

Foundation Plan Block A

1/8" = 1'-0"
 ELEVATION TOP OF FINISHED FLOOR SLAB: 166.24' REFERRED TO AS DATUM
 EL. 0'-0" UNLESS OTHERWISE NOTED ON PLAN.
 FLOOR SLAB: 4" CONC. SLAB - 6x6-W14xW14 W.W.F. ON A VAPOR BARRIER
 OVER 6" MIN. DRAINAGE FILL UNLESS OTHERWISE NOTED.
 ELEVATION BOTTOM OF FOOTINGS NOTED THUS () ON PLAN BELOW
 FINISHED FLOOR DATUM EL. 0'-0".
 C.J. - INDICATES SLAB CONSTRUCTION OR CONTROL JOINT.
 SLAB DEPRESSIONS NOTED THUS () ON PLAN FROM TOP OF FLOOR
 SLAB - SEE ARCH. DWGS. FOR LOCATION & EXTENT.
 (B.P.L.) - INDICATES BOTTOM OF BASE PLATE ABOVE OR BELOW DATUM.
 ANY PENETRATIONS IN SLAB FROM ALL TRADES TO BE FILLED
 WITH POLYURETHANE CAULK.

Date
 Architect
FVHDP
 Frayak Veisz Hopkins Duthe P.C.
 Corporate: 1515 Lower Ferry Road
 Ironton, NJ 08626
 Pennsylvania: Mont Clare, PA 1953
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Project Name
Additions and Alterations to the Freehold Learning Center

Project Owner Name
Freehold Borough School District

Project Location
30 Dutch Lane, Freehold, NJ 07728

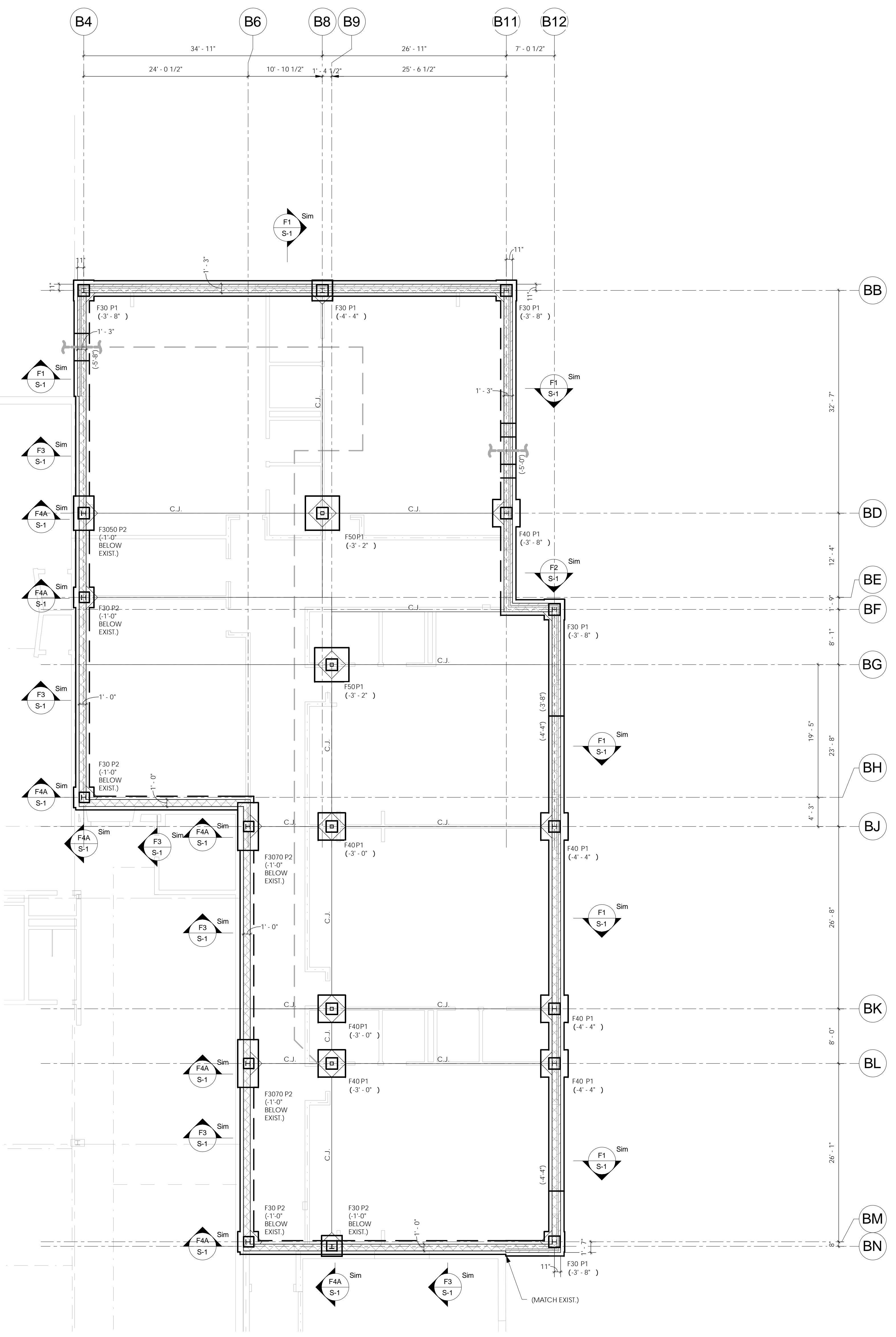
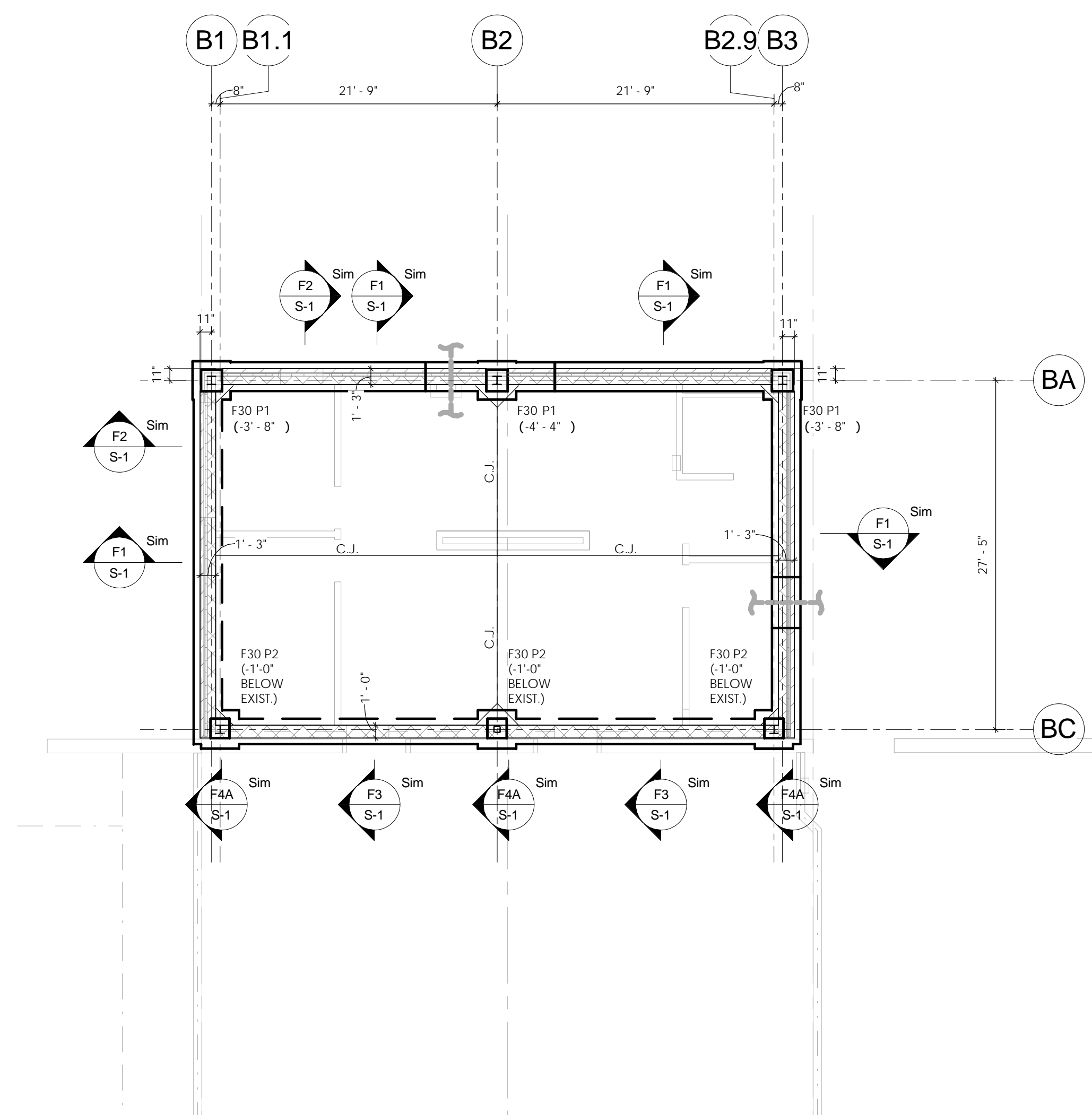
Project Number
4935A/B
 Project Date
05/05/17
 Checked By
FWH
 Drawn By
SWH
 Scale

Drawing Name
Foundation Plan Block A

| No. | Date | Description |
|-----|--------|-------------------|
| 1 | 5.5.17 | NJDECA SUBMISSION |

Drawing Number
S-1

Harrison Hammitt, P.C.
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 Ph: 609-818-1808 Fax: 609-818-1809
 1-800-795-9969
Donald M. Hammitt
 DONALD M. HAMMITT, N.J.C.E. #17976 DATE



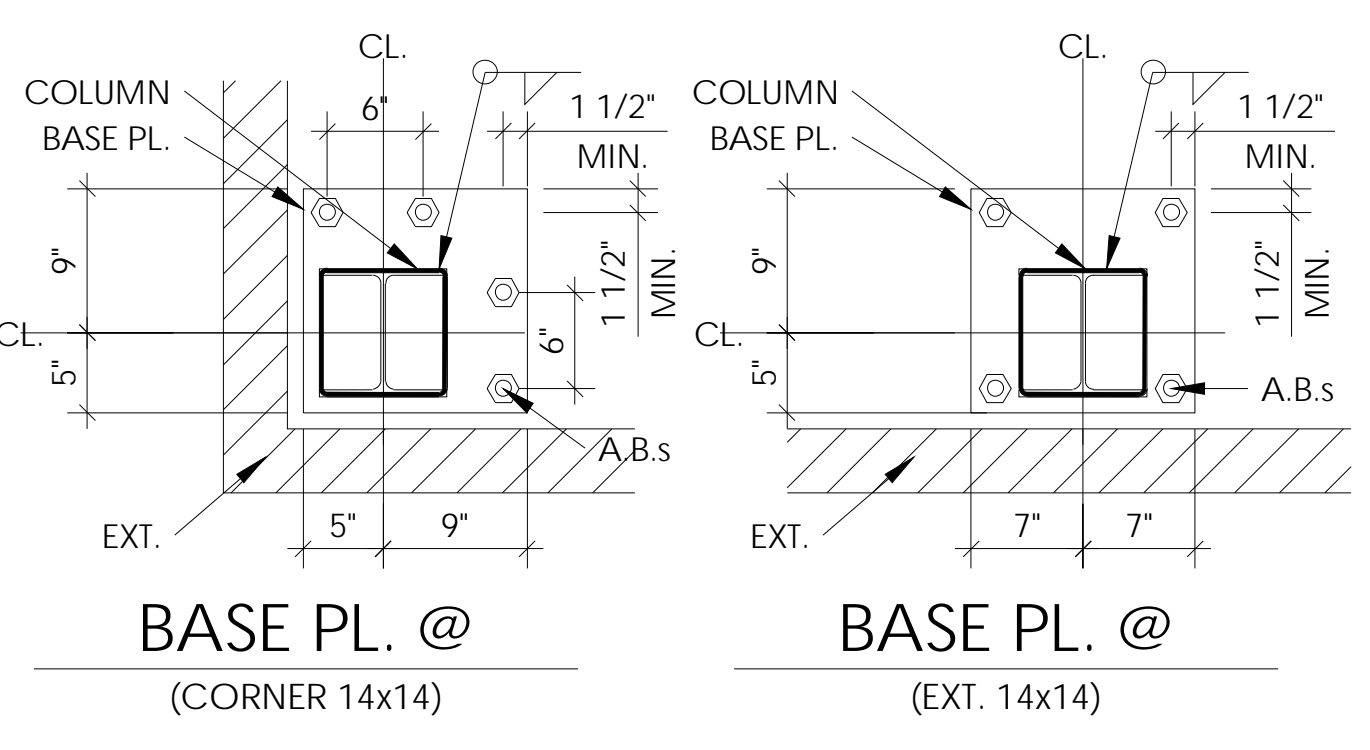
Foundation Plan Block B

1/8" = 1'-0"
 ELEVATION TOP OF FINISHED FLOOR SLAB: 166.23 +/- REFERRED TO AS DATUM
 EL. 0'-0" UNLESS OTHERWISE NOTED ON PLAN.
 FLOOR SLAB: 4" CONC. SLAB - 6x6-W14xW14 W.W.F. ON A VAPOR BARRIER
 OVER 4" MIN. DRAINAGE FILL UNLESS OTHERWISE NOTED.
 ELEVATION BOTTOM OF FOOTINGS NOTED THUS () ON PLAN BELOW
 FINISHED FLOOR DATUM EL. 0'-0".
 C.J. - INDICATES SLAB CONSTRUCTION OR CONTROL JOINT.
 SLAB DEPRESSIONS NOTED THUS () ON PLAN FROM TOP OF FLOOR
 SLAB - SEE ARCH. DWGS. FOR LOCATION & EXTENT.
 (B. PL.) - INDICATES BOTTOM OF BASE PLATE ABOVE OR BELOW DATUM.
 ANY PENETRATIONS IN SLAB FROM ALL TRADES TO BE FILLED
 WITH POLYURETHANE CAULK.

| FOOTING SCHEDULE | | |
|------------------|---------------------|--------------------------------|
| MARK | SIZE | REINFORCEMENT |
| F30 | 3'-0" x 3'-0" x 12" | (3) - #4 S.W. BOT. |
| F40 | 4'-0" x 4'-0" x 12" | (4) - #5 S.W. BOT. |
| F50 | 5'-0" x 5'-0" x 14" | (5) - #6 S.W. BOT. |
| F60 | 6'-0" x 6'-0" x 16" | (6) - #6 S.W. BOT. |
| F70 | 7'-0" x 7'-0" x 20" | (7) - #6 S.W. BOT. |
| F80 | 8'-0" x 8'-0" x 22" | (8) - #6 S.W. BOT. |
| F2040 | 2'-0" x 4'-0" x 14" | (3) - #4 S.W. (4) - #4 S.W. |
| F3050 | 3'-0" x 5'-0" x 16" | (4) - #6 S.W. (5) - #6 S.W. |
| F3070 | 8'-0" x 8'-0" x 16" | (5) - #6 S.W. (7) - #6 S.W. |

| PIER SCHEDULE | | | |
|---------------|-----------|----------------|---------|
| MARK | SIZE | REINFORCEMENT | REMARKS |
| P1 | 20" x 20" | (6) - #6 VERT. | |
| P2 | 18" x 18" | (4) - #6 VERT. | |

NOTE:
 ALL PIERS TO HAVE # 3 TIES @ 12" o.c. (TYPICAL)
 PROVIDE BRICKSHELF AS REQUIRED. SEE TYPICAL BRICKSHELF
 DETAIL ON DRAWING S-X.



