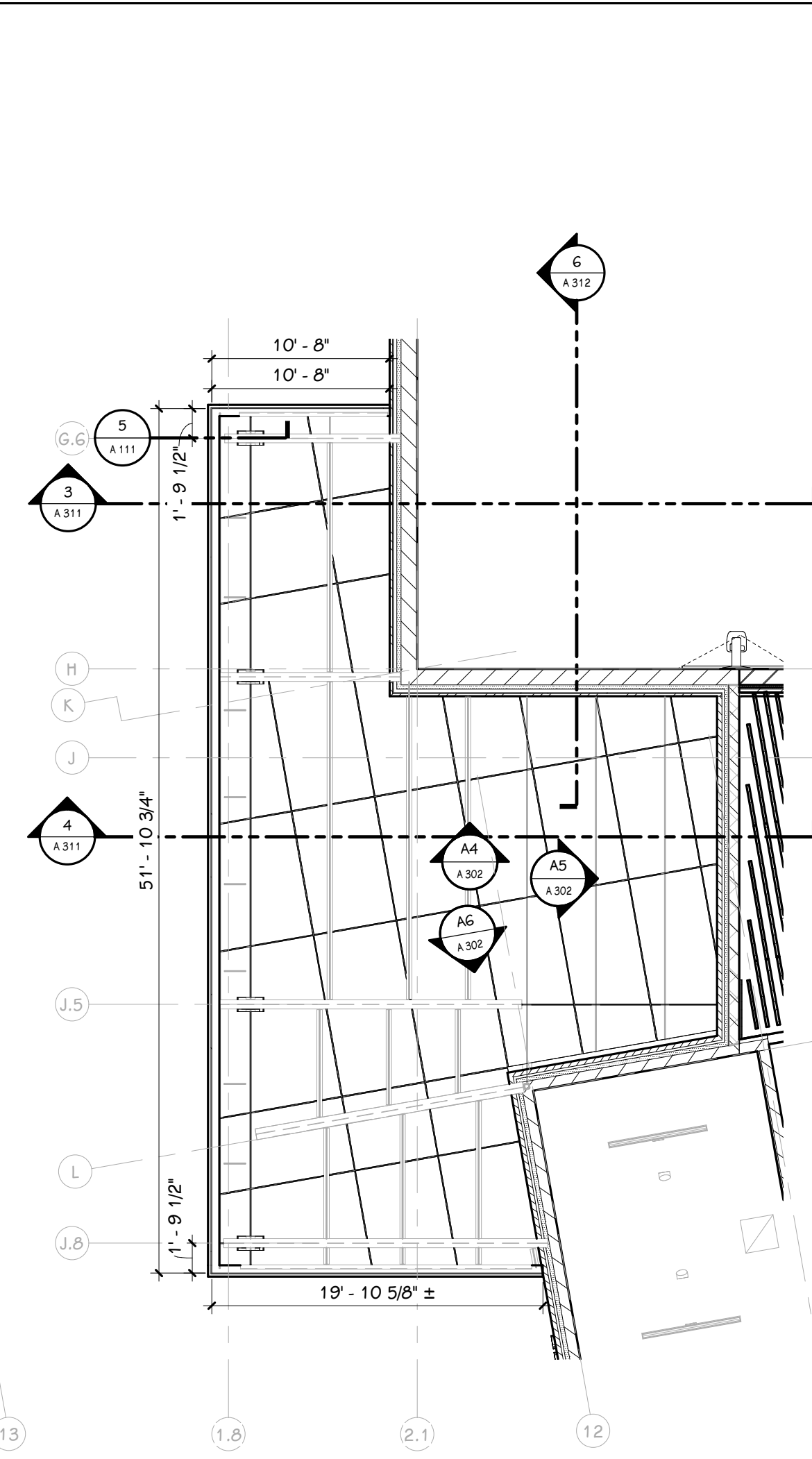
4 SECOND FLOOR ELEVATOR PARTIAL PLAN
 3/8" = 1'-0"



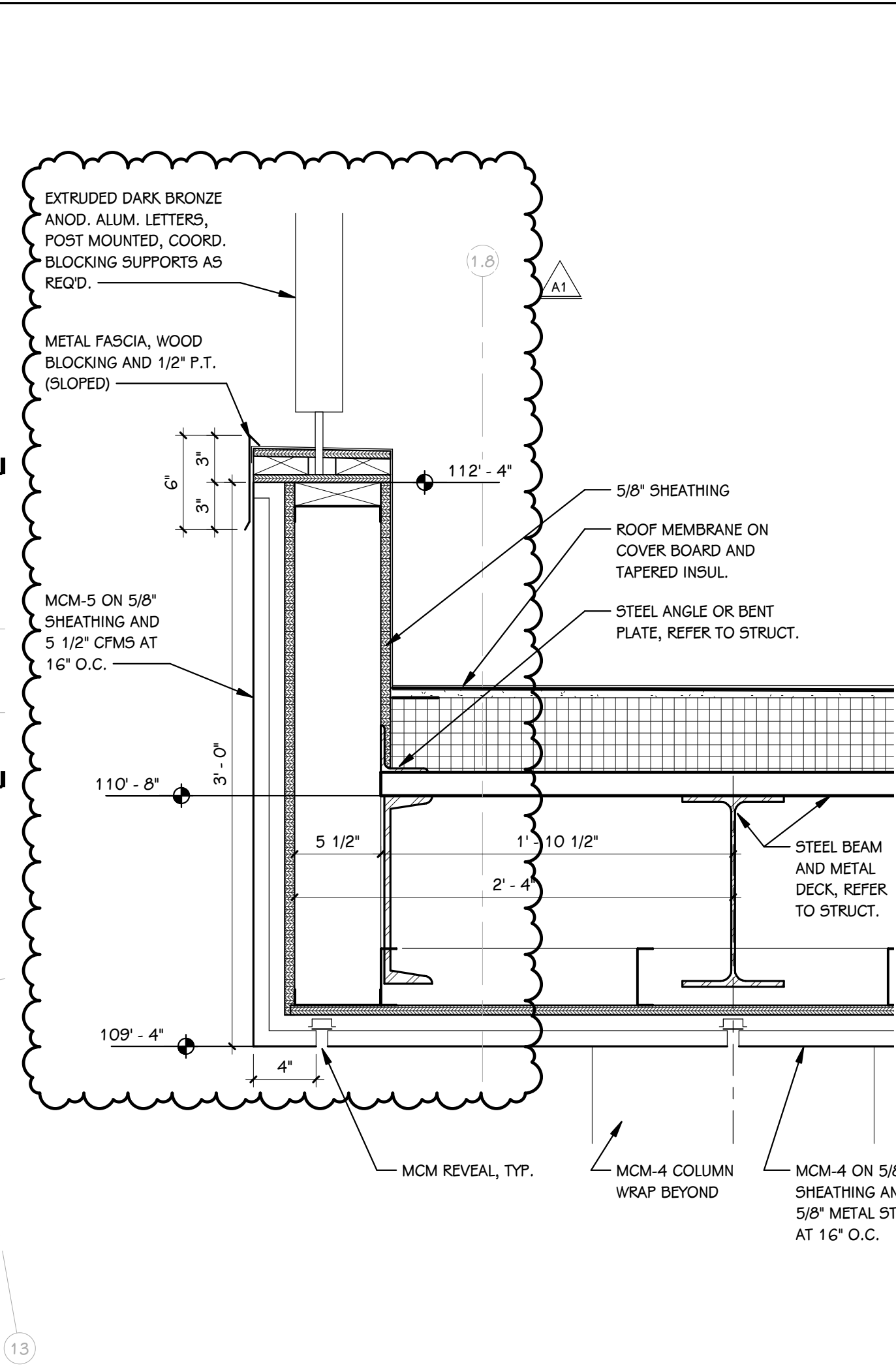
5 ROOF ELEVATOR PARTIAL PLAN
 3/8" = 1'-0"



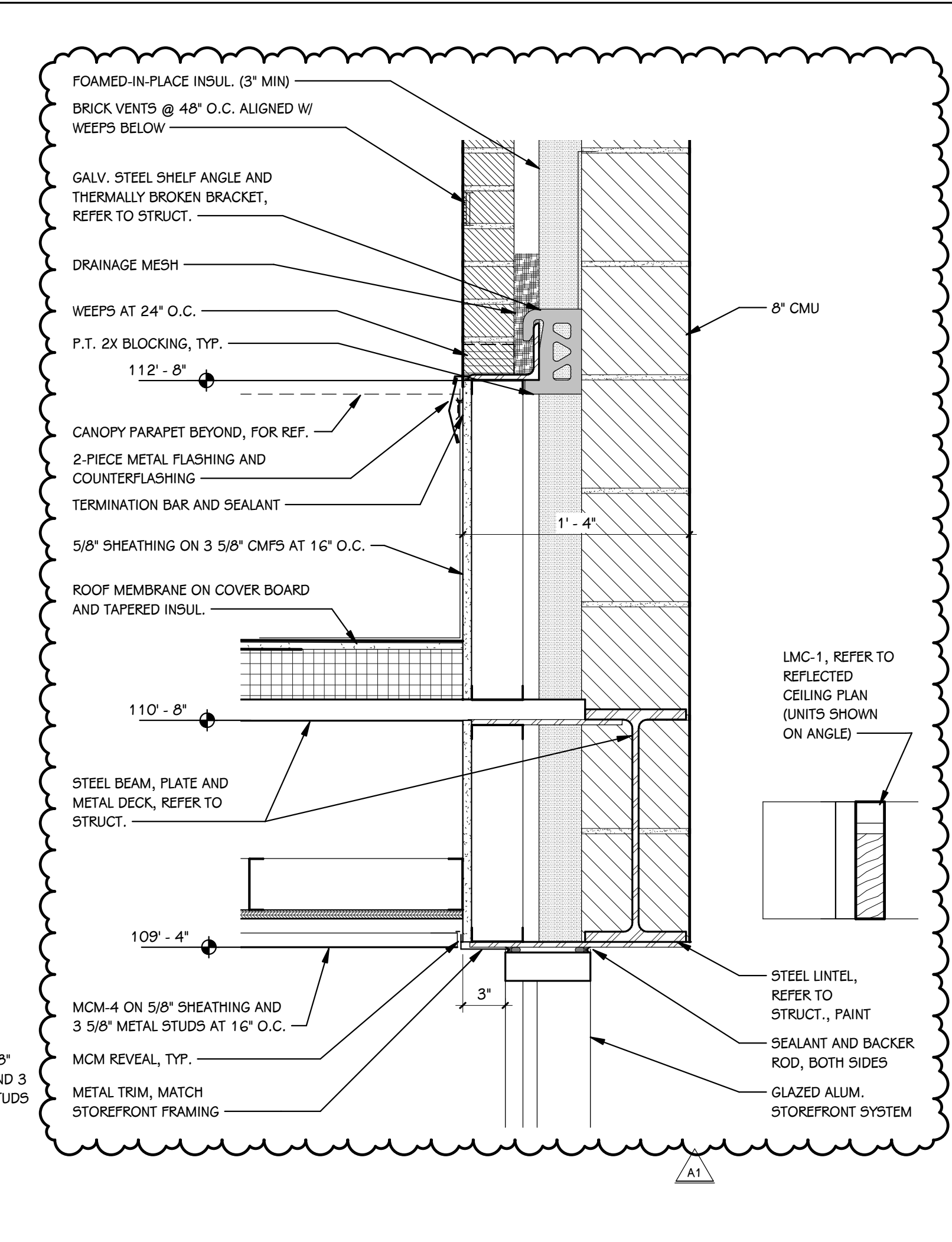
1 CANOPY ROOF PLAN
1/8" = 1'-0"



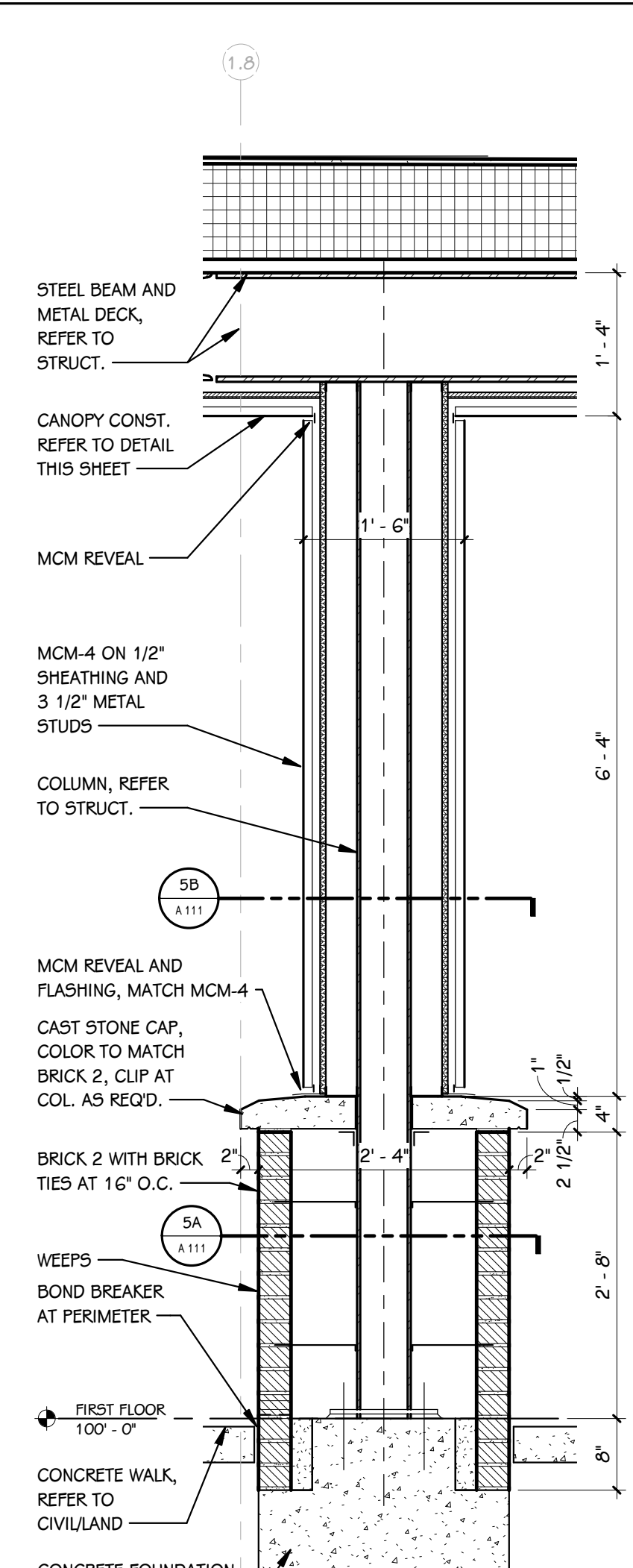
1A CANOPY ROOF PLAN
1/8" = 1'-0"



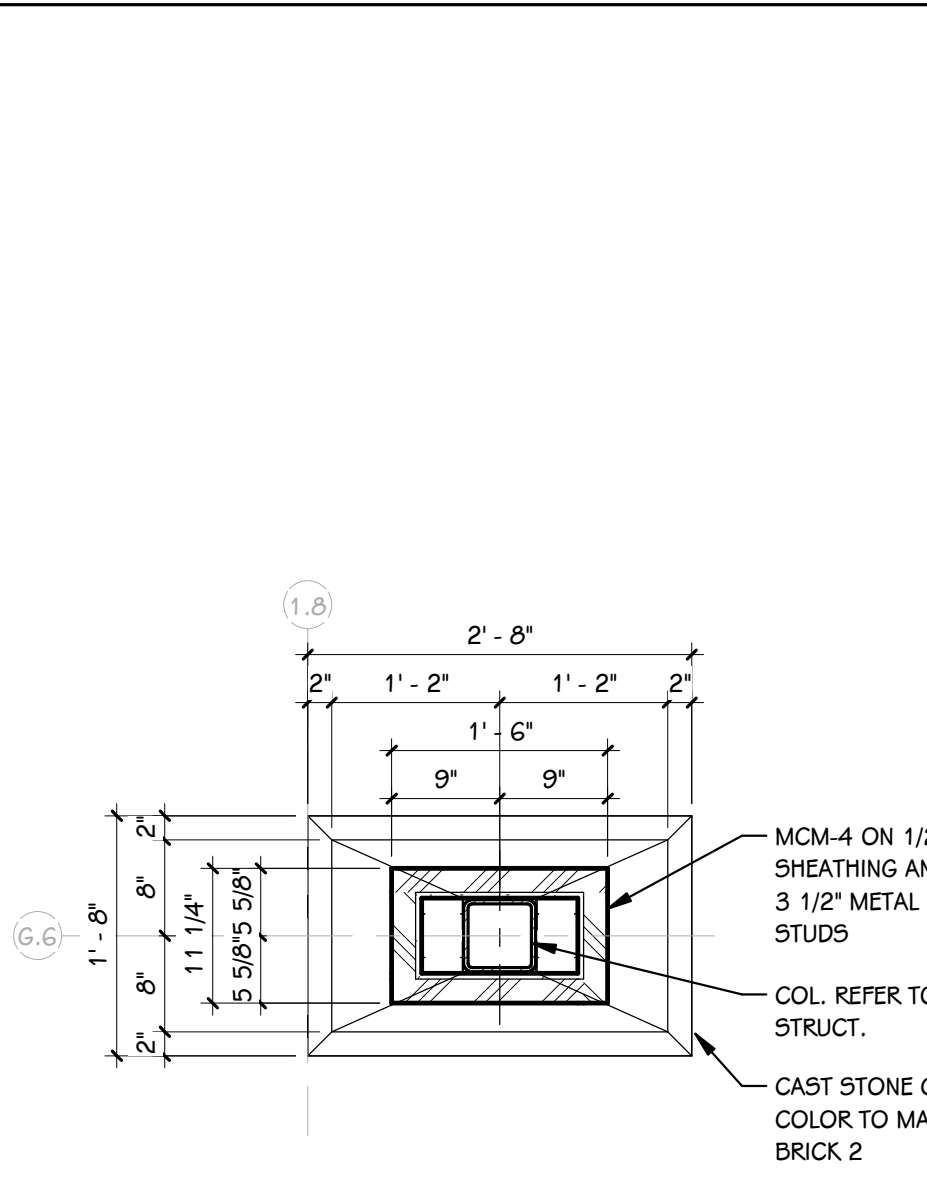
2 WALL SECTION
1 1/2" = 1'-0"



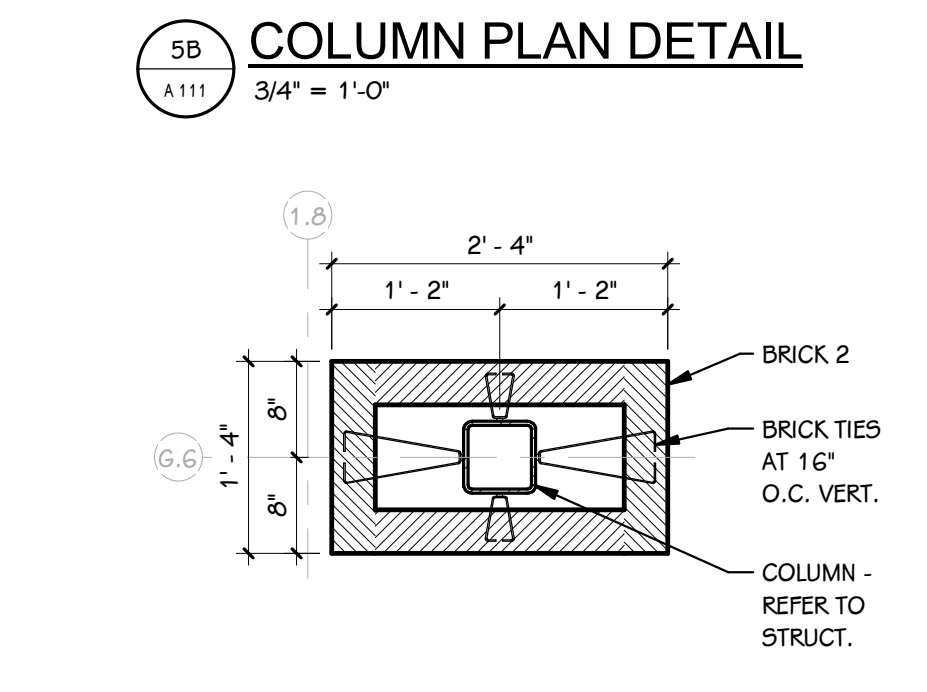
3 WALL SECTION
1 1/2" = 1'-0"



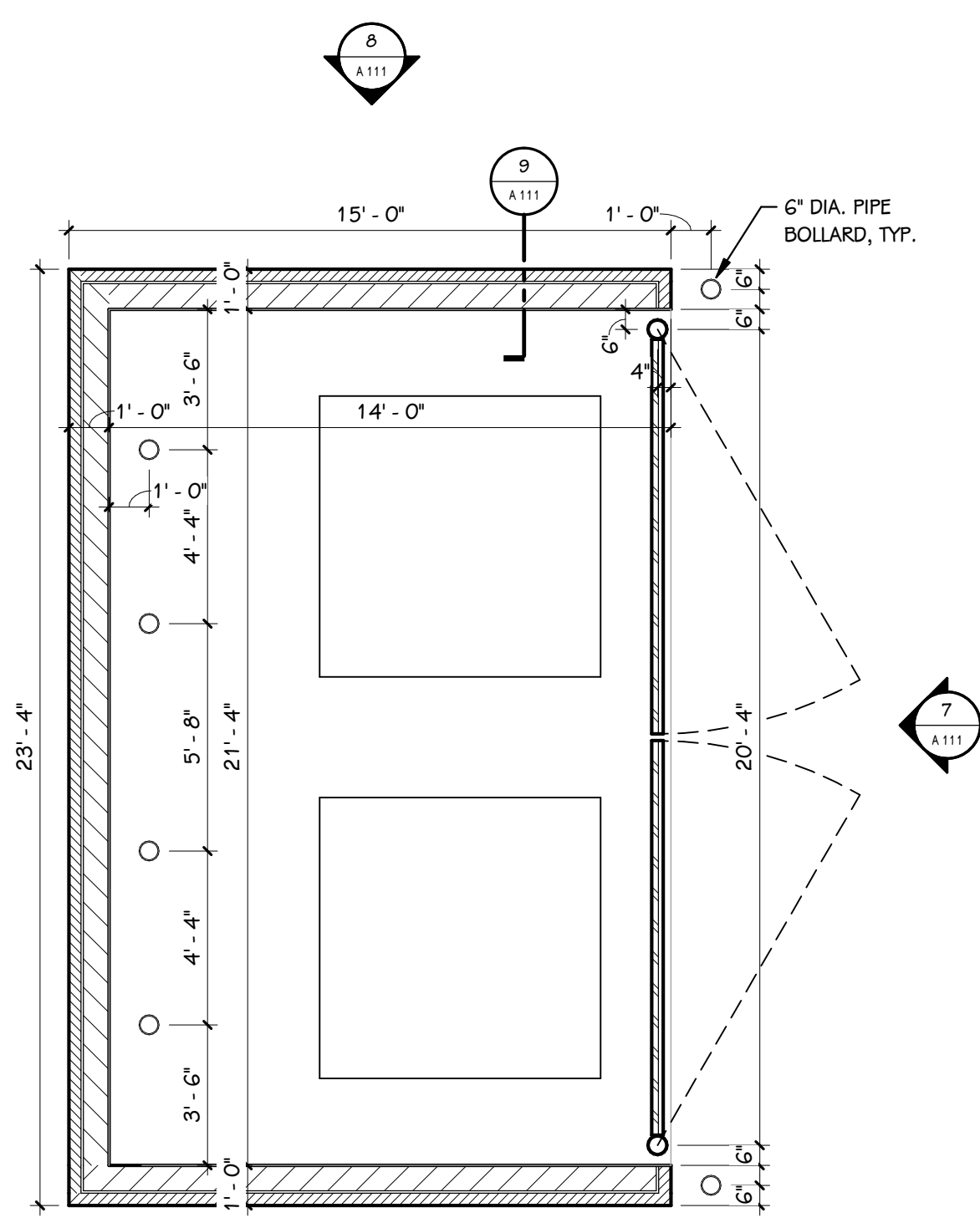
5 WALL SECTION
3/4" = 1'-0"



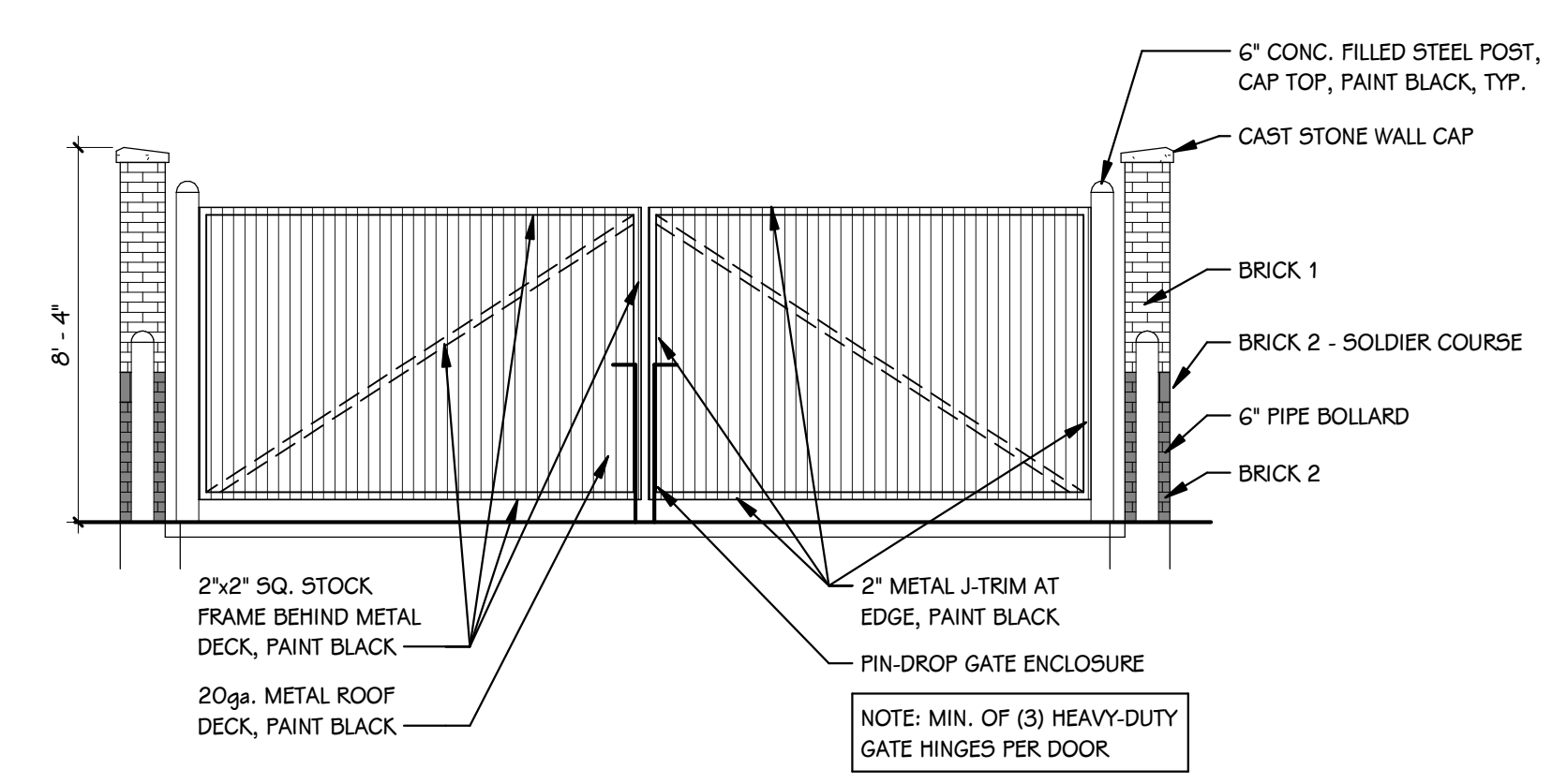
5B COLUMN PLAN DETAIL
3/4" = 1'-0"



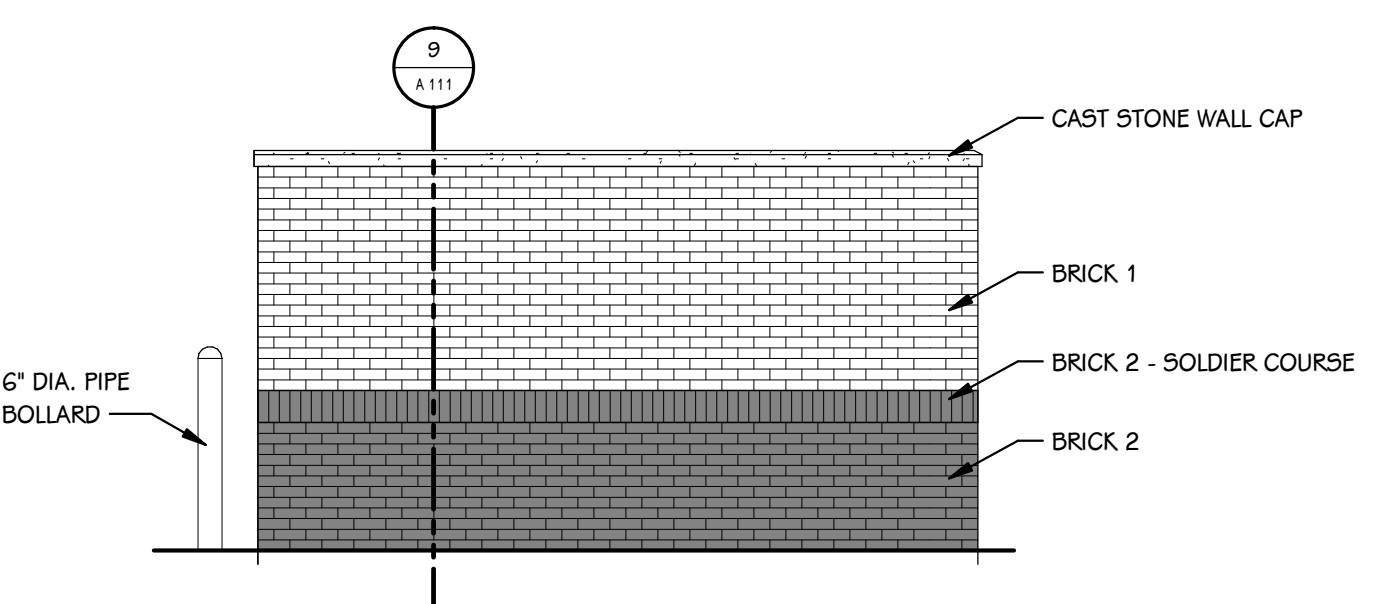
5A BRICK COLUMN PLAN
3/4" = 1'-0"



