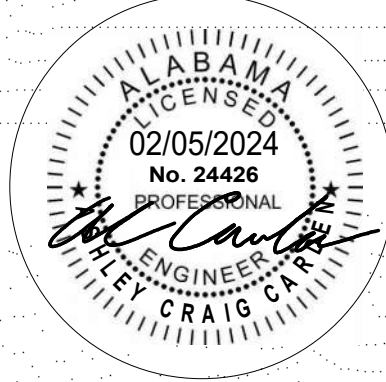


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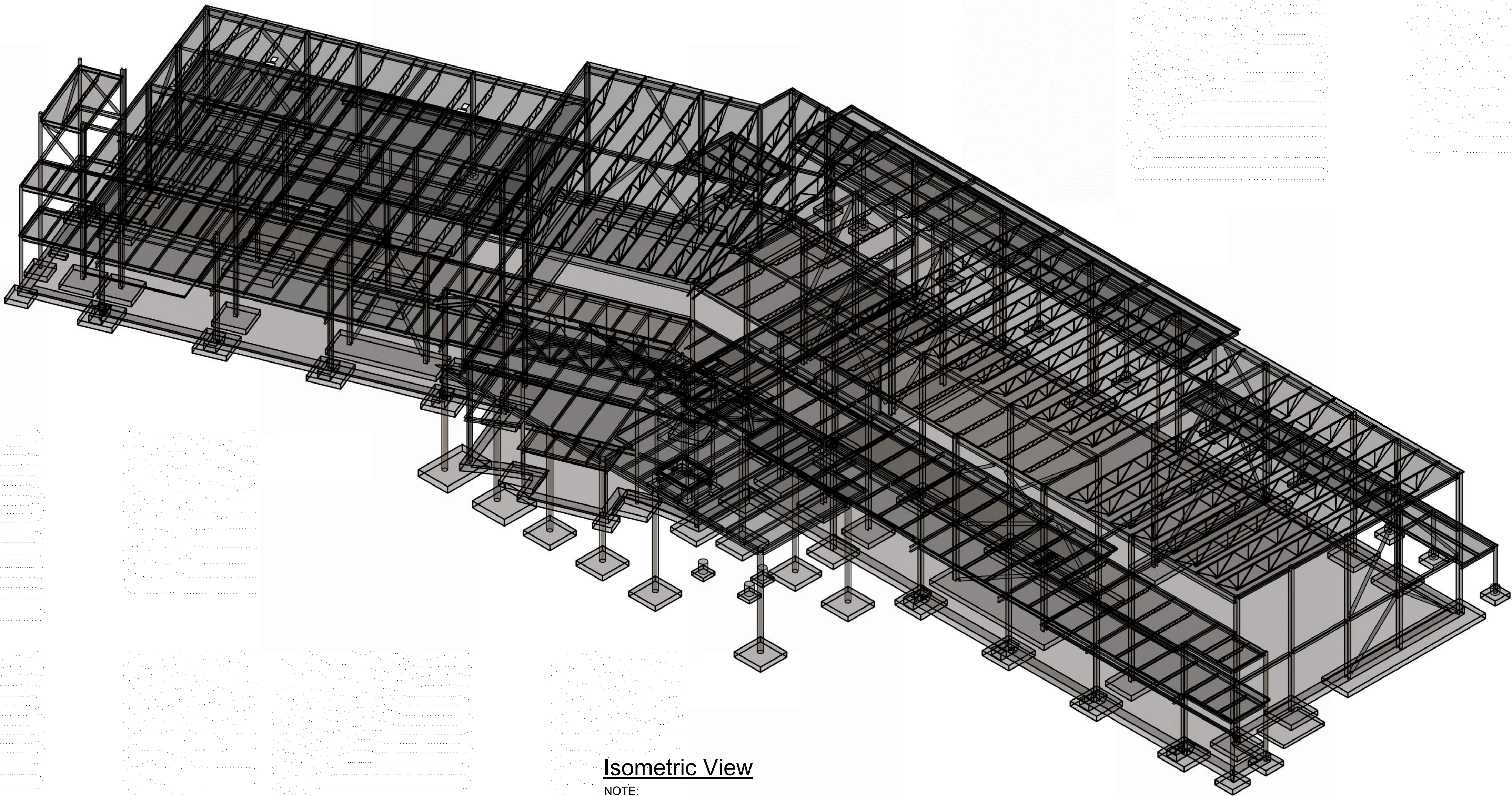
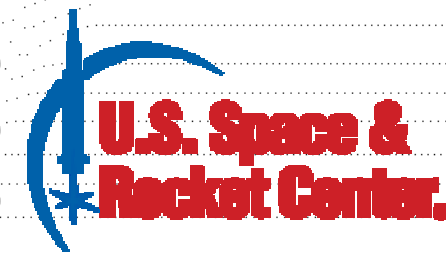
The Architect shall not have control or charge of, and shall not be responsible for construction Means and Methods, deviations, techniques, sequences, or procedures, or for safety programs and precautions in connection with the Work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the Work in accordance with the Contract Documents.



USSRC - INSPIRATION 4 TRAINING FACILITY

OWNER  
UNITED STATES SPACE AND ROCKET CENTER

PROJECT ADDRESS  
1 Tranquility Base  
Huntsville, AL 35805



Isometric View

NOTE:  
ISOMETRIC IS SHOWN FOR VISUAL PURPOSES ONLY.  
NOT ALL ELEMENTS AND MEMBERS HAVE BEEN SHOWN  
FOR CLARITY. ISOMETRICS SHALL NOT BE USED FOR  
FABRICATION OR CONSTRUCTION.

Symbol Legend			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	New Grid Bubble		Revision Cloud and Number
	Existing Grid Bubble		Slab Recess
	Section		X-Bracing
	Elevation		Cantilevered Moment Connection
	Detail		Moment Connection
	Level and Elevation Indicator		Beam Splice
	Spot Elevation		North Arrow
			Section/Detail/Elevation Title

Material Designations

- Brick
- Grout
- Gravel
- Earth
- Rock
- Concrete
- Masonry (Plan)
- Continuous Wood Framing
- Wood Blocking or Shims

Line Type and Weight Examples

- New Construction
- Grid Lines
- Center Lines

Sheet List	
Sheet Number	Sheet Name
S0.01	ISOMETRIC
S0.02	GENERAL NOTES
S0.03	GENERAL NOTES (CONT.), ABBREVIATIONS & LEGENDS
S0.04	SPECIAL INSPECTIONS
S0.05	COMPONENTS AND CLADDING
S0.06	TYPICAL DETAILS
S0.07	TYPICAL DETAILS
S0.08	TYPICAL DETAILS
S1.11	FOUNDATION AND FIRST FLOOR PLAN - PART A
S1.12	FOUNDATION AND FIRST FLOOR PLAN - PART B
S1.13	SECOND FLOOR FRAMING PLAN - PART A
S1.14	SECOND FLOOR FRAMING PLAN - PART B
S1.15	ROOF FRAMING PLAN - PART A
S1.16	ROOF FRAMING PLAN - PART B
S3.01	FOUNDATION SECTIONS
S3.02	FOUNDATION SECTIONS
S3.03	FOUNDATION SECTIONS
S3.04	FOUNDATION SECTIONS
S4.01	SECOND FLOOR FRAMING SECTIONS
S4.02	SECOND FLOOR FRAMING SECTIONS
S4.03	SECOND FLOOR FRAMING SECTIONS
S4.04	SECOND FLOOR FRAMING SECTIONS
S4.05	SECOND FLOOR FRAMING SECTIONS
S4.06	SECOND FLOOR FRAMING SECTIONS
S4.07	SECOND FLOOR FRAMING SECTIONS
S4.10	ROOF FRAMING SECTIONS
S4.11	ROOF FRAMING SECTIONS
S4.12	ROOF FRAMING SECTIONS
S4.13	ROOF FRAMING SECTIONS
S4.14	ROOF FRAMING SECTIONS
S4.15	ROOF FRAMING SECTIONS
S5.01	BRACING ELEVATIONS
S5.02	BRACING ELEVATIONS
S5.03	BRACING ELEVATIONS

PROJECT STATUS: ISSUED	BID SET
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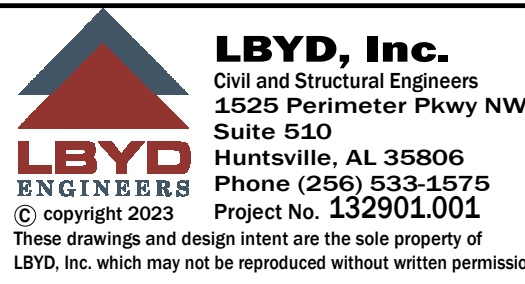
General Notes

GN. GENERAL	
GN.1	THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE A PORTION OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR AND SUBCONTRACTORS SHALL REFERENCE AND COORDINATE WITH ALL OTHER DISCIPLINES' DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND ARCHITECT.
GN.2	DESIGN CRITERIA:
A. CODES AND SPECIFICATIONS:	
1.	GENERAL BUILDING CODE: INTERNATIONAL BUILDING CODE, 2021
2.	DESIGN LOAD CRITERIA: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7
3.	CONCRETE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AMERICAN CONCRETE INSTITUTE, ACI 318.
4.	STRUCTURAL STEEL: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 360.
5.	STEEL JOISTS: STANDARD SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS, STEEL JOIST INSTITUTE, SJI.
6.	STEEL DECK: STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, ROOF DECKS AND CELLULAR METAL FLOOR DECK WITH ELECTRICAL DISTRIBUTION.
7.	COLD-FORMED METAL FRAMING: NORTH AMERICAN SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AMERICAN IRON AND STEEL INSTITUTE.
B. DESIGN LOADS (PSF):	
1.	DEAD LOADS: ANY CHANGES IN CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOAD-CARRYING CAPACITY OF THE STRUCTURE.
2.	LIVE LOADS: ROOF (REDUCIBLE)-----20 FIRST FLOOR (4" SLAB)-----150 FIRST FLOOR (6"-8" SLAB)-----250 ELEVATED FLOOR (REDUCIBLE)-----100 MECHANICAL/ELECTRICAL ROOM (NON-REDUCIBLE)-----150 STAIRS, EXITWAYS-----100  LIVE LOAD REDUCTIONS HAVE BEEN APPLIED IN ACCORDANCE WITH THE BUILDING CODE, UNLESS NOTED.
3.	SNOW LOAD: GROUND SNOW LOAD (Pg)-----10 PSF FLAT-ROOF SNOW LOAD (Pf)-----10 PSF SNOW EXPOSURE FACTOR (Ce)-----0.9 SNOW LOAD IMPORTANCE FACTOR (Is)-----1.1 THERMAL FACTOR (Ct)-----1.0
4.	WIND LOADS: ULTIMATE DESIGN WIND SPEED,VuIt-----111 MPH (3 - SECOND GUST) NOMINAL DESIGN WIND SPEED,Vasd-----86 MPH (3 - SECOND GUST) RISK CATEGORY-----III WIND EXPOSURE CATEGORY-----B INTERNAL PRESSURE COEFFICIENT-----±0.18  WALL COMPONENT AND CLADDING WIND PRESSURE-SEE DRAWINGS
5.	SEISMIC LOADS: SEISMIC IMPORTANCE FACTOR (Ie)-----1.25  MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss-----0.261 S1-----0.116 SITE CLASS-----C SITE COEFFICIENTS: Fa-----1.3 Fv-----1.5 DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: Sds-----0.226 Sd1-----0.116 SEISMIC DESIGN CATEGORY-----B BASIC SEISMIC-FORCE-RESISTING SYSTEM: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE  DESIGN BASE SHEAR-----X KIPS  SEISMIC RESPONSE COEFFICIENT (Cs)-----0.095 RESPONSE MODIFICATION FACTOR(R)-----3 OVER-STRENGTH FACTOR (so)-----3 DEFLECTION AMPLIFICATION FACTOR (cd)-----3  ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE METHOD  REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SEISMIC SUPPORT AND ATTACHMENT REQUIREMENTS FOR UTILITIES.
GN.3	CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO FABRICATION/CONSTRUCTION. NOTIFY STRUCTURAL ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO FABRICATION/CONSTRUCTION.
GN.4	SPECIAL INSPECTIONS/STRUCTURAL ENGINEER'S SITE VISITS:
A. SPECIAL INSPECTIONS ARE REQUIRED FOR THIS PROJECT IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE. REFER TO DRAWINGS.	
B. SITE VISITS BY STRUCTURAL ENGINEER:	
1.	STRUCTURAL ENGINEER'S SITE VISITS ARE FOR VISUAL OBSERVATION OF THE IN-PLACE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT THE TIME OF THE OBSERVATION.

2.	CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER AND ARCHITECT, PER THE SCHEDULE STATED BELOW, WHEN SUCH ITEMS HAVE PROGRESSED TO THE POINT WHERE THEY WILL BE IN PLACE AND READY FOR REVIEW. FAILURE TO NOTIFY MAY REQUIRE REMOVAL OF COMPLETED CONSTRUCTION.
	NOTIFY PRIOR TO THE FOLLOWING SCHEDULED TASKS
	REQUIRED DAYS NOTIFICATION
	FIRST FOUNDATION POUR-----5 DAYS EACH ELEVATED SLAB POUR-----5 DAYS COVERING METAL ROOF DECK-----5 DAYS SHEATHING EXTERIOR METAL WALL STUDS-----5 DAYS
C.	SITE VISITS BY THE STRUCTURAL ENGINEER'S OFFICE DO NOT REPLACE INSPECTIONS AND TESTING BY THE TESTING AGENCY OR SPECIAL INSPECTOR.
GN.5	SUBMITTALS:
A. REVIEW OF SHOP DRAWINGS AND OTHER SUBMITTALS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL SHOP DRAWINGS MUST BE REVIEWED AND "APPROVED" BY THE CONTRACTOR PRIOR TO SUBMITTAL.	
B. ELECTRONIC SHOP DRAWING SUBMITTALS: SUBMIT ALL ELECTRONIC SHOP DRAWINGS IN .PDF FORMAT. REVIEWED SHOP DRAWINGS WILL BE RETURNED IN .PDF FORMAT. ALL PRINTS REQUIRED BY THE CONTRACTOR ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE AFTER APPROVED SHOP DRAWINGS ARE RETURNED.	
C. RESUBMITTED SHOP DRAWINGS: RESUBMITTED SHOP DRAWINGS SHALL HAVE ALL CHANGES SINCE THE PREVIOUS SUBMISSION IDENTIFIED BY CLOUDING OR OTHER CLEAR COMMUNICATION. RE-REVIEWED SHOP DRAWINGS WILL ONLY BE REVIEWED FOR IDENTIFIED CHANGES.	
D. SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT FOR STRUCTURAL ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS. ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. ITEMS MARKED (#) SHALL BE SUBMITTED FOR STRUCTURAL ENGINEER'S RECORD ONLY.	
1.	CONCRETE MIX DESIGNS
2.	CONCRETE REINFORCING
3.	STRUCTURAL STEEL (*)
4.	STEEL STAIRS (*)
5.	ELEVATORS (#)
6.	STEEL JOISTS (*)
7.	STEEL DECK
8.	COLD-FORMED METAL FRAMING (*)
9.	CURTAIN WALL FRAMING - OVER 12 FEET TALL) (*)
E. DESIGN CALCULATIONS: THE CONTRACTOR SHALL SUBMIT FOR STRUCTURAL ENGINEER'S RECORD, DESIGN CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED FOR THE FOLLOWING ITEMS.	
1.	STRUCTURAL STEEL CONNECTIONS
2.	STEEL STAIRS
3.	STEEL JOISTS (SEE STEEL JOIST SECTION OF GENERAL NOTES)
4.	COLD-FORMED METAL FRAMING
GN.6	ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.
GN.7	THE CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
GN.8	CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS/ROOFS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT LOADS DO NOT EXCEED THE DESIGN LIVE LOAD.
FD. FOUNDATION	
FD.1	GEOTECHNICAL REPORT: FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT AND ADDITIONAL LETTER BY GEO SOLUTIONS, TITLED "REPORT OF GEOTECHNICAL EVALUATION PROPOSED INSPIRATION 4 TRAINING FACILITY", DATED JULY 5, 2023 AND "REMI SURVEY AND ADDITIONAL DESIGN CRITERIA", DATED AUGUST 11, 2023, PROJECT NO. 23-0435. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT AND ADDITIONAL LETTER FROM THE OWNER AND FOLLOW ALL REQUIREMENTS AND RECOMMENDATIONS.
FD.2	DESIGN BEARING PRESSURES (PSF):  COLUMN FOOTINGS-----2000 COLUMN FOOTINGS FOR WIND AND SEISMIC-----2667
FD.3	ALL FOUNDATION BEARING SURFACES SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE TO ENSURE COMPLIANCE WITH PRESSURES NOTED. THE FINAL BEARING ELEVATIONS MAY VARY AS REQUIRED TO PROVIDE PROPER BEARING CAPACITY IN AN APPROVED BEARING STRATUM AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
FD.4	FOOTINGS SHALL BE PLACED THE SAME DAY AS INSPECTION BY THE GEOTECHNICAL ENGINEER UNLESS EXTENDED TIME IS APPROVED BY THE GEOTECHNICAL ENGINEER.
FD.5	FOOTINGS SHALL BE NEATLY EXCAVATED WHERE POSSIBLE WITH SIDES AND TOP EDGES FREE OF LOOSE OR WET MATERIALS. WHERE NEAT EXCAVATION IS NOT POSSIBLE, FOOTING EXCAVATION SHALL BE FILLED WITH CONCRETE TO THE TOP OF FOOTING. THE BOTTOM EXCAVATION SHALL BE CLEAN AND DRY WITH ALL LOOSE MATERIAL REMOVED FOR AN ESSENTIALLY FLAT BEARING SURFACE. WHERE SOFT OR UNSUITABLE BEARING SURFACES ARE ENCOUNTERED, THE AREA SHALL BE UNDERCUT AS REQUIRED AND REPLACED WITH LEAN CONCRETE OR COMPACTED DENSE GRADED CRUSHED STONE AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
FD.6	COMPACTED FILL SHALL MEET THE REQUIREMENTS NOTED IN THE GEOTECHNICAL REPORT. EXCAVATED MATERIAL MAY BE USED AS BACKFILL MATERIAL WITH WRITTEN APPROVAL FROM THE GEOTECHNICAL ENGINEER STATING THAT SUCH MATERIAL IS SUITABLE AS BACKFILL AND INSTRUCTIONS ARE GIVEN FOR PROPER MOISTURE CONTENT AND COMPACTION.
FD.7	SLABS ON GRADE: SUBGRADE MODULUS-----125 PCI
FD.8	PROVIDE 4" OF COMPACTED GRANULAR FILL BENEATH ALL SLABS ON GRADE. PROVIDE 15 MIL VAPOR RETARDER BETWEEN BOTTOM OF SLAB AND TOP OF GRANULAR FILL.
FD.9	FOUNDATIONS SHALL BE CENTERED ABOUT COLUMN LINES, UNLESS NOTED.

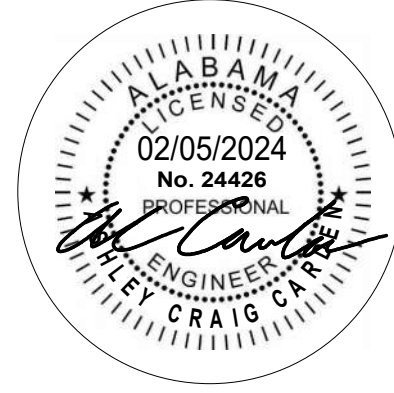
CN. CONCRETE	
CN.1	CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.
CN.2	MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS (PSI), TYPE OF CONCRETE, MAXIMUM W/C (WATER/CEMENTITIOUS MATERIALS RATIO), TOTAL AIR CONTENT, SLUMP AND CONCRETE USE:
	STRENGTH TYPE W/C AIR SLUMP USE
4500	NORMAL WT. 0.45 *** 3" TO 5" SLAB ON GRADE
3000	NORMAL WT. 0.57 --- 3" TO 5" FOOTINGS
3000	NORMAL WT. 0.54 *** 3" TO 5" CONCRETE ON METAL DECK
4000	NORMAL WT. 0.52 4-6% 3" TO 5" UNLESS NOTED & EXTERIOR
***DO NOT USE AIR ENTRAINING ADMIXTURES IN INTERIOR CONCRETE SLABS TO RECEIVE A HARD TROWEL FINISH.	
CN.3	REINFORCING BARS: ASTM A615 GRADE 60.
CN.4	WELDED WIRE REINFORCEMENT (WWR): ASTM A185. MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WIRE SPACING PLUS 2" OR 6".
CN.5	REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS IS A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.
CN.6	REINFORCING BAR PLACING ACCESSORIES TO BE INSTALLED IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS. WHERE CONCRETE IS SAND-BLASTED OR BUSH-HAMMERED, PROVIDE ACCESSORIES OF STAINLESS STEEL.
CN.7	DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315. REINFORCEMENT SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE STRUCTURAL ENGINEER.
CN.8	SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
CN.9	REINFORCING MARKED "CONTINUOUS" SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
CN.10	CONCRETE COVERAGE OF REINFORCEMENT, UNLESS NOTED:  FOOTINGS-----2" TOP & 3" BOTTOM & SIDES SUMP AND PIT WALLS-----2" BOTH FACES INTERIOR ELEVATED SLABS NOT EXPOSED TO WEATHER--3/4" TOP & BOTTOM REINFORCING IN SLABS ON GRADE-----2" TOP SLABS ON WELL GRADED SUBGRADE OR VAPOR BARRIERS: 3/4" TOP & 1 1/2" BOTTOM
CN.11	FOR CONCRETE WALLS WITH A SINGLE LAYER OF REINFORCING, REINFORCING TO BE CENTERED IN WALL UNLESS NOTED.
CN.12	SLAB ON GRADE: A. 8" THICK, REINFORCED WITH #4@12" OC, EW AT 2" BELOW TOP OF SLAB, UNLESS NOTED. B. 6" THICK, REINFORCED WITH #4@18" OC, EW AT 2" BELOW TOP OF SLAB, UNLESS NOTED. C. 4" THICK, REINFORCED WITH 6X6 W2.9/W2.9 WWR AT MID-DEPTH OF SLAB, UNLESS NOTED.
CN.13	SLAB ON GRADE REINFORCING IS TO BE CHAired WITH RUST PROOF LEG CHAIRS WITH BASES TO PREVENT SUBSIDENCE OR PUNCTURING OF VAPOR BARRIER. CHAIR TO REQUIRED POSITION. PULLING INTO POSITION DURING PLACEMENT WITHOUT THE USE OF CHAIRS IS NOT PERMITTED. DO NOT USE BRICK FOR SUPPORTS.
SS. STRUCTURAL STEEL	
SS.1	FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
SS.2	THE STEEL FRAME IS "NON-SELF-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL THE LATERAL FORCE RESISTING SYSTEM AND STABILITY OF THE COMPLETED STRUCTURE IS IN PLACE.
SS.3	LATERAL FORCE RESISTING SYSTEM AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED AS FOLLOWS:  A. ROOF DIAPHRAGM: STEEL ROOF DECKING  B. FLOOR DIAPHRAGM: COMPOSITE STEEL DECK AND CONCRETE  C. COLLECTOR ELEMENTS/DRAg STRUTS: STEEL SECTIONS  D. LATERAL FORCE RESISTING SYSTEM: STEEL BRACING
SS.4	STRUCTURAL STEEL AND STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE:  W AND WT SHAPES ASTM A992  S, M, AND HP SHAPES AND CHANNELS ASTM A36  STIFFENER PLATES, BASE PLATES, CAP PLATES, CONNECTION PLATES, AND ANGLES ASTM A36  STEEL PIPE ASTM A53, TYPE E OR S, GRADE B  HOLLOW STRUCTURAL SECTIONS ASTM A500, GRADE C  WELDED CONNECTIONS E70XX ELECTRODES, MINIMUM SIZE FILLET WELD 3/16"  HEADED ANCHOR RODS ASTM F1554 GRADE 36 ANCHOR AND HEAVY HEX NUT, UNLESS INDICATED.  SHEAR CONNECTORS ASTM A108, GRADE 1015 THROUGH 1020, HEADED-STUD TYPE, COLD FINISHED CARBON STEEL; AWS D1.1, TYPE B.  BOLTS ASTM A325 OR A490  NUTS ASTM A563  WASHERS ASTM F436
SS.5	FABRICATE BRACING MEMBERS WITH SUFFICIENT DRAW TO PREVENT SAGGING.
SS.6	WHERE NO CAMBER IS INDICATED, BEAMS SHOULD BE ERECTED WITH NATURAL CAMBER ORIENTED UPWARD.

