

3/17/2025 9:56:05 AM

7

6

5

4

3

2

1

DESIGN CRITERIA NOTES:

1. The intended design standards and/or criteria are as follows:
General: Uniform statewide bldg. code (IBC 2018, Chapter 16 as amended)
Concrete: ACI 318-14
Masonry: TMS 402/602-16
Structural Steel: ANSI/AISC 360-16 A.S.D., (15th Edition)
Metal Deck: SDI-17
Cold-Formed Metal: AISI S100-16, A.S.D.
Foundations: Geotechnical Investigation and Report completed by Earth Engineering Inc., dated September 12, 2024 (EEI project no. 35037.00).

2. Design gravity dead loads used in the design of this structure are as follows (refer to IBC 2018 section 1606):
Roof 20 PSF Max. 12 PSF Min.
Existing Elevated Floors 45 PSF
New Elevated Floors 65 PSF
All other Floors Actual weight

3. Design gravity live loads used in the design of this structure are as follows (refer to IBC 2018 section 1607):
Roof 20 PSF
Classrooms 40 PSF
CFS Partition allowance 15 PSF
Lobbies & Shairs 100 PSF
First Floor Corridors 100 PSF
Area C – Logistics & Carpentry 100 PSF

SHOP DRAWING NOTES:

1. Shop drawings and other items shall be submitted to the engineer for review prior to fabrication. The engineer's review is to be for conformance with the design concept and general compliance with the relevant contract documents. The engineer's review does not relieve the contractor of the sole responsibility to review, check and coordinate the shop drawings prior to submission. The contractor remains solely responsible for errors and omissions associated with the preparation of shop drawings as they pertain to member sizes, details, dimensions, etc.
2. Submit shop drawings as per note #3 below. In no case shall reproduction of the contract drawings be used as shop drawings. As a minimum, submit the following items for review:
A. Steel connection details and delegated design calculations.
B. Concrete mix design(s).
C. Reinforcing steel shop drawings.
D. Structural steel shop drawings.
E. Metal decking shop drawings.
F. Cold-formed steel framing shop drawings and delegated design calculations.
G. Metal stair and guardrails shop drawings and delegated design calculations.
3. Other submittals may be required per the "Schedule of Special Inspections" or the separate notes contained herein.

3. Contractor shall submit electronic shop drawings. Any additional shop drawings submitted will not be reviewed or returned.

4. Contractor shall submit a schedule indicating when each set of shop drawings will be submitted to the architect/engineer prior to any shop drawing submission.

5. All notes or questions from the detailer to the engineer or architect shall be clouded, numbered and with the text "Arch/Engr. review." Any notes or questions from the detailer to the contractor shall be clouded, numbered and with the text "G.C. Review."

6. All shop drawings shall be reviewed by the contractor before submittal to the engineer or architect. Shop drawings will be rejected if the contractor has not reviewed the shop drawings prior to submittal to engineer or architect.

7. For all structural steel shop drawings, the contractor is to follow the submittal schedule below:
A. Anchor bolt plans shall be submitted first, reviewed and returned prior to,
B. Erection plan submission. The erection plan submission must address all comments from the anchor bolt submission or it will be rejected without review. Erection plan submission must be reviewed and returned prior to,
C. Detail sheet submission. The detail sheet submission must address all comments from the erection plan submission or it will be rejected without review. Approved erection plans shall be submitted with the detail sheet submission.

8. The contractor shall produce all shop drawings. Copying, scanning and/or reusing any portion of the structural drawings as part of the shop drawings submittal is not permitted. Submittals that include reproduced portions of the structural drawings will be rejected without review.

GENERAL STRUCTURAL NOTES:

1. The structural drawings shall be used in conjunction with the drawings of all other disciplines and the specifications. The contractor shall verify the requirements of other trades as to sleeves, chases, hangers, inserts, anchors, holes and other items to be placed or set in the structural work.

2. The contractor shall be responsible for complying with all safety precautions and regulations during the work. The engineer will not advise on nor issue direction as to safety precautions and programs.

3. The structural drawings herein represent the finished structure. The contractor shall provide all temporary guying, shoring, and bracing required to erect and hold the structure in proper alignment until all structural work and connections have been completed. The investigation, design, safety, adequacy and inspection of erection bracing, shoring, temporary supports, etc. is the sole responsibility of the contractor.

4. The engineer shall not be responsible for the methods, techniques and sequences of procedures to perform the work. The supervision of the work is the sole responsibility of the contractor.

5. Drawings indicate general and typical details of construction. Where conditions are not specifically shown, similar details of construction shall be used, subject to approval by the engineer.

6. All structural systems which are to be composed of components to be field erected shall be supervised by the supplier during manufacturing, delivery, handling, storage and erection in accordance with the supplier's instructions and requirements.

7. Contractor shall provide all temporary supports required for stability and for resistance to wind and seismic forces until the structure is capable of providing this support. Contractor to refer to A.I.S.C. steel design guide #10, "Erection bracing of low-rise structural steel frames" and to the National Concrete Masonry Association technical guide #03-04C, "Bracing concrete masonry walls under construction".

8. Loading applied to the structure during the process of construction shall not exceed the safe load-carrying capacity of the structural members. The live loadings used in the design of this structure are indicated in the "Design Criteria Notes". Do not apply any construction loads until structural framing is properly connected together and until all temporary bracing is in place.

9. All ASTM and other references are per the latest editions of these standards, unless otherwise noted.

10. In accordance with Section 1704 of IBC 2018, special inspections will be required for this project. Special inspections shall be performed in accordance with the "Schedule of Special Inspections". All fabricators shall satisfy the "Exception" noted in section 1704.2.5.1, which requires the fabricator to maintain an agreement with an approved independent inspection or quality control agency. The contractor shall notify the special inspector of least 48 hours in advance for work that will require inspection or testing

11. Unless otherwise indicated, all items noted to be demolished shall become the contractor's property and be removed from the site.

12. Contractors shall visit the site prior to bid to ascertain conditions which may adversely affect the work or cost thereof.

13. Dimensions shown on the architectural drawings shall govern over dimensions shown on the structural drawings. The contractor shall generate an RFI regarding discrepancies prior to construction.

Area C – Storage Mezzanine 125 PSF
Elevated Floor Corridors 80 PSF

4. The structure has been designed as Risk Category III in accordance with IBC 2018 table 1604.5.

5. Design lateral live loads used in the design of this structure, in accordance with Chapters 11 through 31 of ASCE 7-16, are as follows:
Wind – Ultimate, main system: 122 mph, Exposure B, Iw = 1.0
Wind – Ultimate, components: 122 mph, Exposure B, Iw = 1.0

Seismic: SDS = 0.191g, SD1 = 0.075g, Design Cat. B, Ie = 1.0, Site Class D

Area A1:

- A. Steel moment frames W/ "pinned" based columns: Cs = 0.0796, R = 3, Base Shear = 316 Kips
Area B2 & B3:

- A. Steel moment frames W/ "pinned" based columns: Cs = 0.0796, R = 3, Base Shear = 69 Kips
B. Reinforced concrete masonry shear walls: Cs = 0.1193, R = 2, Base Shear = 104 Kips

Area C:

- A. Steel moment frames W/ "pinned" based columns: Cs = 0.0796, R = 3, Base Shear = 273 Kips
B. Reinforced concrete masonry shear walls: Cs = 0.1193, R = 2, Base Shear = 409 Kips

6. Design snow loads used in the design of this structure, in accordance with Chapter 7 of ASCE 7-16, are as follows:
Pg (ground snow load) = 25 PSF, Ce = 1.0, Is = 1.0, Ct = 1.0
Pf (flat roof) = 25 PSF, Cs = 1.0

- Pd (windward drift on flat roof due to parapets) = See 1/5-0.1 for more information.
Pd (windward/leeward drift on flat roof) = See 1/5-0.1 for more information.

7. The lateral load resisting system of this building consists of:

A. Steel moment frames w/ "pinned" based columns

Area B2 & B3 – Steel moment frames w/ "pinned" based columns & reinforced concrete masonry shear walls

Area C – Steel moment frames w/ "pinned" based columns & reinforced concrete masonry shear walls.

8. This structure has been designed with "safety factors" in accordance with generally accepted principles of structural engineering. The fundamental nature of the "safety factor" is to compensate for uncertainties in the design, fabrication and erection of structural building components. It is intended that "safety factors" be used so that the load carrying capacity of the structure does not fall below the design load and that the building will perform under design load without distress. While the use of "safety factors" implies some excess capacity beyond design load, such excess capacity cannot be adequately predicted and SHALL NOT BE RELIED UPON.

EXISTING CONSTRUCTION NOTES:

1. Before proceeding with any work within the existing facility, the contractor shall familiarize himself with existing structural and other conditions. It shall be the contractor's responsibility to provide all necessary bracing, shoring and other safeguards to maintain all parts of the existing work in a safe condition during the process of demolition and construction and to protect from damage those portions of the existing work which are to remain.

2. The contractor shall field verify the dimensions, elevations, etc. necessary for the proper construction and alignment of the new portions of the work to the existing work. The contractor shall make all measurements necessary for fabrication and erection of structural members. Any discrepancy shall be immediately brought to the attention of the engineer.

3. Welding to and within an existing facility presents potential hazards, including:
A. Fire hazard – due to the existing construction and building contents.
B. Structural liquefaction – due to welding across the full section of structural steel members.
Recommendations to prevent these hazards include:
A. Fire hazard – protect existing combustibles prior to welding. Keep a separate watchman and several fire extinguishers on hand.
B. Structural liquefaction – weld in small increments. Allow welds to harden before continuing to the next increment.
C. Do not leave the site until satisfied that no fire hazard exists.

4. Information used in preparing these drawings was taken from drawings prepared by the firm of H. A. Kuljian & Company, dated September 30, 1966.

5. The contractor shall be responsible for the design and erection of all shoring necessary to safeguard the existing structure. Any shoring shown is a partial and schematic representation of that required. The contractor shall submit a detailed plan for shoring, bracing and protection of the existing construction. The plan shall include a construction sequence, design calculations, bear the seal of a professional engineer registered in the state of the project and be submitted to the engineer for review prior to beginning the work.

DEMOLITION NOTES:

1. The contractor is to obtain and pay for all necessary permits for the demolition and removal work required.

2. Demolition procedures, shoring requirements, sequences, techniques, etc. either given in or implied to by these drawings are suggestions only.

3. Prior to undertaking any demolition work, the contractor shall ascertain, by survey, the existing conditions of the property and the extent of the demolition work involved.

4. The contractor shall perform all demolition work in such a manner as to protect the existing structure and be responsible to properly repair any damage which may occur as a result of his demolition work. If the contractor damaged the existing structure to remain, he shall notify the owner and engineer immediately and for all repair costs, including design and inspection expenses.

5. The contractor shall cease demolition operations and notify the owner and engineer immediately if it appears that the integrity of the structure has been affected by the demolition work.

6. The contractor shall not cut or alter any structural members to remain without written authorization by the engineer or as indicated on the structural drawings.

7. All existing dimensions (distances, elevations, member sizes, etc.) shown on the drawings shall be verified in the field by the contractor.

8. The contractor shall provide a temporary platform to catch debris from slab removal. Do not allow resulting debris to accumulate in the work area. All debris shall be disposed of in a legal manner with as little disturbance to adjacent spaces and occupants as possible.

9. Cutting of existing concrete slabs shall be performed in a neat professional manner. Drill corners and saw cut straight lines around the perimeter of the new opening.

SUBGRADE PREPARATION NOTES:

1. All site preparation shall conform to the requirements of IBC 2018 Chapter 18 and the Geotechnical Report completed by Earth Engineering Inc. dated September 12, 2022 (EEI project no. 35037.00).

2. Within an area a minimum of 10 feet beyond the new/existing building limits, excavate a minimum of 4" of existing soil. Remove all organics, pavement, roots, debris and otherwise unsuitable material.

3. The surface of the exposed subgrade shall be inspected by probing or testing to check for pockets of soft or unsuitable material. Excavate unsuitable soil as directed by the geotechnical engineer/testing agency.

4. Proofroll the surface of the exposed subgrade with a smooth-drum vibratory roller having a minimum static-weight of 10 tons. Remove all soils which pump or do not compact properly as directed by the geotechnical engineer/testing agency.

5. Fill all excavated areas with approved controlled fill. Place in 8 inch loose lifts (6 inch lifts where compaction by hand-operated equipment is required) and compact to a minimum of 95% of the maximum dry density in accordance with ASTM D-1557 (98% for ASTM D698).

6. All controlled fill material shall be a select granular material free from all organics or otherwise deleterious material. Refer to the Geotechnical Report for additional information.

7. Provide field density tests for each 3,000 s.f. of building area for each lift of controlled fill.

FOUNDATION NOTES:

1. All foundation construction shall conform to the requirements of IBC 2018 Chapter 18 and the Geotechnical Report completed by Earth Engineering Inc. dated September 12, 2024 (EEI project no. 35037.00).

2. All footings have been designed based upon an assumed soil bearing pressure of 3,000 psf. All footings shall bear on undisturbed, firm natural soil or compacted fill. All foundation excavations shall be evaluated by the geotechnical engineer/testing agency prior to pouring foundation concrete.

3. Top of footing elevation shall be as shown on the foundation plan. These elevations are a maximum and shall be lowered as required to obtain the required design bearing pressure or lowered below new or existing utilities per typical details.

4. All foundation concrete shall obtain a 28 day compressive strength of 3,000 psi. All concrete to be permanently exposed to weather shall be air entrained to 5% (±1%) with an admixture that conforms to ASTM C-260.

5. All concrete work shall conform to the requirements of ACI 301, "Specification for Structural Concrete Buildings". Hot weather concreting shall be in accordance with ACI 305. Cold weather concreting shall be in accordance with ACI 306.

6. All reinforcing steel shall conform to ASTM A-615, Grade 60. Reinforcing shall be detailed and installed per ACI 315 and CRSI Manual of Standard Practice.

7. Unless otherwise noted, the following concrete cover shall be provided for reinforcement.

- A. Concrete cast against and permanently exposed to earth: 3"
B. Concrete exposed to earth or weather:
#6 through #18 bars: 2"
#5 bar, W31 or D31 wire and smaller: 1-1/2"

8. All reinforcing marked continuous (cont.) on the plans and details shall be lapped 36bar diameters of splices unless otherwise noted.

9. No unbalanced backfilling shall be placed against foundation walls unless walls are securely braced against overturning, either by temporary bracing or by permanent construction.

10. Prior to commencing any foundation work, coordinate work with any existing utilities. Foundations shall be lowered where required to avoid utilities.

11. Unless otherwise noted, the centerlines of column foundations shall be located on column centerlines.

12. All retaining walls shall have at least 12" of free-draining granular backfill, full height of wall. Provide control joints in retaining walls at approximately equal intervals not to exceed 25 feet nor 3 times the wall height. Provide expansion joints at every fourth control joint, unless otherwise indicated.

13. All wall and column footings are to be side formed. Earth forms are not permitted.

SLAB ON GRADE NOTES:

1. Slab-on-grade construction shall conform to the requirements of ACI 301, "Specification for Structural Concrete Buildings" and IBC 2018 Section 1907 and the Geotechnical Report completed by Earth Engineering Inc. dated September 12, 2024 (EEI project no. 35037.00).

2. Provide concrete slabs as indicated on plans over a 15 mil polyethylene vapor barrier and 4" of porous fill as follows:
Automotive Garage Areas: 6" slab reinforced with 6x6 – W2.9xW2.9 welded wire fabric and with 4000 psi mix concrete.
All Other Areas: 4" slab reinforced with 6x6 – W1.4xW1.4 welded wire fabric and with 4000 psi mix concrete
Maximum slump for all concrete slabs shall be 5 inches, using type I cement.

3. All welded wire fabric shall be in accordance with ASTM A-1064. Lap adjoining pieces of least one full mesh.

4. All porous fill material shall be a clean granular material with 100% passing a 1-1/2" sieve and no more than 5% passing a no. 4 sieve. Porous fill shall be compacted to 95% max. dry density per ASTM D-698.

5. Slab joints shall be filled with approved material. This should take place as late as possible, preferably 4 to 6 weeks after the slab has been cast. Prior to filling, remove all debris from the slab joints, then fill in accordance with the manufacturer's recommendations as follows:
6" slabs – fill with epoxy resin
Other slabs – fill with field molded or elastomeric sealant

6. Unless otherwise approved, all welded wire fabric shall be blocked into the position indicated with precast concrete blocks having a compressive strength equal to that of the slab.

7. Walkways and other exterior slabs are not indicated on the structural drawings. See the site plan and architectural drawings for locations, dimensions, elevations, jointing details and finish details. Provide 4" walks reinforced with 6x6 – W1.4xW1.4 WWF unless otherwise noted.

8. Slabs to be permanently exposed to weather shall be air entrained to 5% (±1%) with an admixture that conforms to ASTM C-260.

9. All concrete work shall conform to the requirements of ACI 301, "Specification for Structural Concrete Buildings". Hot weather concreting shall be in accordance with ACI 305. Cold weather concreting shall be in accordance with ACI 306.

10. In order to avoid concrete shrinkage cracking, the maximum length of slab cast in any one continuous pour is recommended to be less than 100 feet. The maximum spacing of joints shall be 12'.

11. The alternate wires of the welded wire fabric must be pre-cut at the slab contraction joint locations to create a "weakened plane". Without cutting the alternate wires, the strength of the wire will prevent the slab from cracking (separating) at the joint and the slab may begin to crack elsewhere.

12. The use of polypropylene fibers (in lieu of welded wire fabric) is prohibited without the written authorization of the engineer.

13. See the architectural drawings for exact locations of depressed slab areas and drains. Slope slab to drains where shown.

16. The finish tolerance of all slabs shall be in accordance with ACI 302, Section 8.4.

17. Slabs shall be constructed in accordance with the following flatness/levelness requirements:
Slab Category Specified Local Minimum
Flat F_s = 35, F_L = 30 F_L = 24, F_L = 20
Floor flatness and levelness tests shall be conducted by the owner in accordance with ASTM E 1155. Results, including acceptance or rejection of the work will be provided to the contractor within 48 hours after data collection. Remedies for out of tolerance work shall be in accordance with the specifications.

CAST-IN-PLACE CONCRETE NOTES:

1. Concrete mixes shall be designed per ACI 301, using Portland cement conforming to ASTM C-150 or C-595, aggregate conforming to ASTM C-33, and admixtures conforming to ASTM C-494, C-1017, C-618, C-389 and C-260. Concrete shall be ready-mixed in accordance with ASTM C-94.

2. Concrete shall conform to the following compressive strength, slump and water/cement ratio requirements:

Concrete	Min. f'c (28 days)	Slump*	W/C ratio
Columns & Piers	4000 psi	2" to 4"	.46
Elevated Slabs	4000 psi	2" to 4"	.46
Concrete not noted	3000 psi	2" to 4"	.50
Foundation	See Fdn. Notes	2" to 4"	.50
Slabs-on-grade	See "Slab-on-Grade Notes"		.50

- *At contractor's option, an approved admixture may be used to produce flowable concrete. Maximum slump shall not exceed 10 inches. The contractor shall submit test results of the proposed concrete mixes along with the manufacturer's technical data for approval prior to pouring concrete.

3. All concrete work shall conform to the requirements of ACI 301, "Specification for Structural Concrete Buildings" and IBC 2018 Chapter 19. Hot weather concreting shall be in accordance with ACI 305. Cold weather concreting shall be in accordance with ACI 306.

4. All reinforcing steel shall conform to ASTM A-615, grade 60. All welding of reinforcing steel shall be in accordance with AWS D1.4. Reinforcing shall be detailed and installed per ACI 315 and CRSI Manual of Standard Practice.

5. All welded wire fabric (W.W.F.) shall conform to ASTM A-1064.

6. All reinforcing steel shall be set and tied in place prior to pouring of concrete, except that vertical dowels for masonry wall reinforcing may be "floated" in place. Do not field bend bars portially embedded in hardened concrete unless specifically indicated or approved by the engineer.

7. Reinforcing steel, including hooks and bends, shall be detailed in accordance with ACI 315. All reinforcing steel indicated as being continuous (cont) shall be lapped with a type 2 lap splice unless otherwise noted.

8. Unless otherwise noted, the following concrete cover shall be provided for reinforcement:

- A. Concrete exposed to earth or weather:
#6 through #18 bars : 2"
#5 bar, W31 or D31 wire and smaller : 1-1/2"
B. Concrete not exposed to earth or weather:
Walls, elevated slabs (& joists) : 3/4"
Beams and columns : 1-1/2"
C. Foundation concrete (see "Foundation Notes")

9. Bar supports and holding bars shall be provided for all reinforcing steel to insure minimum concrete cover. Bar supports shall be plastic tipped or stainless steel.

10. All edges of permanently exposed concrete surfaces shall be chamfered 3/4" unless otherwise noted.

11. The contractor shall provide the engineer with documentation that all materials conform to the quality standards specified in IBC 2018.

12. In accordance with IBC 2018, special inspections are required for the concrete work. The owner will hire the special inspector to perform all required special inspections.

13. In order to avoid concrete shrinkage cracking, place concrete slabs in an alternating lane pattern. The maximum length of slab cast in any one continuous pour shall be limited to 80 feet.

14. Formwork shall remain in place until concrete has obtained at least 90% of its 28 day compressive strength. The contractor shall provide all shoring and reshoring.

MASONRY NOTES:

1. Masonry construction shall conform to the requirements of the "Building Code Requirements and Specification for Masonry Structures (TMS 402/602-16)", published by The Masonry Society, Longmont, Colorado, and IBC 2018 Chapter 21.

2. Hollow load-bearing masonry units shall conform to ASTM C-90, and be made with normal-weight or light-weight aggregate. The minimum prism compressive strength (f'm) shall be 2,500 psi at an age of 28 days, as determined by the unit strength method of ACI 530.1.

3. Fill all bond beams and reinforced cells solidly with grout. Grout shall conform to ASTM C-476 and shall obtain a min. 28 day compressive strength of 2,500 psi.

4. Reinforcing steel shall be in accordance with ASTM A-615, grade 60. Shop fabricate reinforcing bars which are shown to be hooked or bent. Provide a minimum lap of 48 x bar diameters at all splices, unless indicated otherwise.

5. The use of masonry-cement mortar is strictly prohibited. Mortar shall conform to ASTM C-270, type S. All mortar shall meet the "Proportion Specification" of ASTM C-270 and be made with Portland cement/lime (non air-entrained).

6. Unless otherwise indicated, all walls shall be laid in running bond. Bond corners and intersections of load-bearing walls.

7. Provide vertical reinforcing bars of the given size and spacing as indicated. Provide bars at all wall corners, intersections and opening edges. Masonry walls shall be constructed in accordance with the "low-lift" or "high-lift" methods. "High-lift" masonry construction is limited to specially qualified contractors meeting the following minimum requirements:

- A. Successful completion of at least 3 previous projects that utilized "high-lift" wall construction.
B. Contractor shall submit a detailed "high-lift" wall construction procedure for approval, including the documentation of all personnel who have successfully been trained in "high-lift" masonry construction.

8. Provide rebar dowels from foundations to match vertical reinforcing size and spacing. Dowels shall have standard 90 degree hooks and lap with the first lift of reinforcing.

9. Provide horizontal bond beams with continuous reinforcing as indicated. Discontinue all horizontal reinforcing at control joints except for the bond beams at bearing elevations.

10. Provide standard, galvanized 9 gauge horizontal joint reinforcing at 16" on center in all walls. Provide ladder tie joints reinforcing for all concrete masonry. Coordinate brick tie back requirements with the architectural drawings. Unless otherwise noted, stop all horizontal joint reinforcing at control joints.

11. Provide lintels above all wall openings per typical details and schedule. See the architectural drawings for locations of all door and window openings.

12. Provide steel joist and beam bearing plates and other accessories as indicated. Provide 3 courses of solidly grouted CMU below all beam bearings over a width of 2'-8", centered on the wall, per typ. beam bearing detail on sheet S-3.1.

13. Provide CMU control joints as indicated on the architectural drawings, with additional joints such that the spacing between joints does not exceed a spacing of 3 x wall height (30 feet maximum). Where beams or lintels bear at CMU control joints, offset and lap the vertical reinforcing as indicated.

14. The masonry contractor shall provide all required temporary wall bracing during construction (see "General Structural Notes").

15. Hot weather masonry work shall be in accordance with ACI 530.1. Cold weather masonry work shall be in accordance with ACI 530.1.

ABBREVIATIONS			
Ø	AT	K	KIPS
Ø	DIAMETER	L	ANGLE
2X	TWO BY	(LLH)	LONG LEG HORIZONTAL
(4)	QUANTITY OF 4	(LLV)	LONG LEG VERTICAL
A.B.	ANCHOR BOLT	LOC.	LOCATION
A.P.	ANCHOR POINT	LONG	LONG
ADD'L	ADDITIONAL	L.F.D.	LOAD & RESISTANCE FACTOR DESIGN
ADJ.	ADJACENT	LSL	LAMINATED STRAND LUMBER
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LVL	LAMINATED VENEER LUMBER
AL	ALUMINUM	M.A.	MASONRY ANCHOR
ARCH.	ARCHITECT/ARCHITECTURAL	MAX.	MAXIMUM
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	MIN.	MINIMUM/MINIMIZE
AWS	AMERICAN WELDING SOCIETY	MANF.	MANUFACTURER
BCX	BOTTOM CHORD EXTENSION	MECH.	MECHANICAL
BEL	BELOW	M.O.	MASONRY OPENING
BLKG.	BLOCKING	MTL	METAL
BM.	BEAM	(N)	NEW
BOT.	BOTTOM	N.S.	NEAR SIDE
B.O.	BOTTOM OF	N.S.G.	NON-SHRINK GROUT
BTWN.	BETWEEN	O.C.	ON CENTER
C	CHANNEL	OPNG.	OPENING
CFSP	COLD-FORMED STEEL FRAMING	OPP.	OPPOSITE
C.C.	CENTER/COLUMN LINE	P.C.	PRE-CAST
CLR.	CLEAR	PL	PLATE</

GENERAL STRUCTURAL NOTES

STRUCTURAL STEEL NOTES:

1. All structural steel shall conform to the AISC "Manual of Steel Construction" (15th Edition) and IBC 2018 Chapter 22.
2. Unless otherwise noted, all materials shall be in accordance with the following ASTM specifications:
- | Member | ASTM | Fy (Min. Strength) |
|------------------|-------------------------------|--------------------|
| W and WT | A992 | 50 KSI |
| C and MC | A36/A992 | 36 KSI/50 KSI |
| Angles | A36 | 36 KSI |
| HSS (Rectangle) | A500 (Gr. C) | 50 KSI |
| HSS (Round) | A500 (Gr. C) | 46 KSI |
| Steel pipe | A53 (Gr. B) | 35 KSI |
| Pipes/shapes | A36/A572 (Gr. 50) | 36 KSI/50 KSI |
| Connection bolts | F3125 (Gr. A325) | 90 KSI (Fu) |
| Anchor bolts | F1554 (Gr. 55, Supplement S1) | 55 KSI |
| Threaded rods | A36 | 36 KSI |
| Non-shrink grout | C1107 | 8000 PSI |

3. All connections shall be shear type connections and designed by a professional engineer registered in the state of the project retained by the fabricator as per the beam reactions shown on the drawings and the AISC specifications. The fabricator shall submit schematic connection details, signed and sealed connection design calculations and a letter prepared by the connection design engineer stating the shop drawings were reviewed prior to submittal for review & approval. Minimum bolt diameter shall be 3/4". Unless otherwise noted all bolts shall be shear/bearing type bolts and be "snug-tight".

4. All welding shall be in accordance with AWS D1.1 using E70XX electrodes. Unless otherwise noted, provide cont. min. sized fillet welds per AISC requirements. All filler material shall have a minimum yield strength of 70 KSI.

5. Holes in steel shall be drilled or punched. All slotted holes shall be provided with smooth edges. Burning of holes and torch cutting at the site is not permitted.

6. Unless otherwise noted, all structural steel permanently exposed to view shall be shop painted with one coat of SSPC 15-68, type 1 (red oxide) paint.

7. The structural steel erector shall provide all temporary guying and bracing (see General Structural Notes).

8. Columns, anchor bolts, base plates, etc. have been designed for the final completed condition and have not been investigated for potential loadings encountered during steel erection and construction. Any investigation of the columns, anchor bolts, base plates, etc. for adequacy during the steel erection and construction process is the sole responsibility of the contractor.

9. Unless otherwise noted, all structural steel permanently exposed to the weather, including all lintels in exterior walls, shall be hot-dipped galvanized in accordance with ASTM A153.

10. Protective coatings damaged during the transporting, erecting and field welding processes shall be repaired in the field to match the shop applied coating.

11. Finish welds shall be ground smooth and free of burrs.

12. Finished galvanized surfaces shall be smooth and free of galvanized paint bead build up from multiple layer applications.

13. The Owner will hire an independent testing agency to provide special inspections of bolting, welding and other items in accordance with IBC 2018, Section 1704.

14. Provide angle frames at all roof openings and mechanical rooftop units per typical details on sheet S-3.2.

ROOF/NONCOMPOSITE FLOOR DECK NOTES:

1. All metal deck shall be manufactured and erected in accordance with the latest edition of the "Design Manual for Composite Decks, Form Decks and Roof Decks" by the Steel Deck Institute (SDI) and IBC 2018 Chapter 22.

2. All roof decking shall be 1-1/2" deep, 22 gauge, wide rib deck (min. $I_y = 0.16 \text{ in}^4 / \text{Ft}$ and $S_y = 0.19 \text{ in}^3 / \text{Ft}$) spanning perpendicular to supports. Connect with mechanical fasteners or 5/8" dia. puddle welds and mechanically fastened sideclips per the "typical roof deck attachment detail".

3. All floor decking shall be 9/16" x 24 gauge form deck (min. $I_y = 0.390 \text{ in}^4 / \text{Ft}$ and $S_y = 0.332 \text{ in}^3 / \text{Ft}$) with a 3" normal weight concrete slab reinforced with 6x6-W1.4xW1.4 welded wire fabric (W.W.F.). Fasten metal floor deck to steel supports with mechanical fasteners or 5/8" dia. puddle welds at 12" o/c. Fasten floor deck sideclips in accordance with the supplier's recommendations.

4. All welded wire fabric shall be in accordance with ASTM A 1064, centered in slab. Concrete shall have a minimum 28 day compressive strength of 4000 psi. Concrete shall have a max. slump of 4" and max. aggregate size of 1/2" unless otherwise noted.

5. All metal deck welding shall be in accordance with American Welding Society specification D1.3. Provide welding washers for all floor deck welds.

6. Suspended ceilings, light fixtures, ducts and other permanent suspended loads shall not be supported by the metal decking.

7. All roof decking shall be painted. Floor decking shall be galvanized. All deck welds shall be touched up with paint (galvanizing repair paint for galvanized decks).

8. Submit detailed shop drawings prior to fabrication showing layout, types of metal deck units, connection details, accessories and other related items. Refer to "Shop Drawing Notes" section for additional requirements.

9. Roof deck sideclips shall be attached at ends of cantilevers and at a maximum spacing of 12" o/c from cantilevered roof deck ends. The roof deck must be completely attached to the supports and at the sideclips before any load is applied to the cantilever.

COMPOSITE DECKING SYSTEM NOTES:

1. The floor decking of this building has been designed in accordance with the AISC allowable stress design specifications for unshored, partial composite construction.

2. All composite steel decking shall be:
- Type 1.5 VL, 20 gauge, as manufactured by Conam, or approved equal.
 - Designed in accordance with the composite steel floor deck specifications of the Steel Deck Institute (SDI).
 - Fabricated from steel sheet conforming to ASTM A1008 or A653 (or equal) having a minimum yield strength of 33 KSI.
 - Galvanized by the hot-dip process conforming to ASTM A653 class 060 or 090.
 - Erected in accordance with SDI specifications. Anchor decking as indicated. Minimum bearing of the deck shall be 1-1/2" unless otherwise noted.
 - Welded in accordance with AWS D1.4.

3. Provide steel decking accessories, such as closures, pour stops and fillers as indicated. Accessories shall be 20 gauge unless otherwise noted, and conform to Items 2.8 thru 2.F above.

4. All concrete decking shall be:
- Normal weight with a 28 day compressive strength, f'_c equal to 4,000 psi (unit weight = 145 pcf). Total slab thickness from underside of metal deck to top of finished slab surface shall be as indicated on the drawings.
 - Reinforced with one layer of 6x6-W1.4x1.4 welded wire fabric supported on chairs so it is located 1" clear from the top of the slab.
 - In accordance with ACI 318 and 301 and have a maximum slump of 4 inches. Admixtures containing chlorides are prohibited.

COLD FORMED STEEL FRAMING NOTES:

1. All cold formed steel framing members, their design, fabrication, and erection shall conform to the "Specification for the Design of Cold-Formed Steel Structural Members" of the A.I.S.I. (2012 Ed.) and IBC 2018 Sections 2210 through 2211.

2. Cold-formed framing supplier shall engage a qualified professional engineer to prepare design calculations, shop drawings and other structural data for the panelized framing systems. Refer to "Design Criteria Notes" for design loads.

3. All framing members shall be formed from steel conforming to ASTM A653 with a minimum yield strength as follows:

12, 14 and 16 gauge members: Fy=50 KSI (grade D)

18 and 20 gauge members: Fy=33 KSI (grade A)

4. All framing members shall be galvanized with a G-60 coating meeting the requirements of ASTM A653.

6. Members shall be the manufacturer's standard "C" shaped studs/pilots of the size, flange width, and gauge indicated. All members shall have a minimum flange lip return of 1/2" and satisfy the minimum properties as per "Diefrich Industries", or approved equal.

5. The gauge of all tracks shall be no lighter than the framing being connected. Unless otherwise indicated, connect tracks to concrete with 0.145" dia. power driven fasteners (with 1.25" embedment) at 16" on center.

6. All welding shall be in conformance with American Welding Society specification D1.3. All welds shall be coated with galvanizing repair paint per SSPC-Paint 20 in the shop. No field welds will be permitted.

7. All structural members shall be properly connected to each other and to the supporting back-up framing. Fasteners shall be made with self-tapping screws or welds of sufficient size to insure the connection strength. Unless otherwise noted, connect all members based on loadings per the "Design Criteria Notes".

8. Provide bridging for studs, joists and rafters at midspan and at a maximum spacing not to exceed 6'-0". All bridging shall be installed prior to the addition of any loading. Connect bridging to each member by welding, clip angles or other approved method per the manufacturer's requirements.

9. Provide web stiffeners of joist and rafter bearings in accordance with the manufacturer's requirements.

10. All axially loaded studs shall have full bearing against the inside track web, prior to stud and track alignment. Splices in axially loaded studs are not permitted.

11. Provide the manufacturer's standard track, clip angles, bracing, reinforcements, fasteners and accessories as recommended by the manufacturer for the application indicated and as needed to provide a complete framing system. Unless otherwise noted, install the metal framing system in accordance with the manufacturer's written instructions and recommendations.

12. The contractor shall submit the following for approval:

- Shop Drawings: Submit drawings that show the number, type, location and spacing of all members. All connections and attachments shall be clearly shown as follows:
 - Indicate component details, framed openings, bearing, anchorage, loading, welds, type and location of fasteners, and accessories or items required of related work.
 - Indicate stud layout.
 - Describe method for securing studs to tracks and for framing connections.
 - Submit calculations for loadings and stresses of all framing and connections, under Professional Engineer's seal.
- Refer to "Shop Drawing Notes" section for additional requirements.
- Product Data: Submit data on standard framing members; describe materials and finish, product criteria, limitations.
- Manufacturer's Installation Instructions: Submit special procedures, perimeter conditions requiring special attention.
- Mill Certifications: Submit mill certifications for steel delivered to site. Certify steel bare metal thickness in 0.001 inch, yield strength, tensile strength, total elongation in 2 inch or 8 inch gage length, chemical analysis, and galvanized coating thickness.

13. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.

15. Design panelized framing systems to withstand design loads without deflections greater than the following:

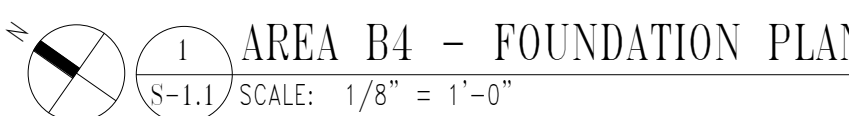
- Exterior Load-Bearing Walls: Lateral deflection of 1/360 of the wall height.
- Interior Load-Bearing Walls: Lateral deflection of 1/240 of the wall height.
- Exterior Nonload-Bearing Curtnwalls: Lateral deflection of 1/360 of the wall height (1/600 for walls with masonry veneer).

D. Floor Joist Framing: Vertical deflection of 1/480 for live loads and 1/360 for total loads of the span.

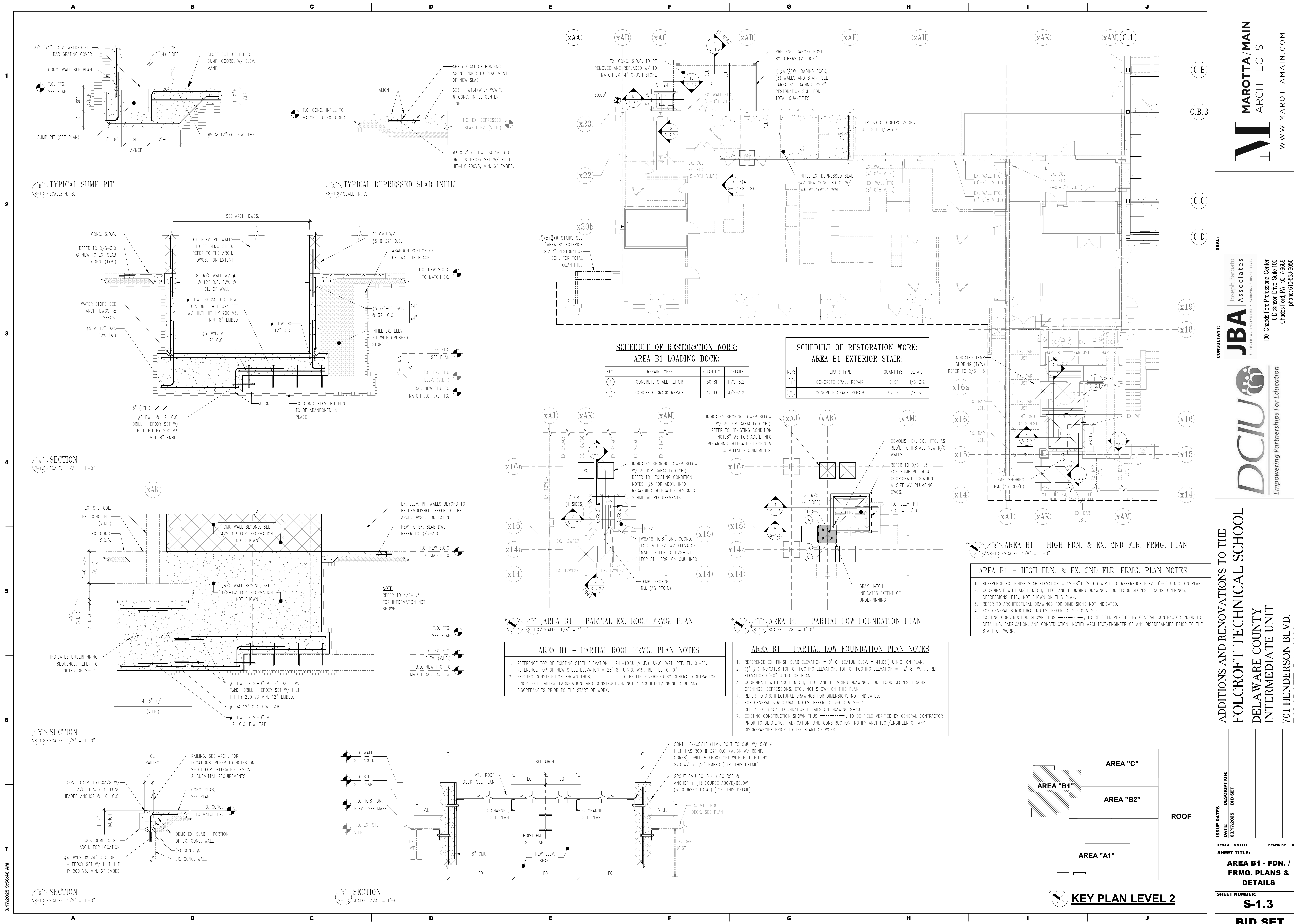
E. Roof Rafter Framing: Horizontal deflection of 1/360 of the horizontally projected span.

F. Ceiling Joist Framing: Vertical deflection of 1/360 of the span.

14. Unless otherwise noted, provide double (minimum) jack studs at all beam and header bearings. Connect jack studs with intermittent welds per cold formed shop drawings.