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Project Name
Additions and Alterations to the Freehold Learning Center

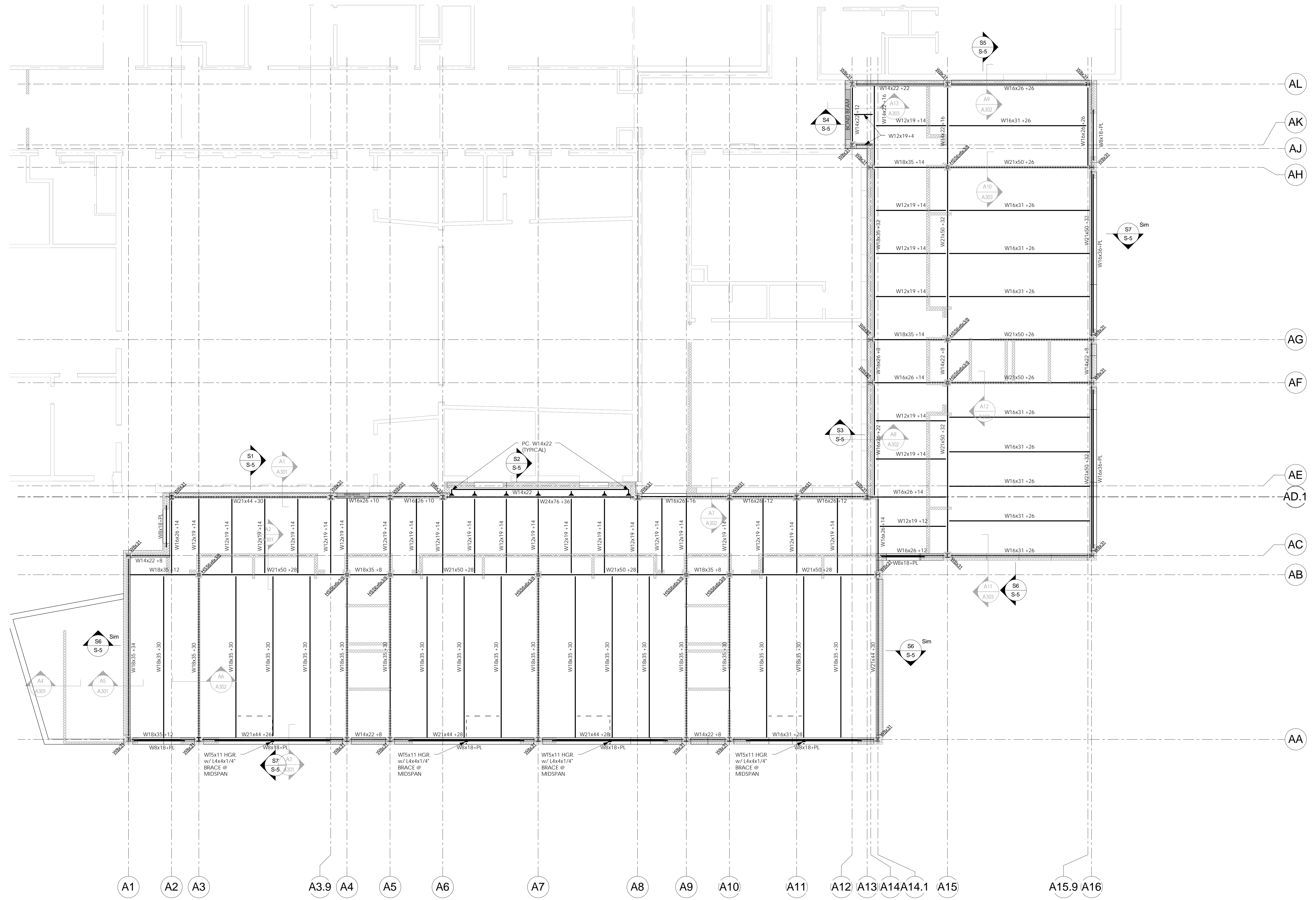
Project Owner Name
Freehold Borough School District

Project Location
30 Dutch Lane, Freehold, NJ 07728

Project Number
4935A/B
 Project Date
05/05/17
 Checked By
 Designer
 Author
 Scale

Drawing Name
Foundation Plan Block B

| Revisions | No. | Date | Description |
|-----------|--------|------|-----------------|
| 1 | 5.5.17 | | NJCA SUBMISSION |



Future 2nd Floor Framing Plan Block A

1/8" = 1'-0"
 ELEVATION TOP OF FINISHED FLOOR SLAB - ABOVE DATUM
 EL. 0'-0" UNLESS OTHERWISE NOTED ON PLAN.
 FLOOR SLAB: 5 1/2" CONC. SLAB + 4x6-W14x14 W.W.F. ON 2"-20 GA.
 COMPOSITE METAL FLOOR DECK (GALVANIZED).
 ELEVATION TOP OF STEEL BEAMS - 1/2" BELOW TOP OF SLAB UNLESS
 OTHERWISE NOTED THUS () ON PLAN ABOVE DATUM.
 W16 x 35 - 24 - INDICATES W16 x 26 STEEL BEAM WITH 24-3/4" DIA. SHEAR STUDS.
 SPACE ALL STEEL MEMBERS EQUALLY UNLESS OTHERWISE NOTED ON PLAN.
 IN UNITS OF KIP - FT. (ALLOWABLE STRESS INCREASES MAY BE TAKEN FOR A.S.D.)
 ◀ ▶ - INDICATES MOMENT CONNECTION IN UNITS OF KIP - FT.

NJCA Electronic Release Stamp

Architect: **FVHDP** Frayak Veisz Hopkins Duthie P.C.
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 NJ - 21A0019900

Project Name: **Additions and Alterations to the Freehold Learning Center**

Project Owner Name: **Freehold Borough School District**

Project Location: **30 Dutch Lane, Freehold, NJ 07728**

Project Number: **4935A/B**

Project Date: **05/05/17**

Checked By: **FWH**

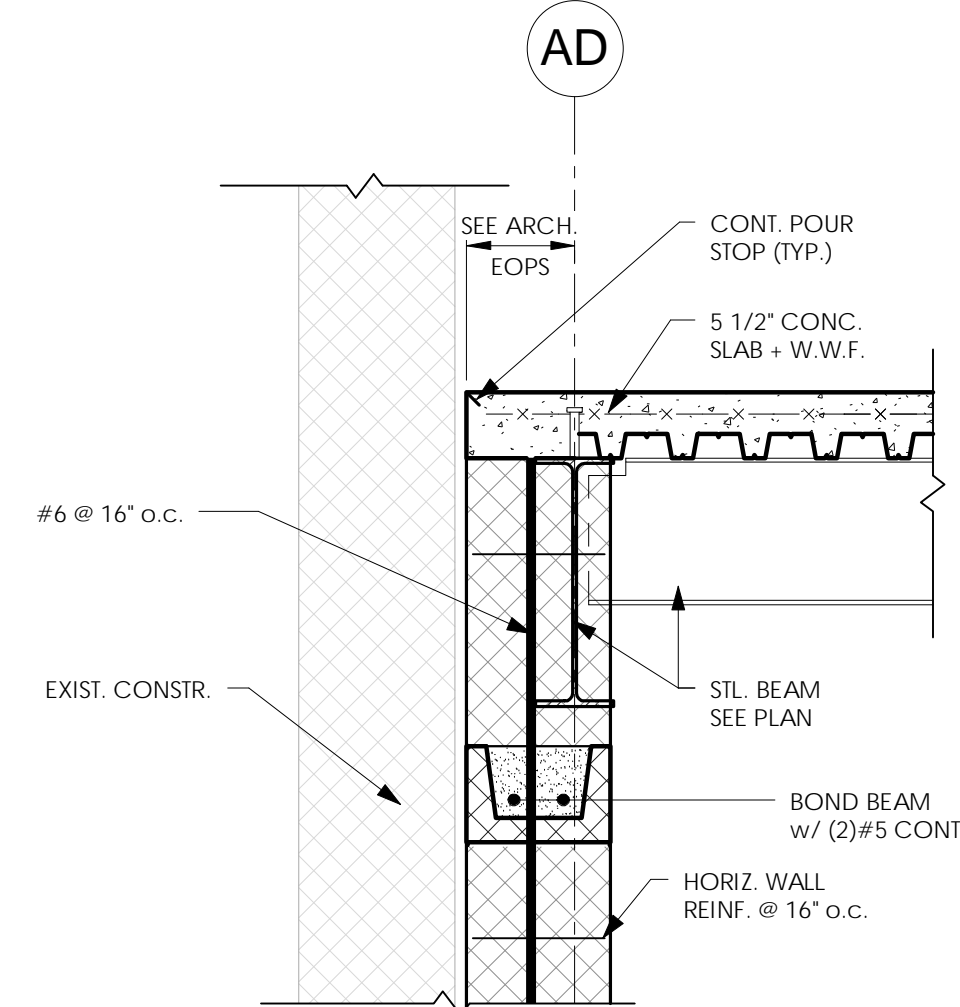
Drawn By: **SWH**

Scale:

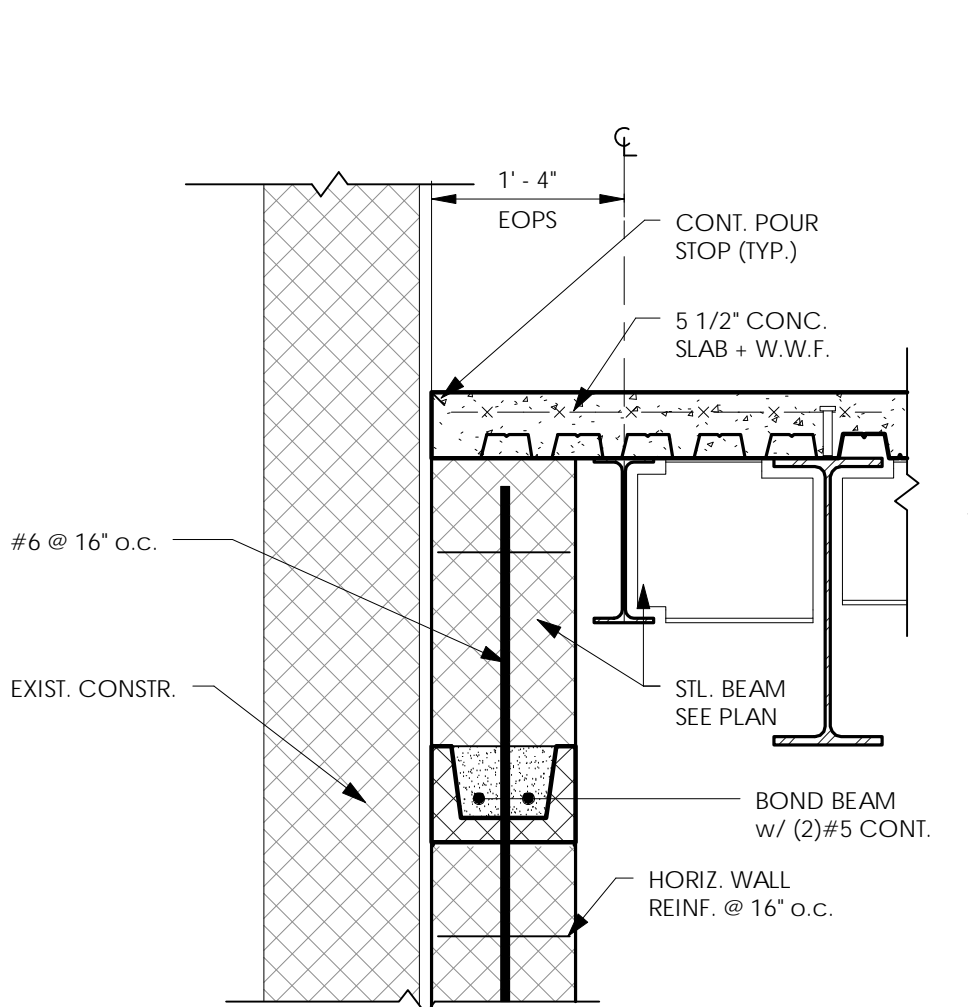
Drawing Name: **Future 2nd Floor Framing Plan Block A**

Revisions:
 No. | Date | Description
 1 | 5.5.17 | NJCA SUBMISSION

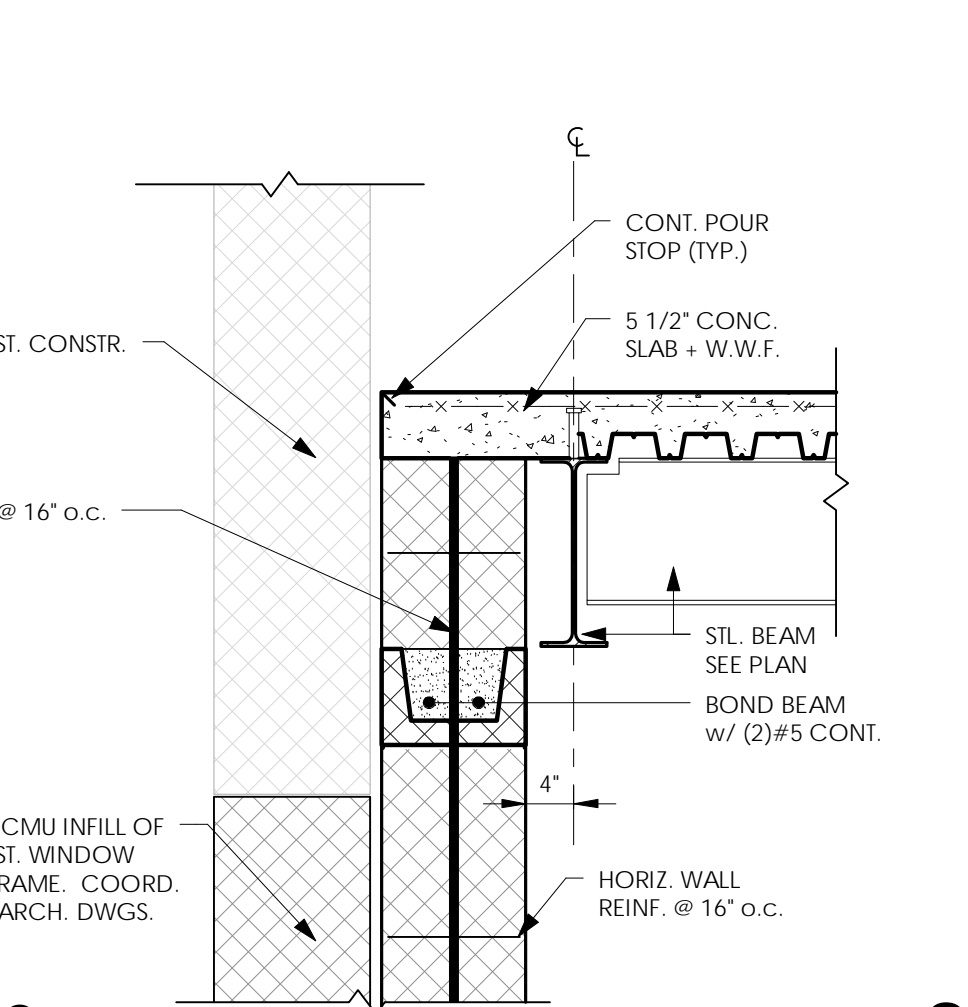
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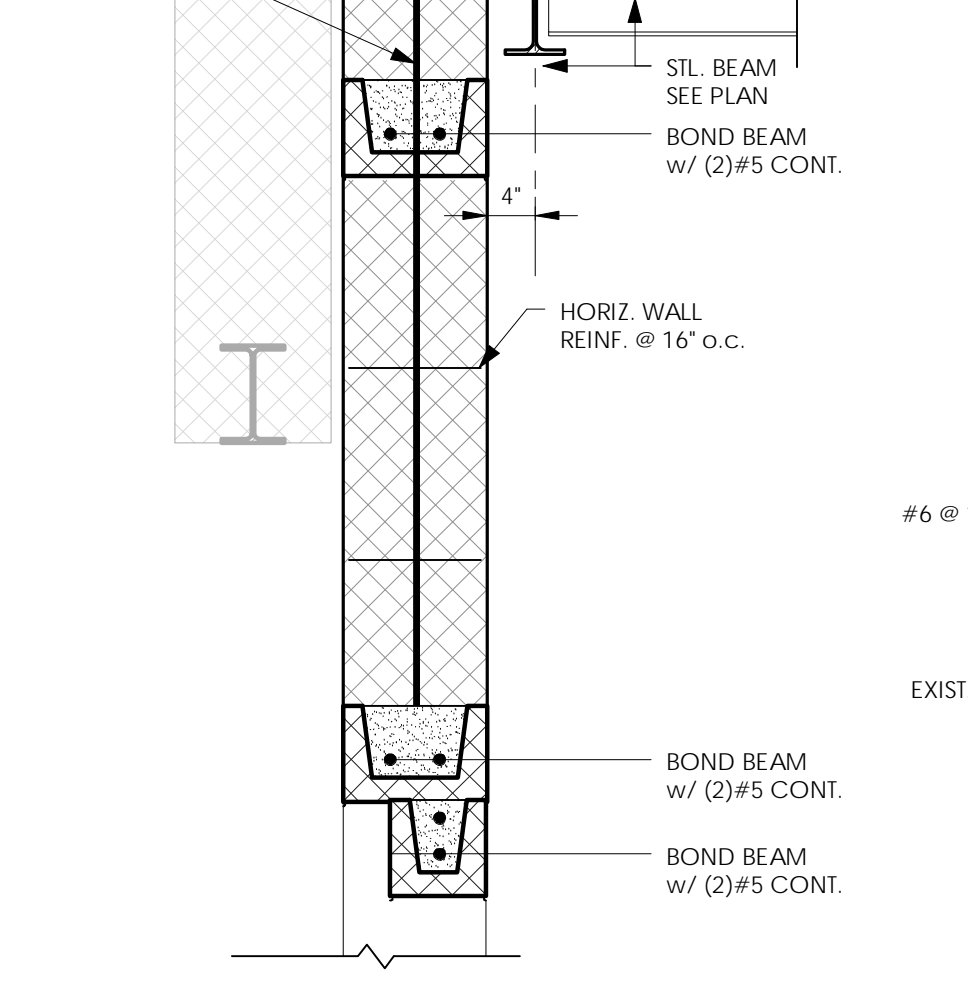
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3/4" = 1'-0"