SS.7	BEAMS SHALL BE EQUALLY SPACED IN BAYS, UNLESS NOTED.
SS.8	HSS MEMBERS SHALL HAVE A 1/4" CLOSURE PLATE.
SS.9	FOUR ANCHOR RODS MINIMUM FOR BASE PLATES UNDER COLUMNS, UNLESS NOTED.
SS.10	GROUT UNDER BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC TYPE. GROUT SHALL HAVE A SPECIFIED DESIGN COMPRESSIVE STRENGTH TWO TIMES THAT OF THE SUPPORTING CONCRETE.
SS.11	STRUCTURAL STEEL MEMBERS SHALL NOT BE CUT, SPLICED, OR MODIFIED IN THE FIELD UNLESS NOTED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
SS.12	STRUCTURAL STEEL NOT EXPOSED TO VIEW SHALL BE PRIMED WITH MANUFACTURER'S STANDARD SHOP PRIMER. STRUCTURAL STEEL EXPOSED TO VIEW OR WEATHER IN ITS FINAL POSITION SHALL BE PREPARED, PRIMED, AND PAINTED IN ACCORDANCE WITH THE SPECIFIED COATINGS SYSTEM. REFER TO DRAWINGS AND PROJECT SPECIFICATIONS FOR FINISHED COATINGS SYSTEM.
SS.13	SHOP PRIMER OR OTHER COATINGS SHALL NOT BE APPLIED TO THE FACE OF STRUCTURAL STEEL FRAMING SUBJECT TO HEADED STUD WELDING.
SS.14	DRAIN HOLES SHALL BE PROVIDED IN ALL STEEL AS REQUIRED TO PREVENT WATER ACCUMULATION. HOLES THROUGH STRUCTURAL STEEL MEMBERS SHALL BE LEAD SMOOTH AND NOT EXCEEDING 1/2" DIAMETER. DRAIN HOLES SHALL BE GROUND AND UNOBSTRUCTED.
SC. STRUCTURAL STEEL CONNECTIONS	
SC.1	ALL LOADS GIVEN ON THE DRAWINGS FOR THE DESIGN OF STRUCTURAL STEEL CONNECTIONS ARE IN ACCORDANCE WITH "LOAD AND RESISTANCE FACTOR DESIGN" (LRFD).
SC.2	CONNECTION DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL UNLESS COMPLETELY DETAILED.
SC.3	ALL STRUCTURAL STEEL CONNECTIONS NOT COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR TO RESIST FORCES INDICATED. THE CONTRACTOR'S CONNECTION DESIGN SHALL BE UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. LBVD CAN CONTRACT WITH THE CONTRACTOR TO PROVIDE CONNECTION DESIGN SERVICES IF REQUESTED.
SC.4	ALTERNATE CONNECTION DETAILS MAY BE UTILIZED BY THE CONTRACTOR WITH PRIOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. THE CONTRACTOR'S ALTERNATE CONNECTION DESIGN SHALL BE UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
SC.5	DESIGN CALCULATIONS FOR THE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AND DESIGNED BY A PROFESSIONAL ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SUBMITTED FOR THE FILES OF THE ARCHITECT AND STRUCTURAL ENGINEER. THE CONNECTION DESIGNER'S ENGINEERING SEAL ON THE DESIGN CALCULATIONS SHALL REPRESENT THAT THE CONNECTIONS INDICATED ON THE SHOP DRAWINGS HAVE BEEN REVIEWED AND ARE IN ACCORDANCE WITH THE SUBMITTED DESIGN CALCULATIONS. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED OR REQUIRED CONNECTION INFORMATION IS NOT PROVIDED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.
SC.6	REQUIRED CONNECTION INFORMATION SHALL BE SHOWN AT EACH DETAILED CONNECTION ON THE SUBMITTAL DRAWINGS AS FOLLOWS:  A. DESIGN REACTION.  B. CALCULATION PAGE NUMBER.  C. CONNECTION CAPACITY.
SC.7	WHERE BEAM REACTIONS ARE SHOWN ON THE DRAWINGS, THE CONNECTIONS SHALL DEVELOP THE REACTIONS SHOWN. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING AND DETAILING THE CONNECTION.
SC.8	ERECTION AIDS ARE NOT SHOWN ON THESE DRAWINGS. CONTRACTOR IS TO PROVIDE ERECTION AIDS AS REQUIRED AND REMOVE THEM ONCE WORK IS COMPLETE.
SC.9	AXIAL LOADS AND MOMENTS ARE TO BE CONSIDERED REVERSIBLE AND CONCURRENT WITH SHEAR REACTIONS, UNLESS NOTED.
SC.10	FOR CONNECTION DESIGN AND DETAILING, MEMBER WORK LINES ARE TO BE CONSIDERED ALONG THE MEMBERS' NEUTRAL AXES, UNLESS NOTED.
SC.11	ALL WELDS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY (ANSI/AWS D1.1) STANDARDS AND MUST BE PERFORMED BY AN ANSI/AWS CERTIFIED WELDER.
SC.12	ALL WELD SIZES ARE TO BE CONSIDERED AS EFFECTIVE WELD SIZES AND MUST BE INCREASED TO ACCOUNT FOR ANY GAPS OR SKEWS BETWEEN MEMBERS AS REQUIRED BY ANSI/AWS D1.1.
SC.13	BOLTED CONNECTIONS SHALL USE BEARING TYPE A325-N OR A490-N IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS".
SC.14	ALL BOLTS SHALL BE 3/4" DIAMETER OR GREATER, UNLESS NOTED. USE SNUG TIGHT BEARING CONNECTIONS FOR ALL BOLTED CONNECTIONS UNLESS NOTED.
SC.15	BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER.
SC.16	BOLTS LOADED IN TENSION SHALL BE FULLY PRETENSIONED ACCORDING TO RSCS.
SC.17	DO NOT REUSE PRETENSIONED BOLTS.



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OWNER UNITED STATES SPACE AND ROCKET CENTER

PROJECT ADDRESS  
1 Tranquility Base  
Huntsville, AL 35805



PROJECT STATUS: BID SET	
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GENERAL NOTES	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER	
225029-00	
DRAWING NO	
S0.02	



General Notes (Cont.)

SJ. STEEL JOISTS

- SJ.1 DESIGN, FABRICATE, AND ERECT STEEL JOISTS IN ACCORDANCE WITH THE SJ1.
- SJ.2 PROVIDE A MINIMUM END BEARING ON STEEL SUPPORTS AS REQUIRED BY SJ1. STAGGER THE ENDS OF JOIST IF NECESSARY. CONTRACTOR COORDINATE METAL DECK SPLICE LOCATION TO CENTER OVER JOIST.
- SJ.3 PROVIDE HORIZONTAL AND DIAGONAL BRIDGING IN ACCORDANCE WITH SJ1 TO PROVIDE ADEQUATE JOIST CHORD BRACING.
- SJ.4 PROVIDE SLOPED BEARING ENDS WHERE JOIST SLOPE EXCEEDS 1/4" PER FT.
- SJ.5 AT JOISTS PARALLEL TO BEAMS, ANCHOR BRIDGING ROWS BY WELDING TO BEAMS.
- SJ.6 DESIGN ROOF JOISTS TO RESIST NET WIND UPLIFT PRESSURES. SEE THE COMPONENT AND CLADDING WIND LOAD TABLE SHOWN ON THE DRAWINGS.
- SJ.7 DESIGN CALCULATIONS SHALL BE SUBMITTED FOR THE FILES OF THE STRUCTURAL ENGINEER AND ARCHITECT FOR JOISTS WITH CANTILEVERS OR CONCENTRATED LOADS AND FOR JOIST SIZES FOR WHICH STANDARD SJ1 LOAD TABLES ARE NOT APPLICABLE. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. SHOP DRAWINGS CONTAINING JOISTS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.
- SJ.8 PROVIDE JOIST REINFORCEMENT AT ANY CONCENTRATED LOADS NOT LOCATED AT A JOIST PANEL POINT.
- SJ.9 CAMBER AND DEFLECTION SHOULD BE CONSIDERED WHEN DETAILING / CONSTRUCTING FRAMING ADJACENT TO OR ATTACHING TO JOISTS.
- SJ.10 JOISTS SHALL BE EQUALLY SPACED IN BAYS, UNLESS NOTED.

SD. STEEL DECK

- SD.1 DECK PROPERTIES AND ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.
- SD.2 DECK SHALL BE CONTINUOUS OVER THREE OR MORE SPANS WHERE POSSIBLE.
- SD.3 DO NOT SHORE DECK.
- SD.4 SIDELAP AND PERIMETER DECK EDGE FASTENERS ARE TO BE INSTALLED BETWEEN SUPPORTS.
- SD.5 ROOF DECK: WIDE RIB TYPE "WR", STEEL ROOF DECK, 20 GAGE, 1-1/2" DEEP, GALVANIZED. SHEET STEEL FOR DECK SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
- SD.6 COLD-FORMED METAL FRAMING, SUSPENDED CEILINGS, LIGHT FIXTURES AND DUCTS OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE METAL ROOF DECK.
- SD.7 PROVIDE CONTINUOUS SUPPORT OF DECK AT CUT EDGES.
- SD.8 COMPOSITE FLOOR DECK:
- A. AT ALL ELEVATED SLABS (EXCEPT WHERE NOTED): 4" THICK CONCRETE OVER 2" DEEP COMPOSITE DECK, (TOTAL THICKNESS = 6"). DECK SHALL CONFORM TO 2" VLI, 20 GAGE, G60 GALVANIZED, AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL. SHEET STEEL FOR DECK SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
- B. AT BRIDGE (SEE PLAN FOR EXTENTS): 3" THICK CONCRETE OVER 3" DEEP COMPOSITE DECK (TOTAL THICKNESS = 6"). DECK SHALL CONFORM TO 3" VLI, 18 GAGE, G60 GALVANIZED, AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL. SHEET STEEL FOR DECK SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
- C. REINFORCE SLAB WITH 6X6 W2.9/W2.9 WWR SUPPORTED BY "UPPER CONTINUOUS HIGH CHAIRS" OVER BEAMS AND GIRDERS TO MAINTAIN 1" COVERAGE OF WWR.
- D. DECK SHALL BE WELDED TO SUPPORTS WITH A 5/8" DIAMETER PUDDLE WELD OR EQUIVALENT AT ALL EDGE RIBS PLUS A SUFFICIENT NUMBER OF INTERIOR RIBS TO PROVIDE A MAXIMUM AVERAGE SPACING OF 12 INCHES. THE MAXIMUM SPACING BETWEEN ADJACENT POINTS OF ATTACHMENT SHALL NOT EXCEED 18 INCHES.
- E. IF STUDS ARE BEING APPLIED THROUGH THE DECK ONTO STRUCTURAL STEEL, THE STUD WELDS CAN BE USED TO REPLACE THE PUDDLE WELDS ON A ONE-FOR-ONE BASIS.
- F. DECK UNITS WITH SPANS GREATER THAN FIVE FEET SHALL HAVE SIDE LAPS AND PERMETER EDGES FASTENED AT MIDSPAN OR 36" O.C. - WHICHEVER IS SMALLER.
- SD.9 DO NOT ALLOW EXTRANEOUS MATERIALS AND SYSTEMS TO BE INCORPORATED INTO REFERENCED TESTED FIRE-RATED DESIGN ASSEMBLIES (TYPICALLY U.L. DESIGNS). THIS INCLUDES CASTING EMBEDDED CONDUITS AND PIPING IN CONCRETE SLABS ON METAL DECK. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ASSEMBLY DESCRIPTIONS.

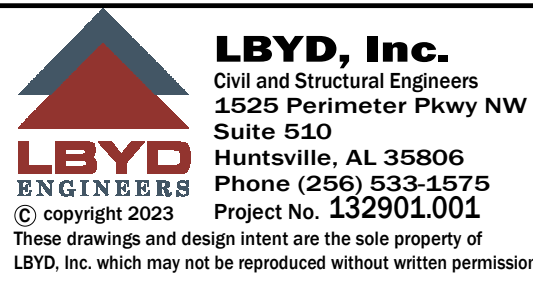
CF. COLD-FORMED METAL FRAMING

- CF.1 DESIGN OF COLD-FORMED METAL FRAMING COMPONENTS AND ACCESSORIES IS THE RESPONSIBILITY OF THE COLD-FORMED METAL FRAMING MANUFACTURER. COLD-FORMED METAL FRAMING INCLUDES ANY BUILDING COMPONENT WHICH UTILIZES LIGHT GAGE STEEL FRAMING MEMBERS, THEIR CONNECTION TO EACH OTHER AND THEIR CONNECTION TO THE BUILDINGS PRIMARY STRUCTURAL FRAME.
- CF.2 ANY COLD-FORMED MEMBER SIZES NOTED ARE FOR PRELIMINARY PRICING INFORMATION ONLY. THE COMPLETE DESIGN OF COLD-FORMED METAL FRAMING SYSTEM AND PREPARATION OF ERECTION DRAWINGS ARE BY THE ENGINEER RESPONSIBLE FOR THEIR DESIGN.
- CF.3 SUBMIT THE FOLLOWING:
- A. PRODUCT DATA: FOR EACH TYPE OF COLD-FORMED METAL FRAMING PRODUCT AND ACCESSORY UTILIZED.
- B. SHOP DRAWINGS: SHOW LAYOUT, SPACINGS, SIZES, THICKNESS, AND TYPES OF COLD-FORMED METAL FRAMING; FABRICATIONS; AND FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS. SHOW REINFORCING CHANNELS, OPENING FRAMING, SUPPLEMENTAL FRAMING, STRAPPING, BRACING, BRIDGING, SPLICES, ACCESSORIES, CONNECTION DETAILS, AND ATTACHMENT TO ADJOINING WORK.
- C. CALCULATIONS: COLD-FORMED METAL FRAMING DESIGN CALCULATIONS FOR THE FILES OF THE STRUCTURAL ENGINEER AND ARCHITECT. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
- CF.4 PROVIDE COLD-FORMED METAL FRAMING CAPABLE OF WITHSTANDING DESIGN LOADS WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
- A. DESIGN LOADS AS INDICATED IN SECTION GN OF THESE GENERAL NOTES.
- B. DEFLECTION LIMITS: DESIGN FRAMING SYSTEMS TO WITHSTAND DESIGN LOADS WITHOUT DEFLECTIONS GREATER THAN THE FOLLOWING:
1. EXTERIOR NON-LOAD-BEARING FRAMING: HORIZONTAL DEFLECTION OF 1/240 OF THE WALL HEIGHT.
- CF.5 DESIGN CURTAIN WALL FRAMING SYSTEM TO ACCOMMODATE LIVE LOAD DEFLECTION OF PRIMARY BUILDING STRUCTURE AS FOLLOWS:
- A. UPWARD AND DOWNWARD MOVEMENT OF MEMBER SPAN OF LENGTH/360.
- CF.6 VERTICAL STUDS SHALL BE 100% END BEARING.
- CF.7 PROVIDE WALL BRACING, CONNECTION DETAILS, AND WINDOW HEADERS AS RECOMMENDED BY THE STUD MANUFACTURER.
- CF.8 VERTICAL STUDS INTERRUPTED BY WALL OPENINGS SHALL BE LOCATED EQUALLY ON EACH SIDE OF THE OPENING. PROVIDE EVEN NUMBER OF FULL HEIGHT STUDS ON EACH SIDE OF OPENING. WELD STUD FLANGES TOGETHER WITH FILLET WELDS AT 6".
- CF.9 THE FOLLOWING STUD SIZES ARE BEING PROVIDED FOR PRELIMINARY PRICING ONLY. ACTUAL STUD SIZES, SPACING, BRACING, ETC. ARE TO BE CONFIRMED BY THE COLD-FORMED FRAMING DESIGN ENGINEER.
- TYPICAL EXTERIOR STUD: 600S162-54 AT 16", LATERAL BRACING AT 48"
- PA. POST INSTALLED ANCHORS
- PA.1 POST INSTALLED ANCHORS SHALL COMPLY WITH ACI-318 CHAPTER 17.
- PA.2 ACCEPTABLE MANUFACTURERS SHALL INCLUDE BUT ARE NOT LIMITED TO HILTI, INC. AND SIMPSON STRONG-TIE COMPANY, INC. AND DEWALT ANCHORS.
- PA.3 CARE SHALL BE TAKEN IN PLACING POST INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR.
- PA.4 HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR ALONG WITH PREPARED DOCUMENTATION DEMONSTRATING THAT THE PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
- PA.5 THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES, SPECIFICATIONS, AND RECOMMENDATIONS.
- PA.6 ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS.
- PA.7 A REPRESENTATIVE OF THE POST-INSTALLED ANCHOR MANUFACTURER SHALL BE PRESENT FOR THE FIRST INSTALLATION OF EACH TYPE OF ANCHOR USED TO DEMONSTRATE AND INSTRUCT TO THE CONTRACTOR'S INSTALLATION CREW AND PERSONNEL THE PROPER METHOD OF INSTALLATION. SHOULD THE CONTRACTOR CHANGE INSTALLATION CREW OR INDIVIDUALS INSTALLING THE ANCHOR, THE MANUFACTURER'S REPRESENTATIVE SHALL BE NOTIFIED BY THE CONTRACTOR TO RETURN AND PROVIDE INSTRUCTION TO THE NEW INSTALLER(S).
- PA.8 CONCRETE ANCHORS:
1. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI-355.2 AND ICC-ES AC193.
2. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI355.4 AND ICC-ES AC308.

&	And
@	At (when indicating spacing only)
ADDNL	Additional
ADJ	Adjacent
AFF	Above Finish Floor
AHU	Air Handling Unit
ALT	Alternate
APPROX	Approximate
APPRV	Approved
ARCH.	Architectural
ASD	Allowable Stress Design
BAL	Balance
BCX	Bottom Chord Extension
BFF	Below Finish Floor
BLDG	Building
BOT	Bottom
BRDG	Bridging
BRG	Bearing
BSMT	Basement
BTWN	Between
C	Channel
C TO C	Center to Center
CIP	Cast In Place
CJ	Control Joint
CL	Centerline
CMU	Concrete Masonry Unit
COL	Column
CONC	Concrete
CONN(S)	Connection(s)
CONST	Construction
CONT	Continuous
CONTR	Contractor
COORD	Coordinate
CTR	Center
DBL	Double
DEG OR °	Degree
DET	Detail
DIA OR Ø	Diameter
DIAG	Diagonal
DIM(S)	Dimension(s)
DL	Dead Load
DP	Drilled Pier
DWG(S)	Drawing(s)
DWL(S)	Dowel(s)
EA	Each
EF	Each Face
EJ	Expansion Joint
EL	Elevation
ELEC	Electrical
ELEV	Elevator
EMBED.	Embedment
ENGR	Engineer
EOS	Edge of Slab
EQ	Equal
EQUIP.	Equipment
EW	Each Way
EXIST.	Existing
EXP	Expansion
EXT	Exterior

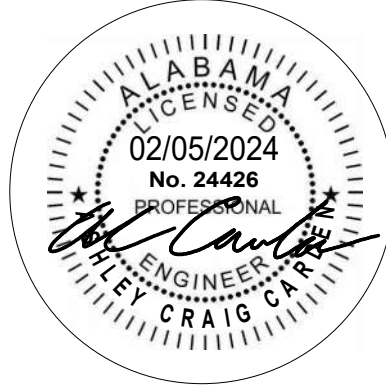
Abbreviations

FDN	Foundation	OC	On Center
FF	Finished Floor	OD	Outside Diameter
FIN.	Finish(ed)	OPNG(S)	Opening(s)
FLG	Flange	OPP	Opposite
FLR	Floor	PAR.	Parallel
FRT	Fire Retardant Treated	PCI	Pounds Per Cubic Inch
FS	Far Side	PCY	Pounds Per Cubic Yard
FT	Foot	PEMB	Preengineered Metal Building
FTG	Footing	PERP	Perpendicular
FV	Field Verify	PL	Plate
GA	Gage or Gauge	PLBG	Plumbing
GALV	Galvanized	PLF	Pounds Per Lineal Foot
GB	Grade Beam	PREFAB	Prefabricated
GC	General Contractor	PRELIM	Preliminary
GEN	General	PROJ	Projection
GOVT	Government	PSF	Pounds Per Square Foot
GR	Grade	PSI	Pounds Per Square Inch
GRD	Ground	PT	Post-Tension
H STUD(S)	Headed Stud(s)	PTL	Pressure Treated Lumber
HK	Hook	R	Radius
HORZ	Horizontal	REF	Reference
HS	High Strength	REINF	Reinforcing
HT	Height	REQD	Required
I.F.	Inside Face	RND	Round
ID	Inside Diameter	RTU	Roof Top Unit
INFO	Information	SCHED	Schedule
INT	Interior	SECT	Section
JG	Joist Girder	SHT	Sheet
JST(S)	Joist(s)	SIM	Similar
JT	Joint	SPEC(S)	Specification(s)
K	Kips (1000 lbs)	SQ	Square
KLF	Kips Per Lineal Foot	STD	Standard
KSF	Kips Per Square Foot	STIFF.	Stiffener
KSI	Kips Per Square Inch	STL	Steel
L	Angle	STRUCT	Structure or Struct'L
LBS	Pounds	SYM	Symmetrical
LL	Live Load	T&B	Top and Bottom
LLH	Long Leg Horizontal	T.O.P.	Top of Pier or Pedestal
LLV	Long Leg Vertical	T.O.W.	Top of Wall
LONG.	Longitudinal	TCX	Top Chord Extension
LRFD	Load and Resistance Factor Design	TEMP	Temperature
LWT CONC	Lightweight Concrete	TODP	Top of Drilled Pier
M	Moment	TOF	Top of Footing
MAX	Maximum	TOGB	Top of Grade Beam
MC	Moment Connection(s)	TOJ	Top of Joist
MECH	Mechanical	TOPC	Top of Pile Cap
MEZZ	Mezzanine	TOS	Top of Steel
MFR	Manufacture(r)	TYP	Typical
MID	Middle	U.N.	Unless Noted
MIN	Minimum	V	Shear
MISC	Miscellaneous	VERT	Vertical
NF	Near Face	W/	With
NO. OR #	Number	W/O	Without
NS	Near Side	WF	Wide Flange
NTS	Not To Scale	WL	Wind Load
		WP	Work Point
		WT	Weight
		WWR	Welded Wire Reinforcement
		XS	Extra Strong
		XXS	Double Extra Strong