- 
- ## KEY PLAN LEVEL 1



3/17/2025 9:56:46 AM

3/17/2025

MM2111

RF/ESR

DESCRIPTION:

BID SET

ISSUE DATES

DATE: 03/17/2025

SHEET TITLE:

AREA B1 - FDN. / FRMG. PLANS & DETAILS

SHEET NUMBER:

S-1.3

ADDITIONS AND RENOVATIONS TO THE

FOLCROFT TECHNICAL SCHOOL

DELAWARE COUNTY

INTERMEDIATE UNIT

701 HENDERSON BLVD.

FOLCROFT, PA 19032

CONSULTANT:

JBA Associates

STRUCTURAL ENGINEERS - ACHIEVING A HIGHER LEVEL

100 Chadds Ford Professional Center

6 Dickinson Drive, Suite 103

Chadds Ford, PA 19317-9699

phone: 610-559-6050

www.JBarbato.com

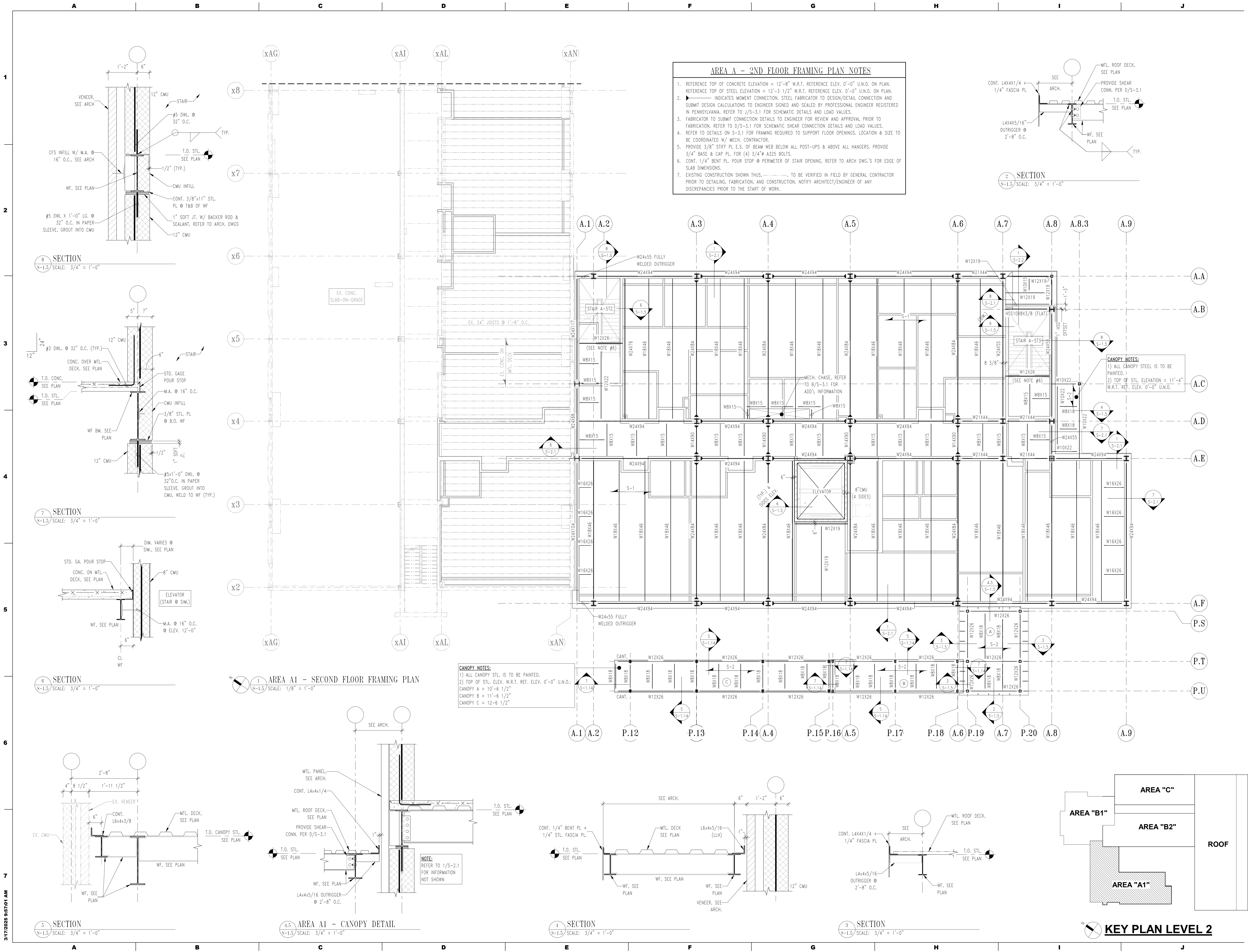
SEAL:

Joseph Barbato

ARCHITECTS

MAROTTA/MAIN

WWW.MAROTTAMAIN.COM



3/17/2025 9:57:01 AM

ISSUE DATES

DATE: 03/17/2025

PROJ # : MM2111

SHEET TITLE:

AREA A1 - SECOND FLR. FRMG PLAN

SHEET NUMBER:

BID SET

DESCRIPTION:

BID SET

DRAWN BY: RF/ESR

ADDITIONS AND RENOVATIONS TO THE FOLCROFT TECHNICAL SCHOOL DELAWARE COUNTY INTERMEDIATE UNIT 701 HENDERSON BLVD. FOLCROFT, PA 19032

DCIU Empowering Partnerships For Education

CONSULTANT:

JBA Associates

100 Chadds Ford Professional Center 6 Dickinson Drive, Suite 103 Chadds Ford, PA 19317-9699 phone: 610-558-6050 www.JBarbato.com

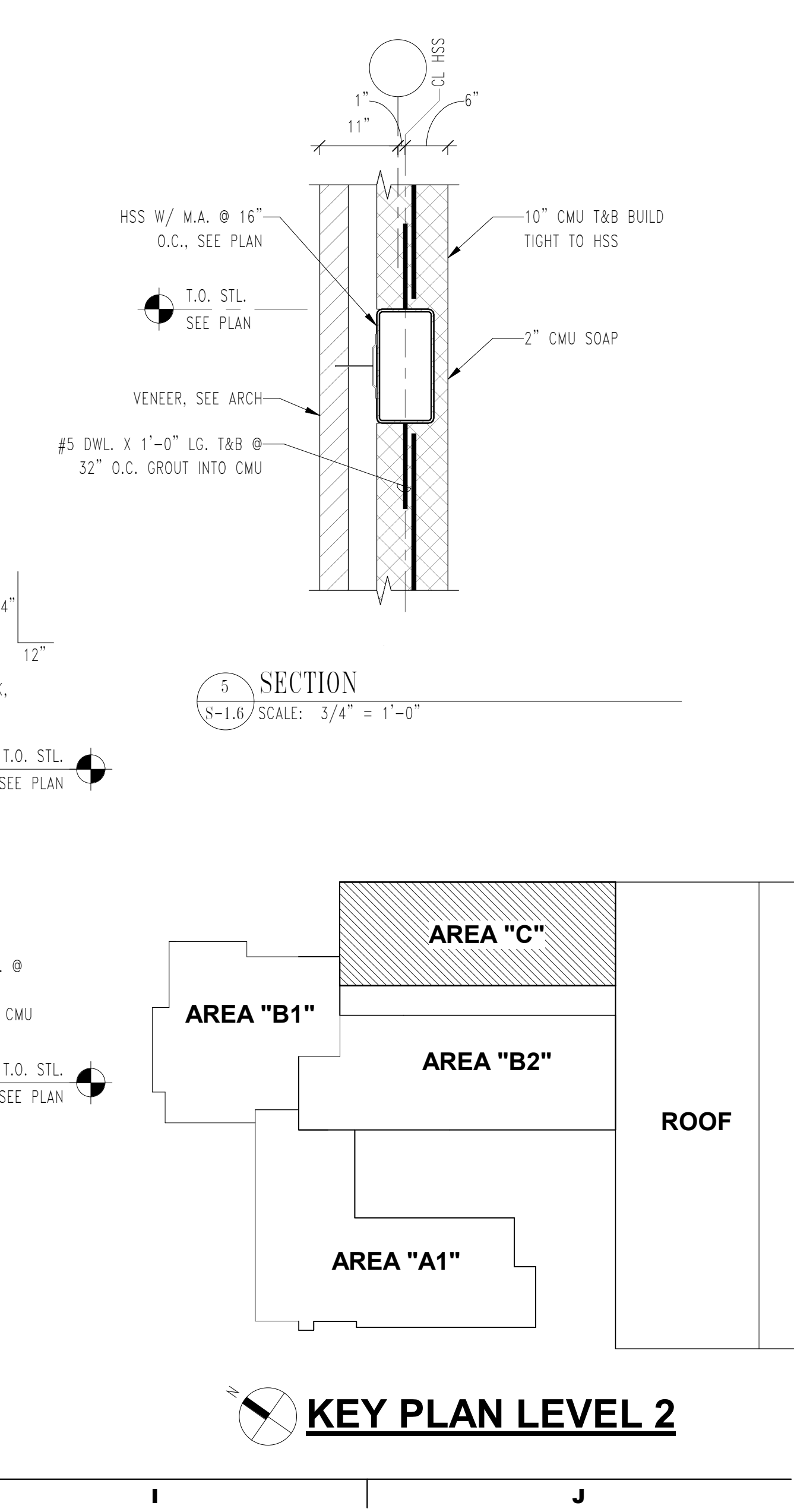
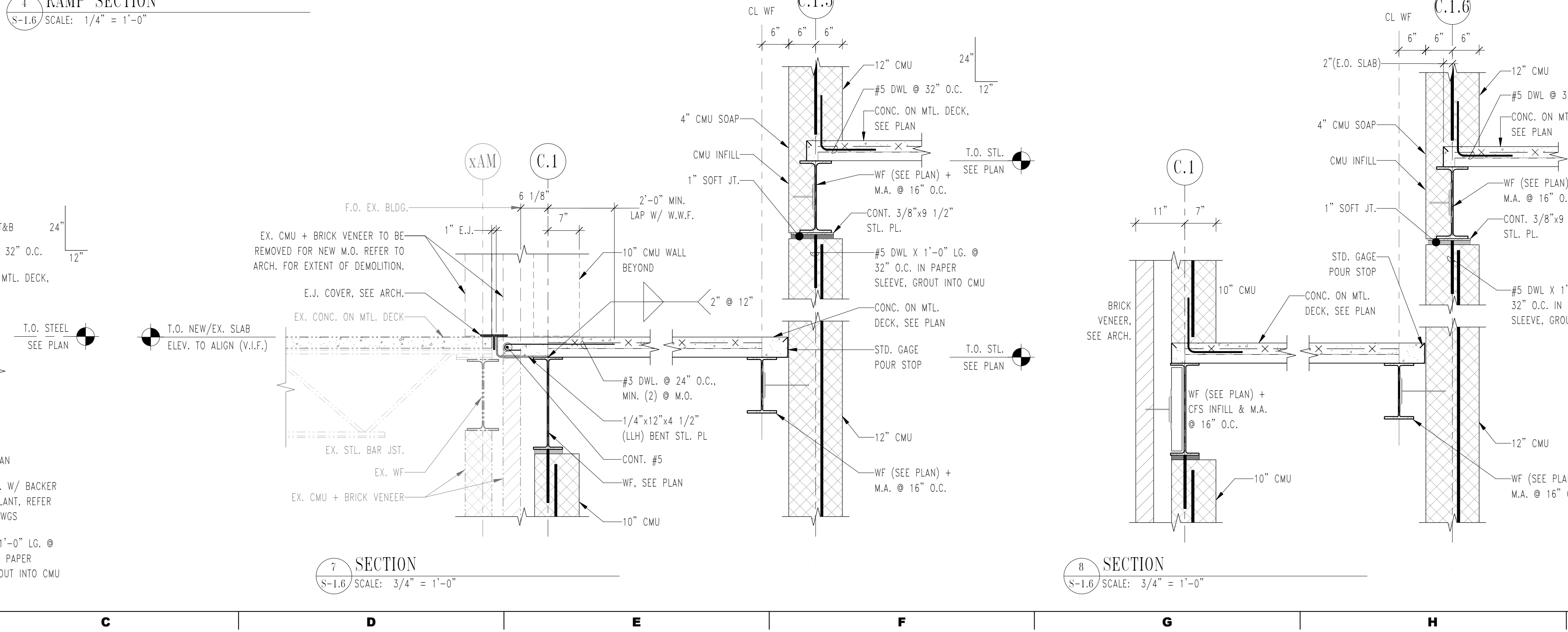
SEAL:

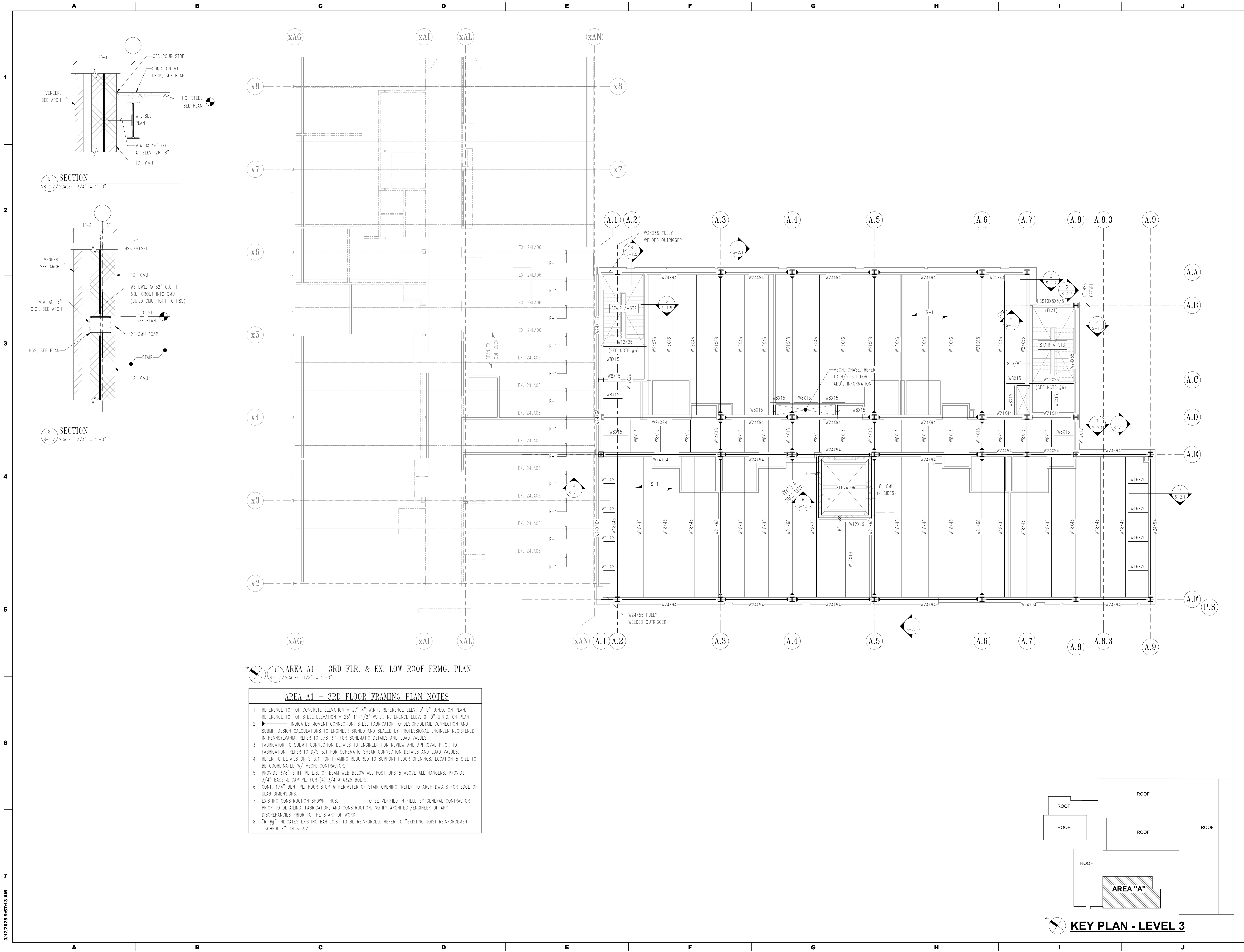
Joseph Barbato Associates

STRUCTURAL ENGINEER - PROVIDING A HIGHER LEVEL

MAROTTA/MAIN ARCHITECTS

WWW.MAROTTAMAIN.COM

[illegible]

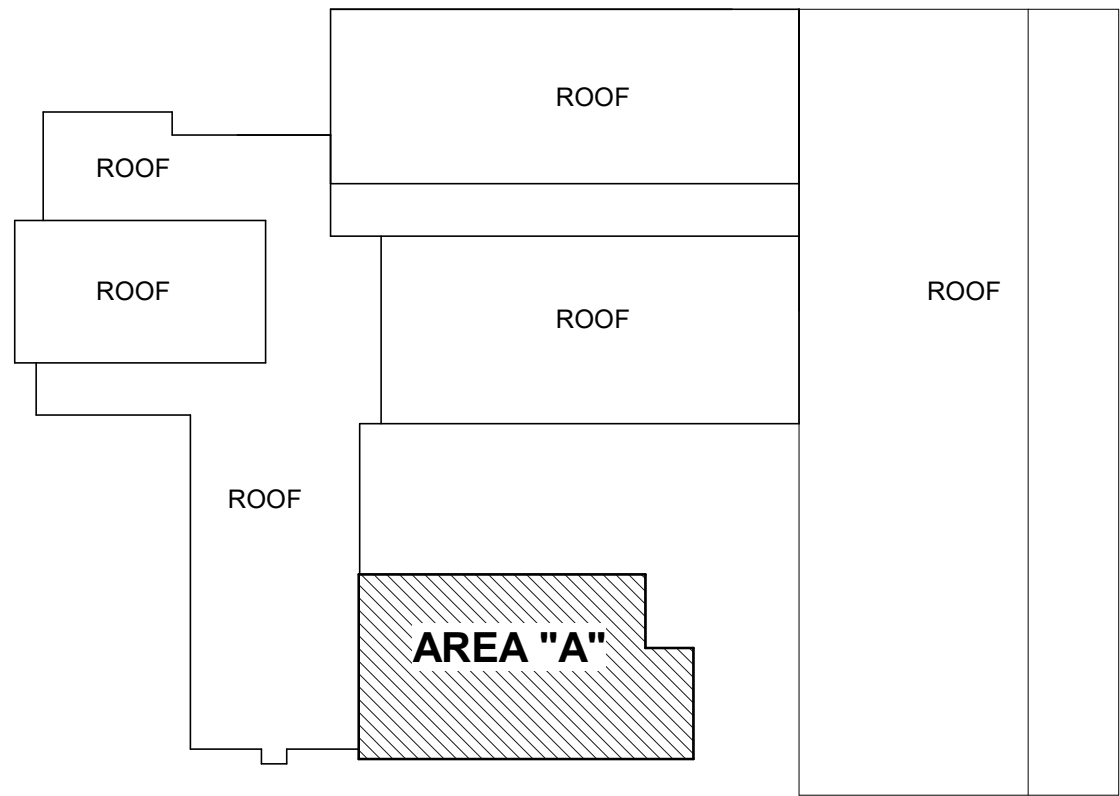


3/17/2025 9:57:13 AM

1 AREA A1 - 3RD FLR. & EX. LOW ROOF FRMG. PLAN
SCALE: 1/8" = 1'-0"

AREA A1 - 3RD FLOOR FRAMING PLAN NOTES

- REFERENCE TOP OF CONCRETE ELEVATION = 27'-4" W.R.T. REFERENCE ELEV. 0'-0" U.N.O. ON PLAN. REFERENCE TOP OF STEEL ELEVATION = 26'-11 1/2" W.R.T. REFERENCE ELEV. 0'-0" U.N.O. ON PLAN.
- INDICATES MOMENT CONNECTION. STEEL FABRICATOR TO DESIGN/DETAIL CONNECTION AND SUBMIT DESIGN CALCULATIONS TO ENGINEER SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA. REFER TO J/S-3.1 FOR SCHEMATIC DETAILS AND LOAD VALUES.
- FABRICATOR TO SUBMIT CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. REFER TO D/S-3.1 FOR SCHEMATIC SHEAR CONNECTION DETAILS AND LOAD VALUES.
- REFER TO DETAILS ON S-3.1 FOR FRAMING REQUIRED TO SUPPORT FLOOR OPENINGS. LOCATION & SIZE TO BE COORDINATED W/ MECH. CONTRACTOR.
- PROVIDE 3/8" STIFF PL E.S. OF BEAM WEB BELOW ALL POST-UPS & ABOVE ALL HANGERS. PROVIDE 3/4" BASE & CAP PL. FOR (4) 3/4" A325 BOLTS.
- CONT. 1/4" BENT PL. POUR STOP @ PERIMETER OF STAIR OPENING. REFER TO ARCH DWG.'S FOR EDGE OF SLAB DIMENSIONS.
- EXISTING CONSTRUCTION SHOWN THUS:-----, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.
- "R-##" INDICATES EXISTING BAR JOIST TO BE REINFORCED. REFER TO "EXISTING JOIST REINFORCEMENT SCHEDULE" ON S-3.2.



KEY PLAN - LEVEL 3

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES	DESCRIPTION
DATE:	BID SET
03/17/2025	
PROJ #:	MM2111
DRAWN BY:	RF / ESR
SHEET TITLE:	
AREA A1 - THIRD FLR. & LOW ROOF FRMG. PLAN	
SHEET NUMBER:	

S-1.7
BID SET

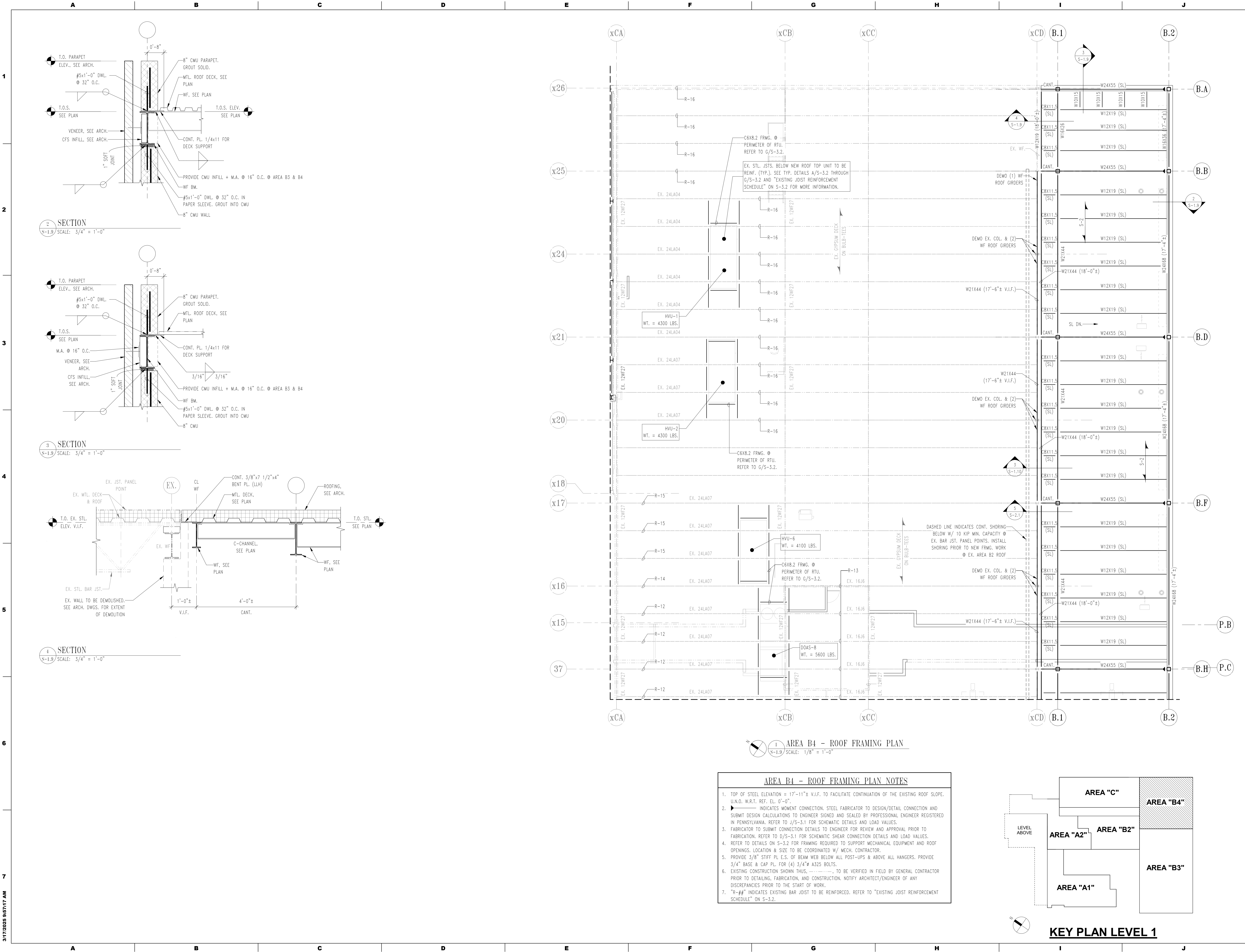
SEAL:
CONSULTANT:
JBA Associates
Joseph Barbato
STRUCTURAL ENGINEER - ARCHITECT A HIGHER LEVEL
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-556-6050
www.JBarbato.com

DCIU
Empowering Partnerships For Education

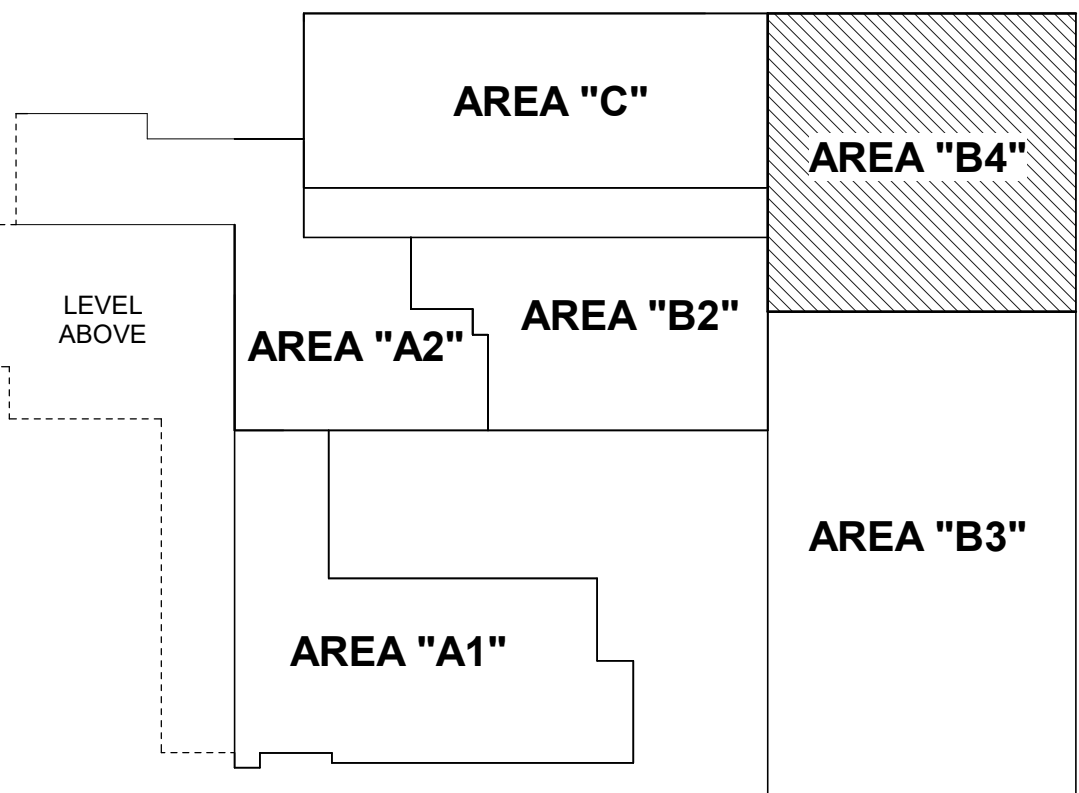
MAROTTA/MAN
ARCHITECTS
WWW.MAROTTAMAIN.COM

THIS DRAWING IS THE PROPERTY OF THE
FIRM. IT IS TO BE USED ONLY FOR THE
PROJECT AND SITE SPECIFICALLY
IDENTIFIED. NO PART OF THIS
DRAWING IS TO BE REPRODUCED OR
TRANSMITTED IN ANY FORM WITHOUT
WRITTEN PERMISSION.

3/17/2025 9:57:17 AM



- AREA B4 - ROOF FRAMING PLAN NOTES**
- TOP OF STEEL ELEVATION = 17'-11"± V.I.F. TO FACILITATE CONTINUATION OF THE EXISTING ROOF SLOPE. (UNO. W.R.T. REF. EL. 0'-0").
 - INDICATES MOMENT CONNECTION. STEEL FABRICATOR TO DESIGN/DETAIL CONNECTION AND SUBMIT DESIGN CALCULATIONS TO ENGINEER SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA. REFER TO J/S-3.1 FOR SCHEMATIC DETAILS AND LOAD VALUES.
 - FABRICATOR TO SUBMIT CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. REFER TO D/S-3.1 FOR SCHEMATIC SHEAR CONNECTION DETAILS AND LOAD VALUES.
 - REFER TO DETAILS ON S-3.2 FOR FRAMING REQUIRED TO SUPPORT MECHANICAL EQUIPMENT AND ROOF OPENINGS. LOCATION & SIZE TO BE COORDINATED W/ MECH. CONTRACTOR.
 - PROVIDE 3/8" STIFF PL E.S. OF BEAM WEB BELOW ALL POST-UPS & ABOVE ALL HANGERS. PROVIDE 3/4" BASE & CAP PL. FOR (4) 3/4" A325 BOLTS.
 - EXISTING CONSTRUCTION SHOWN THUS, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.
 - "R-##" INDICATES EXISTING BAR JOIST TO BE REINFORCED. REFER TO "EXISTING JOIST REINFORCEMENT SCHEDULE" ON S-3.2.



ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES	DESCRIPTION
DATE: 03/17/2025	BID SET
PROJ # : MM2111	DRAWN BY : RF / ESR
SHEET TITLE:	

**AREA B4 - ROOF
FRAMING PLAN**

SHEET NUMBER:

S-1.9

BID SET

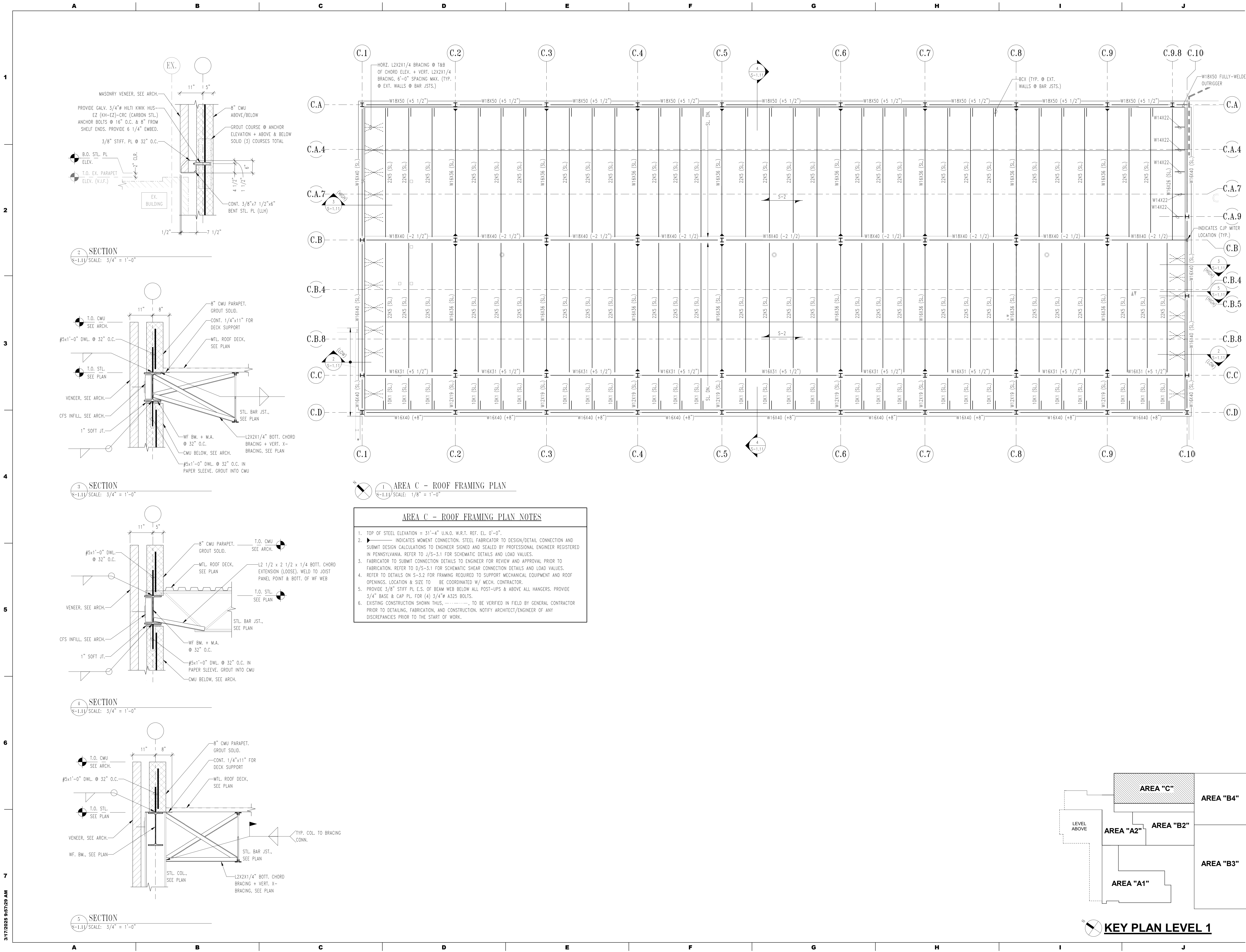
CONSULTANT:
JBA
Joseph Barbato
Associates
STRUCTURAL ENGINEERS • ACHIEVING A HIGHER LEVEL
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-558-6050
www.JBarbato.com

DCIU
Empowering Partnerships For Education

MAROTTA/MAIN
ARCHITECTS
WWW.MAROTTAMAIN.COM

THIS DRAWING IS THE PROPERTY OF THE ARCHITECT. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY NOTED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT WRITTEN PERMISSION.





AREA C - ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

AREA C - ROOF FRAMING PLAN NOTES

- TOP OF STEEL ELEVATION = 31'-4" U.N.O. W.R.T. REF. EL. 0'-0".
- INDICATES MOMENT CONNECTION. STEEL FABRICATOR TO DESIGN/DETAIL CONNECTION AND SUBMIT DESIGN CALCULATIONS TO ENGINEER SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA. REFER TO J/S-3.1 FOR SCHEMATIC DETAILS AND LOAD VALUES.
- FABRICATOR TO SUBMIT CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. REFER TO D/S-3.1 FOR SCHEMATIC SHEAR CONNECTION DETAILS AND LOAD VALUES.
- REFER TO DETAILS ON S-3.2 FOR FRAMING REQUIRED TO SUPPORT MECHANICAL EQUIPMENT AND ROOF OPENINGS. LOCATION & SIZE TO BE COORDINATED W/ MECH. CONTRACTOR.
- PROVIDE 3/8" STIFF PL E.S. OF BEAM WEB BELOW ALL POST-UPS & ABOVE ALL HANGERS. PROVIDE 3/4" BASE & CAP PL FOR (4) 3/4" A325 BOLTS.
- EXISTING CONSTRUCTION SHOWN THUS, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.

KEY PLAN LEVEL 1

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES	DESCRIPTION
DATE: 03/17/2025	BID SET
PROJ #1: MM2111	DRAWN BY: RF/ESR
SHEET TITLE:	AREA C - BASE BID./ DEDUCT ALT. 1 & 2 ROOF FRMG. PLAN
SHEET NUMBER:	S-1.11

CONSULTANT:
JBA Associates
Joseph Barbato
STRUCTURAL ENGINEER - ARCHITECT A HIGHER LEVEL
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-558-6050
www.JBarbato.com

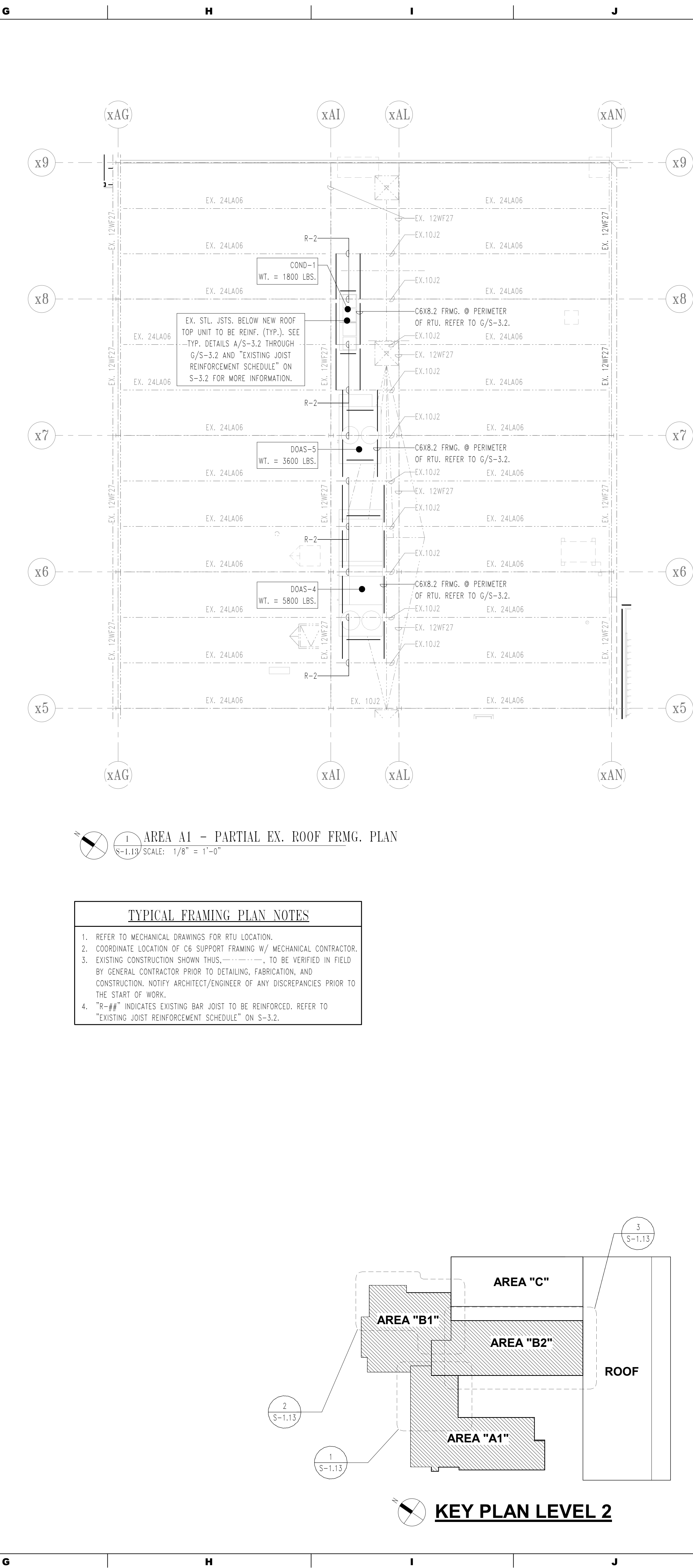
SEAL:

DCIU
Empowering Partnerships For Education

MAROTTA/MAIN ARCHITECTS
WWW.MAROTTAMAIN.COM

THIS DRAWING IS THE PROPERTY OF THE FIRM. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT WRITTEN PERMISSION.





ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
7701 HENDERSON BLVD.
FOLCROFT, PA 19032

The logo for DCIU (District Council of Independent Schools) features the letters 'DCIU' in a large, bold, sans-serif font. Above the 'U' is a circular emblem containing three stylized human figures of varying heights, representing a family or a group. Below the 'DCIU' text is a horizontal line, and underneath that line is the tagline 'Empowering Partnerships For Education' in a smaller, italicized sans-serif font.

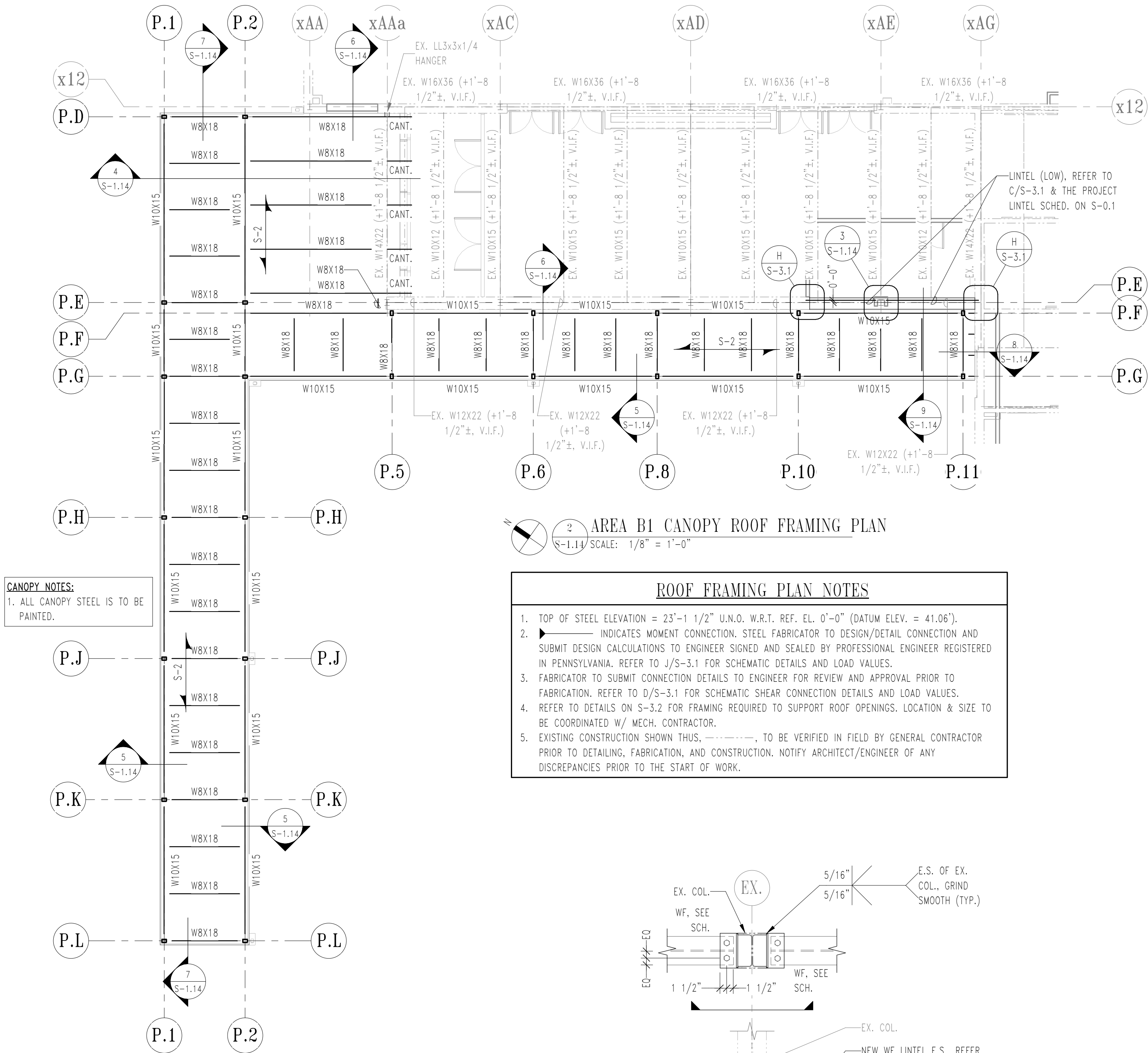


MAROTTA/MAIN
ARCHITECTS

WWW.MAROTTAMAIN.COM

[illegible]

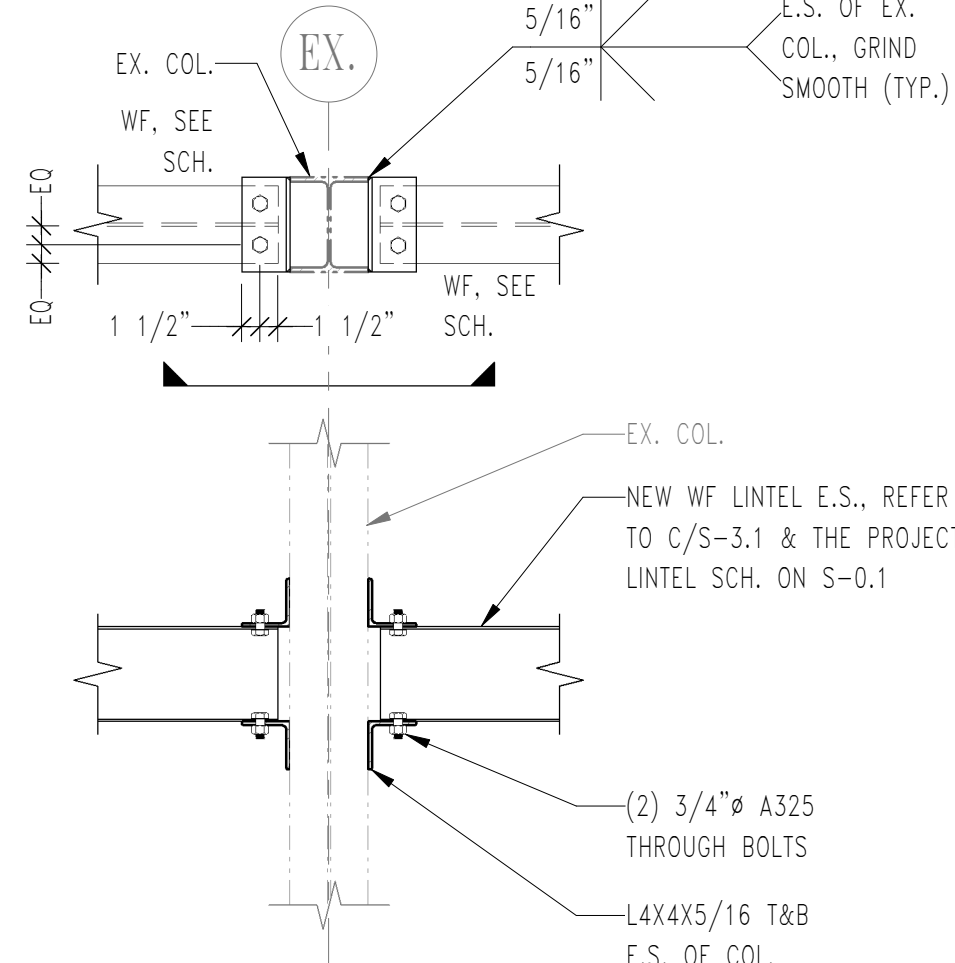
3/17/2025 9:57:41 AM



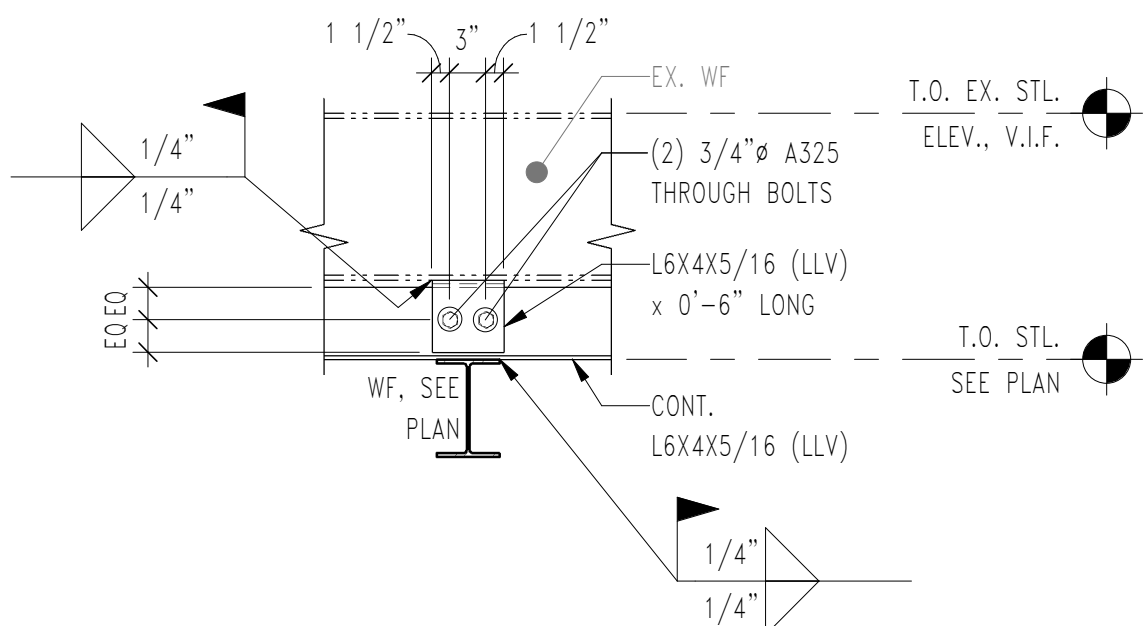
AREA B1 CANOPY ROOF FRAMING PLAN
1/8" = 1'-0"

ROOF FRAMING PLAN NOTES

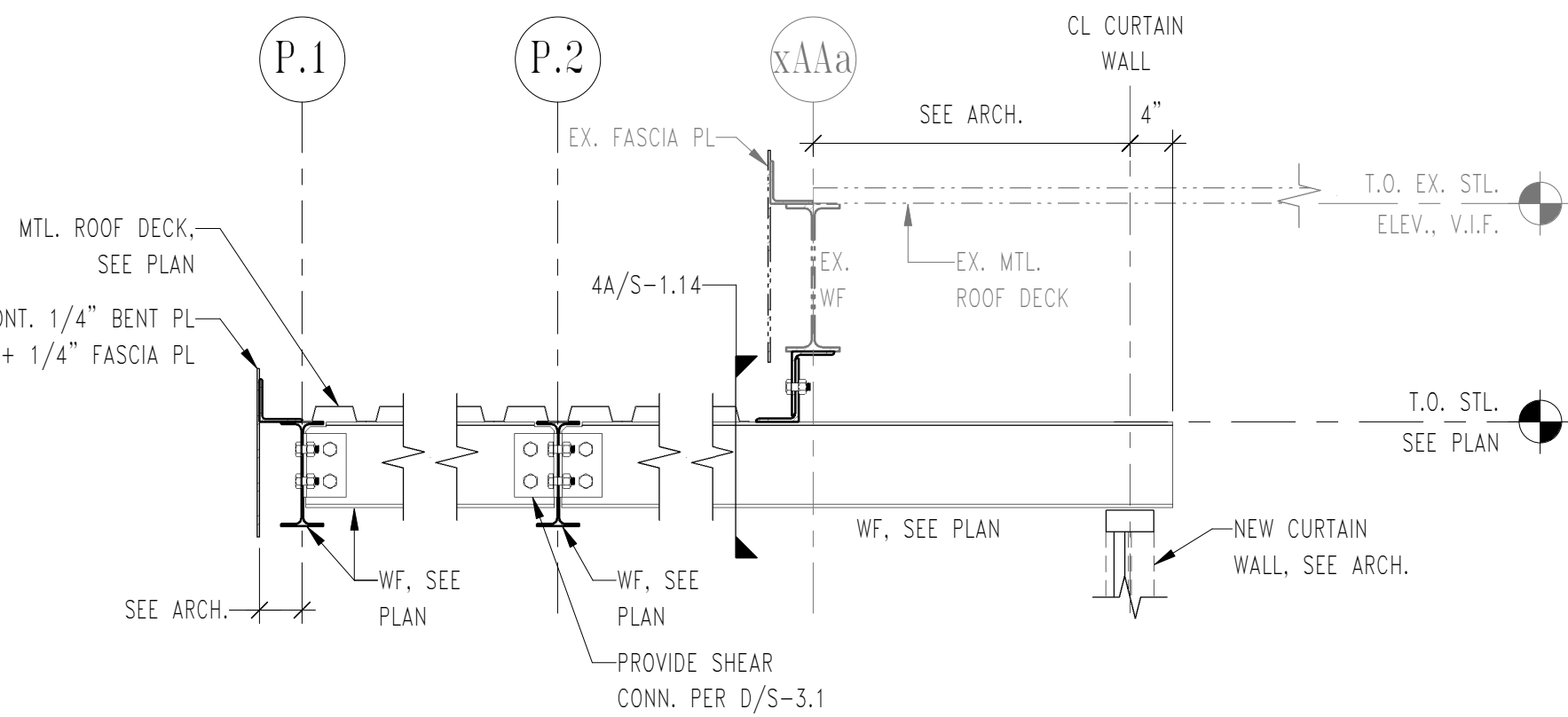
- TOP OF STEEL ELEVATION = 23'-1 1/2" U.N.O. W.R.T. REF. EL. 0'-0" (DATUM ELEV. = 41.06').
- INDICATES MOMENT CONNECTION. STEEL FABRICATOR TO DESIGN/DETAIL CONNECTION AND SUBMIT DESIGN CALCULATIONS TO ENGINEER SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA. REFER TO J/S-3.1 FOR SCHEMATIC DETAILS AND LOAD VALUES.
- FABRICATOR TO SUBMIT CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. REFER TO D/S-3.1 FOR SCHEMATIC SHEAR CONNECTION DETAILS AND LOAD VALUES.
- REFER TO DETAILS ON S-3.2 FOR FRAMING REQUIRED TO SUPPORT ROOF OPENINGS. LOCATION & SIZE TO BE COORDINATED W/ MECH. CONTRACTOR.
- EXISTING CONSTRUCTION SHOWN THUS, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.