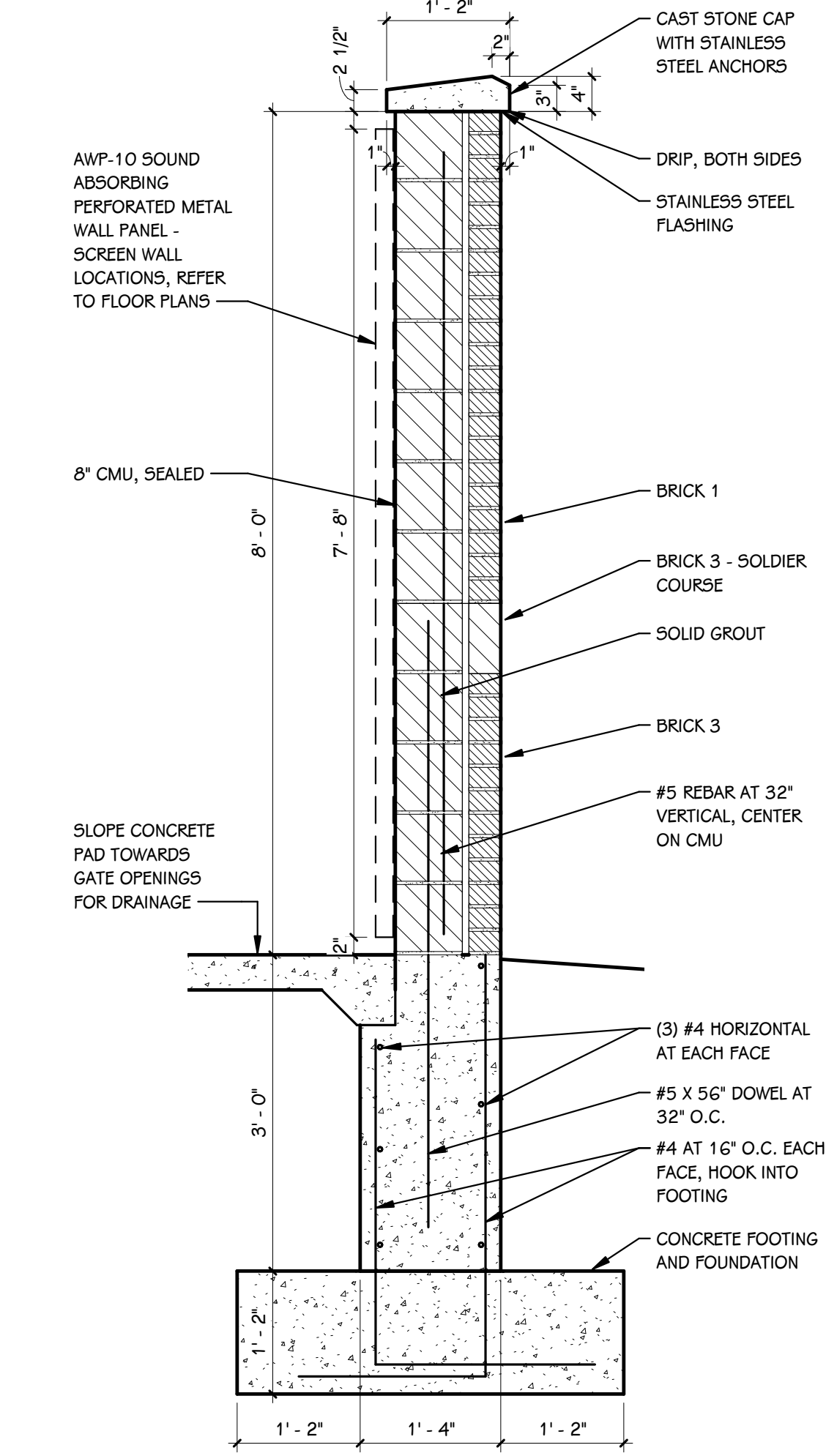
6 DUMPSTER ENCLOSURE PLAN
1/4" = 1'-0"



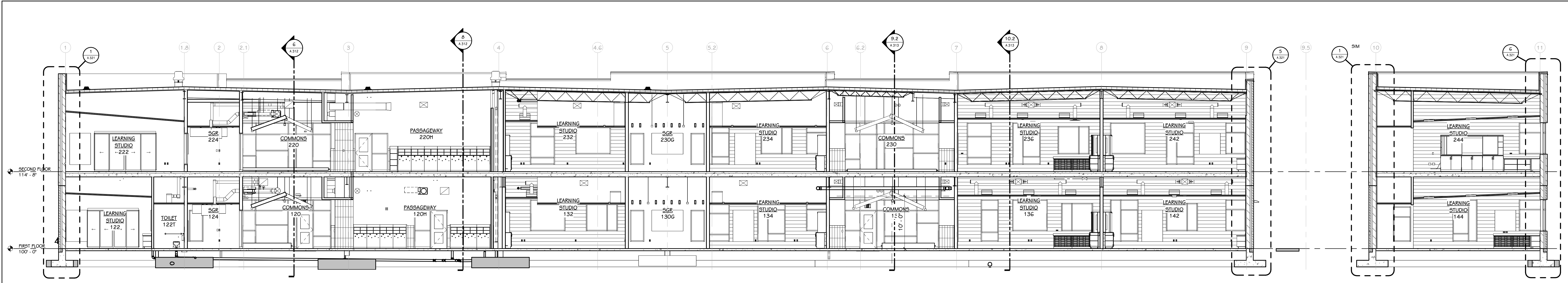
7 SOUTH ELEVATION
1/4" = 1'-0"



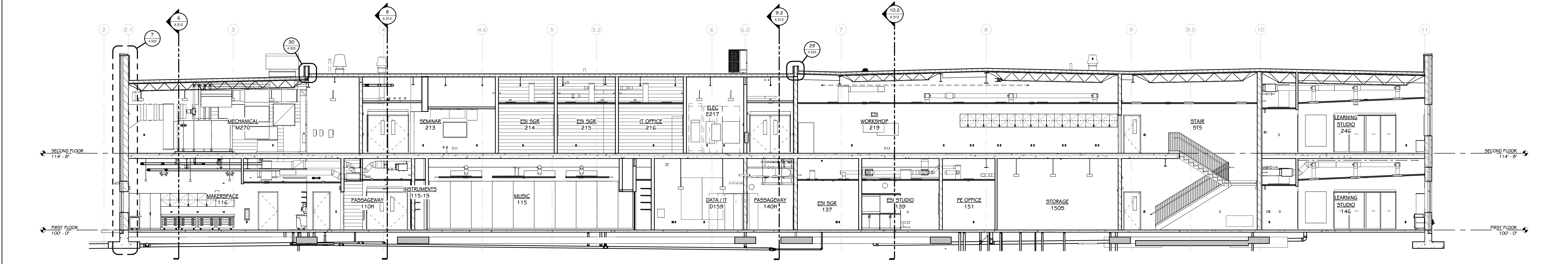
8 EAST ELEVATION
1/4" = 1'-0"



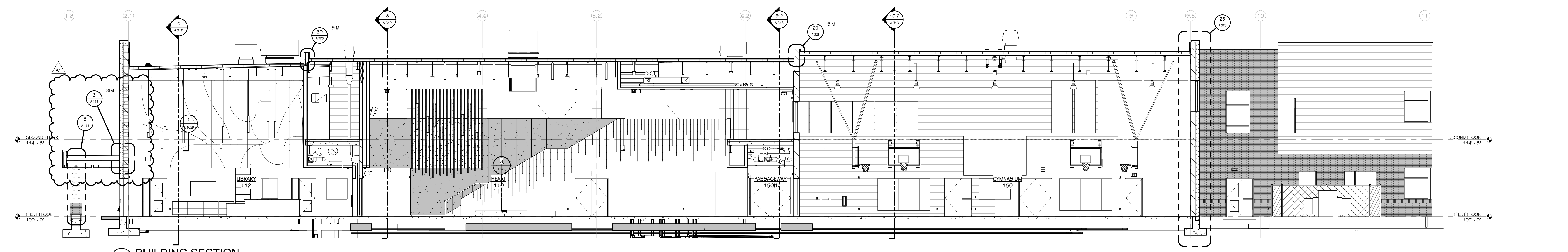
9 WALL SECTION
3/4" = 1'-0"



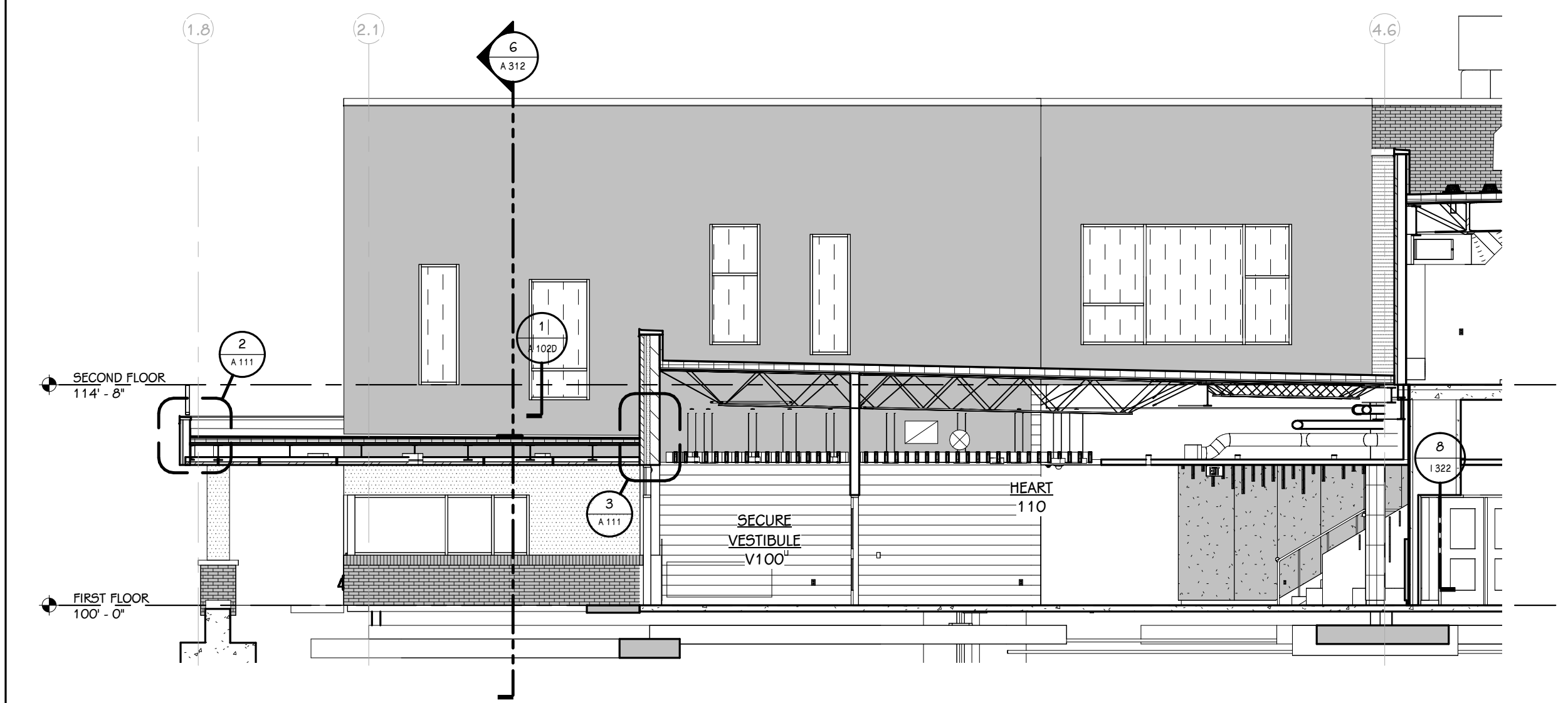
1 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



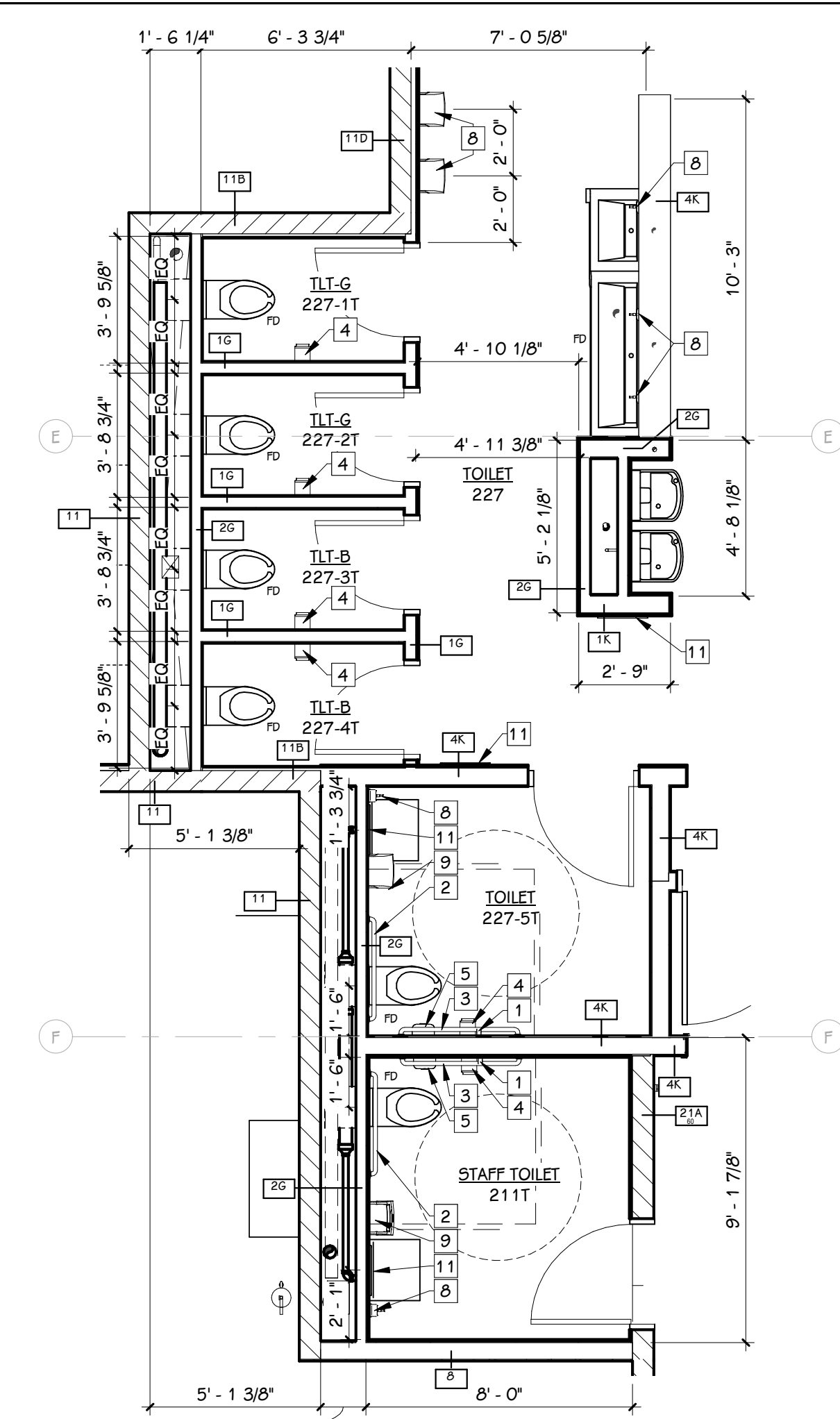
3 BUILDING SECTION
1/8" = 1'-0"



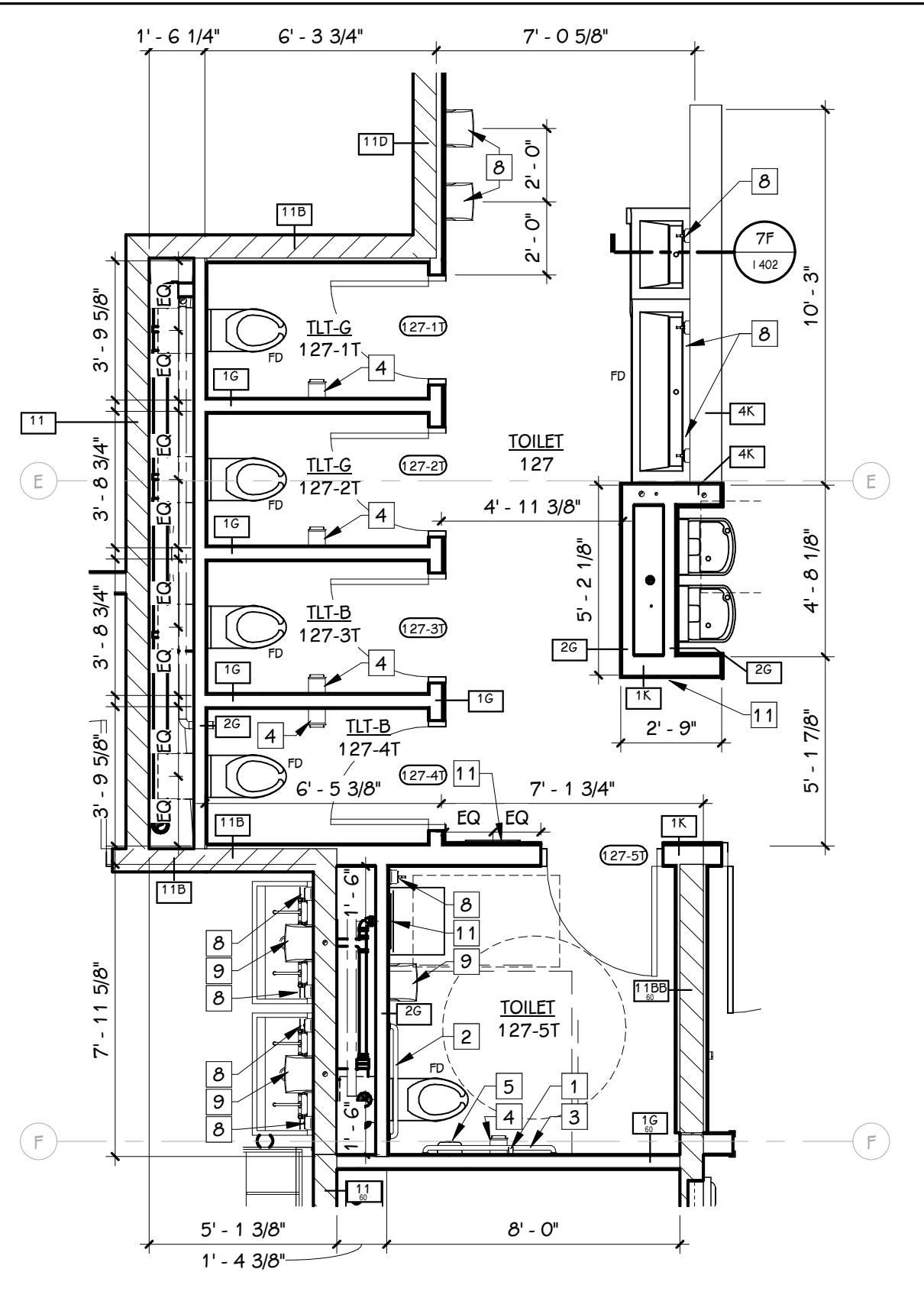
4 BUILDING SECTION
1/8" = 1'-0"

KEYED NOTES - ENLARGED PLAN	
1	1 1/2" VERTICAL STAINLESS STEEL GRAB BAR
2	36" STAINLESS STEEL GRAB BAR
3	42" STAINLESS STEEL GRAB BAR
4	TOILET PAPER DISPENSER, OP, CI
5	SANITARY NAPKIN DISPOSAL
6	TOILET PARTITION
7	URINAL SCREEN
8	SOAP DISPENSER, OP, CI
9	PAPER TOWEL (ROLL) DISPENSER, OP, CI
10	HAND DRYER
11	STAINLESS STEEL FRAMED MIRROR (18"Wx34"H)
12	BABY CHANGING STATION
13	FOLD DOWN SHOWER SEAT (14"Wx32"L)
14	CHANGING SEAT (22"Wx42"L)
15	SHOWER ROD AND CURTAIN
16	STAINLESS STEEL FRAMED MIRROR (24"Wx60"H)
17	CONTINUOUS STAINLESS SHOWER GRAB BAR
18	ROBE HOOK
19	SOAP HOLDER
20	MOF AND BROOM HOLDER

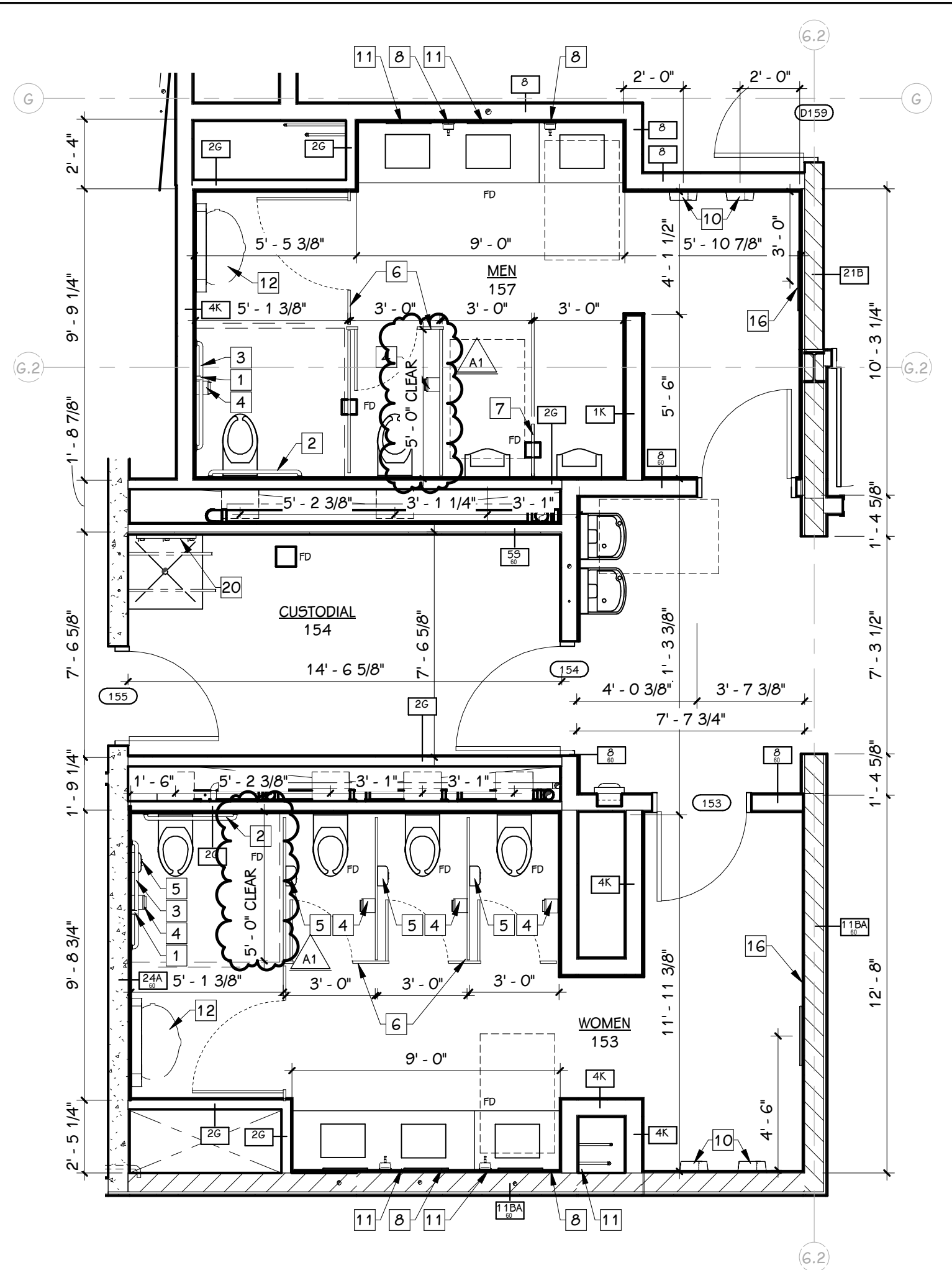
ACCESSORY NOTES	
1.	OP = OWNER PURCHASED, CI = OWNER INSTALLED, CP = CONTRACTOR PURCHASED, CI = CONTRACTOR INSTALLED.
2.	DIMENSIONS INDICATED ARE TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
3.	GENERIC PLUMBING FIXTURES ARE SHOWN. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR FIXTURE TYPES, MANUFACTURERS AND MOUNTING HEIGHTS.
4.	CODE REQUIRED INTERIOR SIGNAGE - INCLUDES MINIMUM REQUIRED SIGN TYPES REQUIRED FOR OCCUPANCY AS DICTATED BY IBC, IFB, AND NFPA. COORDINATE WITH ANY OWNER-PROVIDED SIGNAGE.