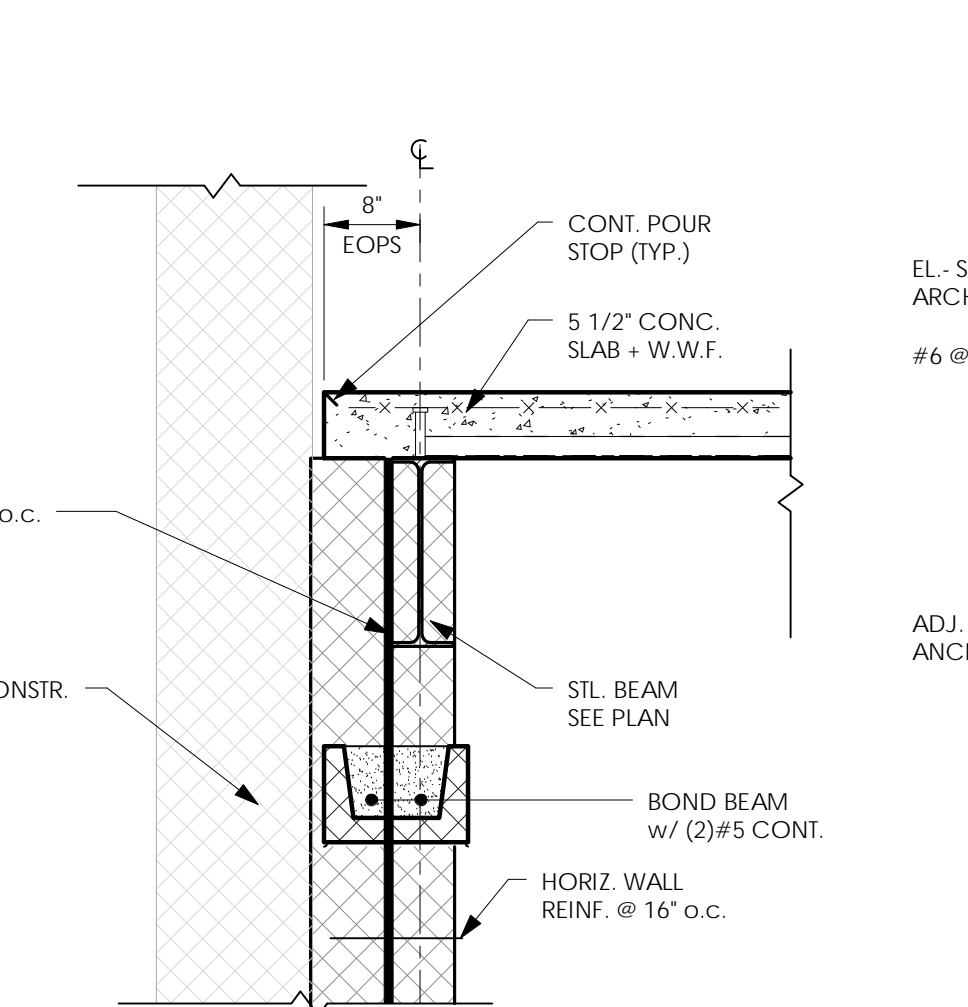
S2
3/4" = 1'-0"



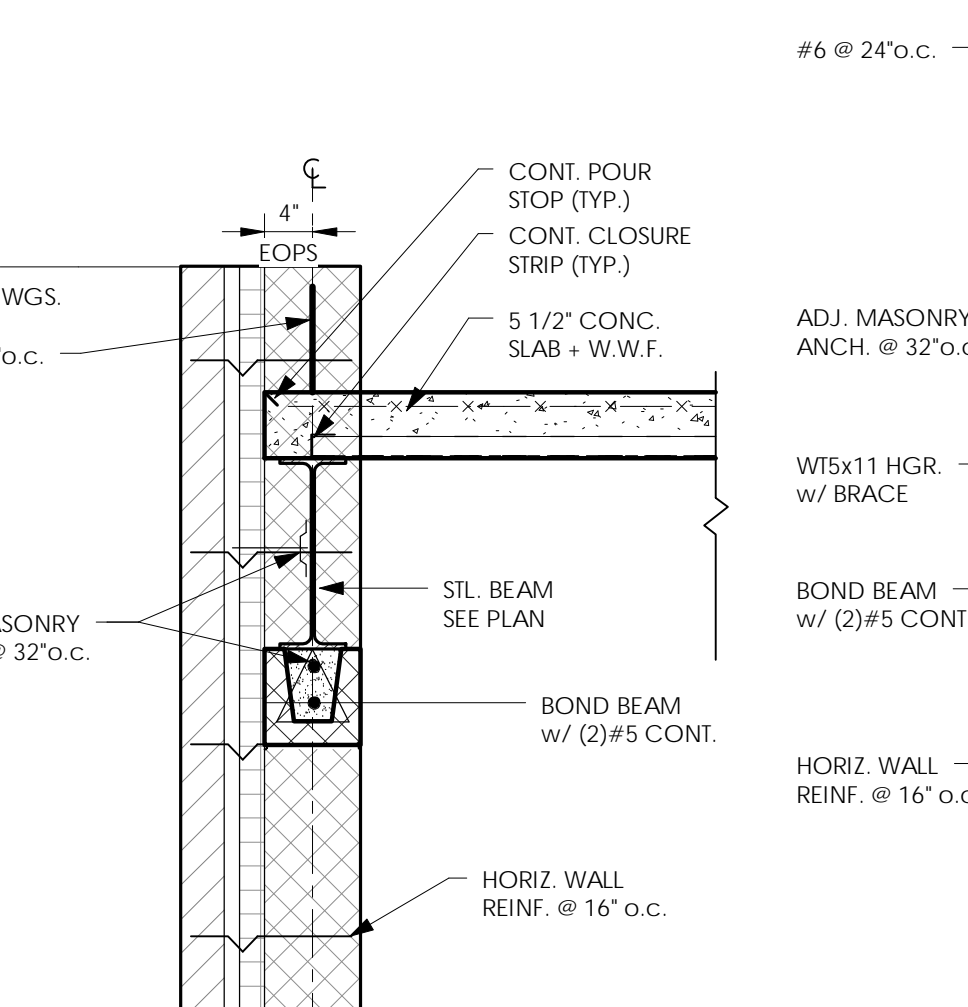
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3/4" = 1'-0"



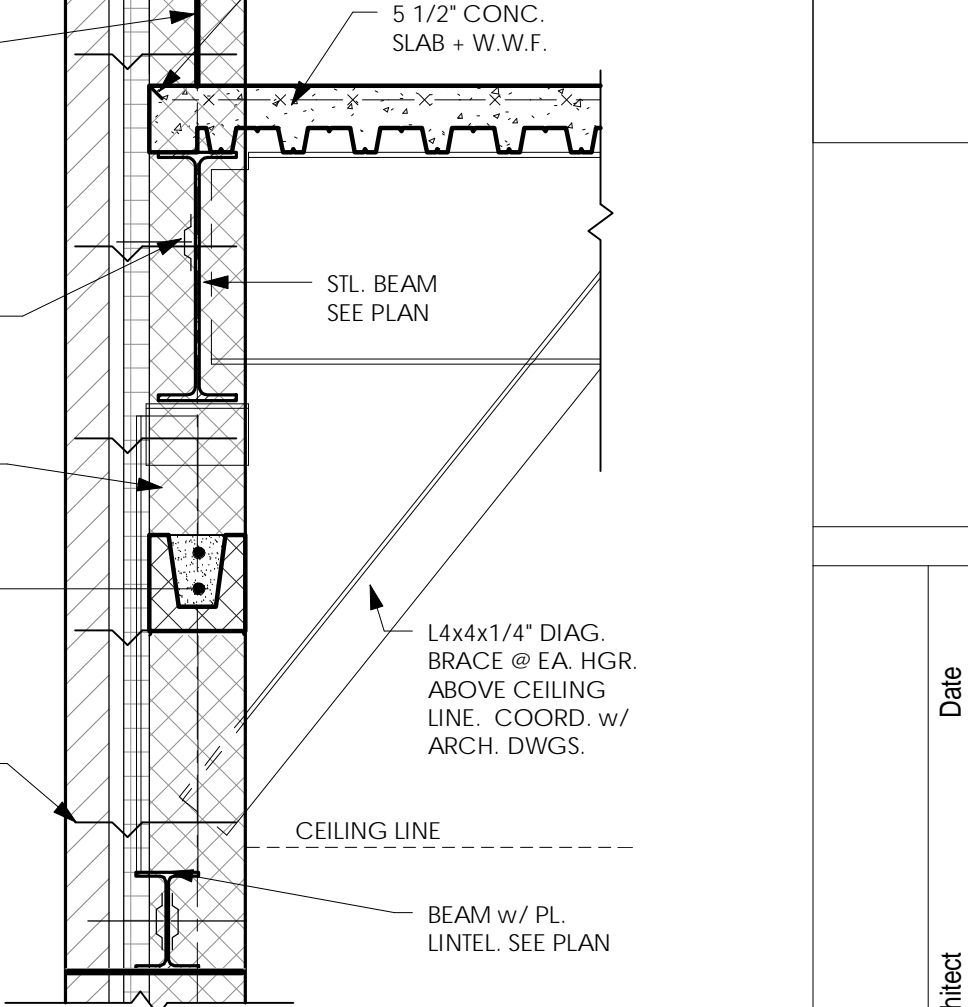
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3/4" = 1'-0"



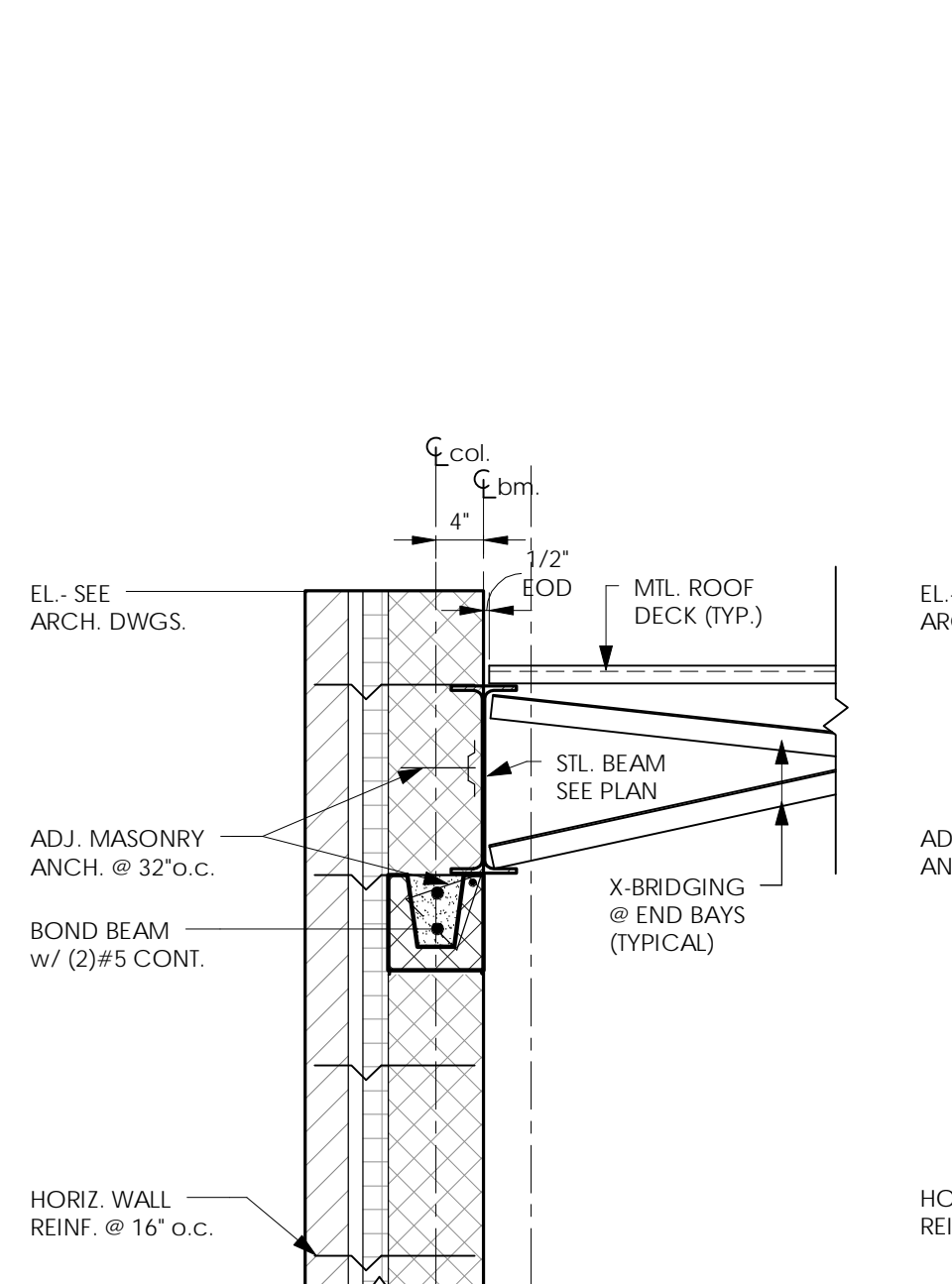
S5
3/4" = 1'-0"



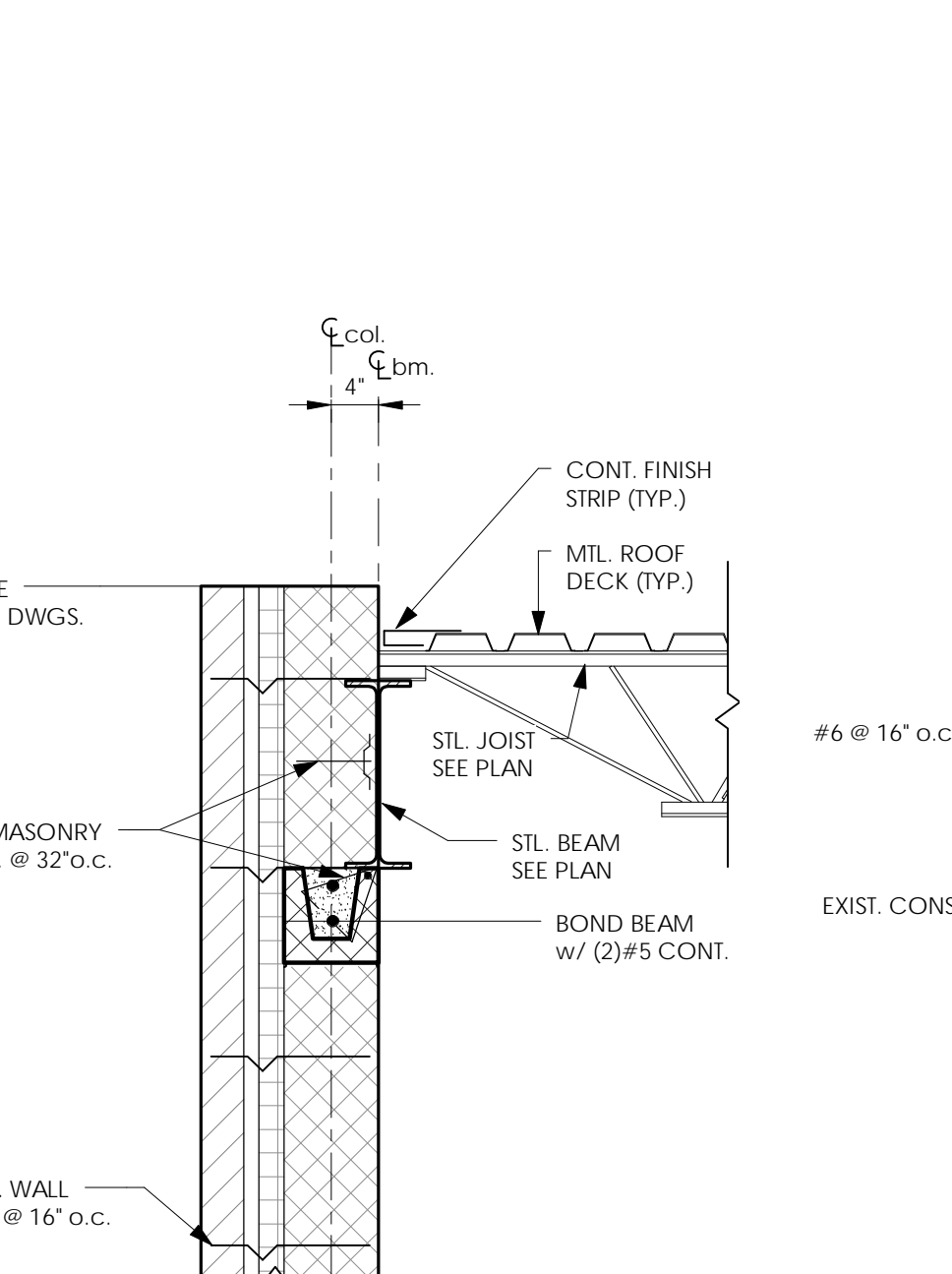
S6
3/4" = 1'-0"