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USSRC - INSPIRATION 4 TRAINING FACILITY

OWNER  
UNITED STATES SPACE AND ROCKET CENTER

PROJECT ADDRESS  
1 Tranquility Base  
Huntsville, AL 35805



PROJECT STATUS: ISSUED		BID SET
ISSUE DATE: FEBRUARY 05, 2024		
REVISIONS		
No.	Description	Date
DRAWING TITLE GENERAL NOTES (CONT.), ABBREVIATIONS & LEGENDS		
DRAWN BY: RST/GVA		
CHECKED BY: KLL		
PROJECT NUMBER 225029-00		
DRAWING NO S0.03		



Special Inspection General Notes

- SI.1

ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE INTERNATIONAL BUILDING CODE AND ITS REFERENCED SPECIFICATIONS.
- SI.2

THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER OR THE OWNER'S AGENT AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL PRIOR TO COMMENCING WORK.
- SI.3

THE SPECIAL INSPECTOR SHALL BE QUALIFIED PER THE INTERNATIONAL BUILDING CODE AND SHALL BE EDUCATED IN THE TASKS REQUIRED TO CONDUCT, SUPERVISE, AND EVALUATE THE INSPECTIONS. THE SPECIAL INSPECTOR MUST ALSO BE OBJECTIVE, COMPETENT, AND HAVE ACCESS TO THE APPROPRIATE TESTING EQUIPMENT WHICH SHALL BE MAINTAINED AND PERIODICALLY CALIBRATED. THE QUALIFICATIONS OF THE SPECIAL INSPECTOR MAY BE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL.
- SI.4

SPECIAL INSPECTION AGENTS:

ATA: APPROVED TESTING AGENCY

GEOR: GEOTECHNICAL ENGINEER OF RECORD:  
GEO SOLUTIONS, L.L.C.  
7201 OPPORTUNITY BLVD.  
HUNTSVILLE, AL 35810

EOR: ENGINEER OF RECORD:  
LBVD INC.  
1525 PERIMETER PARKWAY NW, SUITE 510  
HUNTSVILLE, AL 35806
- SI.5

THE SPECIAL INSPECTIONS SHALL BE PERFORMED IN ADDITION TO ANY OBSERVATIONS PERFORMED BY THE ENGINEER OF RECORD AND ANY INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- SI.6

THE SPECIAL INSPECTOR SHALL MAINTAIN RECORDS AND PROVIDE THE REQUIRED DOCUMENTATION AS PRESCRIBED IN THE INTERNATIONAL BUILDING CODE, INCLUDING THE SUBMITTAL OF REPORTS TO THE BUILDING OFFICIAL AND THE DESIGNER OF RECORD.
- SI.7

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE SPECIAL INSPECTOR TO ALLOW FOR SPECIAL INSPECTIONS.
- SI.8

CONSTRUCTION WHICH REQUIRES SPECIAL INSPECTIONS SHALL BE MAINTAINED IN SUCH A STATE AS TO ALLOW ACCESS FOR THE SPECIAL INSPECTOR UNTIL THE REQUIRED INSPECTIONS OR TESTS HAVE BEEN COMPLETED.
- SI.9

ANY DEVIATIONS FOUND DURING THE SPECIAL INSPECTION PROCESS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE DESIGNER OF RECORD. ALL DEVIATIONS MUST BE ADDRESSED PRIOR TO COMPLETION OF THE WORK.
- SI.10

INSPECTION FREQUENCY:

A. CONTINUOUS – SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.

B. PERIODIC – SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

C. OBSERVE – OBSERVE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

D. PERFORM – PERFORM TASKS FOR EACH JOINT, MEMBER, AND CONNECTION.
- SI.11

SPECIAL INSPECTIONS FOR STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD BEARING FABRICATED ITEMS SHALL BE PERFORMED FOR THE FABRICATED ITEMS AT THE FABRICATOR'S SHOP. SPECIAL INSPECTIONS FOR FABRICATED ITEMS MAY BE WAIVED WHEN THE FABRICATOR IS REGISTERED AND HAS APPROVAL TO PERFORM THE WORK WITHOUT SPECIAL INSPECTIONS. IF THE INSPECTIONS ARE WAIVED, THE FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL SHOWING COMPLIANCE WITH THE APPROVED STRUCTURAL DRAWINGS.

Soils				
NO.	INSPECTION TASK	FREQUENCY	REFERENCE FOR CRITERIA	AGENT
1.00	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC		GEOR
2.00	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC		GEOR
3.00	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC		GEOR
4.00	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT, AND COMPACTION OF COMPACTED FILL.	CONTINUOUS		GEOR
5.00	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC		GEOR

Concrete				
NO.	INSPECTION TASK	FREQUENCY	REFERENCE STANDARD	AGENT
1.00	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	PERIODIC	ACI 318 CH 20, 25.2, 25.3, 26.5.1-26.5.3, IBC 1908.4	ATA
2.00	REINFORCING BAR WELDING:			ATA
2.01	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706.	PERIODIC	AWS D1.4	ATA
2.02	INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	PERIODIC	ACI 318: 26.5.4	ATA
2.03	INSPECT ALL OTHER WELDS.	CONTINUOUS		ATA
3.00	INSPECT ANCHORS CAST IN CONCRETE.	PERIODIC	ACI 318: 17.8.2	ATA
4.00	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.			ATA
4.01	INSPECT ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	CONTINUOUS	ACI 318: 17.8.2.4	ATA
4.02	INSPECT MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.01.	PERIODIC	ACI 318: 17.8.2	ATA
5.00	VERIFY USE OF REQUIRED DESIGN MIX.	PERIODIC	ACI 318: CH 19, 26.4.3, 26.4.4; IBC 1904.1, 1904.2, 1908.2, 1908.3	ATA
6.00	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. DETERMINE UNIT WEIGHT OF LIGHTWEIGHT CONCRETE.	CONTINUOUS	ASTM C 172; ASTM C 31; ACI 318:26.4.5, 26.12; IBC 1908.10	ATA
7.00	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS	ACI 318: 26.4.5; IBC 1908.6, 1908.7, 1908.8	ATA
8.00	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	ACI 318: 26.4.7-26.4.9; IBC 1908.9	ATA
9.00	INSPECT PRESTRESSED CONCRETE FOR:			ATA
9.01	APPLICATION OF PRESTRESSING FORCES.	CONTINUOUS	ACI 318: 26.9.2.1	ATA
9.02	GROUTING OF BONDED PRESTRESSING TENDONS.	CONTINUOUS	ACI 318: 26.9.2.3	ATA
10.00	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	PERIODIC	ACI 318: CH 26.8	ATA
11.00	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC	ACI 318: 26.10.2	ATA
12.00	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	ACI 318: 26.10.1(B)	ATA
13.00	ISOLATED CONCRETE FOOTINGS OF BUILDINGS THREE STORIES OR LESS ARE EXCEPTED FROM INSPECTIONS BUT NOT FROM MATERIALS TESTING.		IBC 1705.3 (1)	ATA
14.00	CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF LIGHT-FRAME CONSTRUCTION OR THOSE THAT ARE DESIGNED IN ACCORDANCE WITH IBC 2015 TABLE 1809.7 ARE EXCEPTED FROM INSPECTIONS BUT NOT FROM MATERIALS TESTING.		IBC 1705.3 (2)	ATA
15.00	SLABS ON GRADE ARE EXCEPTED FROM INSPECTIONS BUT NOT FROM MATERIALS TESTING.		IBC 1705.3 (3)	ATA
16.00	CONCRETE FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH IBC 2015 TABLE 1807.1.6.2 ARE EXCEPTED FROM INSPECTIONS BUT NOT FROM MATERIALS TESTING.		IBC 1705.3 (4)	ATA

Steel Deck				
NO.	INSPECTION TASK	FREQUENCY	REFERENCE FOR CRITERIA	AGENT
1.00	INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT:		SDI STD QA/QC TABLE 1.1	
1.01	VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS.	PERFORM		ATA
1.02	DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES.	PERFORM		ATA
2.00	INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT:		SDI STD QA/QC TABLE 1.2	
2.01	VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS.	PERFORM		ATA
2.02	VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS.	PERFORM		ATA
2.03	DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES.	PERFORM		ATA
3.00	INSPECTION OR EXECUTION TASKS PRIOR TO WELDING:		SDI STD QA/QC TABLE 1.3	
3.01	WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	OBSERVE		ATA
3.02	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	OBSERVE		ATA
3.03	MATERIAL IDENTIFICATION (TYPE/GRADE).	OBSERVE		ATA
3.04	CHECK WELDING EQUIPMENT.	OBSERVE		ATA
4.00	INSPECTION OR EXECUTION TASKS DURING WELDING:		SDI STD QA/QC TABLE 1.4	
4.01	USE QUALIFIED WELDERS.	OBSERVE		ATA
4.02	CONTROL AND HANDLING OF WELDING CONSUMABLES.	OBSERVE		ATA
4.03	ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE).	OBSERVE		ATA
4.04	WPS FOLLOWED.	OBSERVE		ATA
5.00	INSPECTION OR EXECUTION TASKS AFTER WELDING:		SDI STD QA/QC TABLE 1.5	
5.01	VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS.	PERFORM		ATA
5.02	WELDS MEET VISUAL ACCEPTANCE CRITERIA.	PERFORM		ATA
5.03	VERIFY REPAIR ACTIVITIES.	PERFORM		ATA
5.04	DOCUMENT ACCEPTANCE OR REJECTION OF WELDS.	PERFORM		ATA
6.00	INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING:		SDI STD QA/QC TABLE 1.6	
6.01	MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS.	OBSERVE		ATA
6.02	PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION.	OBSERVE		ATA
6.03	PROPER STORAGE FOR MECHANICAL FASTENERS.	OBSERVE		ATA
7.00	INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING:		SDI STD QA/QC TABLE 1.7	
7.01	FASTENERS ARE POSITIONED AS REQUIRED.	OBSERVE		ATA
7.02	FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.	OBSERVE		ATA
8.00	INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING:		SDI STD QA/QC TABLE 1.8	
8.01	CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS.	PERFORM		ATA
8.02	CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS.	PERFORM		ATA
8.03	CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS.	PERFORM		ATA
8.04	VERIFY REPAIR ACTIVITIES.	PERFORM		ATA
8.05	DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS.	PERFORM		ATA

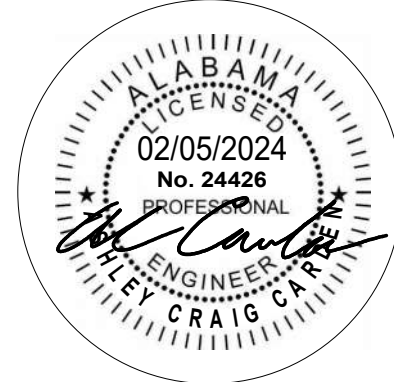
Structural Steel				
NO.	INSPECTION TASK	FREQUENCY	REFERENCE FOR CRITERIA	AGENT
1.00	INSPECTOR SHALL BE ON THE PREMISES FOR INSPECTION DURING THE PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL		AISC 360 SEC. N5.7	ATA
1.01	DIAMETER, GRADE, TYPE, LENGTH, AND EMBEDMENT DEPTH OF ANCHOR RODS AND OTHER EMBEDDED ITEMS	PERFORM		ATA
1.02	INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME, AS APPROPRIATE, TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	PERFORM		ATA
2.00	INSPECTION TASKS PRIOR TO WELDING:		AISC 360 SEC. N5.4	
2.01	WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	PERFORM		ATA
2.02	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	PERFORM		ATA
2.03	MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE		ATA
2.04	WELDER IDENTIFICATION SYSTEM (a)	OBSERVE		ATA
2.05	FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY), JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), AND BACKING TYPE AND FIT (IF APPLICABLE)	OBSERVE		ATA
2.06	CONFIGURATION AND FINISH OF ACCESS HOLES	OBSERVE		ATA
2.07	CHECK WELDING EQUIPMENT	OBSERVE		ATA
3.00	INSPECTION TASKS DURING WELDING:		AISC 360 SEC. N5.4	
3.01	USE OF QUALIFIED WELDERS	OBSERVE		ATA
3.02	CONTROL AND HANDLING OF WELDING CONSUMABLE PACKAGING AND EXPOSURE CONTROL	OBSERVE		ATA
3.03	NO WELDING OVER CRACKED TACK WELDS	OBSERVE		ATA
3.04	ENVIRONMENTAL CONDITIONS INCLUDING WIND SPEED WITHIN LIMITS, PRECIPITATION, AND TEMPERATURE	OBSERVE		ATA
3.05	WPS FOLLOWED INCLUDING SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN/MAX), AND PROPER POSITION (F, V, H, OH)	OBSERVE		ATA
3.06	WELDING TECHNIQUES INCLUDING: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS	OBSERVE		ATA
4.00	INSPECTION TASKS AFTER WELDING:		AISC 360 SEC. N5.4	
4.01	WELDS CLEANED	OBSERVE		ATA
4.02	SIZE, LENGTH, AND LOCATION OF WELDS	PERFORM		ATA
4.03	WELDS MEET VISUAL ACCEPTANCE CRITERIA FOR: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, AND POROSITY	PERFORM		ATA
4.04	ARC STRIKES	PERFORM		ATA
4.05	K-AREA (b)	PERFORM		ATA
4.06	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	PERFORM		ATA
4.07	REPAIR ACTIVITIES	PERFORM		ATA
5.00	INSPECTION TASKS PRIOR TO BOLTING:		AISC 360 SEC. N5.6	
5.01	MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	PERFORM		ATA
5.02	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	OBSERVE		ATA
5.03	PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	OBSERVE		ATA
5.04	PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	OBSERVE		ATA
5.05	CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE PAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	OBSERVE		ATA
5.06	PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	OBSERVE		ATA
5.07	PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	OBSERVE		ATA
6.00	INSPECTION TASKS DURING BOLTING:		AISC 360 SEC. N5.6	
6.01	FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	OBSERVE		ATA
6.02	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	OBSERVE		ATA
6.03	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED	OBSERVE		ATA
6.04	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	OBSERVE		ATA
7.00	INSPECTION TASKS AFTER BOLTING:		AISC 360 SEC. N5.6	
7.01	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	PERFORM		ATA
NOTES:				
(a) THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.				
(b) WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75MM) OF THE WELD.				

Steel Joists				
NO.	INSPECTION TASK	FREQUENCY	REFERENCE FOR CRITERIA	AGENT
1.00	INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.			
1.01	END CONNECTIONS - WELDED OR BOLTED.	PERIODIC	SJI SPECIFICATIONS LISTED IN IBC 2207.1	ATA
1.02	HORIZONTAL OR DIAGONAL STANDARD BRIDGING OR BRIDGING THAT DIFFERS FROM SJI SPECIFICATIONS LISTED IN SECTION 2207.1.	PERIODIC	SJI SPECIFICATIONS LISTED IN IBC 2207.1	ATA



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OWNER: UNITED STATES SPACE AND ROCKET CENTER

PROJECT ADDRESS: 1 Tranquility Base Huntsville, AL 35805

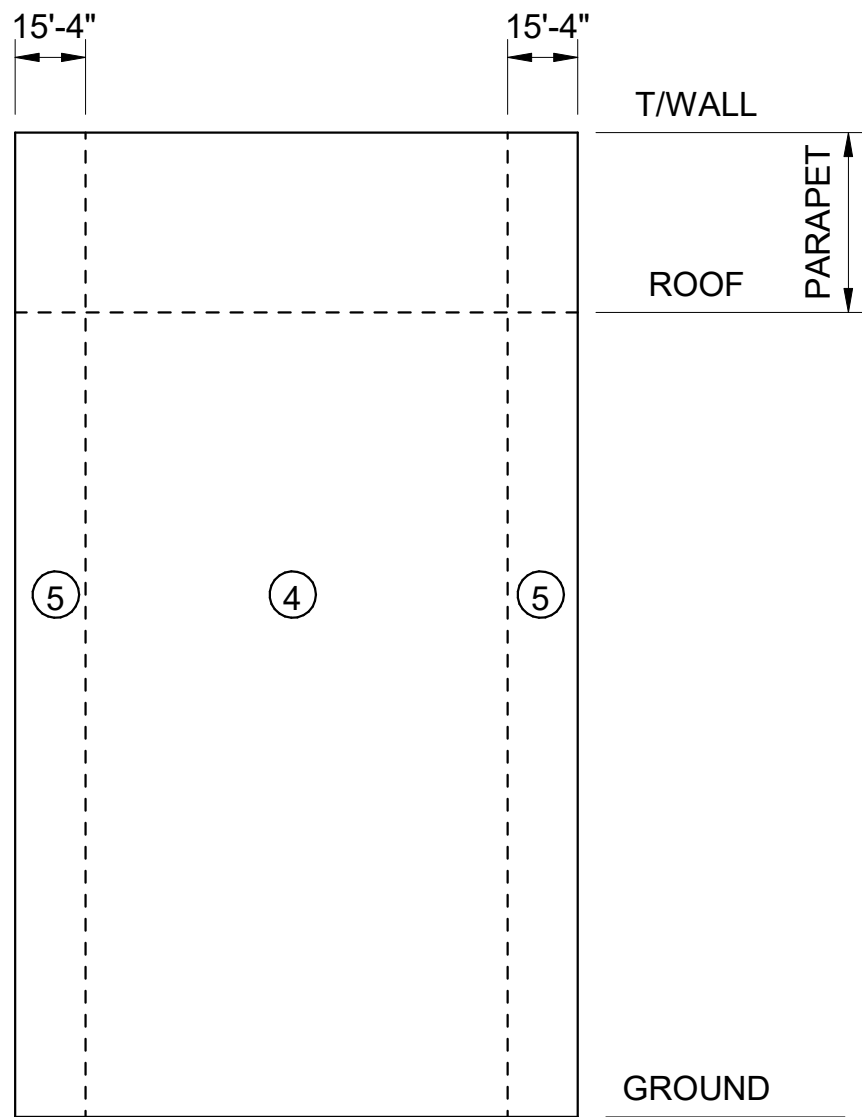
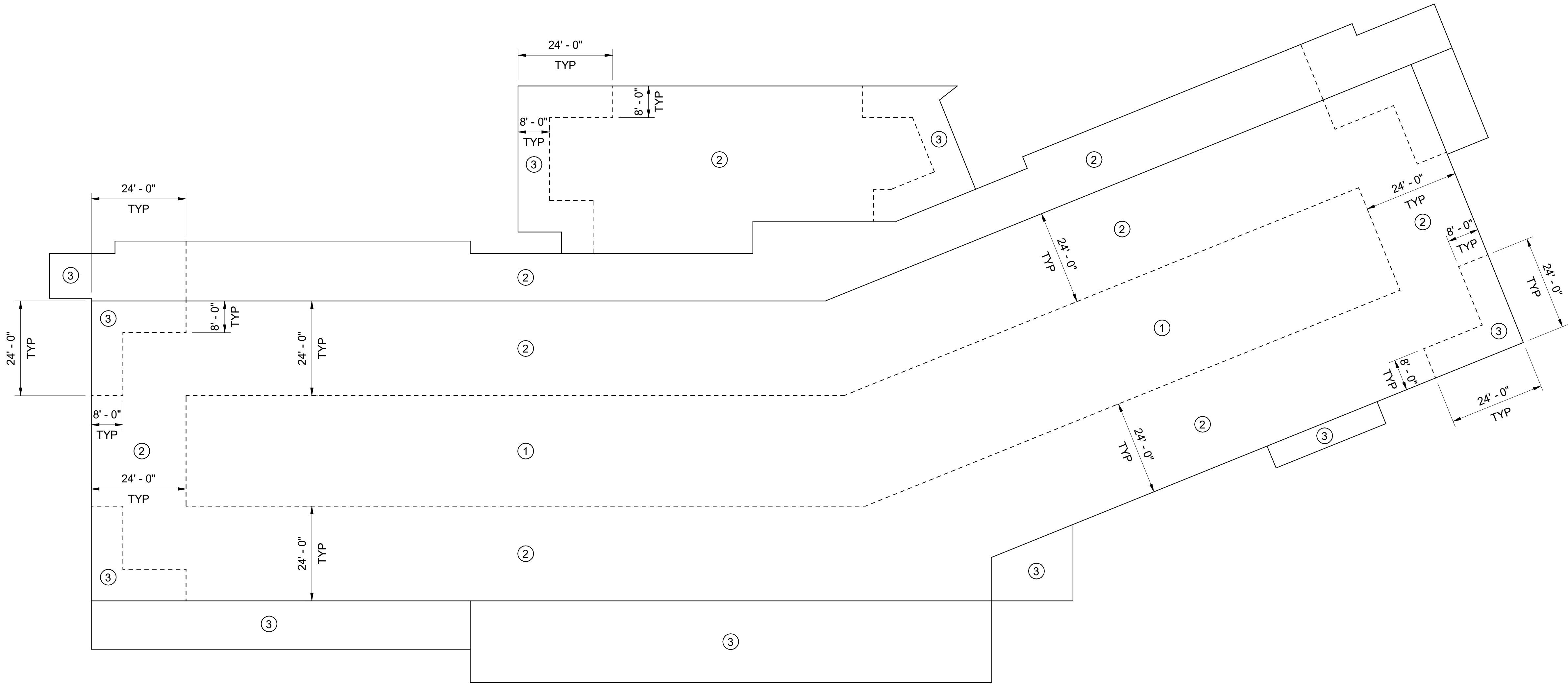
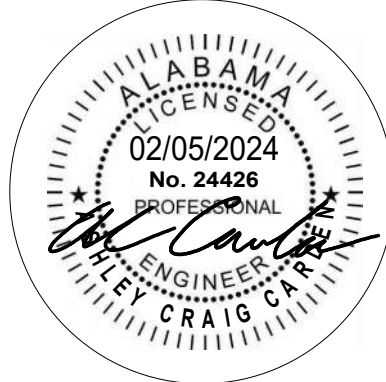


PROJECT STATUS: ISSUED		BID SET	
ISSUE DATE: FEBRUARY 05, 2024			
REVISIONS			
No.	Description	Date	
DRAWING TITLE: SPECIAL INSPECTIONS			
DRAWN BY: RST/GVA		CHECKED BY: KLL	
PROJECT NUMBER: 225029-00		DRAWING NO: S0.04	