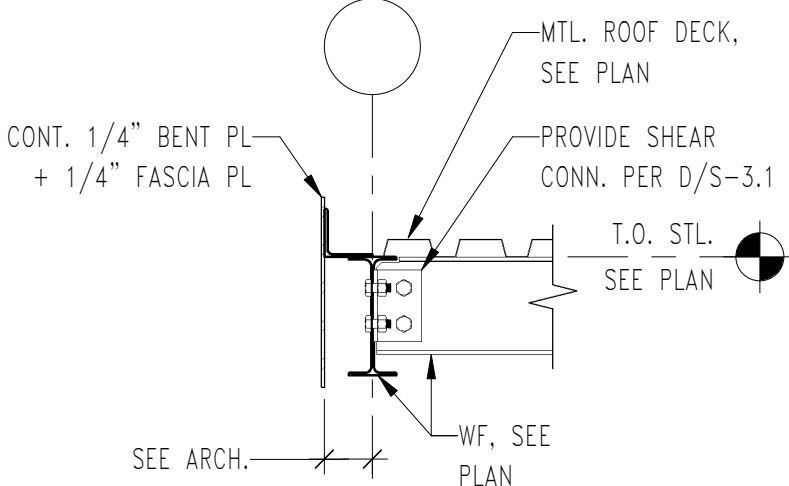
SECTION 3
3/4\"/>



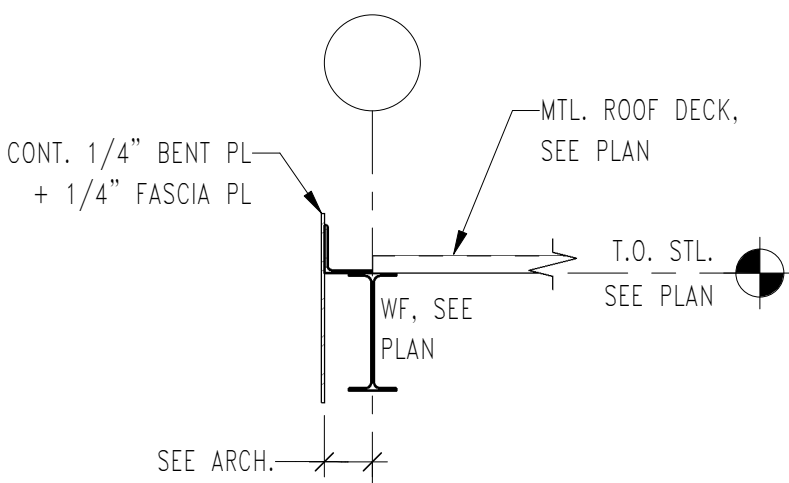
SECTION 4A/S-1.14:



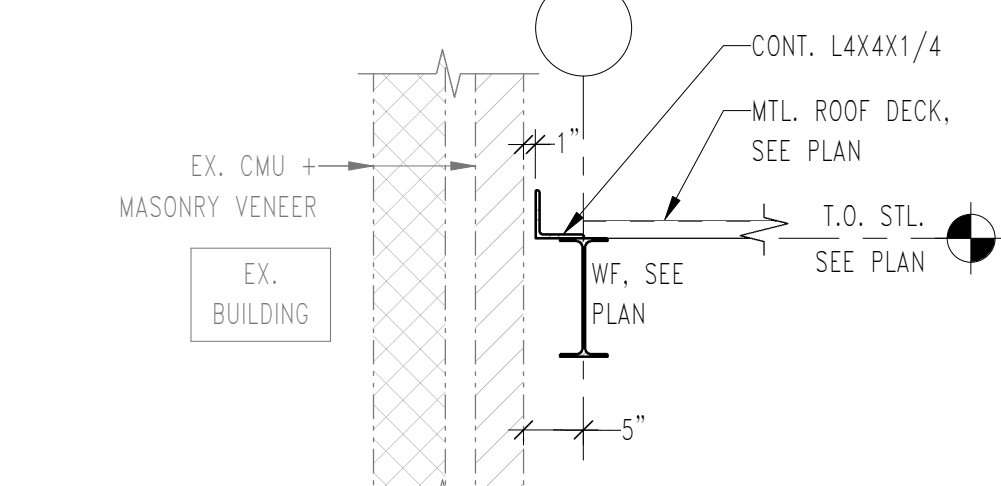
SECTION 4
3/4\"/>



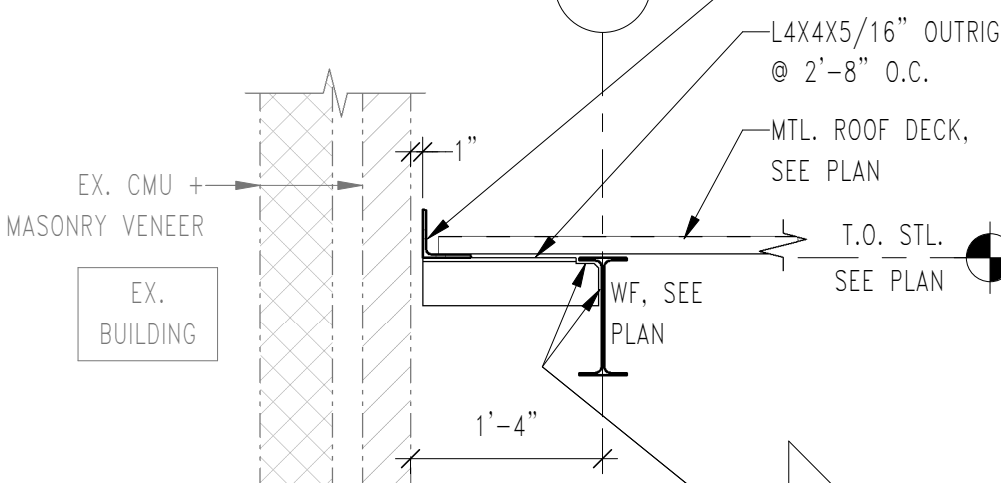
SECTION 5
3/4\"/>



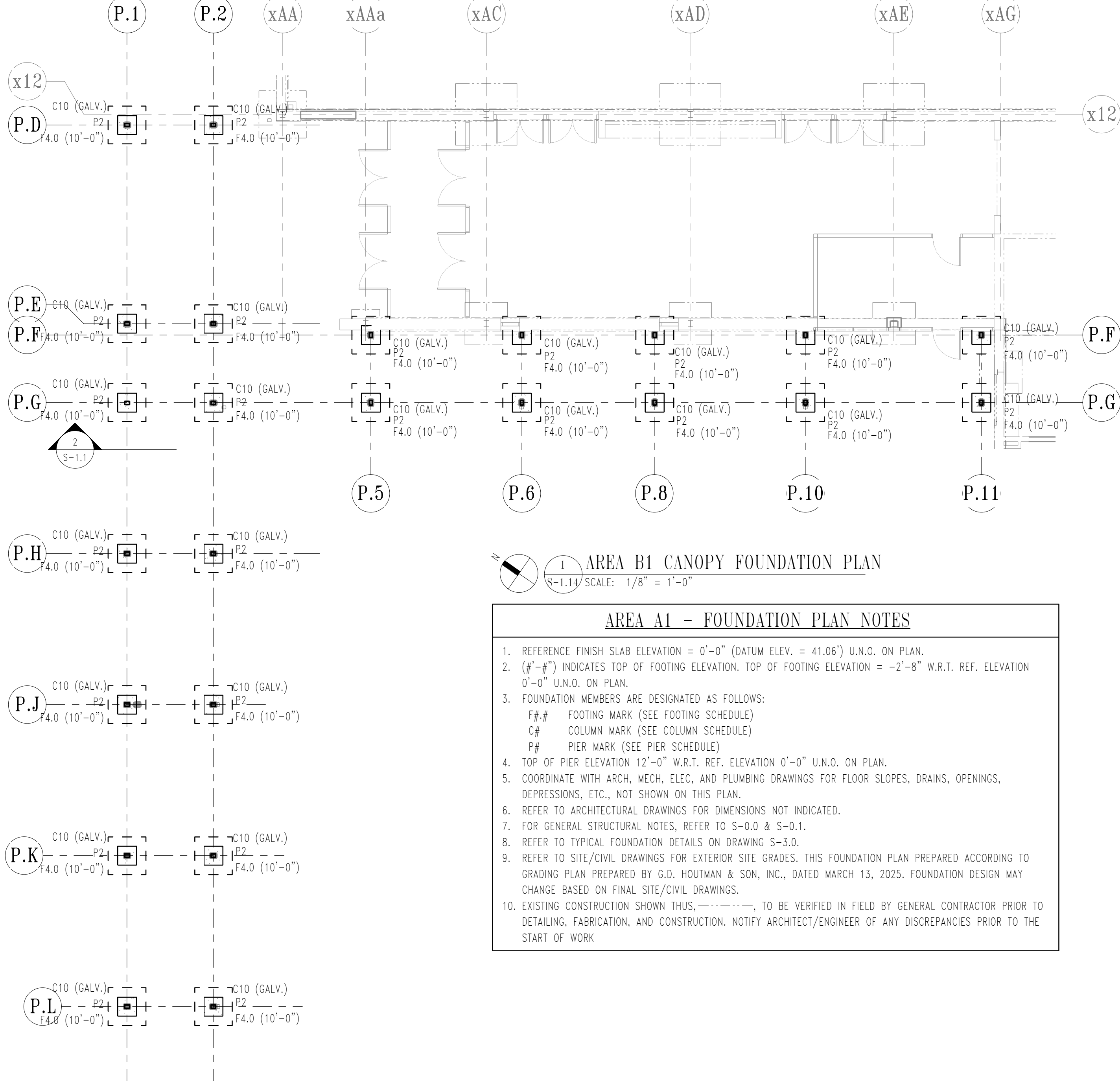
SECTION 7
3/4\"/>



SECTION 6
3/4\"/>



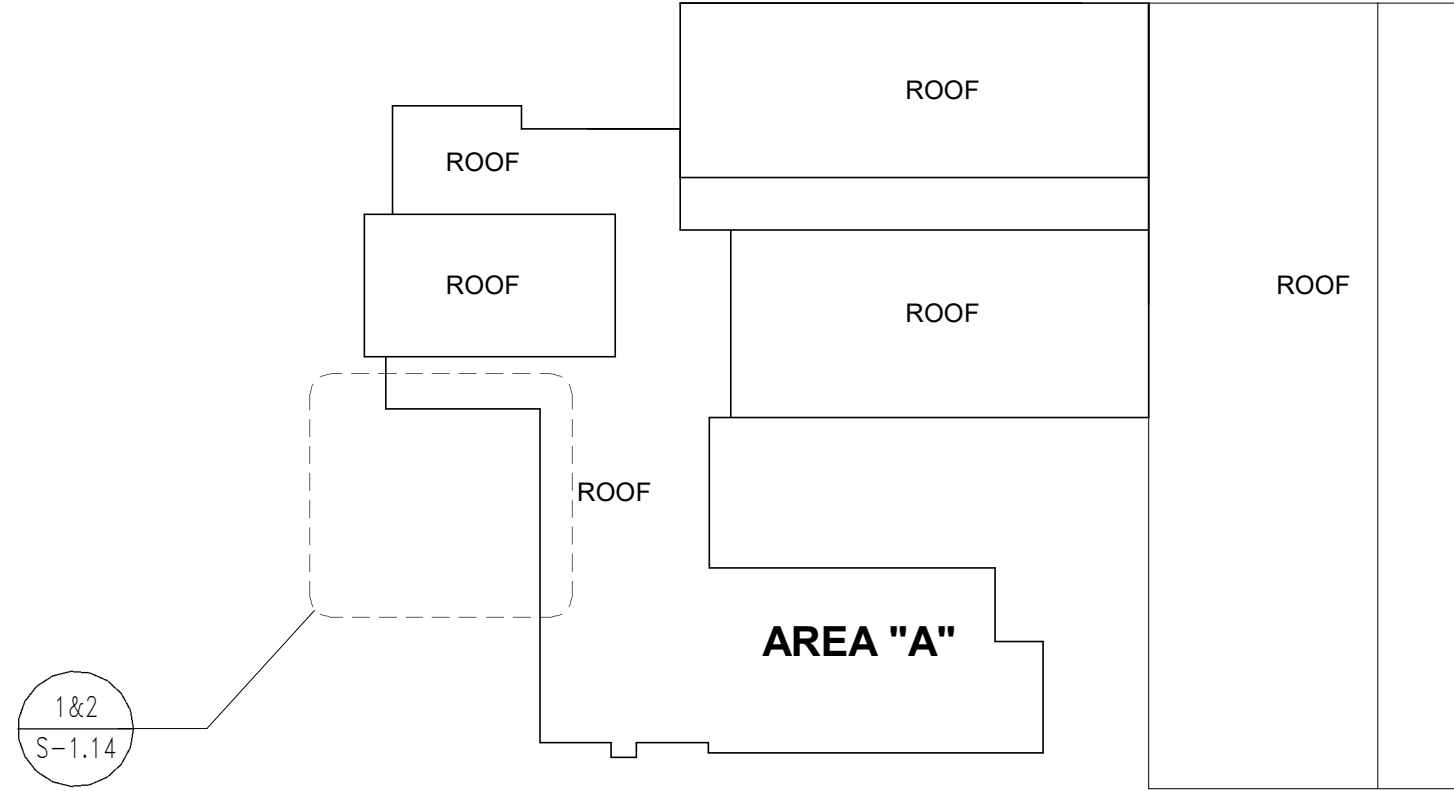
SECTION 8
3/4\"/>



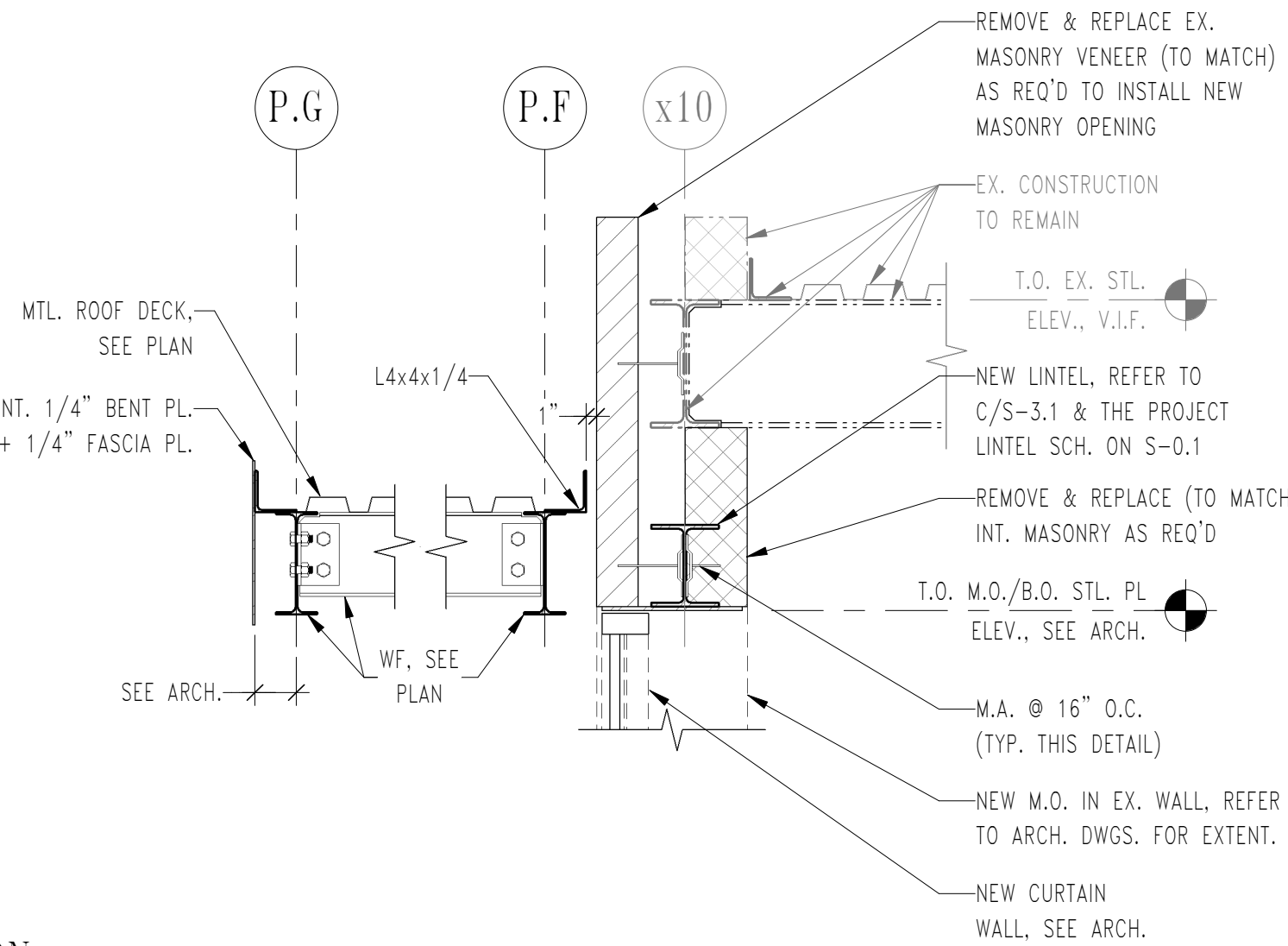
AREA B1 CANOPY FOUNDATION PLAN
1/8" = 1'-0"

AREA A1 - FOUNDATION PLAN NOTES

- REFERENCE FINISH SLAB ELEVATION = 0'-0" (DATUM ELEV. = 41.06') U.N.O. ON PLAN.
- (#'-#") INDICATES TOP OF FOOTING ELEVATION. TOP OF FOOTING ELEVATION = -2'-8" W.R.T. REF. ELEVATION 0'-0" U.N.O. ON PLAN.
- FOUNDATION MEMBERS ARE DESIGNATED AS FOLLOWS:
F#.# FOOTING MARK (SEE FOOTING SCHEDULE)
C# COLUMN MARK (SEE COLUMN SCHEDULE)
P# PIER MARK (SEE PIER SCHEDULE)
- TOP OF PIER ELEVATION 12'-0" W.R.T. REF. ELEVATION 0'-0" U.N.O. ON PLAN.
- COORDINATE WITH ARCH, MECH, ELEC, AND PLUMBING DRAWINGS FOR FLOOR SLOPES, DRAINS, OPENINGS, DEPRESSIONS, ETC., NOT SHOWN ON THIS PLAN.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT INDICATED.
- FOR GENERAL STRUCTURAL NOTES, REFER TO S-0.0 & S-0.1.
- REFER TO TYPICAL FOUNDATION DETAILS ON DRAWING S-3.0.
- REFER TO SITE/CIVIL DRAWINGS FOR EXTERIOR SITE GRADES. THIS FOUNDATION PLAN PREPARED ACCORDING TO GRADING PLAN PREPARED BY G.O. HOUTMAN & SON, INC., DATED MARCH 13, 2025. FOUNDATION DESIGN MAY CHANGE BASED ON FINAL SITE/CIVIL DRAWINGS.
- EXISTING CONSTRUCTION SHOWN THUS, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.



KEY PLAN - LEVEL 3



SECTION 9
3/4\"/>

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES	DESCRIPTION
DATE: 03/17/2025	BID SET
PROJ # : MM2111	DRAWN BY : RK / ESR
SHEET TITLE:	

AREA B1 CANOPY
PLANS

SHEET NUMBER:

S-1.14

BID SET

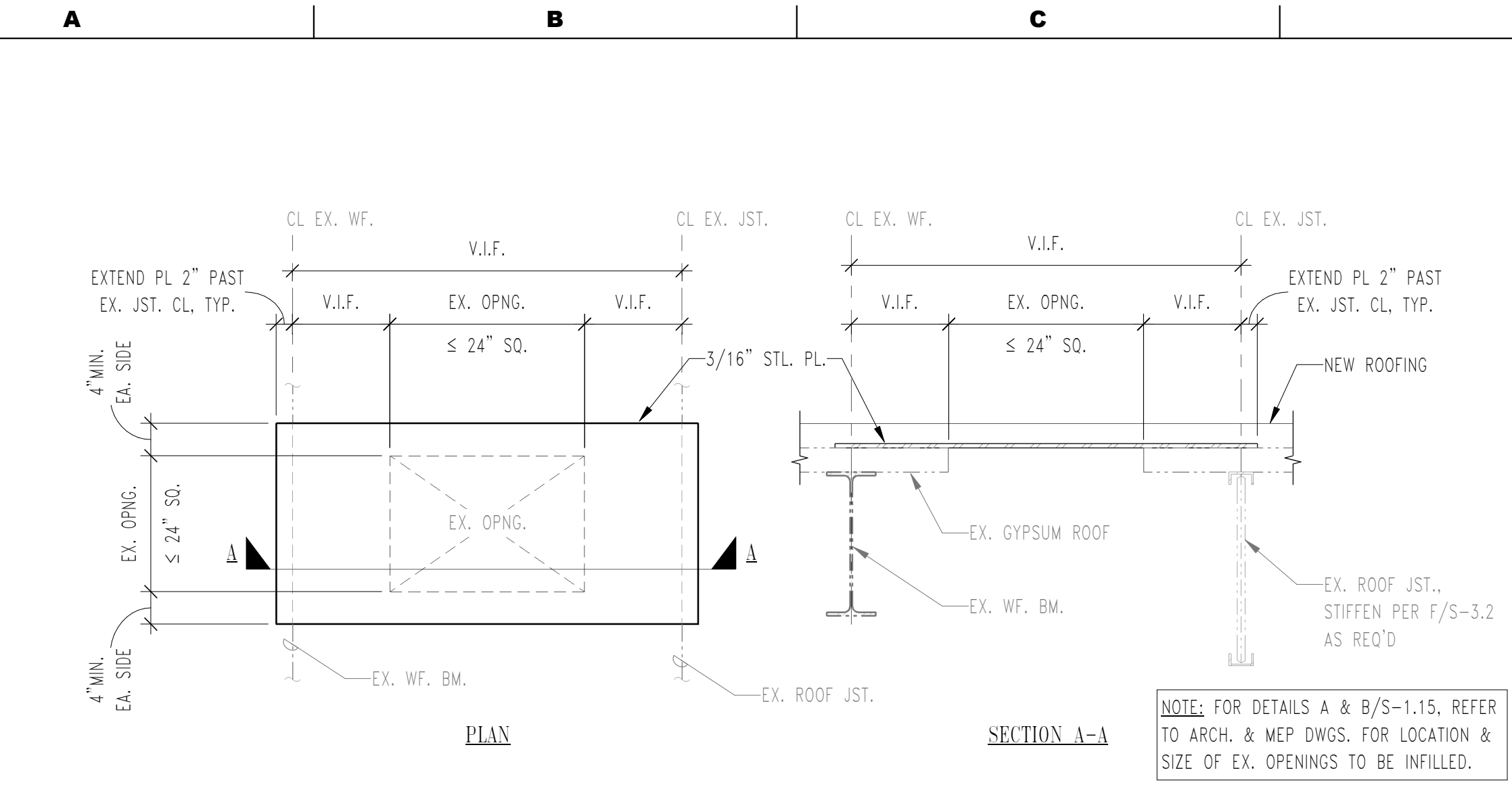
SEAL:

Joseph Barabato
Associates
STRUCTURAL ENGINEERS - ARCHITECTS
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-558-6050
www.JBarabato.com

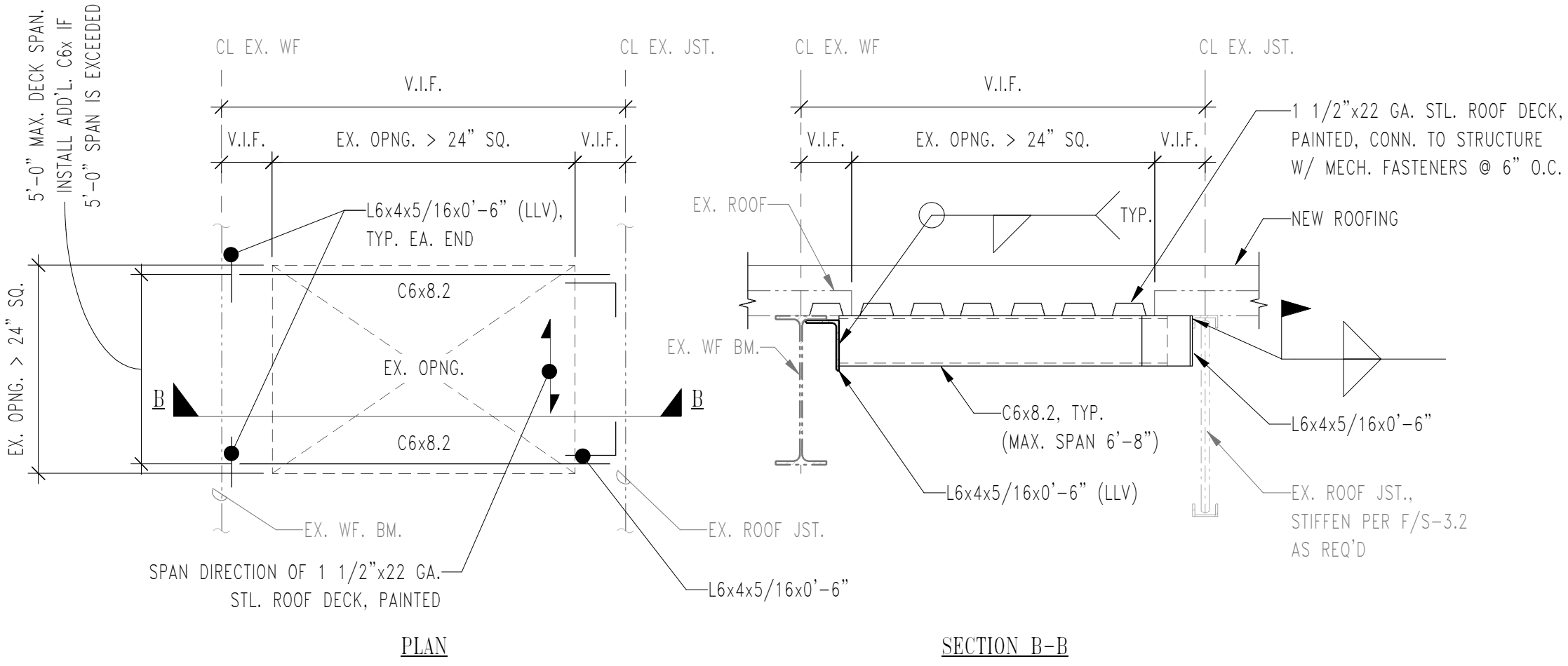
DCIU
Empowering Partnerships For Education

MAROTTA/MAIN
ARCHITECTS
WWW.MAROTTAMAIN.COM

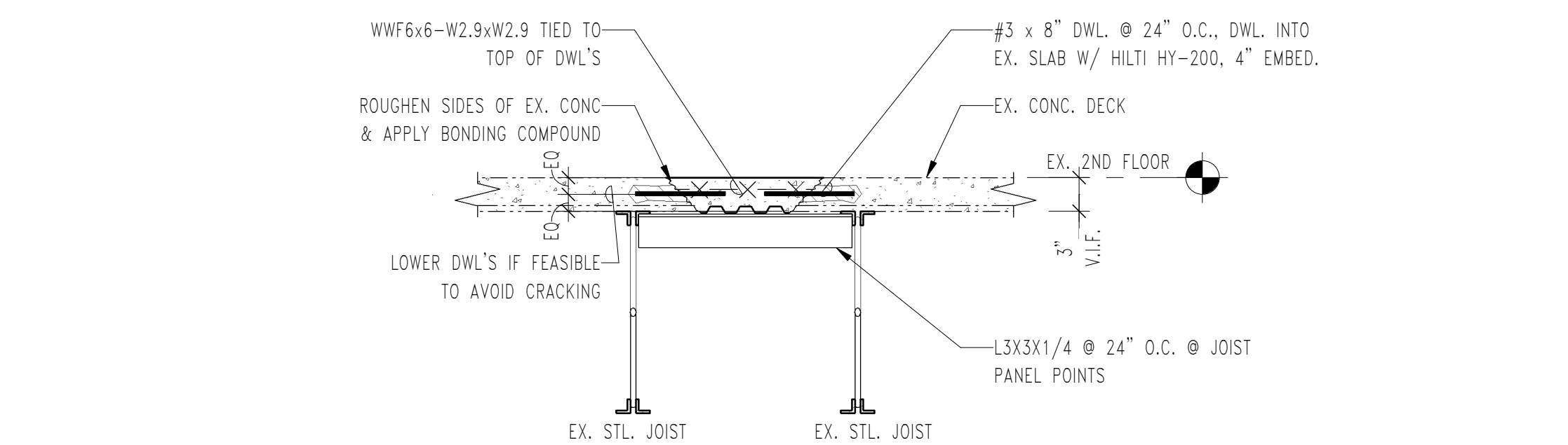
3/17/2025 9:57:44 AM



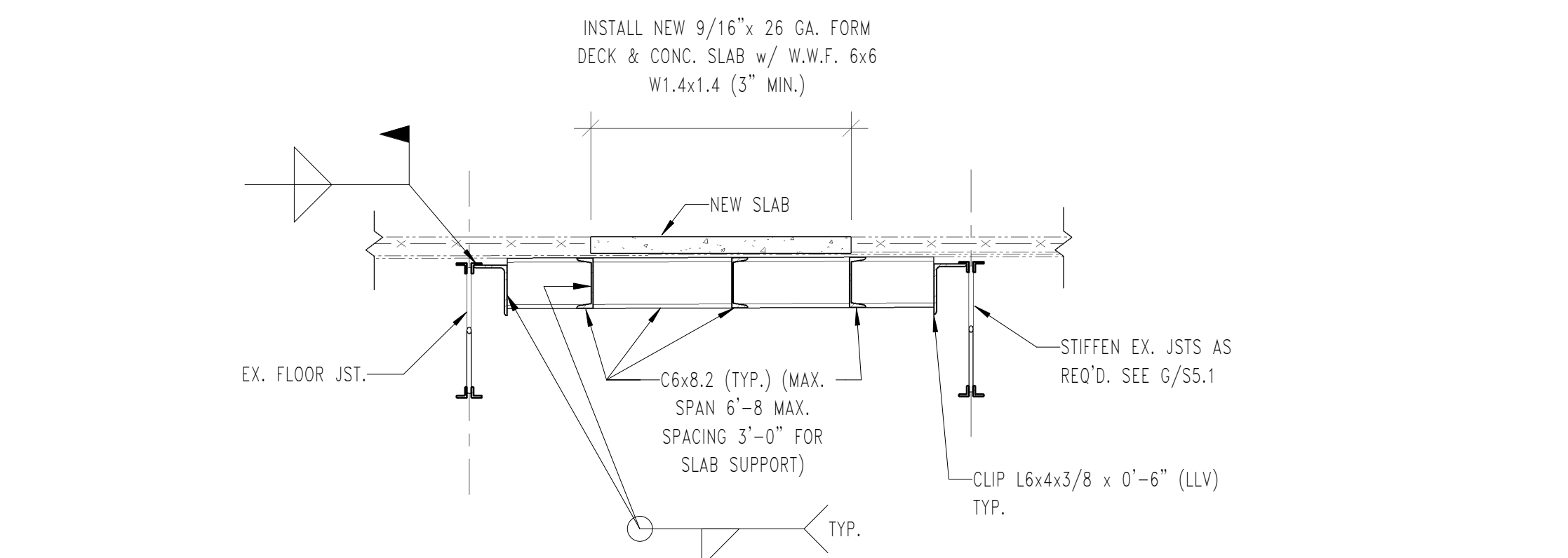
TYPICAL EXISTING ROOF INFILL FOR OPENINGS ≤ 24" MAX.



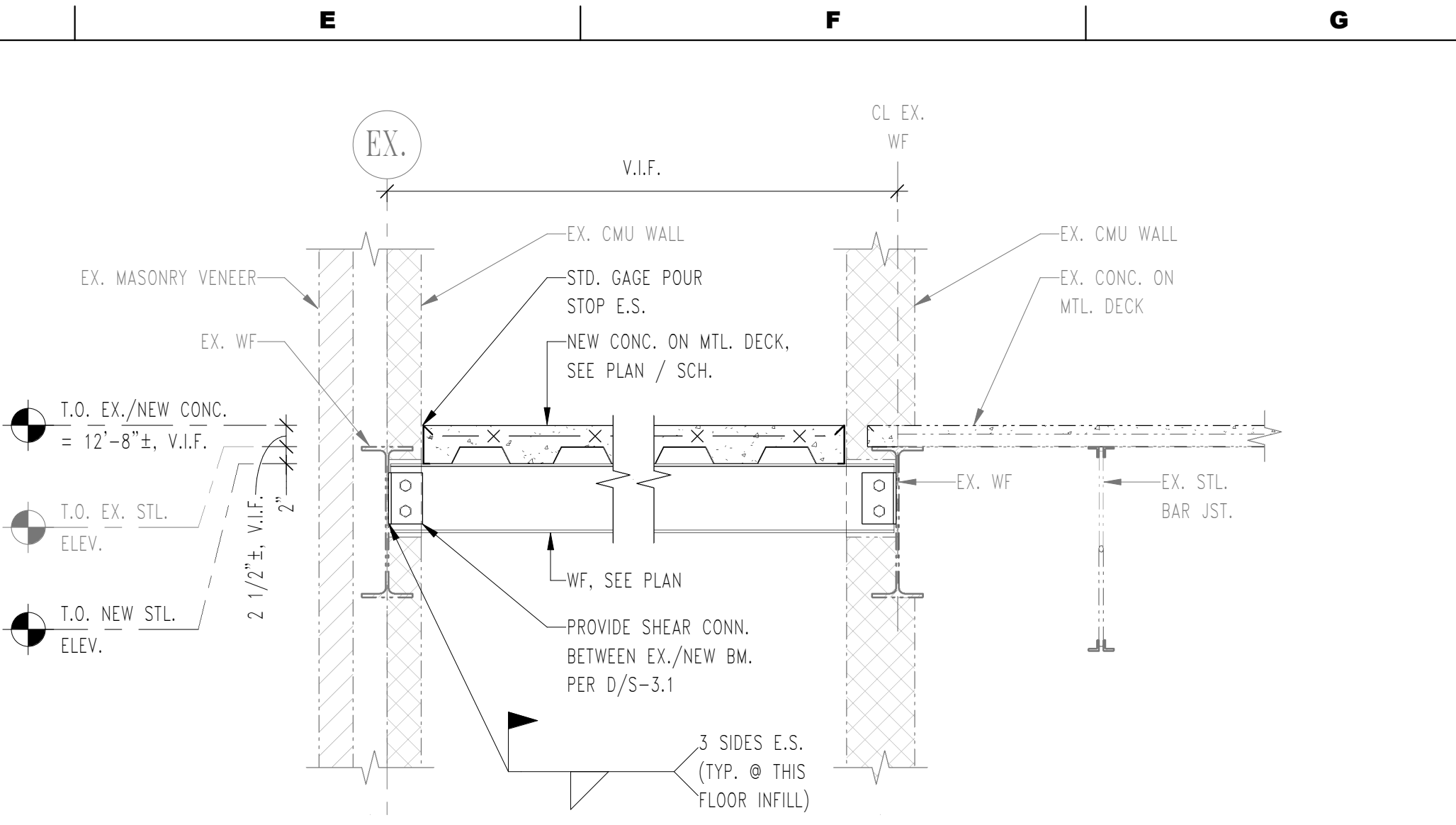
TYPICAL EXISTING ROOF INFILL FOR OPENINGS > 24" MAX.



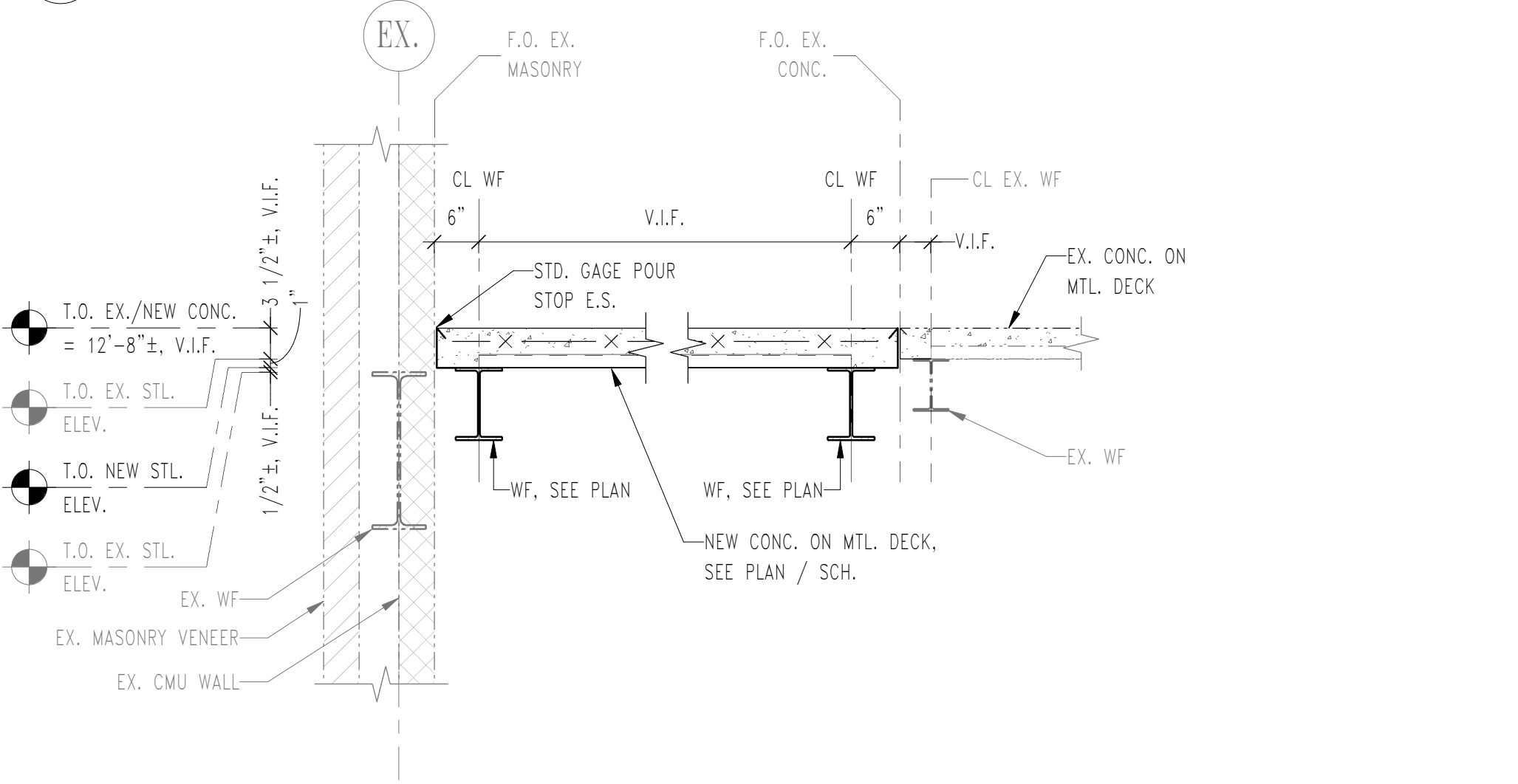
TYPICAL EXISTING FLOOR INFILL FOR OPENINGS ≤ 24" MAX.



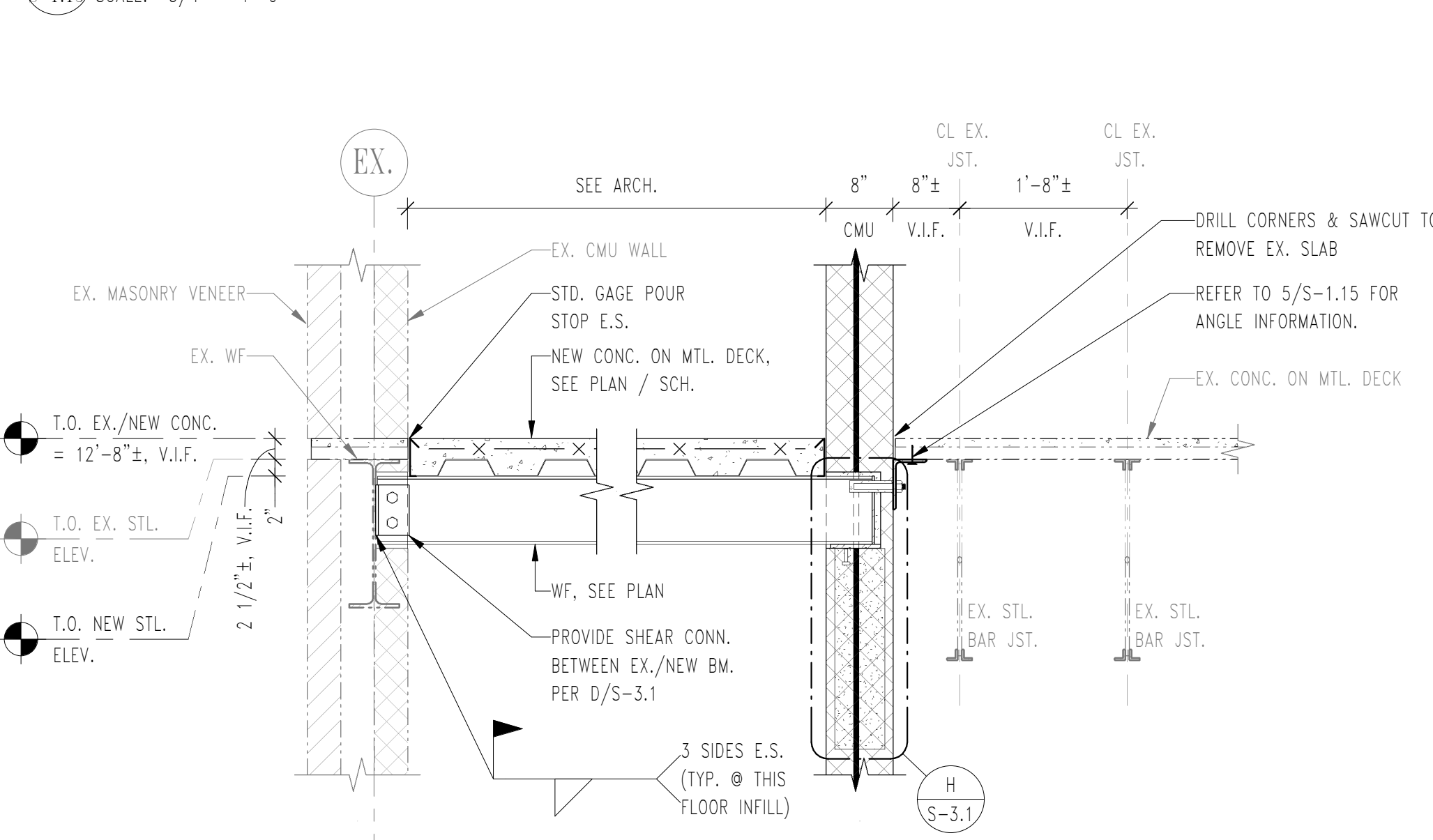
TYPICAL EXISTING FLOOR INFILL FOR OPENINGS > 24" MAX.