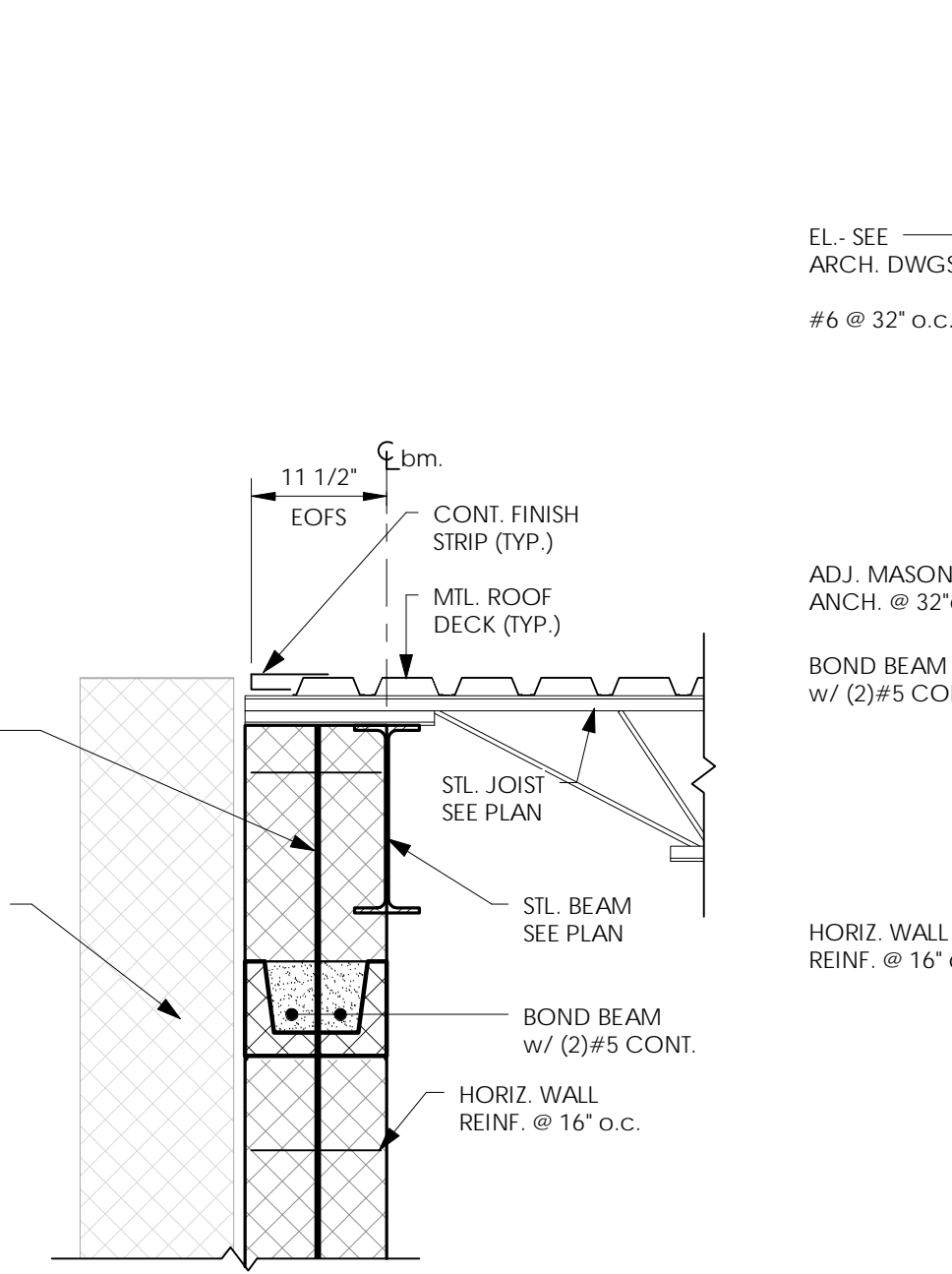
S7
3/4" = 1'-0"



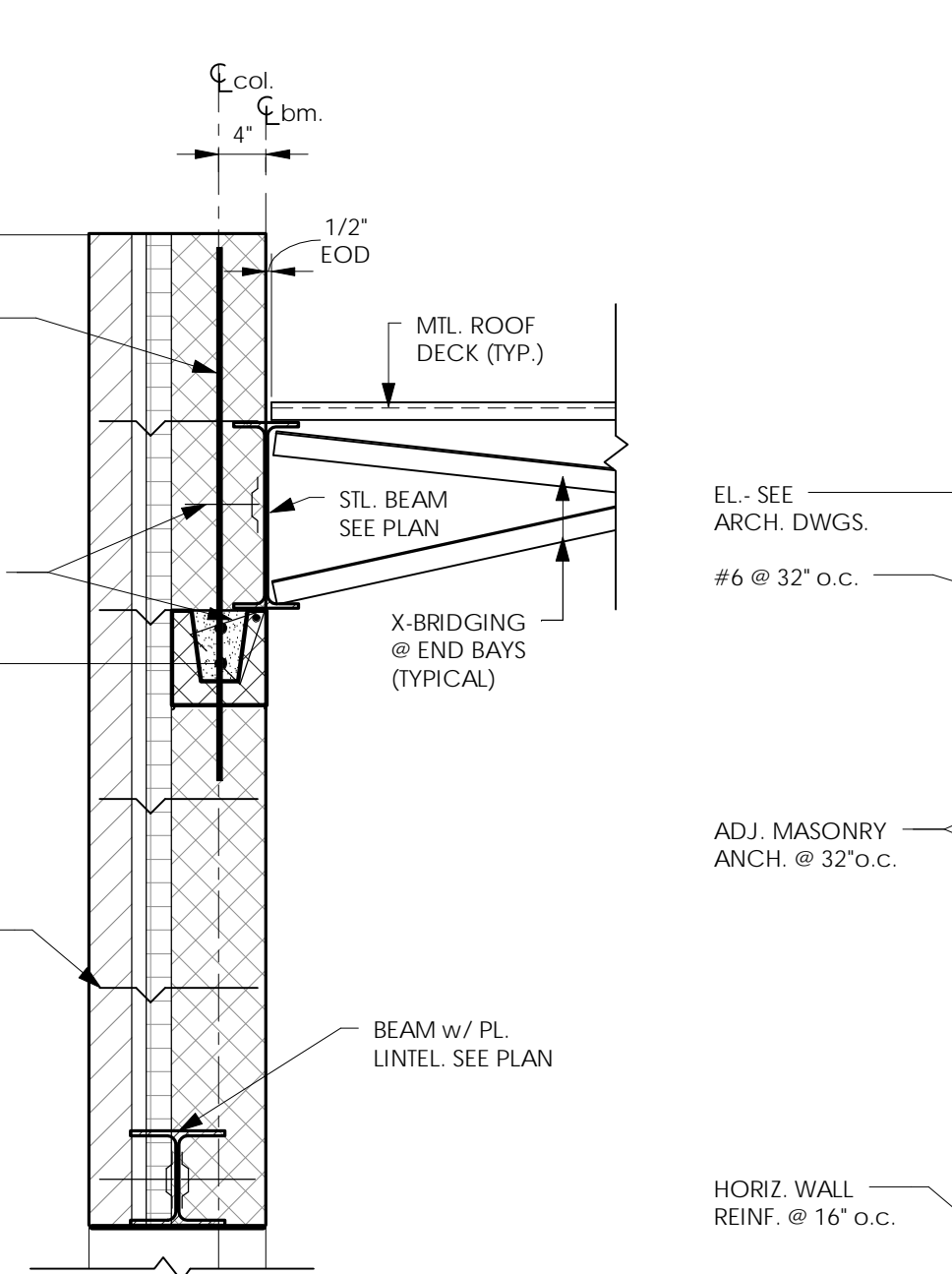
R1
3/4" = 1'-0"



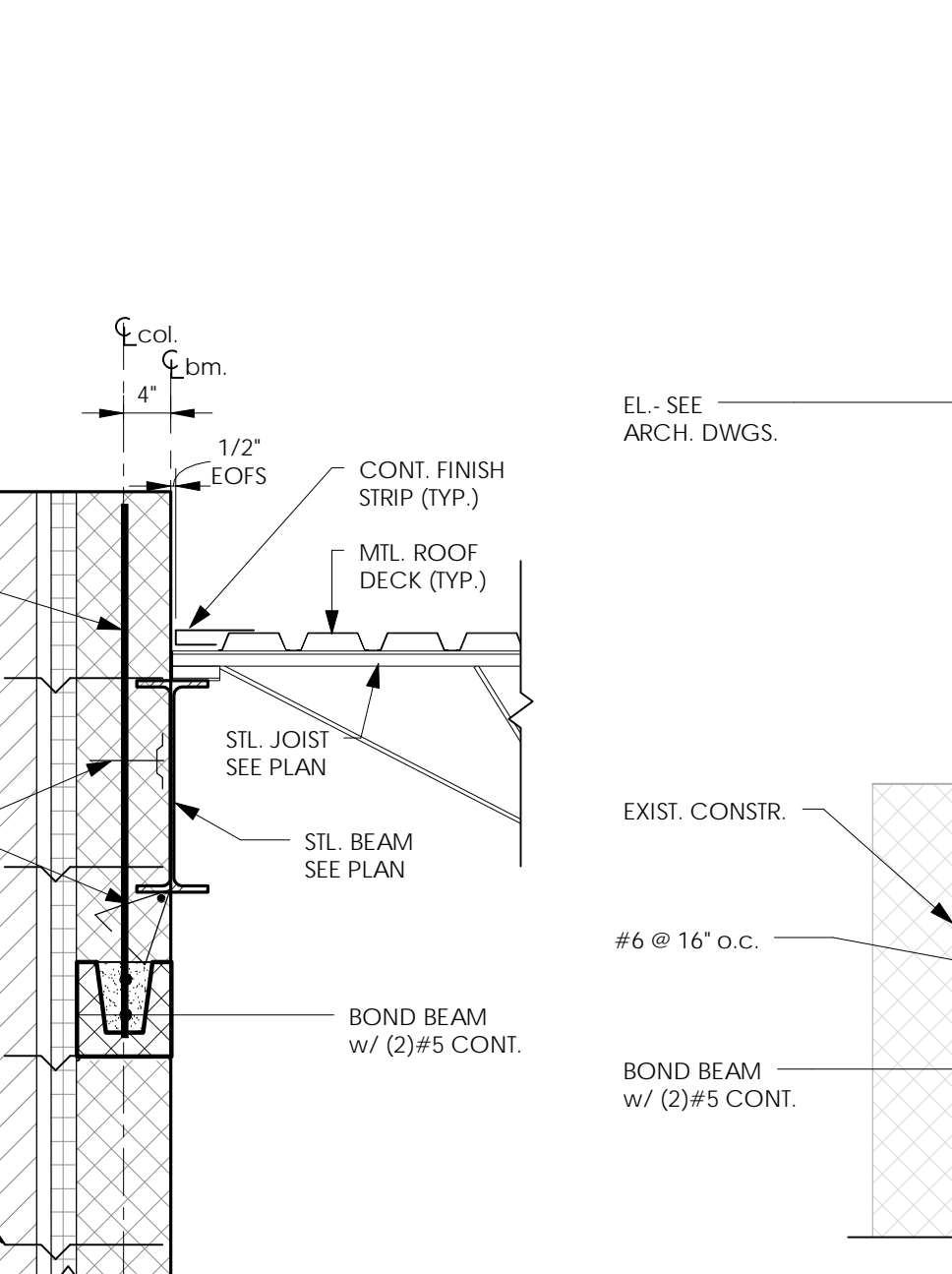
R2
3/4" = 1'-0"



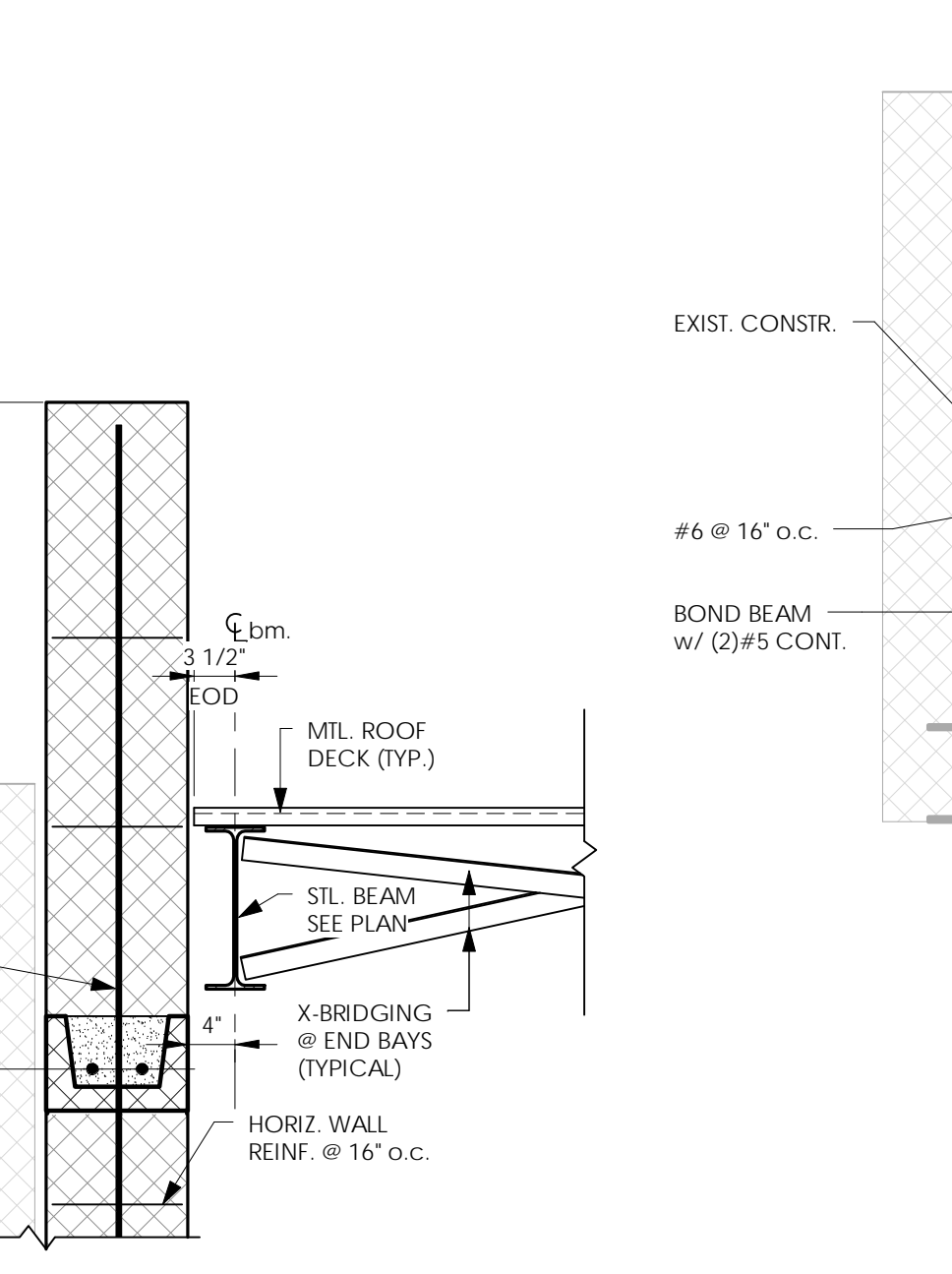
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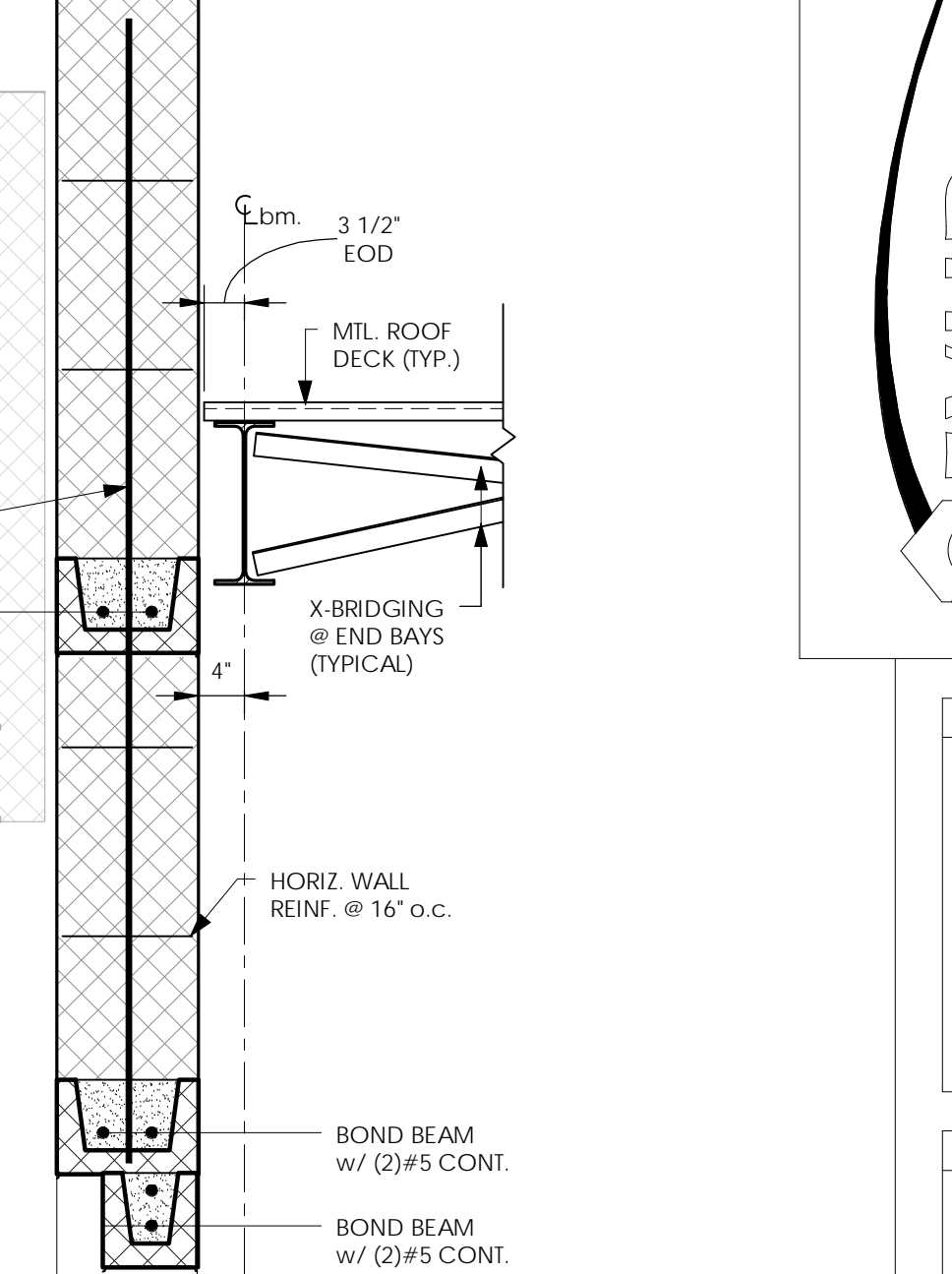
R4
3/4" = 1'-0"