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Wall Elevation

Components and Cladding Wind Pressures

Components and Cladding Gross Ultimate Wind Pressures			
ZONE	EFFECTIVE WIND AREA (SQ FT)	MAX POSITIVE PRESSURE (PSF)	MAX NEGATIVE PRESSURE (PSF)
ZONE 1' ROOF INTERIOR ZONE	10	16.0	21.6
	20	16.0	21.6
	50	16.0	21.6
	>100	16.0	21.6
ZONE 1 ROOF INTERMEDIATE ZONE	10	16.0	37.6
	20	16.0	34.6
	50	16.0	31.6
	>100	16.0	29.6
ZONE 2 ROOF EDGE ZONE	10	16.0	49.6
	20	16.0	46.6
	50	16.0	42.6
	>100	16.0	38.6
ZONE 3 ROOF CORNER ZONE	10	16.0	67.5
	20	16.0	61.6
	50	16.0	52.6
	>100	16.0	46.6
ZONE 4 WALL INTERIOR ZONE	10	21.6	23.4
	20	20.7	22.5
	50	18.9	21.1
	100	18.4	19.8
	>500	16.2	18.0
ZONE 5 WALL EDGE ZONE	10	21.6	28.8
	20	20.7	27.0
	50	18.9	24.3
	100	18.4	22.5
	>500	16.2	18.0
INTERNAL PRESSURE COEFFICIENT = ±0.18 WIDTH OF WALL STRIP, a = 15'-4" RELIABLE ROOF DEAD LOAD FOR UPLIFT = 9 PSF WORST CASE ROOF DEAD LOAD = 20 PSF			

Parapet Components and Cladding Ultimate Wind Pressures		
ZONE	EFFECTIVE WIND AREA (SQ FT)	MAX (NET) PRESSURE (PSF)
ZONE 4 INTERIOR ZONE	10	71.1
	20	67.2
	50	61.5
	>100	57.0
ZONE 5 EDGE ZONE	10	89.1
	20	82.2
	50	71.4
	>100	65.0

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1 Tranquility Base  
Huntsville, AL 35805



PROJECT STATUS:  
ISSUED

BID SET

ISSUE DATE:

FEBRUARY 05, 2024

REVISIONS

No.	Description	Date
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DRAWING TITLE

COMPONENTS AND CLADDING

DRAWN BY:

RST/GVA

CHECKED BY:

KLL

PROJECT NUMBER

225029-00

DRAWING NO

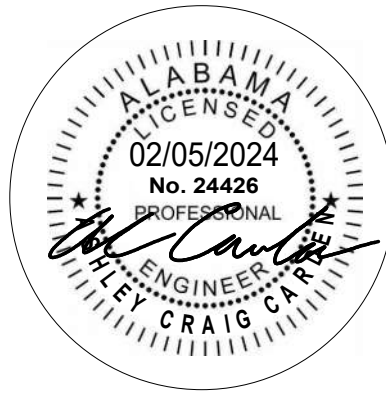
S0.05



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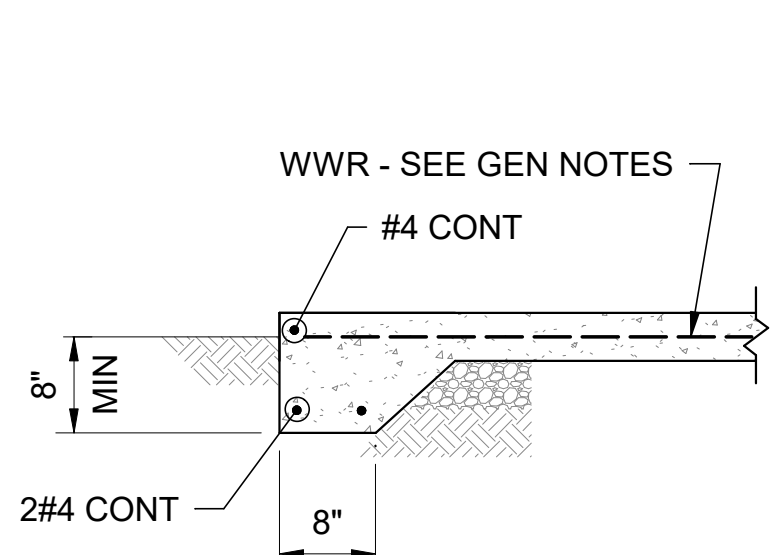
PROJECT ADDRESS  
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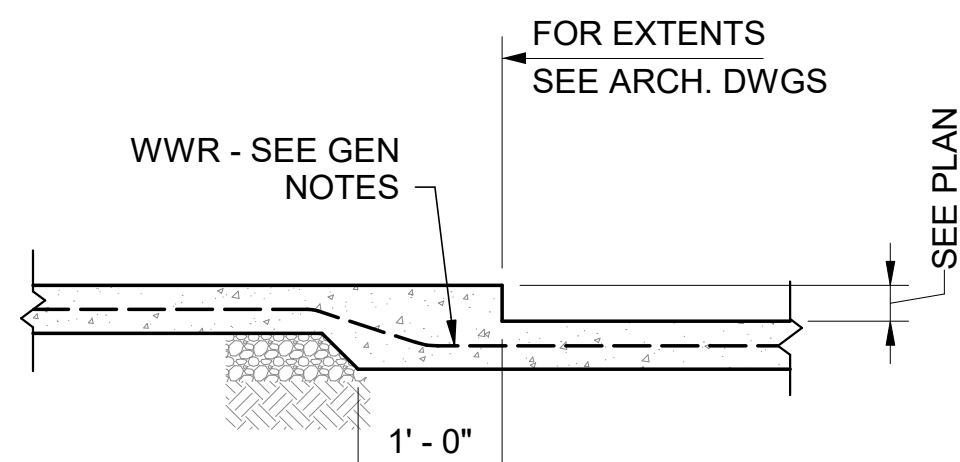
PROJECT STATUS: ISSUED		BID SET
ISSUE DATE: FEBRUARY 05, 2024		
REVISIONS		
No.	Description	Date
DRAWING TITLE TYPICAL DETAILS		
DRAWN BY: RST/GVA		
CHECKED BY: KLL		
PROJECT NUMBER 225029-00		
DRAWING NO. <b>S0.06</b>		

Tension Lap Splice Lengths								
BAR SIZE	$f_c = 3000$				$f_c = 4000$			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	A	B	A	B	A	B	A	B
#3	22"	28"	17"	22"	19"	24"	15"	19"
#4	29"	37"	22"	29"	25"	32"	19"	25"
#5	36"	47"	28"	36"	31"	40"	24"	31"
#6	43"	56"	33"	43"	37"	48"	29"	37"
#7	63"	81"	48"	63"	54"	70"	42"	54"
#8	72"	93"	55"	72"	62"	80"	48"	62"
#9	81"	105"	62"	81"	70"	91"	54"	70"
#10	91"	118"	70"	91"	79"	102"	61"	79"
#11	101"	131"	78"	101"	87"	113"	67"	87"

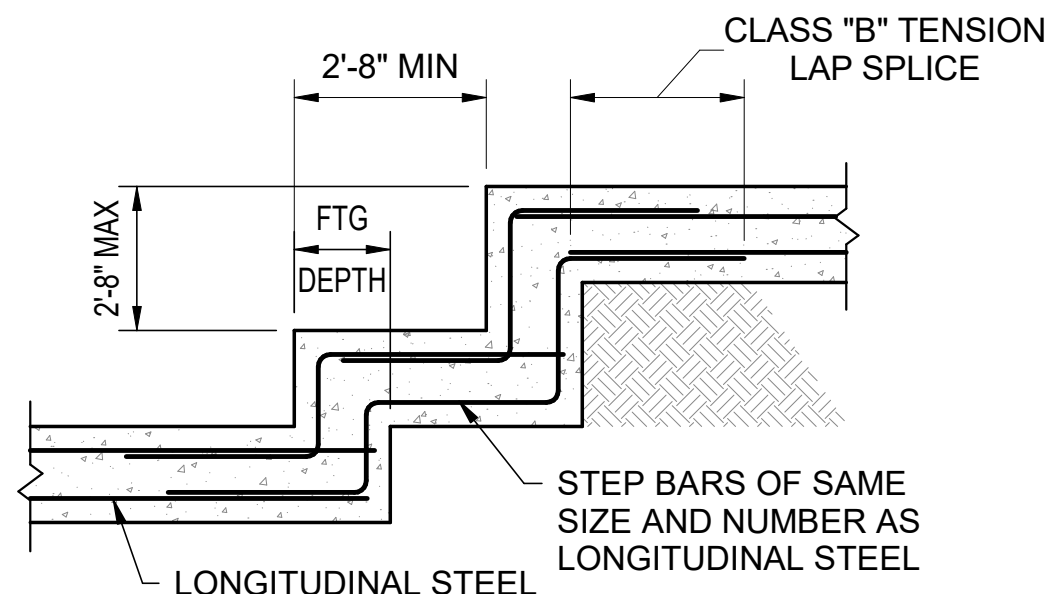
- ALL DEVELOPMENT/SPLICE LENGTHS ARE IN INCHES (IN.).
- WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR, BUT SHALL NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
- TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW THE REINFORCEMENT.



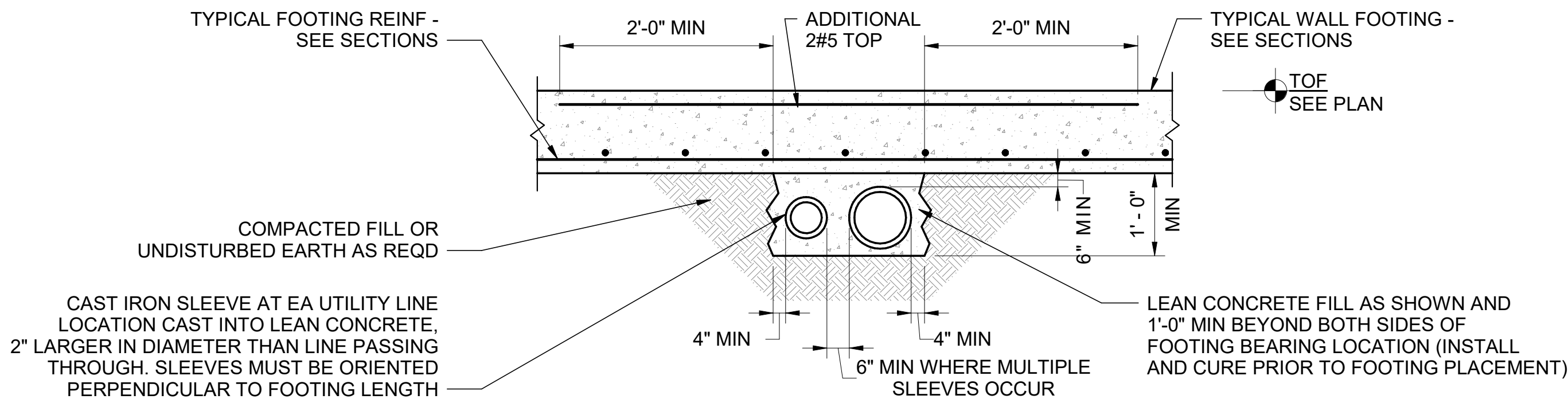
Slab Edge Detail



Depressed Slab on Grade Detail

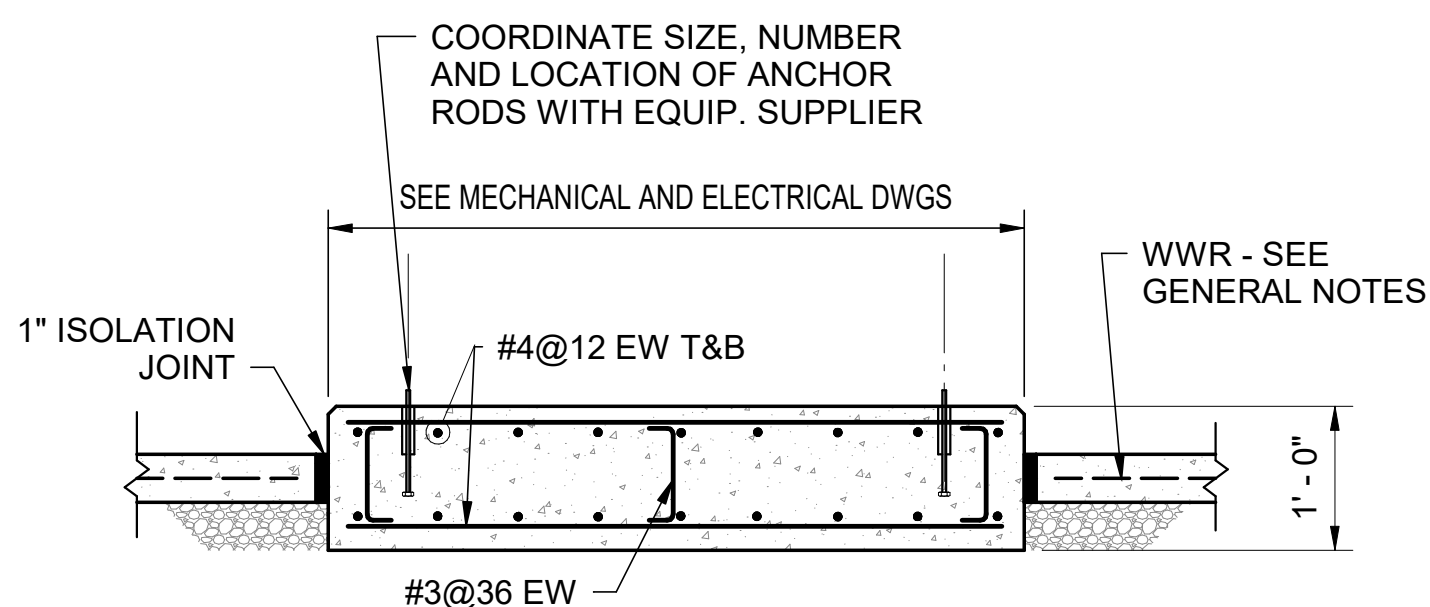


Footing Step Detail

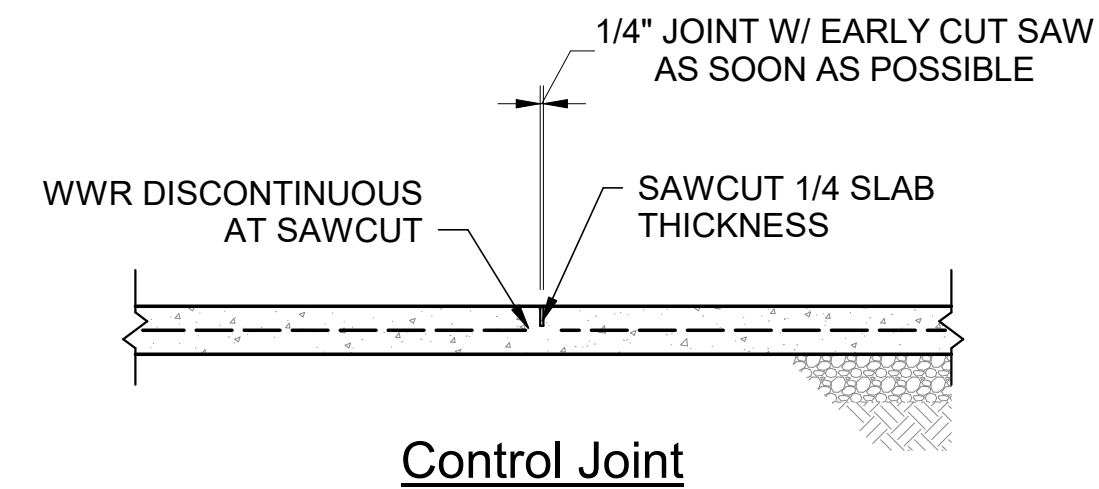


Typical Detail for Utilities Passing Below Wall Footings

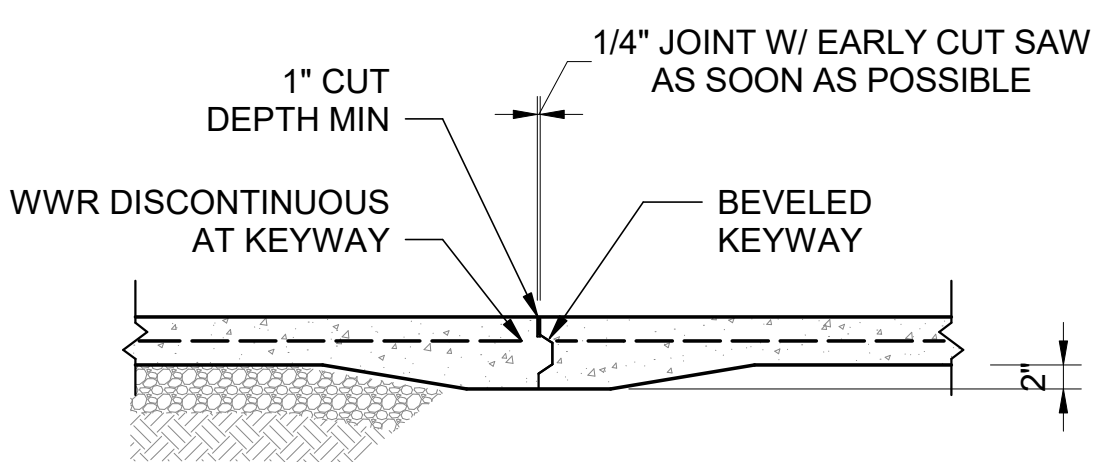
- CONTRACTOR'S OPTION TO STEP FOOTINGS BELOW UTILITIES IN LIEU OF THIS DETAIL.
- COORDINATE UTILITY LOCATIONS W/ CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
- UTILITIES SHALL NOT PASS BELOW COLUMN FOOTINGS.



Equipment Pad Foundation Detail



Control Joint

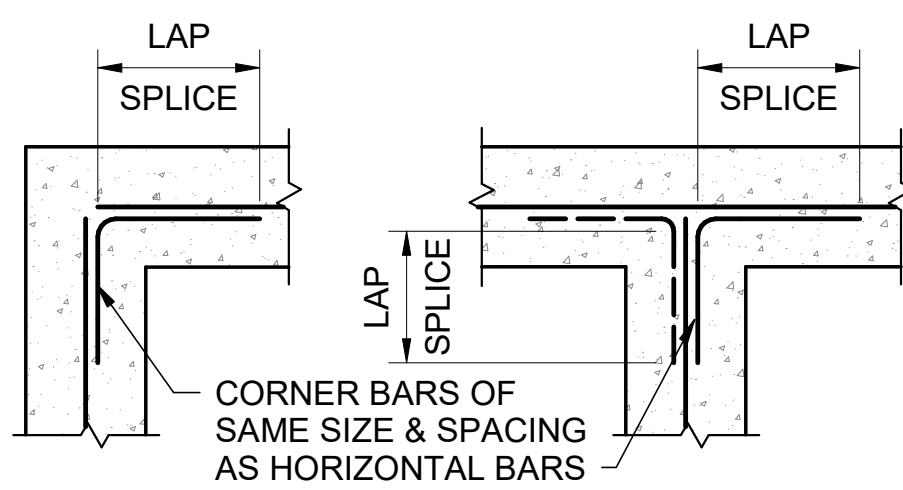


Construction Joint

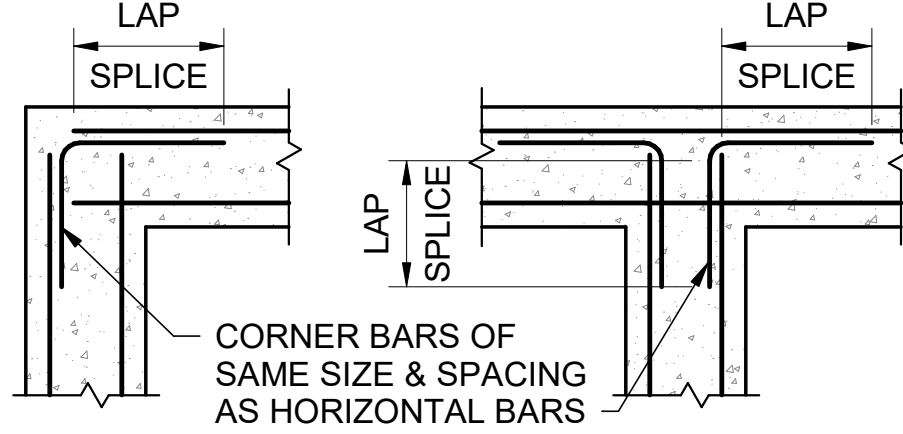
- NOTES:
- CONTROL JOINT FILLER SEMI-RIGID EPOXY.
  - SAWCUT TO TAKE PLACE WITHIN 4-12 HOURS OF FINISHING CONCRETE: 4 HOURS IN HOT WEATHER, 12 HOURS IN COLD WEATHER.