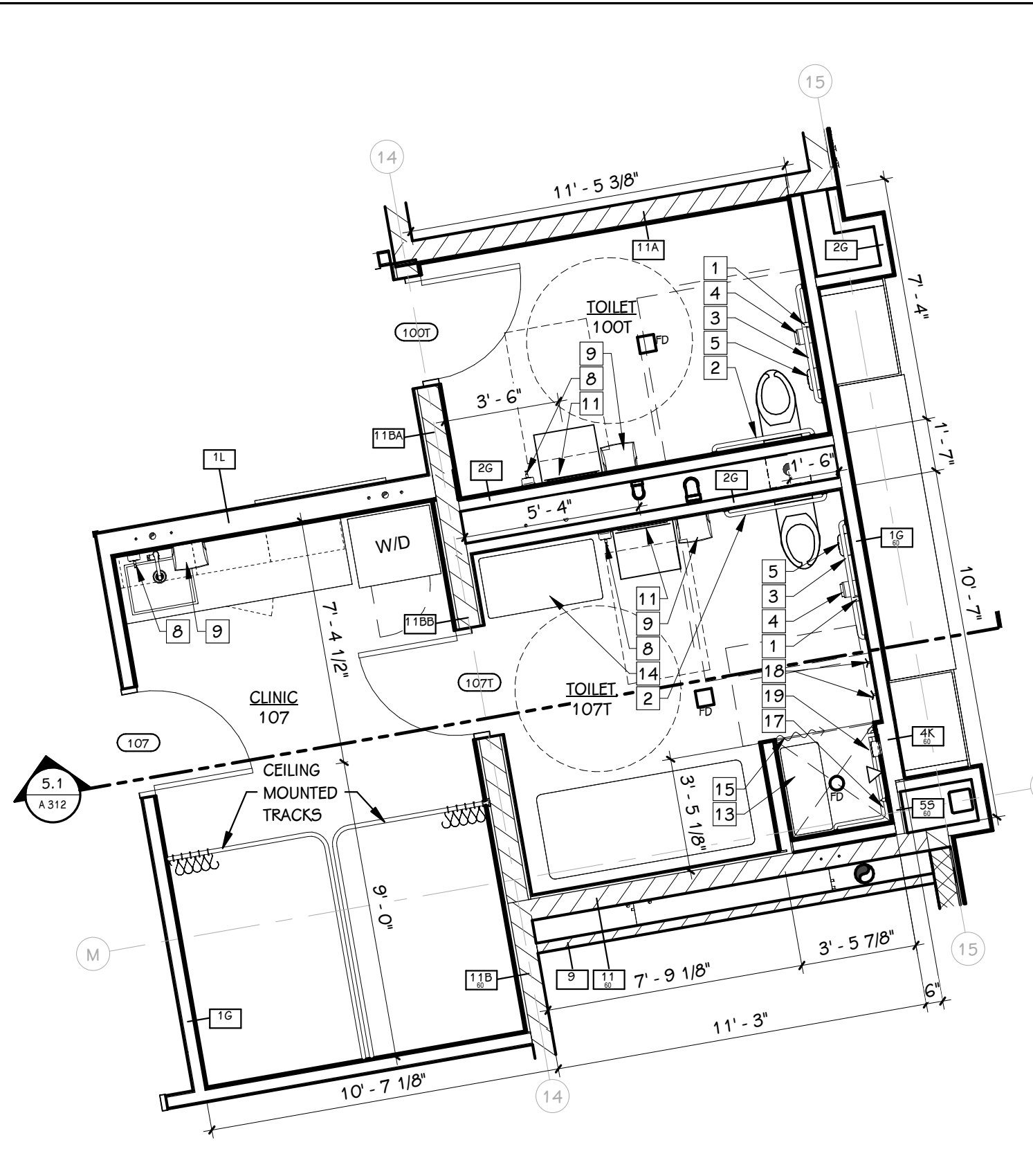
4 ENLARGED PLAN
1/4" = 1'-0"



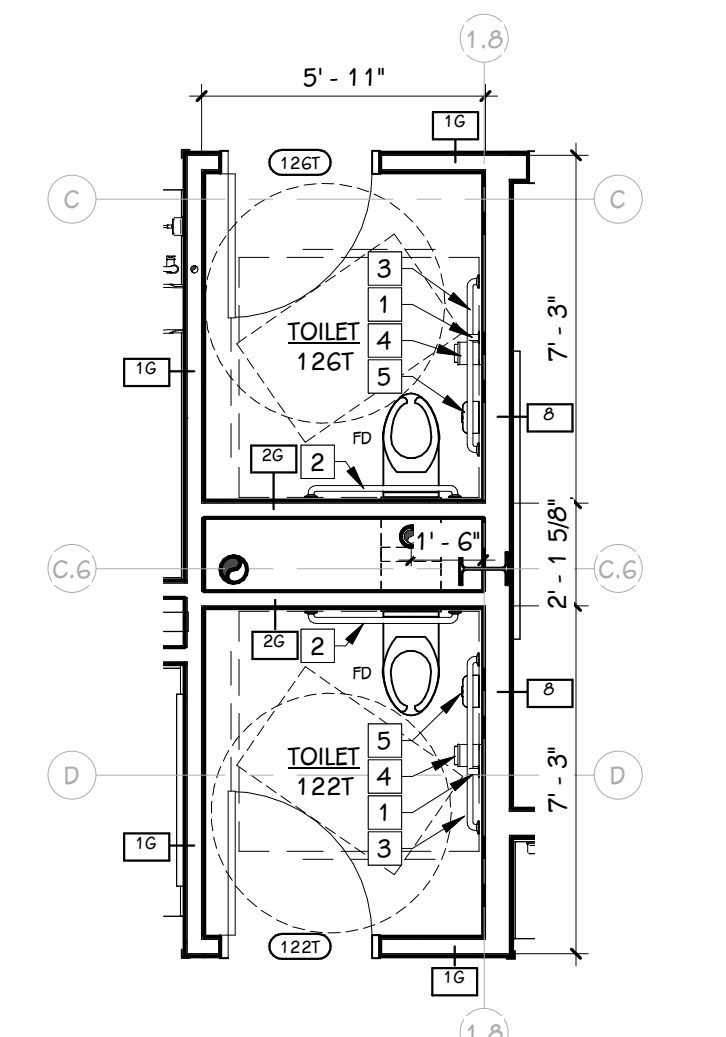
3 ENLARGED PLAN
1/4" = 1'-0"



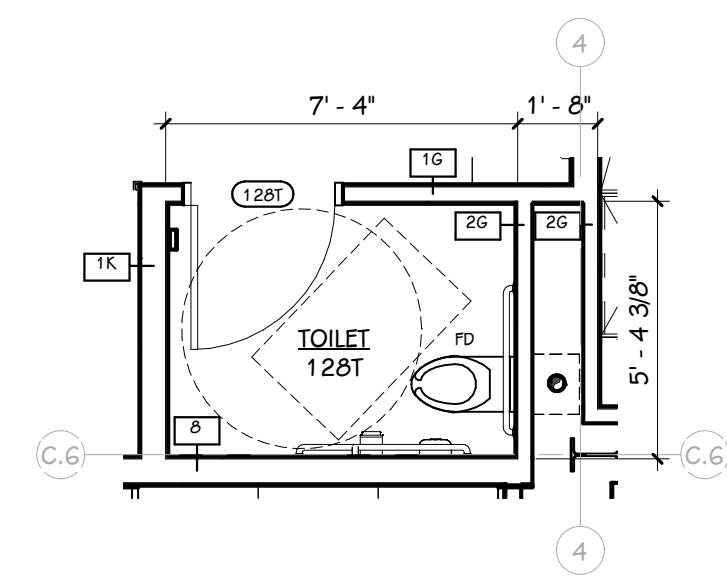
2 ENLARGED PLAN
1/4" = 1'-0"



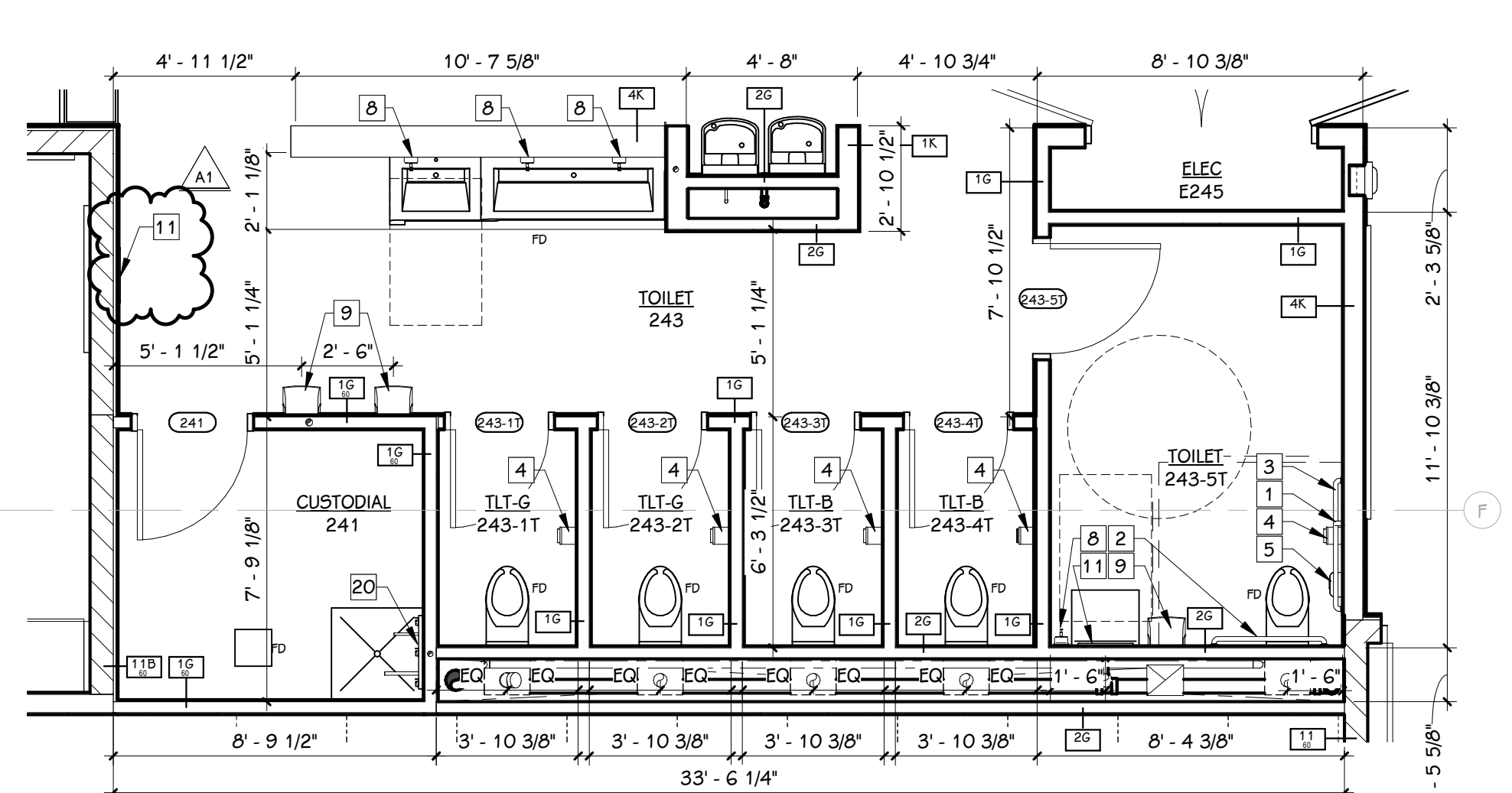
1 ENLARGED PLAN
1/4" = 1'-0"



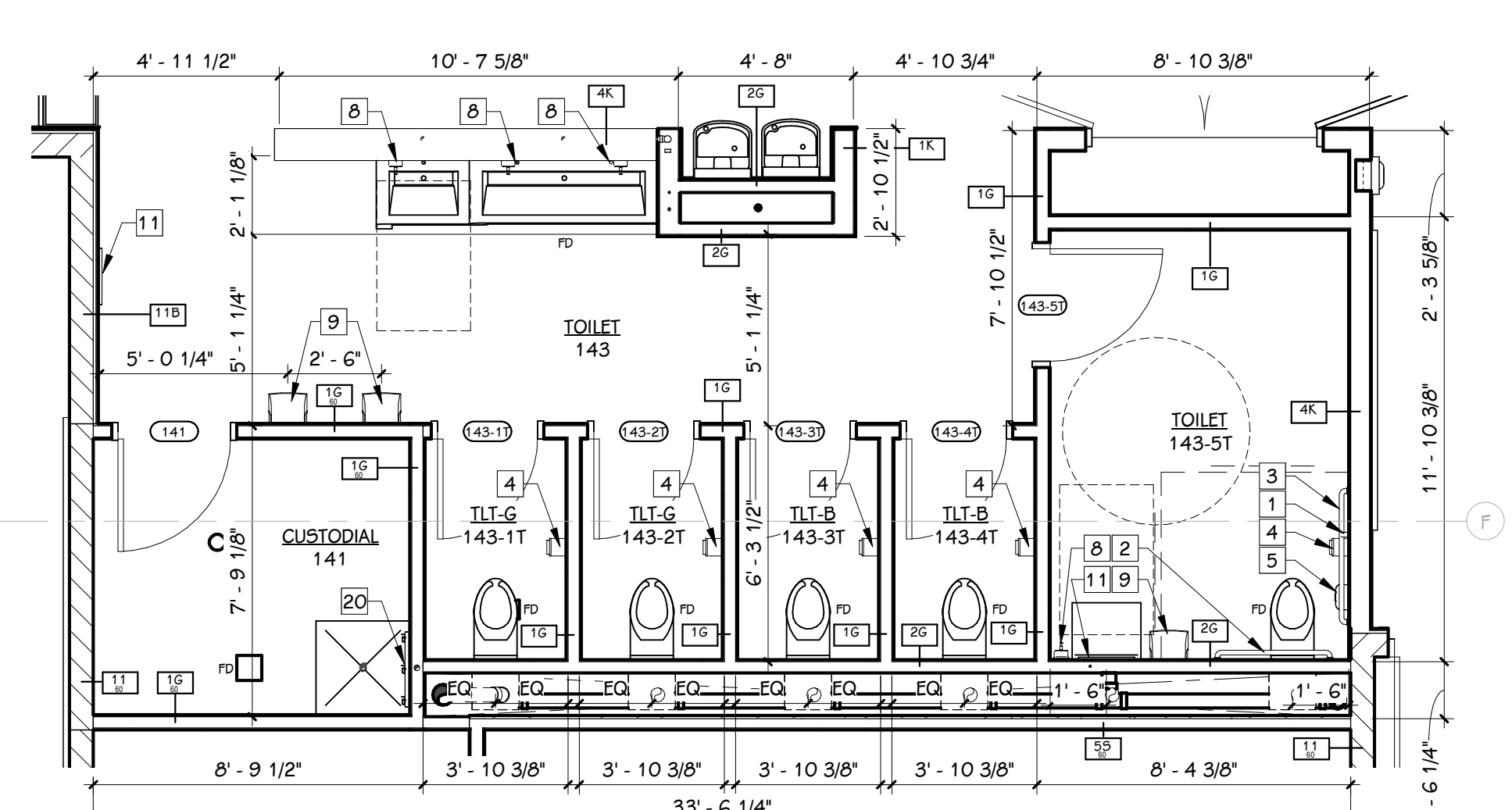
7 ENLARGED PLAN
1/4" = 1'-0"



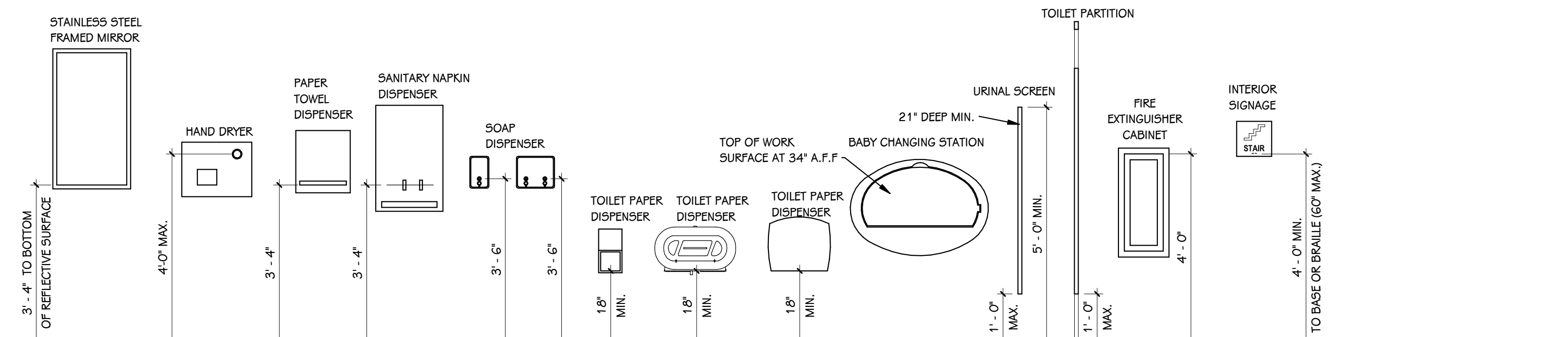
8 ENLARGED PLAN
1/4" = 1'-0"



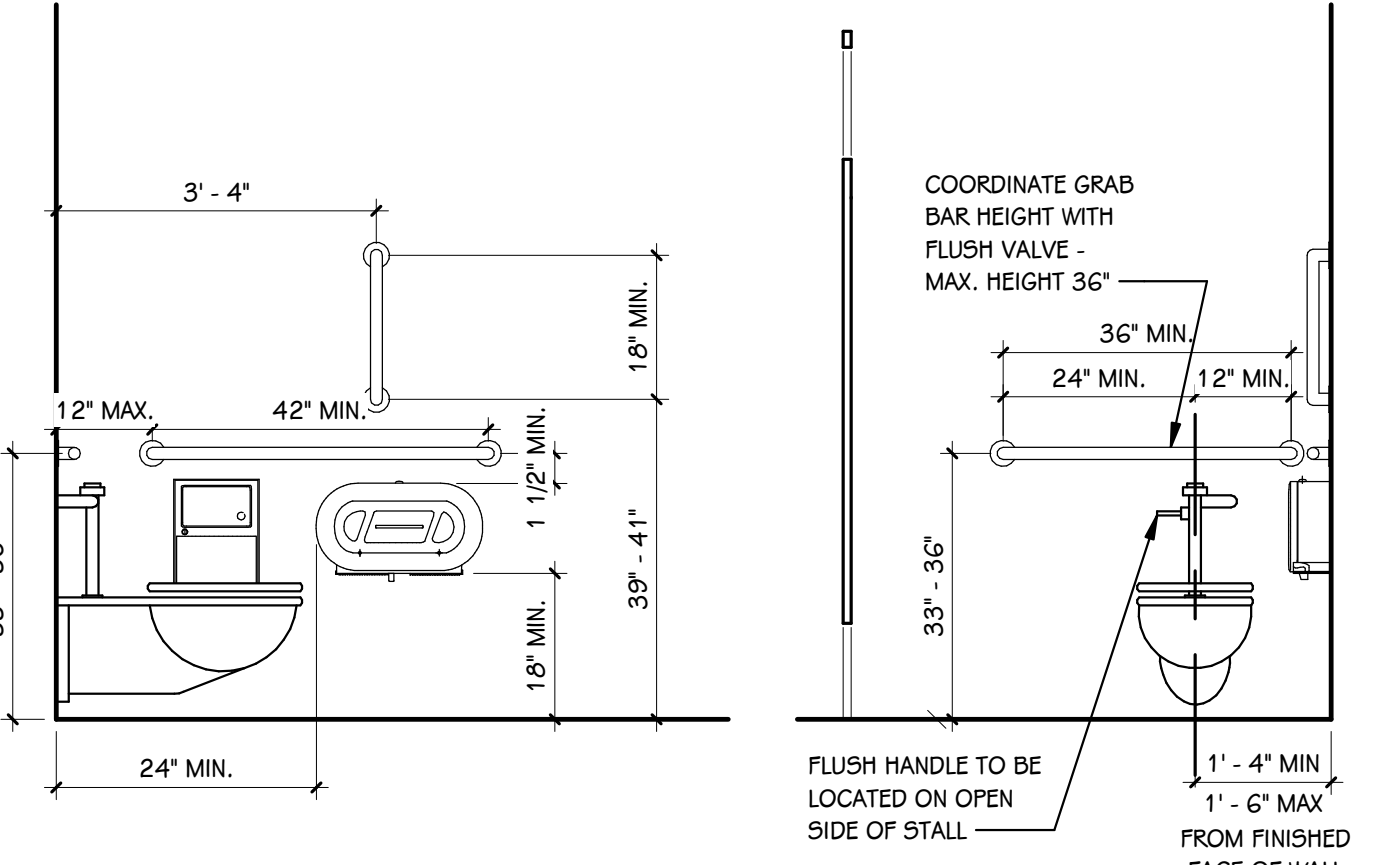
6 ENLARGED PLAN
1/4" = 1'-0"



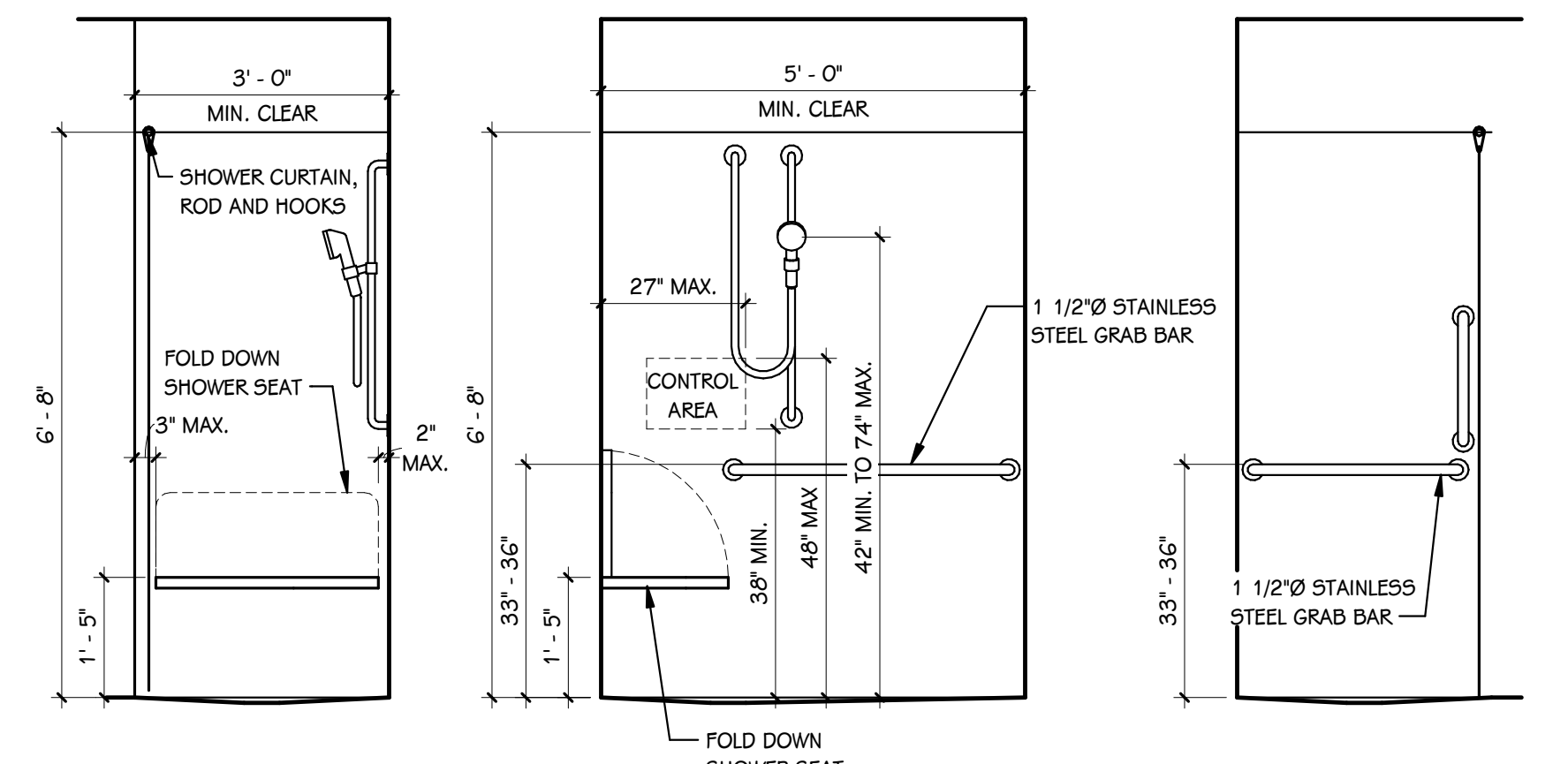
5 ENLARGED PLAN
1/4" = 1'-0"



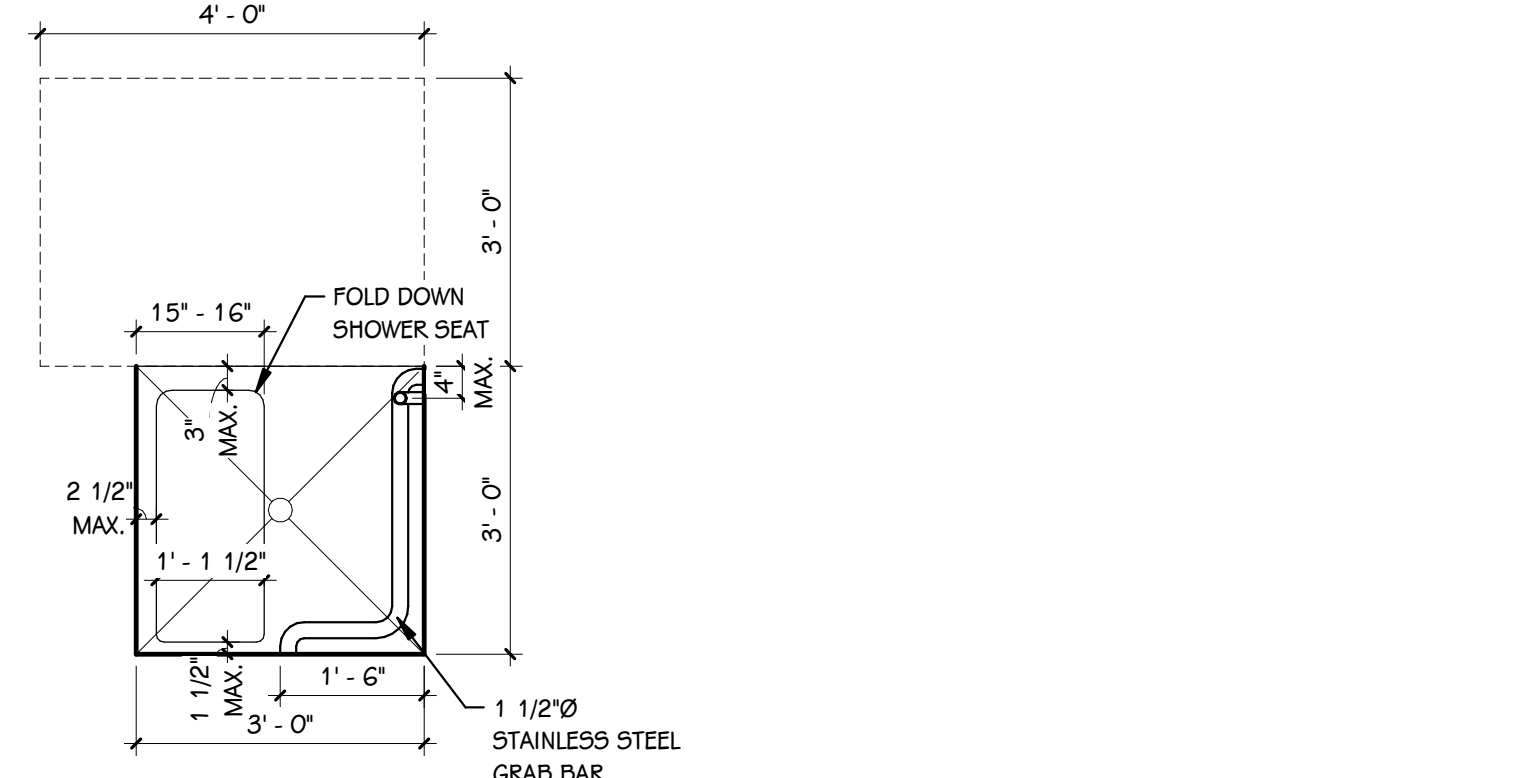
TYPICAL MOUNTING HEIGHTS
1/2" = 1'-0"



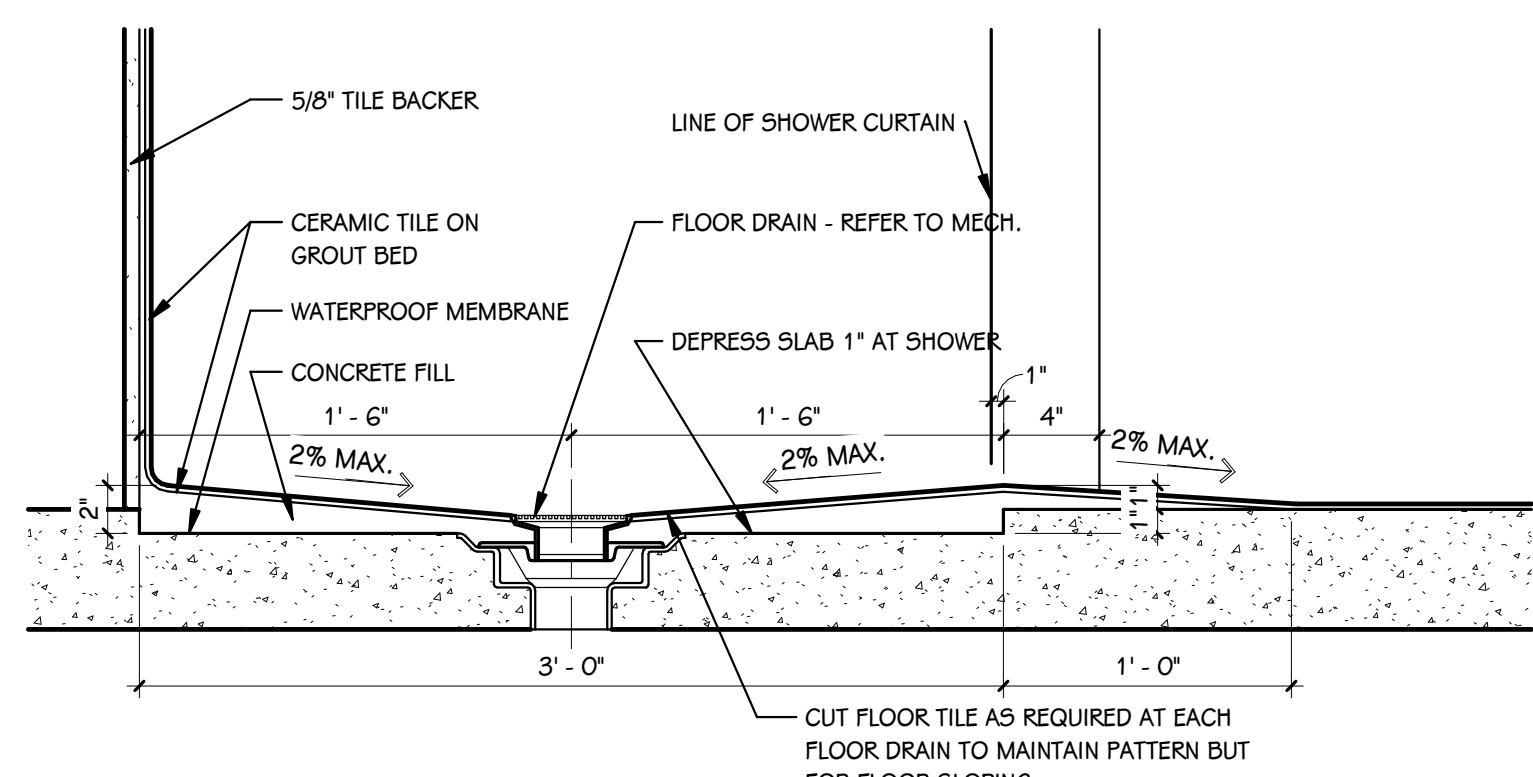
TYPICAL BARRIER-FREE MOUNTING HEIGHTS
1/2" = 1'-0"