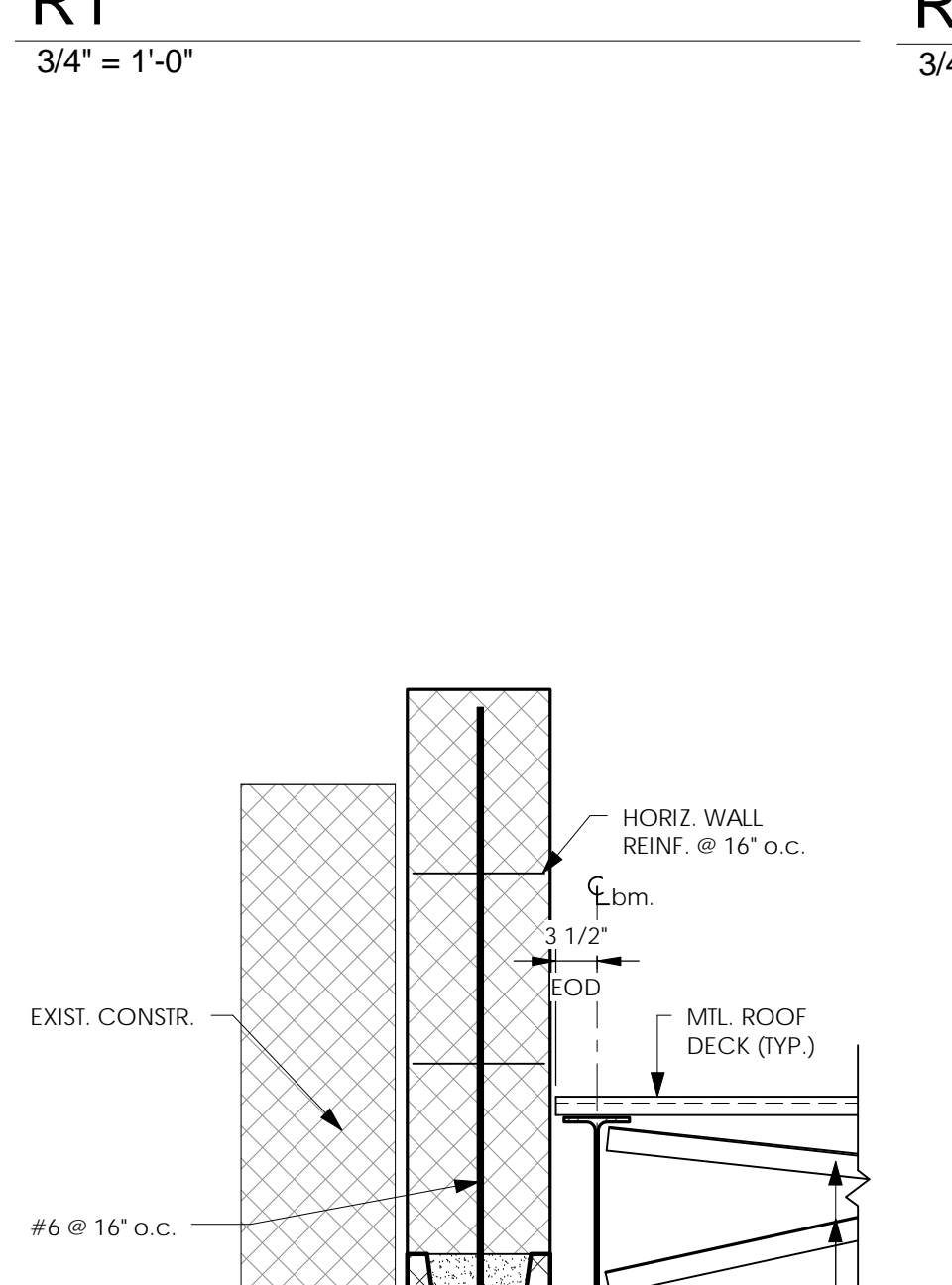
R5
3/4" = 1'-0"



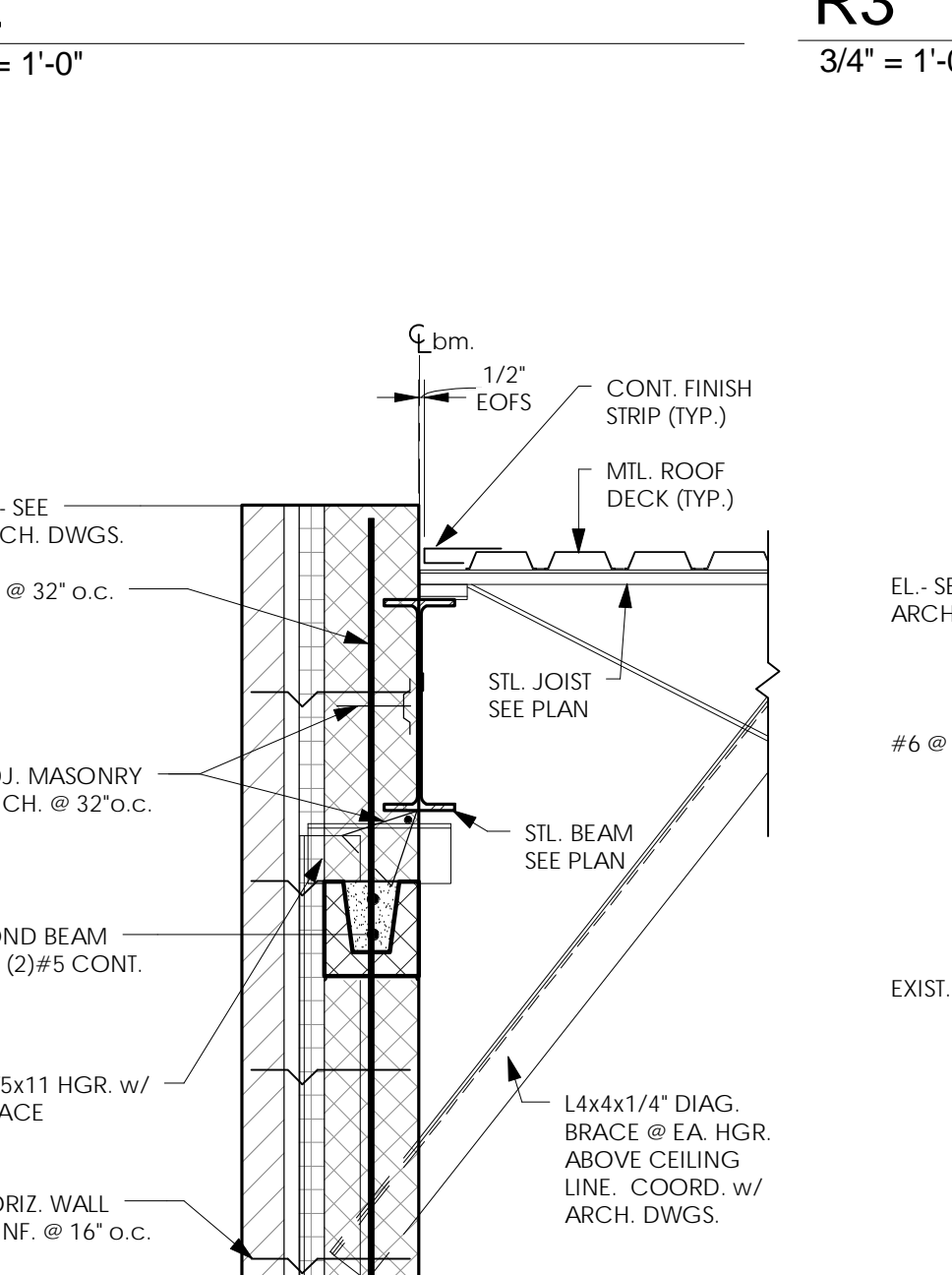
R6
3/4" = 1'-0"



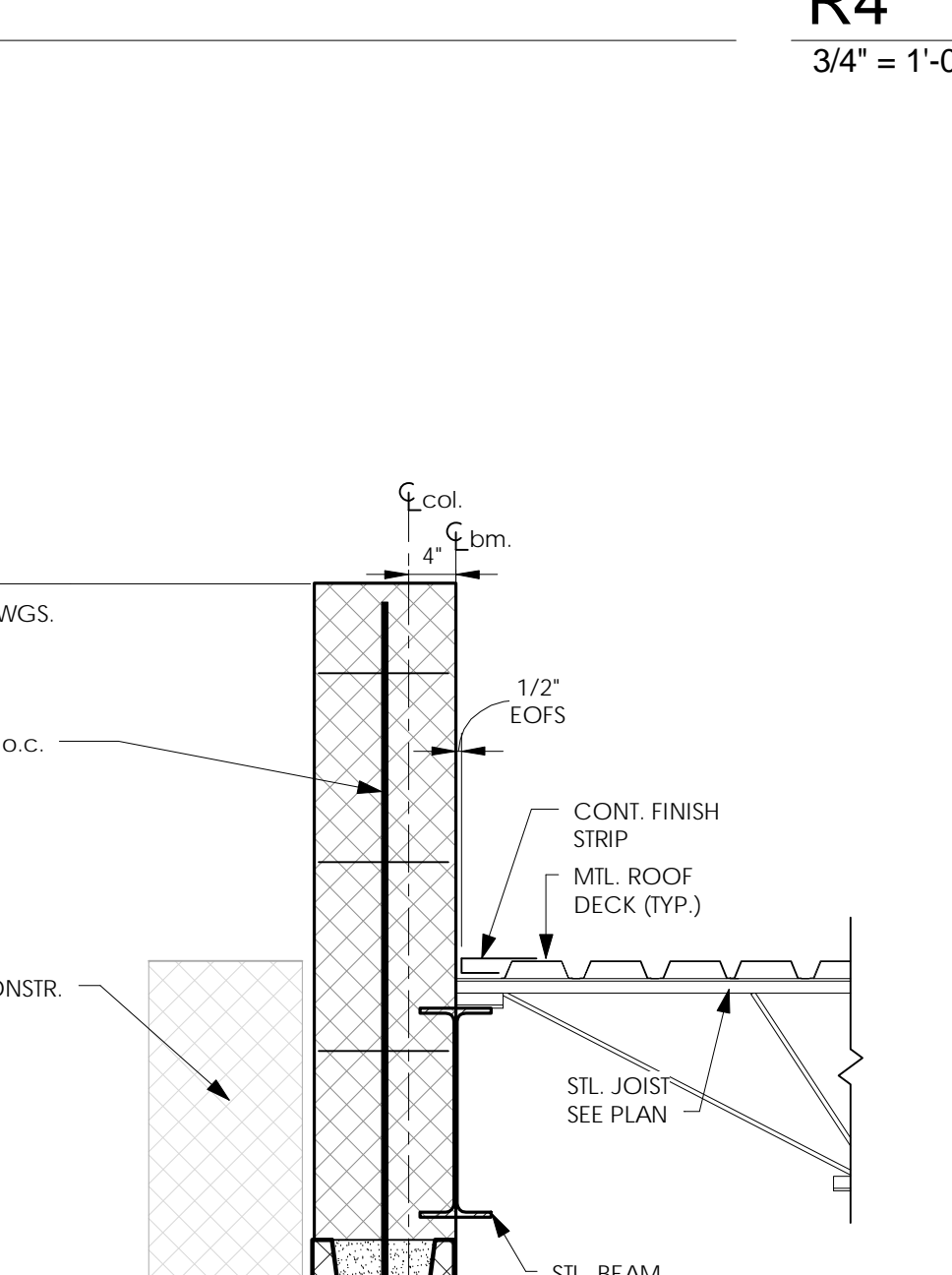
R7
3/4" = 1'-0"



R8
3/4" = 1'-0"



R9
3/4" = 1'-0"



R10
3/4" = 1'-0"

NJICA Electronic Release Stamp

Architect: **GFVHID** Frayak Veisz Hopkins Duthie P.C.

Corporate: 1515 Lower Ferry Road
 Freehold, NJ 08020
 Pennsylvania: 1500 Montclair, PA 19533

Project Name: Additions and Alterations to the Freehold Learning Center

Project Owner Name: Freehold Borough School District

Project Location: 30 Dutch Lane, Freehold, NJ 07728

Project Number: 4935A/B

Project Date: 05/05/17

Checked By: Designer

Drawn By: Author

Scale:

Drawing Name: Sections

Drawing Number: S-5

Harrison Hammett, P.C. Consulting Engineers
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Donald M. Hammett
 DONALD M. HAMMETT, N.J. P.E. 317976 DATE

GENERAL NOTES

1. All footings shall bear on soil having a minimum safe bearing capacity of 1.5 tons per square foot. Confirm in field prior to placing footings.
2. Elevations given correspond to the computed bottom of footings and are minimum depths which are not to be construed as limiting in any way the depth required to reach good bearing.
3. No footings shall be placed in water or on frozen ground.
4. No fill or backfill shall be placed over or against work at such time or in such a manner which would endanger the stability or otherwise damage such work.
5. See soils report for requirements concerning preparation of soil for foundations.

CAST-IN-PLACE CONCRETE

1. All concrete work shall conform to the latest edition of the ACI Building Code.
2. All bars shall be ASTM A-185, Grade 40.
3. All concrete, except slabs on grade, shall attain 3000 PSI compressive strength at 28 days. All concrete for slabs on grade shall attain 3500 PSI compressive strength at 28 days.