Slab Control Joint Details

JOINT TYPE IS OPTIONAL



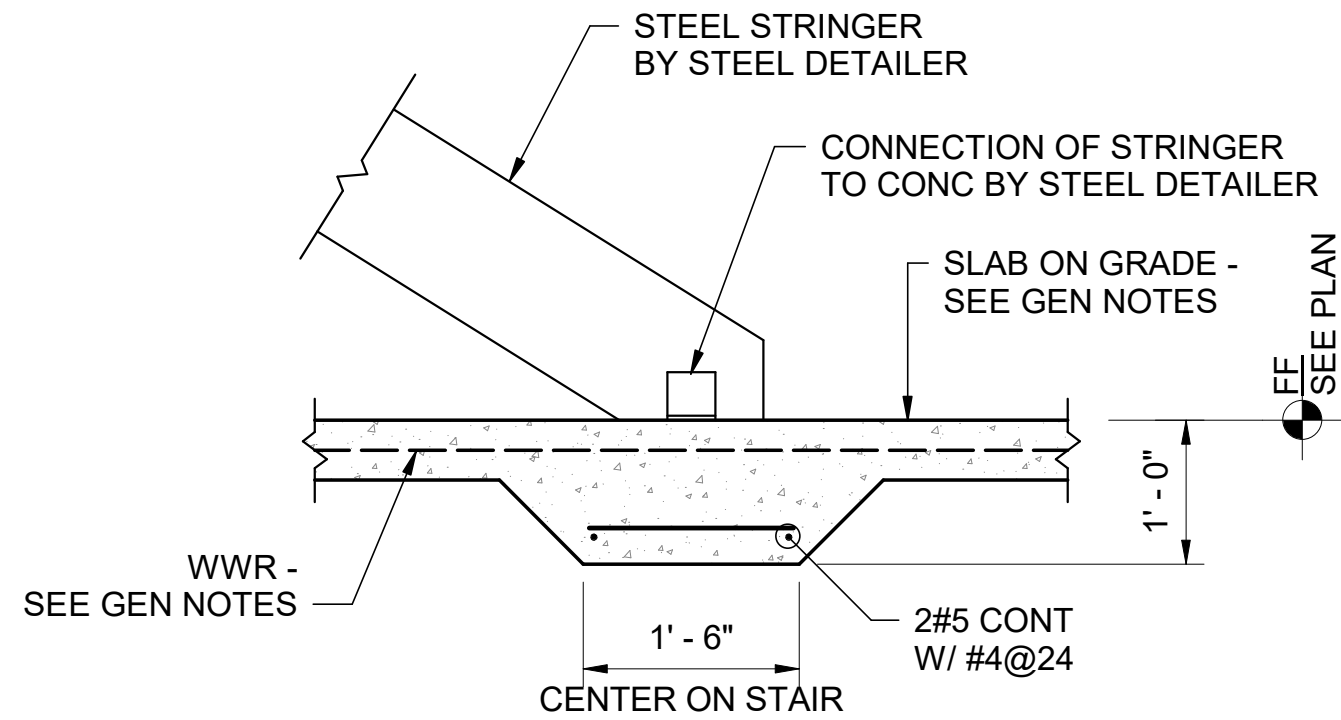
Single Layer Reinforcement



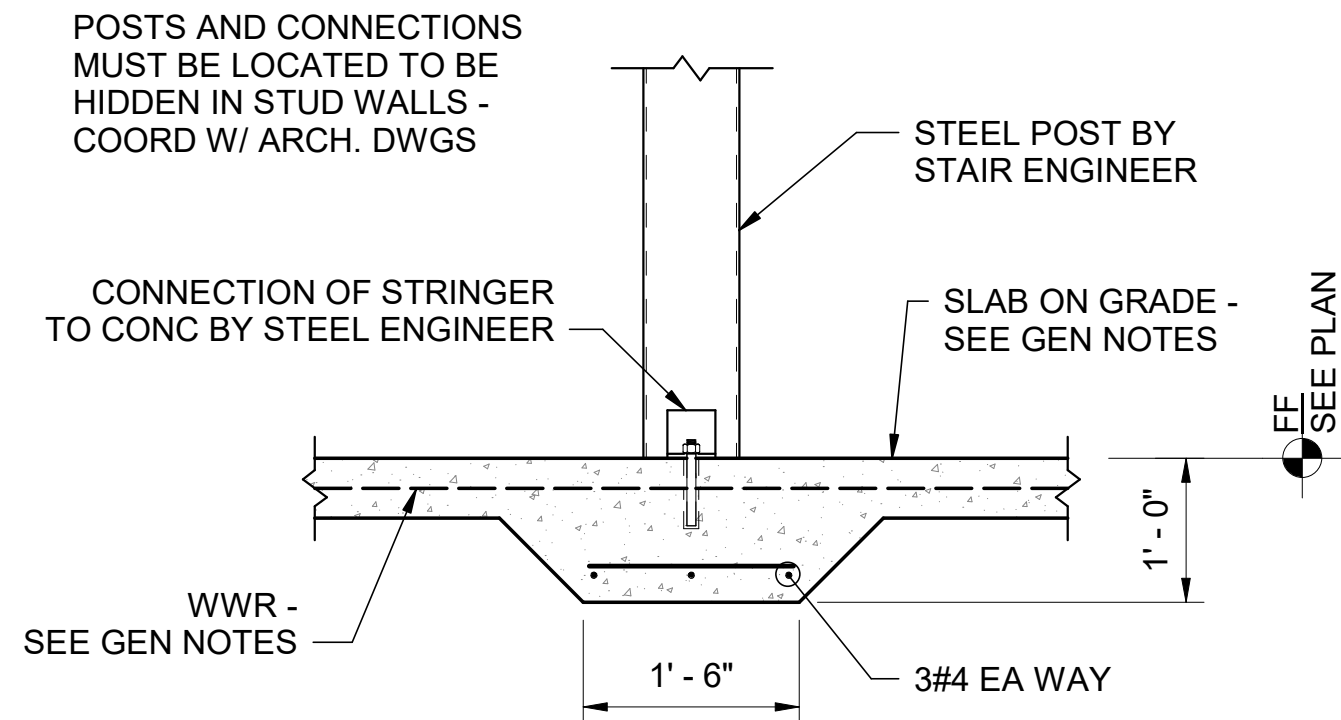
Double Layer Reinforcement

- NOTE:
- ALL LAP SPLICES CLASS "B" TENSION.

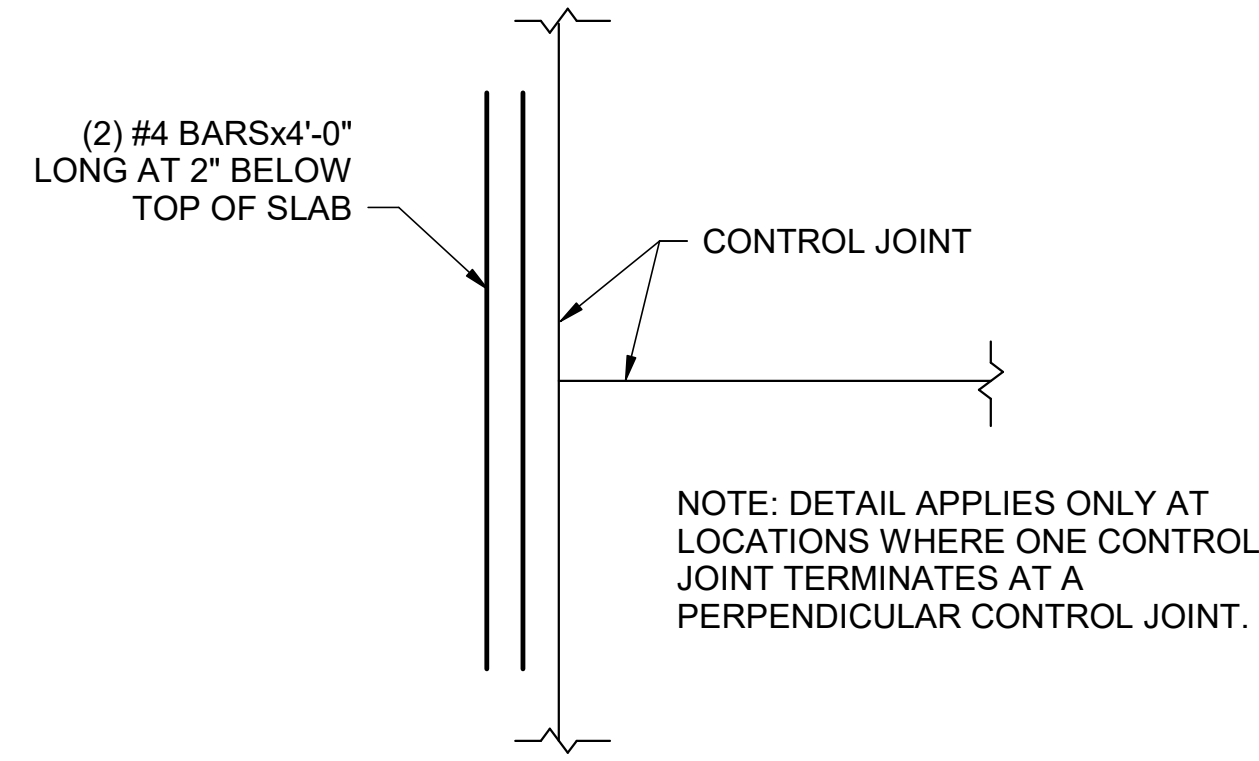
Wall Corner Reinforcing Detail



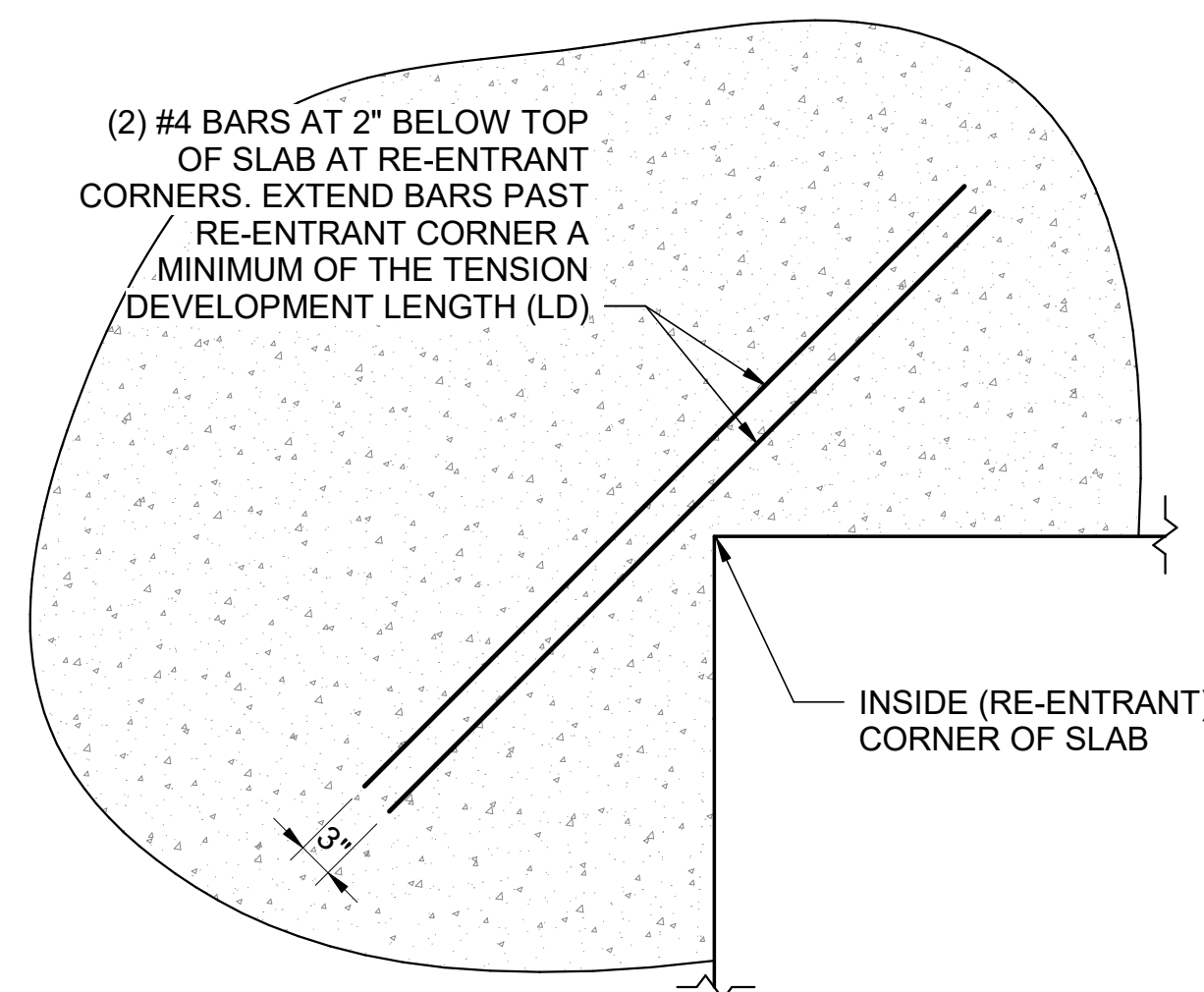
Thickened Slab at Stair Stringer Detail



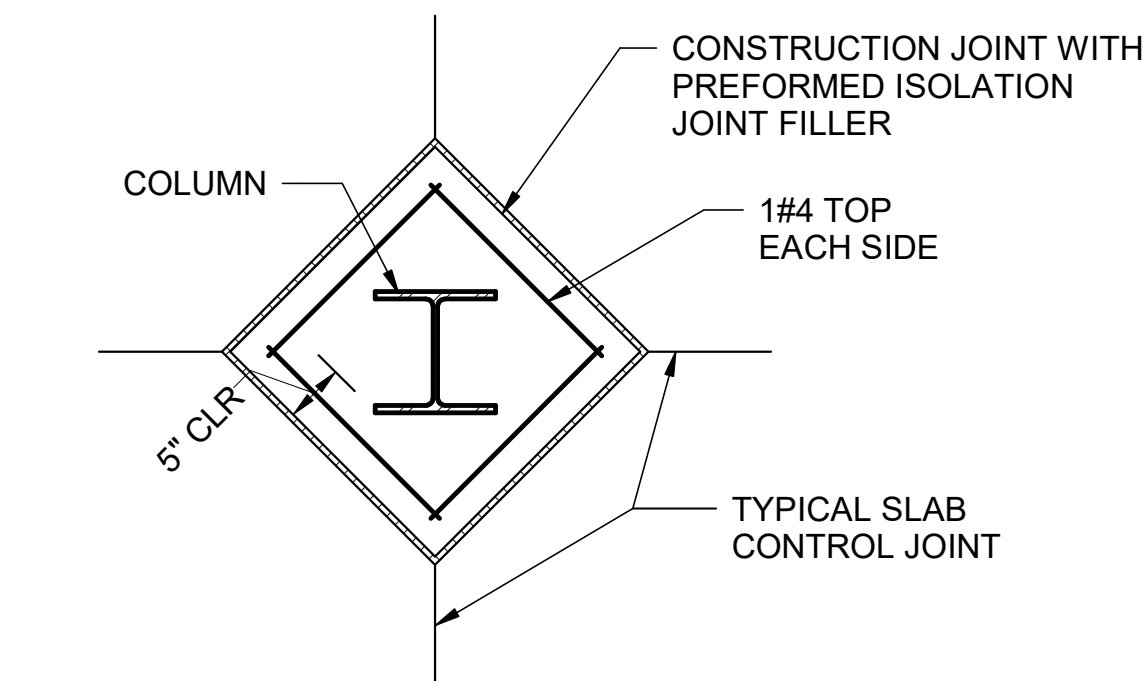
Thickened Slab at Stair Post Detail



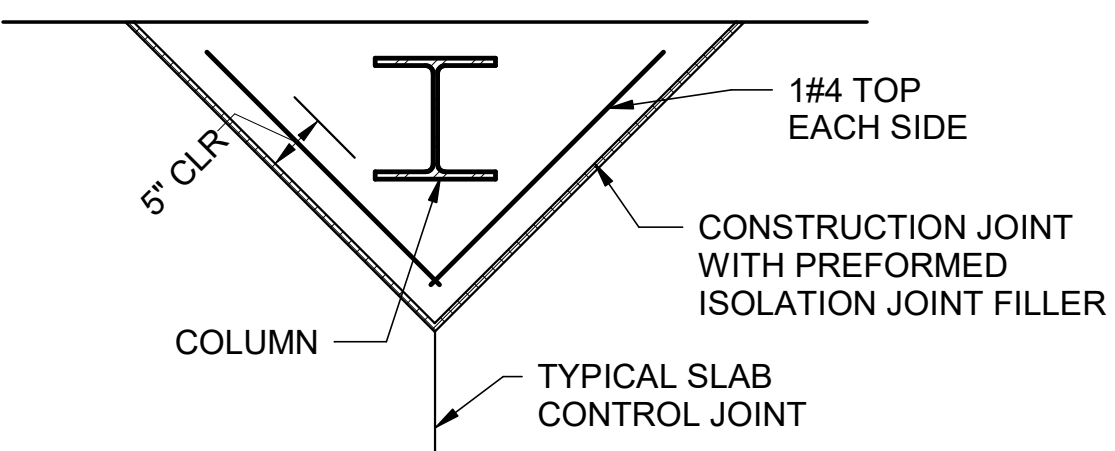
Control Joint Termination



Slab Re-Entrant Corner Detail

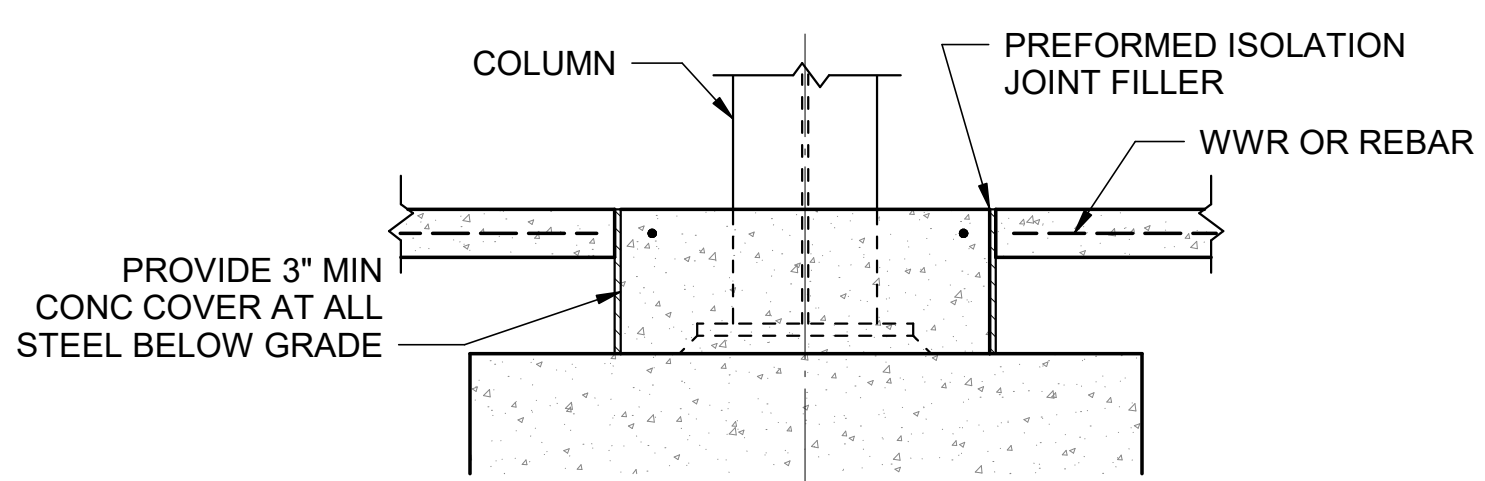


Interior



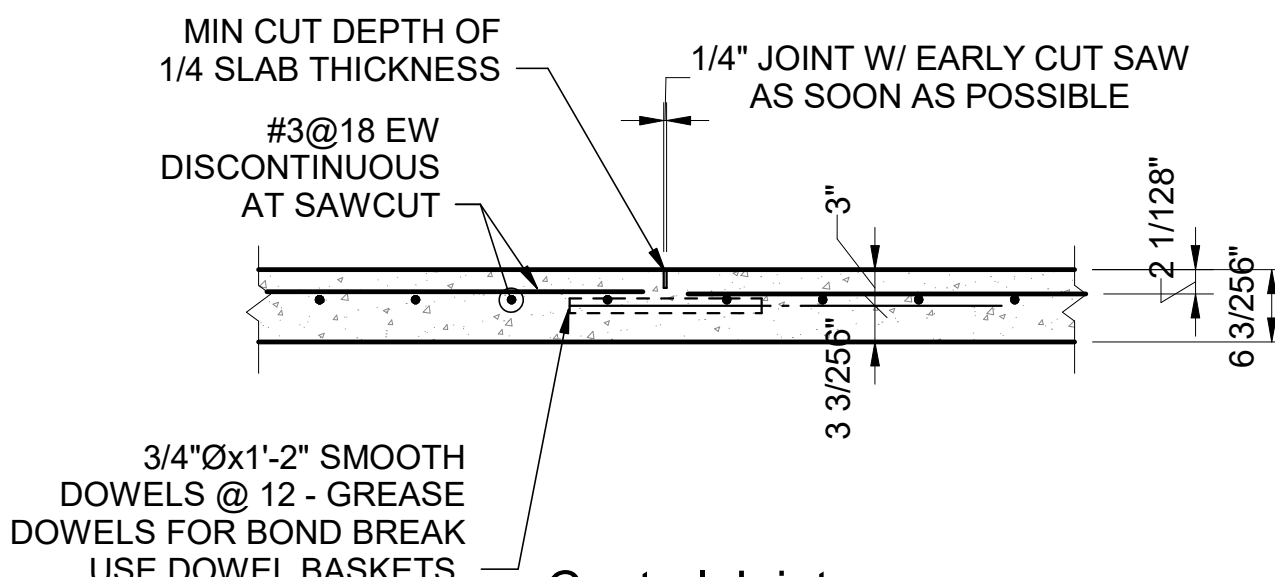
Exterior

Isolation Joint Detail

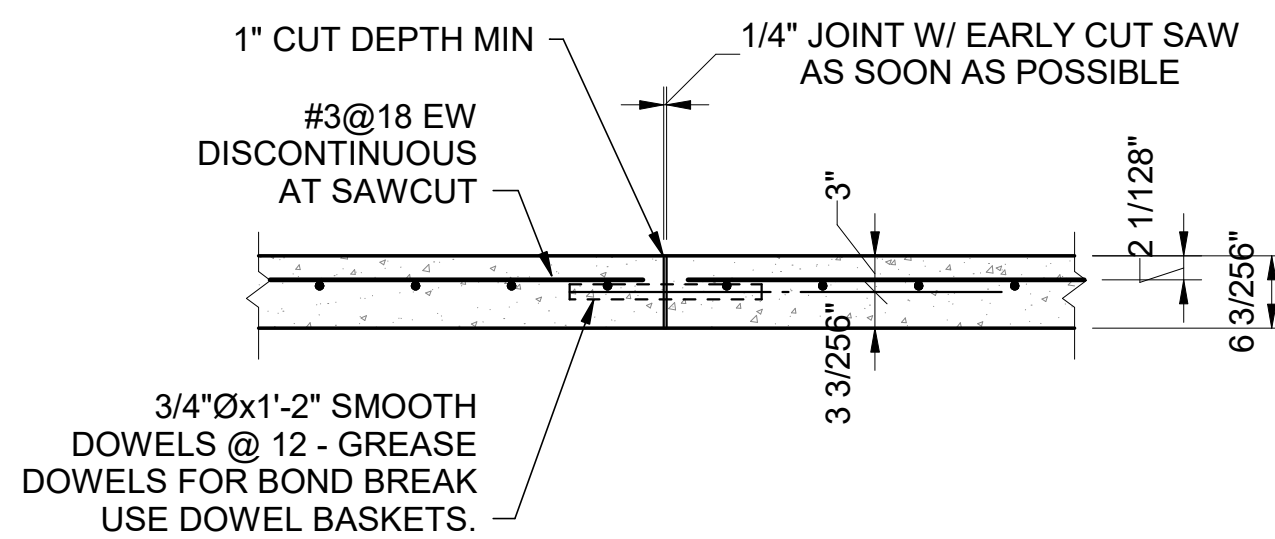


Section at Column

Column/Slab-Joint Detail



Control Joint

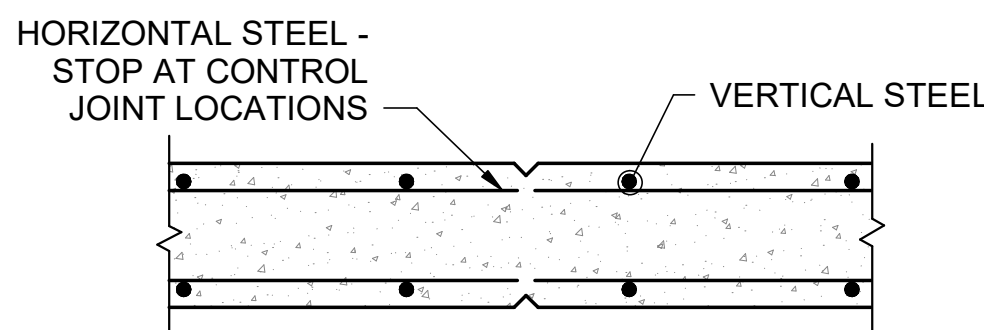


Construction Joint

- NOTES:
- CONTROL JOINT FILLER SEMI-RIGID EPOXY.
  - SAWCUT TO TAKE PLACE WITHIN 4-12 HOURS OF FINISHING CONCRETE: 4 HOURS IN HOT WEATHER, 12 HOURS IN COLD WEATHER.