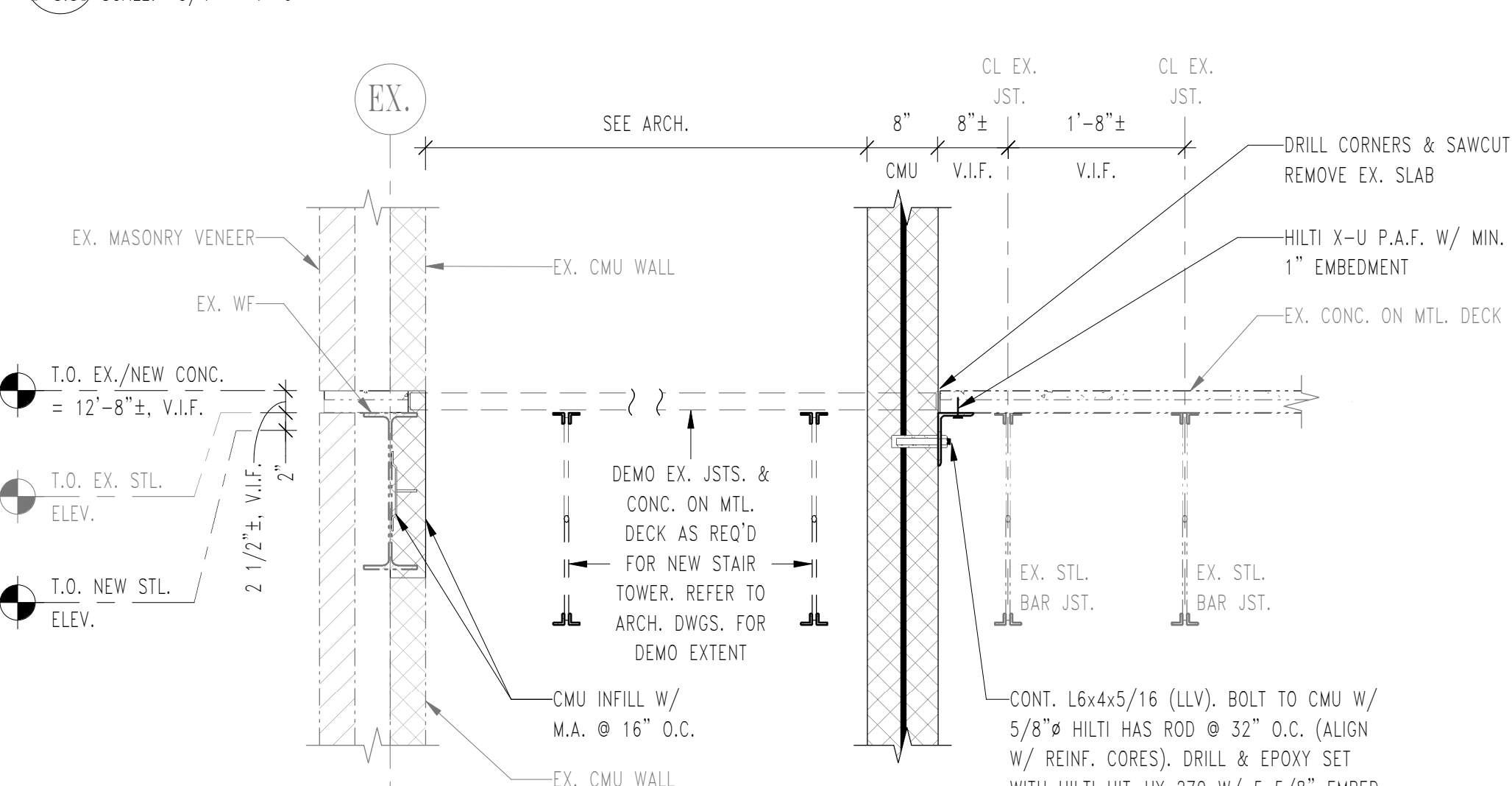
SECTION 2



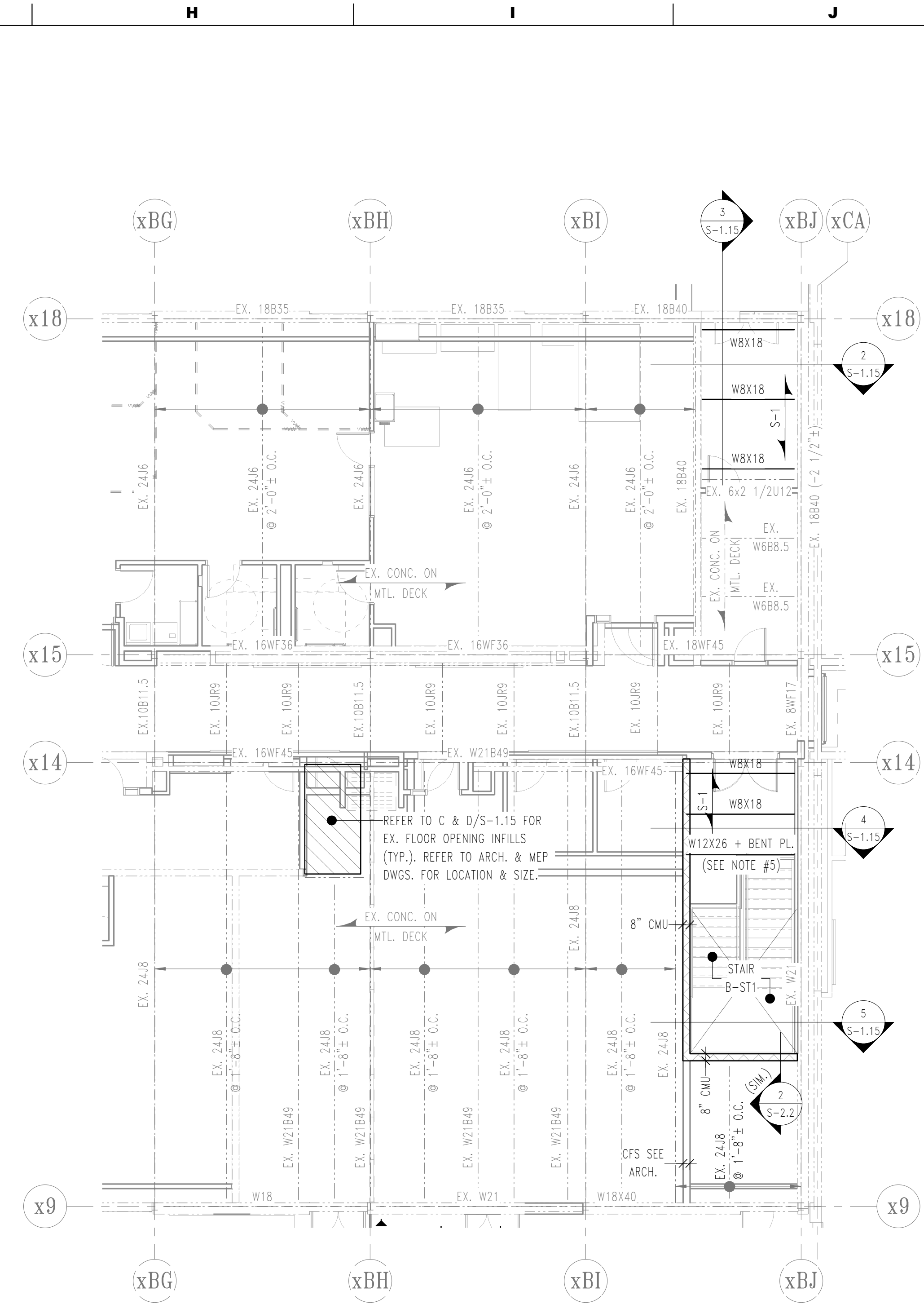
SECTION 3



SECTION 4

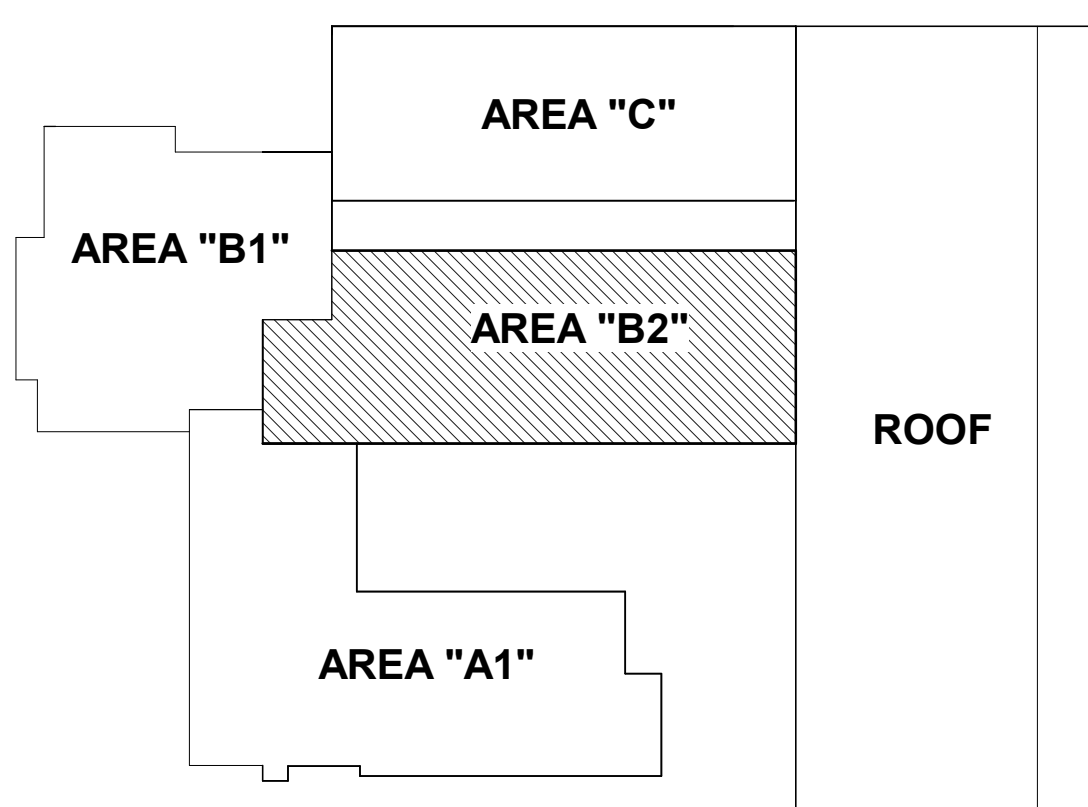


SECTION 5



AREA B2 - 2ND FLOOR FRAMING PLAN NOTES

- REFERENCE TOP OF CONCRETE ELEVATION = 12'-8"± V.I.F. (TO MATCH EXISTING) W.R.T. REFERENCE ELEV. 0'-0" U.N.O. ON PLAN. REFERENCE TOP OF STEEL ELEVATION = 12'-3 1/2"± V.I.F. W.R.T. REFERENCE ELEV. 0'-0" U.N.O. ON PLAN.
- FABRICATOR TO SUBMIT CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. REFER TO D/S-3.1 FOR SCHEMATIC SHEAR CONNECTION DETAILS AND LOAD VALUES.
- REFER TO DETAILS ON S-3.1 FOR FRAMING REQUIRED TO SUPPORT FLOOR OPENINGS. LOCATION & SIZE TO BE COORDINATED W/ MECH. CONTRACTOR.
- PROVIDE 3/8" STIFF PL E.S. OF BEAM WEB BELOW ALL POST-UPS & ABOVE ALL HANGERS. PROVIDE 3/4" BASE & CAP PL. FOR (4) 3/4" A325 BOLTS.
- CONT. 1/4" BENT PL. FOUR STOP @ PERIMETER OF STAIR OPENING. REFER TO ARCH DWG.'S FOR EDGE OF SLAB DIMENSIONS.
- EXISTING CONSTRUCTION SHOWN THUS: ---, TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO DETAILING, FABRICATION, AND CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.



MAROTTA/MAN ARCHITECTS

WWW.MAROTTAMAIN.COM

JBA Associates

100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9899
phone: 610-558-6050
www.JBarbato.com

DCIU

Empowering Partnerships For Education

ADDITIONS AND RENOVATIONS TO THE FOLCROFT TECHNICAL SCHOOL

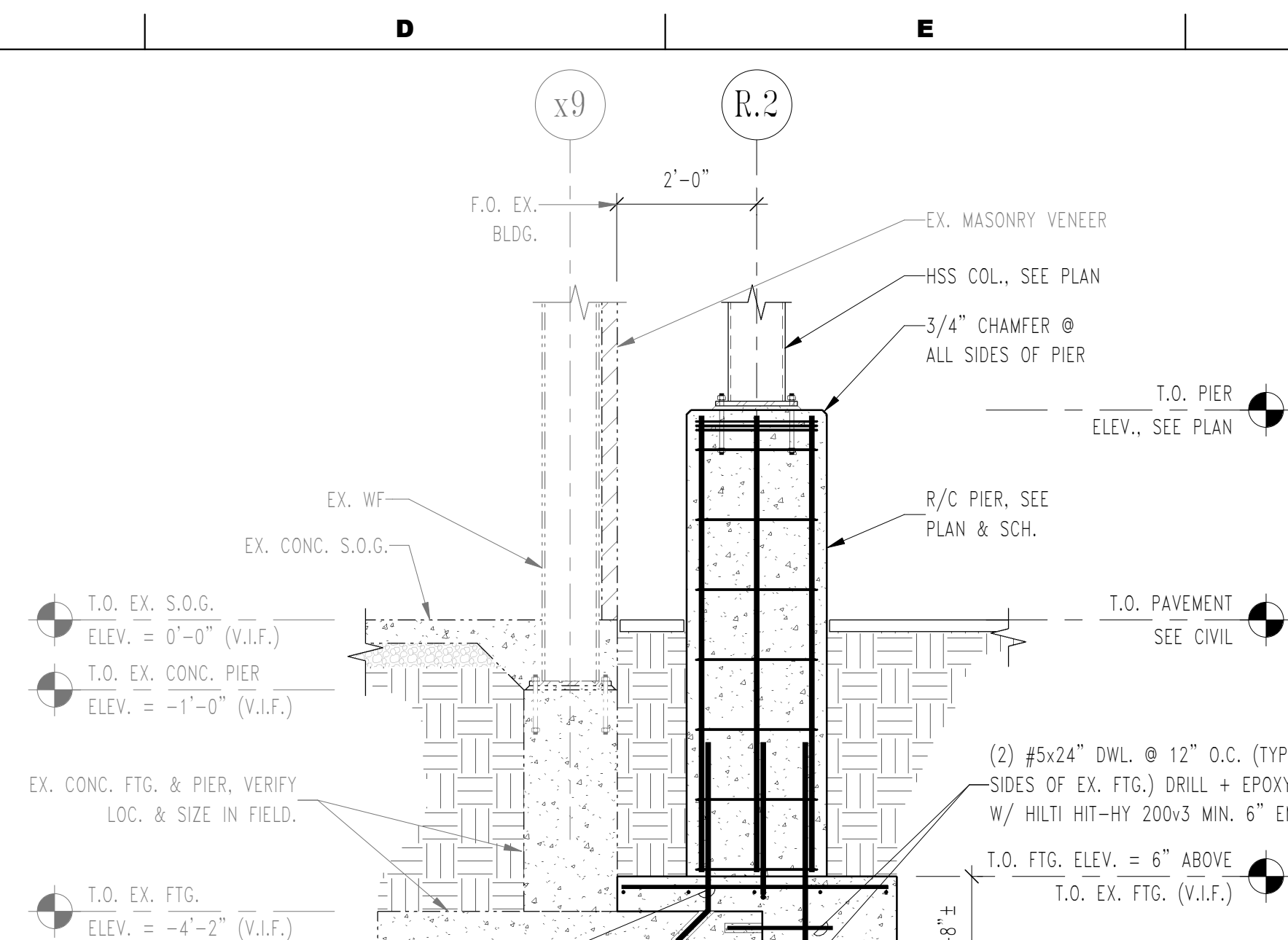
DELAWARE COUNTY INTERMEDIATE UNIT

701 HENDERSON BLVD.
FOLCROFT, PA 19032

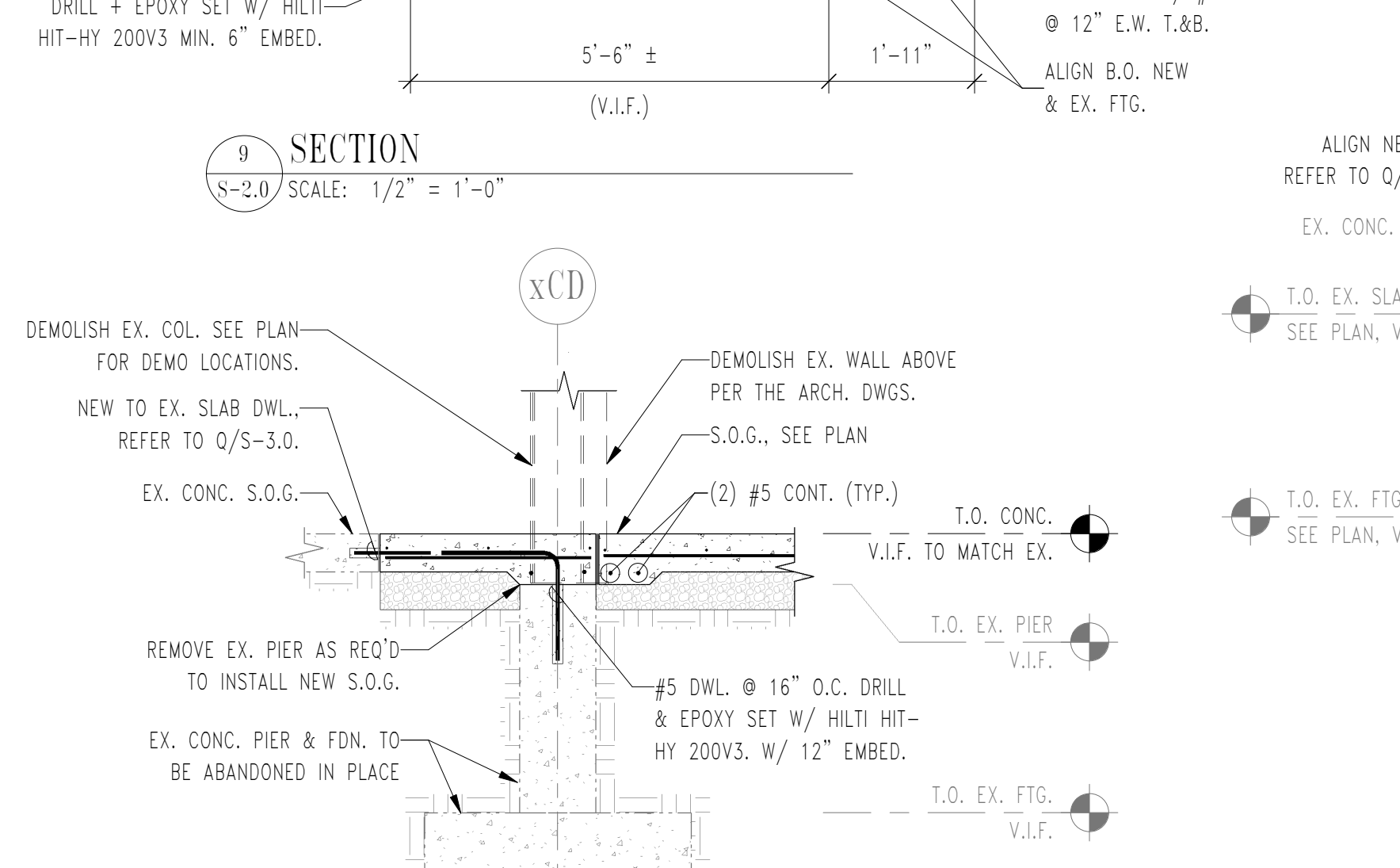
AREA B2 - SECOND FLOOR FRAMING PLAN

S-1.15

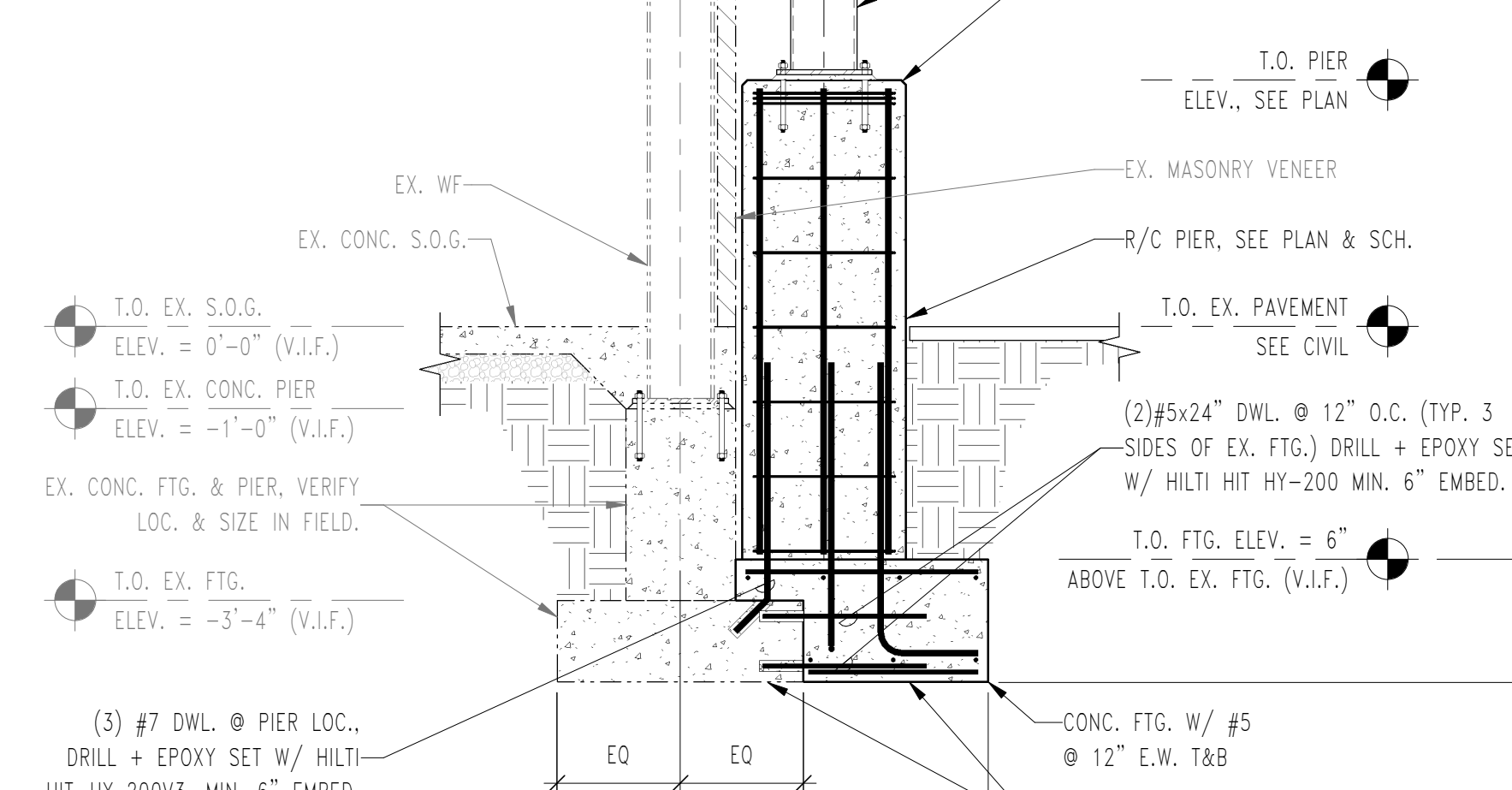
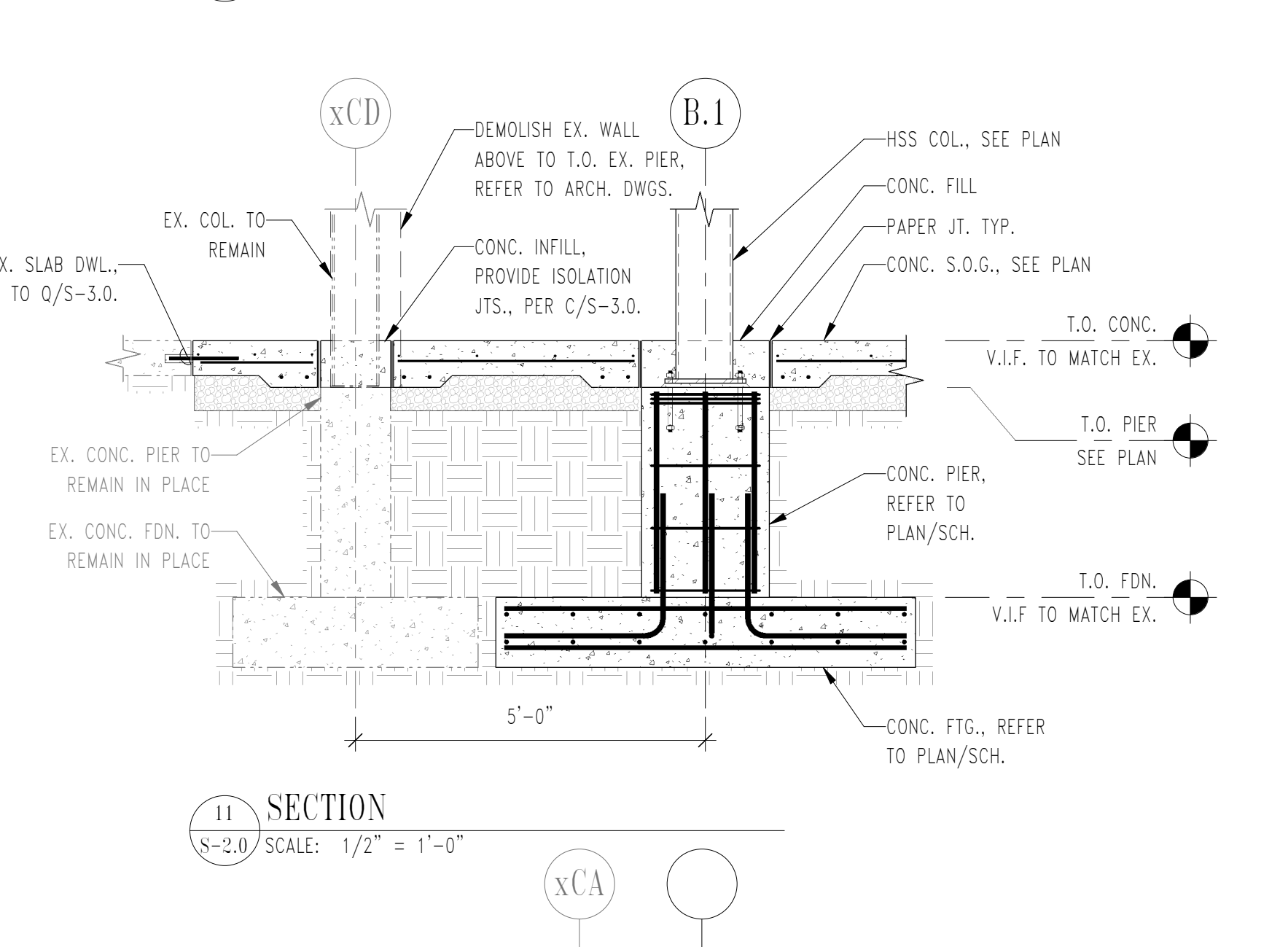
BID SET



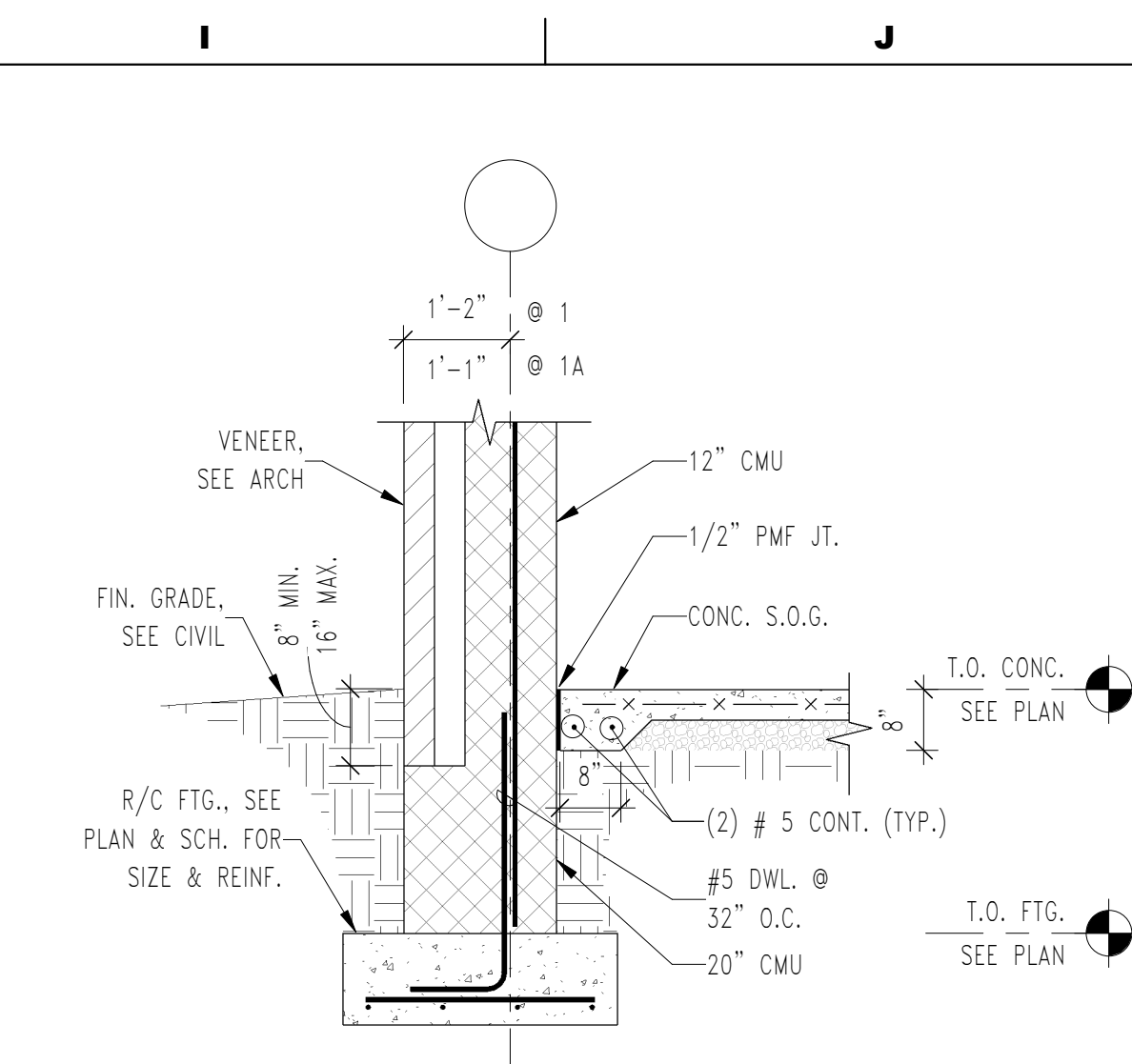
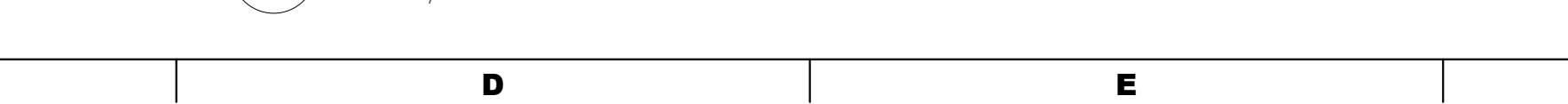
9 SECTION
S-2.0 SCALE: 1/2" = 1'-0"



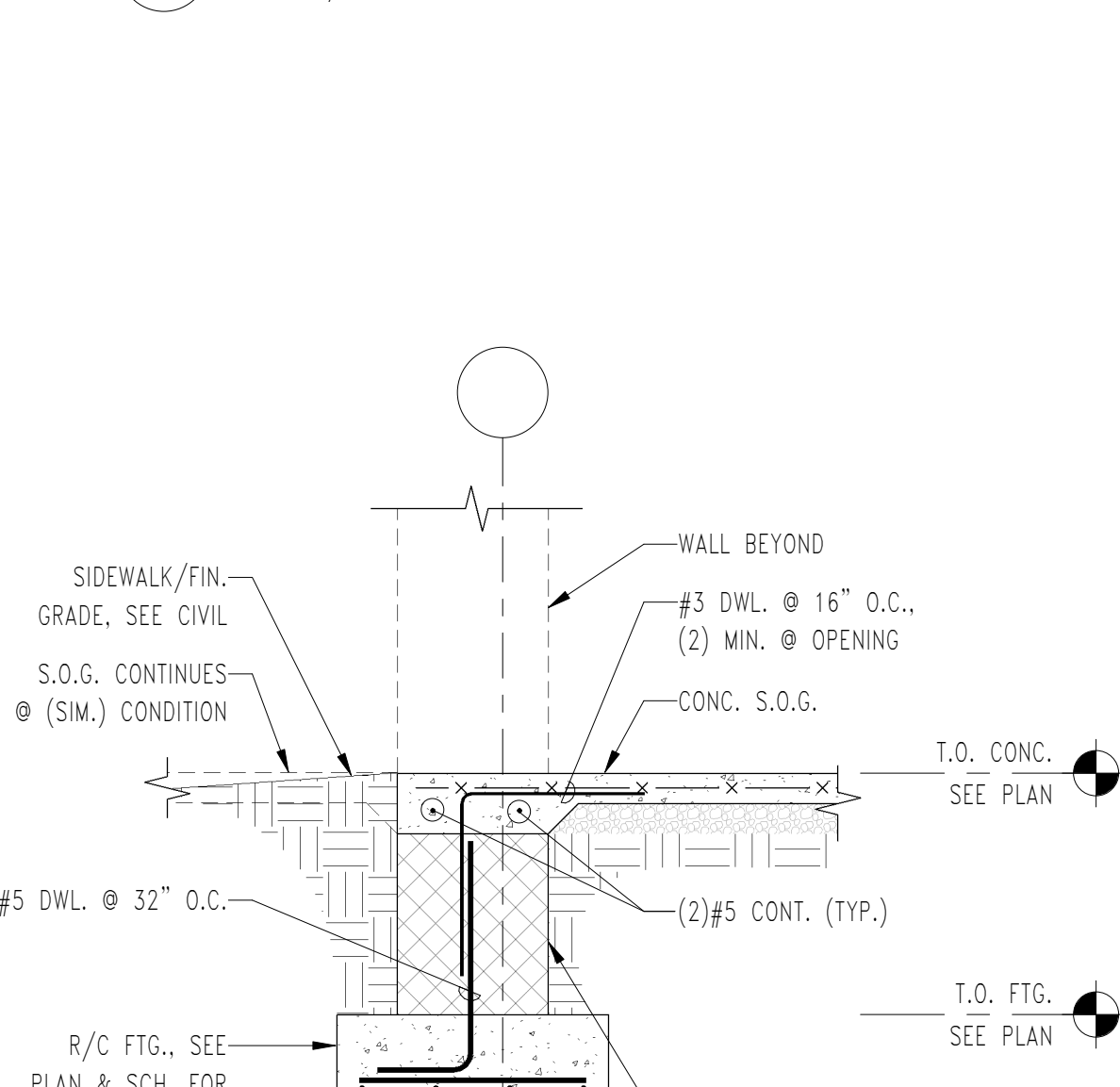
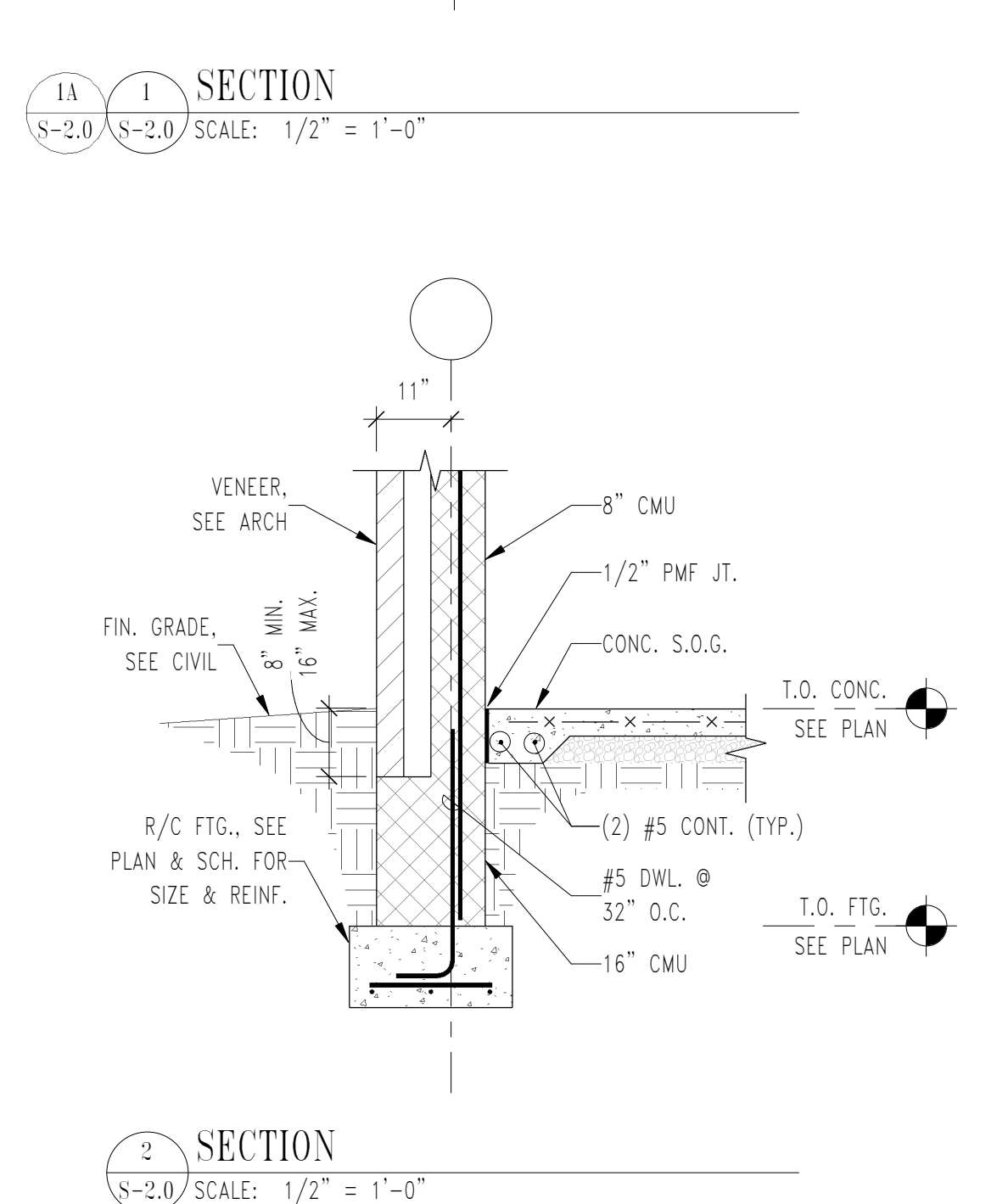
SECTION
SCALE: $1/2" = 1'-0"$



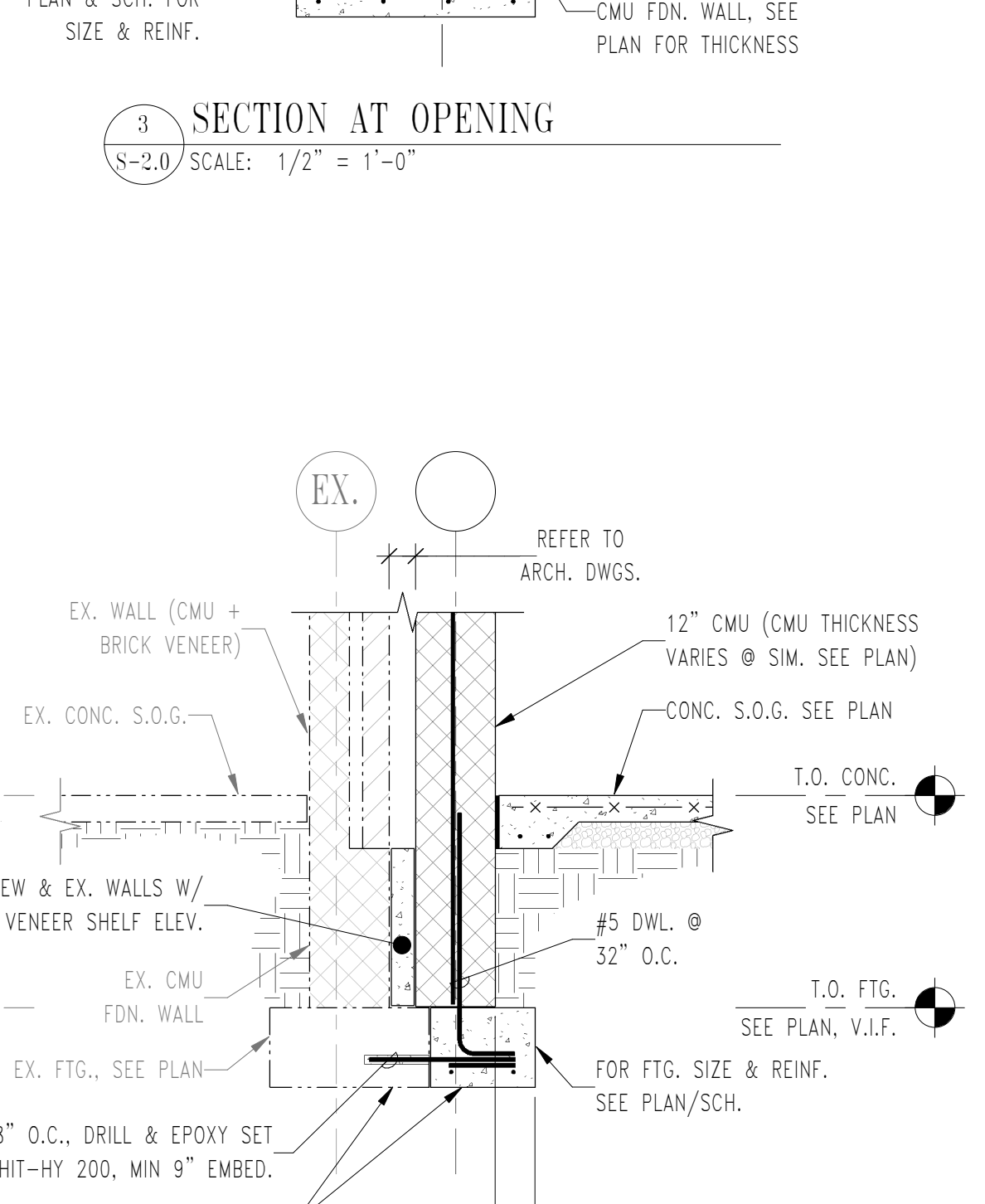
12 SECTION
S-2.0 SCALE: 1/2" = 1'-0"



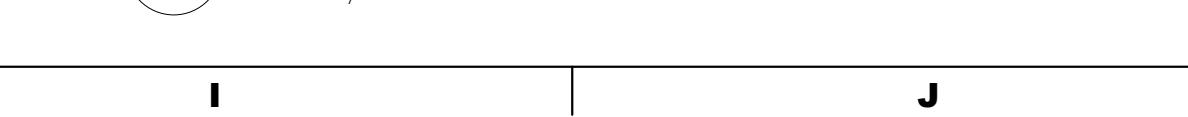
1A 1 SECTION
S-2.0 S-2.0 SCALE: 1/2" = 1'-0"

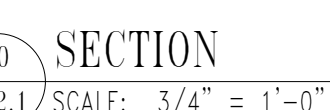


3 SECTION AT OPENING
S-2.0 SCALE: 1/2" = 1'-0"



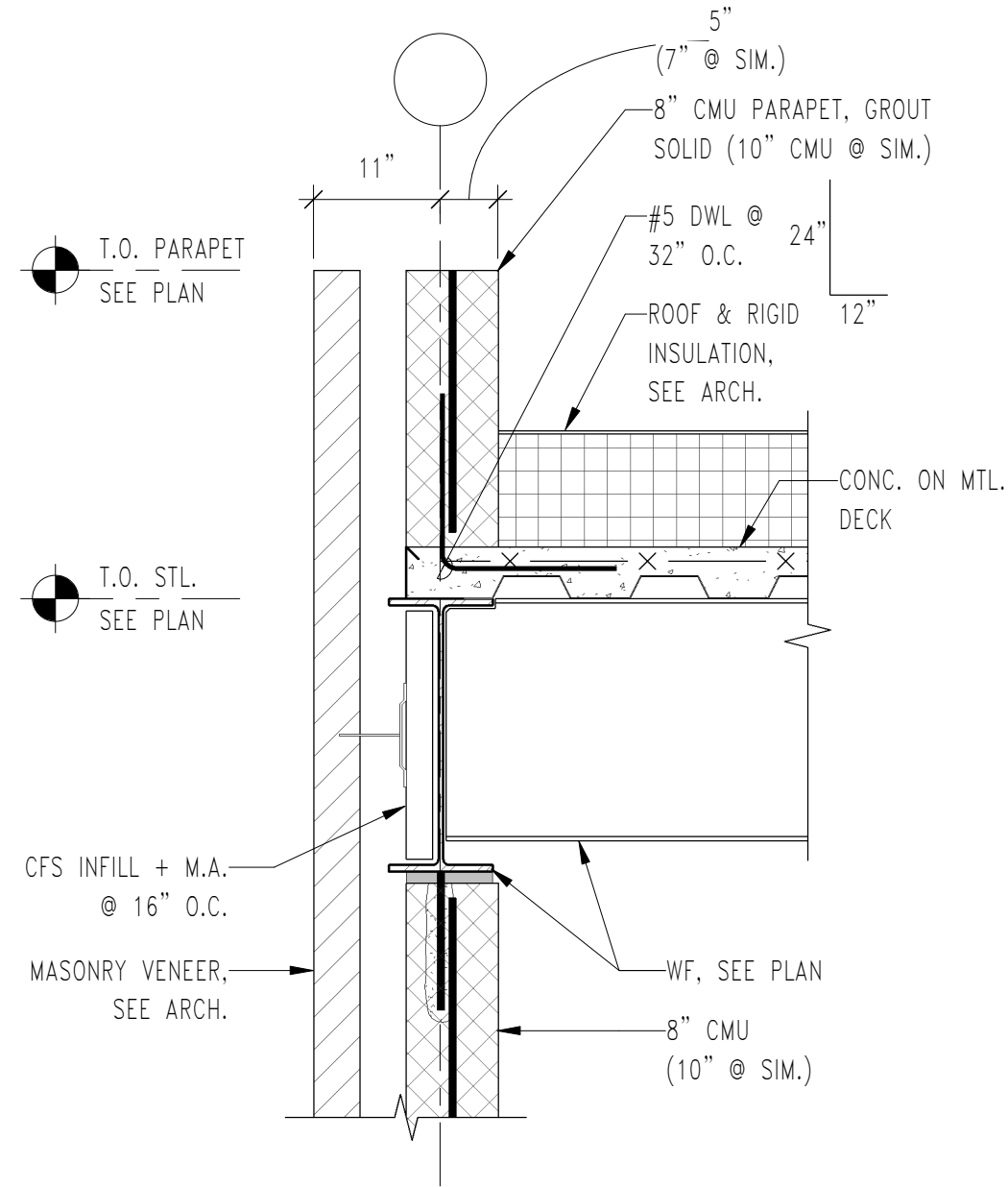
4 SECTION
S-2.0 SCALE: 1/2" = 1'-0"