REINFORCING

1. All reinforcing bar details shall conform to the latest ACI code and detailing manual.
2. Welded wire fabric shall be ASTM A-185.
3. Clearances of main reinforcing from adjacent surfaces unless shown otherwise shall be:
 - A. Unformed surfaces in contact with ground or exposed to the weather: 3"
 - B. Bottom surfaces of slabs on grade: 3"
 - C. Formed surfaces in contact with ground or exposed to weather:
 1. #5 bars or smaller: 1-1/2"
 2. Bars larger than #5: 2"
 3. Exterior wall surfaces: 2"
 4. In all cases not less than the diameter of the bar.
4. Tolerances for placing reinforcing shall be:
 - A. +/- 1/4 inch for members with an effective depth of 24 inches or less.
 - B. +/- 1/2 inch for members with an effective depth of more than 24 inches.
5. Where continuous bars are called for, they shall be run continuously around corners and lapped at necessary splices or hooked at discontinuous ends. Laps shall be 40 bar diameters. Bar laps may be offset to avoid control or construction joints.
6. Electrical Contractor to provide grounding electrode system as required by NEC section 250.52(a). Coordinate location and schedule with General Contractor.

STRUCTURAL STEEL

1. All structural steel details shall be designed in accordance with the latest issue of the American Institute of Steel Construction (AISC), "Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design".
2. Connections shall be designed to develop the full strength of the member over the required span, 1 1/2 times for composite members.
3. Provide double angle connections at all beam to wide flange columns and beam to beam connections whenever possible. The steel fabricator must notify the Structural Engineer if there are to be any changes. See Typical Thru-Plat Detail for beam to tube column connections.
4. Field connections shall be made by high strength bolts 3/4" minimum in diameter or welded as shown on drawings.
5. All pipe shapes shall be ASTM A53, Grade B, Fy=35 KSI.
6. All tube shapes shall be ASTM A500, Grade B, Fy=46 KSI.
7. All structural wide flange shapes to be ASTM A992/A572, Grade 50.
8. All steel plates, angles, channels are to be ASTM A-36 unless indicated otherwise.

STEEL JOISTS

1. All standard bar joists, materials, and workmanship shall conform to the latest edition of the S.J.I. "Standard Specifications for Openweb Joists, K Series" or "Standard Specifications for Longspan Steel Joist, LH Series and Deep Longspan Steel Joists, DLH Series."
2. Do not load joists until bridging is installed.

STEEL ROOF DECK

1. Deck shall be 20 gage galvanized 3" wide rib variety (Type N/A) continuous over at least 3 spans.
2. Deck to be installed as per manufacturer's recommendations.

MASONRY

1. All block work shall be in accordance with IBC2015 w/ NJ Modification and other applicable codes.
2. All block shall be lightweight aggregate and conform to ASTM C 90.
3. Mortar shall be ASTM C 270, Type M for below grade and Type M or S for above grade work.
4. Horizontal reinforcing shall be No. 4 gage "Duo-D" wall or equivalent. Provide fabricated corner sections at all corners. Where masonry is laid in other than running bond, horizontal joint reinforcement is to be provided at every horizontal joint.
5. Where block fill is called for on drawings, use Type M mortar or concrete with a compressive strength of 2500 PSI in accordance with ASTM C 476, and installed in accordance with ACI-531 for high or low lift procedures.
6. Coordinate masonry with all trades requiring items to be built-in.

MISCELLANEOUS

1. Contractor shall verify all dimensions, sections and elevations on the job.
2. Consult the Architectural, Mechanical and Electrical drawings for verification of location and dimensions of chases, inserts, openings, sleeves, washes, dips, reveals, depressions, equipment pads and other product requirements.
3. All walls shall be braced during construction until permanently restrained.
4. Reproductions of contract documents are not acceptable as shop drawings and will be rejected.

ROOF LOADING SCHEDULE

| | | |
|---|------|--------|
| DEAD LOAD: | | |
| ROOFING | 6.0 | P.S.F. |
| INSULATION | 2.0 | P.S.F. |
| METAL ROOF DECK | 2.0 | P.S.F. |
| STRUCTURAL JOISTS | 3.0 | P.S.F. |
| STRUCTURAL STEEL | 4.0 | P.S.F. |
| MECH. ELEC. | 2.0 | P.S.F. |
| CEILING | 1.0 | P.S.F. |
| LIVE LOAD: | 20.0 | P.S.F. |
| DESIGN LOAD | 30.0 | P.S.F. |
| GROUND SNOW LOAD (Pg) | 30.0 | P.S.F. |
| $C_e = 1.0, I = 1.1, C_t = 1.0$ | | |
| $P_f = 0.7 \times C_e \times I \times C_t \times P_g =$ | | |
| | 23.1 | P.S.F. |

FUTURE FLOOR LOADING SCHEDULE

| | | |
|----------------------|------|--------|
| DEAD LOAD: | | |
| 4 1/2" CONCRETE SLAB | 45.0 | P.S.F. |
| METAL FLOOR DECK | 3.0 | P.S.F. |
| STRUCTURAL STEEL | 9.0 | P.S.F. |
| MECH. ELEC. | 4.0 | P.S.F. |
| MISC. | 4.0 | P.S.F. |
| LIVE LOAD: | 65.0 | P.S.F. |
| OFFICES | 50.0 | P.S.F. |
| PARTITIONS | 20.0 | P.S.F. |
| CLASSROOMS | 50.0 | P.S.F. |
| CORRIDORS | 80.0 | P.S.F. |
| FLOOR DESIGN LOAD | 80.0 | P.S.F. |

SLAB ON GRADE LOADING SCHEDULE

| | | |
|----------------|-------|--------|
| SLAB ON GRADE: | 150.0 | P.S.F. |
|----------------|-------|--------|

LATERAL LOADING SCHEDULE

WIND LOAD: IBC 2015 - ASCE 7-10

BASIC WIND SPEED = 123 M.P.H.
 RISK CATEGORY = III, EXPOSURE B
 INTERNAL PRESSURE COEFF. $GCP_i = 0.18$
 COMPONENT & CLADDING:
 ROOF - 50 SF = -48.51
 WALLS - 50 SF = +28.56, -36.02

SEISMIC LOADING: IBC 2015 - ASCE 7-10

SEISMIC RISK CATEGORY - III
 IMPORTANCE FACTOR (I_e) = 1.25
 $S_s = 0.232, S_1 = 0.064$
 SITE CLASS - D
 $S_d = 0.247, S_d1 = 0.102$
 SEISMIC DESIGN CATEGORY - B
 STRUCTURAL STEEL SYSTEM NOT SPECIFIED FOR SEISMIC
 BASE SHEAR = 112.18 KIPS
 SEISMIC RESPONSE COEFFICIENT (C_s) = 0.103
 RESPONSE MODIFICATION FACTOR (R) = 3
 EQ. LAT. FORCE PROC.

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 DONALD M. HAMMELT, N.J.P.E. 317976 DATE

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 GEORGE B. DUNNE, JR., AIA, P.P.
 NJ - 2140190000

F.V.H.P.C. C.O.M.

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Project Name
Typical Details, General Notes & Schedules

Project Name
Typical Details, General Notes & Schedules

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| Revisions | | |
| No. | Date | Description |
| 1 | 5.5.17 | NJDOCA SUBMISSION |