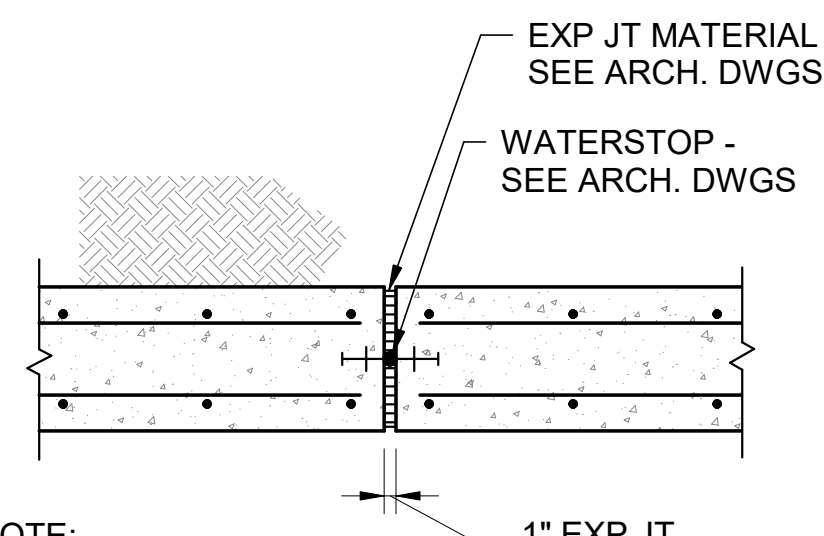
6" Slab Control Joint Detail

JOINT TYPE IS OPTIONAL



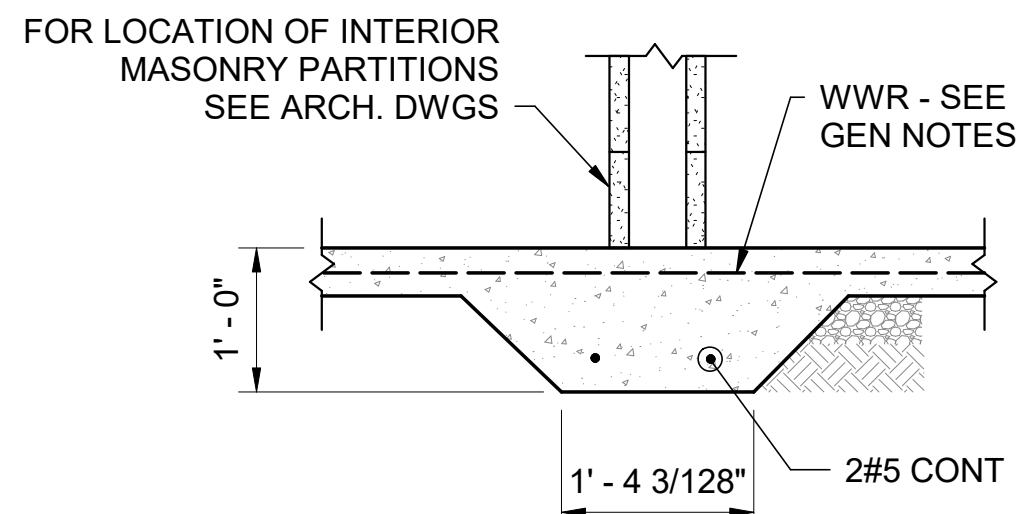
Wall Control Joint Detail

PROVIDE CONTROL JOINT AT 25'-0" MAXIMUM SPACING. SEE ARCH. DWGS FOR LOCATIONS. (ALTERNATE WITH EXPANSION JOINTS)

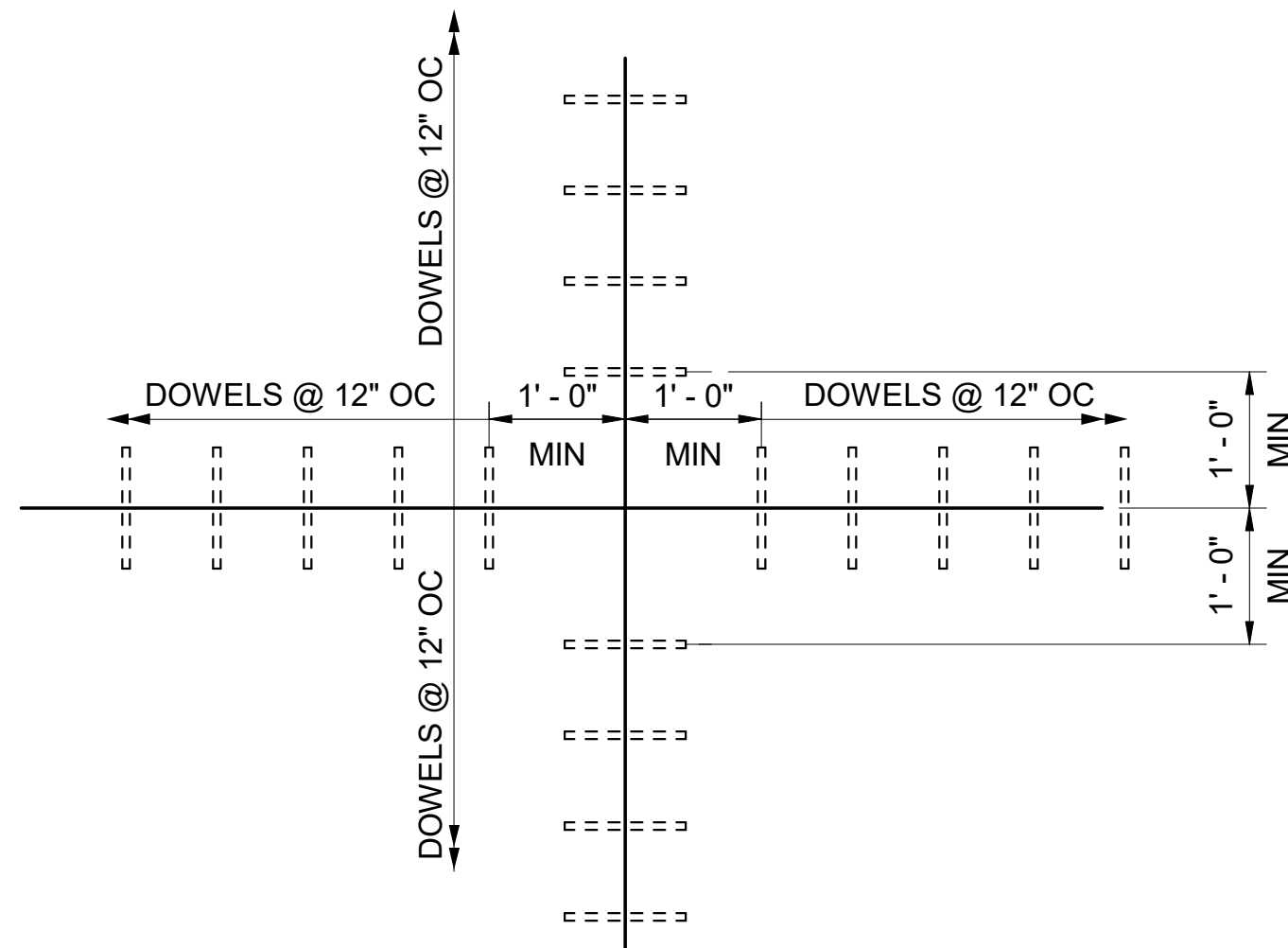


Wall Expansion Joint Detail

PROVIDE EXPANSION JOINT AT 50'-0" MAXIMUM SPACING. SEE ARCH. DWGS FOR LOCATIONS.



Thickened Slab on Grade Detail

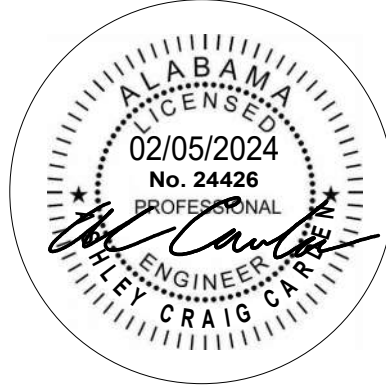


Plan at 6" Slab Control Joint



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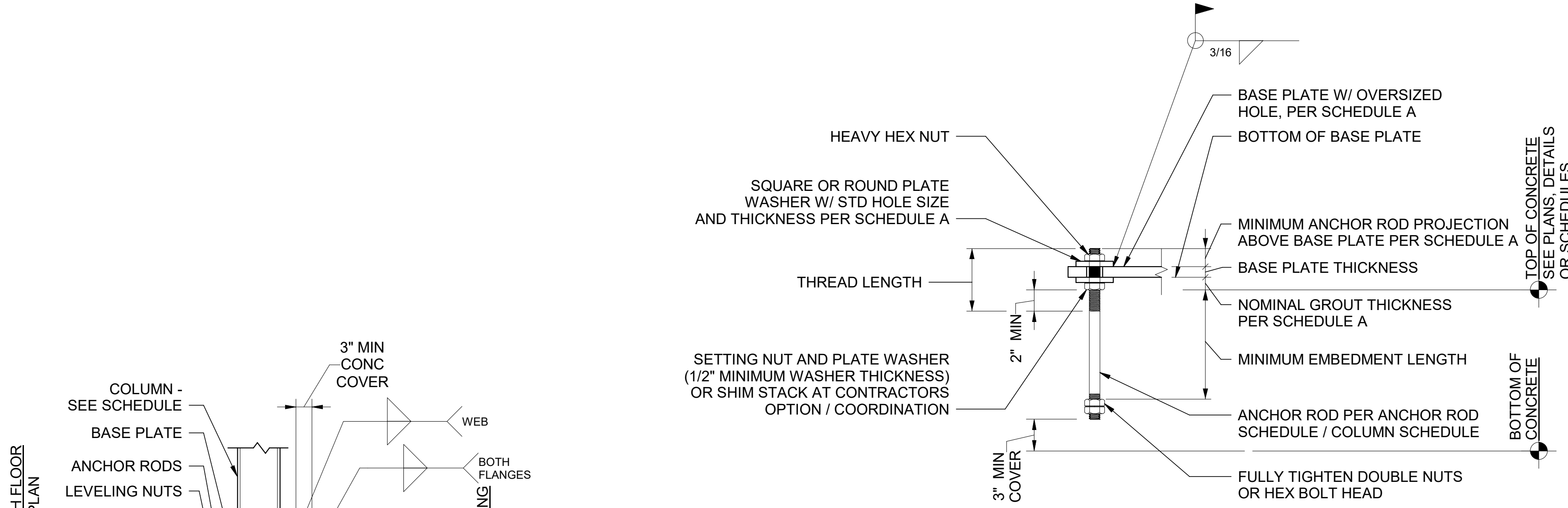
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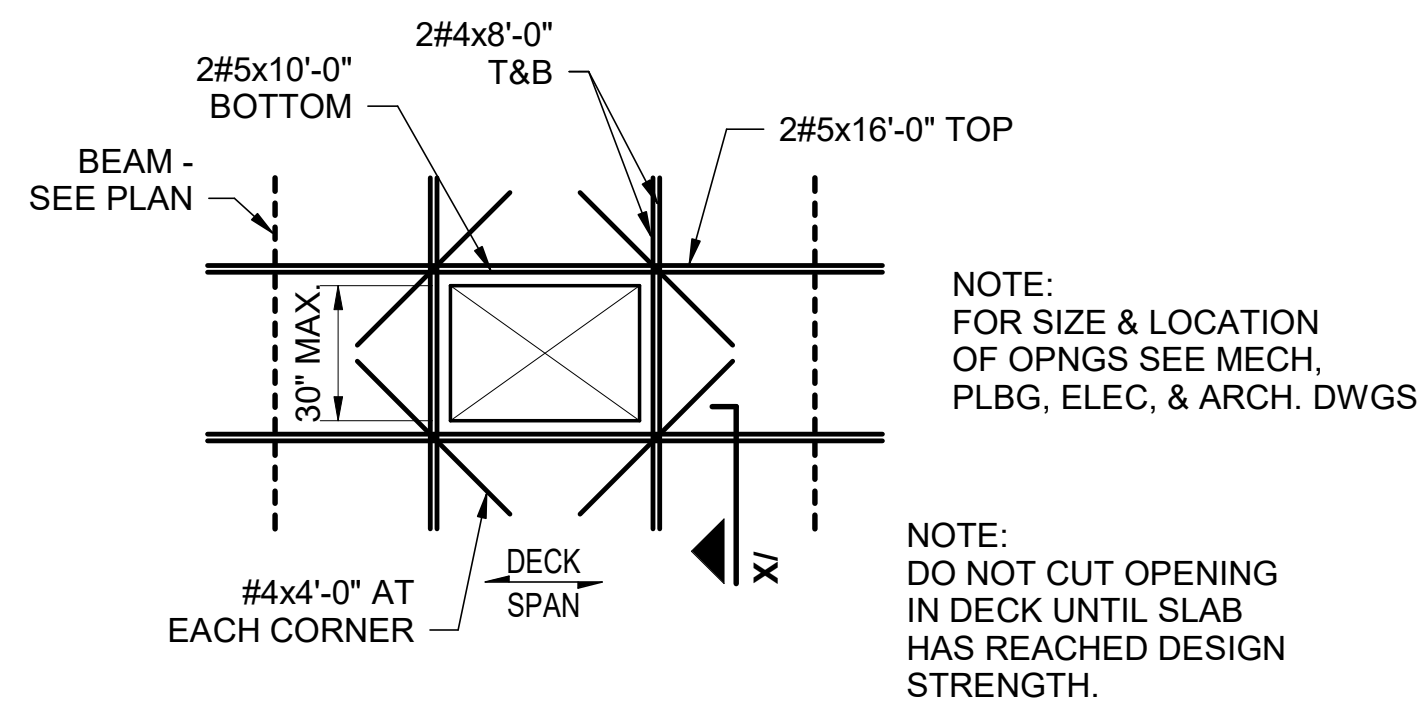


PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE TYPICAL DETAILS	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S0.07</b>	

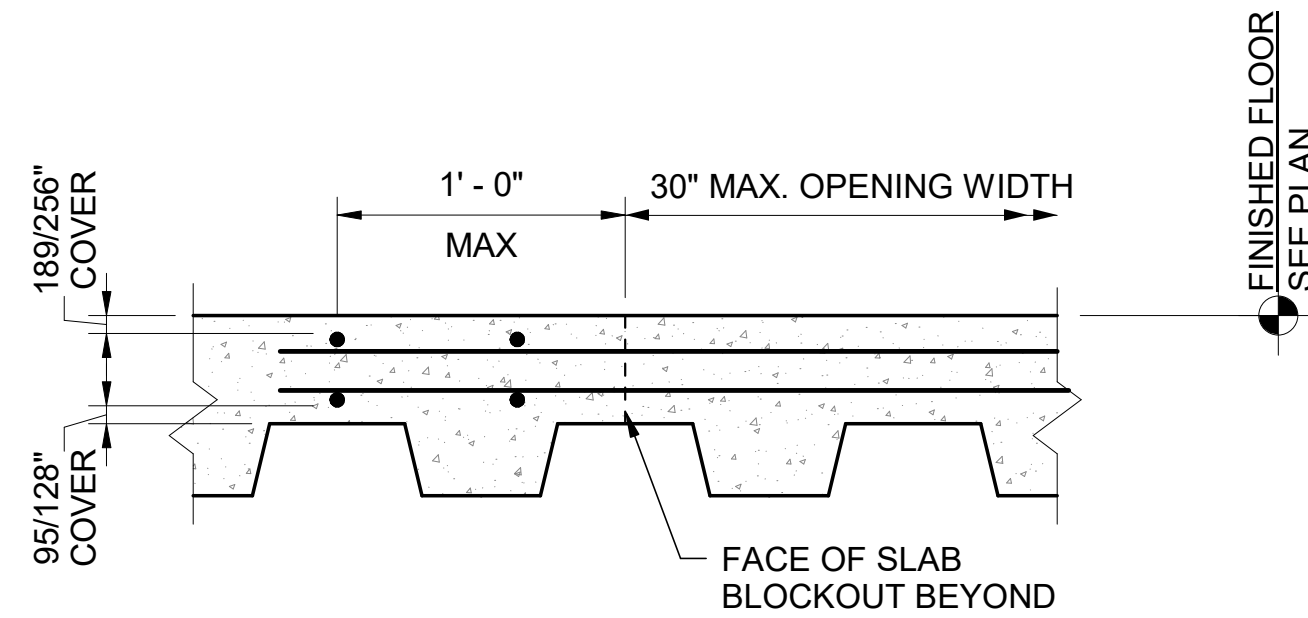


Schedule A					
ANCHOR ROD DIAMETER	BASE PL HOLE DIA	MIN WASHER SIZE	MIN WASHER t	MIN PROJ ABOVE BASE PL	NOMINAL GROUT THICKNESS
3/4"	1 5/16"	2"	1/4"	2 1/2"	1 1/2"
1"	1 13/16"	3"	3/8"	2 1/2"	1 1/2"
1 1/4"	2 1/16"	3"	1/2"	3"	3"
1 1/2"					