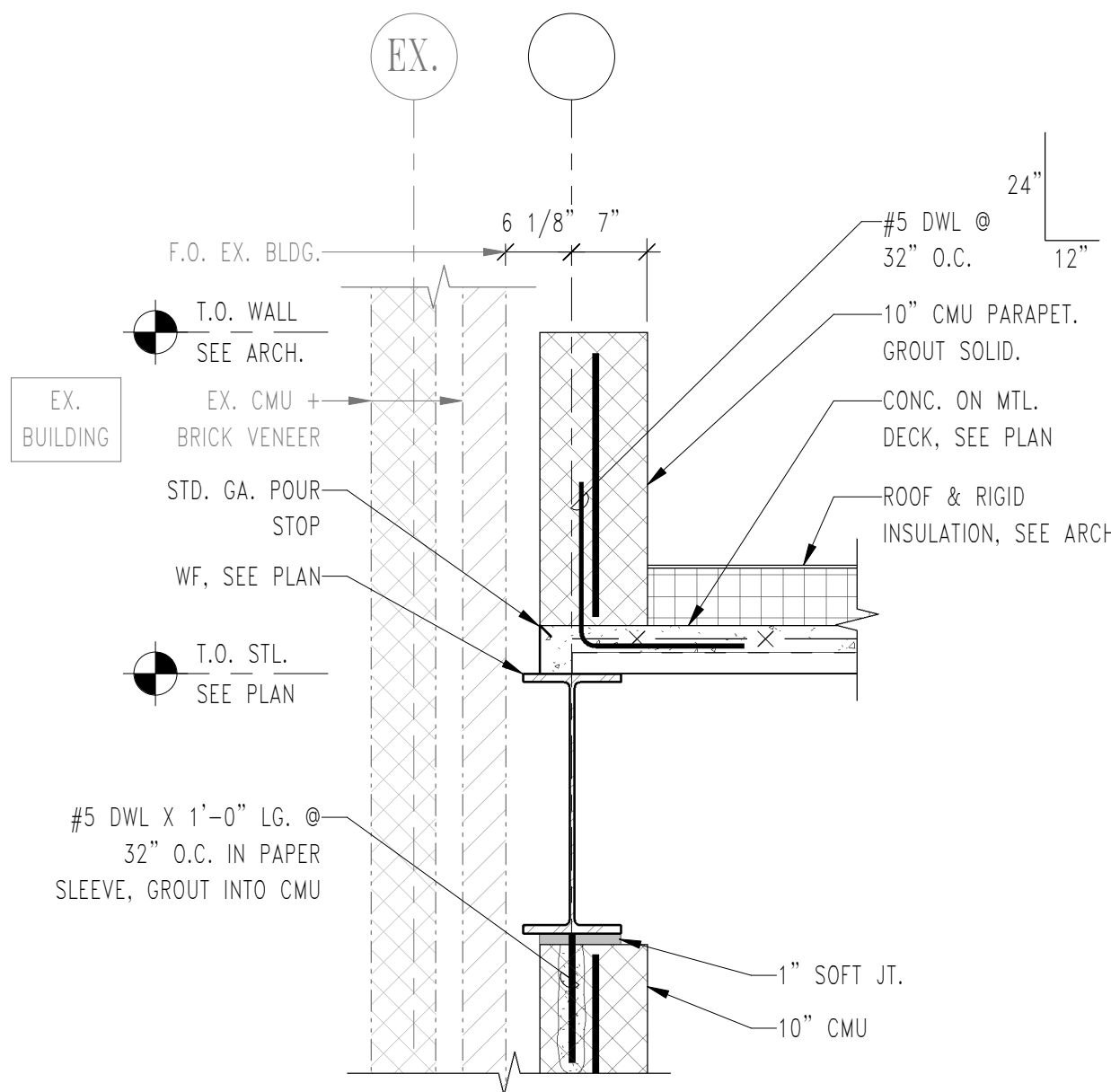


3/17/2025 9:57:51 AM

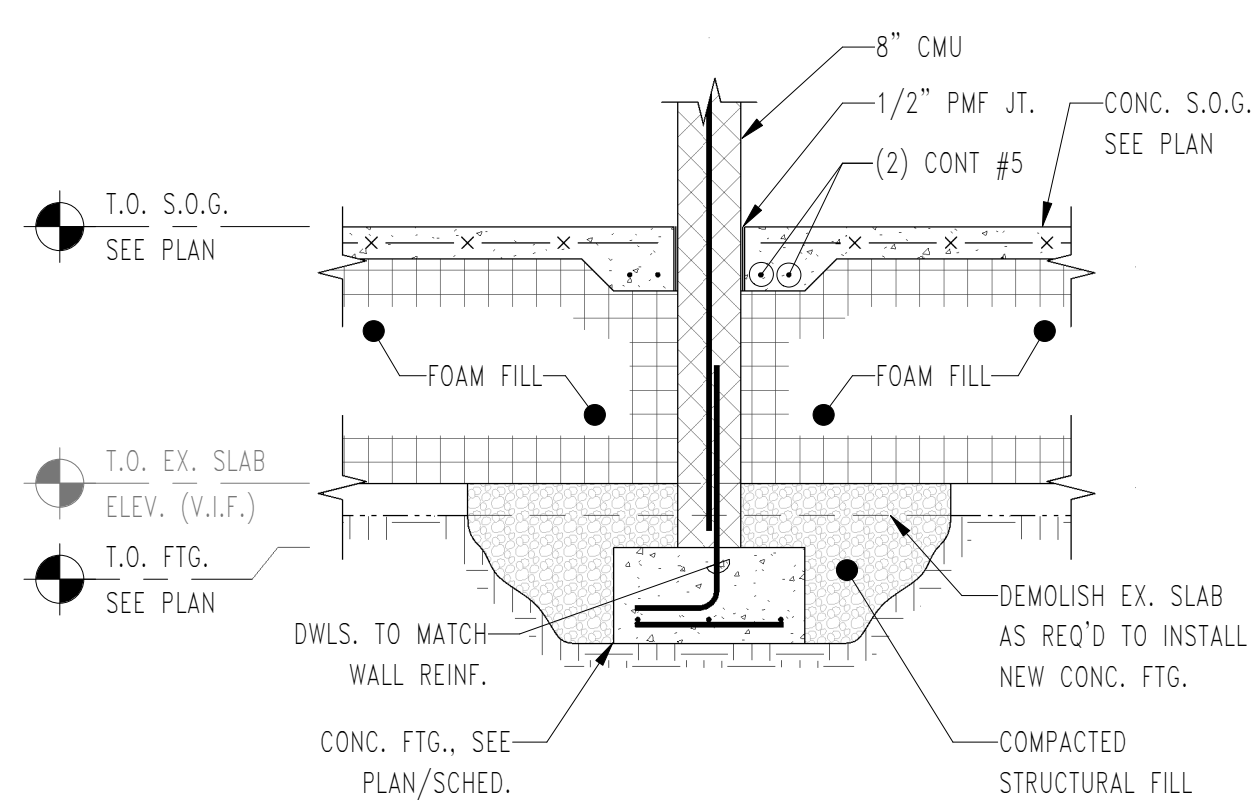
1
2
3
4
5
6
7



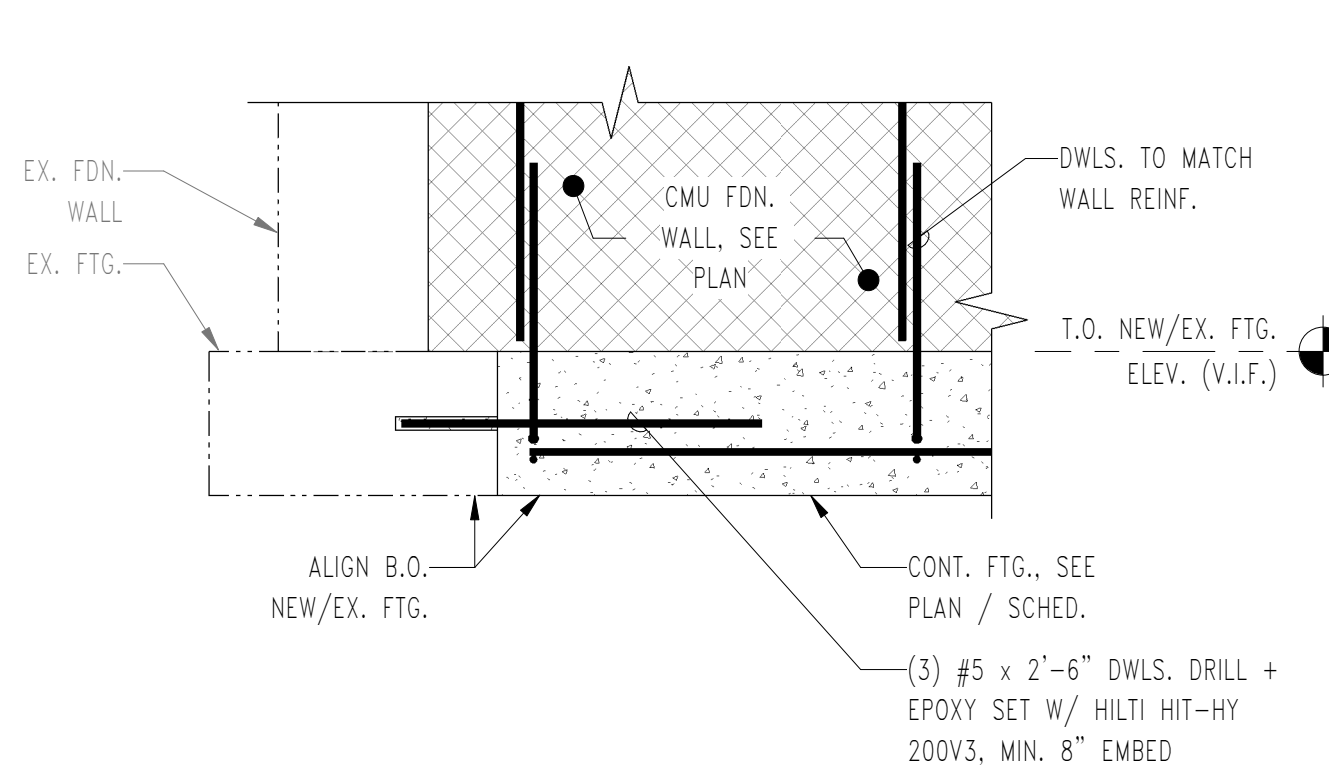
12 SECTION
SCALE: 3/4" = 1'-0"



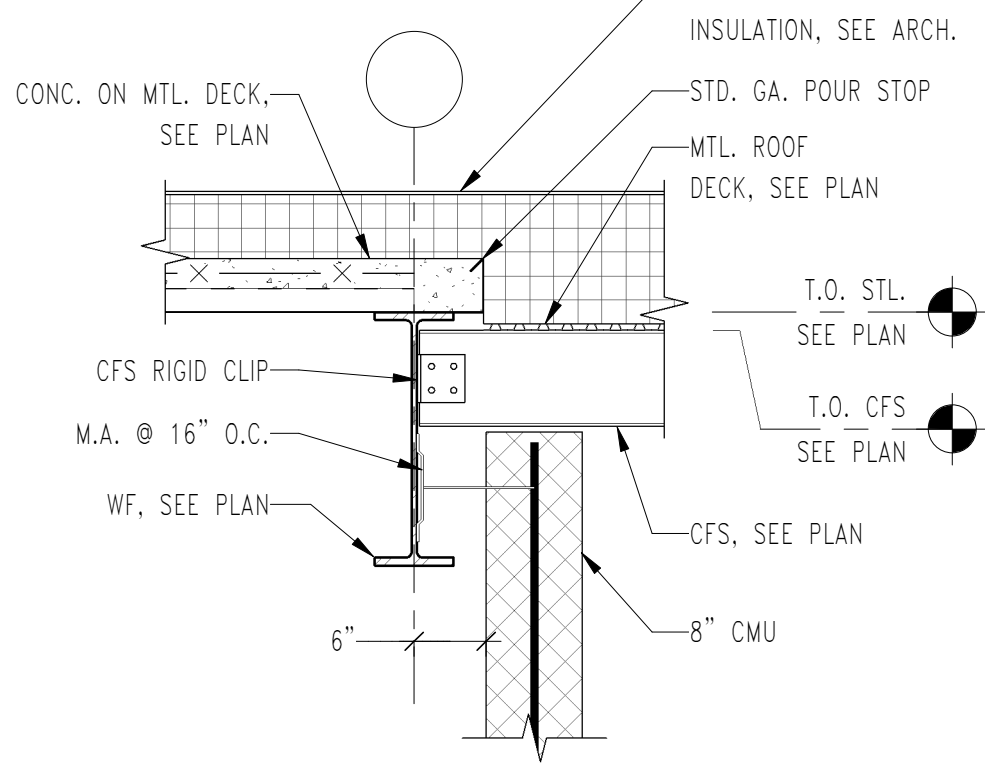
13 SECTION
SCALE: 3/4" = 1'-0"



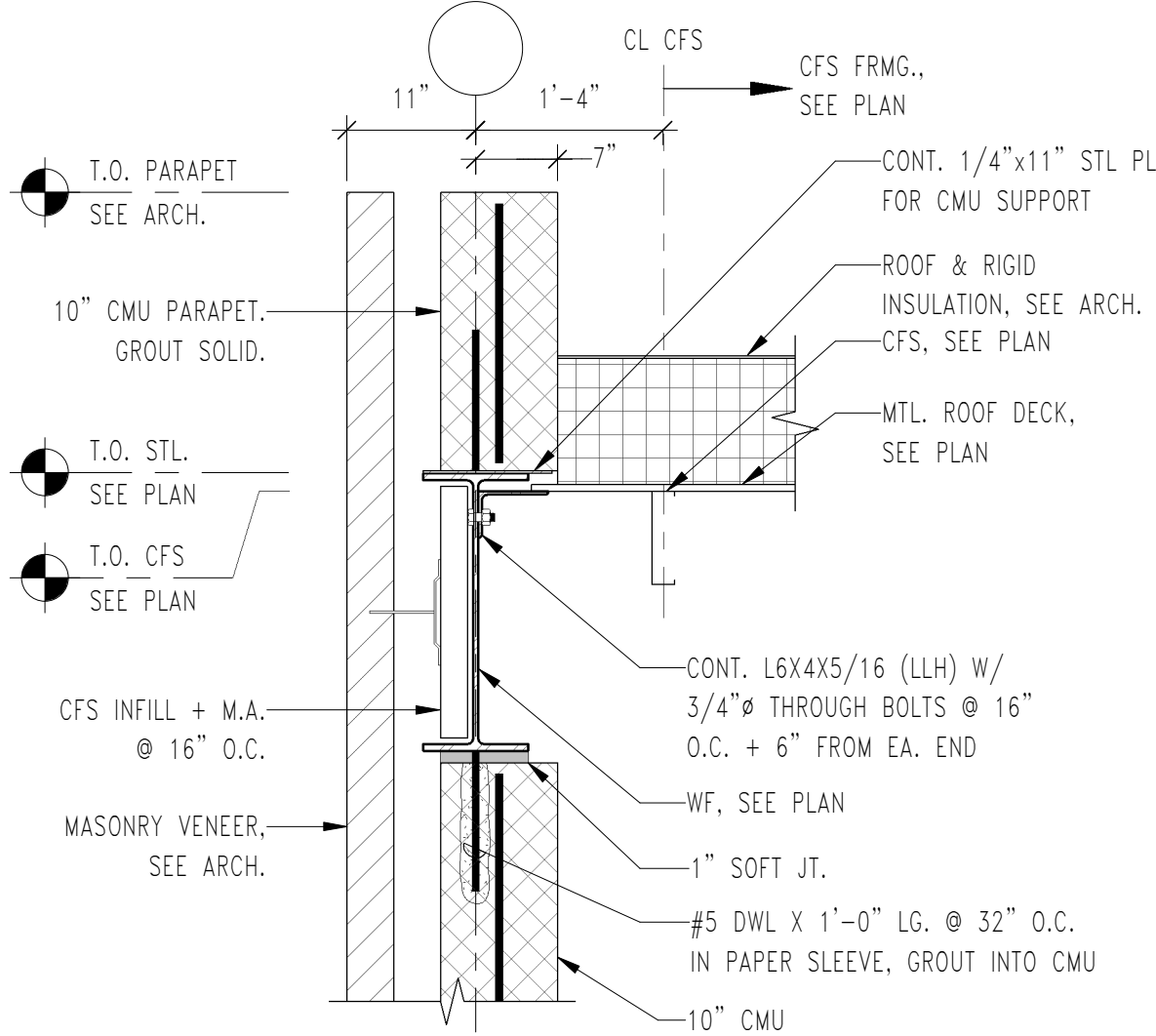
14 SECTION
SCALE: 1/2" = 1'-0"



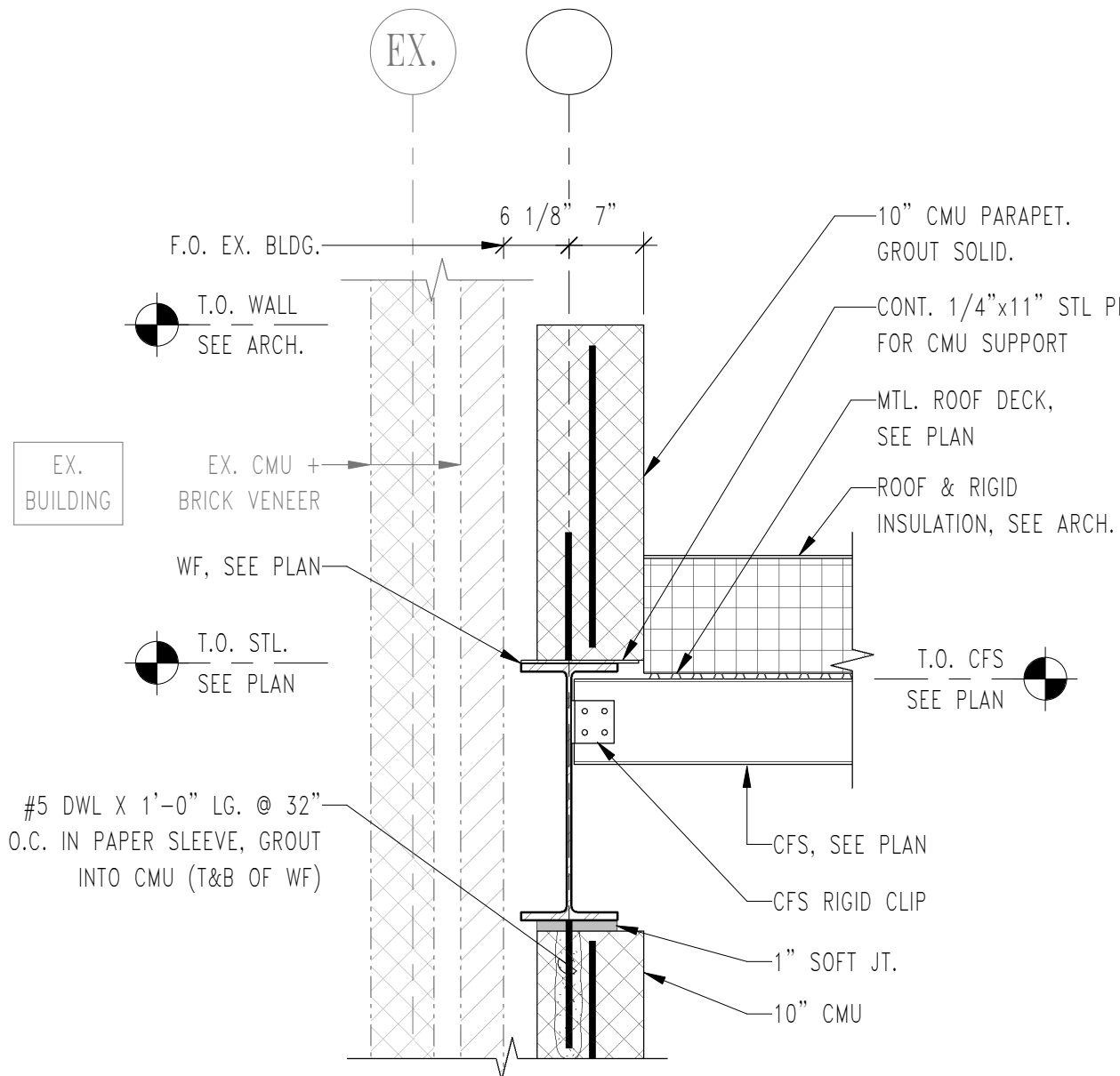
15 SECTION
SCALE: 3/4" = 1'-0"



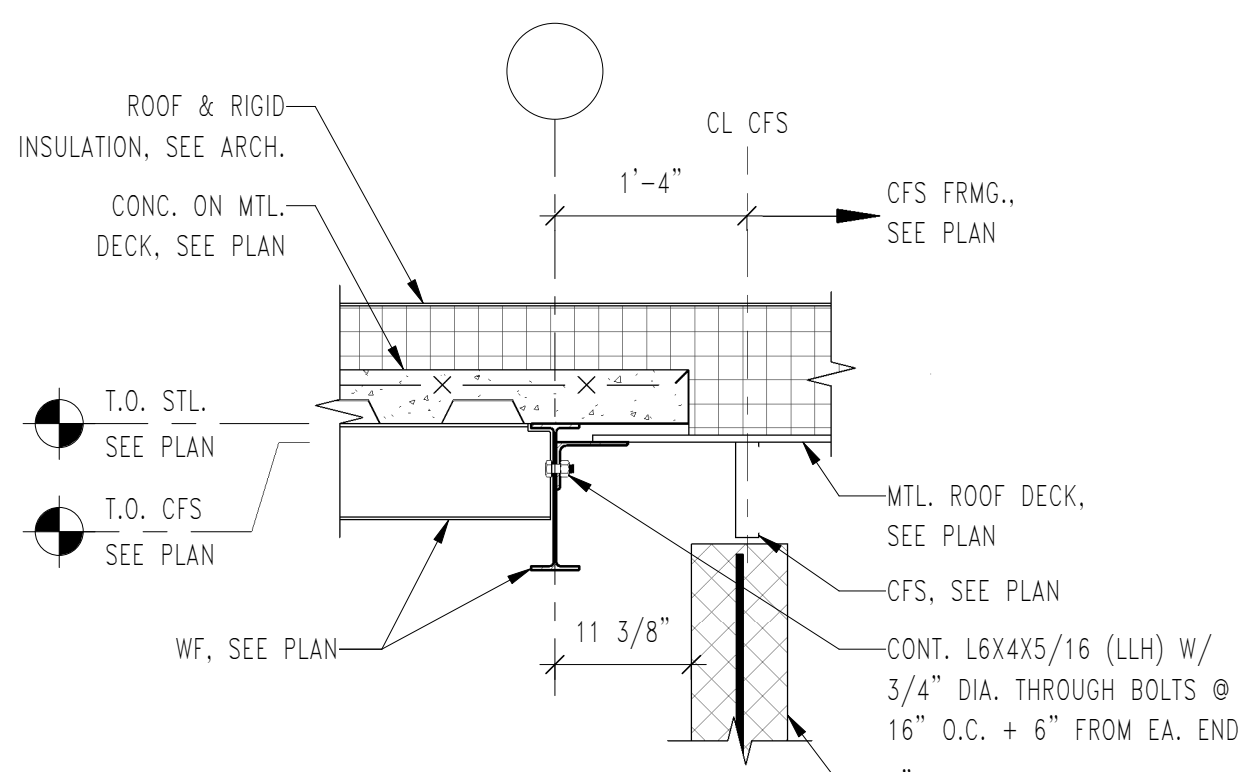
8 SECTION
SCALE: 3/4" = 1'-0"



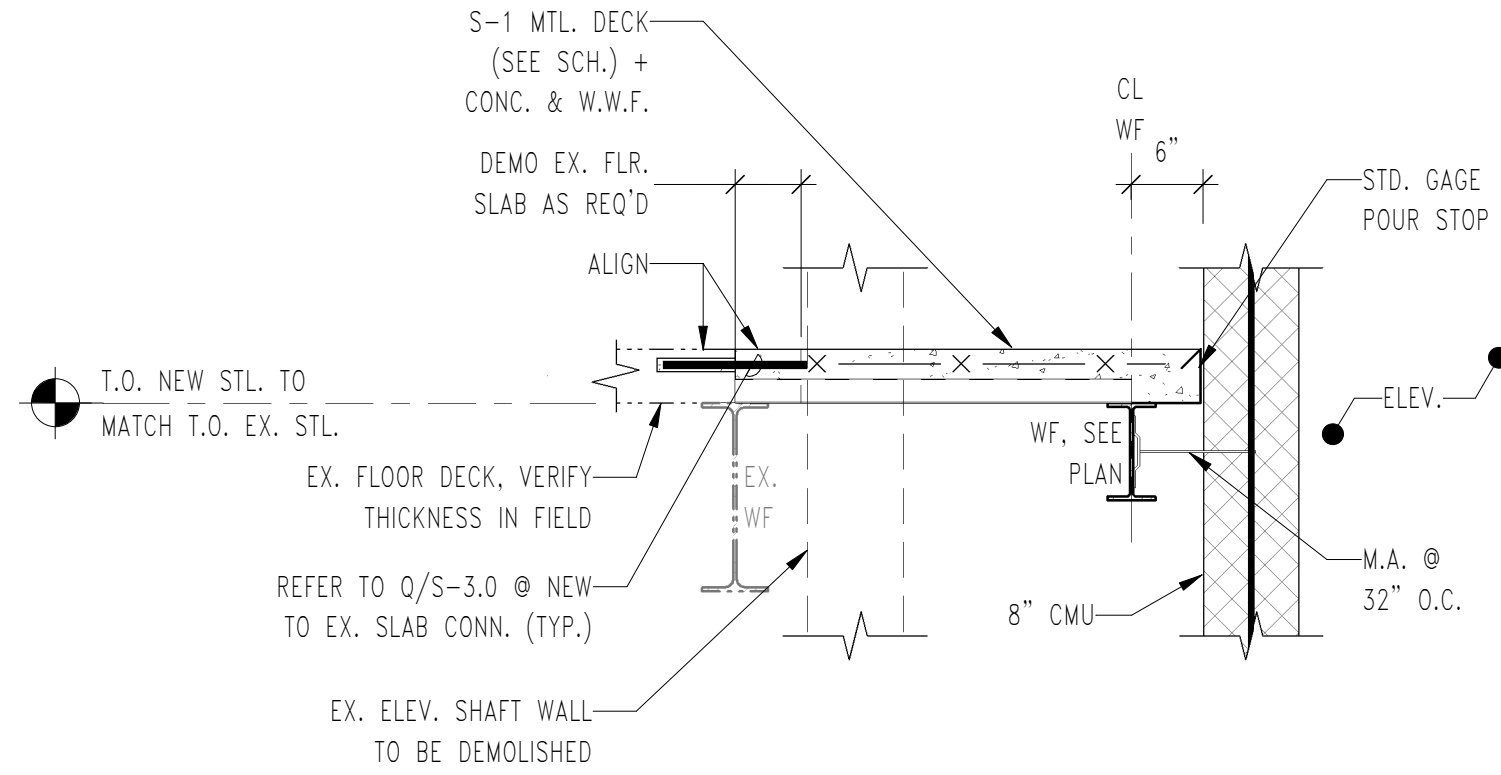
9 SECTION
SCALE: 3/4" = 1'-0"



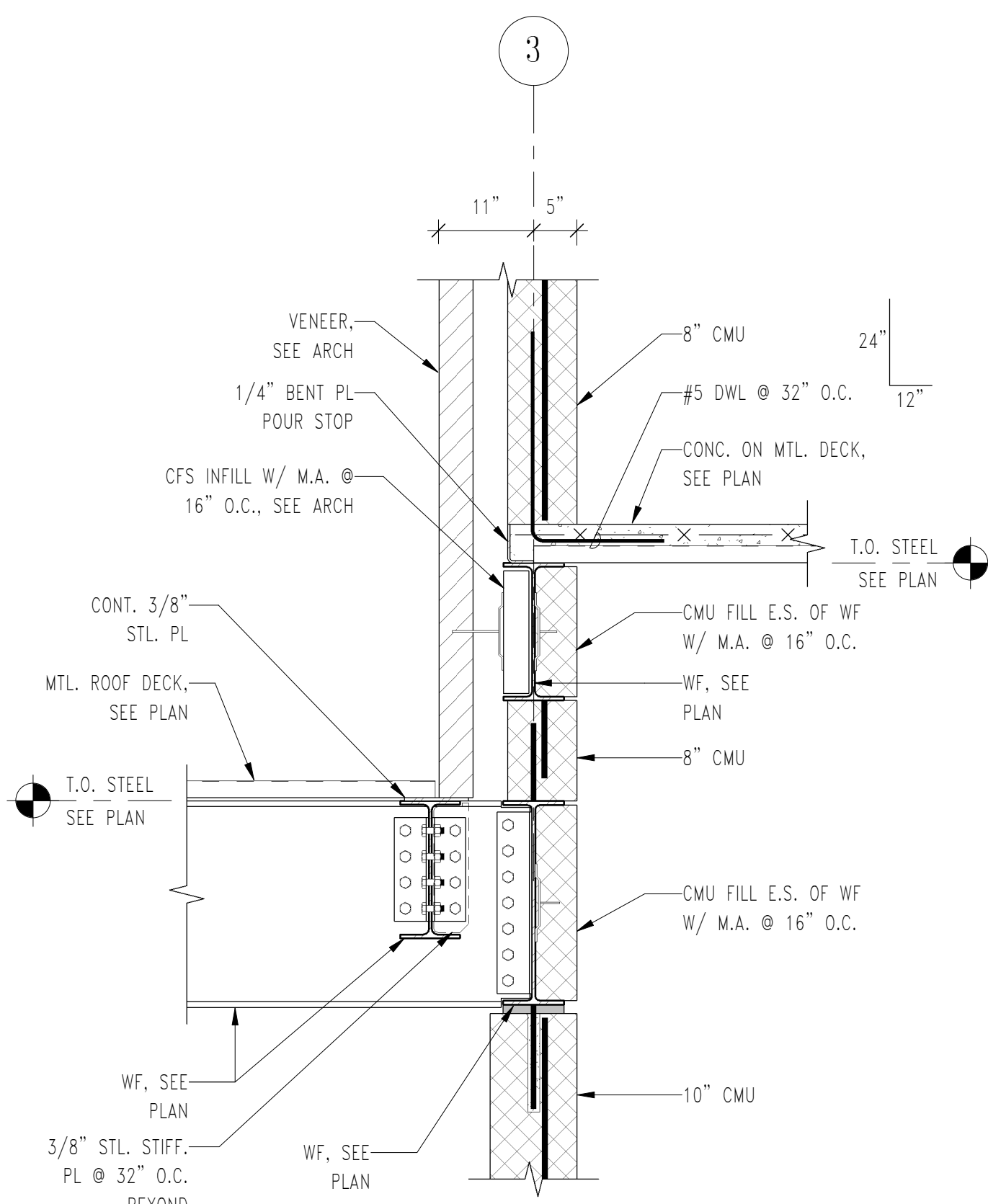
10 SECTION
SCALE: 3/4" = 1'-0"



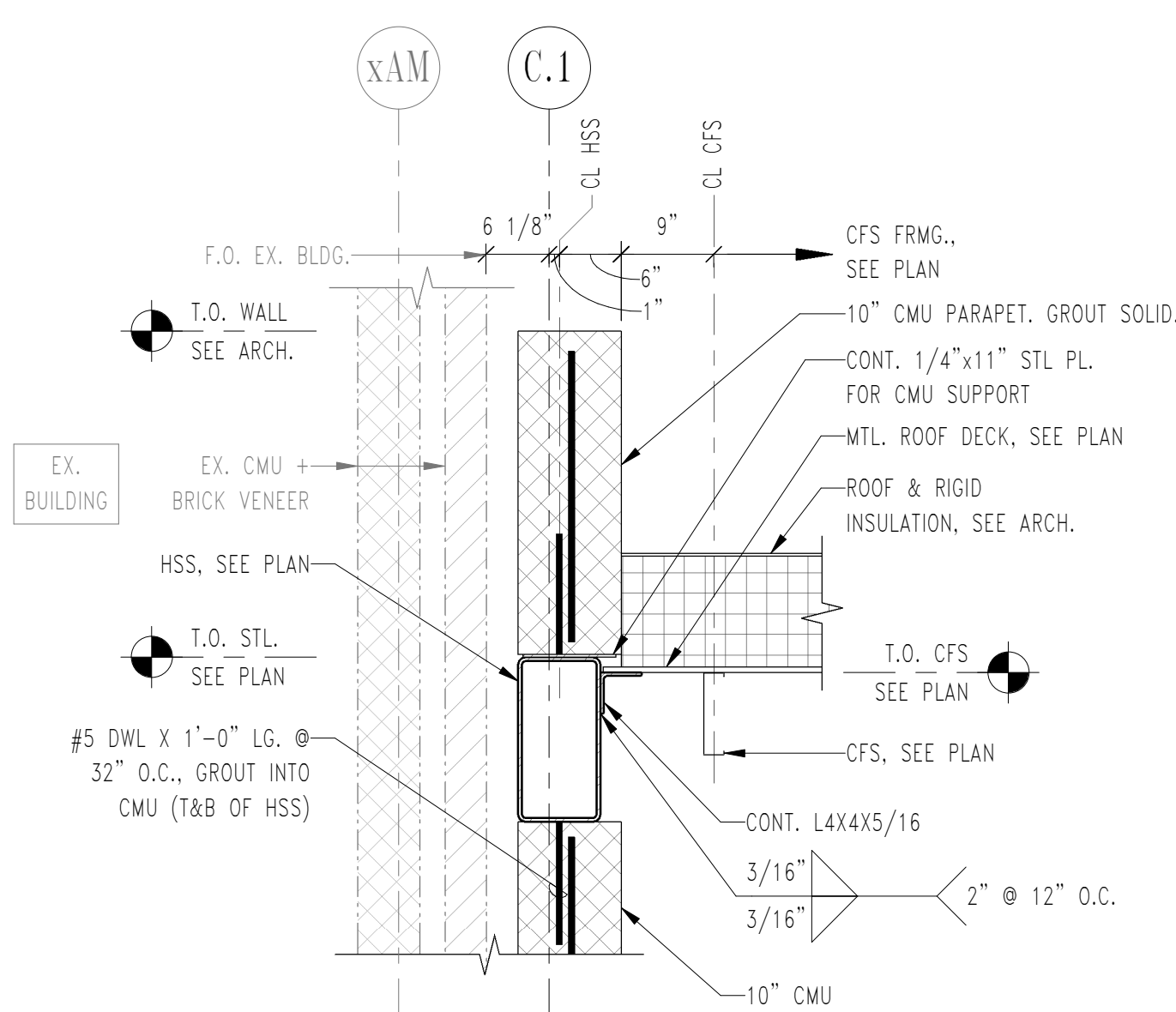
11 SECTION
SCALE: 3/4" = 1'-0"



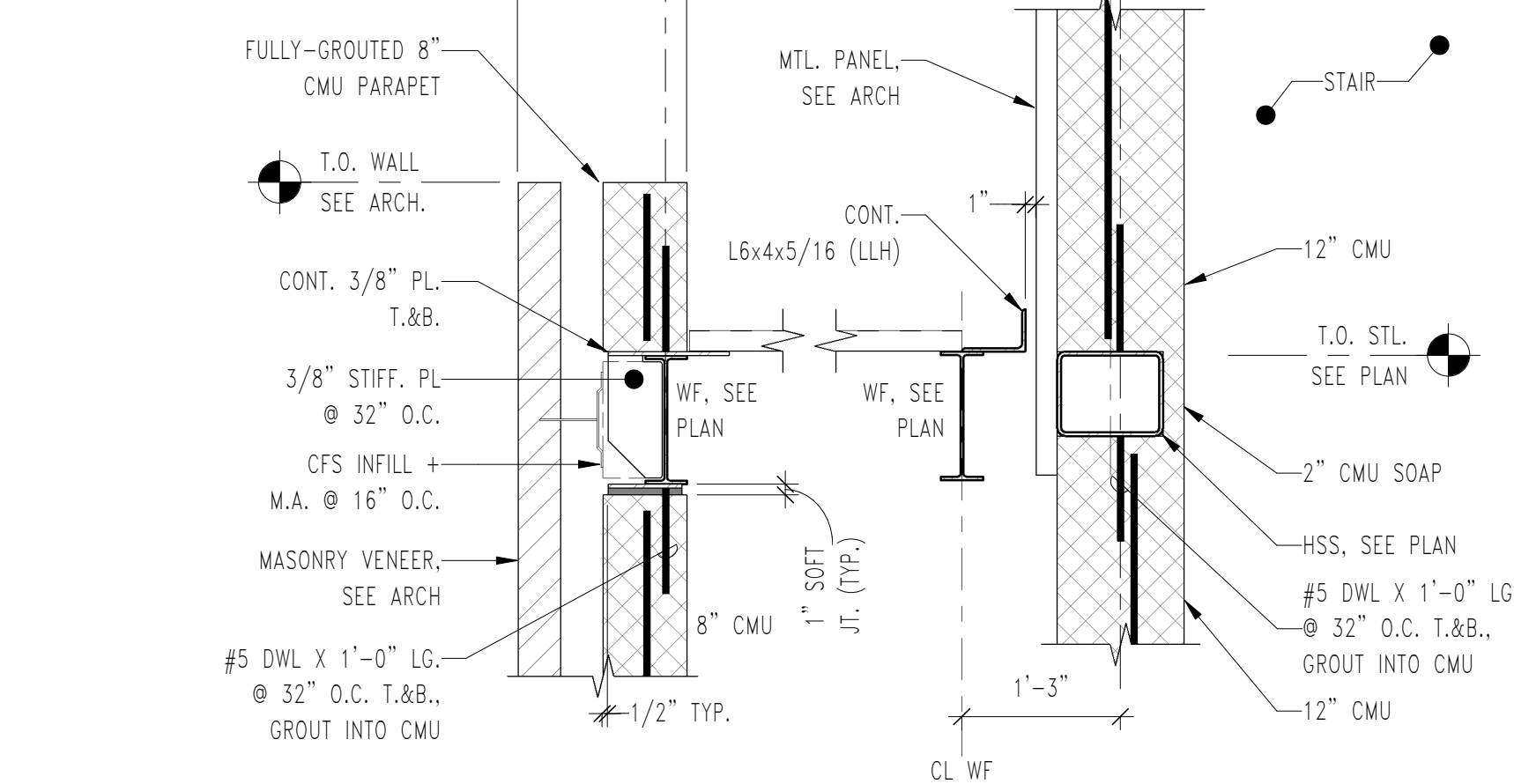
5 SECTION
SCALE: 3/4" = 1'-0"



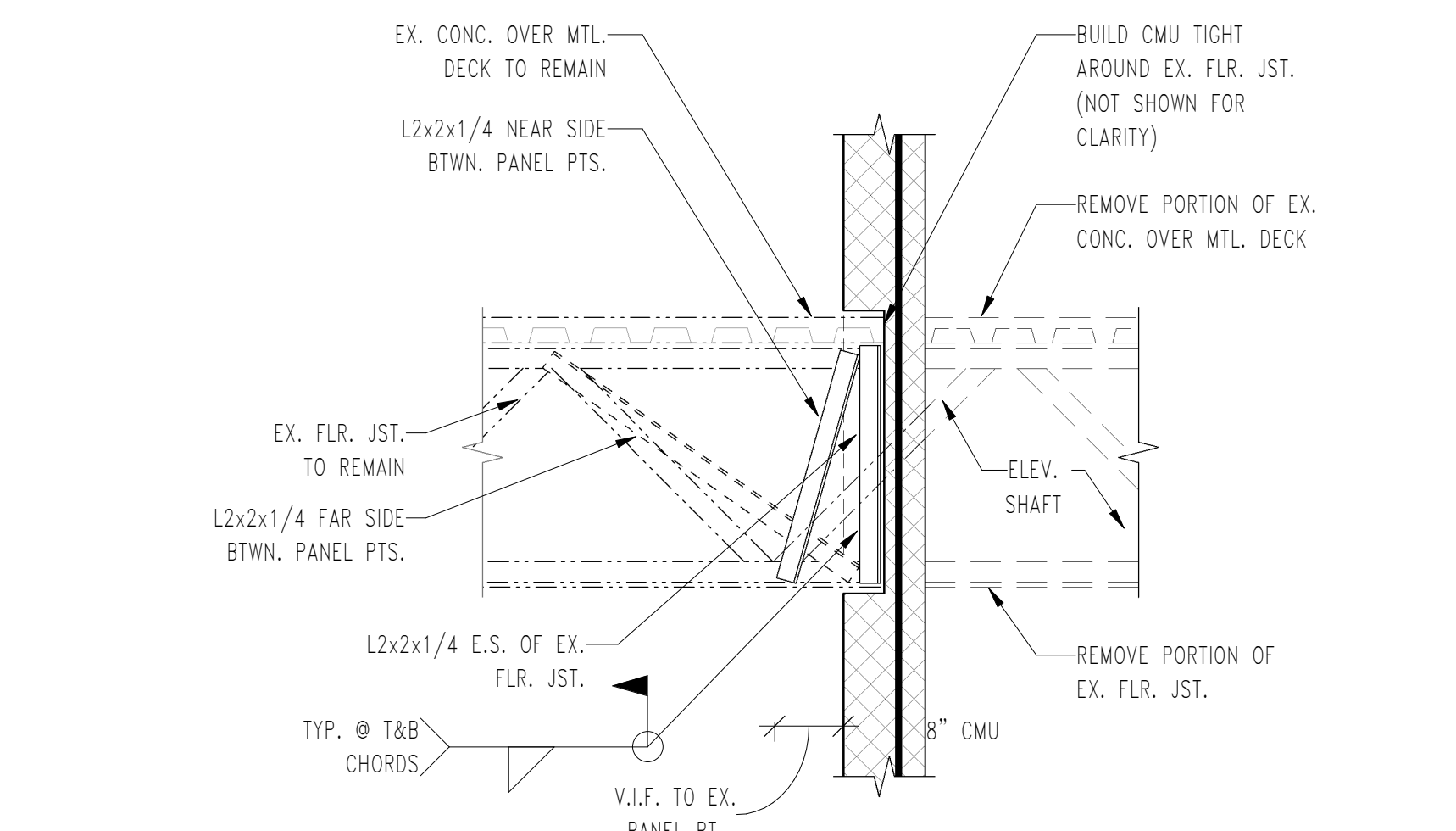
3 SECTION
SCALE: 3/4" = 1'-0"



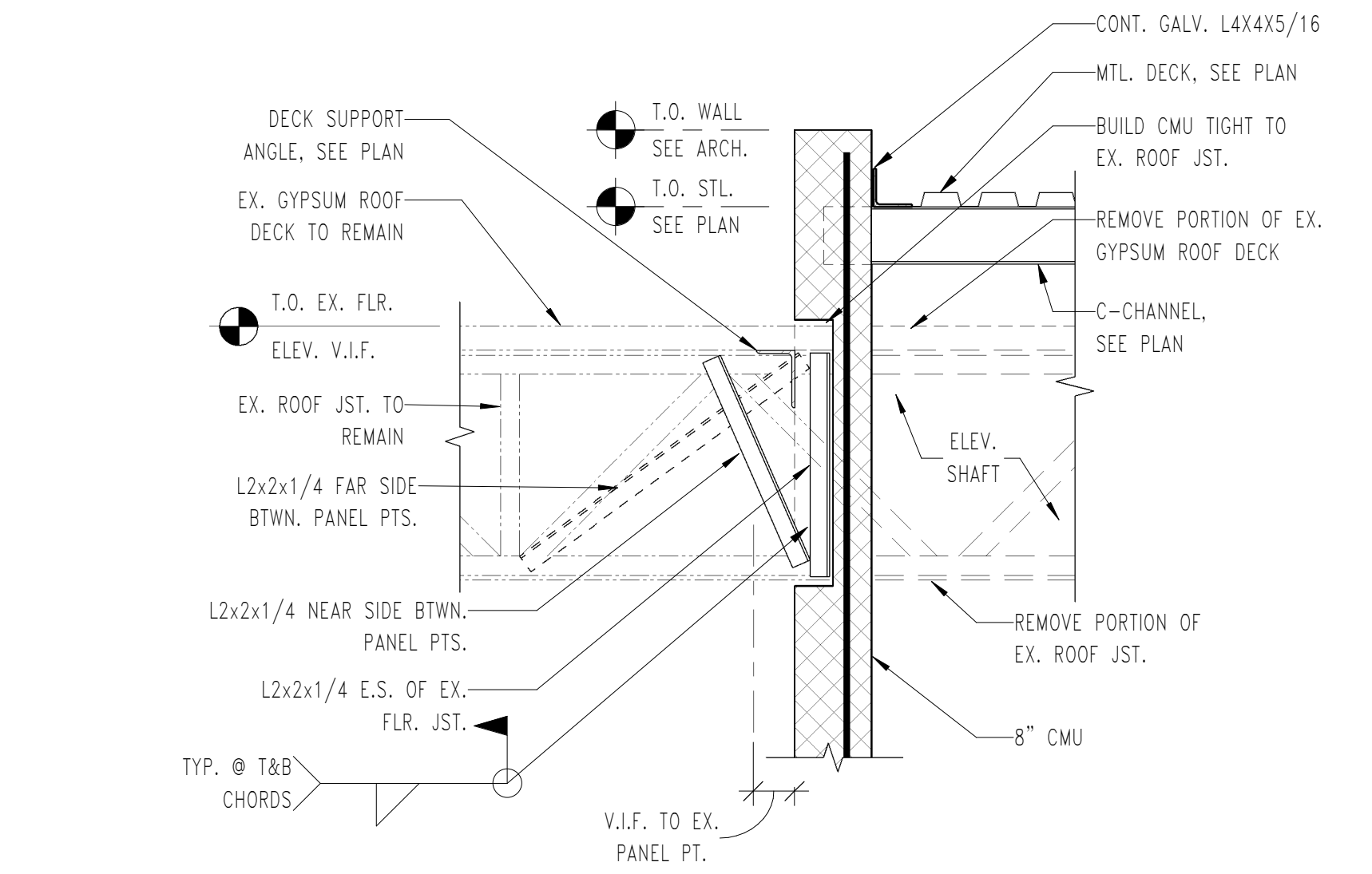
7 SECTION
SCALE: 3/4" = 1'-0"



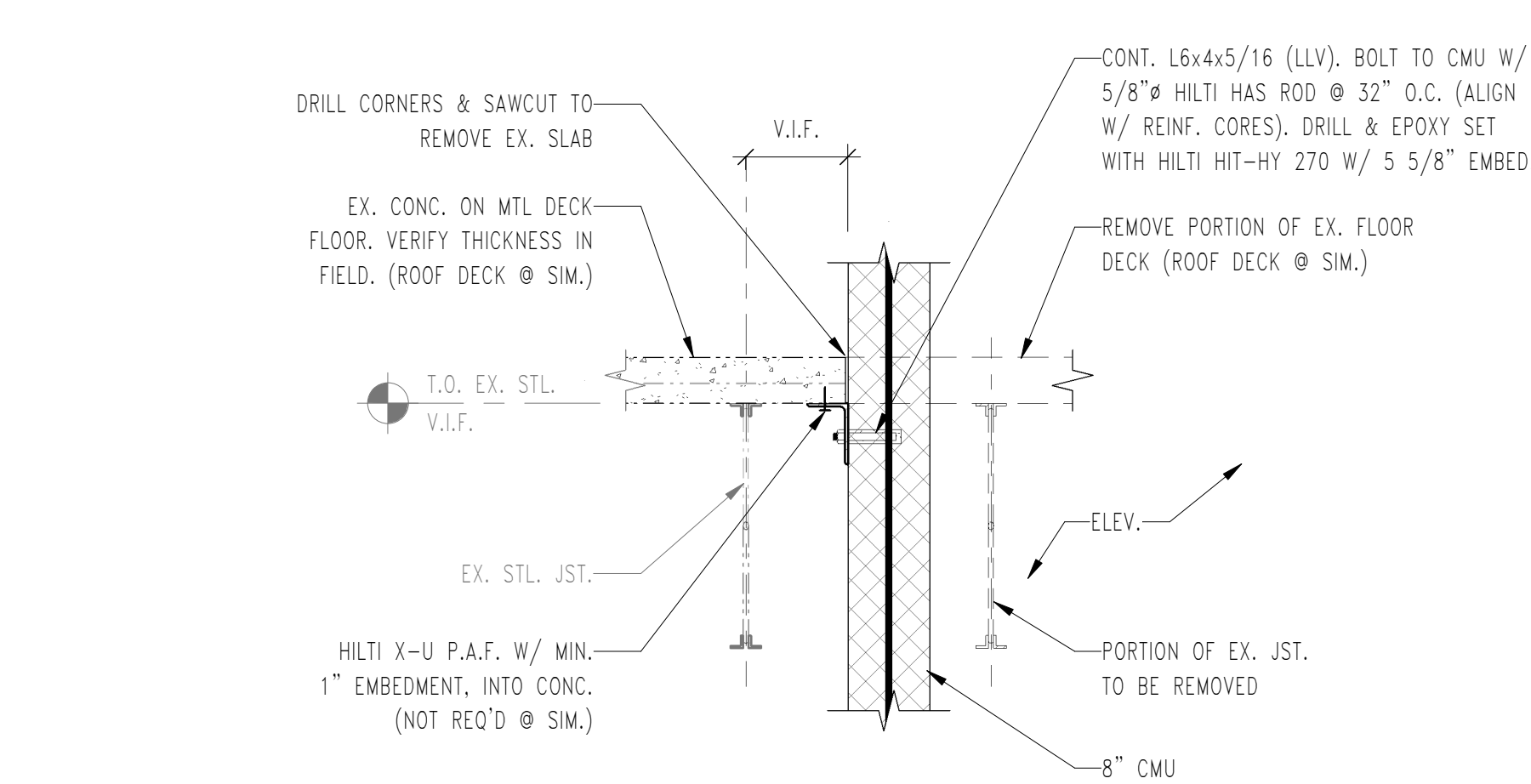
1 SECTION
SCALE: 3/4" = 1'-0"



2 SECTION @ EX. FLOOR
SCALE: 3/4" = 1'-0"



3 SECTION @ EX. ROOF
SCALE: 3/4" = 1'-0"



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

100 CHADDS FORD PROFESSIONAL CENTER
6 DICKINSON DRIVE, SUITE 103
CHADDS FORD, PA 19317-9699
PHONE: 610-558-6050
WWW.JBARBATO.COM

SEAL:

CONSULTANT:

JOSEPH BARBATO
Associates
STRUCTURAL ENGINEER - ARCHITECTURAL DESIGNER

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES

DATE	DESCRIPTION
03/17/2025	BID SET

PROJ # : MM2111 DRAWN BY : RF/ESR

SHEET TITLE:

SECTIONS

SHEET NUMBER:

S-2.2

BID SET

MAROTTA/MAIN
ARCHITECTS

WWW.MAROTTAMAIN.COM

THIS DRAWING IS THE PROPERTY OF THE ARCHITECT. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT WRITTEN PERMISSION.