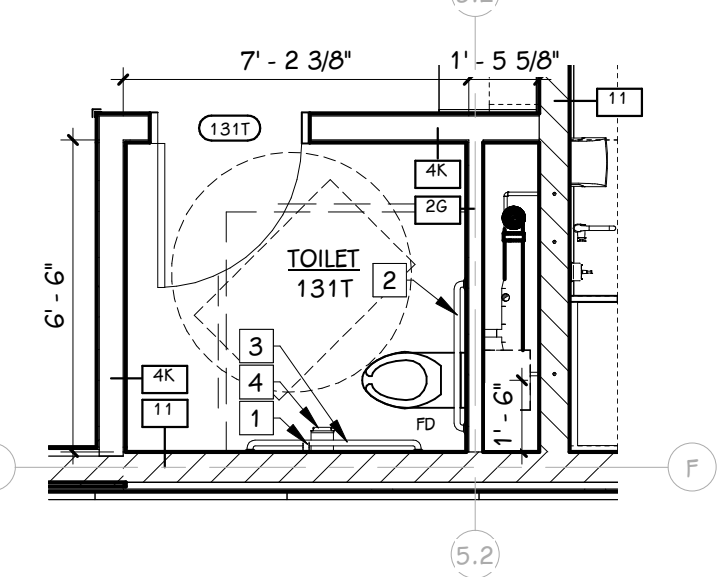
TYPICAL BARRIER-FREE SHOWER MOUNTING HEIGHTS
1/2" = 1'-0"



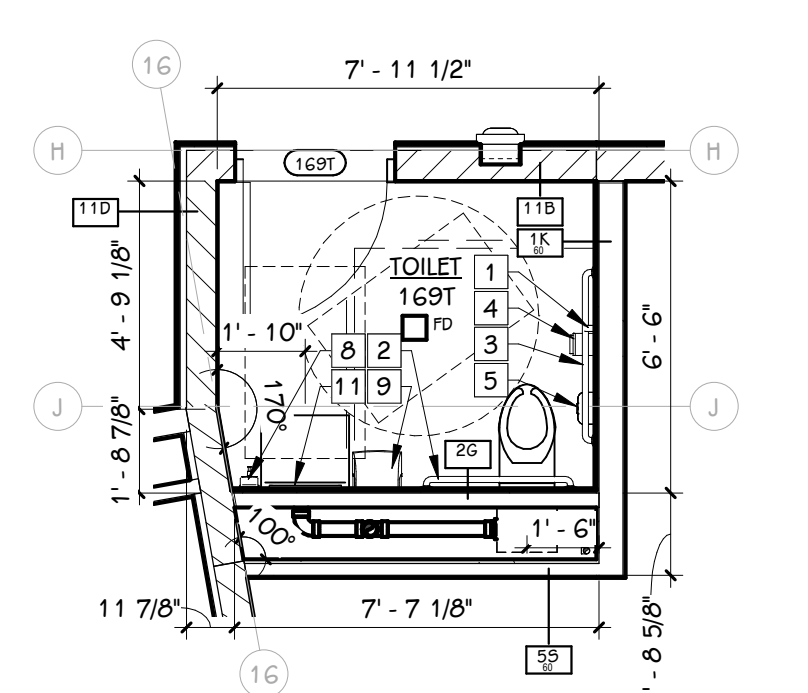
TYPICAL BARRIER-FREE SHOWER PLAN
1/2" = 1'-0"



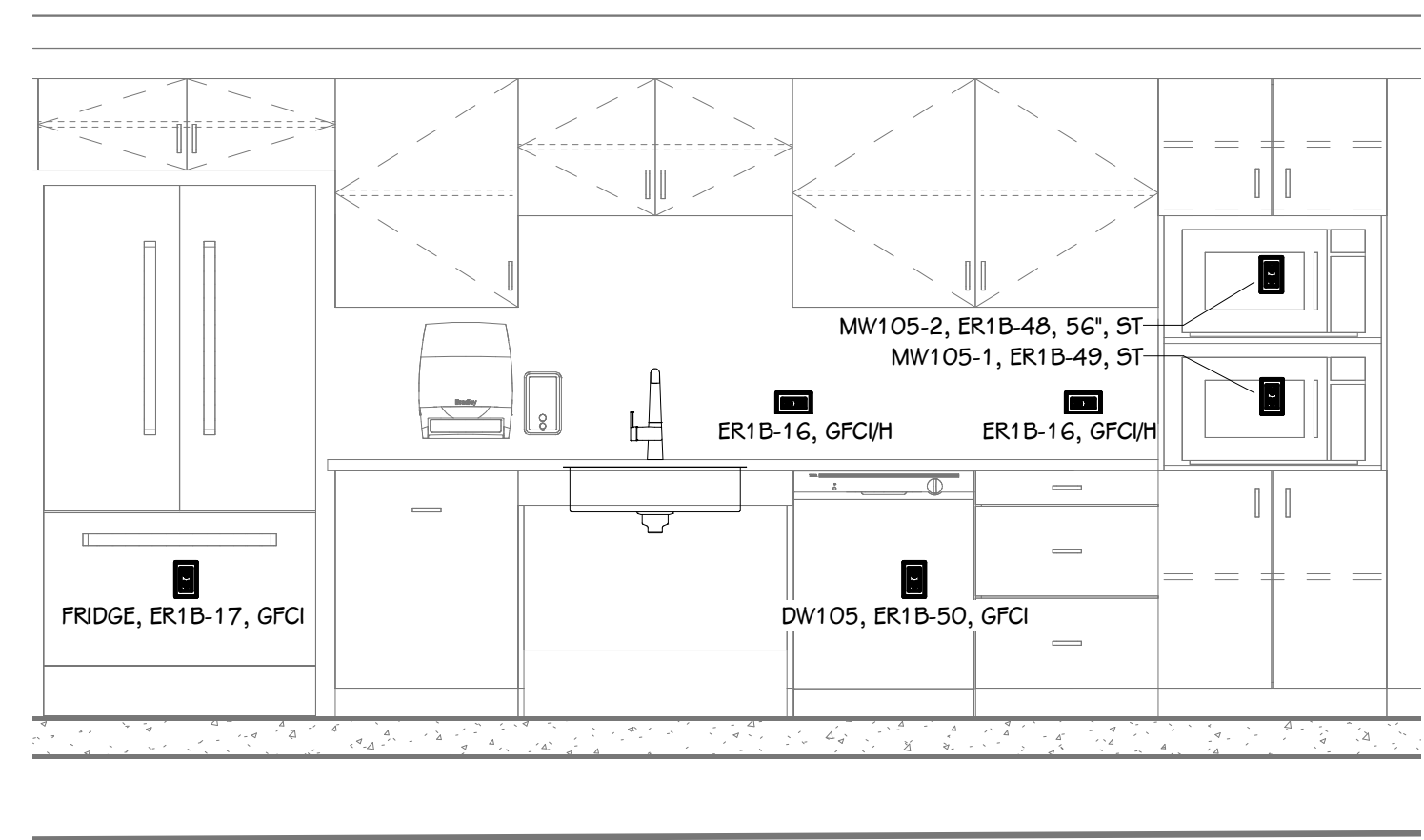
TYPICAL SHOWER FLOOR DETAIL
1 1/2" = 1'-0"



9 ENLARGED PLAN
1/4" = 1'-0"

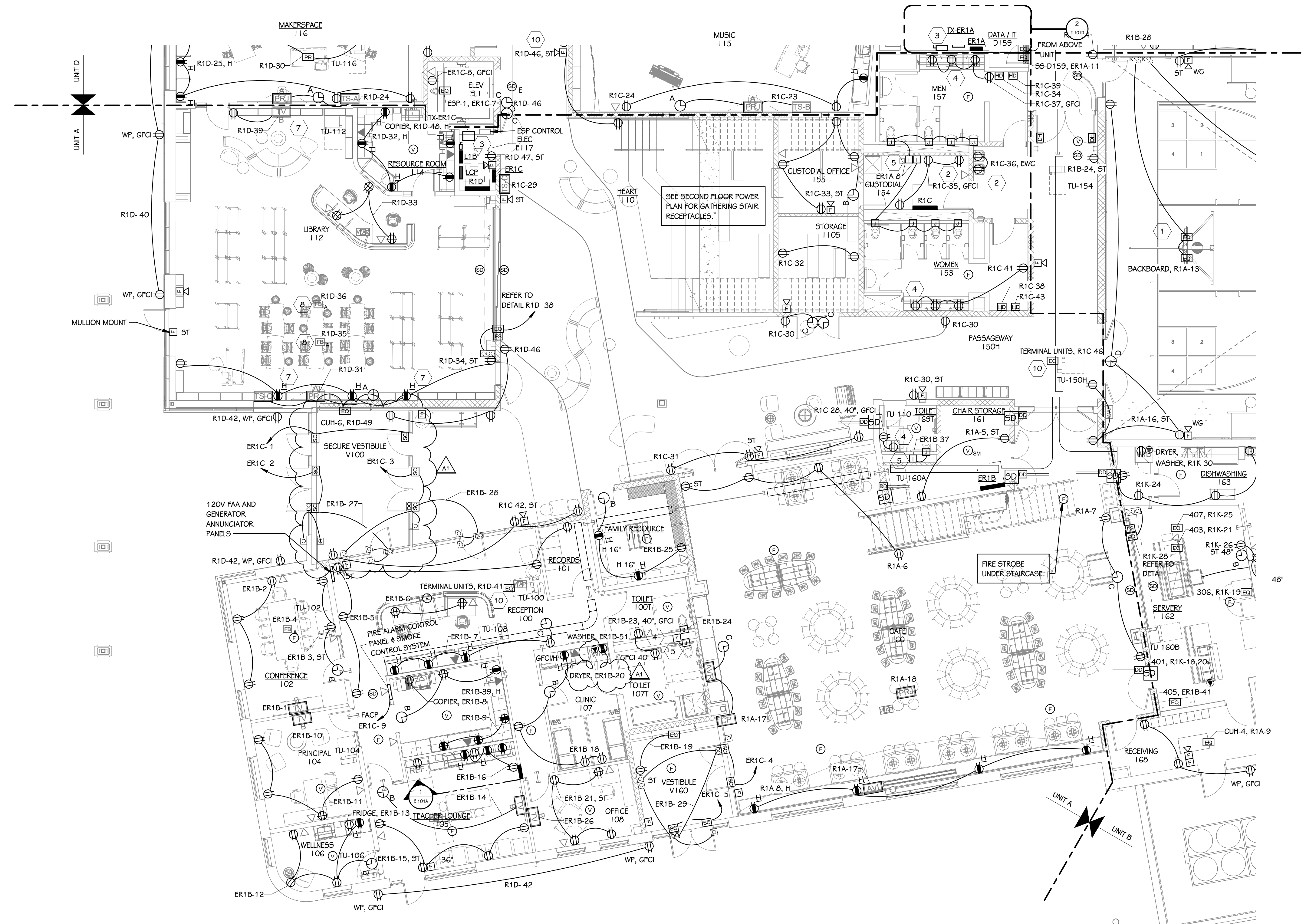


10 ENLARGED PLAN
1/4" = 1'-0"



101A
1/2" = 1'-0"

TEACHER LOUNGE 105 NORTH WALL



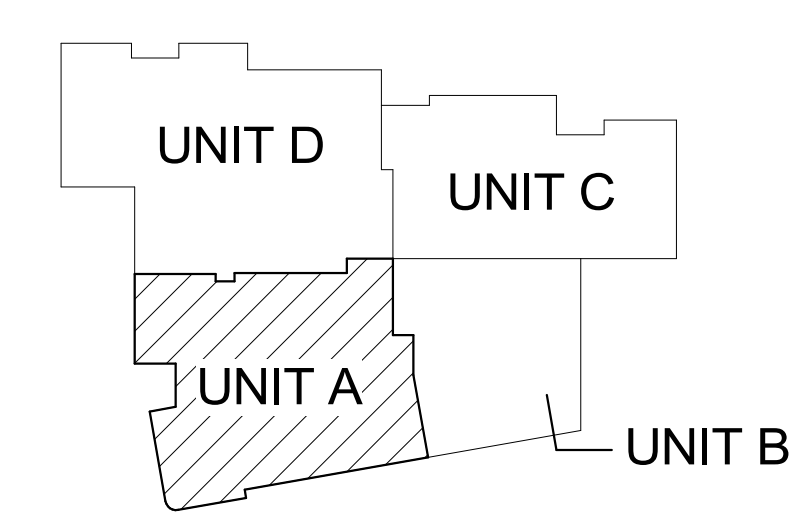
FIRST FLOOR POWER PLAN - UNIT A
1/2" = 1'-0"

- POWER KEYED NOTES**
- BACKBOARD CONTROLS SHALL HAVE RAISE/LOWER SWITCH AND HEIGHT ADJUSTMENT CONTROLS.
 - EWG OUTLETS TO BE SERVED FROM LOAD SIDE OF GFCI OUTLET OR BREAKER.
 - REFER TO GENERAL NOTES: PROVIDE 4" HOUSEKEEPING PADS FOR MDF, ALL TRANSFORMERS, AND ALL FLOOR MOUNTED EQUIPMENT. PROVIDE FLEXIBLE CONNECTION TO TRANSFORMERS AND SIMILAR EQUIPMENT PER SPECIFICATIONS. AREAS WITHOUT KEYNOTE DO NOT ALLEVIATE CONTRACTOR FROM GENERAL NOTE REQUIREMENTS.
 - CONCEAL SINK SENSOR RECEPTACLES BEHIND LAV SHIELD. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF UNDER SINK RECEPTACLES WITH MECHANICAL PLUMBING CONTRACTOR PRIOR TO INSTALLATION. FEED FROM LOAD SIDE OF ABOVE COUNTER GFCI RECEPTACLE.
 - LOW VOLTAGE TRANSFORMER AND BACKBOXES FOR FLUSH VALVES. COORDINATE EXACT LOCATION AND ADDITIONAL INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
 - ELECTRIC ELEVATOR: CONNECT TO FIRE ALARM SYSTEM AND TELEPHONE SYSTEM WITH DEDICATED PHONE LINE. ALL DISCONNECTS SHALL HAVE AUX CONTACTS. COORDINATE FUSE SIZE FOR ELEVATOR POWER CIRCUIT WITH SHOP DRAWINGS. COORDINATE ALL INSTALLATION REQUIREMENTS WITH ELEVATOR CONTRACTOR. CONCEAL MAIN POWER DISCONNECT IN LOCKABLE CABINET.
 - MOUNT DEVICE(S) IN THE KICK AREA OF CASEWORK; CONCEAL ALL CONDUIT IN CAVITIES OF CASEWORK. COORDINATE WITH GENERAL TRADES.
 - FLOOR BOX SHALL BE WIREMOLD #FEBBS-06 PROVIDE WITH TWO DUPLEX RECEPTACLES AND TWO DATA PLATES. PROVIDE DIVIDER AS REQUIRED FOR ONE SIDE. PROVIDE TUNNEL AS REQUIRED. PROVIDE WHITE DEVICES AND WHITE COVER PLATES AS REQUIRED. COVER SHALL BE #FEB61 0B7CGY.
 - IF ALTERNATE No. 3 IS ACCEPTED, PROVIDE 120V/1P CONNECTION TO INLINE PUMP FROM PANEL ER1B.
 - PROVIDE CIRCUIT TO TERMINAL UNIT TRANSFORMERS, TRANSFORMERS AND LV CABLING BY MECHANICAL CONTRACTOR. COORDINATE LOCATION AND QUANTITY WITH MECHANICAL CONTRACTOR.

- FIRE ALARM NOTES:**
- THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION
- FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS
- FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN
- THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS
- THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW / TAMPER SWITCHES AND ANY OTHER DEVICES

NOTE:
REFER TO TECHNOLOGY DRAWINGS AND MECHANICAL DRAWINGS FOR MORE SCOPE OF CONDUIT, ROUGH-IN LOCATIONS AND DETAILS THAT MAY NOT BE INDICATED ON THESE PLANS.

HAVERHILL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

ADD. No. 1
ISSUED FOR

PROJECT TITLE
**HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION**

OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE
FIRST FLOOR POWER PLAN - UNIT A

SHEET NUMBER
E 101A

DATE
JUNE 30, 2023

DATE
21-237.20

- ELECTRICAL KEYED NOTES**
- BACKBOARD CONTROLS SHALL HAVE RAISE/LOWER SWITCH AND HEIGHT ADJUSTMENT CONTROLS.
 - EWV OUTLETS TO BE SERVED FROM LOAD SIDE OF GFCI OUTLET OR BREAKER.
 - REFER TO GENERAL NOTES: PROVIDE 4" HOUSEKEEPING PADS FOR MDF, ALL TRANSFORMERS, AND ALL FLOOR MOUNTED EQUIPMENT. PROVIDE FLEXIBLE CONNECTION TO TRANSFORMERS AND SIMILAR EQUIPMENT PER SPECIFICATIONS. AREAS WITHOUT KEYNOTE DO NOT ALLEVIATE CONTRACTOR FROM GENERAL NOTE REQUIREMENTS.
 - CONCEAL SINK SENSOR RECEPTACLES BEHIND LAV SHIELD. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF UNDER SINK RECEPTACLES WITH MECHANICAL PLUMBING CONTRACTOR PRIOR TO INSTALLATION. FEED FROM LOAD SIDE OF ABOVE COUNTER GFCI RECEPTACLE.
 - LOW VOLTAGE TRANSFORMER AND BACKBOXES FOR FLUSH VALVES. COORDINATE EXACT LOCATION AND ADDITIONAL INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
 - ELECTRIC ELEVATOR: CONNECT TO FIRE ALARM SYSTEM AND TELEPHONE SYSTEM WITH DEDICATED PHONE LINE. ALL DISCONNECTS SHALL HAVE AUX CONTACTS. COORDINATE FUSE SIZE FOR ELEVATOR POWER CIRCUIT WITH SHOP DRAWINGS. COORDINATE ALL INSTALLATION REQUIREMENTS WITH ELEVATOR CONTRACTOR. CONCEAL MAIN POWER DISCONNECT IN LOCKABLE CABINET.
 - MOUNT DEVICE(S) IN THE KICK AREA OF CASEWORK; CONCEAL ALL CONDUIT IN CAVITIES OF CASEWORK. COORDINATE WITH GENERAL TRADES.
 - FLOOR BOX SHALL BE WIREMOLD #EFB85-06 PROVIDE WITH TWO DUPLEX RECEPTACLES AND TWO DATA PLATES. PROVIDE DIVIDER AS REQUIRED FOR ONE SIDE. PROVIDE TUNNEL AS REQUIRED. PROVIDE WHITE DEVICES AND WHITE COVER PLATES AS REQUIRED. COVER SHALL BE #EFB61 08TCGY.
 - IF ALTERNATE No. 3 IS ACCEPTED, PROVIDE 120V/1P CONNECTION TO INLINE PUMP FROM PANEL ER1B.
 - PROVIDE CIRCUIT TO TERMINAL UNIT TRANSFORMERS, TRANSFORMERS AND LV CABLING BY MECHANICAL CONTRACTOR. COORDINATE LOCATION AND QUANTITY WITH MECHANICAL CONTRACTOR.

FIRE ALARM NOTES:

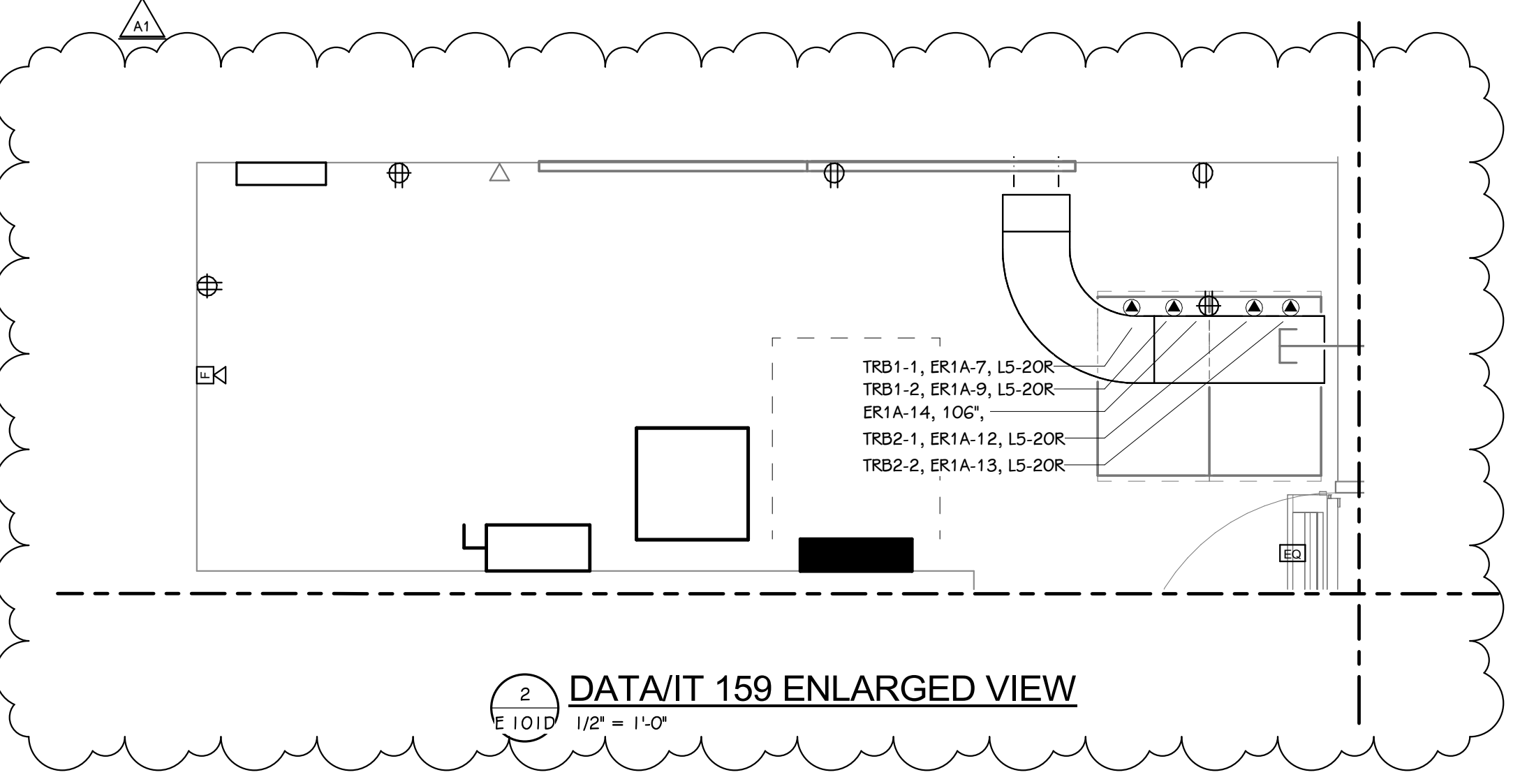
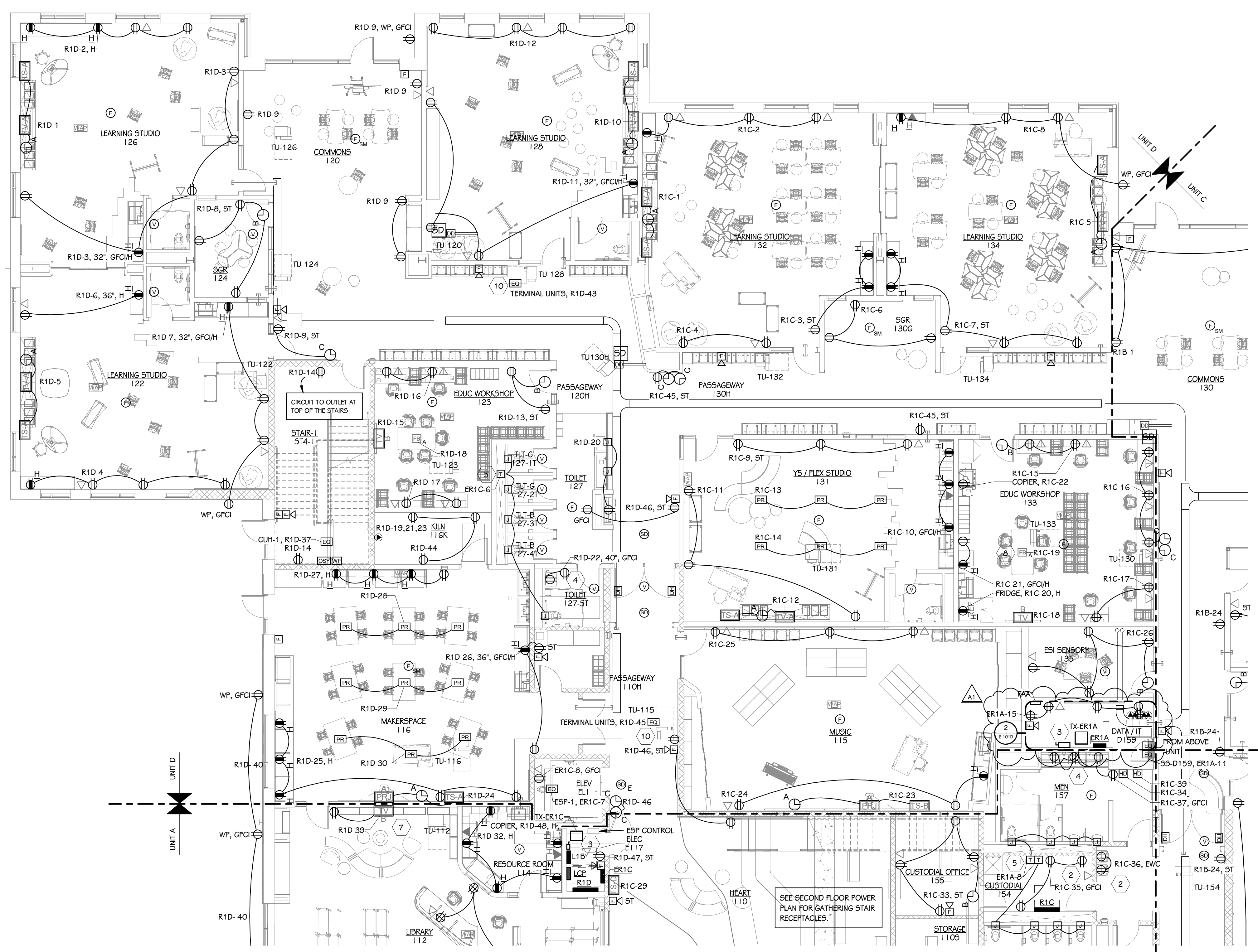
THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION

FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS

FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN

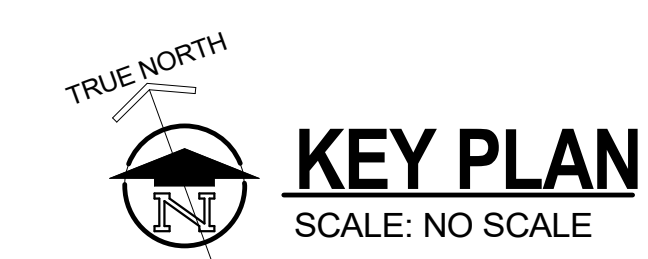
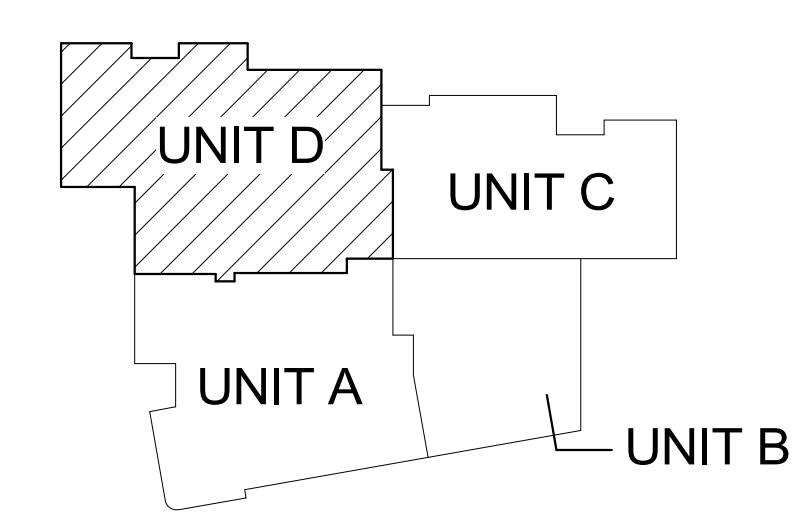
THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS

THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW/TAMPER SWITCHES AND ANY OTHER DEVICES



FIRST FLOOR POWER PLAN - UNIT D
1/8" = 1'-0"

HAVERHILL ELEMENTARY



- ELECTRICAL KEYED NOTES**
- BACKBOARD CONTROLS SHALL HAVE RAISE/LOWER SWITCH AND HEIGHT ADJUSTMENT CONTROLS.
 - EWV OUTLETS TO BE SERVED FROM LOAD SIDE OF GFCI OUTLET OR BREAKER.
 - REFER TO GENERAL NOTES: PROVIDE 4" HOUSEKEEPING PADS FOR MDF, ALL TRANSFORMERS, AND ALL FLOOR MOUNTED EQUIPMENT. PROVIDE FLEXIBLE CONNECTION TO TRANSFORMERS AND SIMILAR EQUIPMENT PER SPECIFICATIONS. AREAS WITHOUT KEYNOTE DO NOT ALLEVIATE CONTRACTOR FROM GENERAL NOTE REQUIREMENTS.
 - CONCEAL SINK SENSOR RECEPTACLES BEHIND LAV SHIELD. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF UNDER SINK RECEPTACLES WITH MECHANICAL PLUMBING CONTRACTOR PRIOR TO INSTALLATION. FEED FROM LOAD SIDE OF ABOVE COUNTER GFCI RECEPTACLE.
 - LOW VOLTAGE TRANSFORMER AND BACKBOXES FOR FLUSH VALVES. COORDINATE EXACT LOCATION AND ADDITIONAL INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
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 - MOUNT DEVICE(S) IN THE KICK AREA OF CASEWORK; CONCEAL ALL CONDUIT IN CAVITIES OF CASEWORK. COORDINATE WITH GENERAL TRADES.
 - FLOOR BOX SHALL BE WIREMOLD #EFB5-0G PROVIDE WITH TWO DUPLEX RECEPTACLES AND TWO DATA PLATES. PROVIDE DIVIDER AS REQUIRED FOR ONE SIDE. PROVIDE TUNNEL AS REQUIRED. PROVIDE WHITE DEVICES AND WHITE COVER PLATES AS REQUIRED. COVER SHALL BE #EFB61 0BTCGY.
 - IF ALTERNATE No. 3 IS ACCEPTED, PROVIDE 120V/1P CONNECTION TO INLINE PUMP FROM PANEL ER1B.
 - PROVIDE CIRCUIT TO TERMINAL UNIT TRANSFORMERS, TRANSFORMERS AND LV CABLING BY MECHANICAL CONTRACTOR. COORDINATE LOCATION AND QUANTITY WITH MECHANICAL CONTRACTOR.