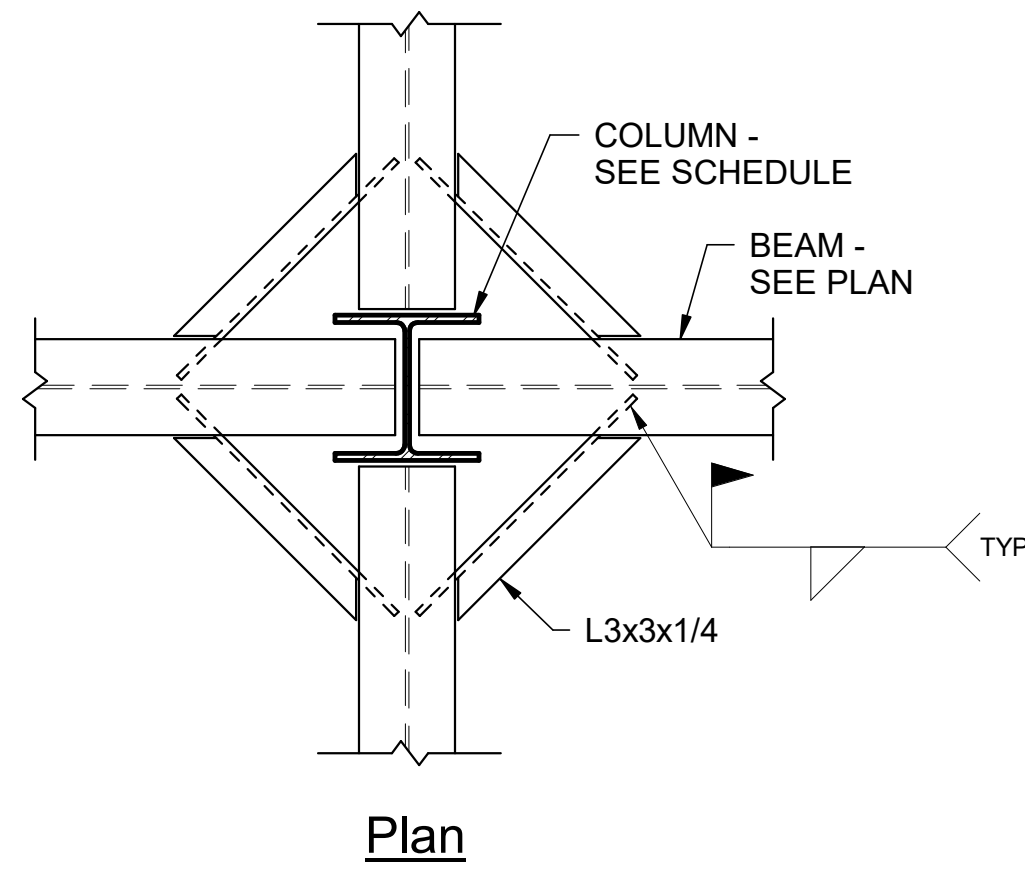
Typical Anchor Rod Detail



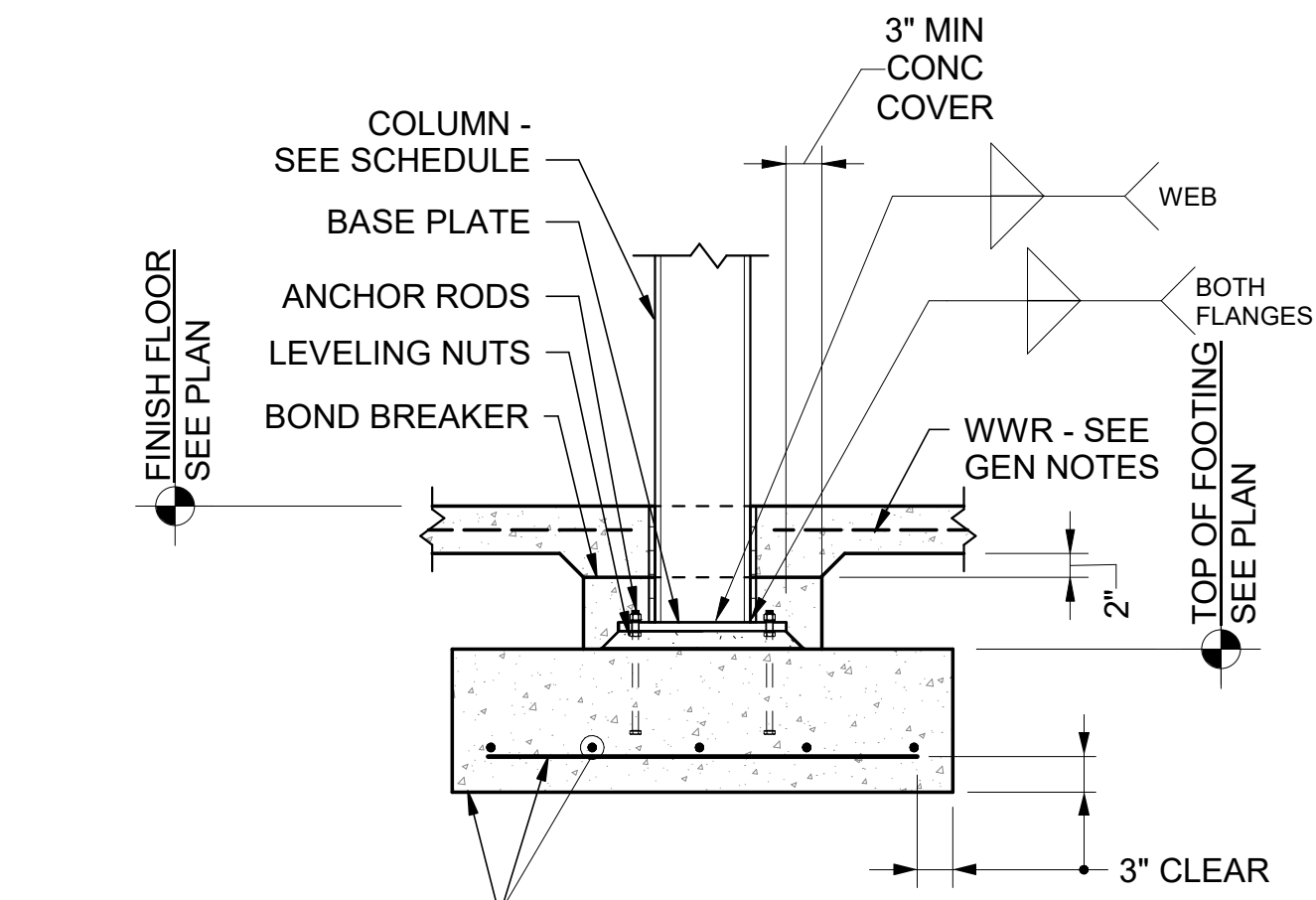
Composite Slab Opening Detail



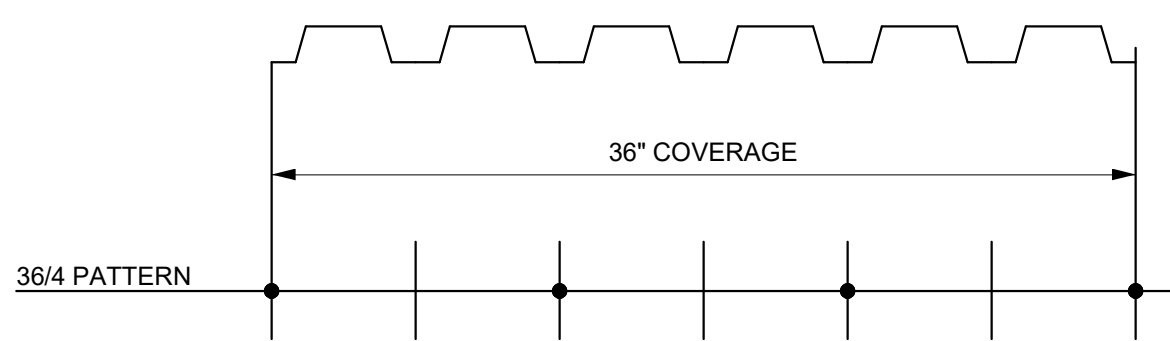
Section



Deck Support Detail



Column Base and Footing Detail

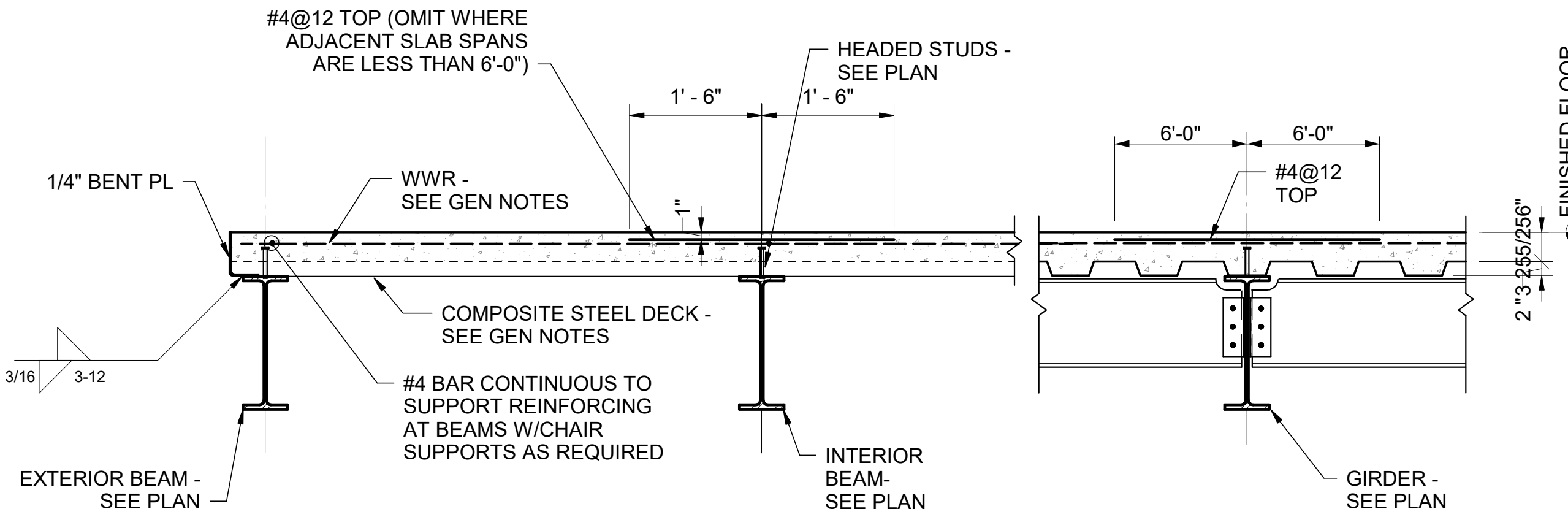


Deck Attachment Pattern Layouts

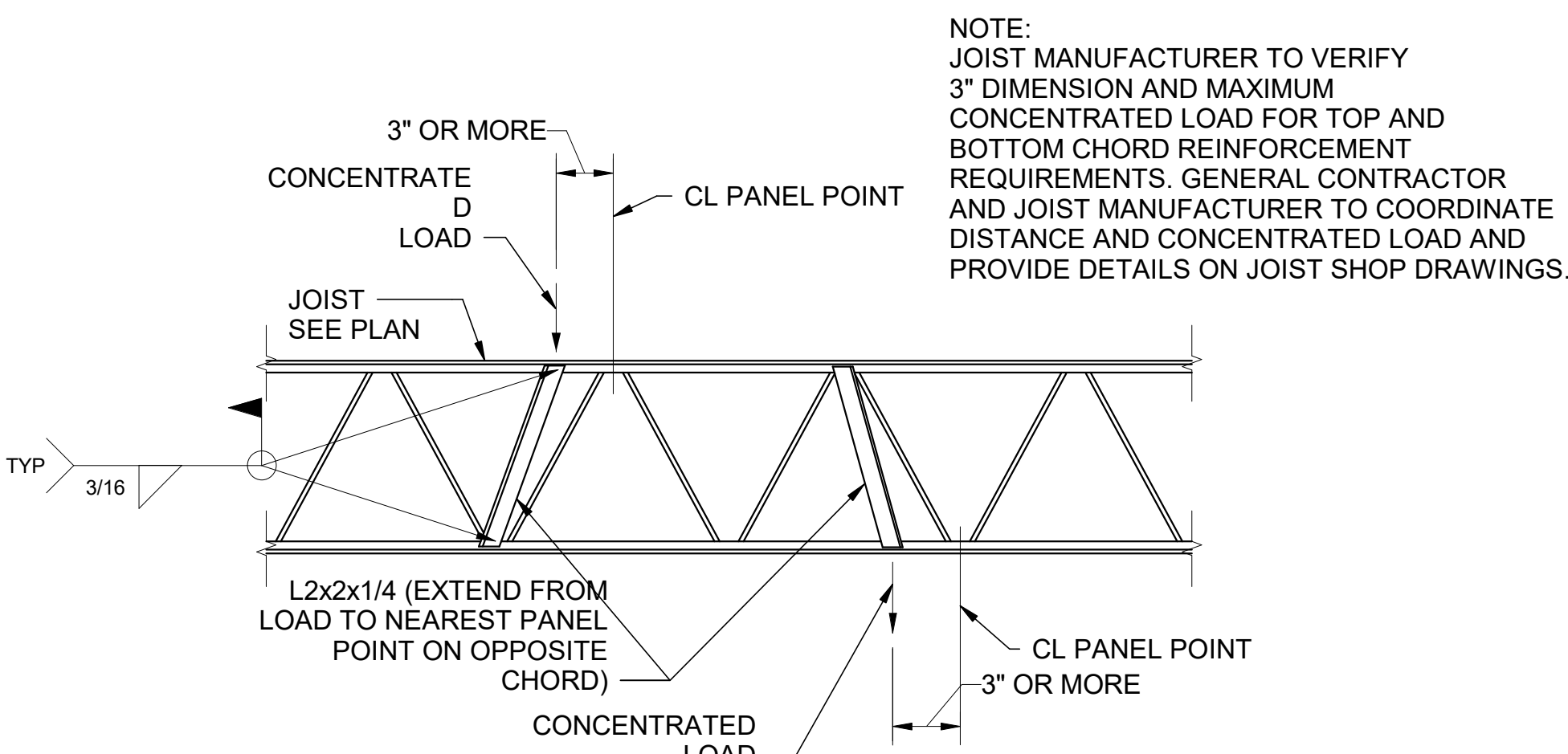
NOTE:  
SIDELAP AND PERIMETER DECK EDGE FASTENERS ARE TO BE INSTALLED BETWEEN SUPPORTS.

DECK ATTACHMENT AT DECK ON STEEL JOISTS AND BEAMS: 5/8"Ø PUDDLE WELDS W/ (5)#10 SCREW SIDE LAPS PER SPAN

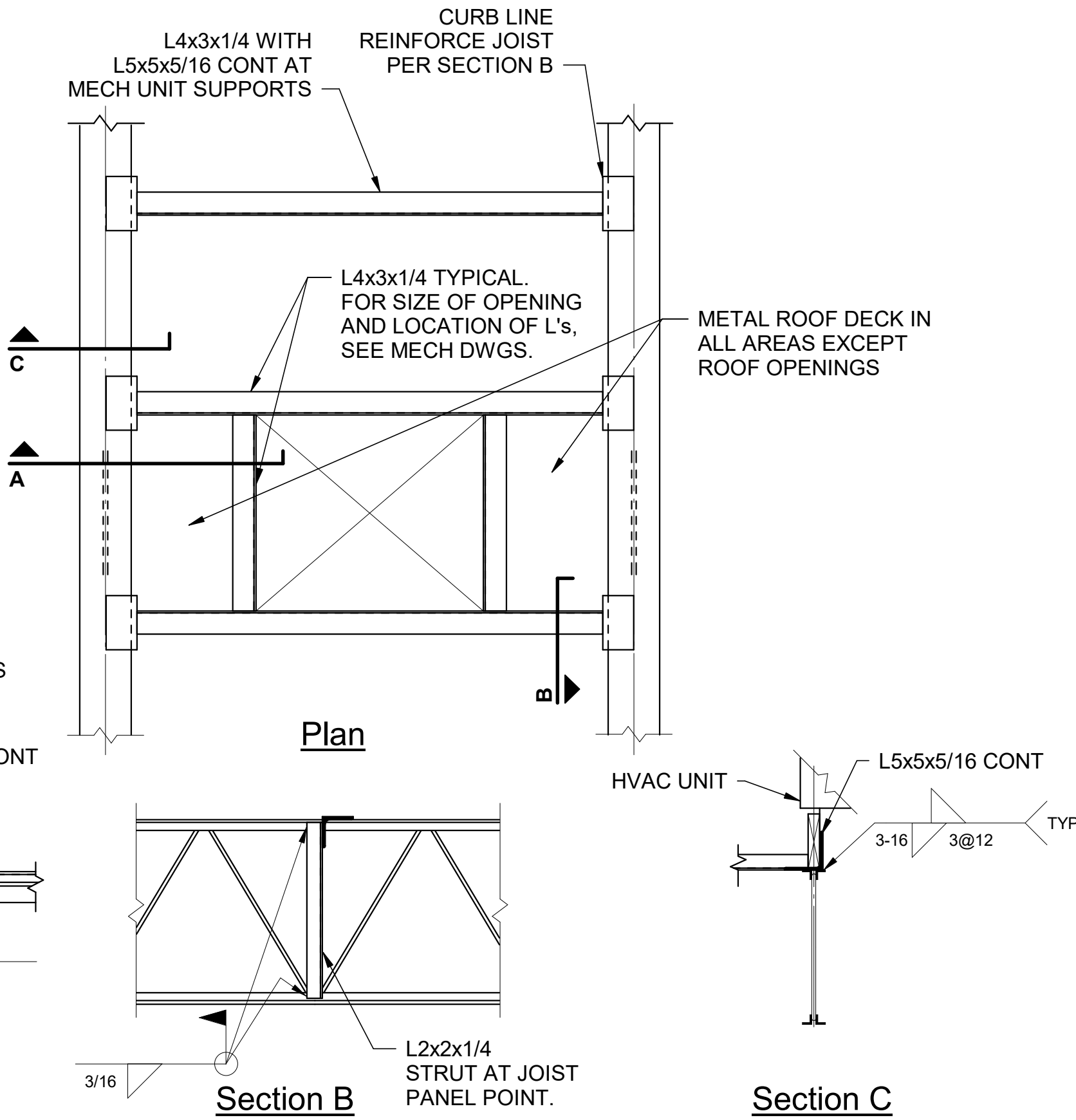
NOTE:  
AT BRIDGE THE DECK CONSTRUCTION IS 3" CONCRETE + 3" DECK = 6" TOTAL



Composite Slab/Deck Details

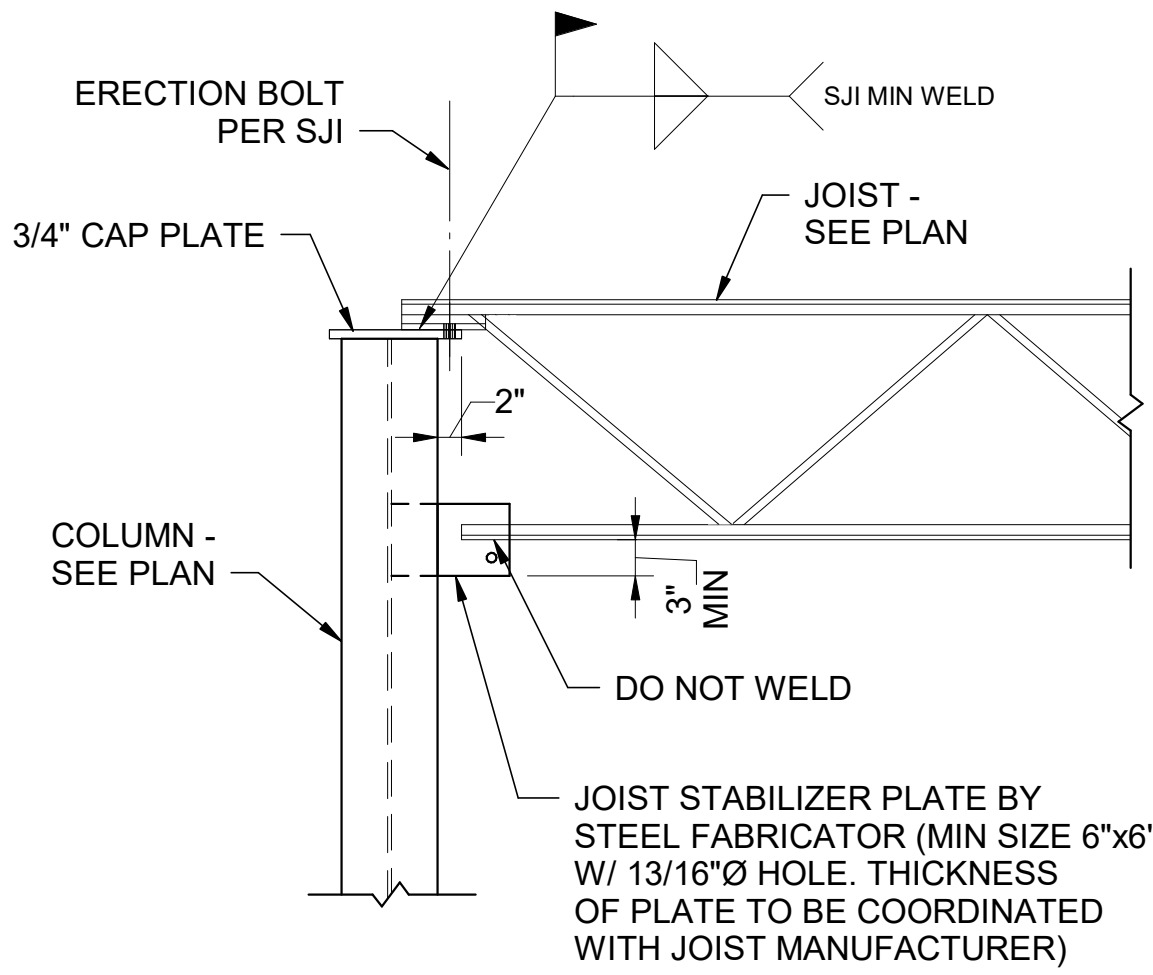


Joist Reinforcement Detail

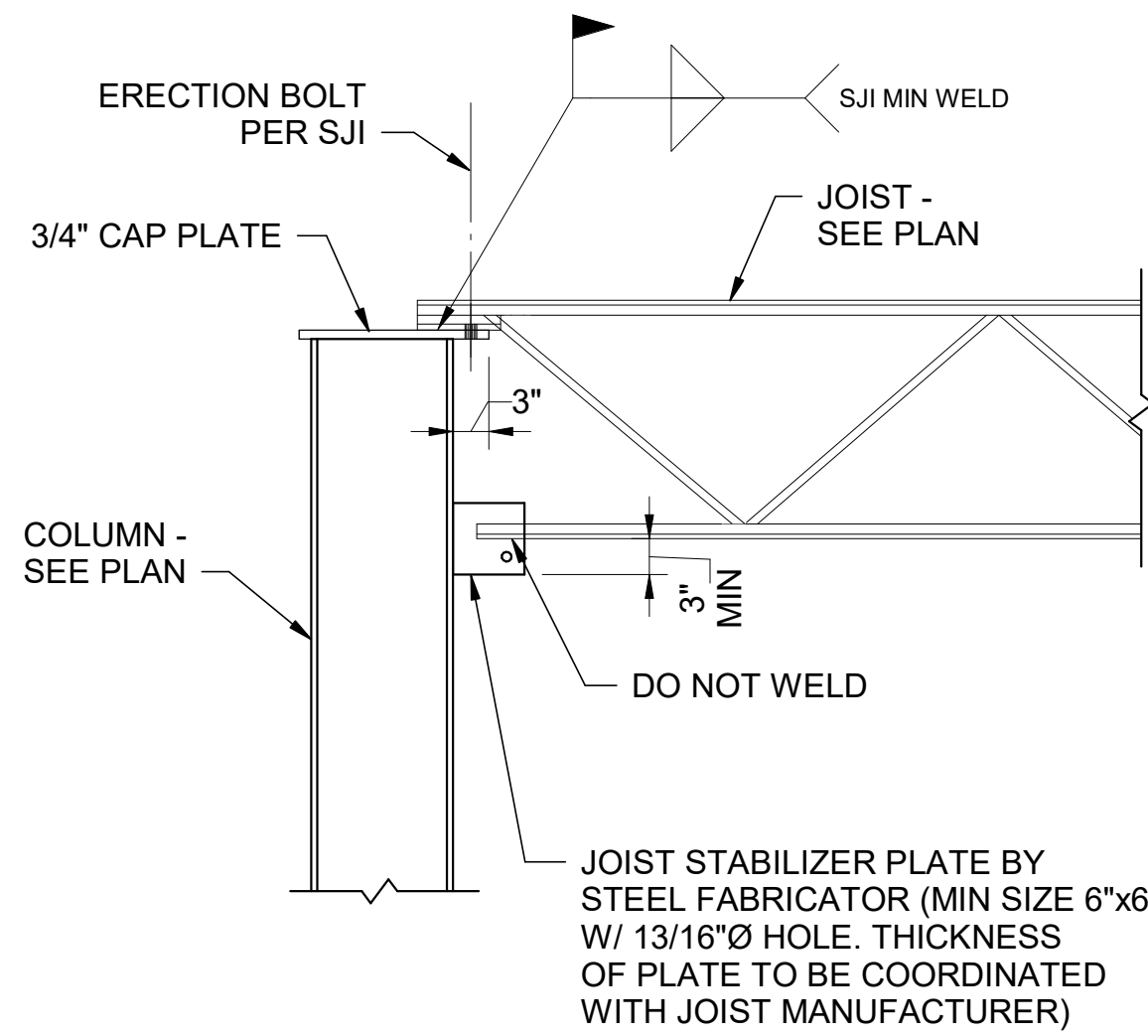


Roof Equipment and Opening Frame Detail

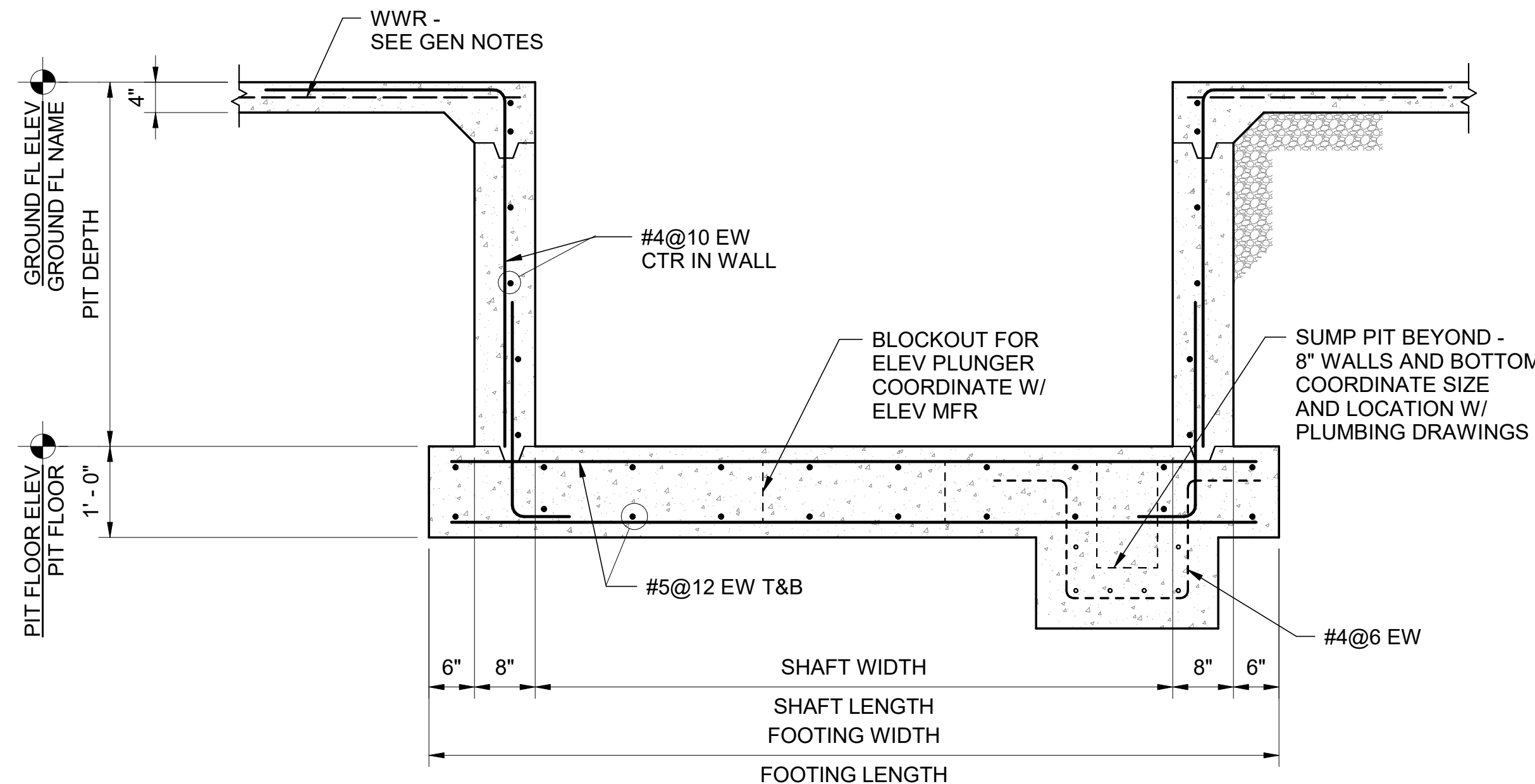
At All Openings in Roof Larger Than 8"