Project Name
Typical Details, General Notes & Schedules

Project Number
4935A/B

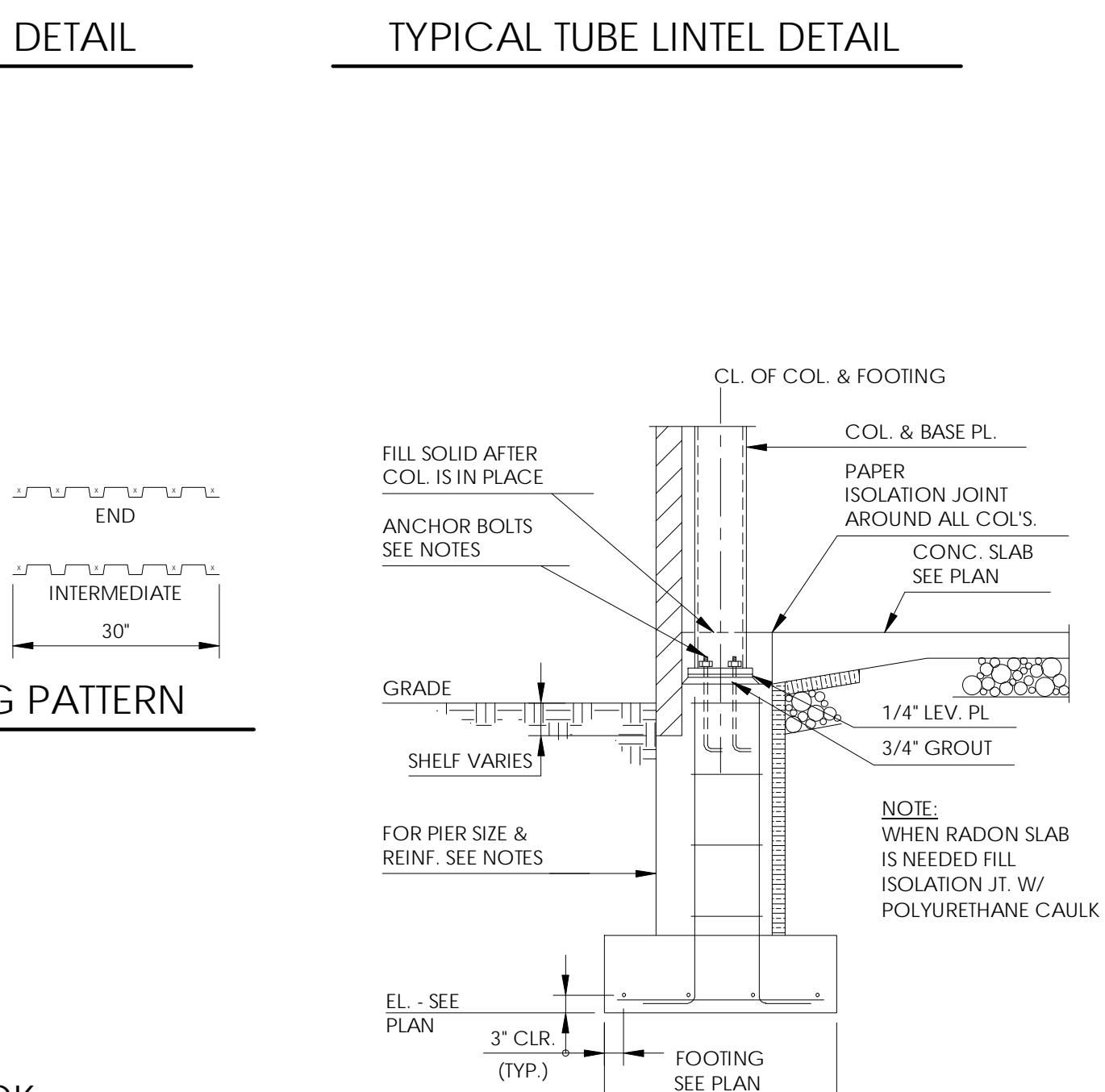
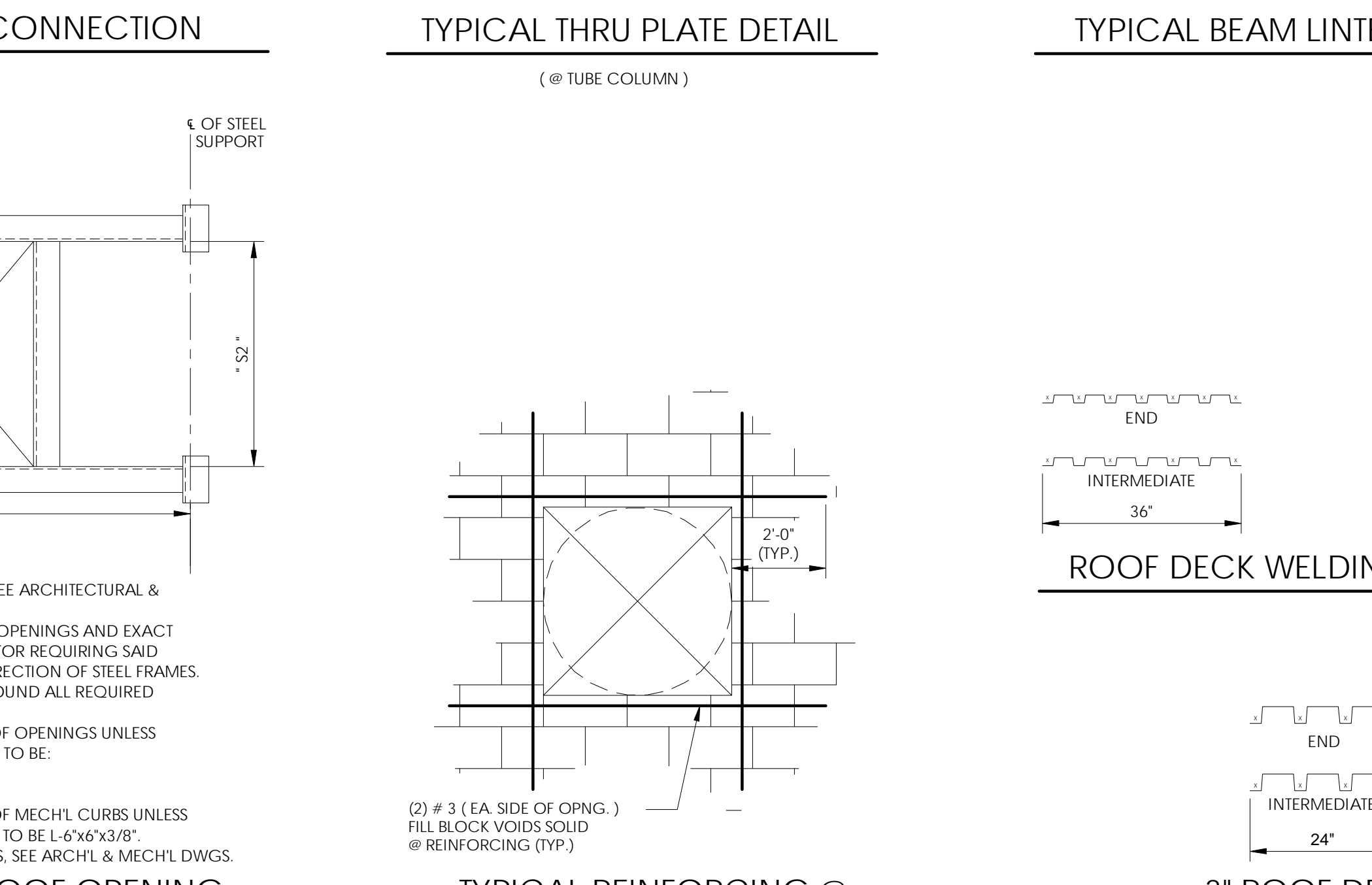
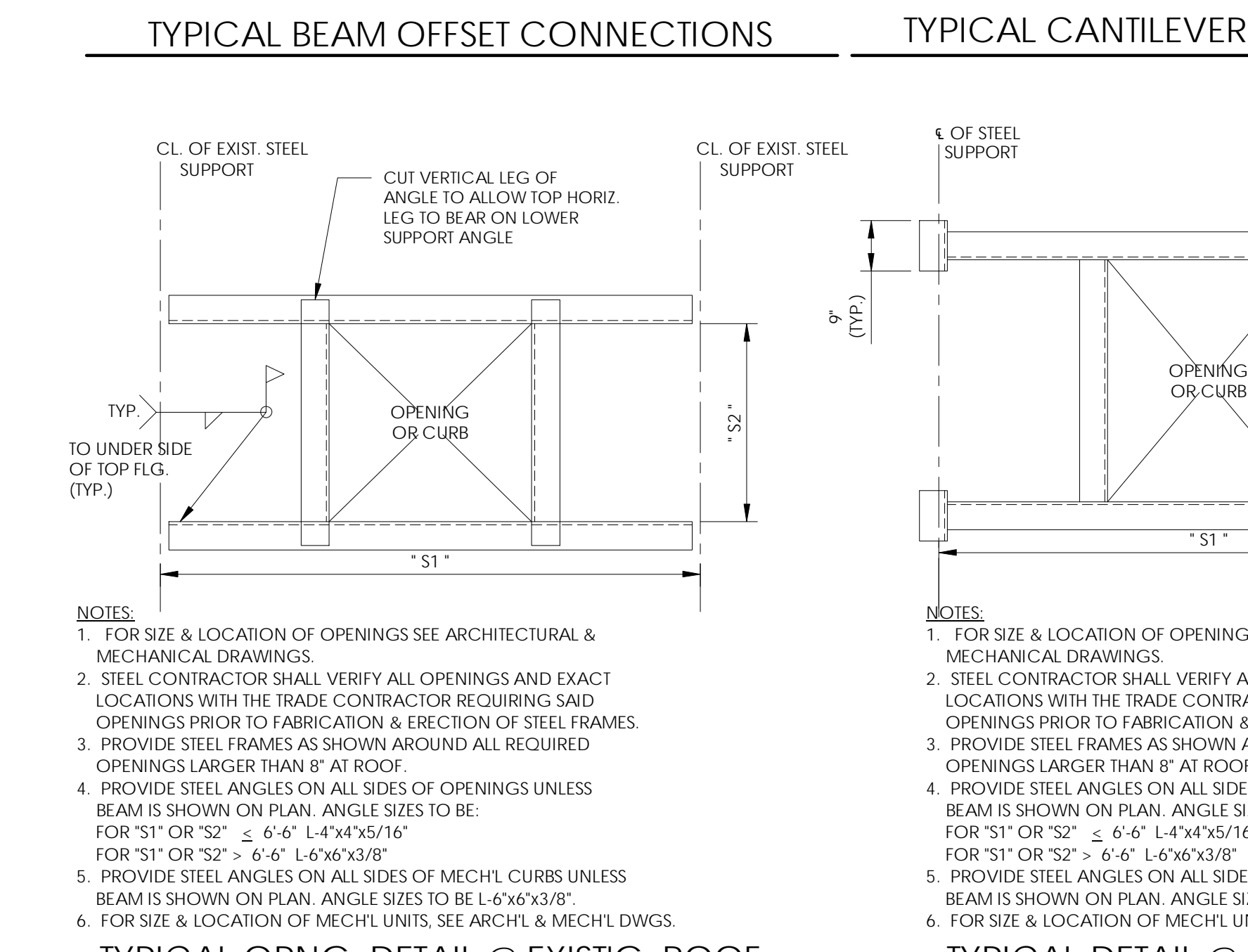
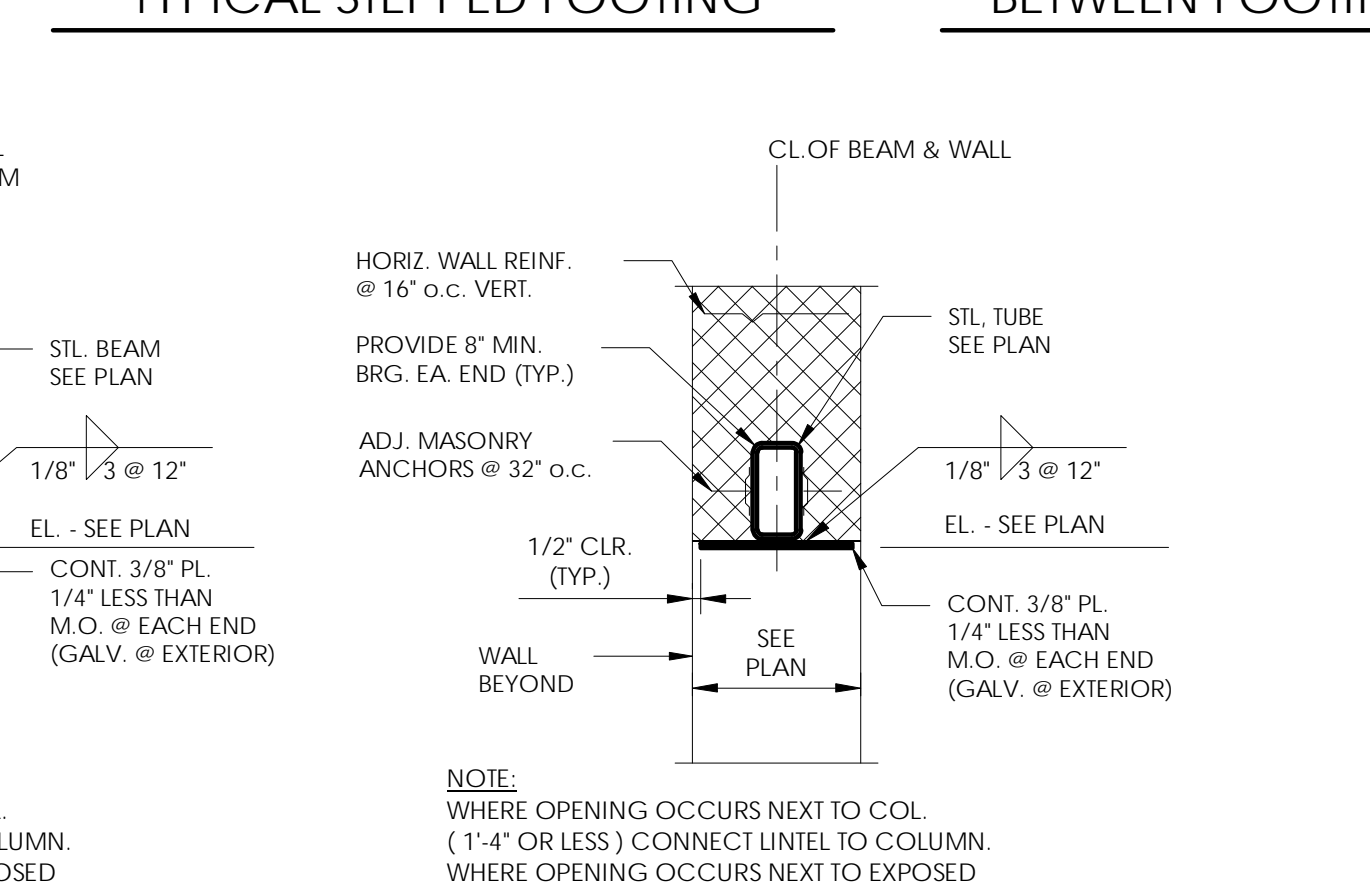
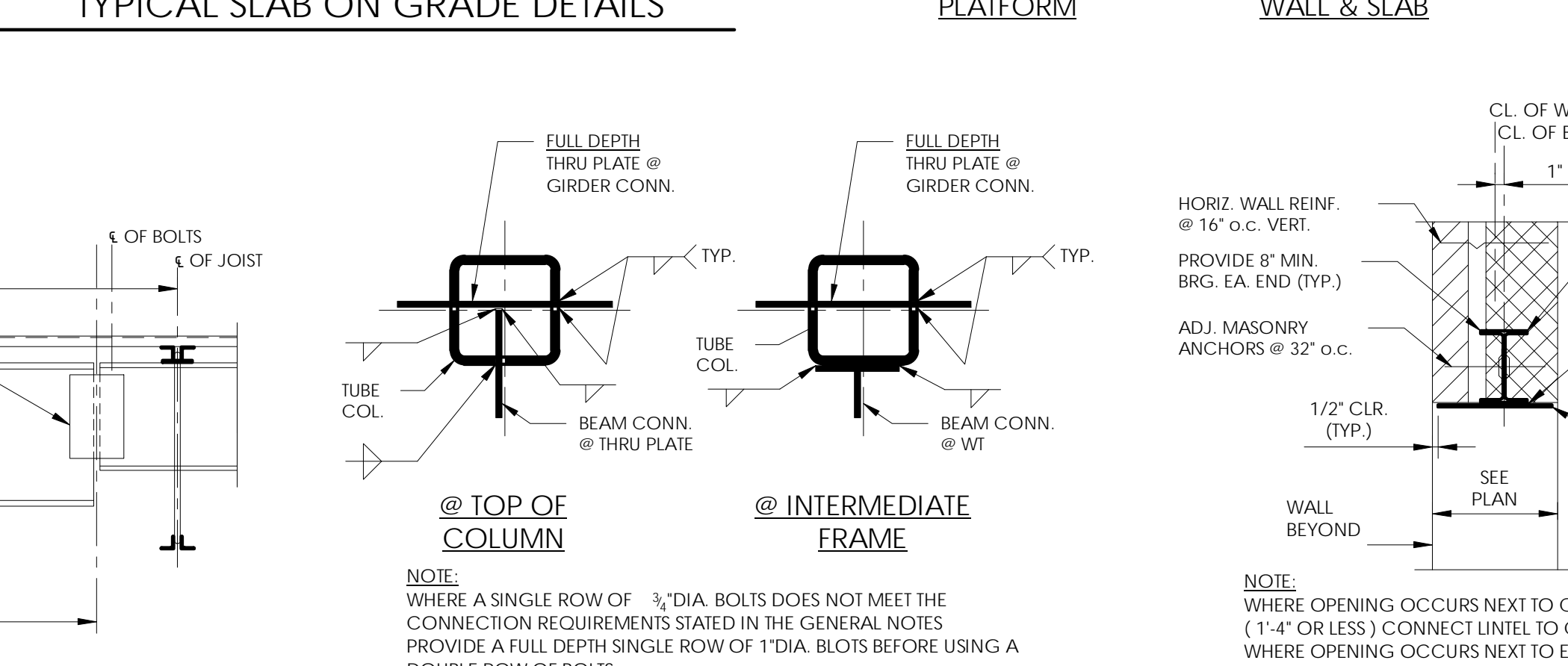
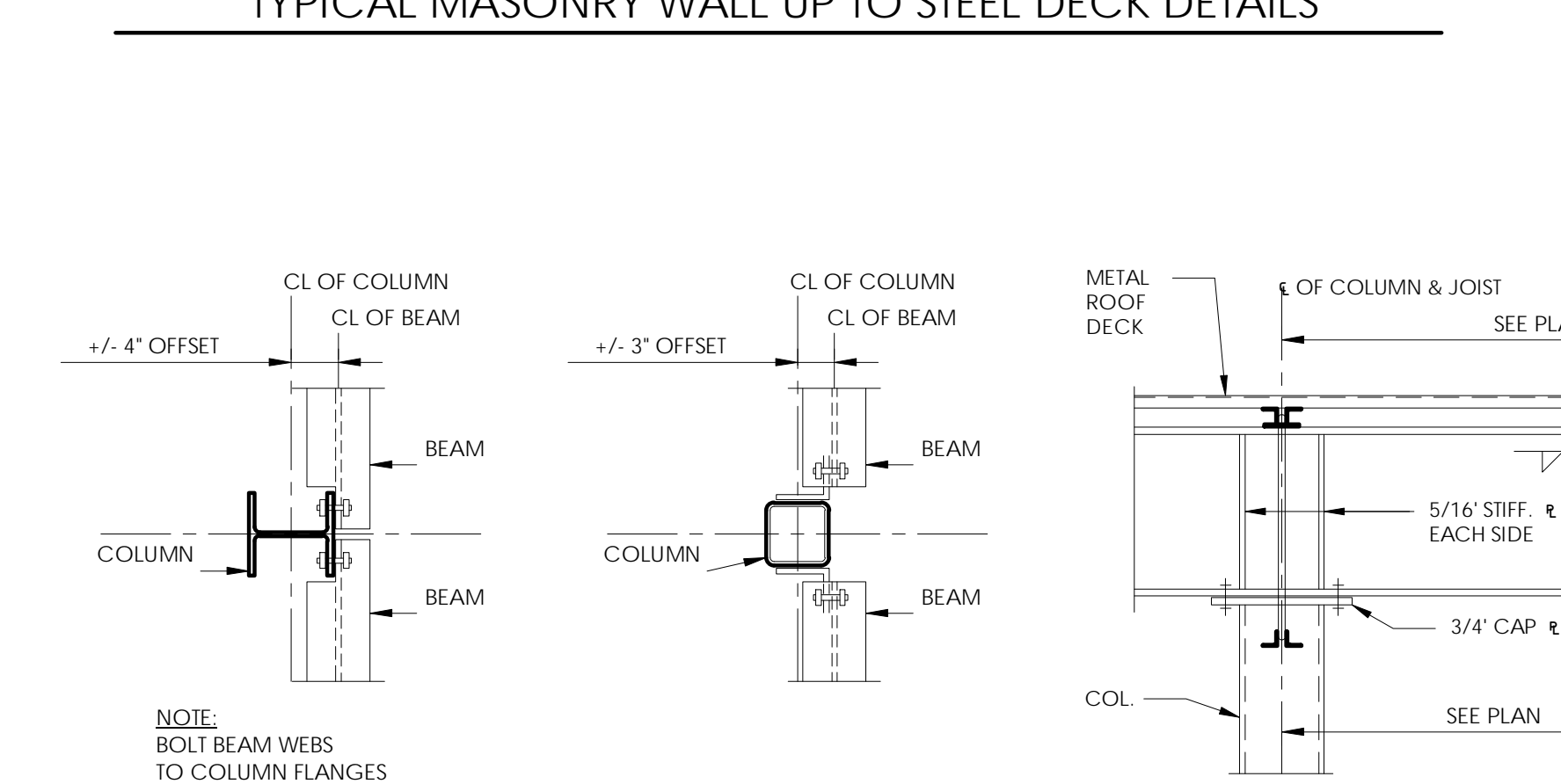
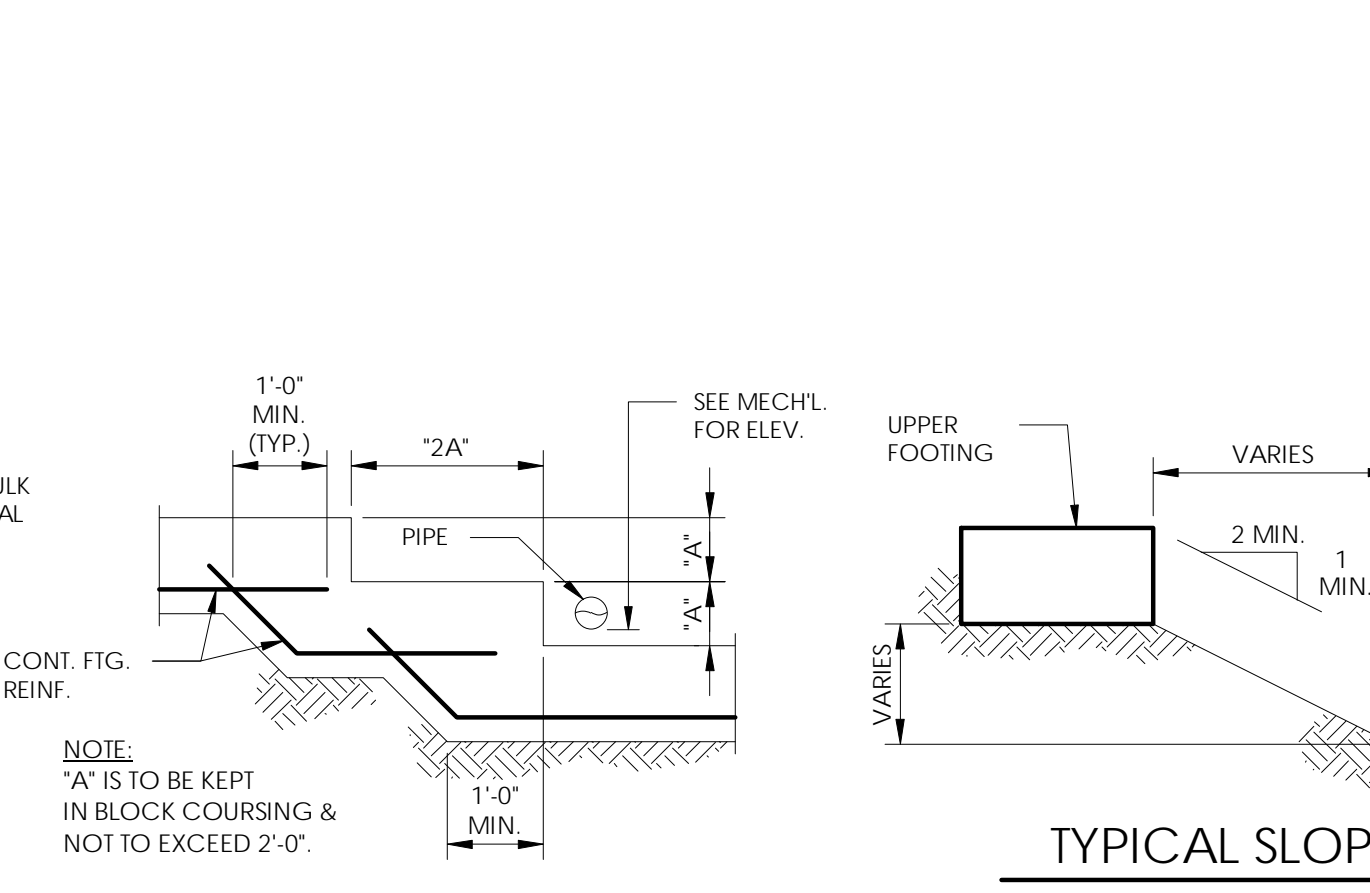
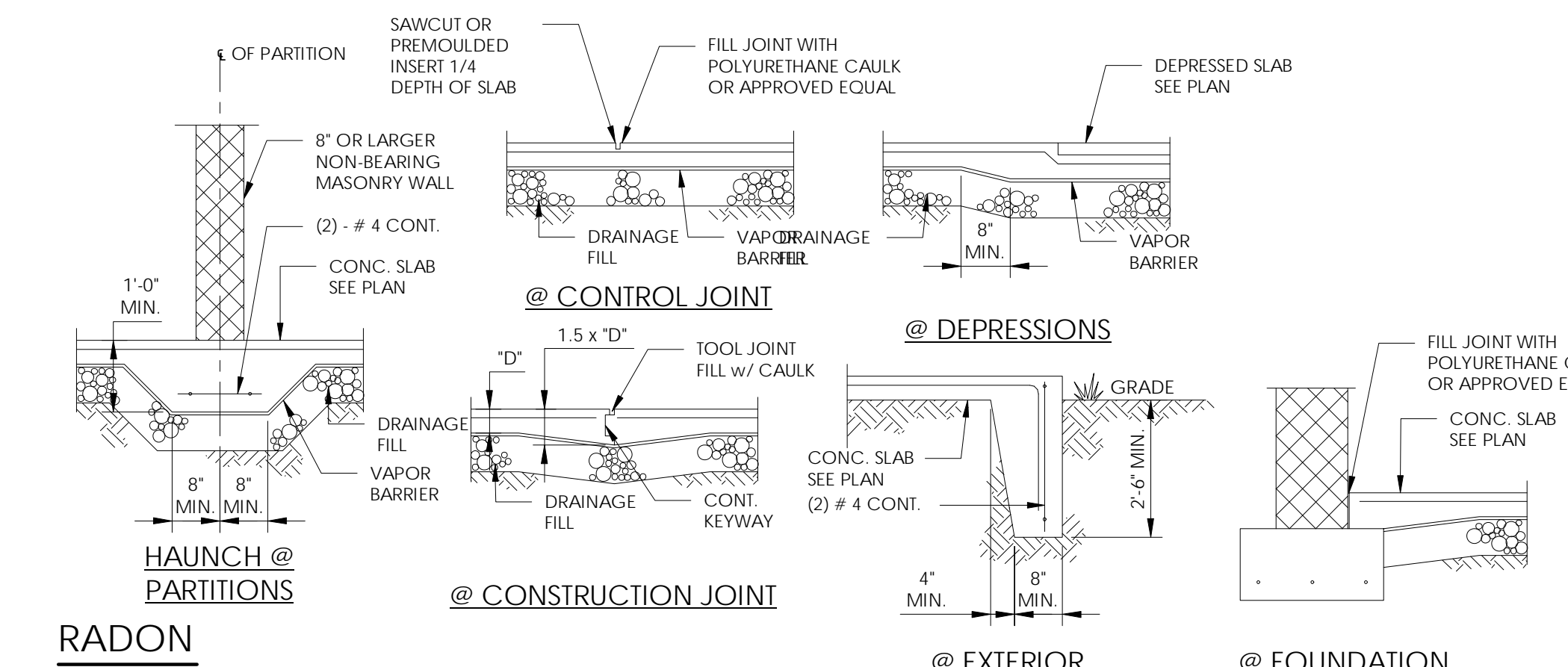
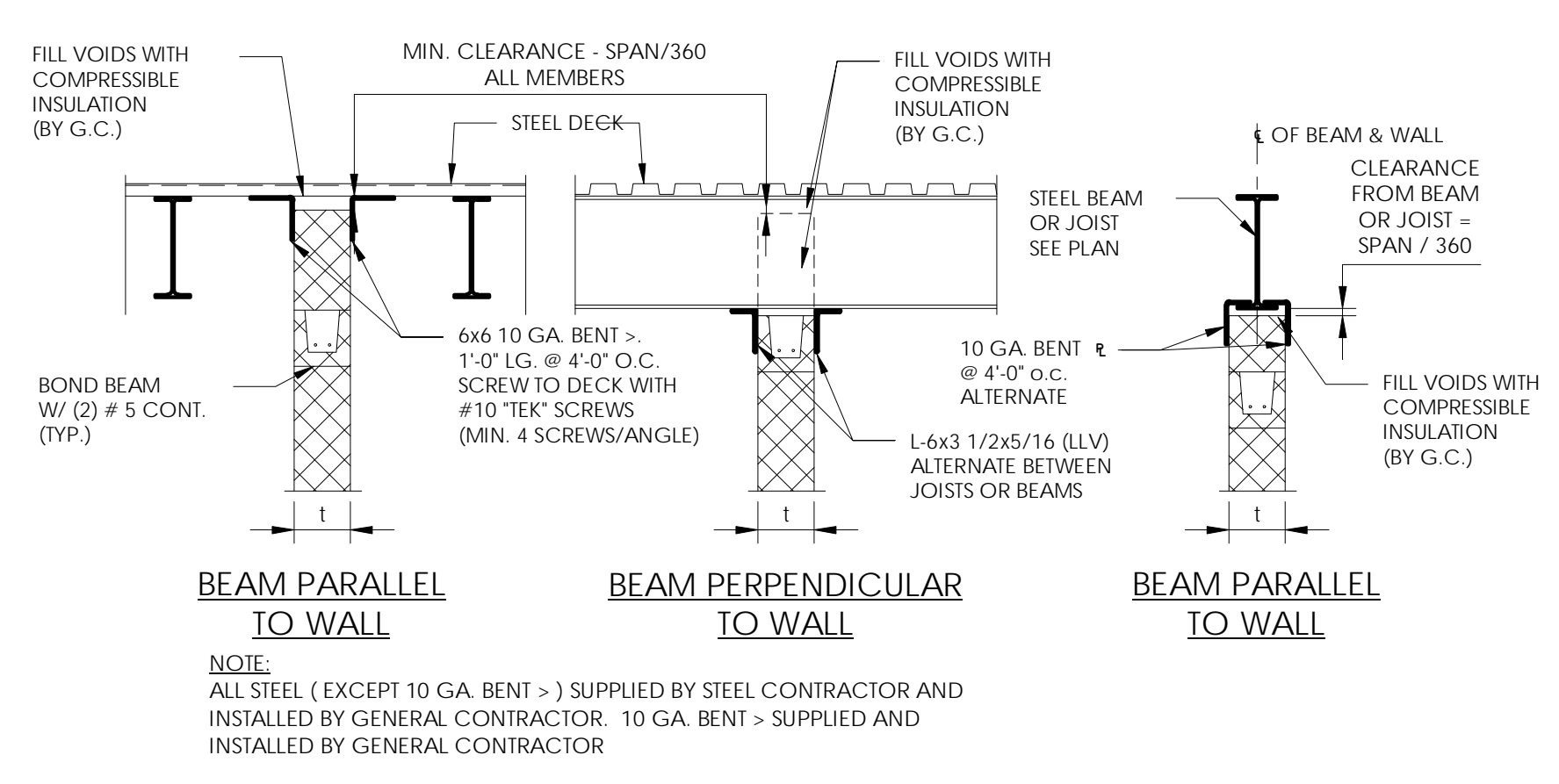
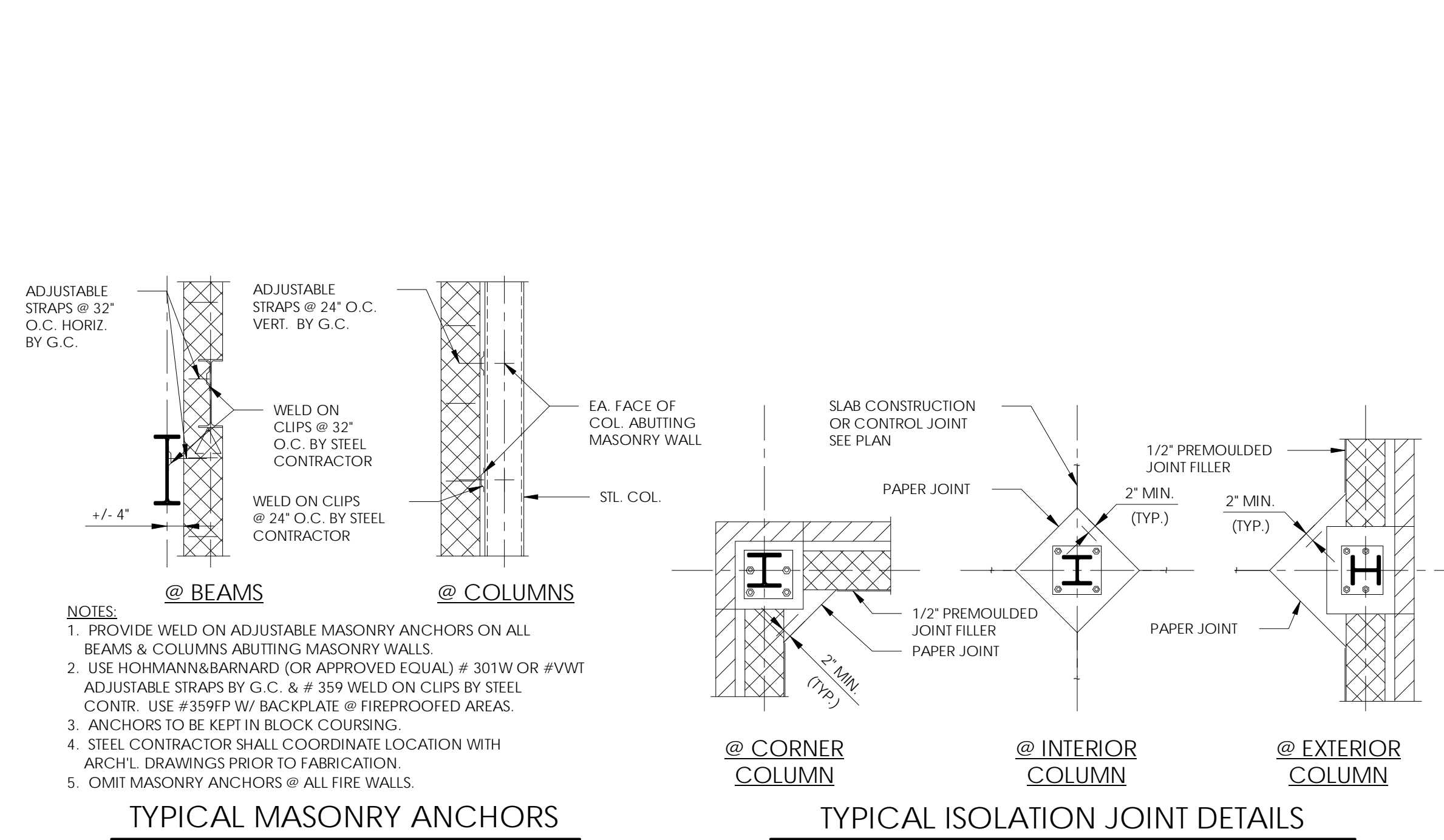
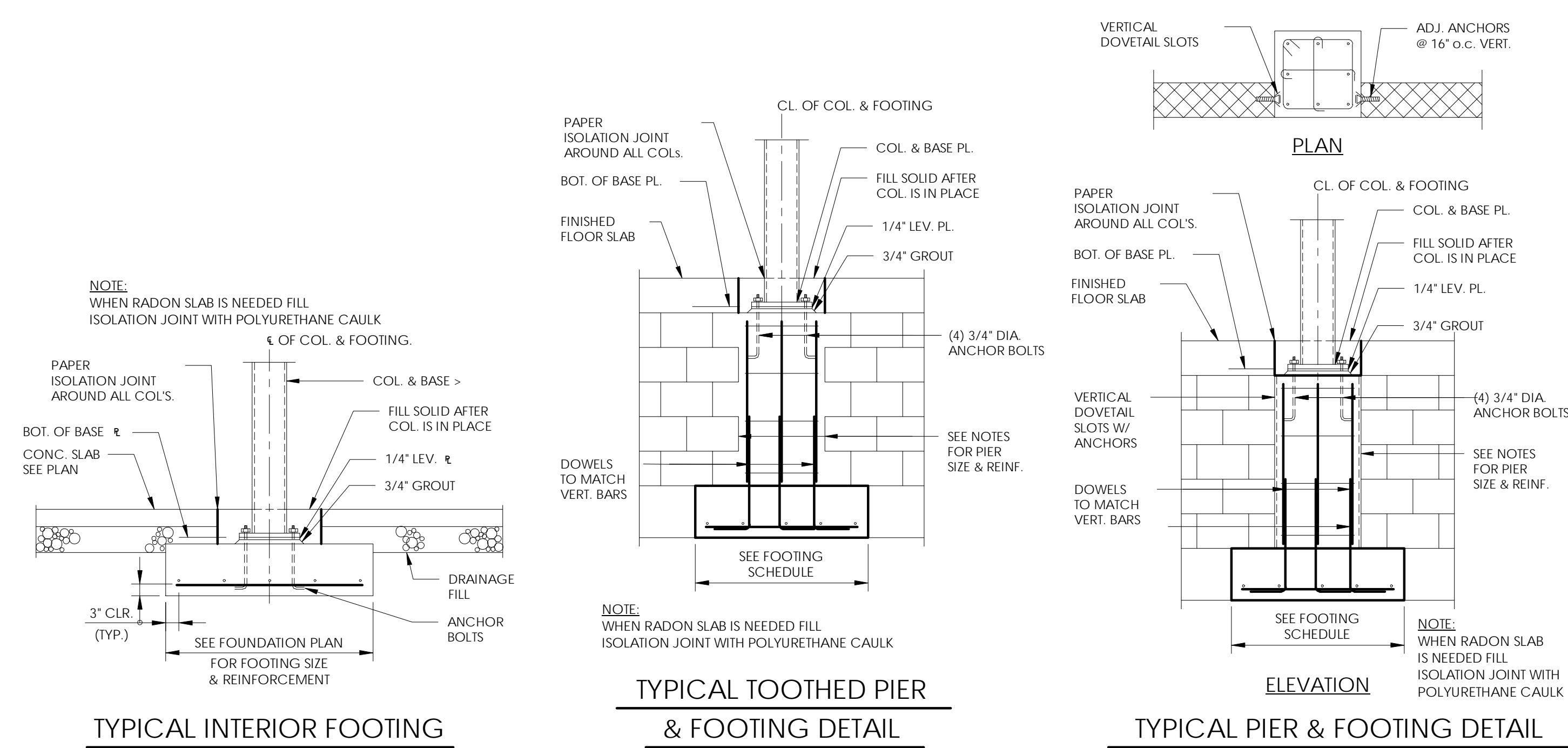
Project Date
05/05/17