FIRE ALARM NOTES:

THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION

FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS

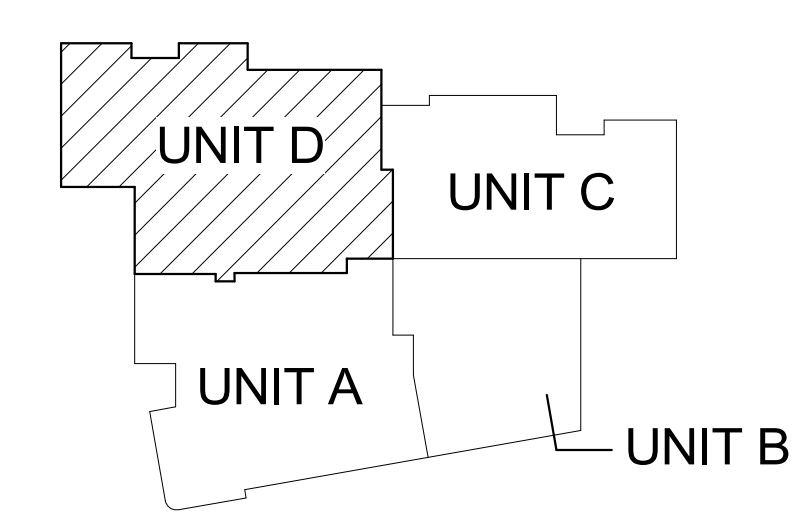
FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN

THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS

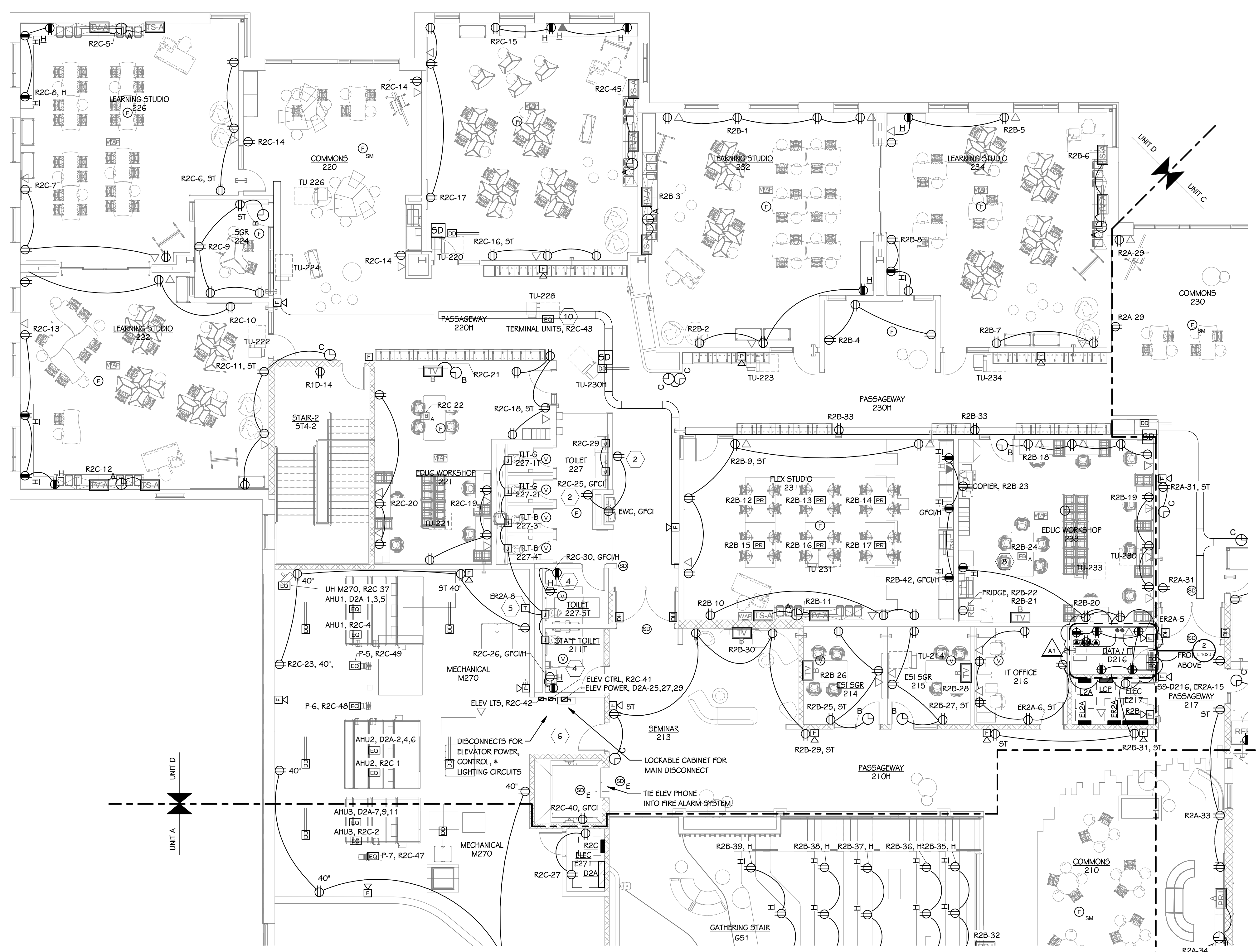
THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR-HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW/TAMPER SWITCHES AND ANY OTHER DEVICES

NOTE:
REFER TO TECHNOLOGY DRAWINGS AND MECHANICAL DRAWINGS FOR MORE SCOPE OF CONDUIT, ROUGH-IN LOCATIONS AND DETAILS THAT MAY NOT BE INDICATED ON THESE PLANS.

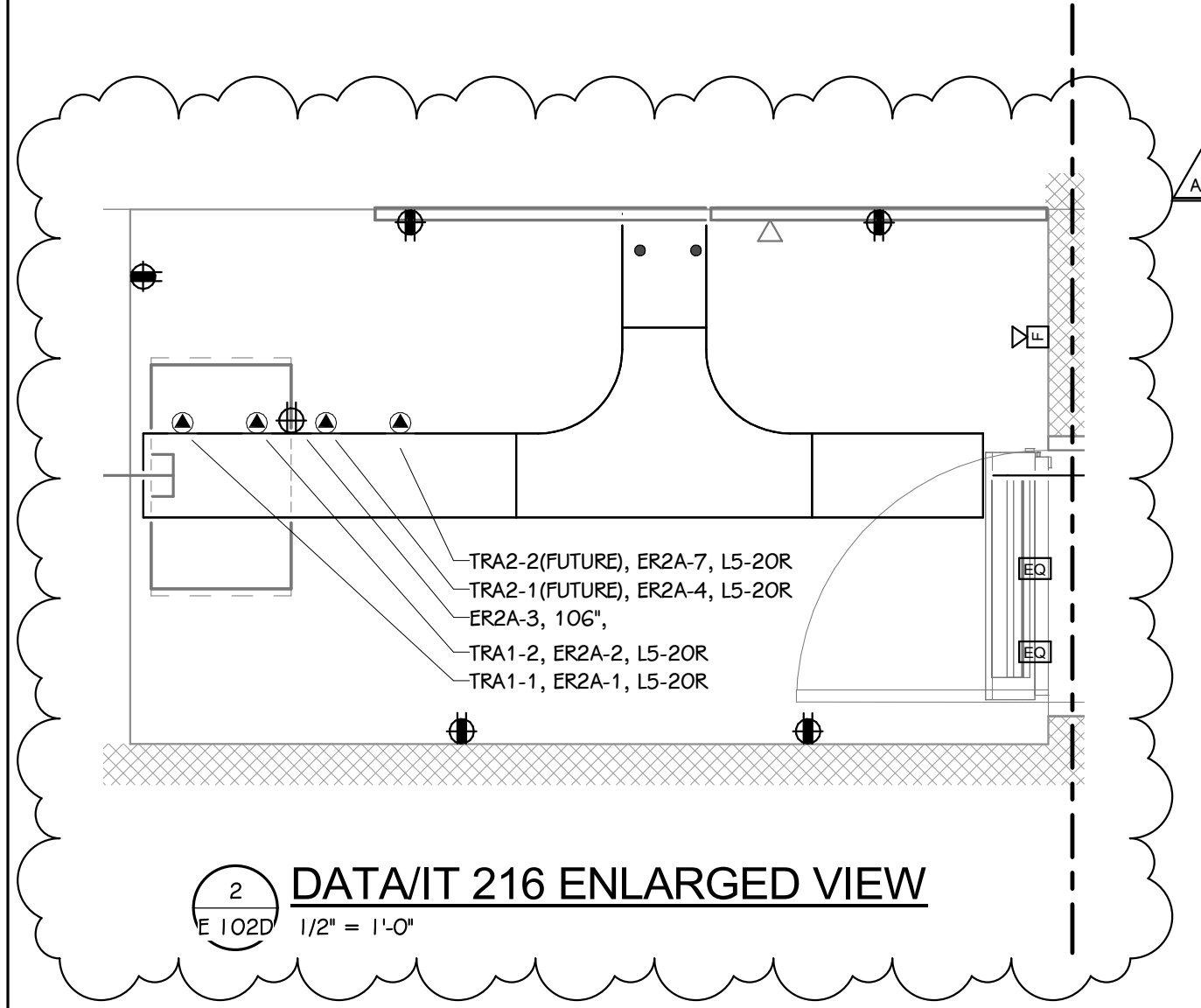
HAVERHILL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

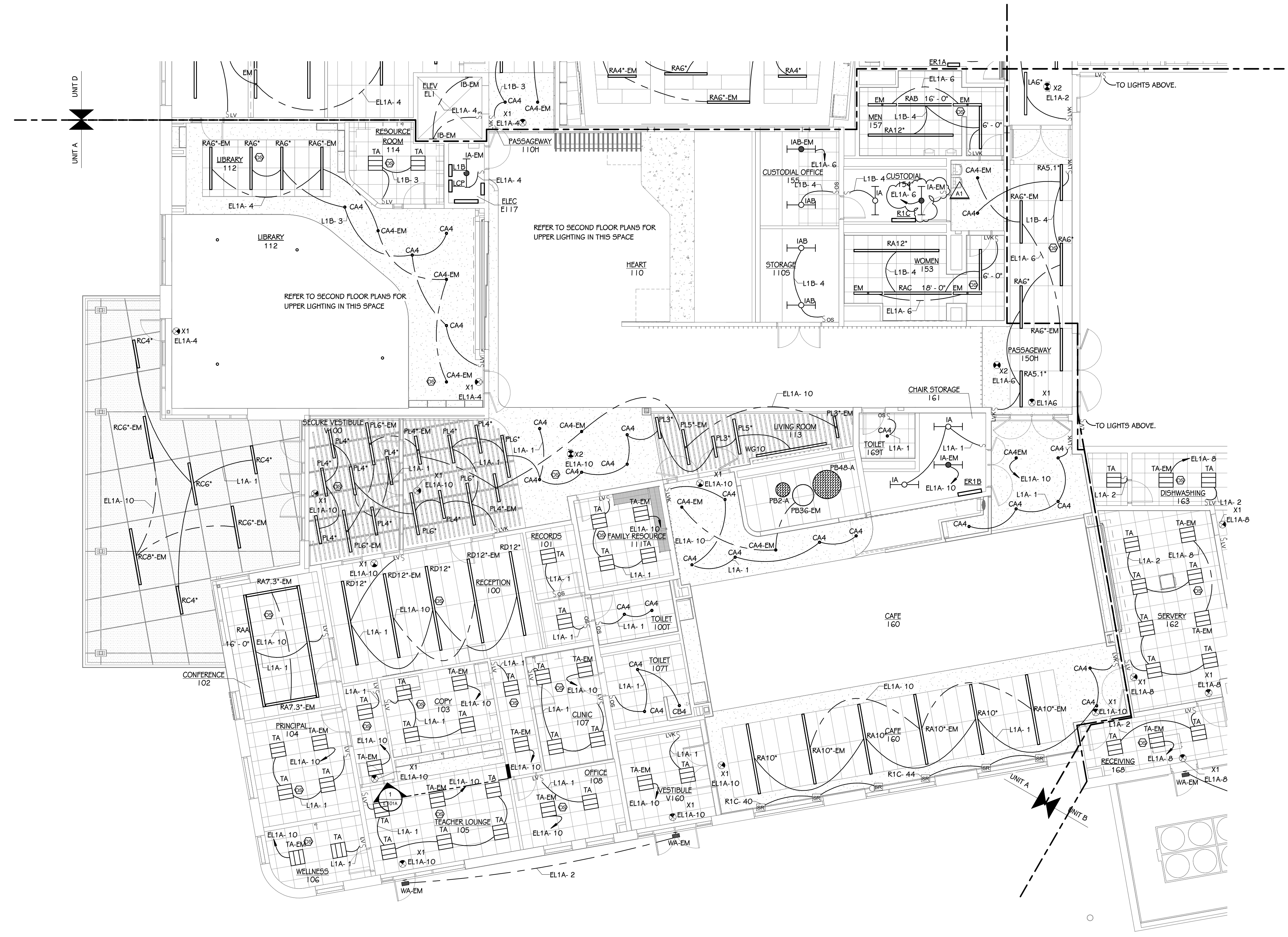


SECOND FLOOR POWER PLAN - UNIT D
1/8" = 1'-0"

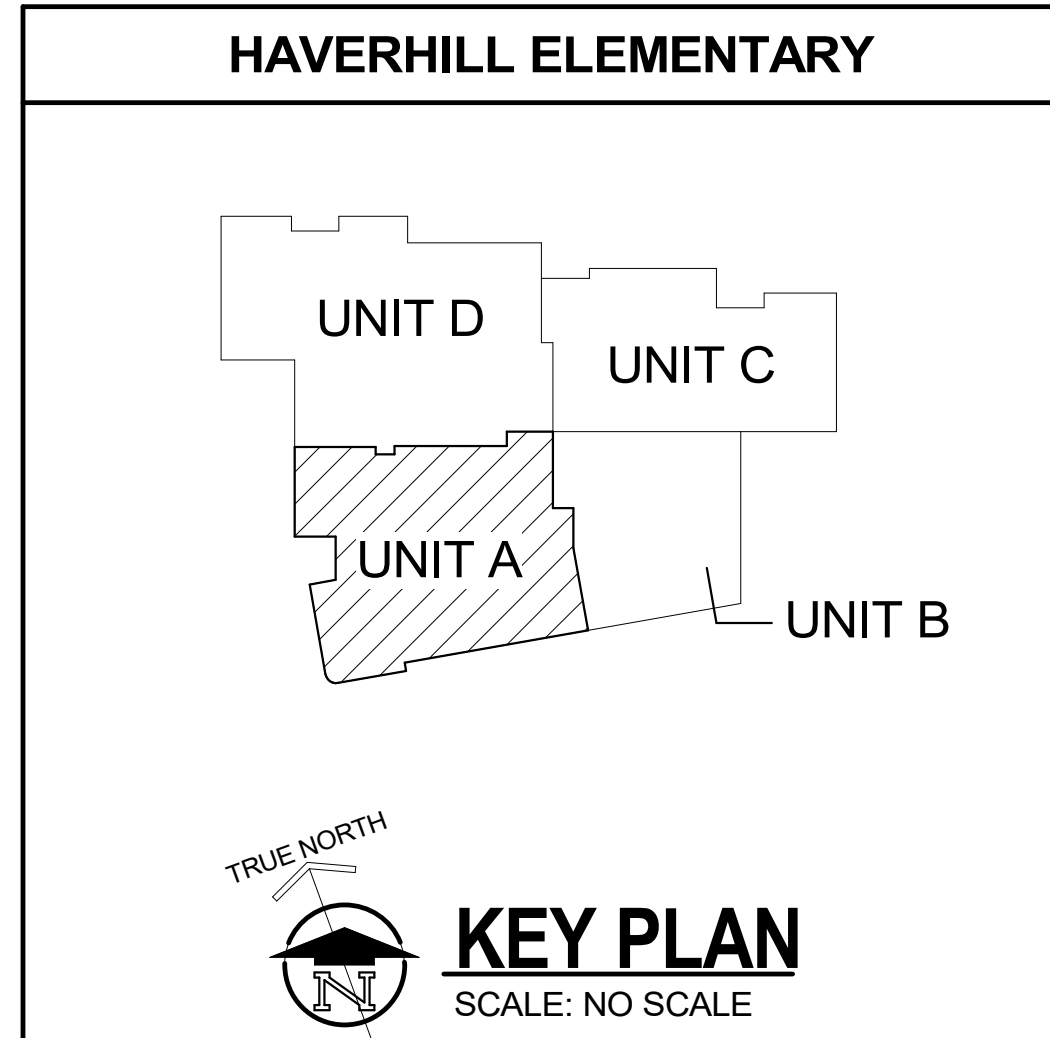


DATA/IT 216 ENLARGED VIEW
1/2" = 1'-0"

- GENERAL ELECTRICAL NOTES**
- 1 ALL OCCUPANCY SENSORS AND PHOTOCELLS MOUNTED IN THE SAME ROOM SHALL BE CONNECTED TOGETHER AND OPERATE AS ONE SYSTEM. DAYLIGHT HARVESTING SHALL BE SELF CONTAINED WITHIN EACH ROOM AND SHALL BE FIELD ADJUSTED WITH ENGINEER. MANUFACTURER SHALL PROVIDE FLOOR PLANS DURING SHOP DRAWING PHASE SHOWING EXACT LOCATIONS AND QUANTITIES AS REQUIRED FOR A COMPLETE SYSTEM.
 - 2 ALL OCCUPANCY SENSOR WIRING SHALL BE CONCEALED WITHIN CONDUIT WHERE EXPOSED. NO LOW VOLTAGE WIRING SHALL BE EXPOSED.
 - 3 ALL CONDUITS SHALL RUN AS TIGHT TO DECK AS POSSIBLE. CONDUITS SHALL BE RUN IN A NEAT MANNER. MAINTAIN THE SAME SPACING WHEN CONDUITS ARE RUN TOGETHER. CONCEAL JUNCTION BOXES OVER LAY-IN CEILING AND USE EMT DROPS DOWN TO CLOUDS. LOCATE CONDUIT DROPS TO CLOUDS AND CEILING ELEMENTS IN LEAST VISIBLE LOCATION. NO MC-CABLE TO LIGHT FIXTURES SHALL BE VISIBLE FROM ANY ANGLE.
 - 4 COORDINATE LIGHTING RUNS FOR LINEAR FIXTURES ALL TRADES. NO PIPES, DUCTS, CONDUIT, CABLE TRAY OR ANY OTHER SYSTEMS SHALL BE ROUTED UNDER LIGHTS.



FIRST FLOOR LIGHTING PLAN - UNIT A
1/8" = 1'-0"



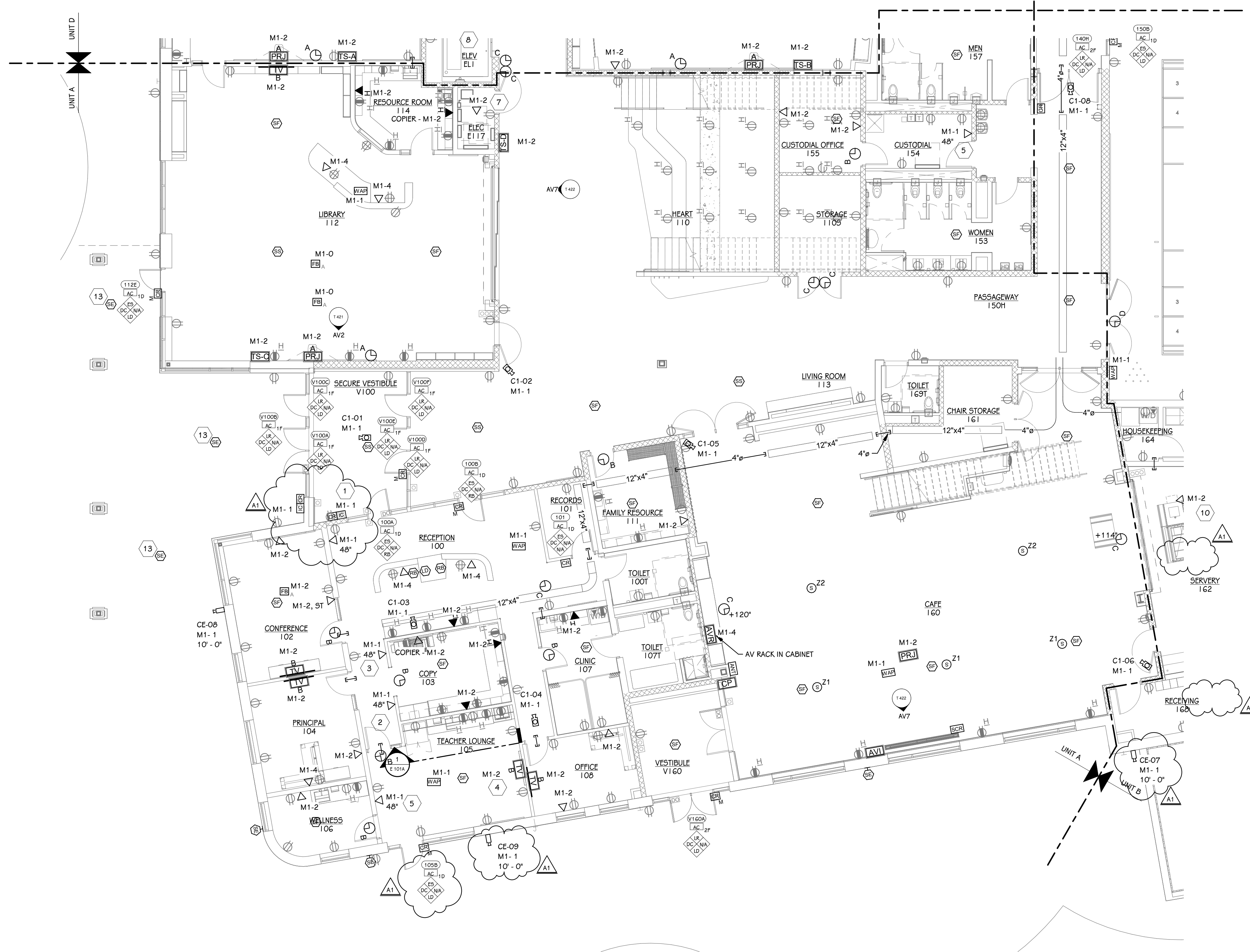
ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
FIRST FLOOR LIGHTING PLAN - UNIT A

SHEET NUMBER
E 201A
DATE
JUNE 30, 2023
21-237.20



FIRST FLOOR TECHNOLOGY PLAN - UNIT A
1/8" = 1'-0"

- TECHNOLOGY KEYED NOTES**
- 1 PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
 - 2 HIGH DATA DROP LOCATION FOR TIMECLOCK.
 - 3 DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
 - 4 PROVIDE ROUGH-IN AND CABLING ONLY FOR DISPLAY LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
 - 5 HIGH DATA DROP LOCATION FOR WALL MOUNT PHONE. PROVIDE SPECIALTY WALL-MOUNT FACEPLATE IN LIEU OF STANDARD FACEPLATE.
 - 6 COIL DATA DROP FOR FUTURE TEMPERATURE MONITOR IN CEILING OF COOLER/FREEZER.
 - 7 DATA DROP(S) FOR MECH/ELEC SYSTEMS. COORDINATE FINAL LOCATION(S) WITH MECH/ELEC CONTRACTORS.
 - 8 DATA DROP FOR ELEVATOR CALLBOX. COORDINATE FINAL LOCATION WITH ELEVATOR CONTRACTOR.
 - 9 DATA DROP LOCATION FOR ACP. COORDINATE FINAL LOCATION WITH THE ACCESS CONTROL CONTRACTOR.
 - 10 DATA DROP LOCATION FOR CAFETERIA POINT-OF-SALE DEVICE. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
 - 11 STACK LOWER ROUGH-INS TO FIT BETWEEN WINDOW AND CASEWORK. MAINTAIN INDIVIDUAL CONDUITS TO EACH.
 - 12 INSTALL LOWER ROUGH-INS AT 'TS-A' SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
 - 13 INSTALL FLUSH INTO SOFFIT OF CANOPY

ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

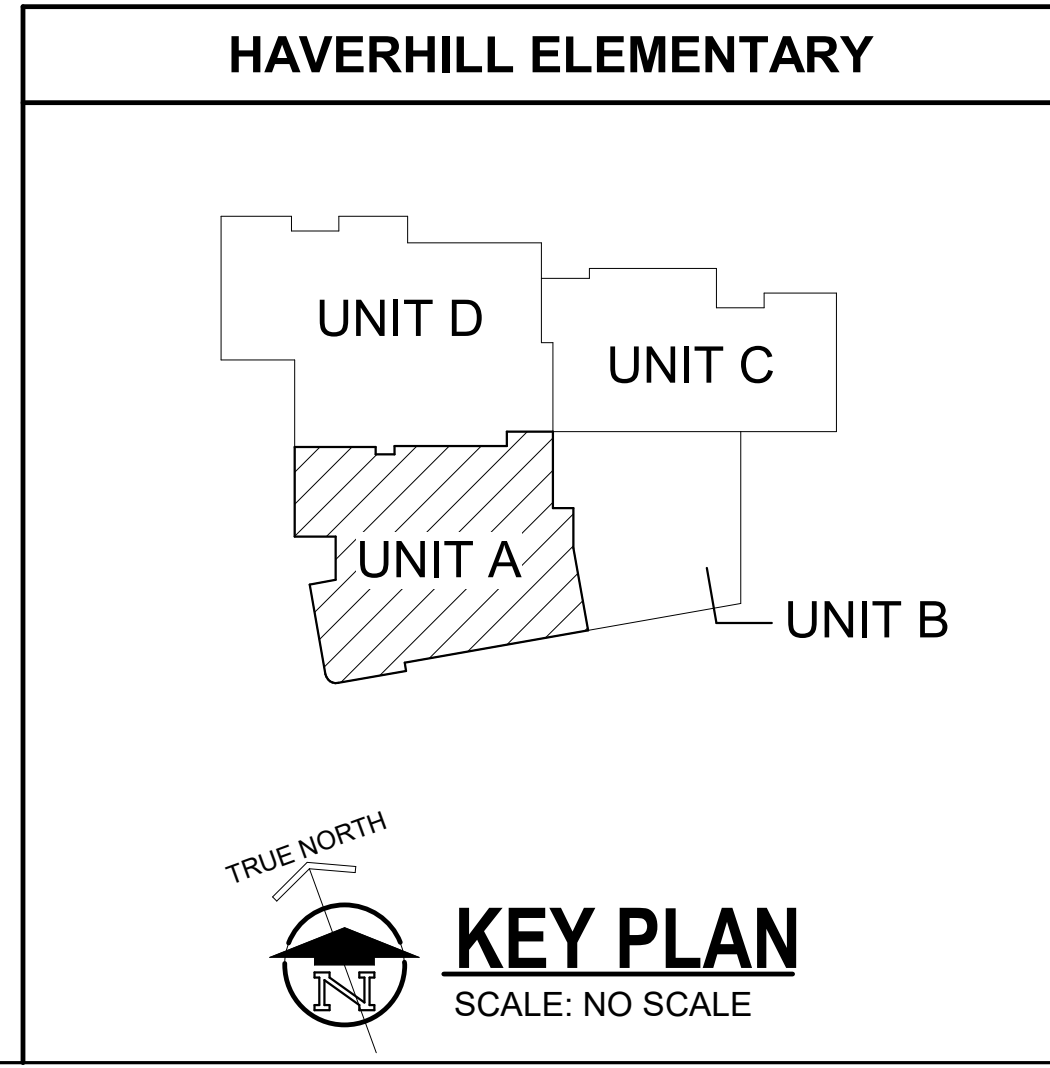
OWNER
PORTAGE PUBLIC SCHOOLS

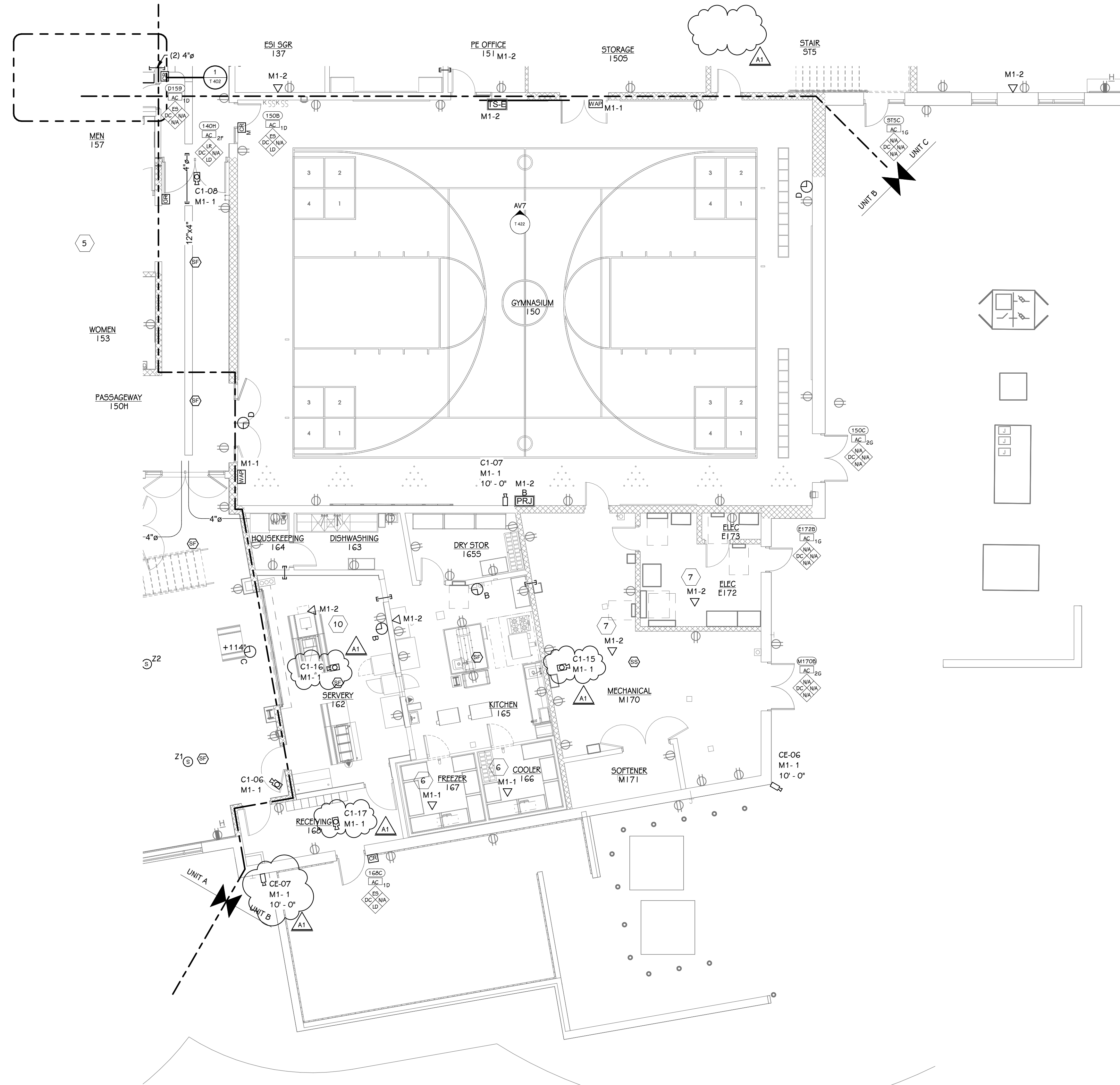
Portage, Michigan

SHEET TITLE
FIRST FLOOR TECHNOLOGY PLAN - UNIT A

DATE
JUNE 30, 2023

SHEET NUMBER
T 101A
21-237.20





FIRST FLOOR TECHNOLOGY PLAN - UNIT B
1/8" = 1'-0"