JBA
Joseph Barbato
Associates



ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

PROJ #: MM2111 DRAWN BY: Author

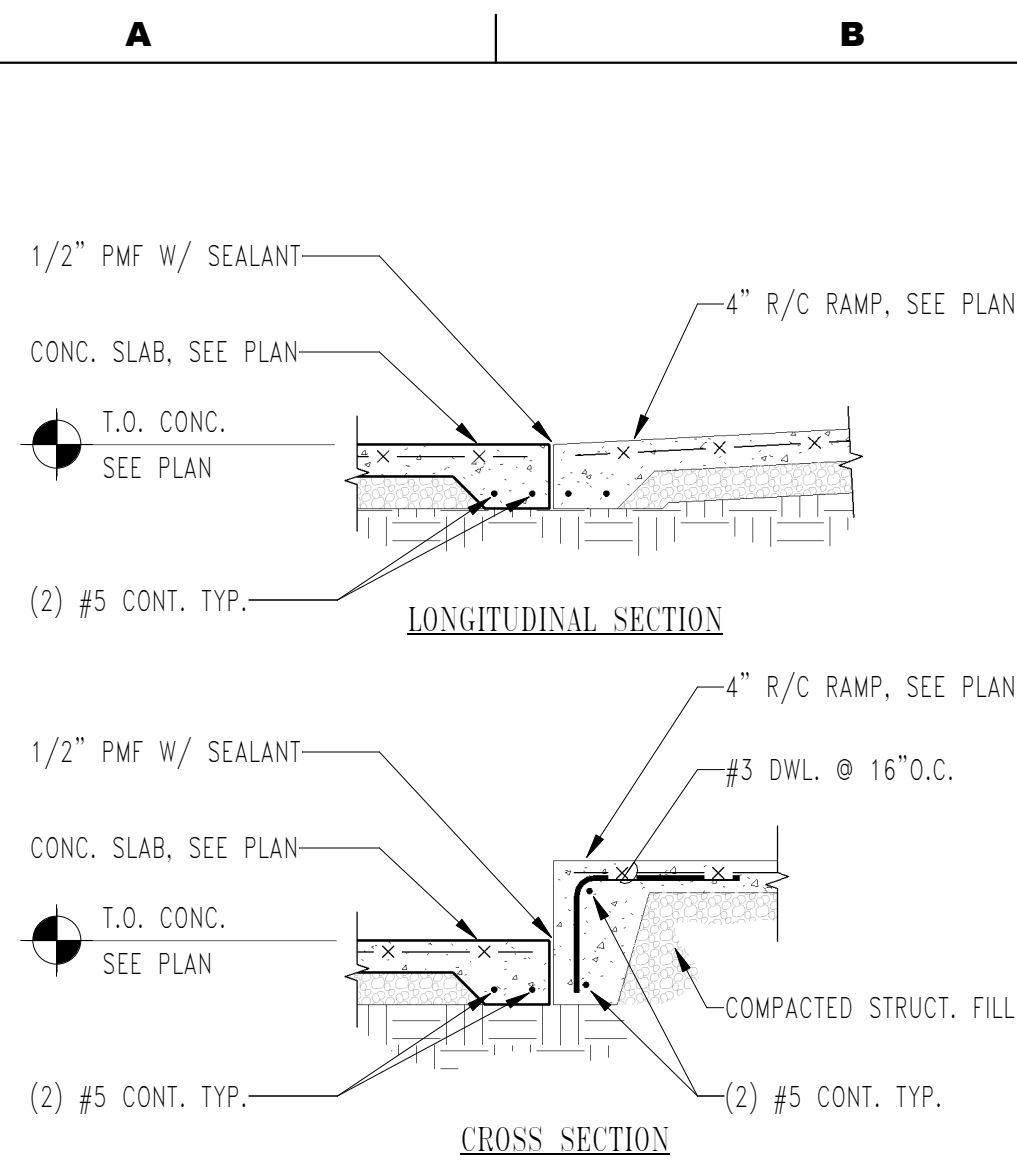
SHEET TITLE:

SHEET NUMBER

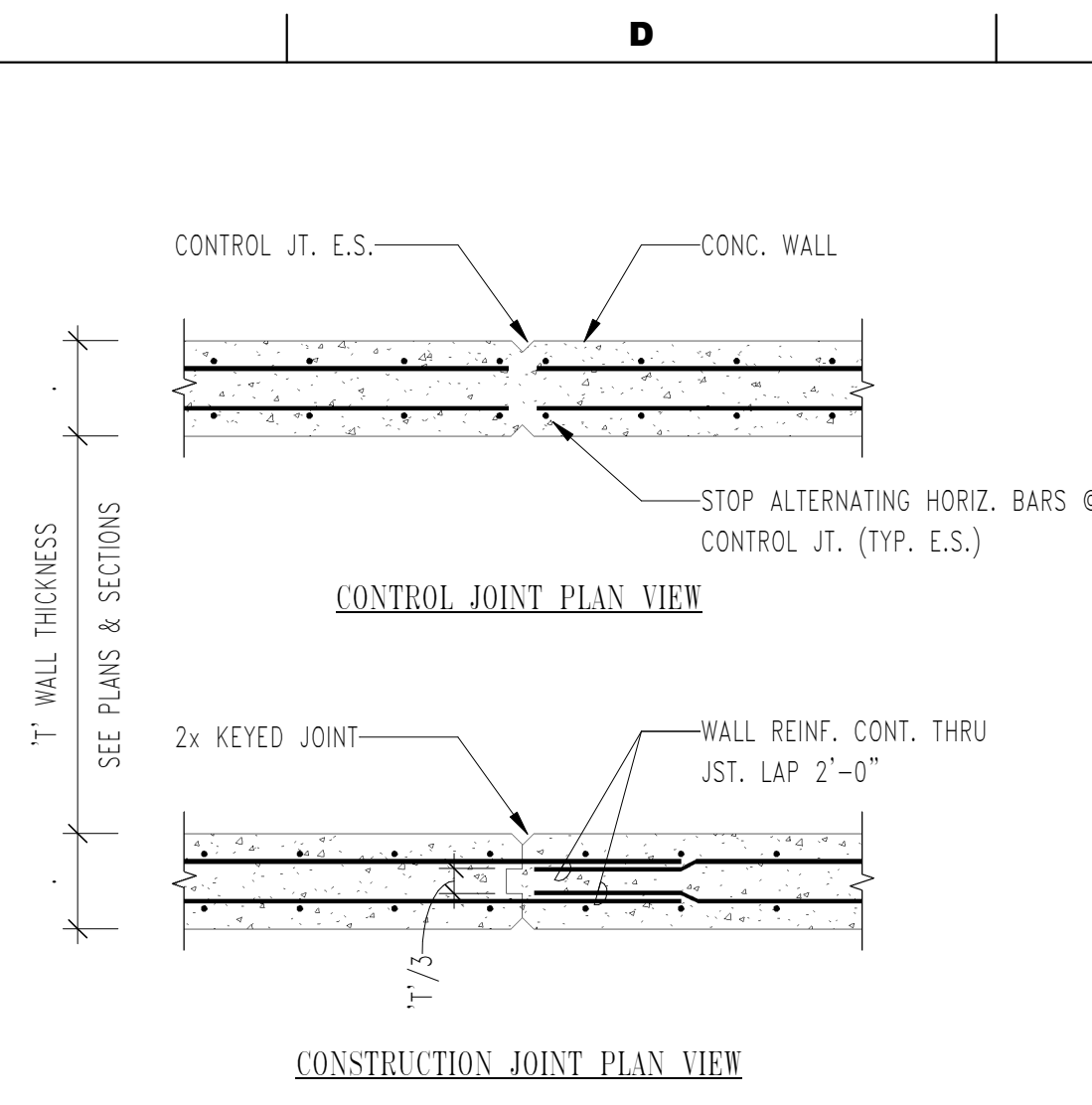
BID SET



3/17/2025 9:57:54 AM

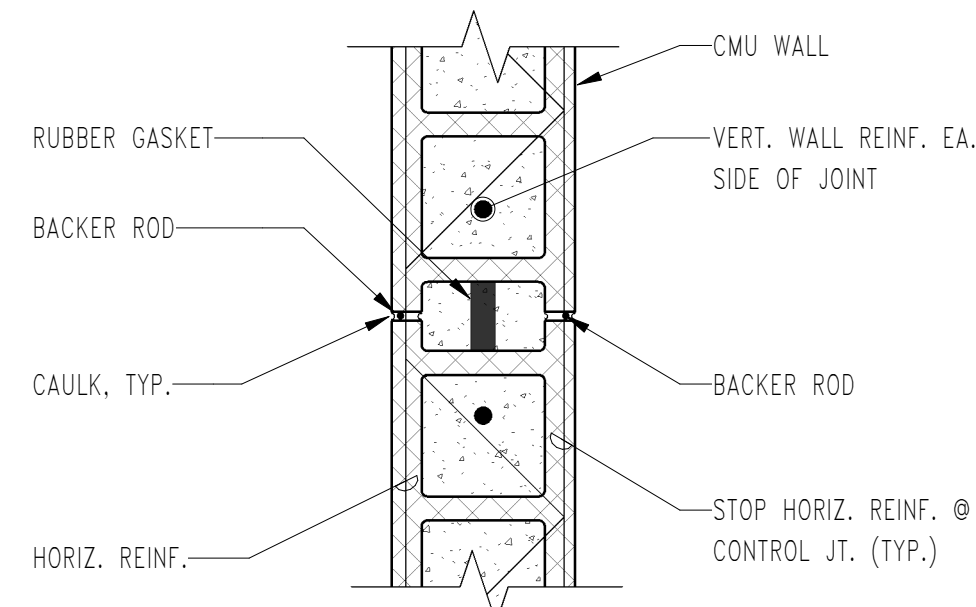


TYPICAL R/C RAMP
SCALE: N.T.S.

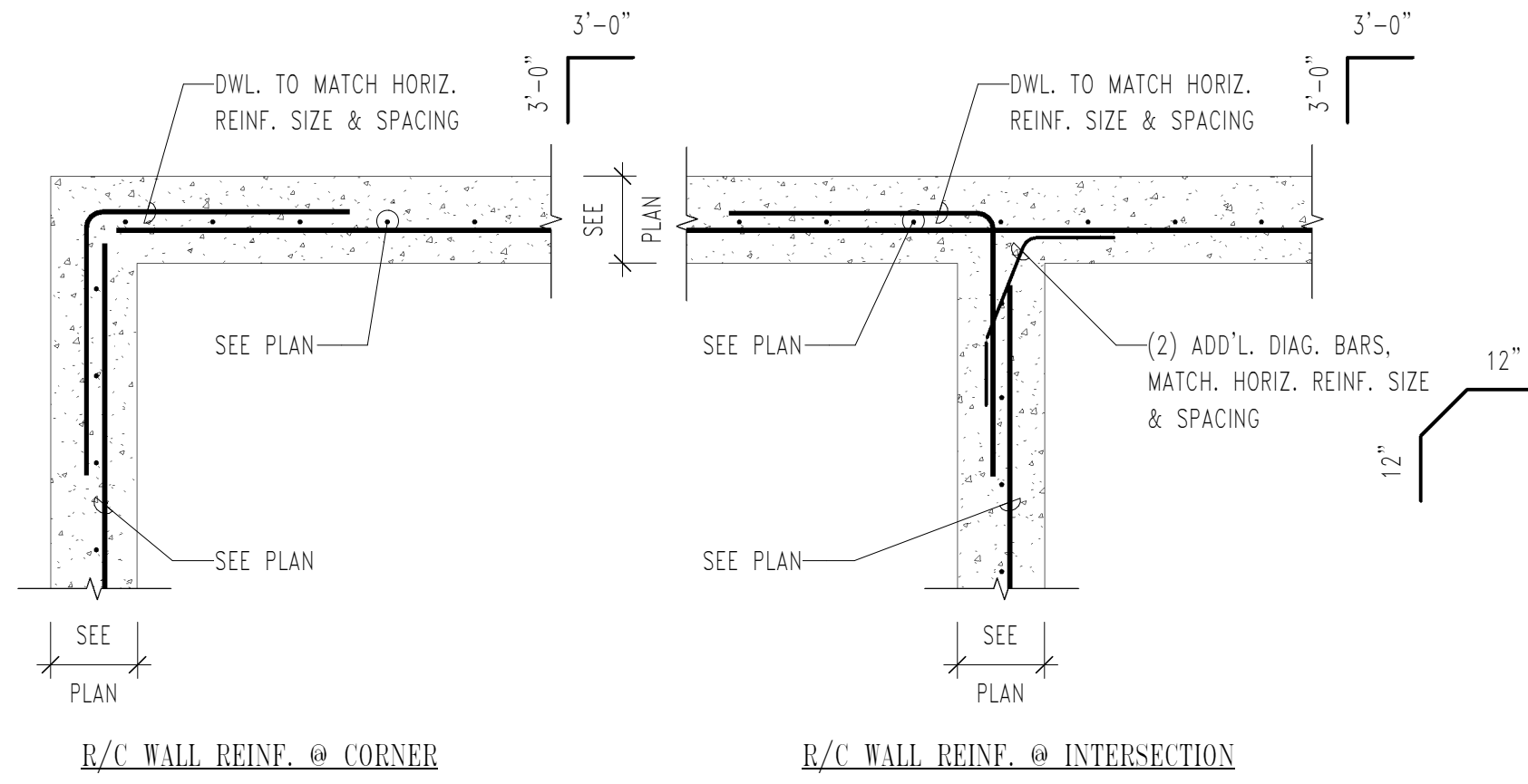


NOTES:
1. CONTRACTOR TO SUBMIT C.J. LOCATION FOR REVIEW & APPROVAL (MAX. SPACING 15'-0" O.C.)
2. SEE SECTIONS FOR WALL REINFORCEMENT

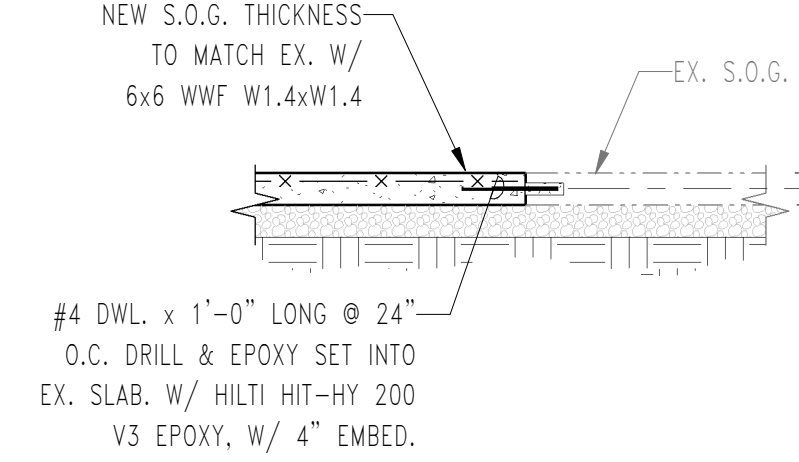
TYPICAL R/C WALL JOINTS
SCALE: N.T.S.



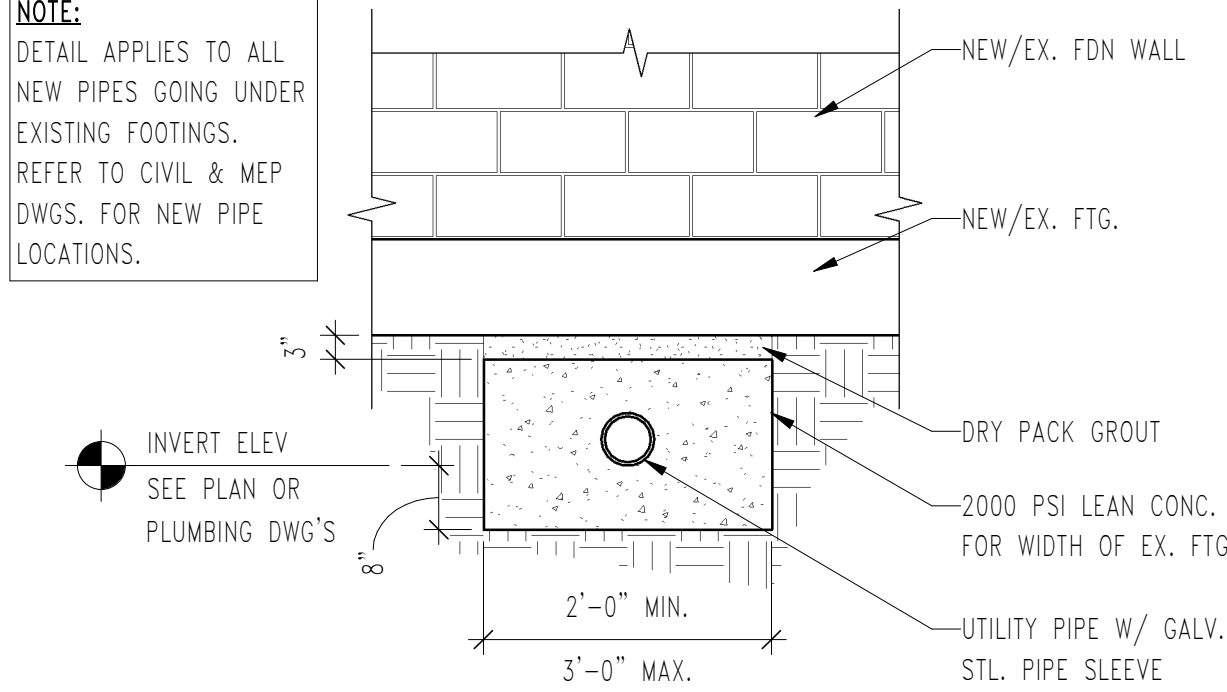
TYPICAL CMU WALL C.J.
SCALE: N.T.S.



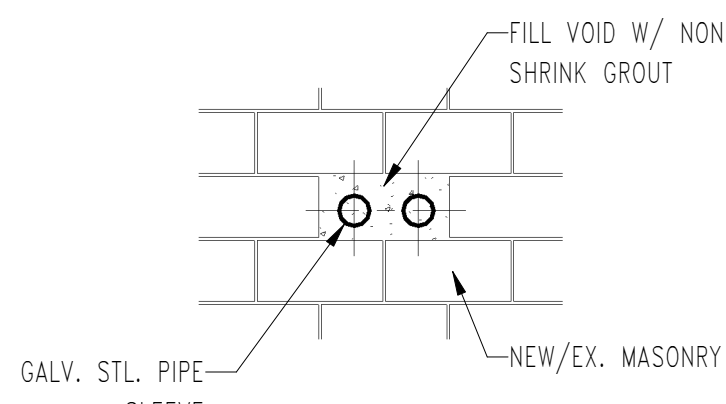
TYPICAL R/C WALL CORNER & INTERSECTION REINF.
SCALE: N.T.S.



TYPICAL S.O.G. @ EX. S.O.G.
SCALE: N.T.S.

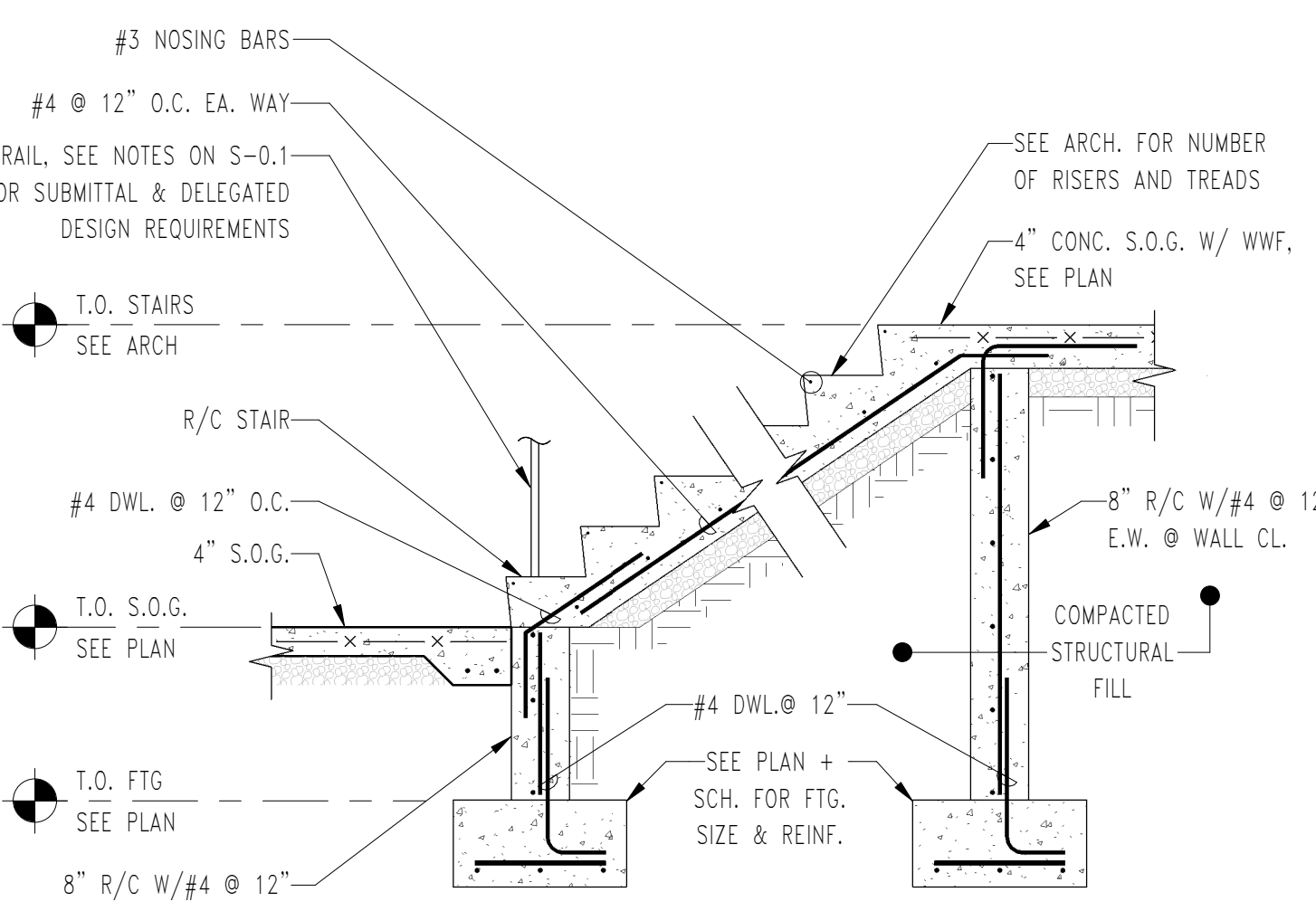


TYP. UTILITY UNDER WALL
SCALE: 1/2" = 1'-0"

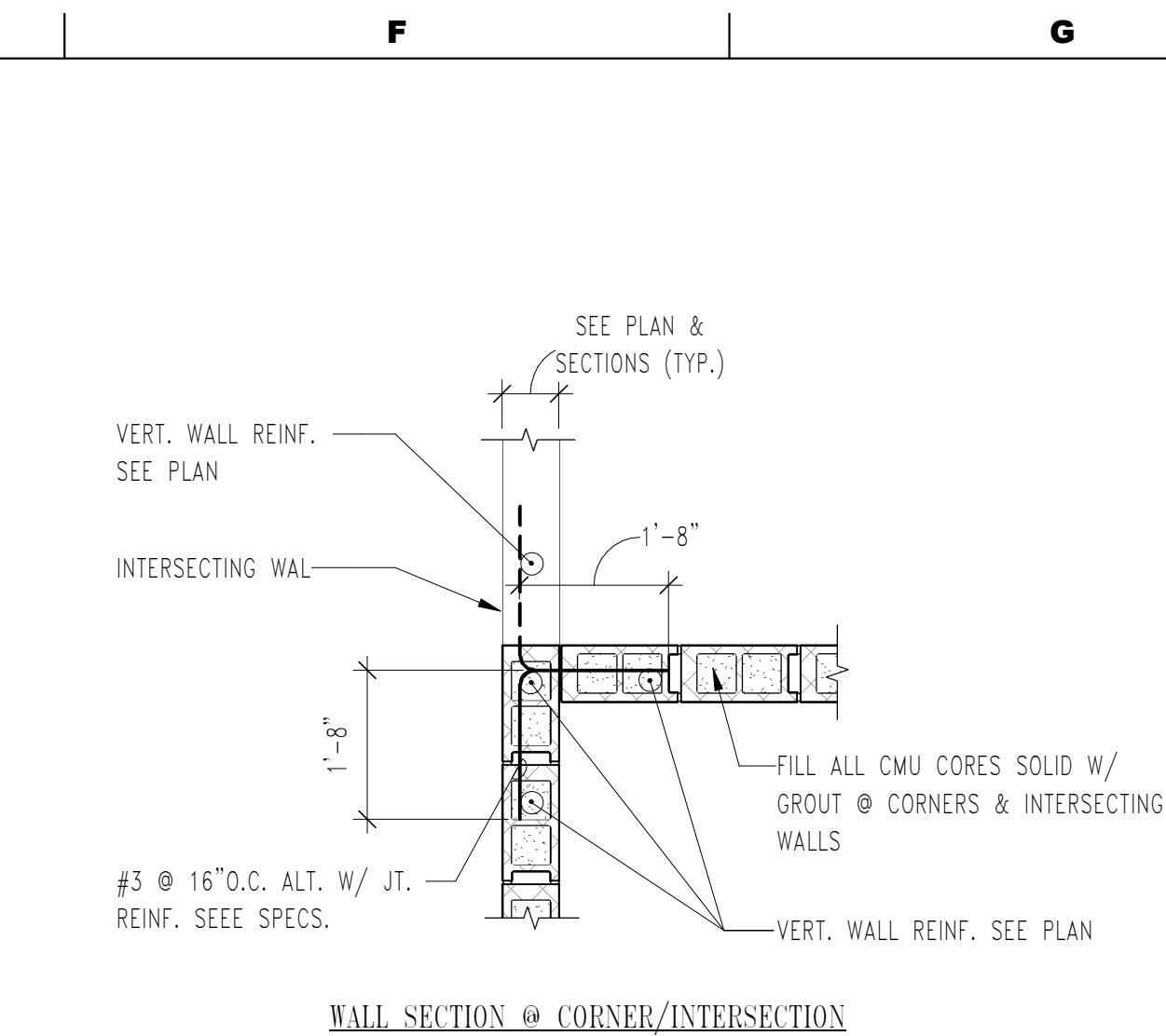


NOTE: FOR EX. PIPES RUNNING THROUGH NEW FTGS., STEP FTG. PER 4/S-3.0 & INSTALL FDN. WALLS PER THIS DETAIL OR REFER TO R/S-3.0 FOR UNDERPINNING INFORMATION OF NEW/EX. FTG. PROVIDE GALV. STL. PIPE SLEEVE AROUND EX. PIPES, REFER TO CIVIL & MEP DWGS. FOR APPROX. EX. PIPE LOCATIONS. ALL LOCATIONS ARE TO BE VERIFIED IN FIELD.

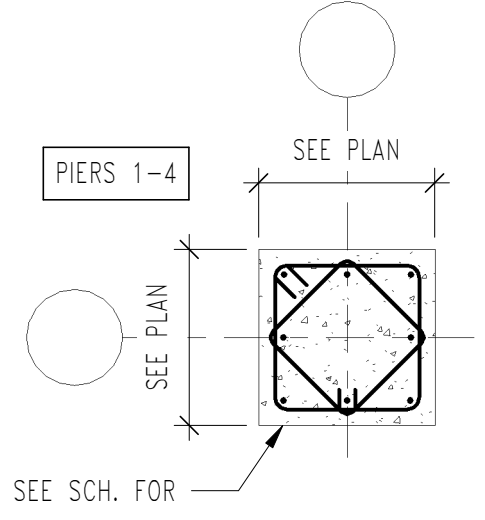
TYP. UTILITY THROUGH FDN WALL
SCALE: 1/2" = 1'-0"



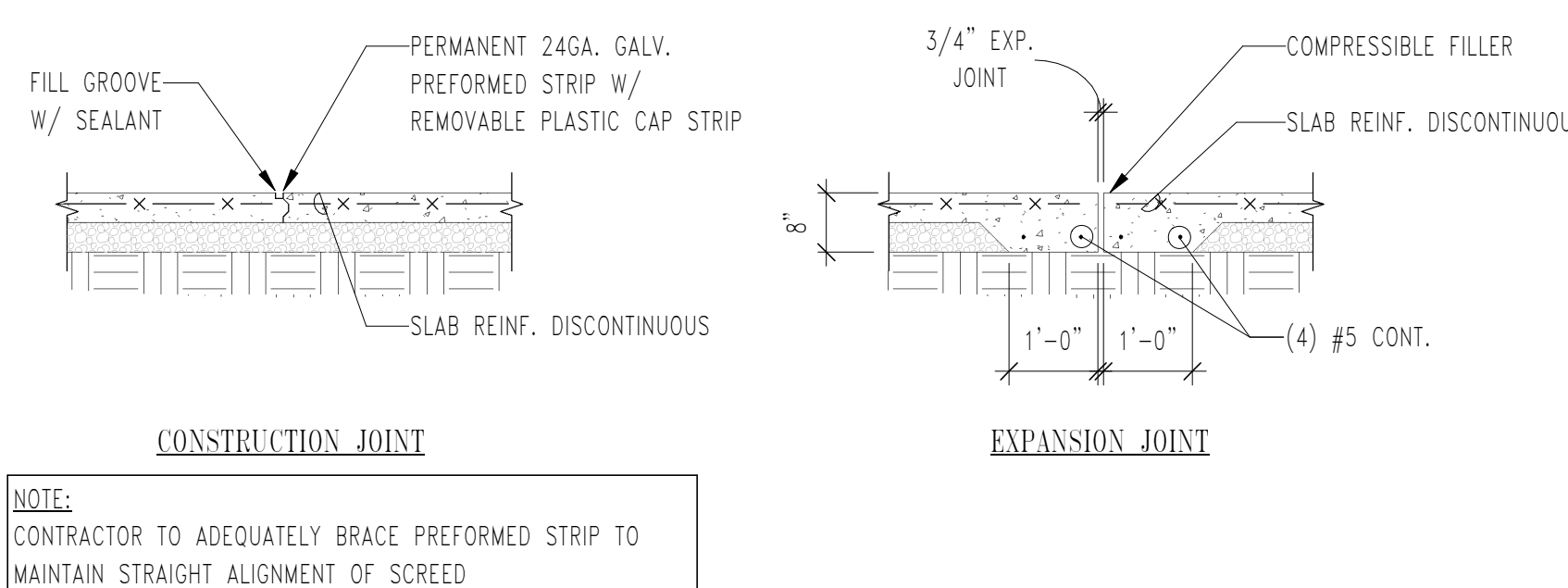
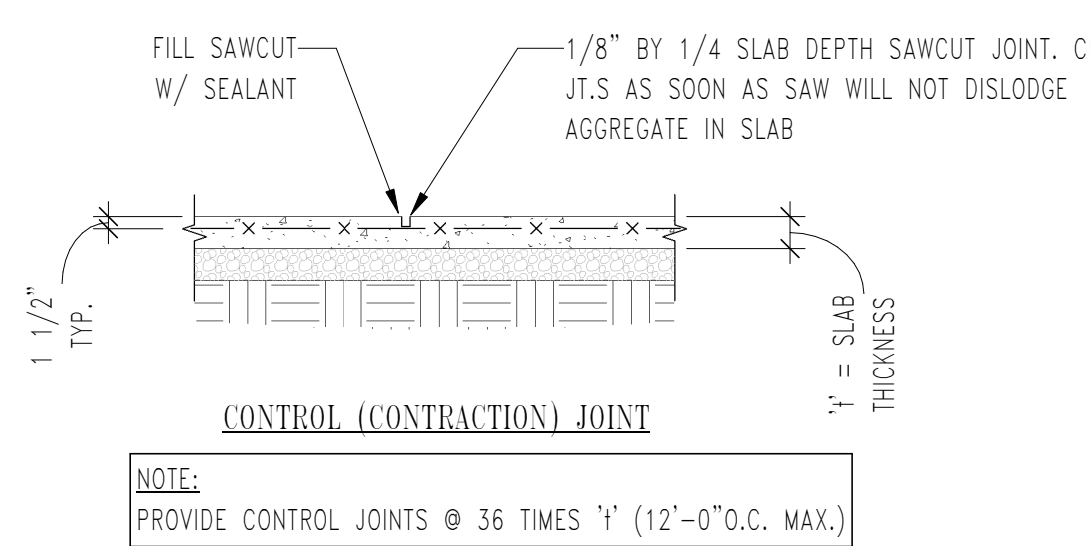
TYPICAL R/C STAIR
SCALE: N.T.S.



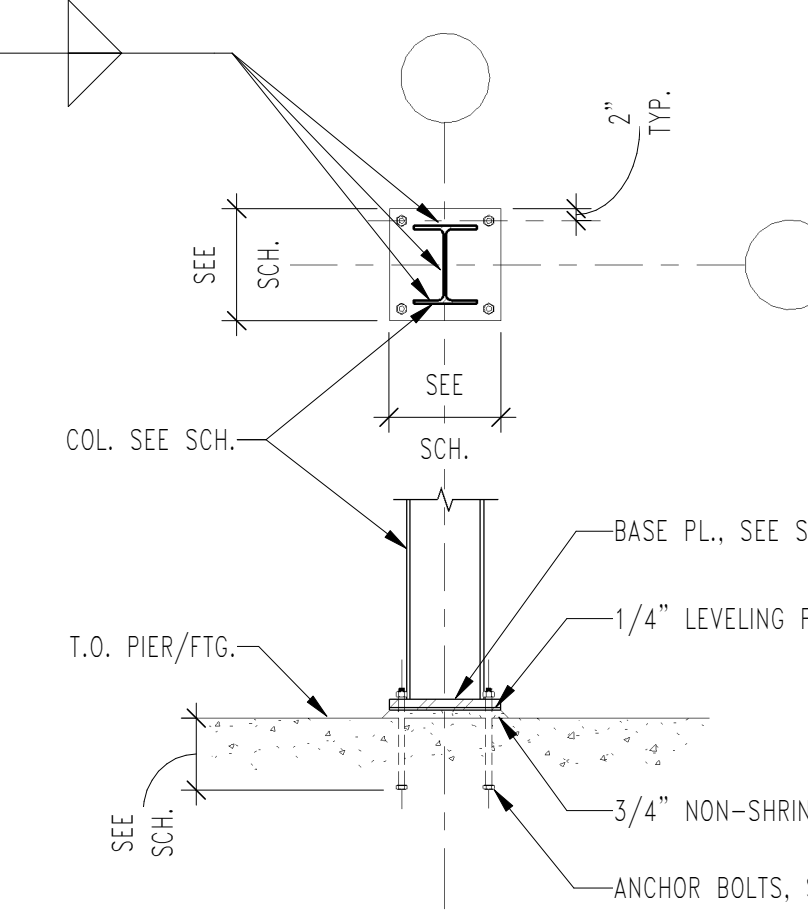
TYPICAL CMU WALL CORNER & INTERSECTION REINF.
SCALE: N.T.S.



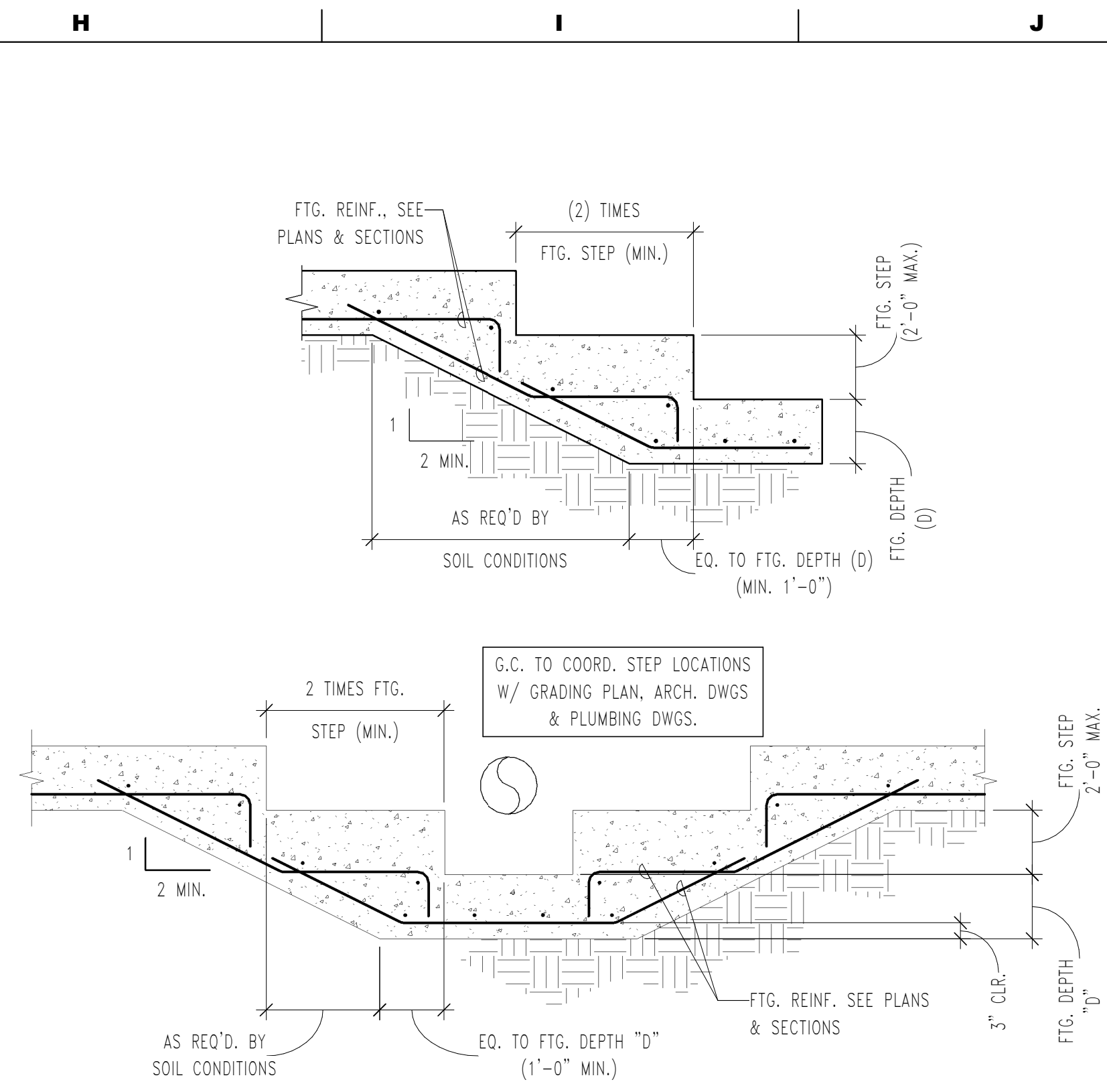
TYPICAL PIER REINFORCEMENT
SCALE: N.T.S.