Checked By
Designer

Drawn By
Author

Scale

S-6



TYPICAL OPNG. DETAIL @ EXIST'G. ROOF & UNDER MECH'L CURB

NOTES:
 1. FOR SIZE & LOCATION OF OPENINGS SEE ARCHITECTURAL & MECHANICAL DRAWINGS.
 2. STEEL CONTRACTOR SHALL VERIFY ALL OPENINGS AND EXACT LOCATIONS WITH THE TRADE CONTRACTOR REQUIRING SAID OPENINGS PRIOR TO FABRICATION & ERECTION OF STEEL FRAMES.
 3. PROVIDE STEEL FRAMES AS SHOWN AROUND ALL REQUIRED OPENINGS LARGER THAN 8" AT ROOF.
 4. PROVIDE STEEL ANGLES ON ALL SIDES OF OPENINGS UNLESS BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE:
 FOR 8" OR 10" $\geq 6'-6"$ L-4"x4"x5/16"
 FOR 12" OR 14" $\geq 6'-6"$ L-6"x6"x3/8"
 5. PROVIDE STEEL ANGLES ON ALL SIDES OF MECH'L CURBS UNLESS BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE L-6"x6"x3/8".
 6. FOR SIZE & LOCATION OF MECH'L UNITS, SEE ARCH'L & MECH'L DWGS.

TYPICAL DETAIL @ ROOF OPENING & UNDER MECH'L CURB

NOTES:
 1. FOR SIZE & LOCATION OF OPENINGS SEE ARCHITECTURAL & MECHANICAL DRAWINGS.
 2. STEEL CONTRACTOR SHALL VERIFY ALL OPENINGS AND EXACT LOCATIONS WITH THE TRADE CONTRACTOR REQUIRING SAID OPENINGS PRIOR TO FABRICATION & ERECTION OF STEEL FRAMES.
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 6. FOR SIZE & LOCATION OF MECH'L UNITS, SEE ARCH'L & MECH'L DWGS.

TYPICAL BRICK SHELF @ COLUMNS

NOTE: WHEN RADON SLAB IS NEEDED FILL ISOLATION J. W/ POLYURETHANE CAULK