- TECHNOLOGY KEYED NOTES**
- 1 PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
 - 2 HIGH DATA DROP LOCATION FOR TIMECLOCK.
 - 3 DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
 - 4 PROVIDE ROUGH-IN AND CABLING ONLY FOR DISPLAY LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
 - 5 HIGH DATA DROP LOCATION FOR WALL MOUNT PHONE. PROVIDE SPECIALTY WALL-MOUNT FACEPLATE IN LIEU OF STANDARD FACEPLATE.
 - 6 COIL DATA DROP FOR FUTURE TEMPERATURE MONITOR IN CEILING OF COOLER/FREEZER.
 - 7 DATA DROP(S) FOR MECH/ELEC SYSTEMS. COORDINATE FINAL LOCATION(S) WITH MECH/ELEC CONTRACTORS.
 - 8 DATA DROP FOR ELEVATOR CALLBOX. COORDINATE FINAL LOCATION WITH ELEVATOR CONTRACTOR.
 - 9 DATA DROP LOCATION FOR ACP. COORDINATE FINAL LOCATION WITH THE ACCESS CONTROL CONTRACTOR.
 - 10 DATA DROP LOCATION FOR CAFETERIA POINT-OF-SALE DEVICE. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
 - 11 STACK LOWER ROUGH-INS TO FIT BETWEEN WINDOW AND CASEWORK. MAINTAIN INDIVIDUAL CONDUITS TO EACH.
 - 12 INSTALL LOWER ROUGH-INS AT 'TS-A' SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
 - 13 INSTALL FLUSH INTO SOFFIT OF CANOPY

ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

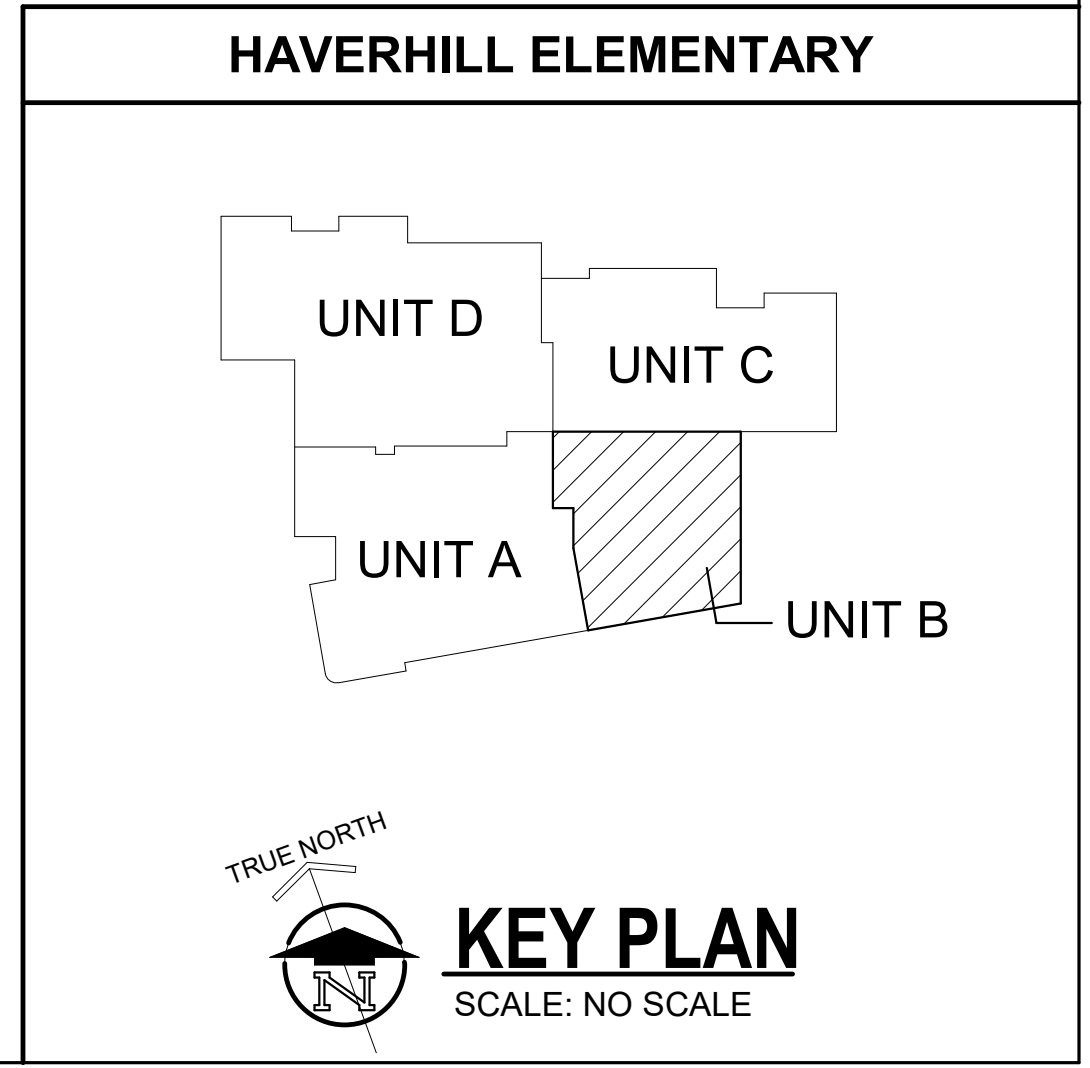
OWNER
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

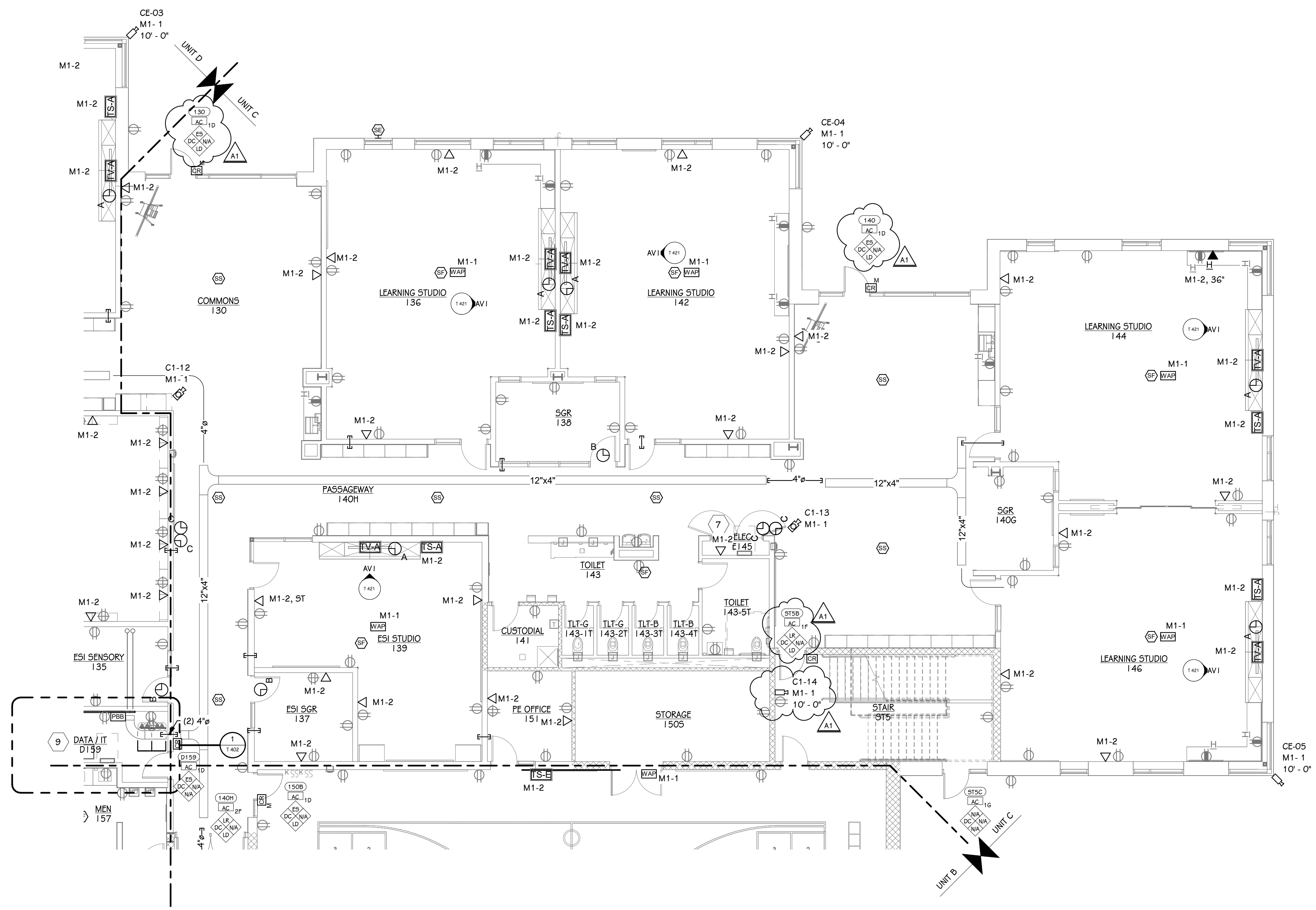
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FIRST FLOOR TECHNOLOGY PLAN - UNIT B

DATE
JUNE 30, 2023

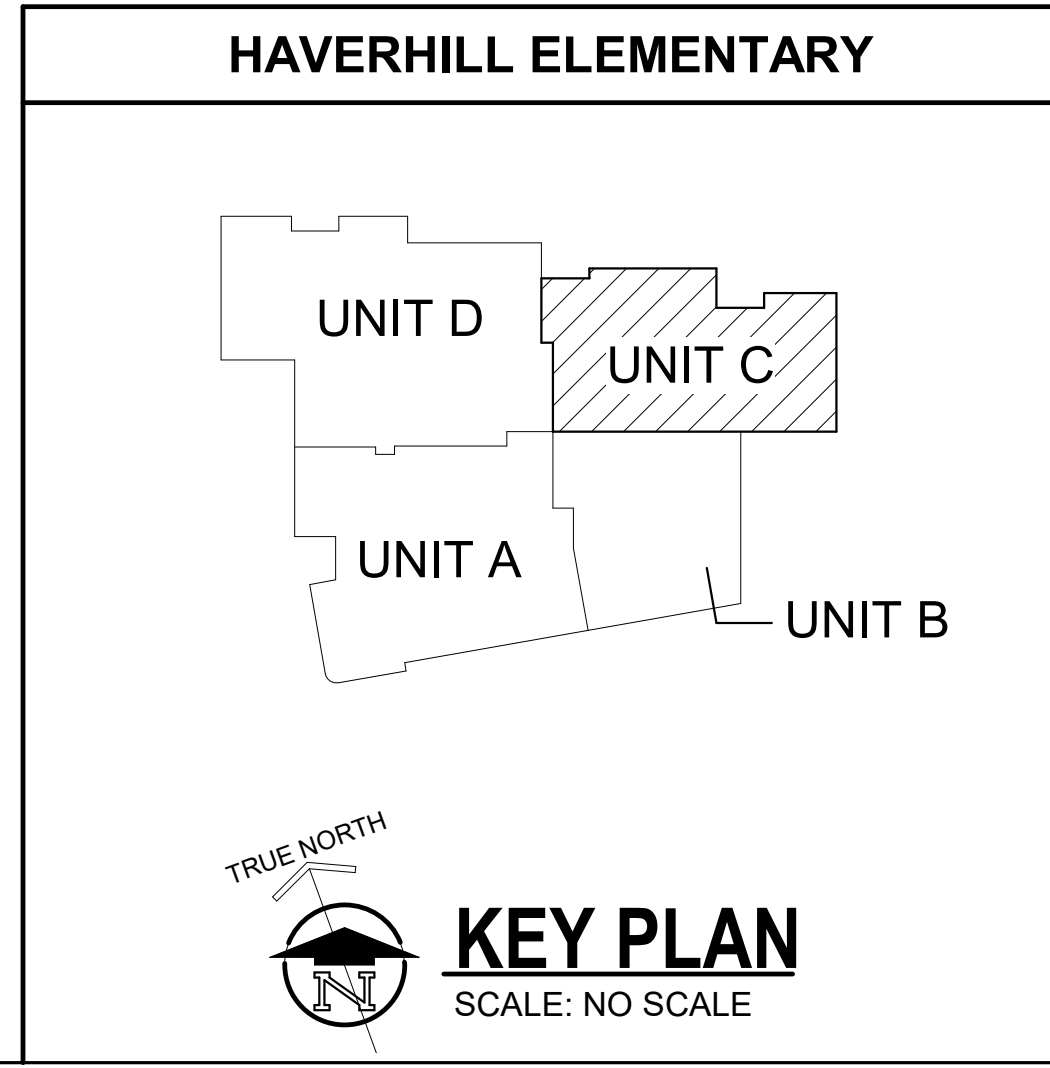
SHEET NUMBER
T 101B
21-237.20



TECHNOLOGY KEYED NOTES	
1	PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
2	HIGH DATA DROP LOCATION FOR TIMECLOCK.
3	DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
4	PROVIDE ROUGH-IN AND CABLING ONLY FOR DISPLAY LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
5	HIGH DATA DROP LOCATION FOR WALL MOUNT PHONE. PROVIDE SPECIALTY WALL-MOUNT FACEPLATE IN LIEU OF STANDARD FACEPLATE.
6	COIL DATA DROP FOR FUTURE TEMPERATURE MONITOR IN CEILING OF COOLER/FREEZER.
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10	DATA DROP LOCATION FOR CAFETERIA POINT-OF-SALE DEVICE. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
11	STACK LOWER ROUGH-INS TO FIT BETWEEN WINDOW AND CASEWORK. MAINTAIN INDIVIDUAL CONDUITS TO EACH.
12	INSTALL LOWER ROUGH-INS AT 'TS-A' SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
13	INSTALL FLUSH INTO SOFFIT OF CANOPY



FIRST FLOOR TECHNOLOGY PLAN - UNIT C
1/8" = 1'-0"



ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

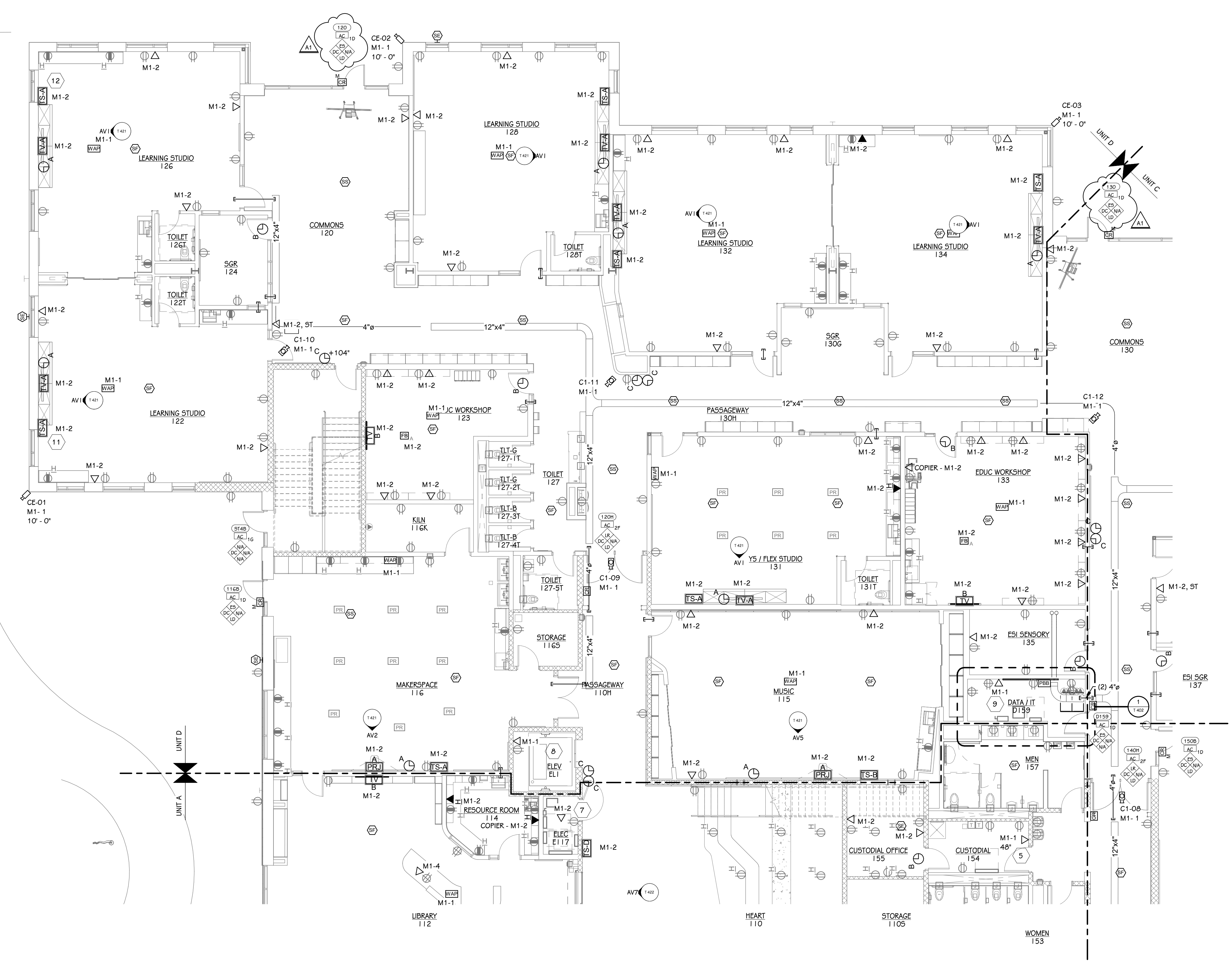
OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
FIRST FLOOR TECHNOLOGY PLAN - UNIT C

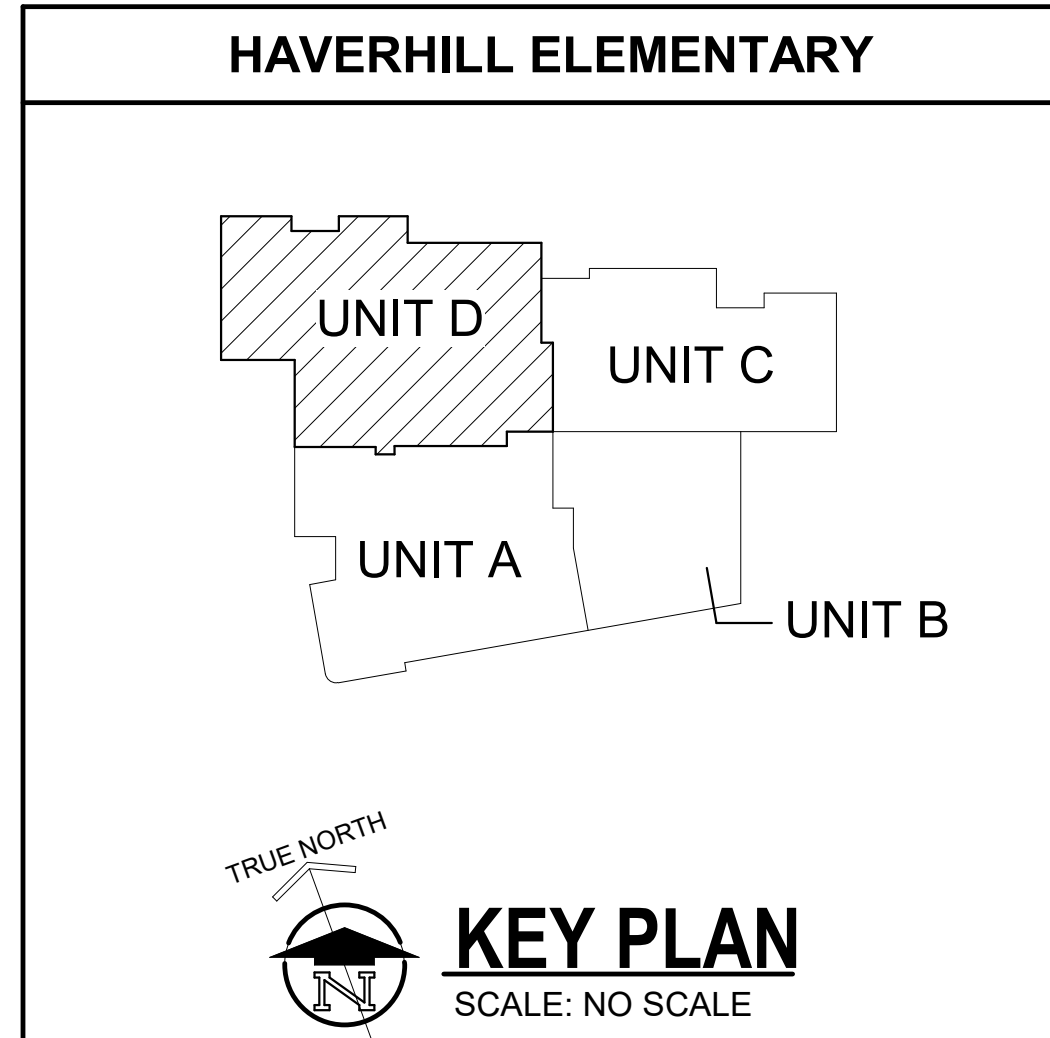
DATE
JUNE 30, 2023

SHEET NUMBER
T 101C
21-237.20

TECHNOLOGY KEYED NOTES	
1	PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
2	HIGH DATA DROP LOCATION FOR TIMECLOCK.
3	DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
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11	STACK LOWER ROUGH-INS TO FIT BETWEEN WINDOW AND CASEWORK. MAINTAIN INDIVIDUAL CONDUITS TO EACH.
12	INSTALL LOWER ROUGH-INS AT 'TS-A' SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
13	INSTALL FLUSH INTO SOFFIT OF CANOPY



FIRST FLOOR TECHNOLOGY PLAN - UNIT D
1/8" = 1'-0"



ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

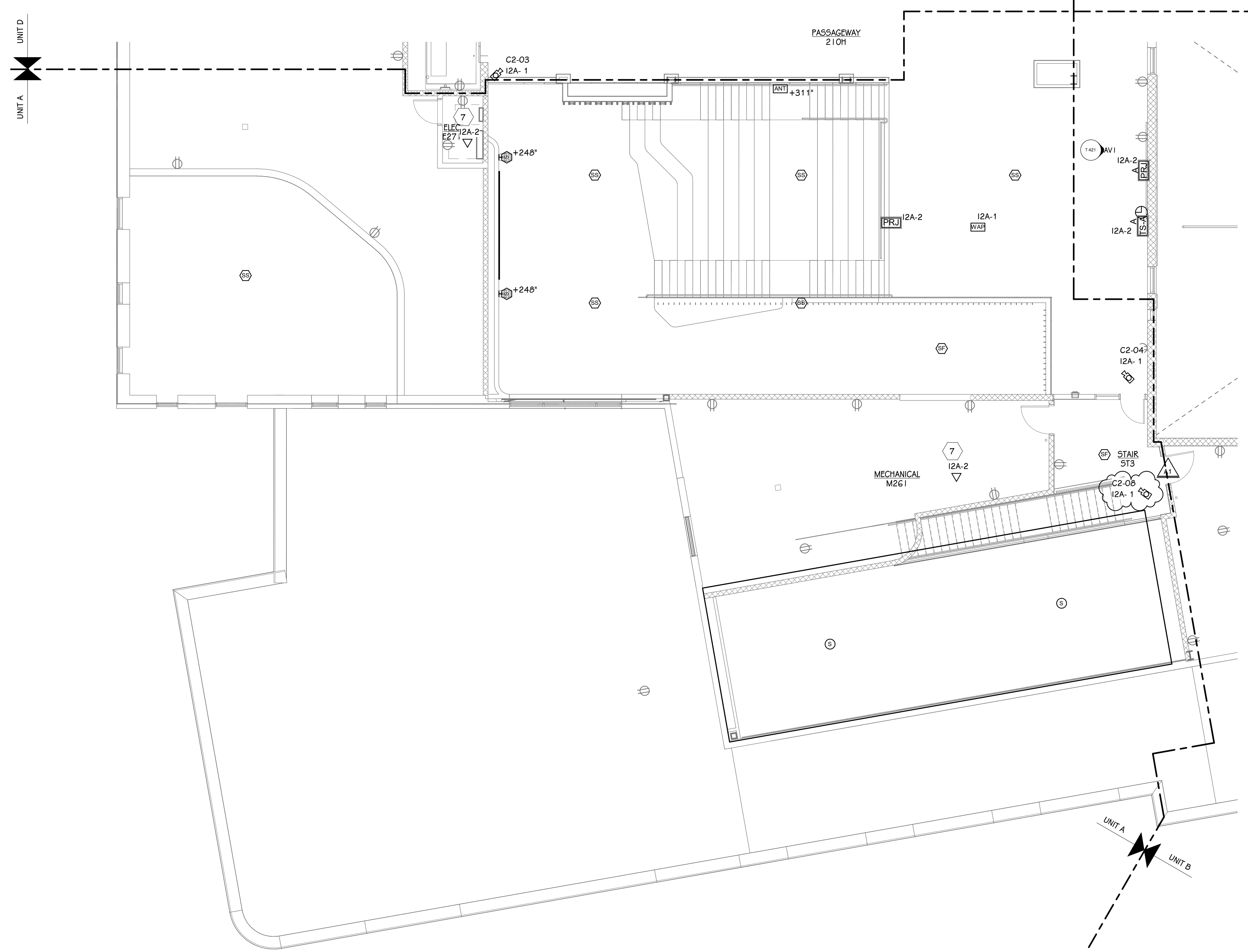
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HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