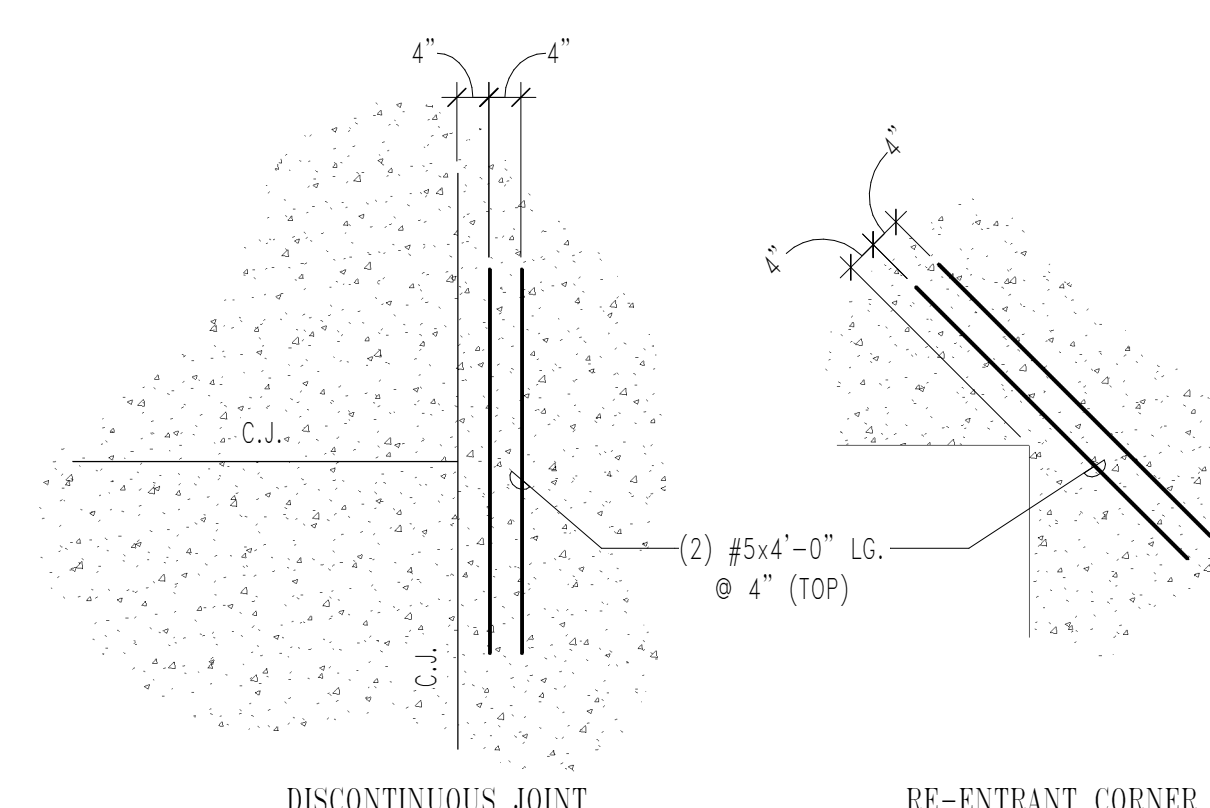
TYPICAL S.O.G. CONTROL, CONST. & EXP. JOINTS
SCALE: N.T.S.



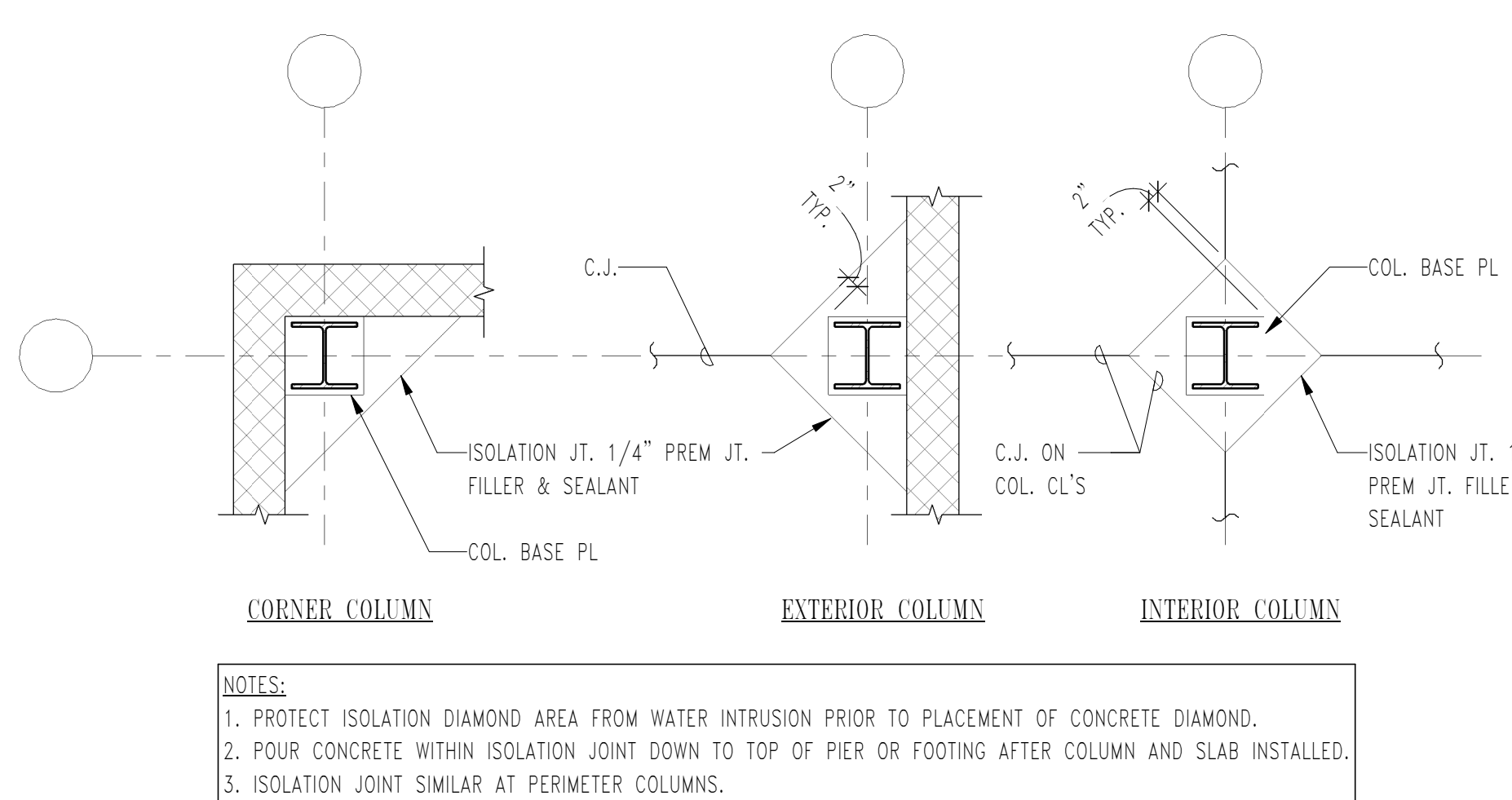
TYPICAL COLUMN BASE PLATE
SCALE: N.T.S.



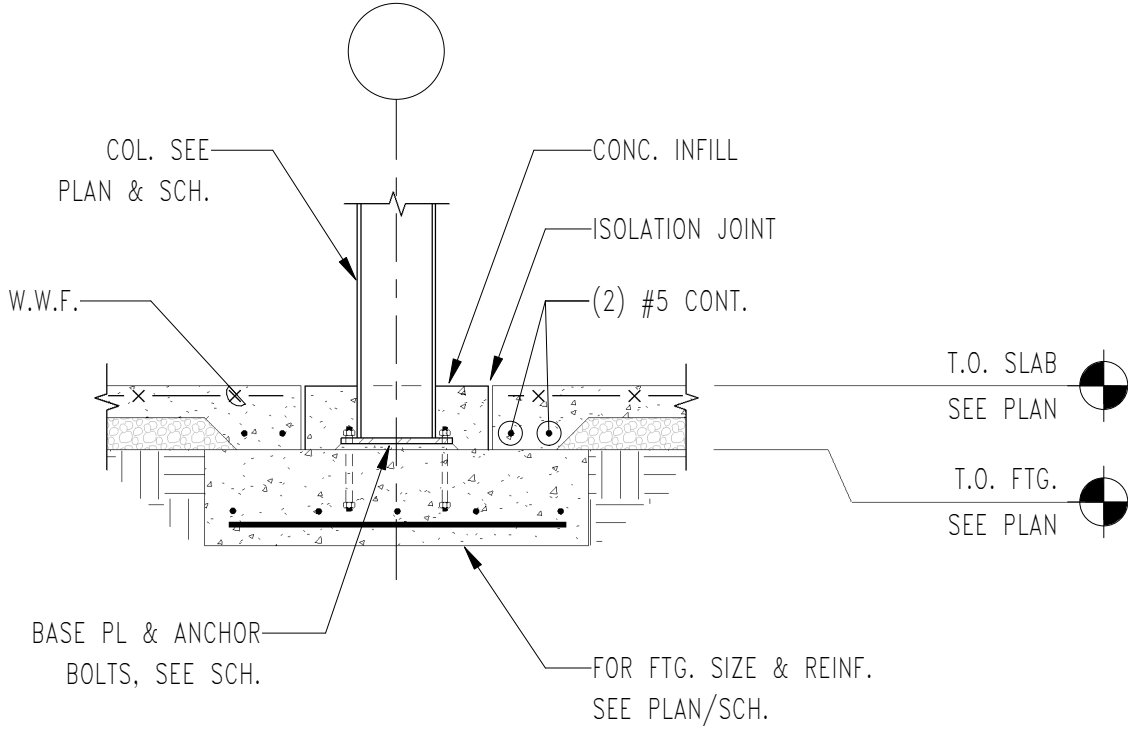
TYPICAL STEP FOOTING
SCALE: N.T.S.



TYPICAL S.O.G. CRACK CONTROL
SCALE: N.T.S.



TYPICAL S.O.G. ISOLATION JOINT
SCALE: N.T.S.



TYPICAL INTERIOR COLUMN FOOTING
SCALE: N.T.S.

MAROTTA/MAN
ARCHITECTS

WWW.MAROTTAMAIN.COM

SEAL:

Joseph Barbato
Associates
STRUCTURAL ENGINEERS • PROVIDING A HIGHER LEVEL

100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9689
phone: 610-558-6050
www.JBarbato.com

CONSULTANT:

JBA
STRUCTURAL ENGINEERS • PROVIDING A HIGHER LEVEL

100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9689
phone: 610-558-6050
www.JBarbato.com

DCIU
Empowering Partnerships For Education

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES
DATE: 03/17/2025
DESCRIPTION: BID SET

NO.	DESCRIPTION
1	BID SET

PROJ # : MM2111
DRAWN BY : RF/ESR
SHEET TITLE:

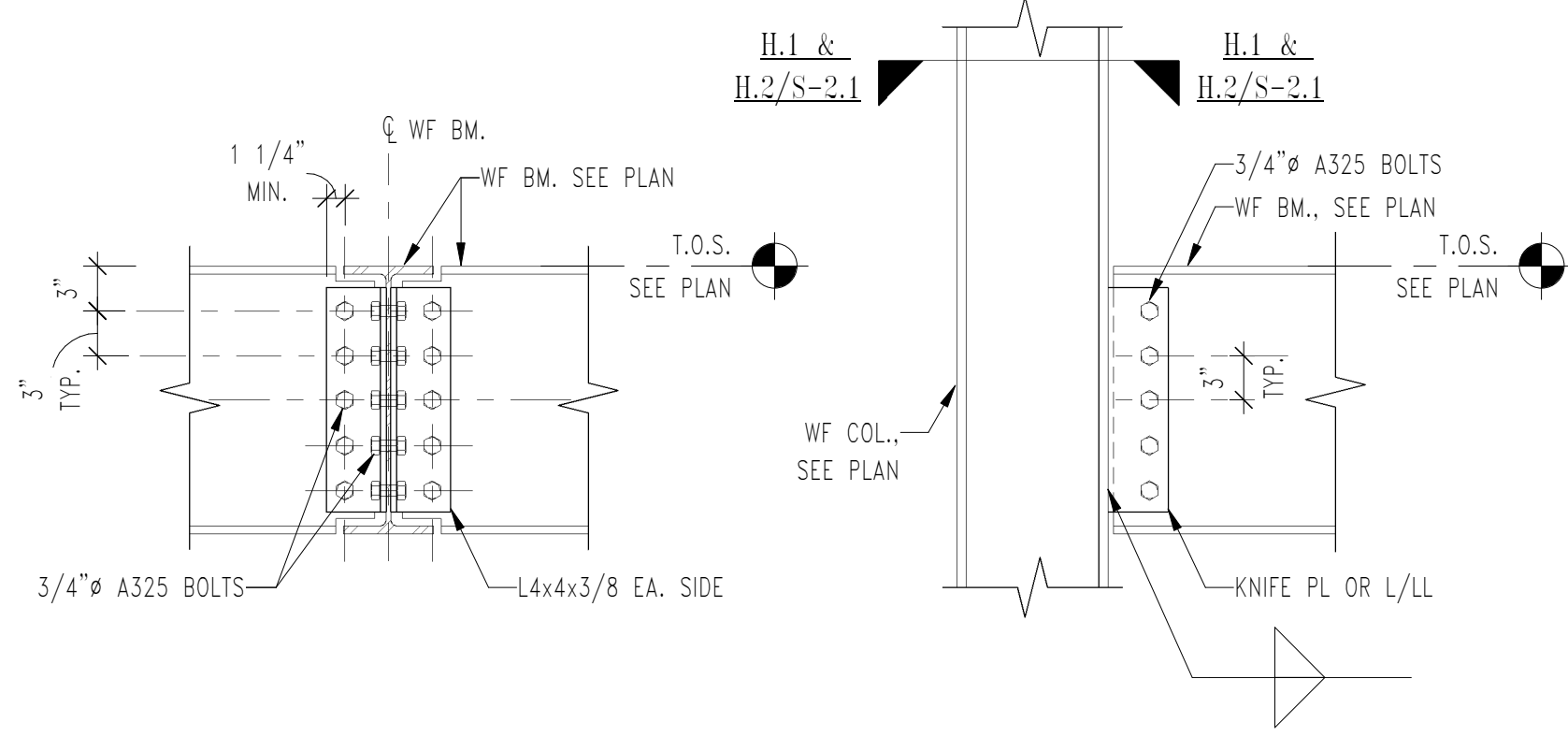
TYPICAL DETAILS

SHEET NUMBER:
S-3.0

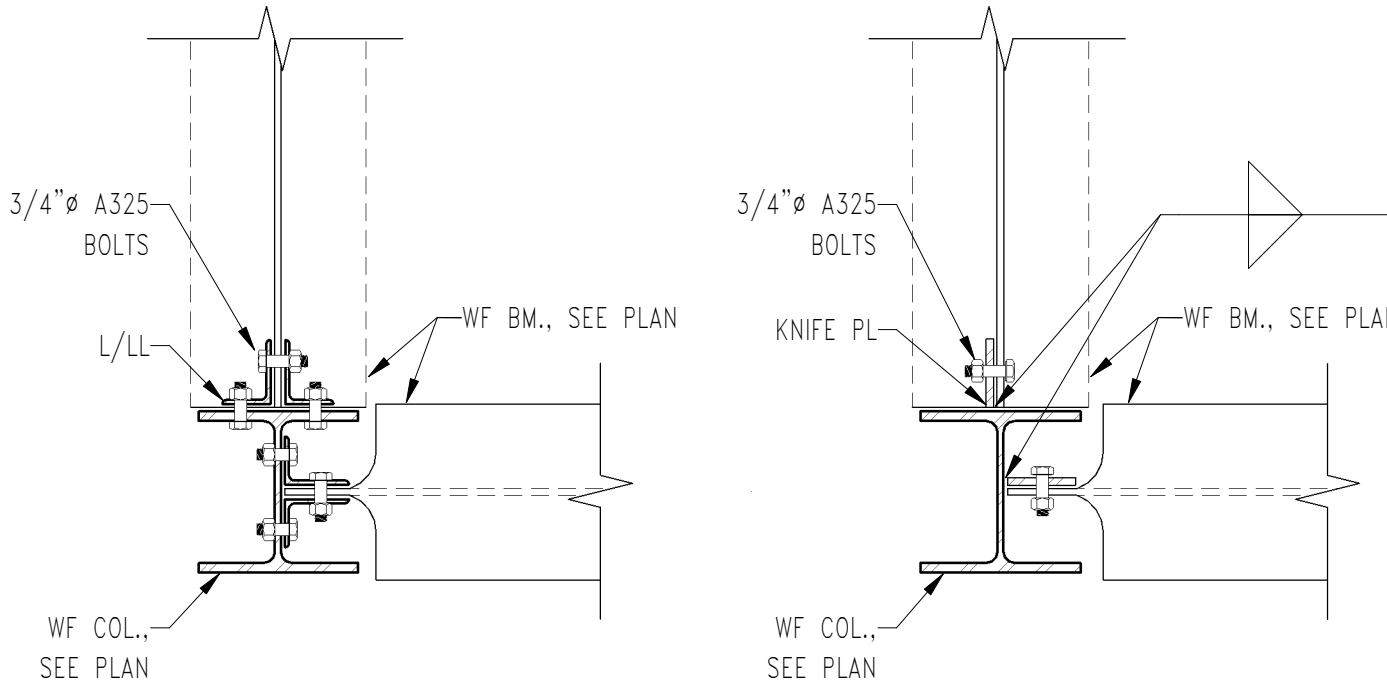
BID SET

3/17/2025 9:57:56 AM

SHEAR CONNECTION SCHEDULE					
AREA A1: SECOND & THIRD FLOOR			AREA A1: ROOF & CANOPIES		
DEPTH OF WF	ASD SHEAR DESIGN LOAD (KIPS)		MIN. # OF BOLT ROWS	ASD SHEAR DESIGN LOAD (KIPS)	
	DL	LL		DL	SL
8	5	5	2	8	5
10	5	5	2	10	5
12	15	10	3	12	5
14	15	10	3	14	5
16	15	10	4	16	5
18	15	10	5	18	10
21	25	10	6	21	10
24	45	20	7	24	10
AREA A2, B2, B3, & B4: ROOFS/FLOORS/CANOPIES			AREA C: SECOND FLOOR		
DEPTH OF WF	ASD SHEAR DESIGN LOAD (KIPS)		MIN. # OF BOLT ROWS	ASD SHEAR DESIGN LOAD (KIPS)	
	DL	SL		DL	LL
8	5	5	2	8	5
10	5	5	2	10	5
12	5	10	3	12	10
14	5	10	3	14	10
16	10	10	4	16	15
18	10	10	5	18	15
21	10	15	6	21	30
24	15	20	7	24/27	35
AREA C: ROOF			NOTES:		
DEPTH OF WF	ASD SHEAR DESIGN LOAD (KIPS)		MIN. # OF BOLT ROWS	1. INFORMATION SHOWN IS SCHEMATIC AND INCLUDED FOR PRICING ONLY. CONNECTIONS ARE TO BE DESIGNED BY STEEL FABRICATOR PER "STRUCTURAL STEEL NOTES" ON S-0.1 IN ACCORDANCE WITH AISC 303-16 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES 3.1.1 "OPTION 3"	
	DL	SL		2. REFER TO PLAN FOR INSTANCES OF CONNECTION LOADS GREATER THAN TYPICAL LOADS NOTED IN SCHEDULE ABOVE.	
8	5	5	2		
10	5	5	2		
12	5	5	3		
14	5	5	3		
16	10	10	4		
18	15	15	5		
21	15	15	6		
24	15	15	7		

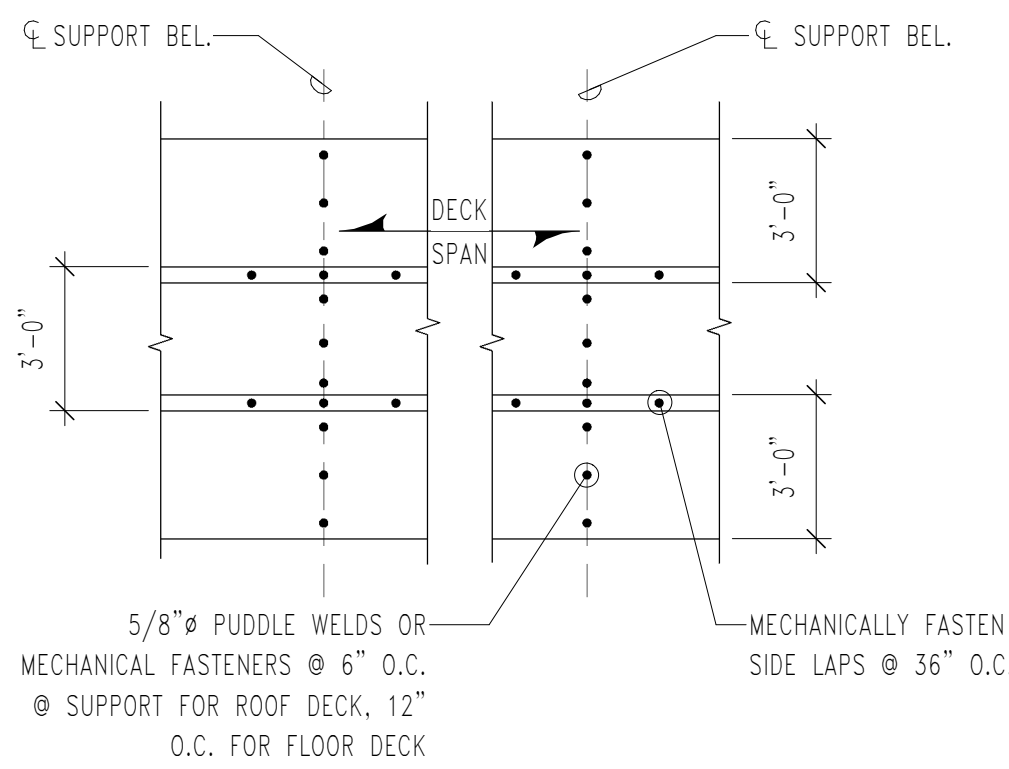


BEAM-TO-BEAM CONNECTION
BEAM-TO-COLUMN CONNECTION

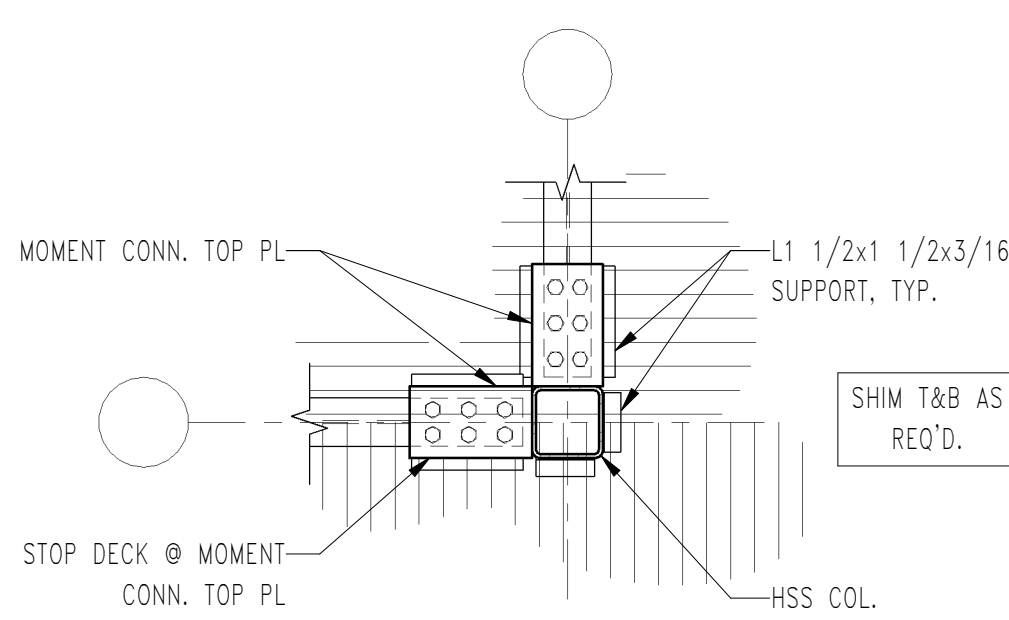


CONNECTION FOR TOTAL SHEAR LOAD OF 0-15 KIPS
CONNECTION FOR TOTAL SHEAR LOAD OF 15+ KIPS

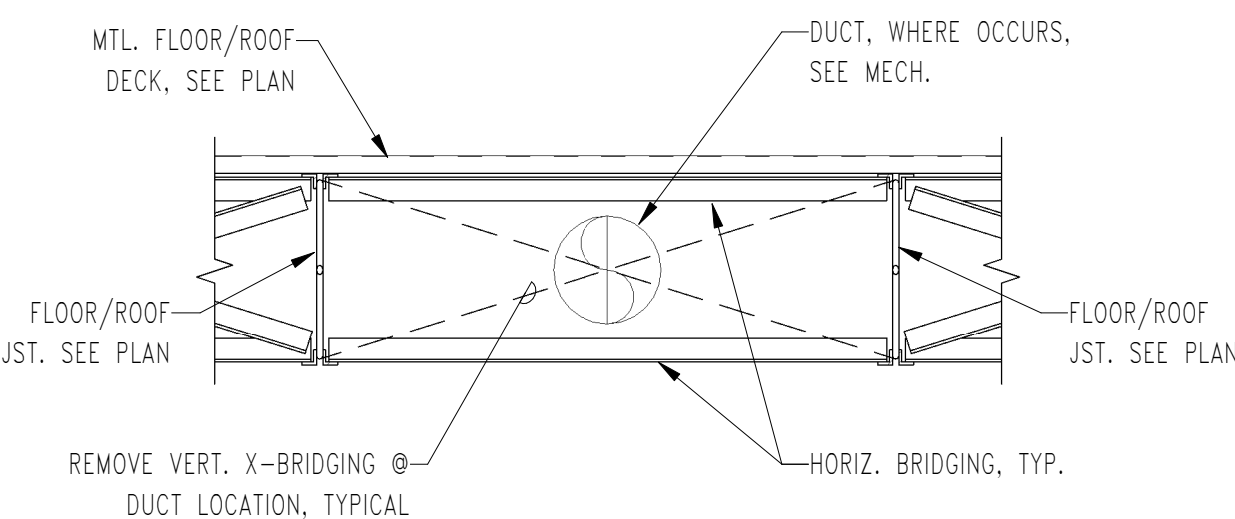
TYPICAL WF SHEAR CONNECTION DETAIL
SCALE: N.T.S.



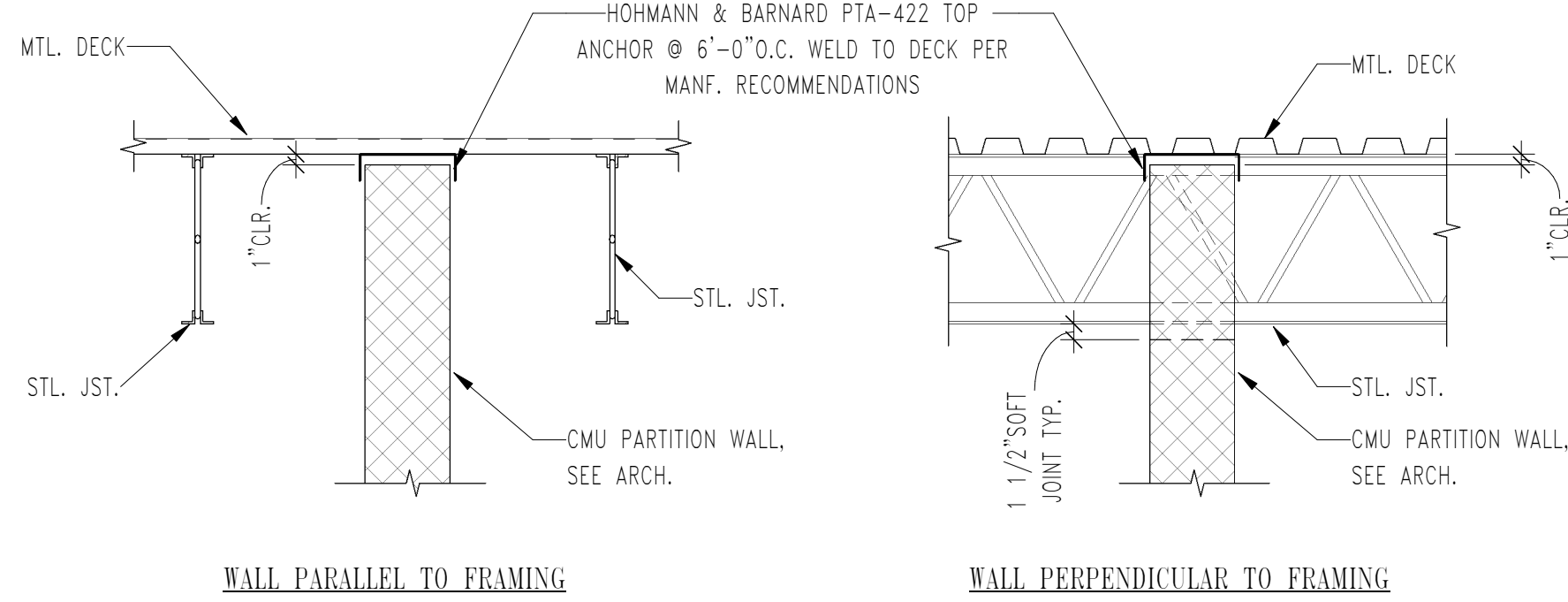
TYPICAL DECK CONNECTION
SCALE: N.T.S.



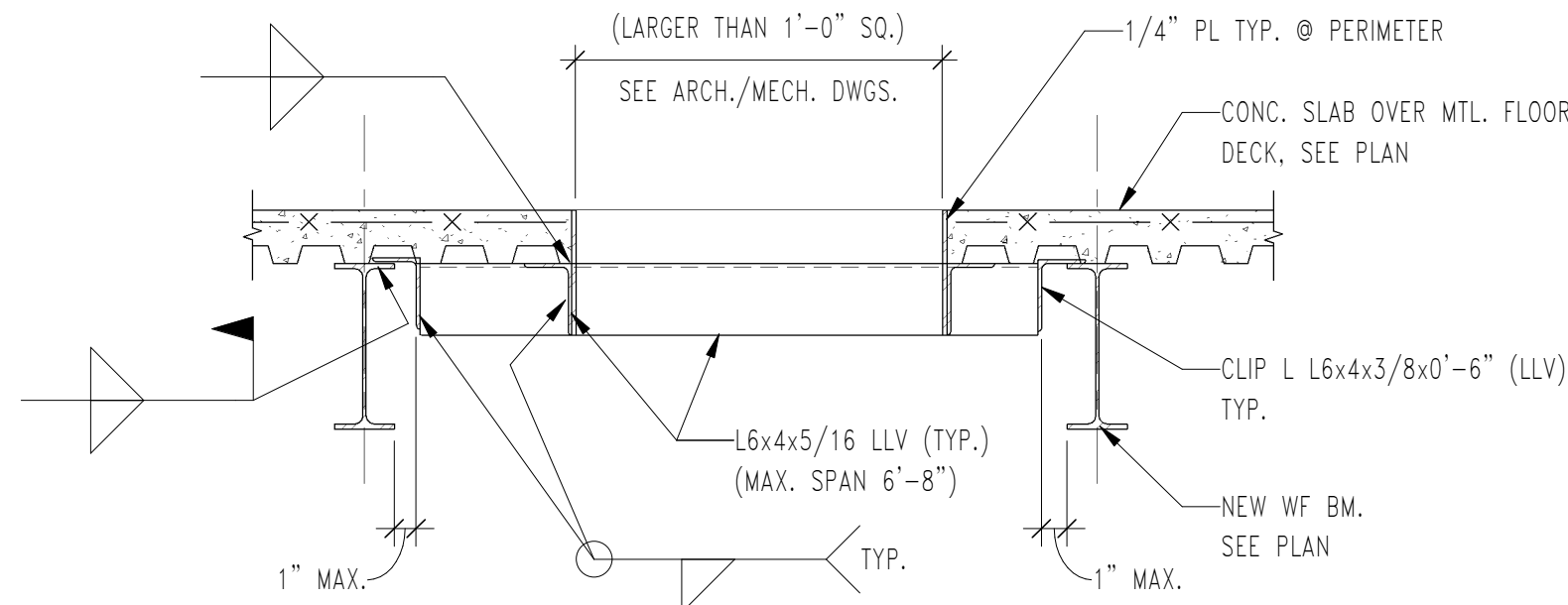
TYPICAL METAL DECK SUPPORT @ MOMENT CONNECTION
SCALE: 3/4" = 1'-0"



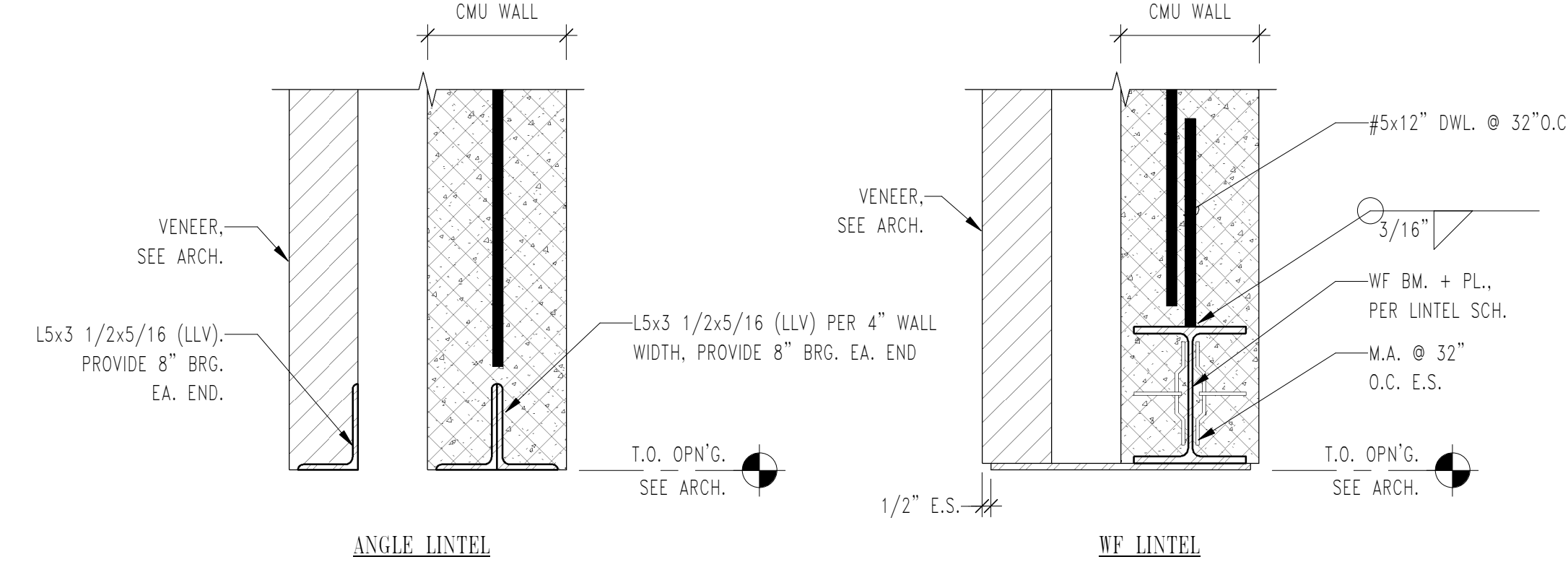
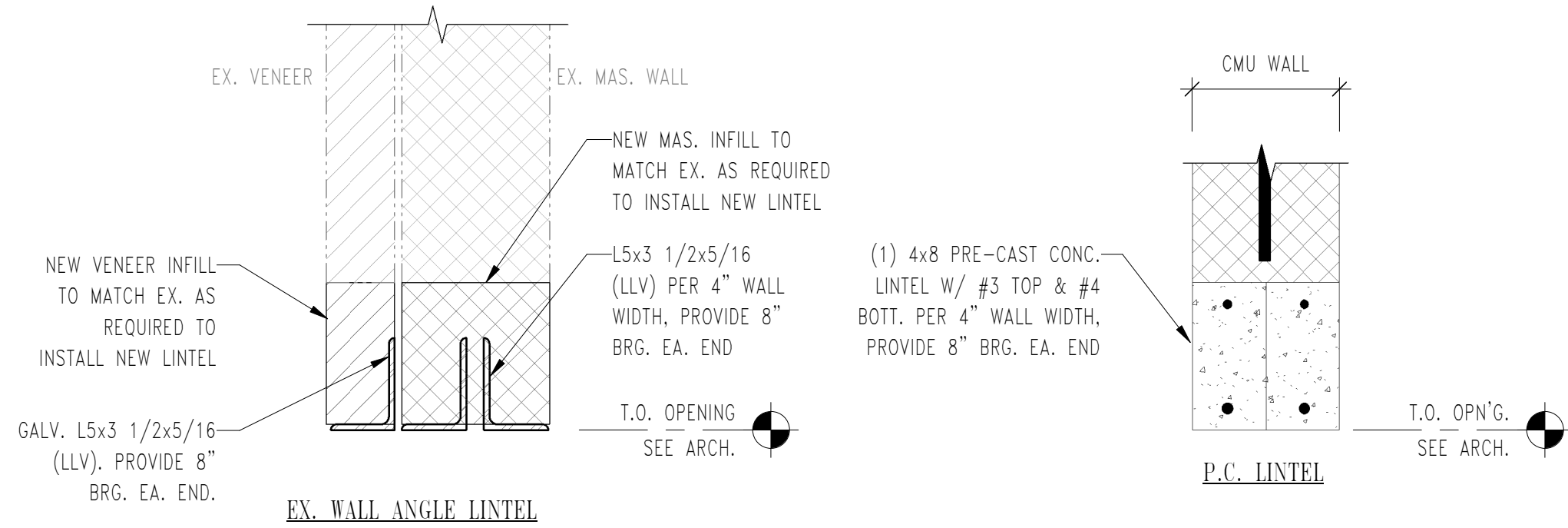
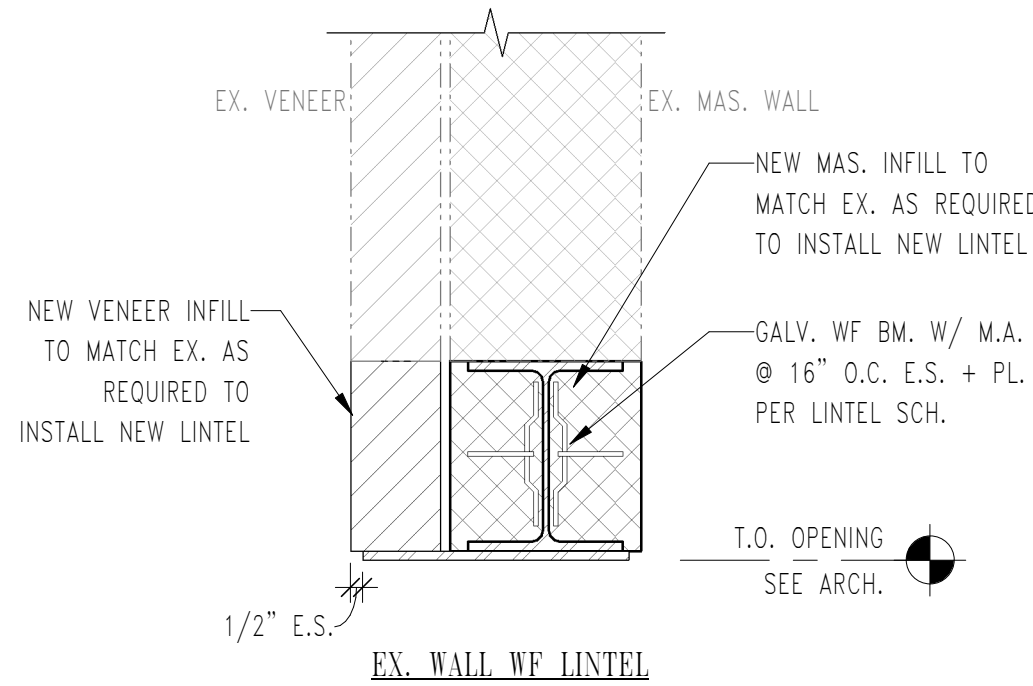
TYPICAL JOIST BRIDGING @ DUCT
SCALE: N.T.S.



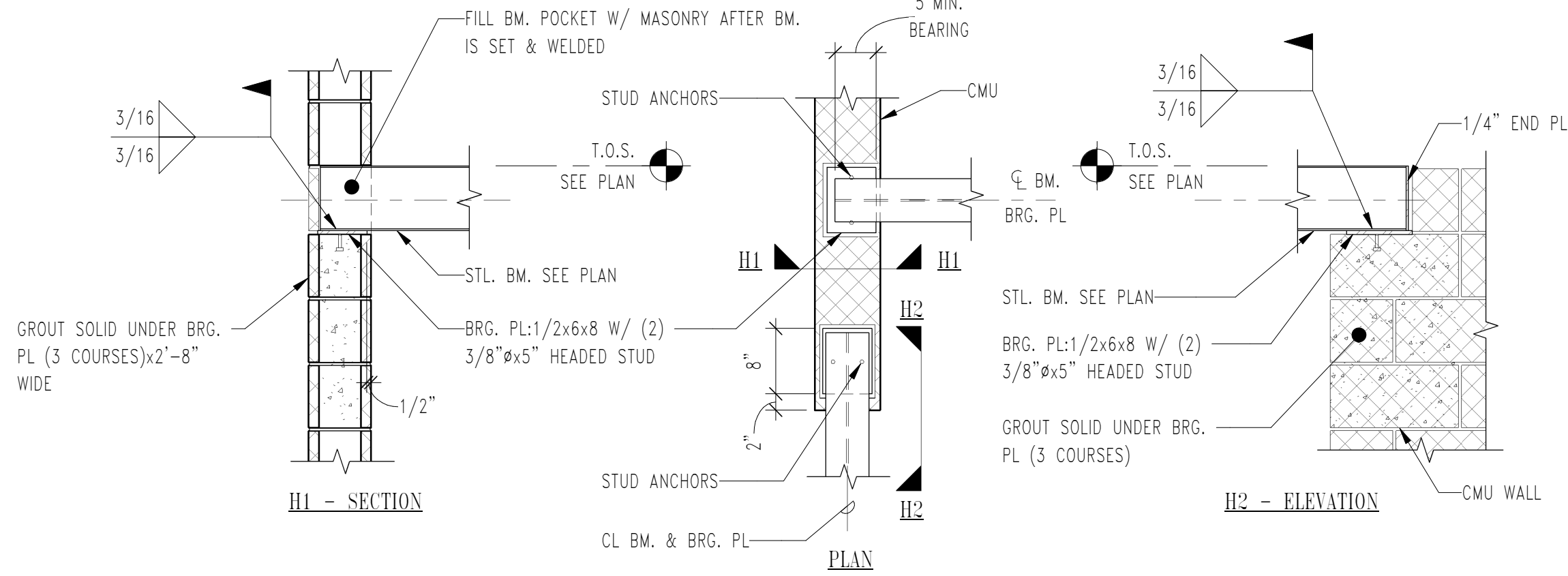
TYPICAL CMU PARTITION BRACING
SCALE: N.T.S.



TYPICAL SUPPORT @ FLOOR OPENING DETAIL
SCALE: N.T.S.



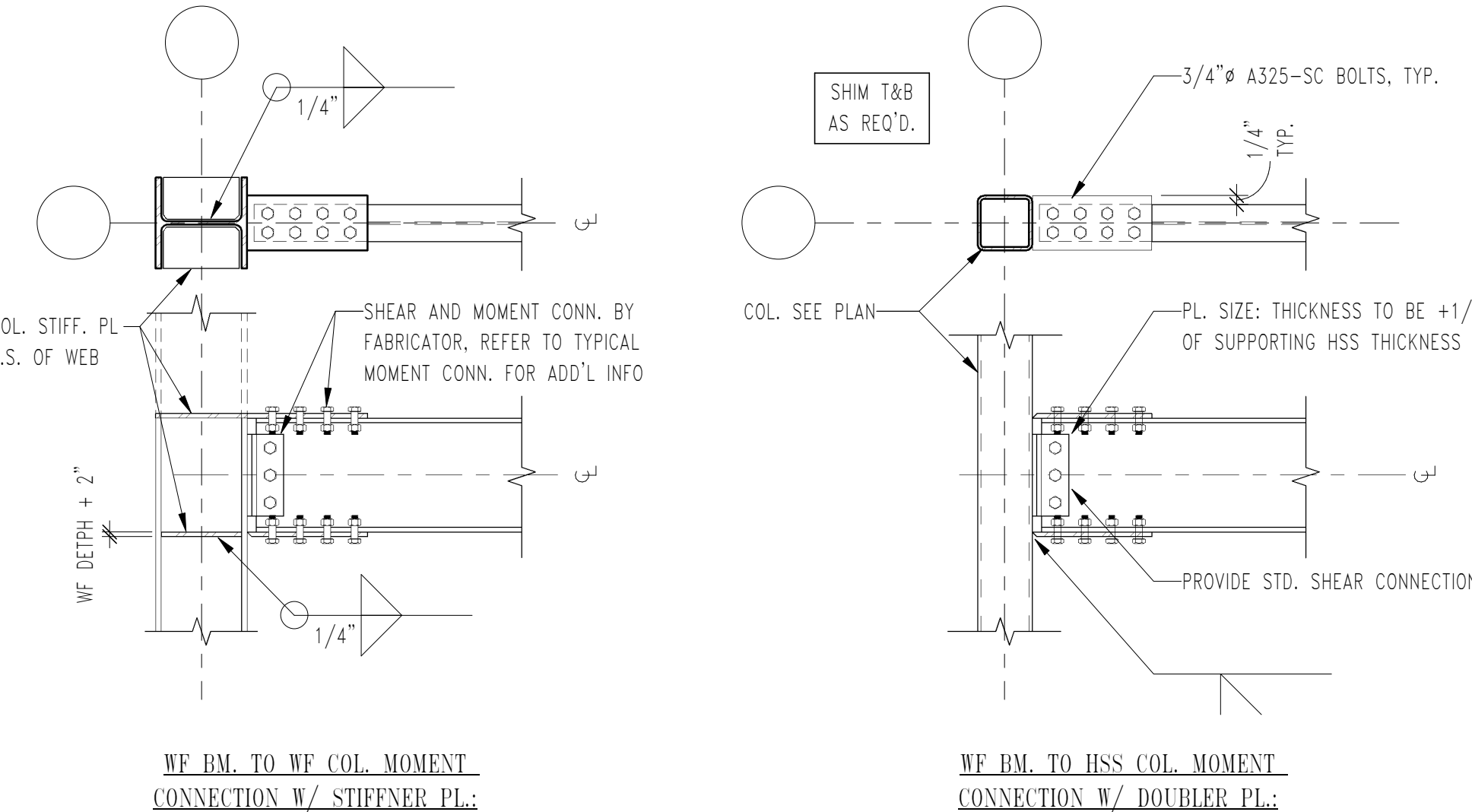
TYPICAL CMU LINTEL DETAILS
SCALE: N.T.S.