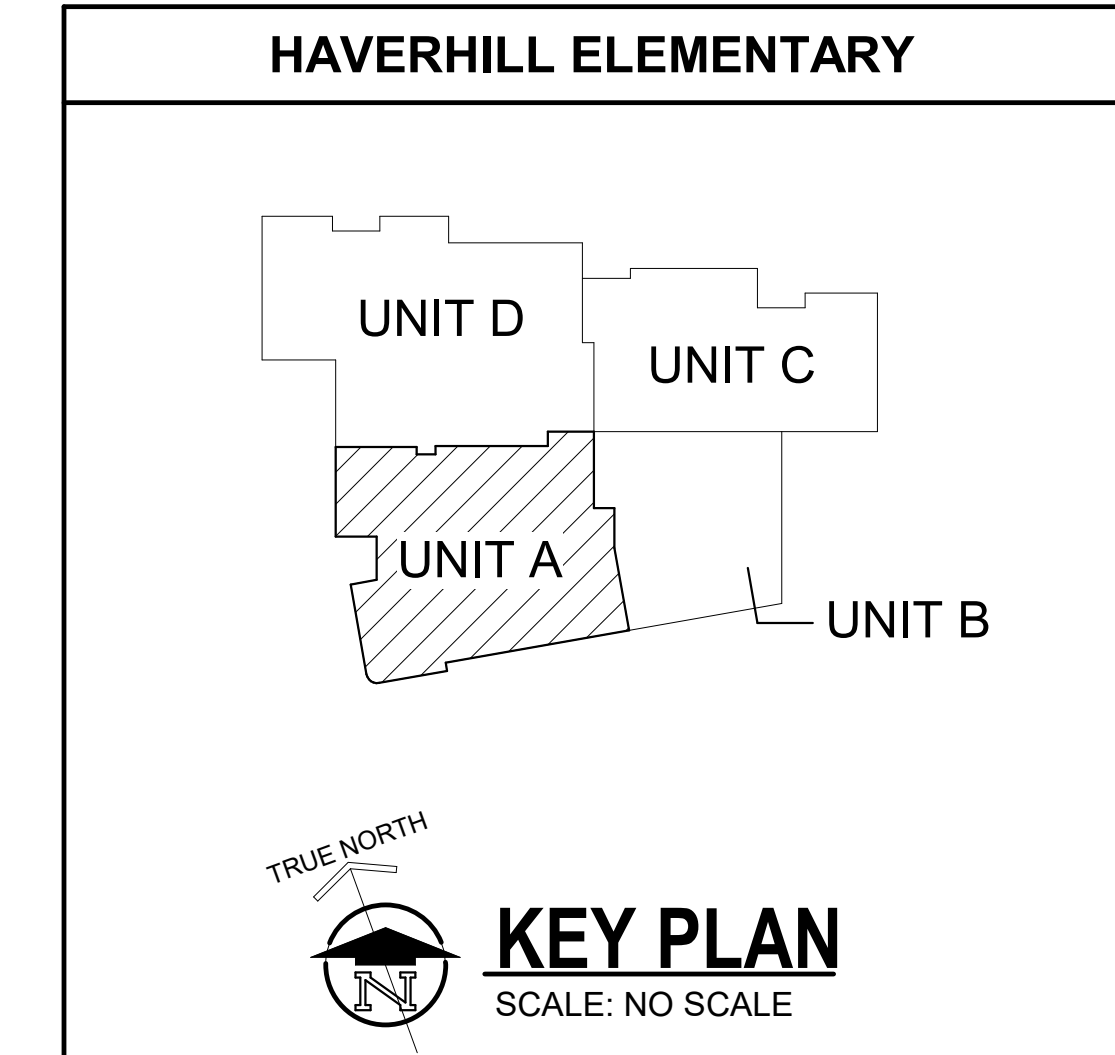
SHEET TITLE
FIRST FLOOR TECHNOLOGY PLAN - UNIT D

DATE
JUNE 30, 2023
SHEET NUMBER
T 101D
21-237.20

SECOND FLOOR TECHNOLOGY PLAN - UNIT A
1/8" = 1'-0"



TECHNOLOGY KEYED NOTES	
1	PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
2	HIGH DATA DROP LOCATION FOR TIMECLOCK.
3	DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
4	PROVIDE ROUGH-IN AND CABLING ONLY FOR DISPLAY LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
5	HIGH DATA DROP LOCATION FOR WALL MOUNT PHONE. PROVIDE SPECIALTY WALL-MOUNT FACEPLATE IN LIEU OF STANDARD FACEPLATE.
6	COIL DATA DROP FOR FUTURE TEMPERATURE MONITOR IN CEILING OF COOLER/FREEZER.
7	DATA DROP(S) FOR MECH/ELEC SYSTEMS. COORDINATE FINAL LOCATION(S) WITH MECH/ELEC CONTRACTORS.
8	DATA DROP FOR ELEVATOR CALLBOX. COORDINATE FINAL LOCATION WITH ELEVATOR CONTRACTOR.
9	DATA DROP LOCATION FOR ACP. COORDINATE FINAL LOCATION WITH THE ACCESS CONTROL CONTRACTOR.
10	DATA DROP LOCATION FOR CAFETERIA POINT-OF-SALE DEVICE. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
11	STACK LOWER ROUGH-INS TO FIT BETWEEN WINDOW AND CASEWORK. MAINTAIN INDIVIDUAL CONDUITS TO EACH.
12	INSTALL LOWER ROUGH-INS AT 'TS-A' SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
13	INSTALL FLUSH INTO SOFFIT OF CANOPY



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ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

OWNER
PORTAGE PUBLIC SCHOOLS

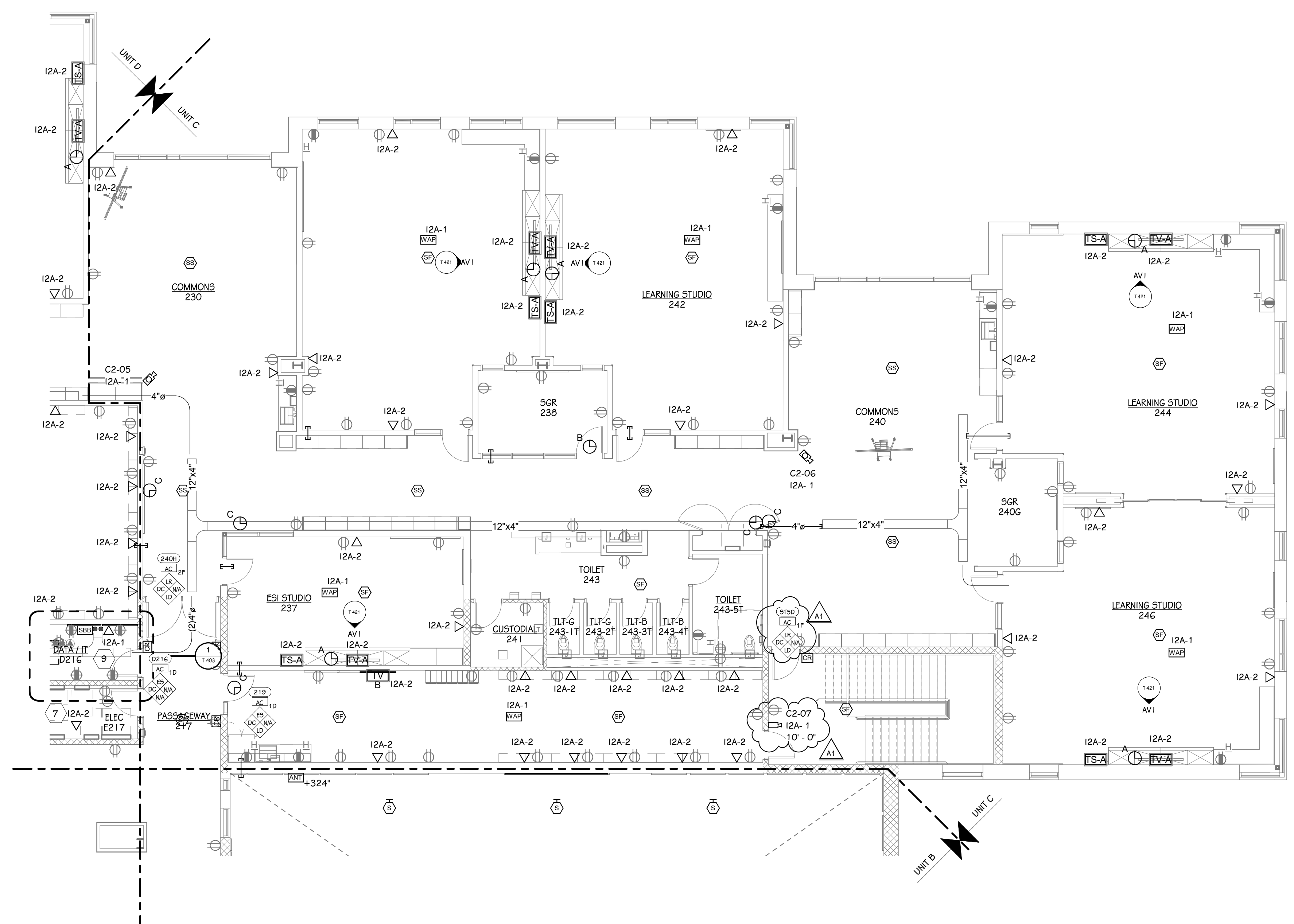
Portage, Michigan

SHEET TITLE
SECOND FLOOR TECHNOLOGY PLAN -
UNIT A

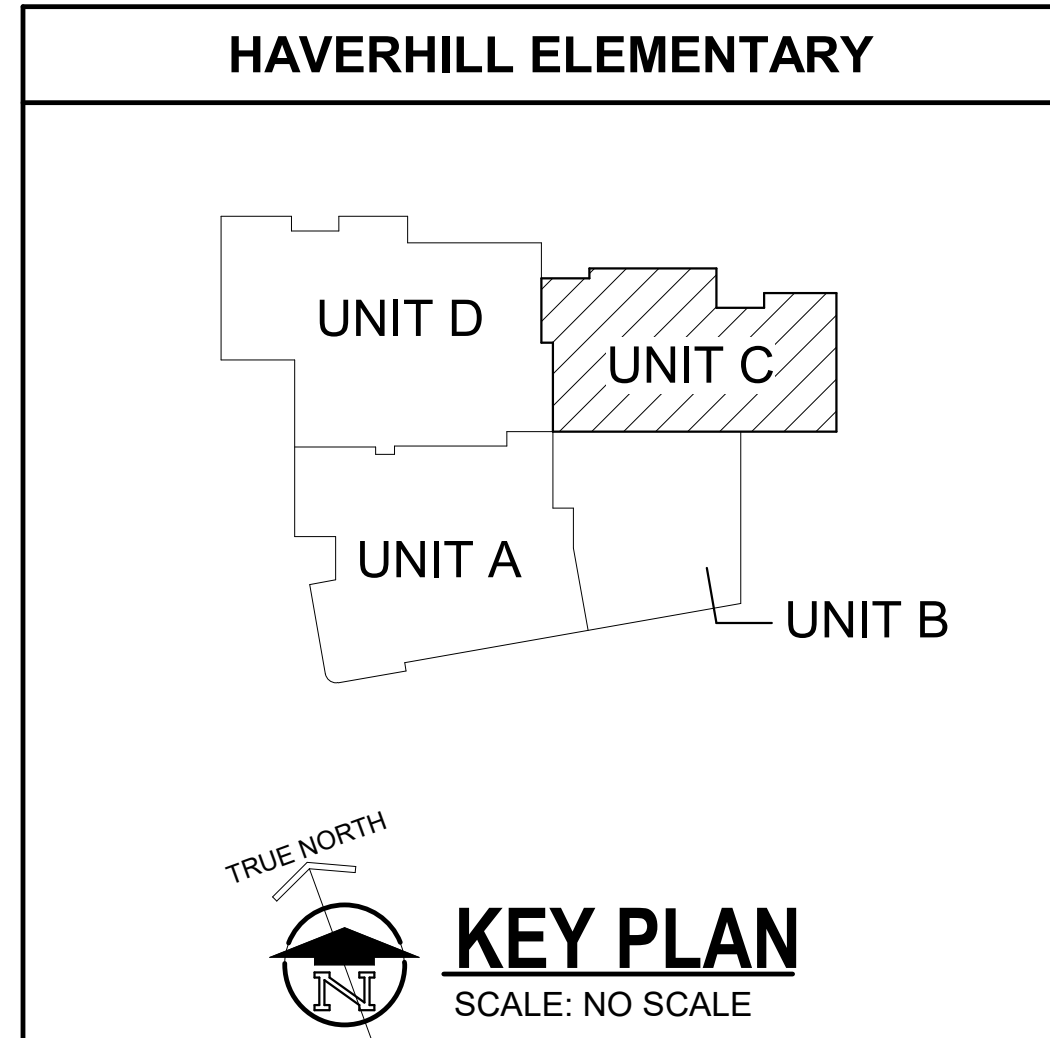
DATE
JUNE 30, 2023

SHEET NUMBER
T 102A
21-237.20

TECHNOLOGY KEYED NOTES	
1	PROVIDE ROUGH-IN AND CABLING ONLY FOR INTERCOM LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
2	HIGH DATA DROP LOCATION FOR TIMECLOCK.
3	DATA DROP LOCATION FOR FIRE PANEL. COORDINATE FINAL LOCATION WITH FIRE PROTECTION CONTRACTOR.
4	PROVIDE ROUGH-IN AND CABLING ONLY FOR DISPLAY LOCATION. NO DEVICES INSTALLED AT THIS LOCATION.
5	HIGH DATA DROP LOCATION FOR WALL MOUNT PHONE. PROVIDE SPECIALTY WALL-MOUNT FACEPLATE IN LIEU OF STANDARD FACEPLATE.
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7	DATA DROP(S) FOR MECH/ELEC SYSTEMS. COORDINATE FINAL LOCATION(S) WITH MECH/ELEC CONTRACTORS.
8	DATA DROP FOR ELEVATOR CALLBOX. COORDINATE FINAL LOCATION WITH ELEVATOR CONTRACTOR.
9	DATA DROP LOCATION FOR ACP. COORDINATE FINAL LOCATION WITH THE ACCESS CONTROL CONTRACTOR.
10	DATA DROP LOCATION FOR CAFETERIA POINT-OF-SALE DEVICE. COORDINATE WITH THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR.
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12	INSTALL LOWER ROUGH-INS AT "TS-A" SYMBOL UNDER WINDOW. INSTALL UPPER ROUGH-IN AT KEYNOTE LOCATION NORTH OF THE WINDOW FOR CONTROL PANEL.
13	INSTALL FLUSH INTO SOFFIT OF CANOPY



SECOND FLOOR TECHNOLOGY PLAN - UNIT C
1/8" = 1'-0"



ADD. No. 1 JULY 26, 2023
ISSUED FOR DATE

PROJECT TITLE
HAVERHILL ELEMENTARY SCHOOL
BID PACKAGE 6: CONSTRUCTION

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
SECOND FLOOR TECHNOLOGY PLAN -
UNIT C

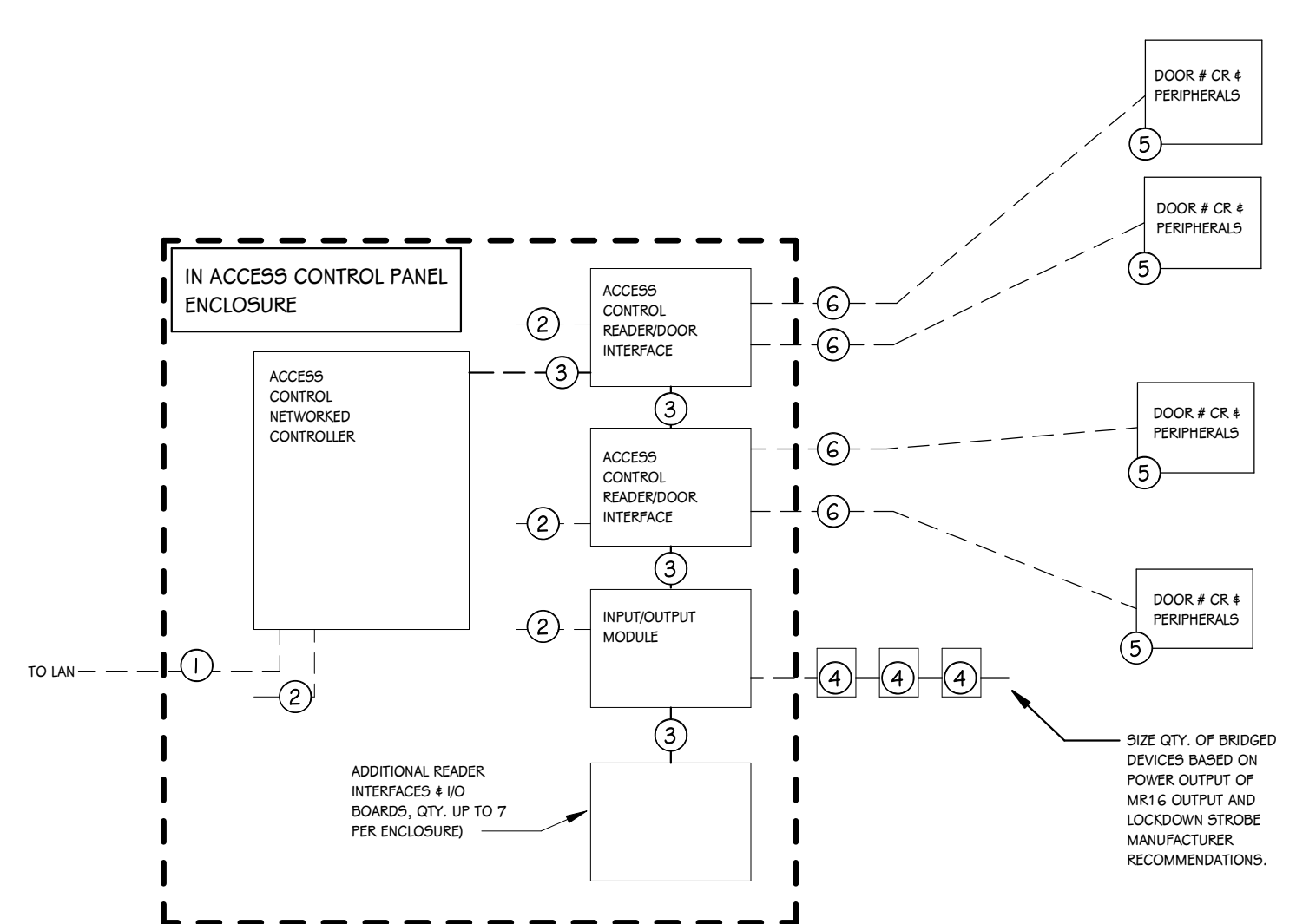
Portage, Michigan

DATE
JUNE 30, 2023

SHEET NUMBER
T 102C
21-237.20

ACCESS CONTROL SCHEDULE

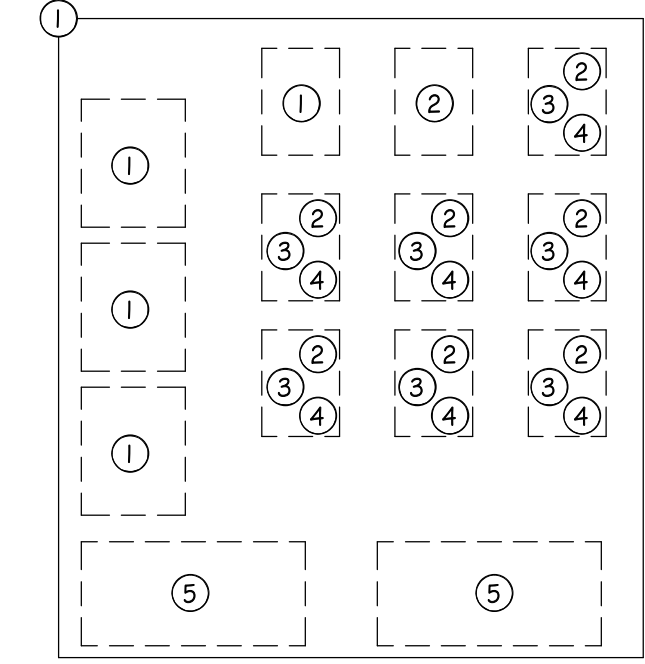
NUMBER	ACCESS CONTROLS	LOCKING HARDWARE TYPE	SECURITY INFO				DOOR DETAIL #	PROGRAMMING NOTES
DOOR	CARD READER		DOOR CONTACT	OTHER	REX			
100A	Yes	ES	DC	RB	N/A	1D		
100B	Yes	ES	DC	RB	N/A	1D		
101	Yes	ES	DC	N/A	N/A	1D		
105B	Yes	ES	DC	LD	N/A	1D		
112E	Yes	ES	DC	LD	N/A	1D		
116B	Yes	ES	DC	LD	N/A	1D		
120	Yes	ES	DC	LD	N/A	1D		
120H	Yes	LR	DC	LD	N/A	2F		
130	Yes	ES	DC	LD	N/A	1D		
140	Yes	ES	DC	LD	N/A	1D		
140H	Yes	LR	DC	LD	N/A	2F		
150B	Yes	ES	DC	LD	N/A	1D		
150C	No	N/A	DC	N/A	N/A	2G		
168C	Yes	ES	DC	LD	N/A	1D		
219	Yes	ES	DC	LD	N/A	1D		
220H	Yes	LR	DC	LD	N/A	2F		
240H	Yes	LR	DC	LD	N/A	2F		
D159	Yes	ES	DC	N/A	N/A	1D		
D216	Yes	ES	DC	N/A	N/A	1D		
E172B	No	N/A	DC	N/A	N/A	1G		
M170B	No	N/A	DC	N/A	N/A	2G		
M260B	No	N/A	DC	N/A	N/A	1G		
5T4B	No	N/A	DC	N/A	N/A	1G		
5T5B	Yes	LR	DC	LD	N/A	1F		
5T5C	No	N/A	DC	N/A	N/A	1G		
5T5D	Yes	LR	DC	LD	N/A	1F		
V100A	No	LR	DC	LD	N/A	1F		
V100B	No	LR	DC	LD	N/A	1F		
V100C	No	LR	DC	LD	N/A	1F		
V100D	No	LR	DC	LD	N/A	1F		
V100E	No	LR	DC	LD	N/A	1F		
V100F	No	LR	DC	LD	N/A	1F		
V160A	Yes	LR	DC	LD	N/A	2F		



DEVICE	MANUFACTURER/PART #	NOTES
1 CATEGORY CABLE	REFER TO SCHEDULE	PROVIDED BY STRUCTURED CABLING CONTRACTOR.
2 18AWG/2C	SEE SECURITY DEVICE AND CABLING CHART	12-24 VDC CONNECTION TO POWER DIST. MODULE/POWER SUPPLY
3 RS-485	BELDEN 82841	PROVIDE RS-485 LOOP TO CONNECT CONTROLLER TO MAX. NUMBER OF SUPPORTED DOWNSTREAM DEVICES.
4 LOCKDOWN DEVICE	SEE SECURITY DEVICE AND CABLING CHART FOR PART #	EXACT LAYOUT AND QTY. OF EACH DEVICE PER MODULE SHALL BE SIZED, CONFIGURED, AND SUPPLIED TO SUPPORT # OF DEVICES ON PLANS.
5 CR, RX, DC, LD, RB, 4 OTHER CONTROL INTERFACES		
6 MULTICONDUCTOR CABLE		