TYPICAL BEAM BEARING ON CMU WALL
SCALE: N.T.S.

MOMENT VALUES & CONNECTION REQUIREMENTS					
AREA A1:					
WF BM. SIZE	FRAME LOCATIONS	CONNECTION TYPE	ASD DESIGN MOMENT VALUE U.N.O.	MIN. PL. SIZE T&B	MIN. NO. FLANGE BOLTS T&B
W14	ALL	STIFF. PL REQ.	330 FT-K	7/8"x16"	(14) 1" A325
W18	ALL	STIFF. PL REQ.	70 FT-K	3/8"x6"	(4) 3/4" A325
W21	ALL	STIFF. PL REQ.	190 FT-K	5/8"x10"	(8) 3/4" A325
W24	ALL	STIFF. PL REQ.	315 FT-K	3/4"x10"	(1) 1" A325
AREA B3 & B4:					
WF BM. SIZE	FRAME LOCATIONS	CONNECTION TYPE	ASD DESIGN MOMENT VALUE U.N.O.	MIN. PL. SIZE T&B	MIN. NO. FLANGE BOLTS T&B
W21	ALL	-	35 FT-K	3/8"x6"	(4) 3/4" A325
W24	ALL	-	55 FT-K	3/8"x6"	(4) 3/4" A325
AREA C:					
WF BM. SIZE	FRAME LOCATIONS	CONNECTION TYPE	ASD DESIGN MOMENT VALUE U.N.O.	MIN. PL. SIZE T&B	MIN. NO. FLANGE BOLTS T&B
W16	ALL	STIFF. PL REQ.	45 FT-K	3/8"x6"	(4) 3/4" A325
W18	ALL	-	15 FT-K	3/8"x6"	(4) 3/4" A325
W21	ALL	STIFF. PL REQ.	285 FT-K	3/4"x10"	(8) 1" A325

NOTES:
1. INFORMATION SHOWN IS SCHEMATIC AND INCLUDED FOR PRICING ONLY. CONNECTIONS ARE TO BE DESIGNED BY STEEL FABRICATOR PER "STRUCTURAL STEEL NOTES" ON S-0.1.
2. THE VALUES IN THE TABLE ABOVE APPLY TO WF BEAM TO WF COL. MOMENT FRAME CONNECTIONS.



TYPICAL MOMENT CONNECTION
SCALE: N.T.S.

MAROTTA/MAIN ARCHITECTS
WWW.MAROTTAMAIN.COM

SEAL:
Joseph Barbato Associates
STRUCTURAL ENGINEERS - ARCHITECTS & ENGINEERS
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-558-6050
www.JBarbato.com

CONSULTANT:
JBA
STRUCTURAL ENGINEERS - ARCHITECTS & ENGINEERS
100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9699
phone: 610-558-6050
www.JBarbato.com

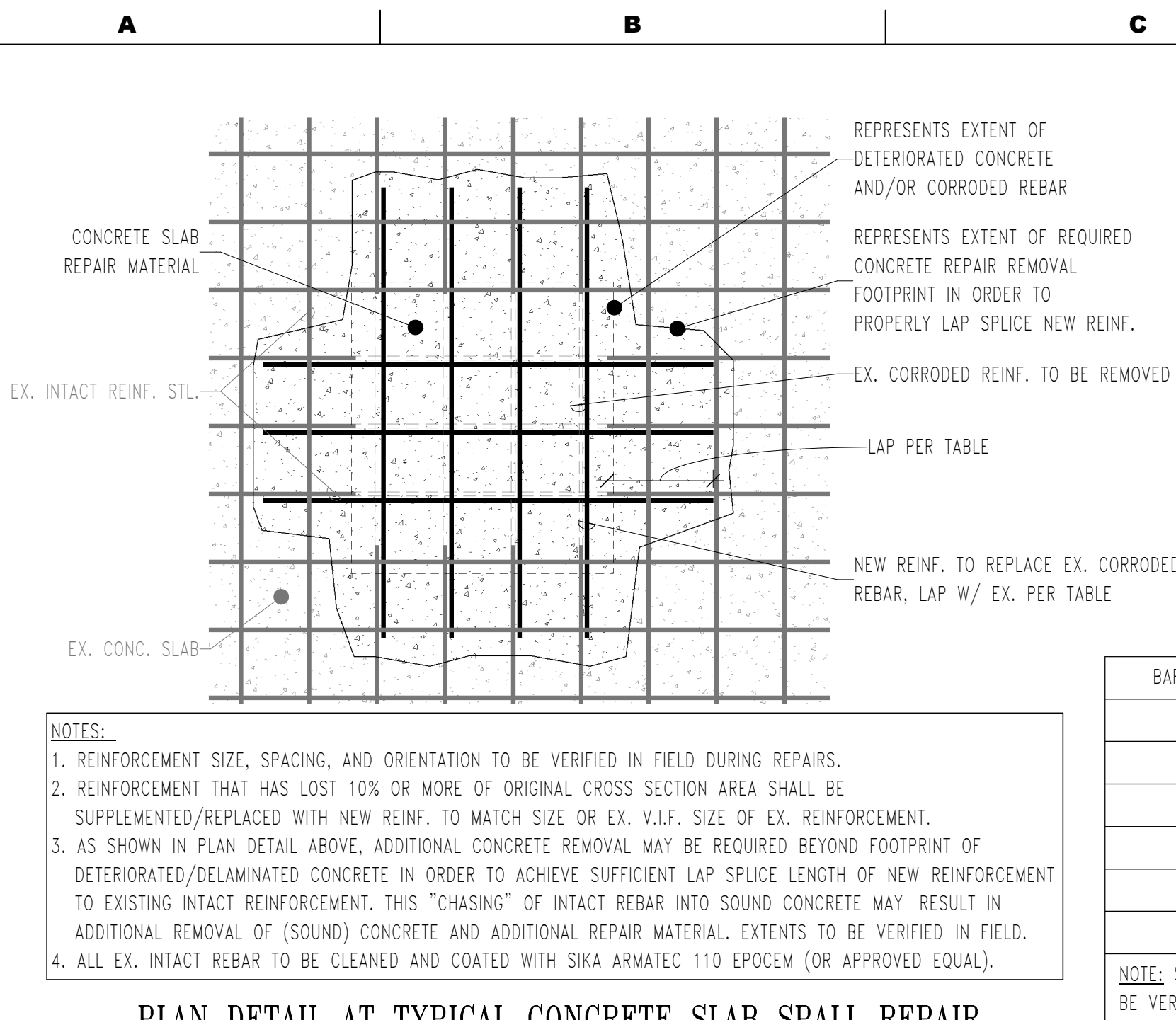
DCIU
Empowering Partnerships For Education

ADDITIONS AND RENOVATIONS TO THE
FOLCROFT TECHNICAL SCHOOL
DELAWARE COUNTY
INTERMEDIATE UNIT
701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES
DATE: 03/17/2025
PROJ #: MM2111
SHEET TITLE:
DESCRIPTION:
BID SET
DRAWN BY: RF/ESR

TYPICAL DETAILS
SHEET NUMBER:
S-3.1
BID SET

3/17/2025 9:57:59 AM



BAR SIZE	LAP SPLICE LENGTH (IN)
#3	16
#4	22
#5	27
#6	32
#7	47
#8	54

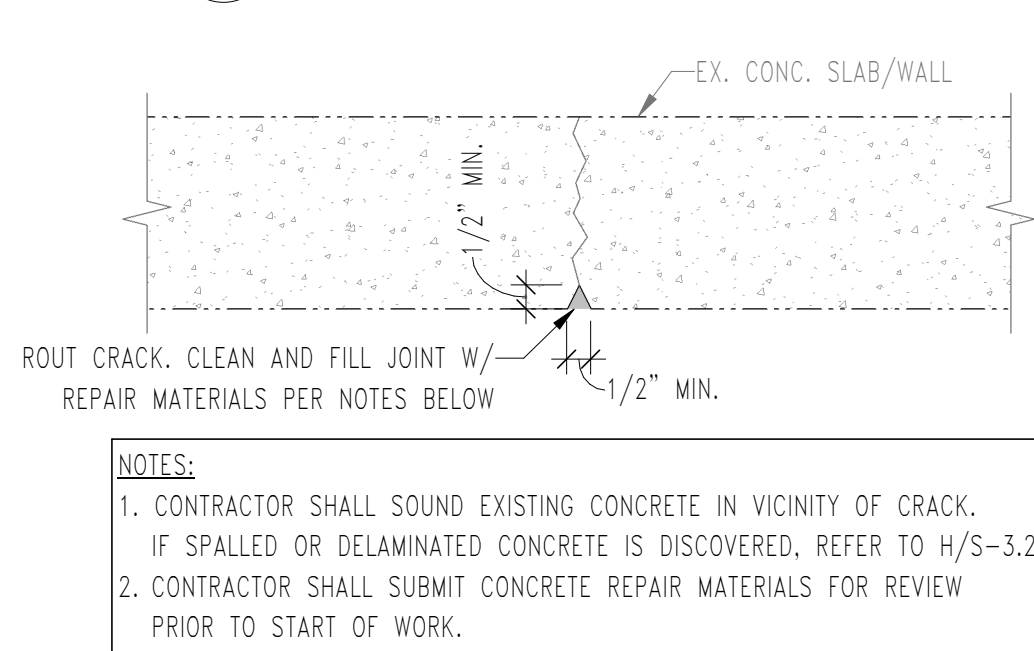
NOTE: SIZE OF EXISTING REINFORCING SHALL BE VERIFIED IN FIELD BY CONTRACTOR

- NOTES:**
1. RECOMMENDED REPAIR MATERIALS:
 - A. HAND APPLIED SPALL REPAIRS: SIKAKUICK VOH (OR APPROVED EQUAL)
 - B. FORM AND FOUR SPALL REPAIRS: SIKAKRETE 211 SCC PLUS (OR APPROVED EQUAL)
 2. FOLLOW MANUFACTURER'S GUIDELINES FOR RECOMMENDED APPLICATION AT EACH SPALL CONDITION.
 2. WHERE REQUIRED, REMOVE AND REPLACE EXISTING CORRODED REBAR IN ACCORDANCE WITH PLAN DETAIL & LAP SPLICE TABLE.

- REPAIR PROCEDURE:**
1. LAYOUT AREA TO BE REPAIRED. CONCRETE REPAIR AREA SHOULD EXTEND A FEW INCHES BEYOND LOOSE OR SPALLED CONCRETE UNTIL SOUND CONCRETE IS REACHED. REPAIR BOUNDARIES SHOULD BE KEPT IN A RECTANGULAR PATTERN TO AVOID IRREGULAR SHAPES.
 2. SAWCUT PERIMETER OF PATCH TO A DEPTH OF 3/4" OR TO THE DEPTH OF THE REINFORCING STEEL WHICHEVER IS LESS.
 3. CHIP OUT AND REMOVE DETERIORATED AND DELAMINATED CONCRETE TO SOUND CONCRETE.
 4. CHIP OUT A MINIMUM 1 1/2" CLEARANCE AROUND AND BETWEEN EXPOSED REBARS AND SURROUNDING CONCRETE.
 5. CONCRETE REMOVALS SHALL EXTEND ALONG REBARS TO LOCATIONS ALONG THE BAR, FREE OF BOND INHIBITING CORROSION, AND WHERE THE BAR IS WELL BONDED TO SURROUNDING CONCRETE.
 6. SANDBLAST CLEAN EXISTING CONCRETE AND REBAR TO REMOVE ALL RUST, OXIDES AND SCALE.
 7. COAT REBAR W/ CORROSION INHIBITING PRODUCT SUCH AS SIKA ARMATEC 110 EPOCEM (OR APPROVED EQUAL). ONCE ALL RUST, SCALE, MORTAR, CONCRETE, DUST, AND OTHER LOOSE AND DELETERIOUS MATERIAL HAS BEEN REMOVED, APPLY TWO COATS PER MANUFACTURER'S PROCEDURES AND RECOMMENDATIONS.
 8. AT THE TIME OF APPLICATION, SATURATE SUBSTRATE SURFACE WITH CLEAN WATER. SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD).
 9. WHILE THE SURROUNDING CONCRETE IS IN A SSD STATE, INSTALL A SLURRY SCRUB COAT OF THE REPAIR MATERIAL INTO THE PORES AND VOIDS OF THE EXISTING CONCRETE.
 10. IMMEDIATELY FOLLOWING THE SCRUB COAT, PLACE THE REPAIR MATERIAL INTO THE PREPARED AREA. REPAIR MATERIAL TO BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.
 11. CONTRACTOR SHALL SUBMIT CONCRETE REPAIR MATERIALS FOR REVIEW PRIOR TO START OF WORK.

TYPICAL SECTION AT CONCRETE SLAB SPALL REPAIR

H
S-3.2 SCALE: N.T.S.



CRACK REPAIR PROCEDURE:

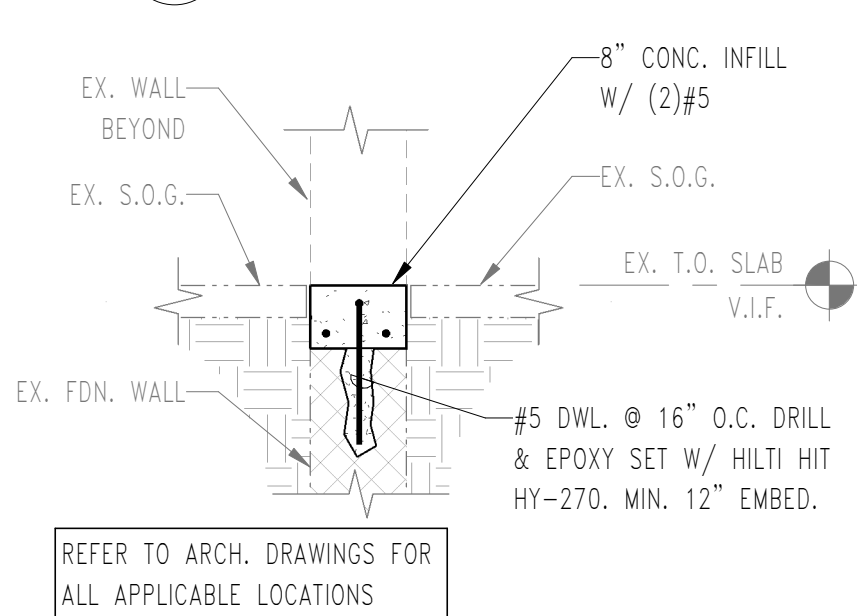
CRACKS RANGING FROM HAIRLINE TO 1/4" IN WIDTH (EPOXY INJECTION):

1. USE SIKADUR 31 HI-MOD GEL + SIKADUR 35 HI-MOD LV (OR APPROVED EQUAL) PER MANUFACTURER'S REQUIREMENTS

CRACKS 1/4" WIDE AND GREATER (ROUT & SEAL):

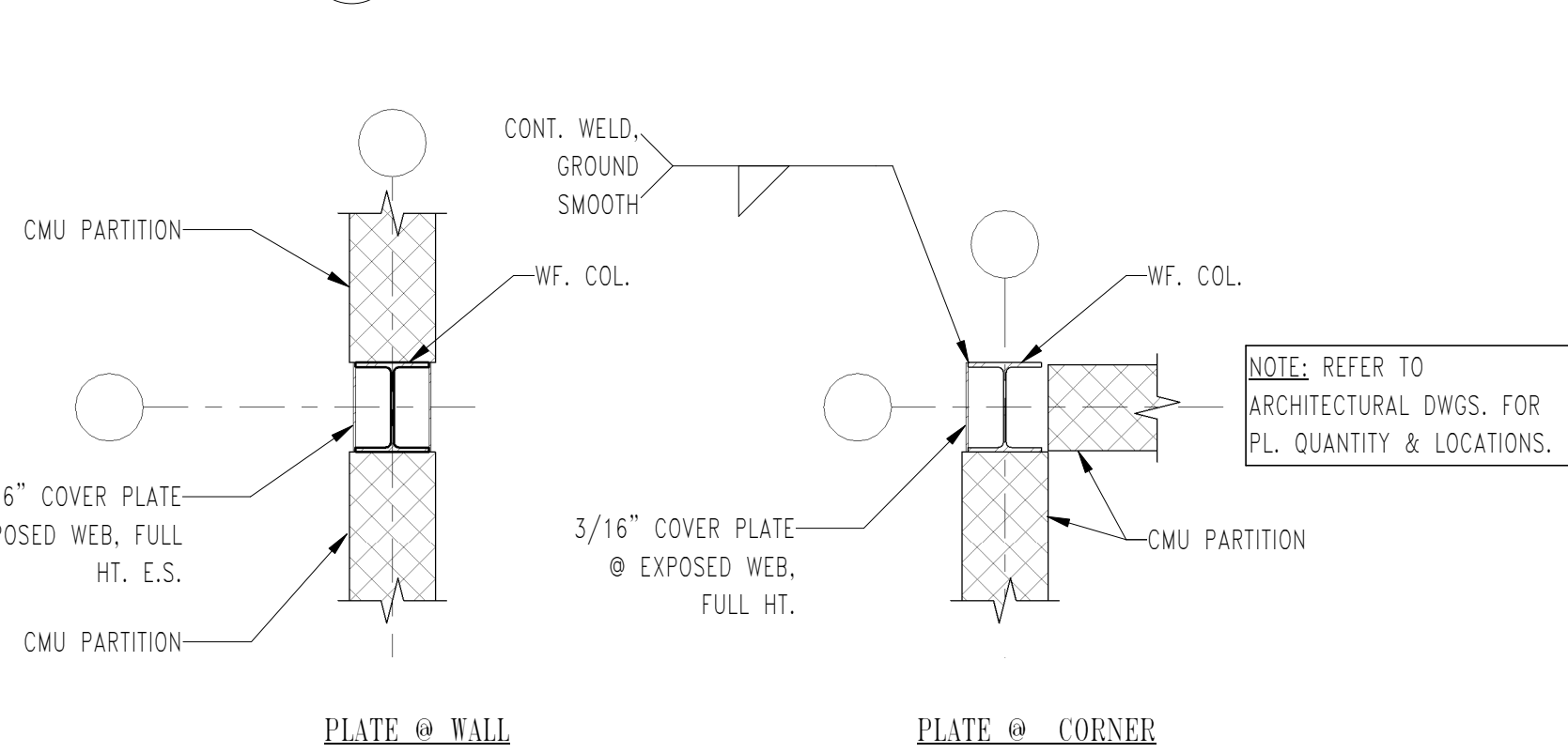
1. ROUT CRACK AT CENTER TO FORM A GROOVE, MIN. 1/2" WIDE AND MIN. 1/2" DEEP. GRIND UNEVEN SURFACES.
2. CLEAN JOINT. REMOVE DUST, FOREIGN PARTICLES, AND BOND INHIBITING MATERIAL FROM SURFACE BY AIR OR SAND BLASTING AS REQ'D.
3. INSTALL SIKAFLEX 1A SEALANT (OR APPROVED EQUAL) EVEN WITH ADJACENT SURFACE.

J
S-3.2 SCALE: N.T.S.



N
S-3.2 SCALE: N.T.S.

G
S-3.2 SCALE: N.T.S.



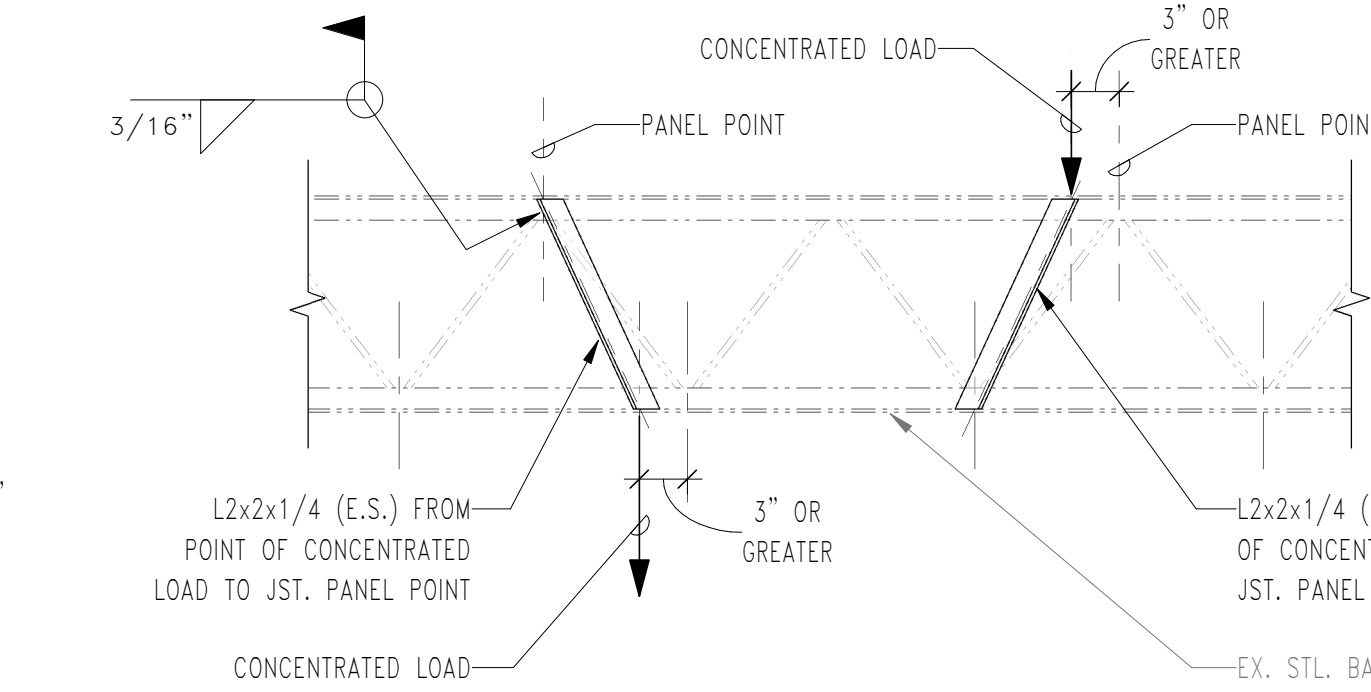
M
S-3.2 SCALE: N.T.S.

EXISTING JOIST REINFORCEMENT SCHEDULE									
AREA	REINF. DESIGNATION	LOCATION	SPAN*	JST. DEPTH*	STL ROD REINF. DIA.	"A" WEB REINF.	"B" CHORD REINF.	NO. OF JSTS.	JST. TYPE*
A1	R-1	SEE 1/S-1.7	31'-2"	24"	-	4'-0"	-	12	24LA06
	R-2	SEE 1/S-1.13	10'-0"	10"	5/16" Ø	3'-0"	8'-0"	10	10J2
	R-3	SEE 2/S-1.13	37'-2"	24"	1/2" Ø	6'-0"	16'-0"	3	24LA06
B1	R-4	SEE 2/S-1.13	37'-2"	24"	1/4" Ø	2'-0"	10'-0"	3	24LA06
	R-5	SEE 3/S-1.13	10'-0"	10"	1/4" Ø	2'-0"	8'-0"	5	10J2
	R-6	SEE 3/S-1.13	10'-0"	10"	5/16" Ø	3'-0"	8'-0"	3	10J2
B2	R-7	SEE 3/S-1.13	10'-0"	10"	1/4" Ø	3'-0"	8'-0"	5	10J2
	R-8	SEE 1/S-1.10	40'-8"	24"	7/16" Ø	8'-0"	20'-0"	4	24LA07
	R-9	SEE 1/S-1.10	20'-1"	16"	11/16" Ø	6'-0"	16'-0"	4	16J6
B3	R-10	SEE 1/S-1.10	40'-8"	24"	3/4" Ø	12'-0"	20'-0"	6	24LA07
	R-11	SEE 1/S-1.10	20'-1"	16"	1/4" Ø	4'-0"	10'-0"	3	16J6
	R-12	SEE 1/S-1.9	40'-8"	24"	5/16" Ø	6'-0"	18'-0"	4	24LA07
B4	R-13	SEE 1/S-1.9	20'-1"	16"	-	2'-0"	-	5	16J6
	R-14	SEE 1/S-1.9	40'-8"	24"	7/16" Ø	8'-0"	20'-0"	1	24LA07
	R-15	SEE 1/S-1.9	40'-8"	24"	5/16" Ø	6'-0"	18'-0"	3	24LA07
	R-16	SEE 1/S-1.9	40'-8"	24"	11/16" Ø	8'-0"	20'-0"	13	24LA07

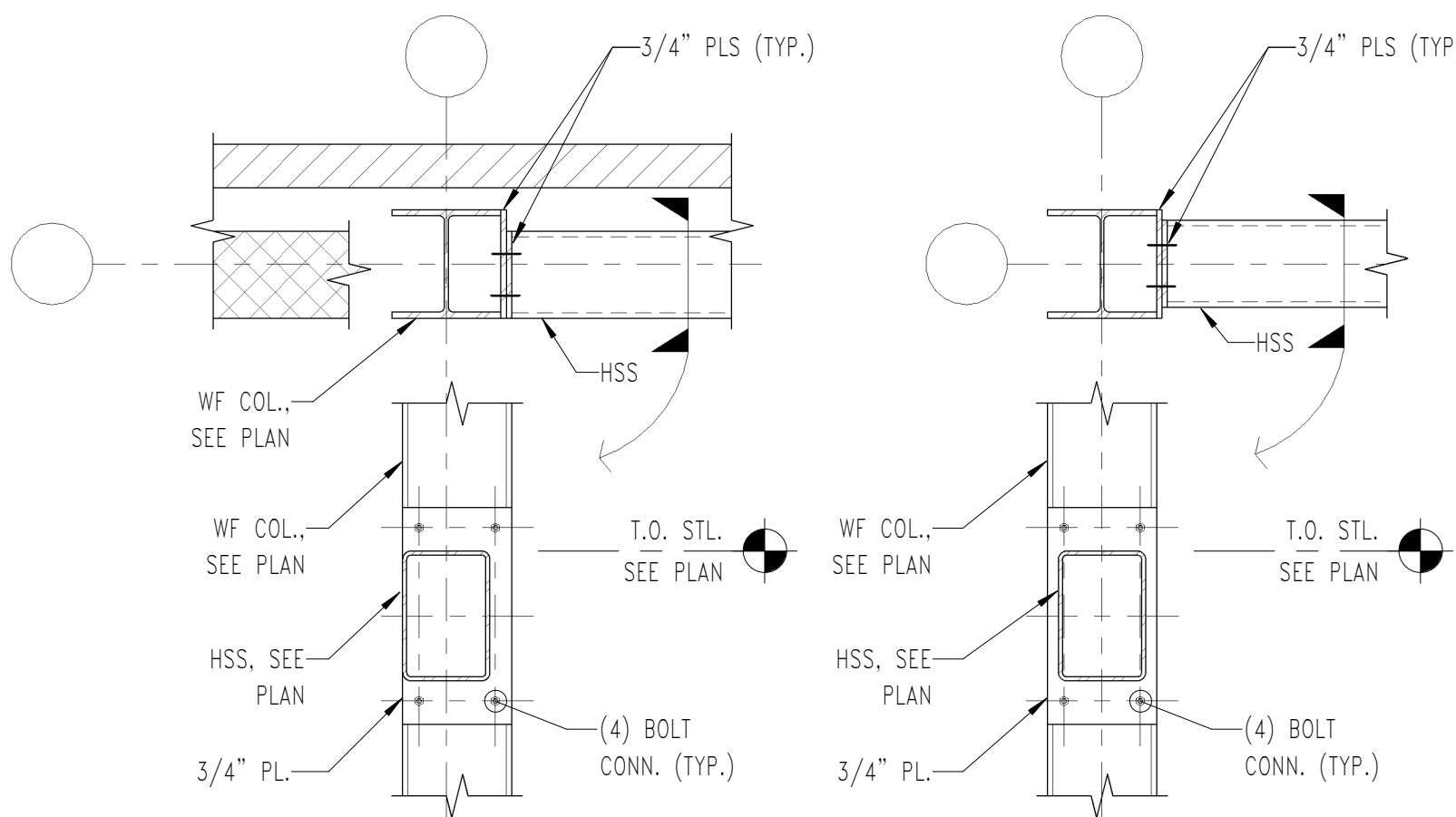
NOTES

1. * INDICATES EXISTING INFORMATION TO BE VERIFIED ON SITE BY CONTRACTOR. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF WORK.
2. CONTRACTOR TO VERIFY WT. OF DOAS & RTU SHOWN ON THE STRUCTURAL DRAWINGS W/ PURCHASED UNIT & NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF WORK.
3. SHORE ALL EXISTING JOISTS PRIOR TO INSTALLATION OF REINFORCEMENT.
4. REFER TO F/S-3.2 & G/S-3.2 FOR SPECIFIC RTU SUPPORT & JOIST STIFFENING DETAILS NOT SHOWN ON THIS SHEET. COORDINATE RTU/DOAS LOCATION SHOWN ON THE STRUCTURAL DRAWINGS W/ ARCH. & MECHANICAL DRAWINGS.
5. JOIST REINFORCEMENT SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INCORPORATE SITE VERIFIED EXISTING FRAMING CONDITIONS.
6. INSTALL CHORD REINFORCEMENT PRIOR TO WEB REINFORCEMENT. WHERE WEB AND CHORD REINFORCEMENT LENGTHS OVERLAP, NOTCH L1 3/4x1 3/4x3/16 WEB REINFORCEMENT AND WELD TO REINFORCEMENT ROD PER B/S-3.2.

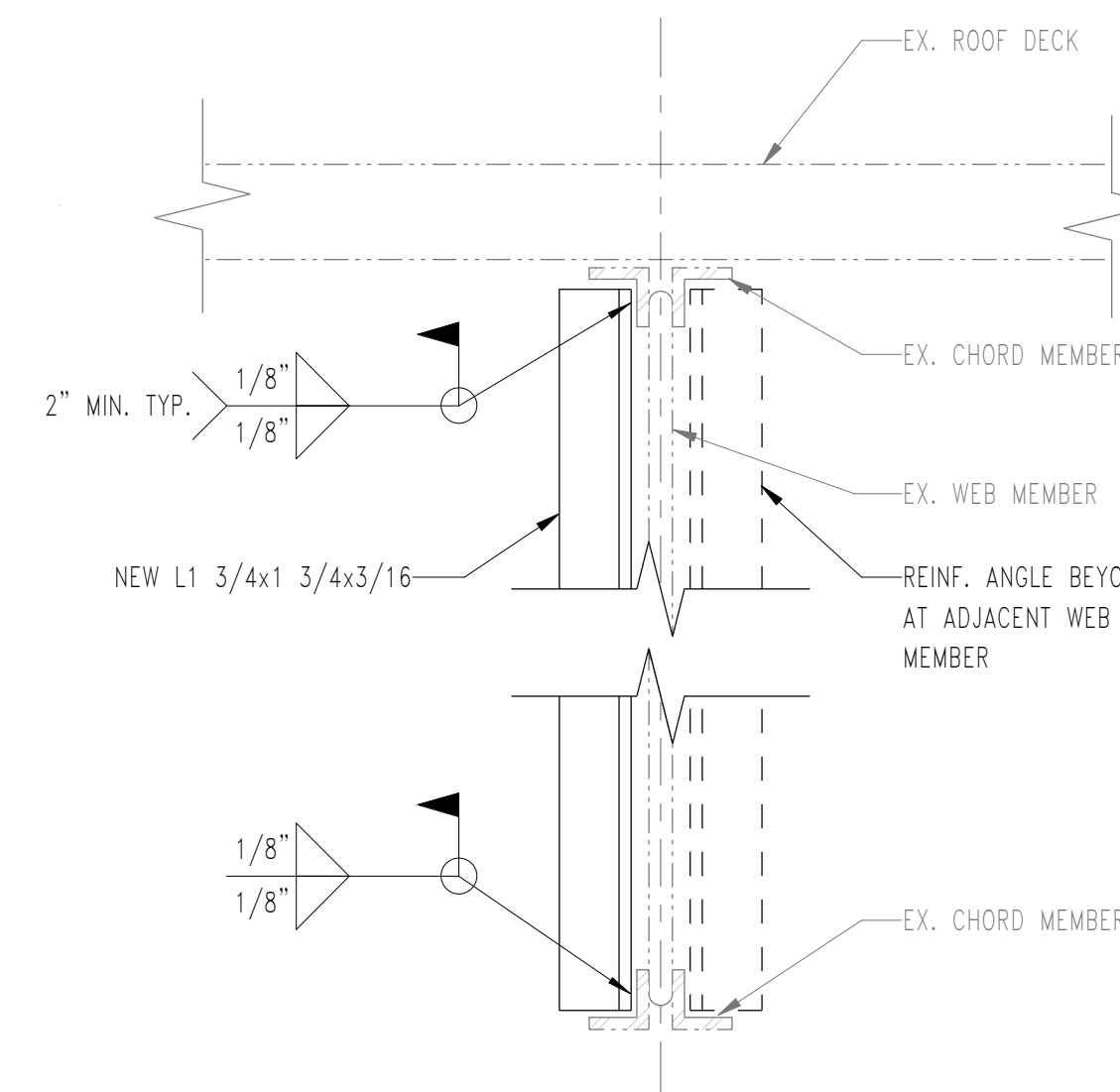
TYPICAL RTU SUPPORT FRAMING



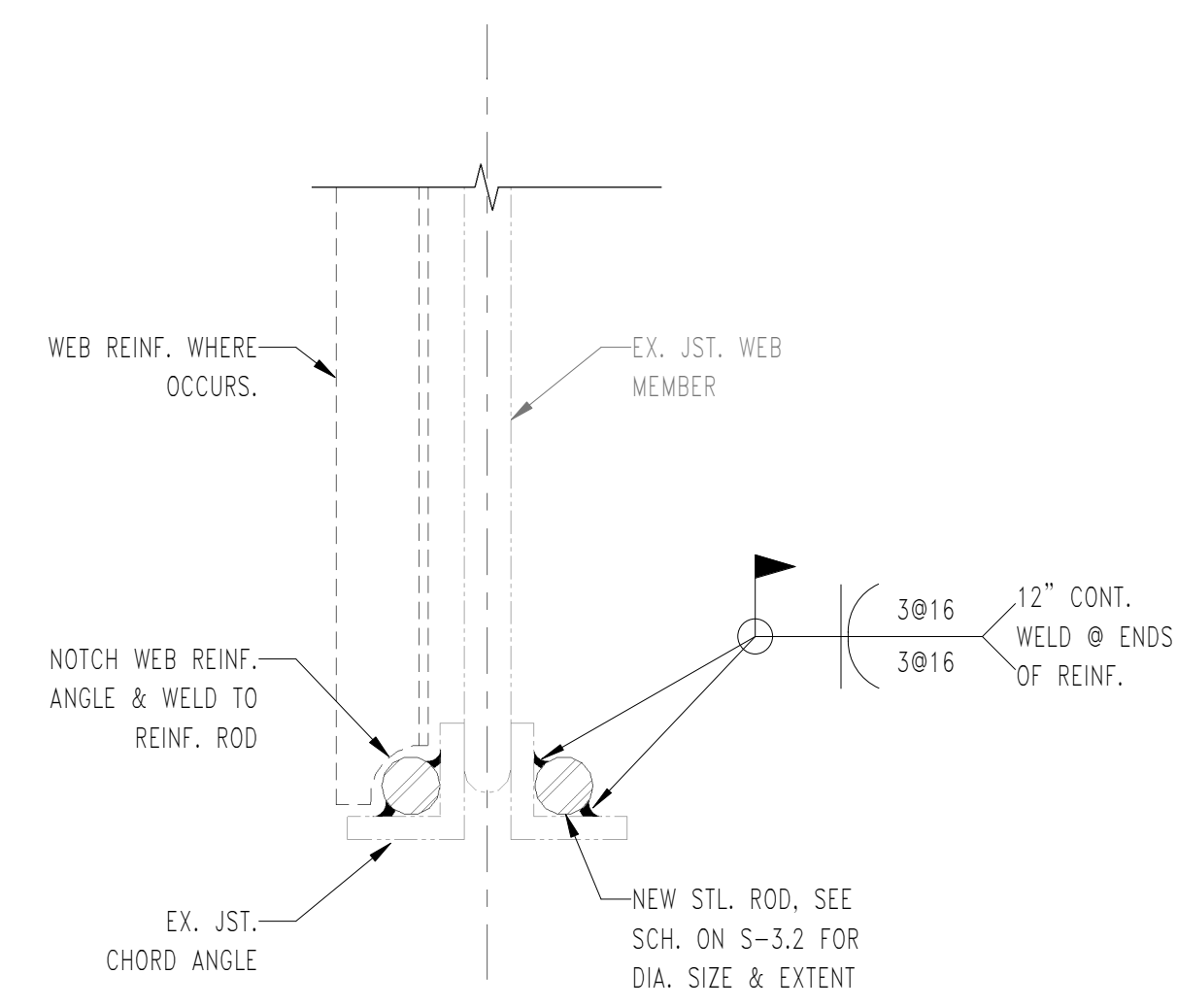
F
S-3.2 SCALE: N.T.S.



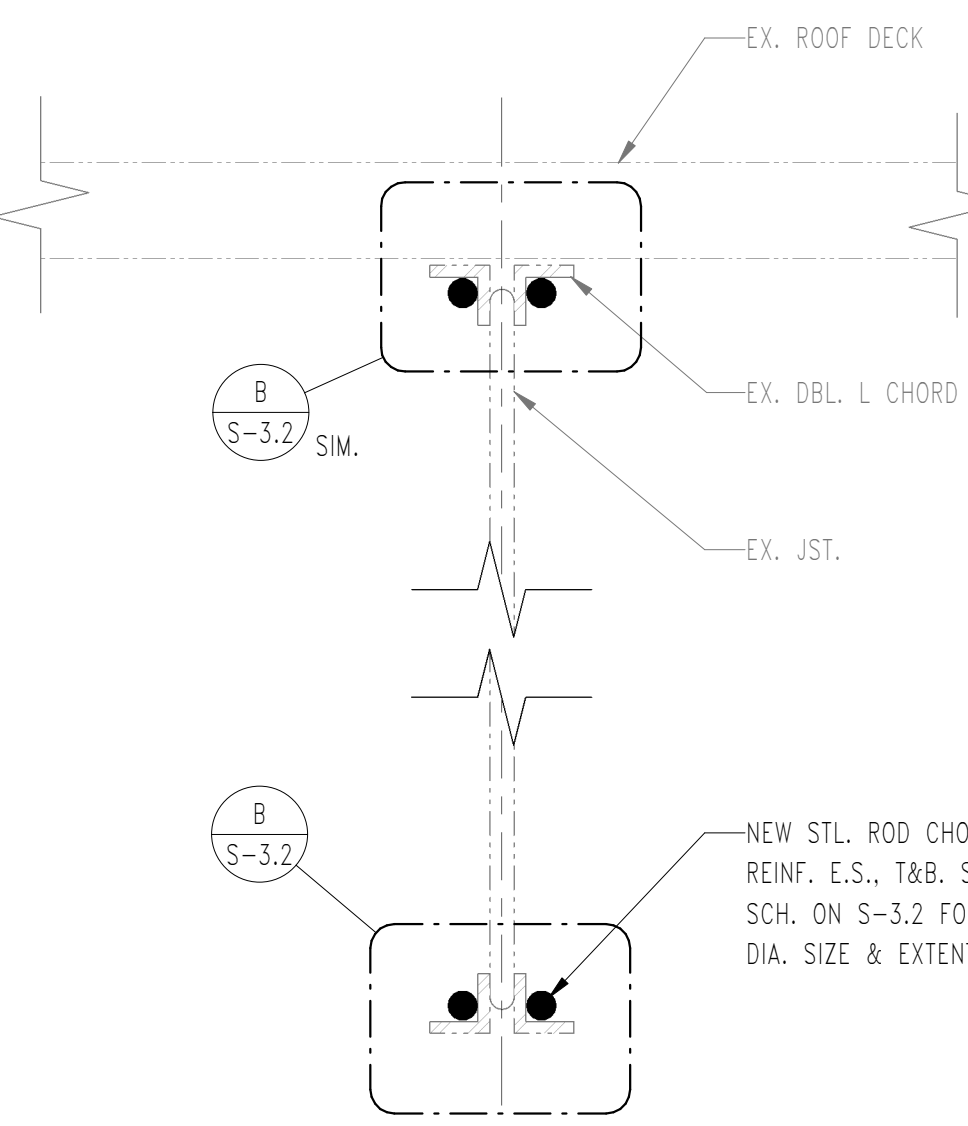
L
S-3.2 SCALE: N.T.S.



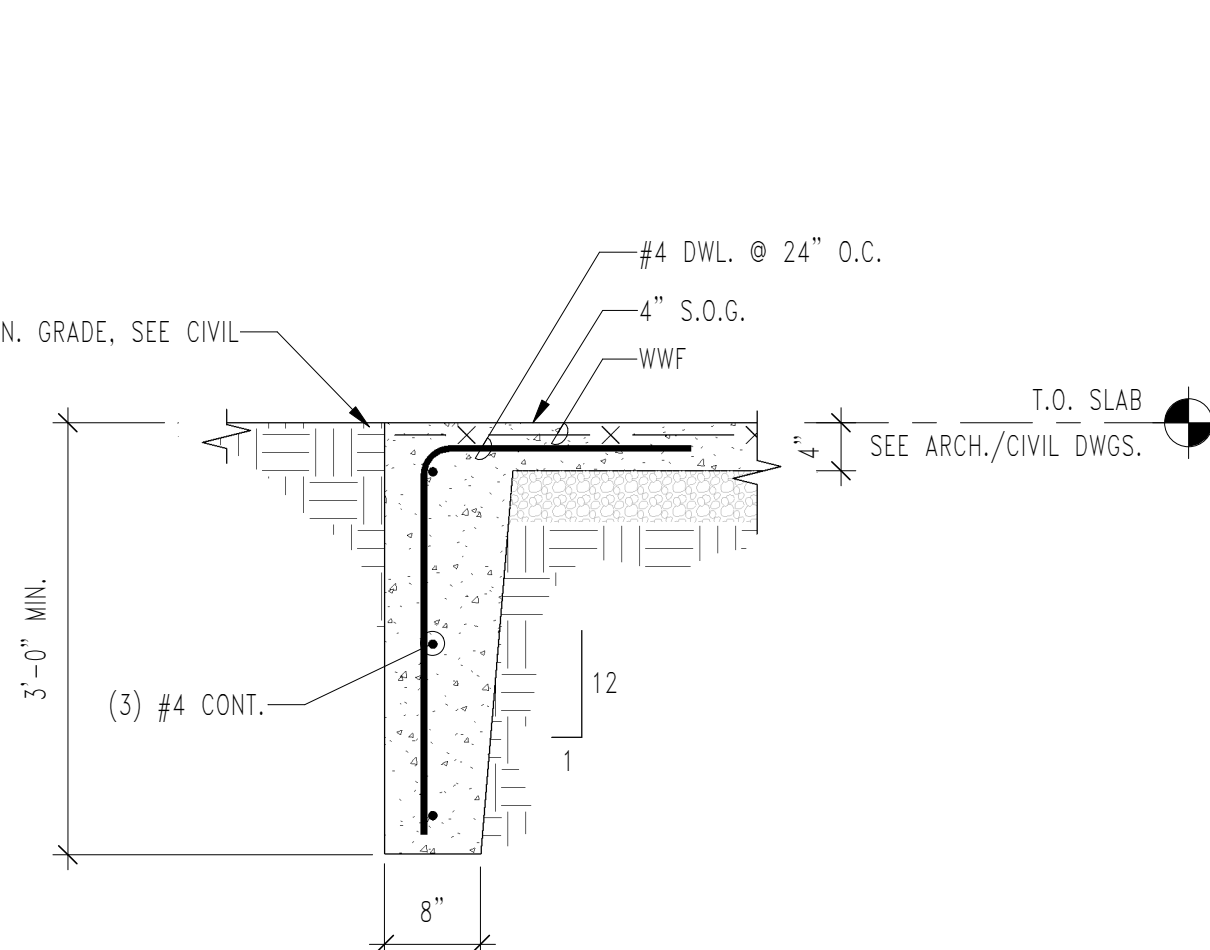
A
S-3.2 SCALE: N.T.S.



B
S-3.2 SCALE: N.T.S.



C
S-3.2 SCALE: N.T.S.



K
S-3.2 SCALE: N.T.S.

MAROTTA/MAIN ARCHITECTS

WWW.MAROTTAMAIN.COM

JBA Associates

STRUCTURAL ENGINEERS • ARCHITECTS & DESIGNERS

100 Chadds Ford Professional Center
6 Dickinson Drive, Suite 103
Chadds Ford, PA 19317-9693
phone: 610-559-6050
www.JBarbato.com

DCIU

Empowering Partnerships For Education

ADDITIONS AND RENOVATIONS TO THE FOLCROFT TECHNICAL SCHOOL

DELAWARE COUNTY INTERMEDIATE UNIT

701 HENDERSON BLVD.
FOLCROFT, PA 19032

ISSUE DATES

DATE	DESCRIPTION
03/17/2025 <td>BID SET</td>	BID SET

PROJ #: MM2111 **DRAWN BY:** RF/ESR

SHEET TITLE:

TYPICAL DETAILS

SHEET NUMBER:

S-3.2

BID SET