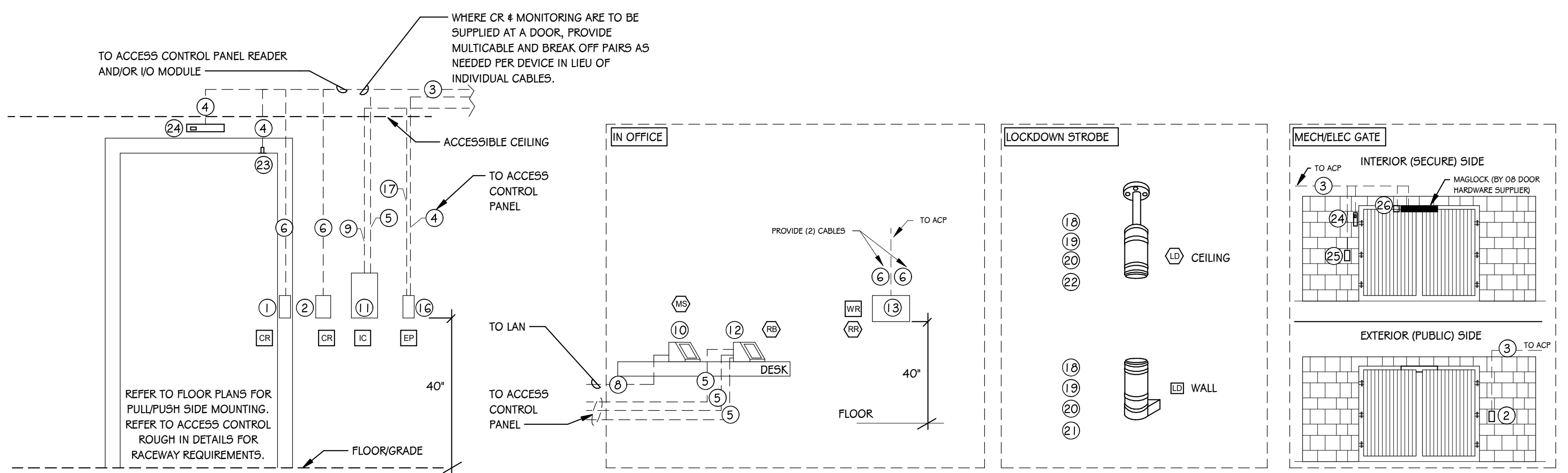
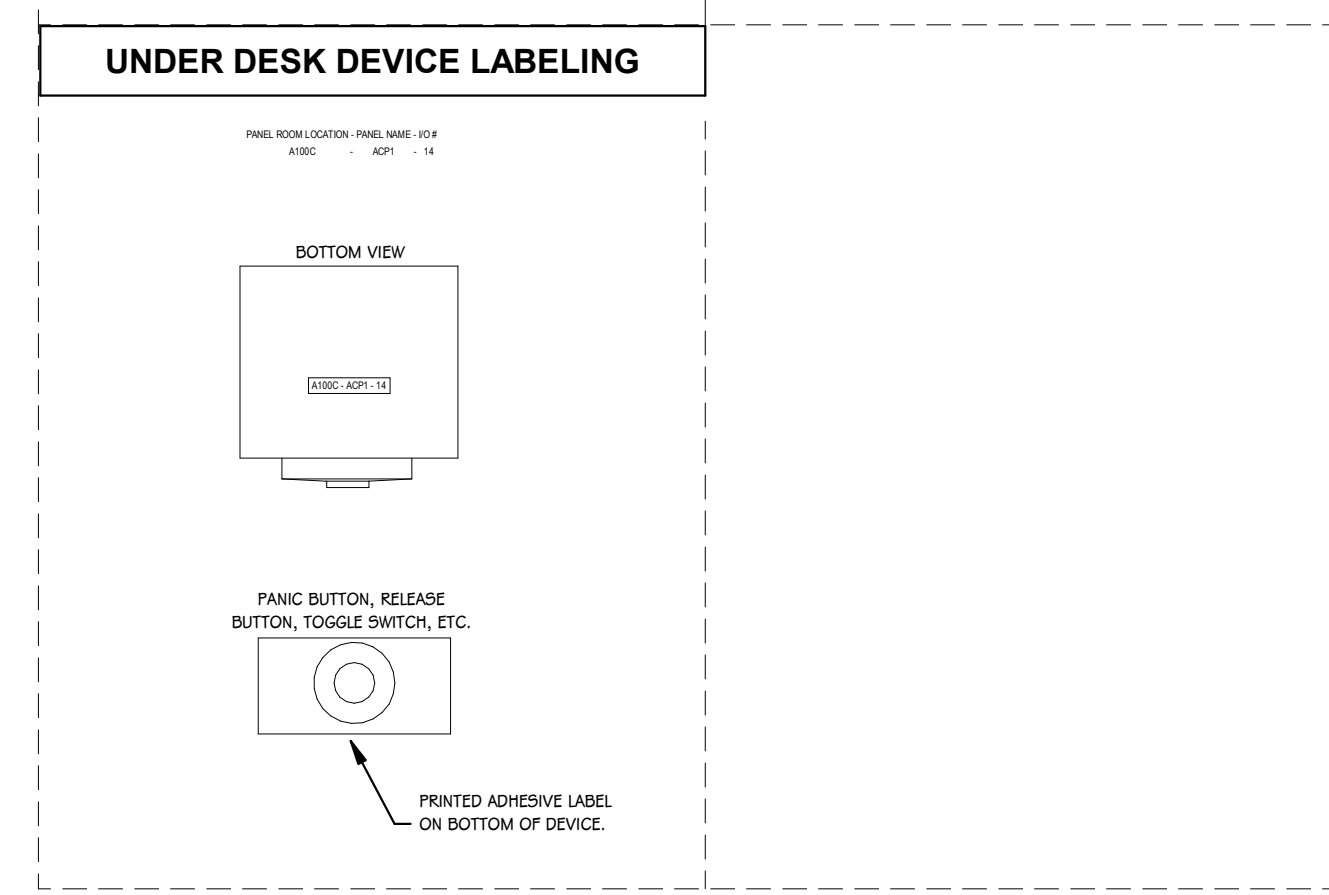
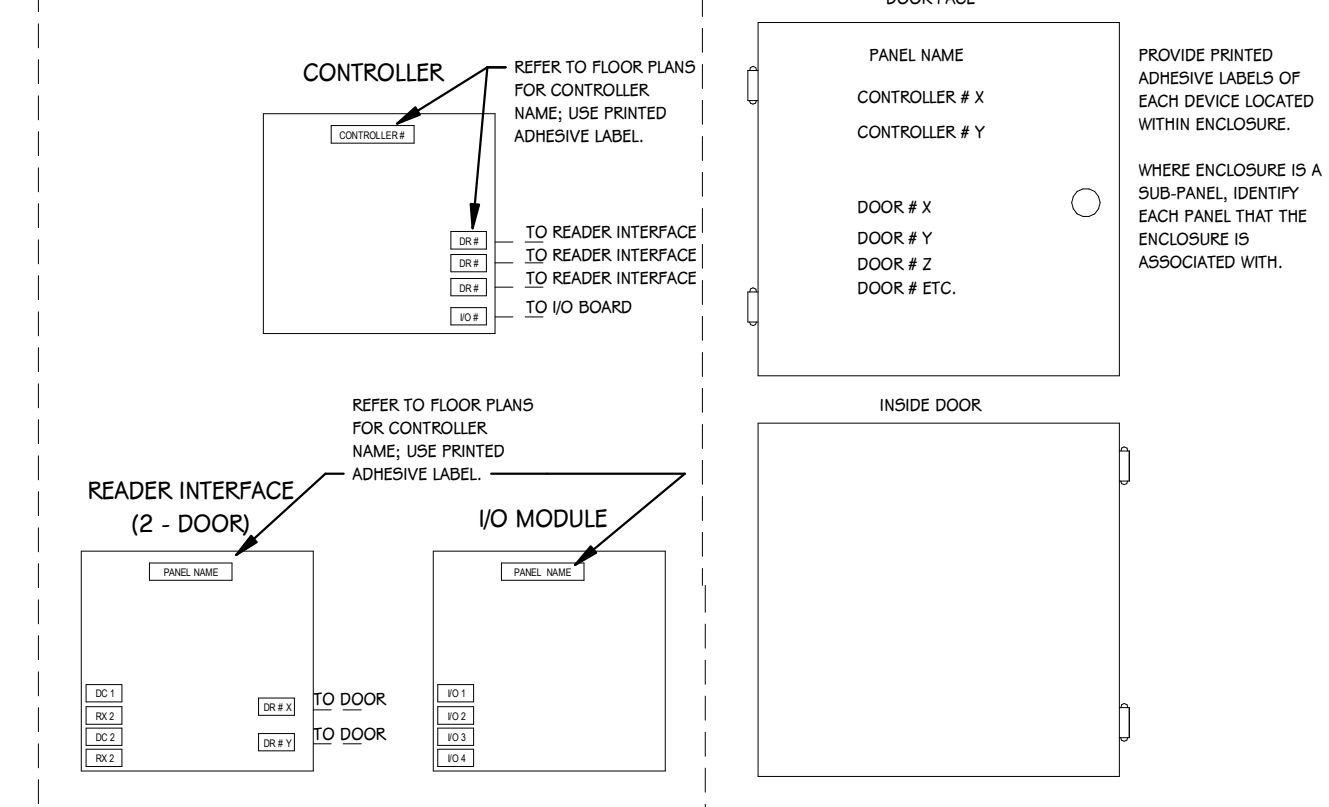
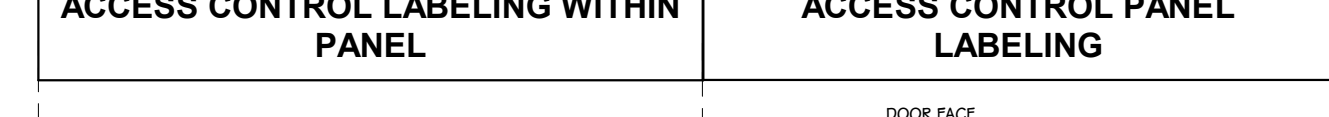
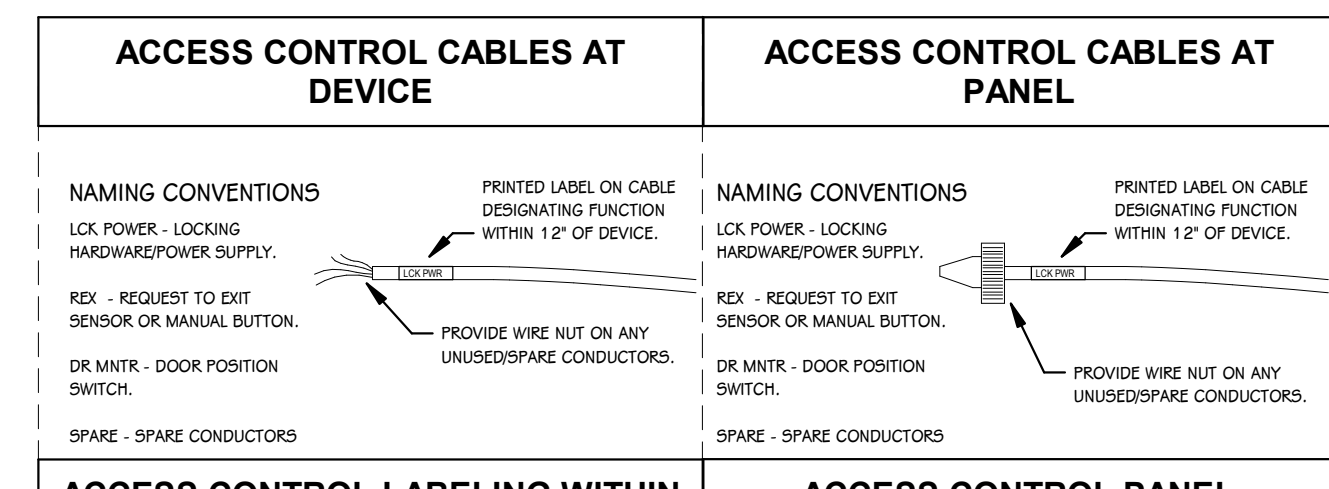
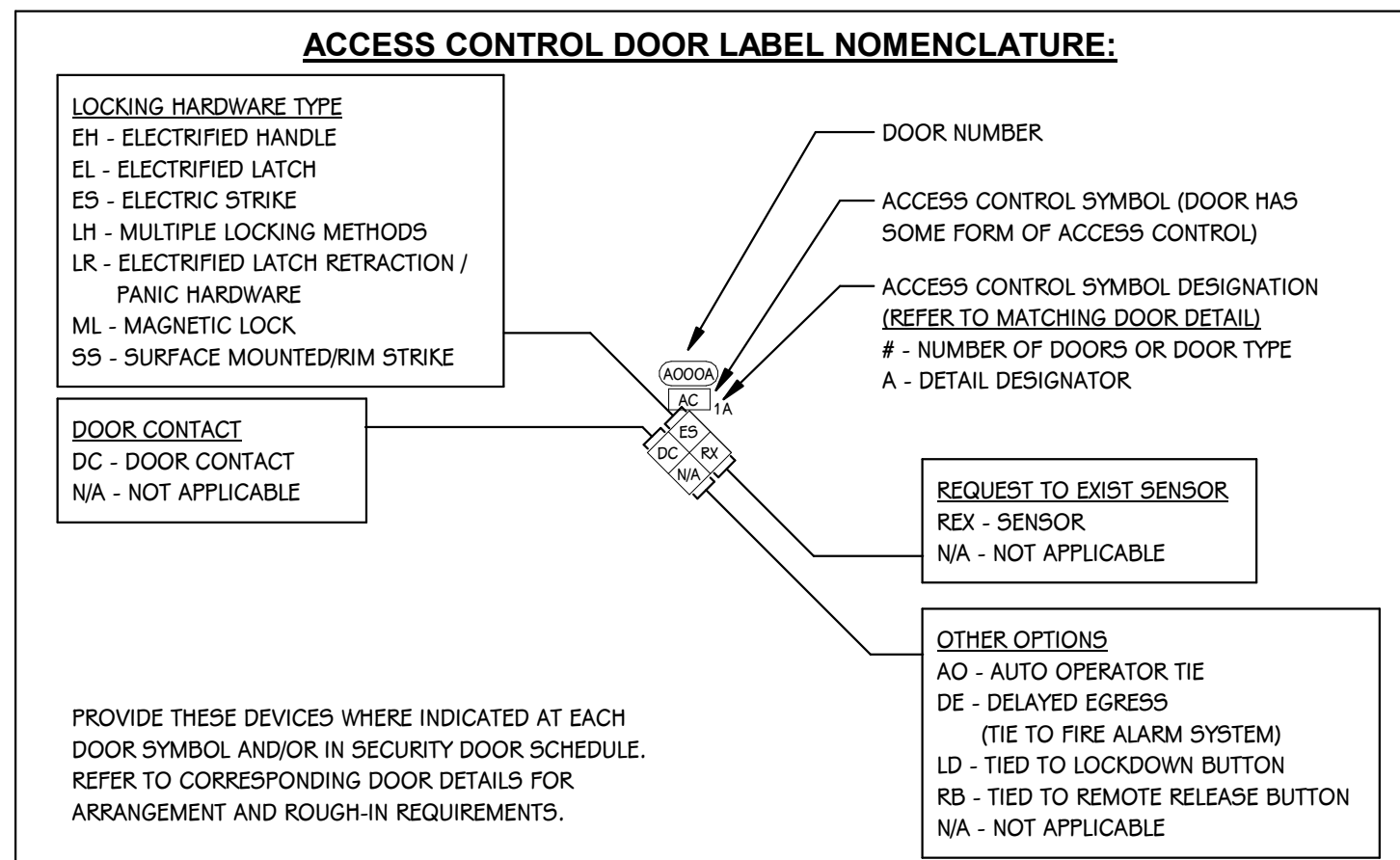
COORDINATE FAIL-SAFE VS. FAIL-SECURE LOCK CONNECTIONS IN COMPLIANCE WITH FIRE CODE AND COORDINATED WITH PROGRAMMING NOTES ON ACCESS CONTROL SCHEDULE.

REFER TO DRAWINGS FOR LOCATIONS
ACP-#A



DEVICE	MANUFACTURER/PART #	NOTES
1 ACCESS CONTROL ENCLOSURE, POWER SUPPLIES, POWER DISTRIBUTION MODULES, LOCK POWER	LENEL/52 S2-NN-E2R-WM	
2 ACCESS CONTROL 2-DOOR READER INTERFACE	S2-ACM	
3 ACCESS CONTROL INPUT MODULE	S2-INP	EXACT LAYOUT AND QTY. OF EACH MODULE PER ENCLOSURE SHALL BE CONFIGURED AND SUPPLIED TO SUPPORT # OF DEVICES ON PLANS.
4 ACCESS CONTROL OUTPUT MODULE	S2-OUT	
5 ENCLOSURE BATTERY	MFG. RECOMMENDED, SEALED LEAD ACID OR GEL TYPE.	SIZE BATTERY TO PROVIDE UNINTERRUPTED POWER TO CONTROLS AND LOCKS FOR MIN. 6 HOURS AT FULL CAPACITY.

COORDINATE POWER CONNECTIONS WITH ELECTRICAL CONTRACTOR; CONNECTIONS SHALL BE HARDWIRED TO POWER SUPPLIES.



DEVICE	MANUFACTURER/PART #	NOTES
1 CARD READER - MULLION	HID MINIPROX 5365	USE WHEN CR SYMBOL IS SHOWN ON MULLION, FRAME, OR OTHER NARROW-WIDTH MOUNTING APPLICATION.
2 CARD READER - STANDARD	HID PROXPRO 5355	N/A
3 CABLE - MULTICABLE	BELDEN 656AFJ ACCESS CONTROL	USE WHEN DOOR REQUIRES CR AND ANY OTHER DEVICE. OTHERWISE, SEE BELOW CABLES.
4 CABLE - 1/2 18AWG/CONDUCTOR	BELDEN 6300FC	UPSIZED CABLE AS REQUIRED TO ELIMINATE SIGNAL LOSS.
5 CABLE - 1/4 18AWG/CONDUCTOR	BELDEN 6341FE	UPSIZED CABLE AS REQUIRED TO ELIMINATE SIGNAL LOSS.
6 CABLE - 1/4 18AWG/CONDUCTOR	BELDEN 6304FE	UPSIZED CABLE AS REQUIRED TO ELIMINATE SIGNAL LOSS.
7 CABLE - INTERCOM MASTER STATION DOOR RELEASE	N/A	DOOR RELEASE IS CONFIGURED SEPARATELY (SEE NO. 5, 13, & 14).
8 CABLE - INTERCOM MASTER STATION	CATEGORY CABLE	REFER TO COMMUNICATION CABLE # COMPONENT LEGEND
9 CABLE - INTERCOM DOOR STATION	CATEGORY CABLE	REFER TO COMMUNICATION CABLE # COMPONENT LEGEND
10 DEVICE - INTERCOM MASTER STATION	OWNER'S DESK PHONE	COORDINATE WITH OWNER TO PROGRAM PHONES FOR INTERCOM DIALING AND DOOR RELEASE THROUGH ACP
11 DEVICE - INTERCOM DOOR STATION	AXIS A8105-E	MOUNT ON MULLION
12 DEVICE - DESK MOUNT CONTROLS BOX 4 SWITCHES	SCHLAGE 8204-MMM-M5	COORDINATE FINAL LOCATION WITH OWNER AT TIME OF INSTALL. PROVIDE ADHESIVE LABEL OF EACH DOOR TIED TO SPECIFIC RELEASE. SECURE TO STYPAND DESK, AND PROVIDE ENOUGH CABLE TO ACCOMMODATE MAXIMUM HEIGHT OF DESK.
13 DEVICE - REMOTE RELEASE TRANSMITTER 4 BUTTONS	N/A	N/A
14 DEVICE - RELEASE BUTTON MOUNTED UNDER DESK	N/A	N/A
15 DEVICE - UNUSED	N/A	N/A
16 DEVICE - WALL MOUNTED EMERGENCY PHONE	N/A	N/A
17 CABLE - WALL MOUNTED EMERGENCY PHONE	N/A	N/A
18 DEVICE - LOCKDOWN STROBE ELEMENT	N/A	N/A
19 DEVICE - LOCKDOWN STROBE POWER	N/A	N/A
20 CABLE - LOCKDOWN STROBE	N/A	N/A
21 DEVICE - LOCKDOWN WALL BRACKET	N/A	N/A
22 DEVICE - LOCKDOWN CEILING MOUNT	N/A	N/A
23 DEVICE - DOOR CONTACT	SCHLAGE 679-05HM	N/A
24 DEVICE - REQUEST TO EXIT SENSOR	SCHLAGE SCAN II WHT	MOUNT VERTICALLY AT MECHLELEC GATE; HORIZONTALLY IN ALL OTHERS.
25 DEVICE - WALL MOUNTED REQUEST TO EXIT SENSOR	STI 592377PX-EN	CONNECT RX DIRECTLY TO POWER SUPPLY TO COMPLY WITH EGRESS CODE REQUIREMENTS. DEVICE SHALL MOMENTARILY INTERRUPT POWER AND RELEASE MAGLOCKS FOR CODE REQUIRED MINIMUM TIME.
26 DEVICE - GATE DOOR POSITION SWITCH	SCHLAGE 7766	N/A

GENERAL NOTES APPLY TO ALL LV CABLE*

- ALL CABLE SHALL BE PLENUM RATED IN PLENUM SPACE.
- CABLES UTILIZING WIEGAND COMMS SHALL NOT EXCEED 500FT TO ACCESS CONTROL PANEL.
- CABLES UTILIZING OSDP SHALL NOT EXCEED 2000FT.
- CABLE SIZING SHALL BE VERIFIED PRIOR TO INSTALLATION AND UPSIZED AS NECESSARY TO ELIMINATE SIGNAL LOSS.
- CABLES SHALL BE RUN IN CONTINUOUS OR NON-CONTINUOUS CABLE MANAGEMENT SYSTEMS. FREE-RUN CABLING IS NOT ACCEPTABLE ANYWHERE. ZIP TIES, ELECTRICAL TAPE, OR OTHER SIMILAR ADHESIVES ARE NOT ACCEPTABLE.
- WHERE IN EXPOSED AREAS (E.G. UNDER DESK, ALONG COUNTERTOP), CABLES SHALL BE RUN IN MESH CABLE SLEEVE (TECHSPEC FENG-200-25-BLACK, CUT TO SIZE).
- ALL DEVICES THAT CONTROL DOOR HARDWARE SHALL BE CABLED TO INTERFACE THROUGH THE ACCESS CONTROL PLATFORM AND NEVER BE DIRECTLY CONNECTED TO THE LOCK POWER.

*SEE COPPER CABLE DETAIL AND SPECIFICATIONS FOR REQUIREMENTS AND CONDITIONS.



Building Since 1891

Owen-Ames-Kimball Co.

Printed on Thu Jul 27, 2023 at 03:21 pm EDT

Job #: 1090-B PPS - B - Haverhill Elementary School
6633 Haverhill Ave
Portage, Michigan 49024
2693236200

RFI Response Report

#	Subject	Question	Official Response
BP 6 - Prebid RFI 001	Substitution Request 001	Please see attached substitution request form regarding the sheet waterproofing scope for your review and consideration. I have also attached Polyglass Mapethene HT/LT60(60mil Sheet Waterproofing) and our Mapeproof AL Pro(HDPE Fully Bonded Underslab Waterproofing) submittal packages which includes technical data sheets, detail drawings, and testing. Caleb Lloyd, Polyglass USA, clloyd@polyglass.com	Provide as a Voluntary Alternate. M. Rossio 7/25/23
BP 6 - Prebid RFI 002	AISC Certification	Specs for steel call for both steel fabricator and erector to be AISC certified. Will this requirement be waived? Ron Paridee, Division 5 Metalworks, rparidee@d4m.net	No, this requirement will not be waived. Fabricator and erector to be AISC certified. MA / M. Rossio 7/18/2023
BP 6 - Prebid RFI 003	Access Control Clarification	S2 lenel is specified in the access control portion of the bid. Can you please clarify if this is S2 OnGuard or S2 Netbox? Diane Giovannini, Sonitrol Great Lakes, DGiovannini@solucientsecurity.com	S2 Netbox.
BP 6 - Prebid RFI 004	Visual Display Boards	Porcelain Steel (the face of the markerboard material) is only available up to 5'-0" Polyvision, the manufacturer of this surface offers 4'-0" and 5'-0" material; On the drawings there are 6'-0" x 6'-0" and 8'-0" x 6'-0" Markerboards indicated 2.3 A.4 in the specifications call for 6'-0" oversized boards heights shall be produced without joints regardless of width The 4'-0" w x 6'-0" h Markerboards can be fabricated in one piece; however the 6'-0" x 6'-0" and 8'-0" x 6'-0" cannot be fabricated in one piece. Please advise direction. Ceil Ann Tomalis, Midwest Architectural Division, ctomalis@pvsusa.com	all 8'-0" wide by 6'-0" high boards shall have center vertical seam.all 4'-0" wide by 6'-0" high boards shall remain as specified without seam.all 6'-0" wide by 6'-0" high boards shall be revised to one of the above sizesand will be captured in forthcoming Addendum 2.
BP 6 - Prebid RFI 005	Substitution Request 002	Request to have Playcraft Playground Equipment approved as an equal. Karmen Posthumus, Play Environments Design, Karmenp@playenviro.com	Yes, approved as equal.
BP 6 - Prebid RFI 006	Toilet Accessories	1. What is the stall depth for the toilet partitions in men's 157 and women's 153 on A401? It appears they may be drawn to 58" clear which is not accounting for proper plumbing code. 2. I can not find any elevations in the bathrooms for the toilet partitions in room 153 and 157. Nor do the specs mention a standard size or privacy. What are the toilet partitions height? 3. What is the height of the urinal screen? Andrew Crimmins, D10USA, andrewc@d10usa.com	1. Clear depth from finished wall to inside face of partition is 60". 2. Refer to manufacturers standard sizing. 3. Refer to manufacturers standard sizing. M. Rossio 7/25/23
BP 6 - Prebid RFI 007	Toilet Accessories Clarifications	1. The mirror is listed in the spec as an 18"x36", which is an odd size. Is this correct? More of a stock size would be likely be easier to replace. 2. Please confirm the model number for the mop and broom holder in the spec is correct. It is listed as B-223 which is just the holders. 3. There is no elevation in the men's and women's restrooms for architectural, but was able to find an elevation on the interiors 9C on I403. They show a mirror above all 3 sinks in the women's bathroom but not in the men's. Should a mirror be provided at the men's ADA sink? 4. The bathrooms with sinks/soap/paper towels/mirrors outside the bathroom, areas 143/243/127/227. Please advise on the mirror sizes and the paper towel dispensers. It appears that there are two paper towel dispensers, but they are labeled #8 as in Soap Dispensers, and then the mirrors are labeled #11 as the 18"x36" mirrors however in some interior elevations you can see they are shown as full-length mirrors. Please advise. 5. The spec mentions a curved shower rod. Can you please confirm this is correct? Is a straight shower rod acceptable? Andrew Crimmins, D10USA, andrewc@d10usa.com	1. The mirror shown on A 401 and section 10 2800 page 3 is 18 x 34 inches. 2. Drawing 2 on A401 shows just a mop and broom holder with no shelf, so B-223 is correct. 3. No. The mirror at Mens 157 ADA sink is intentionally omitted due to sight line concerns. 4. There are no mirrors in these rooms, walls are partial height. Soap and paper towel dispensers are labeled correctly, they are owner provided. 5. A straight shower curtain rod is acceptable. -D Heaton 7/26/2023
BP 6 - Prebid RFI 009	FERO Brackets	Detail 4/5605 shows FERO thermal release brackets and undefined brick ledger. Please confirm who is responsible for these. Scott Bruce, Van Dellen Steel, sbruce@vandellensteel.com	BC 10 Masonry is responsible for the FERO brackets and BC 11 Metals is responsible for the angle. BC 10 Masonry is responsible to install the bracket and angle.
BP 6 - Prebid RFI 015	BC 18 -Aluminum Glass & Glazing	1. Please confirm which Bid Category needs to supply glass and glazing for the material listed below. · Hollow Metal Doors · Hollow Metal Sidelite Frames · Hollow Metal Borrowed Lites · Wood Doors 2. Please confirm Bid Category 18 will supply the RFP Doors. Mike Blanford, S.A. Morman & Co., mblanford@samorman.com	1. BC 18 - Aluminum glass and glazing will supply glazing for the hollow metal doors, hollow metal sidelite frames, hollow metal borrowed lites and wood doors. 2. BC 18 - Aluminum glass and glazing is to supply the RFP doors.



Building Since 1891
Owen-Ames-Kimball Co.

Printed on Thu Jul 27, 2023 at 03:21 pm EDT

Job #: 1090-B PPS - B - Haverhill Elementary School
6633 Haverhill Ave
Portage, Michigan 49024
2693236200

#	Subject	Question	Official Response
	Scope Clarification		

**Portage Public Schools – Haverhill Elementary School BP 6: Construction
Pre-Bid Meeting Minutes
July 25th 2023, 2:00pm**

1. Introductions

Michele Rossio TowerPinkster
Dan Rathburn Owen-Ames-Kimball Co.
Anastasia Wojcik Owen-Ames-Kimball Co.
Mike Hoeksema Owen-Ames-Kimball Co.

2. Safety

- a. All roads and entrances must remain open.
- b. Contractors must follow proper safety procedures. Contractor safety manuals/books must be on-site.
- c. Contractors must provide their own first aid and fire protection equipment.
- d. Contractors are responsible for providing the necessary barricades for their work.
- e. Contractors must comply with the "Right to Know" law.
- f. Contractors are responsible for their own security.
- g. Contractors must comply with O-A-K's substance abuse policy.
- h. No Smoking on School Property.
- i. No pictures are to be taken during school hours.
- j. Contractors to stay out of occupied areas.
- k. No radios, boom boxes, I-pods, etc.... will be allowed on the construction site.

3. Monthly Invoices

- a. Monthly invoices must be submitted to O-A-K by the 20th of each month. Contractors must invoice on AIA forms G702 & G703.
- b. There will be a 10% retainage on invoices. After contracts are 50% or more completed, remaining invoices will be paid in full if so, requested in writing and approved by the project team.
- c. If contractors' invoice for stored material not stored on-site, the invoice must be accompanied with an insurance certificate for that material.
- d. Performance and payment bonds, as well as certificates of insurance, must be on file prior to receiving progress payments.

4. Insurance

- a. Contractors must provide insurance certificates as per specifications. Insurance certificates must indicate the Owner, Architect, and C.M. as additional insured on a per project basis.
- b. Contractors must provide a 30 days notice of cancellation.
- c. Insurance must be on file 10 days after receipt of Notice of Pending Award.

5. Testing, Permits, Inspections

- a. Testing will be by the Owner.
- b. All necessary permits and inspections are the responsibility of each contractor.

6. Site Constraints

- a. Maintaining a clean site is mandatory.
- b. Construction traffic to use designated access roads only.
- c. Construction trailers and staging will be coordinated with OAK Superintendent – Tim Robinson

7. Temporary Services

- a. Temporary toilet facilities will be supplied by the Owner.
- b. Existing electrical services will be available for use. Contractors are to provide their own GFI protection.
- c. Existing water services will also be available for use.

8. Layout

- a. Each contractor is responsible for their own layout, the C.M. will assist.

9. Bid Forms

- a. Contractors are reminded to fill in all required items on the bid forms.
- b. If there are costs associated with an alternate, it must be listed on the bid form.
- c. Voluntary Alternates are encouraged - list accordingly on the bid form.
- d. Please note that there are Alternates.
- e. Familial Disclosure Statement must be signed and notarized.
- f. Bids shall be submitted for the complete project (all phases).

10. Shop Drawings and Submittals:

- a. All correspondence must be addressed to:
Deb King
Owen-Ames-Kimball Co.
300 Ionia Ave NW
Grand Rapids, MI 49503
E-mail: debk@oakmi.com
- b. Contractors are required to send and receive submittals and shop drawings electronically. All Submittals will be returned electronically.
- c. Successful bidders maybe asked in the "Notice of Pending Award" to submit manpower and shop drawing schedule.

11. Document Questions

- a. All questions regarding the bid documents, schedule, or procedure must be addressed to Dan Rathburn
Email: Danr@oakmi.com
- b. Please do not submit RFI's through Building Connected.
- c. Requests for Information must be submitted by August 2nd, 2023, noon. If an RFI is received after the cutoff period, it will not be answered prior to the bid date. RFI's will be answered in Addendum #1 and #2.

12. Addenda

- a. Addendum #1 will include the pre-bid meeting minutes.

13. Schedules / Key Topics:

- a. Start date is 9/4/2023
- c. Precast starting 11/20/2023
- d. Masonry walls starting 10/23/2023
- f. End date is 4/25/2025

14. Bid Details

- a. Tuesday, August 8th, 2023 until noon local time. All bids received after noon will be rejected.
- b. Bids may be mailed to Owen-Ames-Kimball Co. Grand Rapids & Kalamazoo by noon.
- c. If you would like to drop off bids to the offices of Owen-Ames-Kimball Co., Grand Rapids & Kalamazoo they must be received by 12:00 PM August 8th, 2023.
- d. FAXED, EMAILED OR UPLOADED TO BUILDING CONNECTED BIDS WILL NOT BE ACCEPTED
- e. Bid Bonds / Certified Checks

15. General Notes

- a. Each bidder must submit their bid per the plans, specifications, and construction management booklet. If your bid varies from these documents, you must submit the variance as a voluntary alternate with your base bid matching the bid documents.
- b. Each contractor must supply sufficient manpower.
- c. Storage will be allowed on site for each phase of construction only while in construction.
- d. The schedule does not change if alternates are accepted.

17. Site Visit

- a. Please reach out to Mike Hoeksema mikeh@oakmi.com for a scheduled site visit.

18. Comments and Questions

Thank you for attending. Good luck with your bid!

Attendance:

Jeff Bos – Hoekstra Roofing Company - jeff@hoekstraroofting.com
Jason Bertch – Hi-Tech Electric - Jbertch@hi-techelectric.net
Robert Lankford – Hi-Tech Electric - Rlankford@hi-techelectric.net
Dean Chance -Brigade Fire Protection - dchance@brigadefire.com
Jeremy Bosman – Sinclair Recreation - jeremy@sinclair-rec.com
Tim Lasher – Clark Contracting Services – tlasher@clarkcc.com
Dave Phillips – ElectroMedia Inc. - DPhillips@electromediainc.com
Matthew Higgins – Amcomm Telecommunications Inc. - mhiggins@amcomminc.com
Jake Theurer – Triangle Associates - jaket@triangle-inc.com
Matt Hazelhoff – Hazelhoff Builders - matt@hazelhoffbuilders.com
Nate Wertenberger – R.W.LaPine Inc - nwertenberger@rwapine.com
Alex Santiago – MetalTech – alex@metaltech.com
Andrew Clemens – Circuit Electric – Andrew.clemens@circuitelectric.com
Josh Leary – Summit Fire Protection Jleary@summitfire.com
Nick Gosdzinski – Feyen Zylstra – nickg@fzcorp.com
Adam Wolthuis – Mall City Mechanical – awolthuis@mcm-team.com
John Gosner – Mall City Mechanical – jgonser@mcm-team.com
Ken Pluta – A-1 Refrigeration – kpluta@a1refrig.com
Ben Kendra – Kendra IT – ben@kendrait.com