Joist Bearing at Top of Column



Joist Bearing at Top of Column

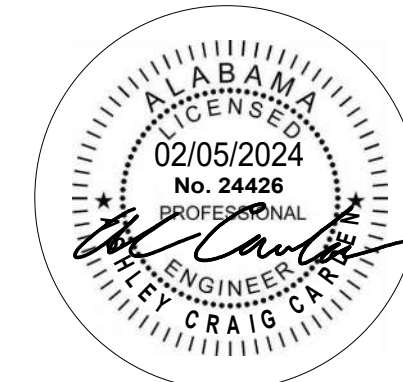


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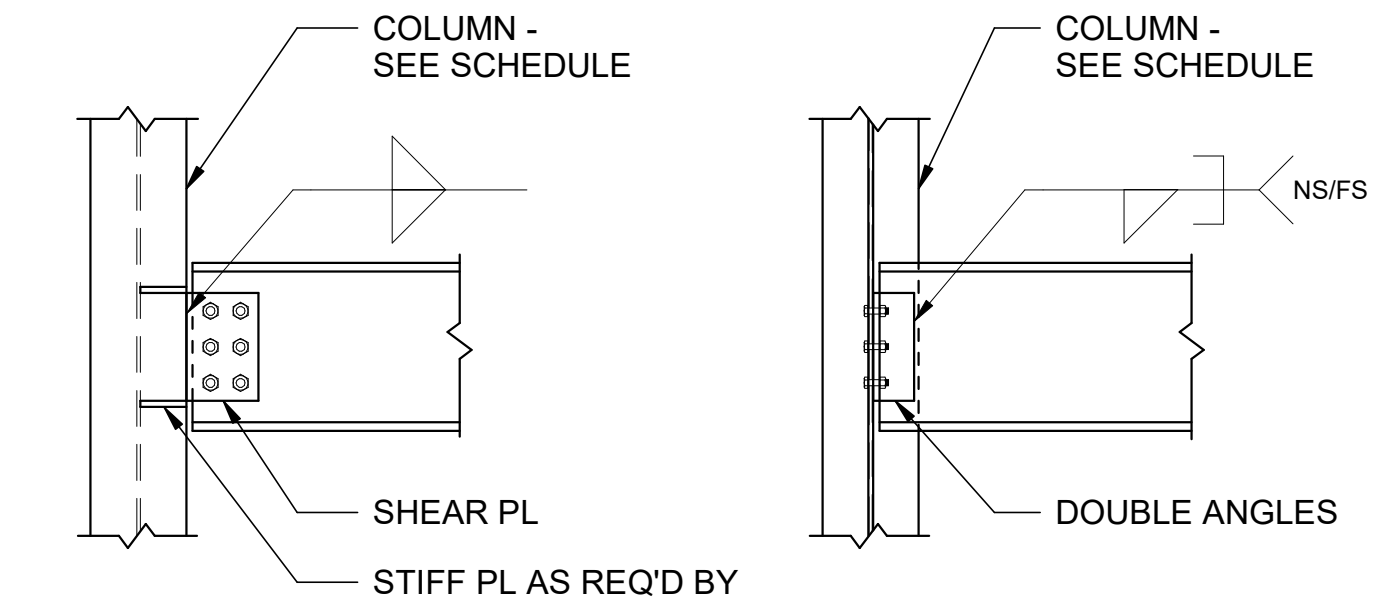
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PROJECT ADDRESS  
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Huntsville, AL 35805



PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
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DRAWING TITLE TYPICAL DETAILS	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S0.08</b>	

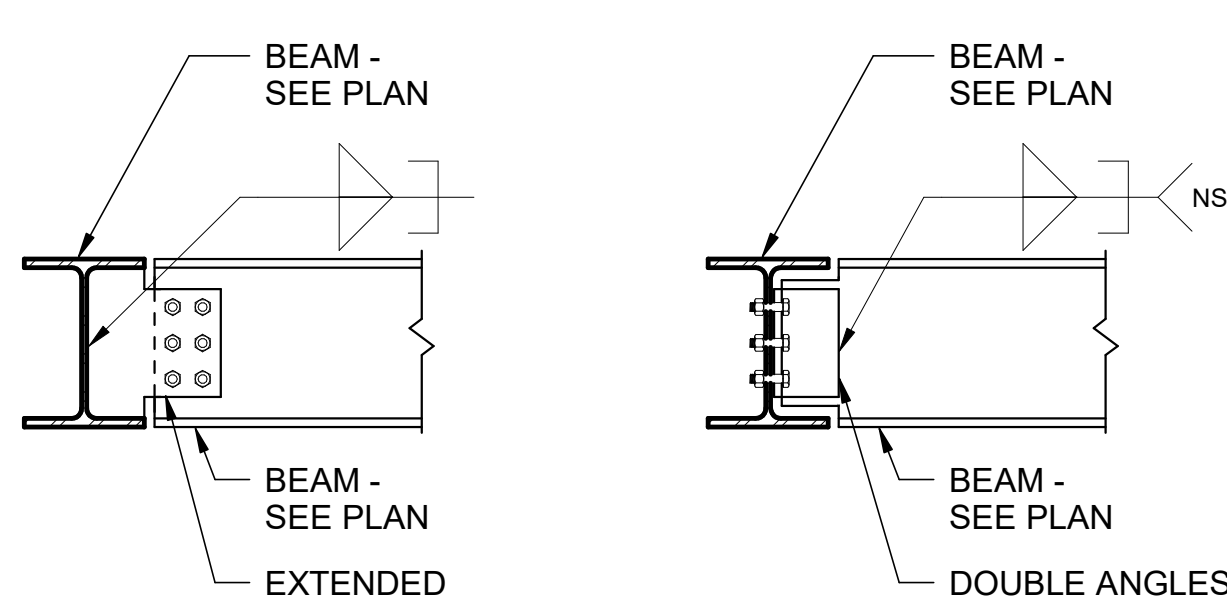


Extended Shear Plate

NOTE:  
MINIMUM 1/2" THICK  
SHEAR PLATE.

Double Angles

NOTE:  
MINIMUM 5/16" THICK ANGLES.

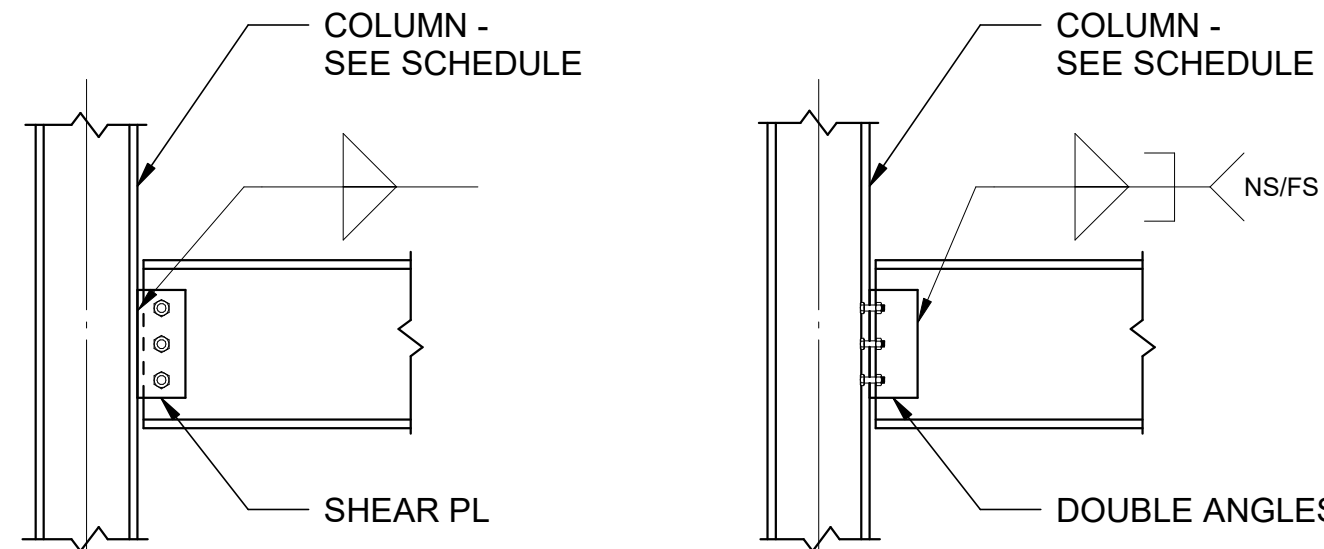


Extended Shear Plate

NOTE:  
MINIMUM 1/2" THICK  
SHEAR PLATE.

Double Angles

NOTE:  
MINIMUM 5/16" ANGLES.

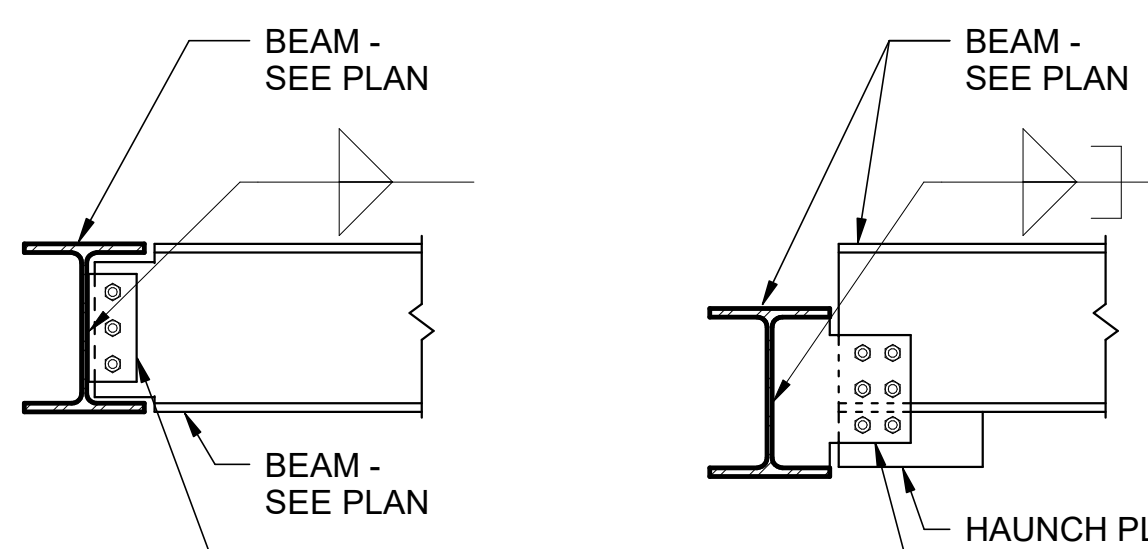


Shear Plate

NOTE:  
MINIMUM 3/8" THICK  
SHEAR PLATE.

Double Angles

NOTE:  
MINIMUM 5/16" THICK ANGLES.



Shear Plate

NOTE:  
MINIMUM 3/8" THICK  
SHEAR PLATE.

Haunched Extended  
Shear Plate

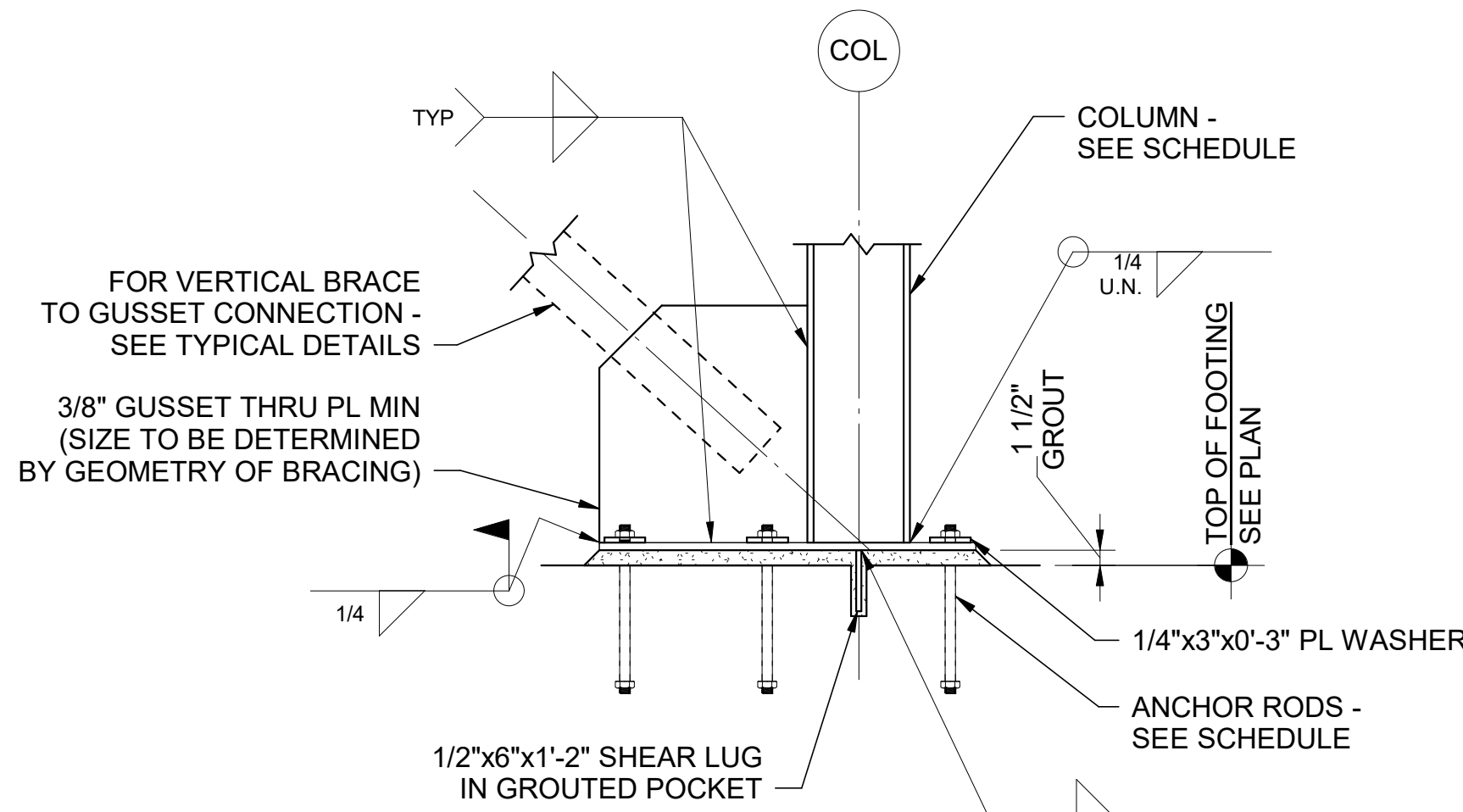
NOTE:  
MINIMUM 1/2" THICK  
SHEAR PLATE.

Beam to Column  
Connection Detail

NOTE:  
THESE DETAILS ARE SCHEMATIC  
AND ARE NOT A COMPLETE DESIGN.  
DESIGN IS BY FABRICATOR/  
CONNECTION ENGINEER.

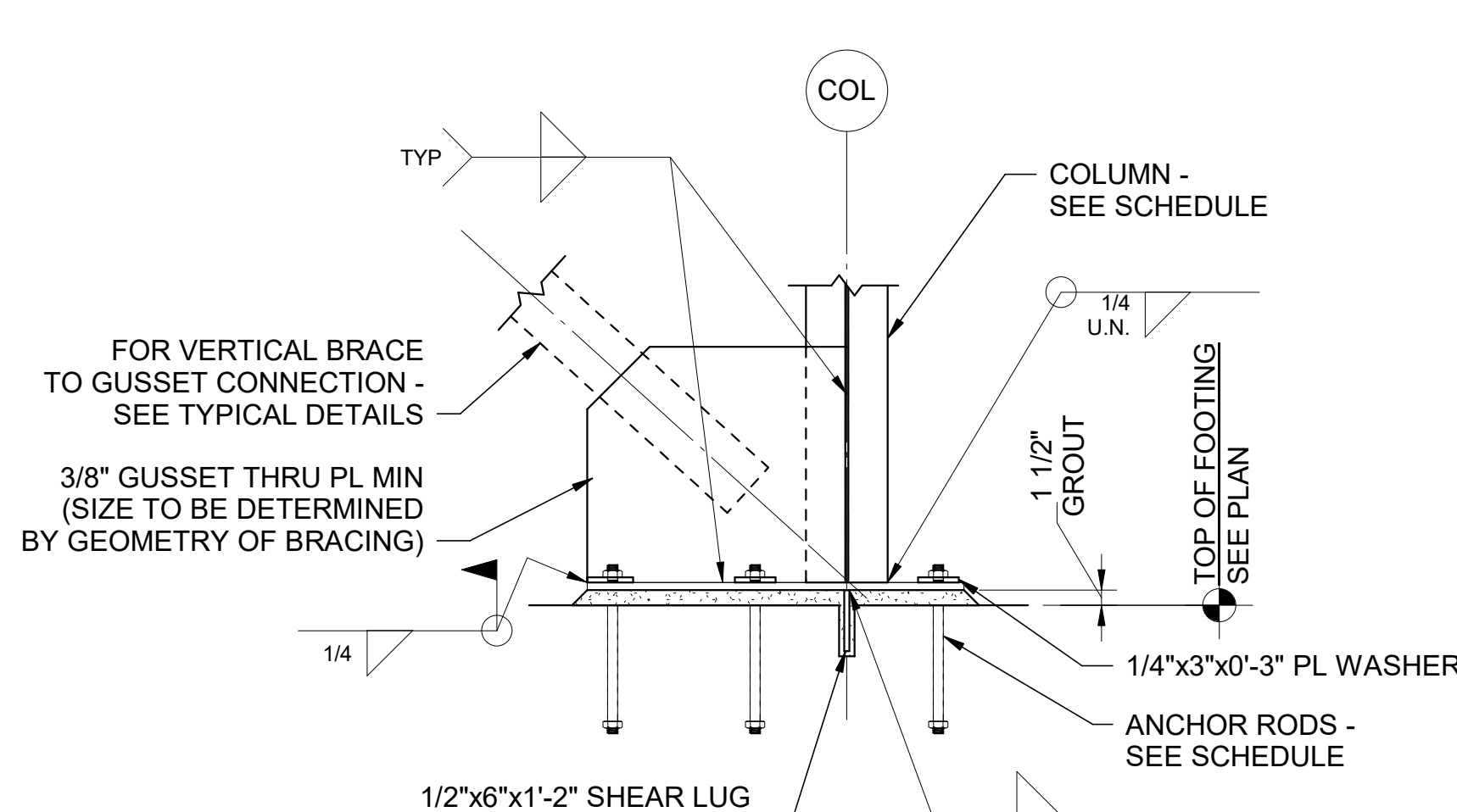
Beam to Beam  
Connection Detail

NOTE:  
THESE DETAILS ARE SCHEMATIC  
AND ARE NOT A COMPLETE DESIGN.  
DESIGN IS BY FABRICATOR/  
CONNECTION ENGINEER.



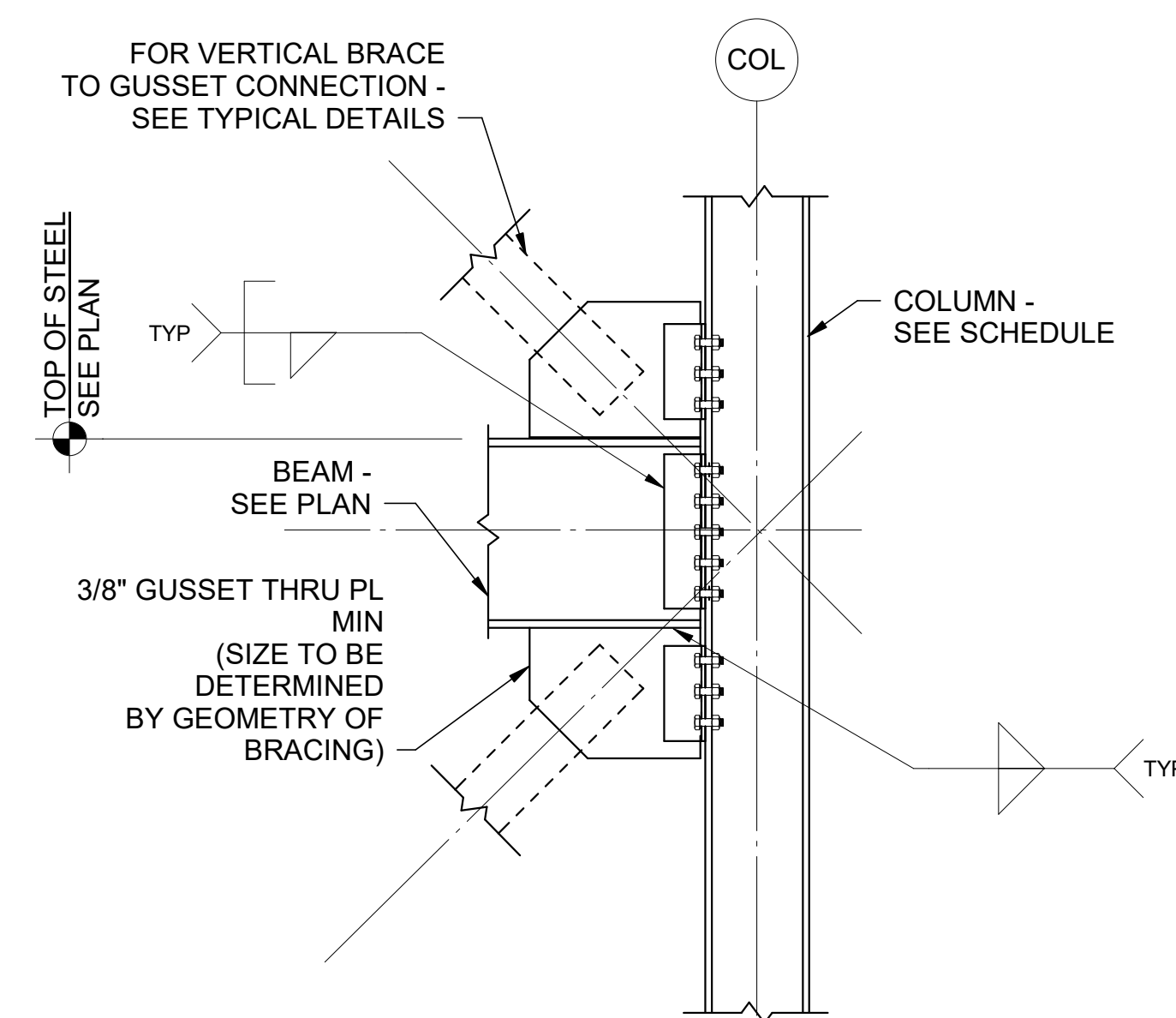
Brace Base Plate Detail

NOTE:  
1. THIS DETAIL IS SCHEMATIC AND IS NOT A  
COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.  
2. SLAB NOT SHOWN FOR CLARITY



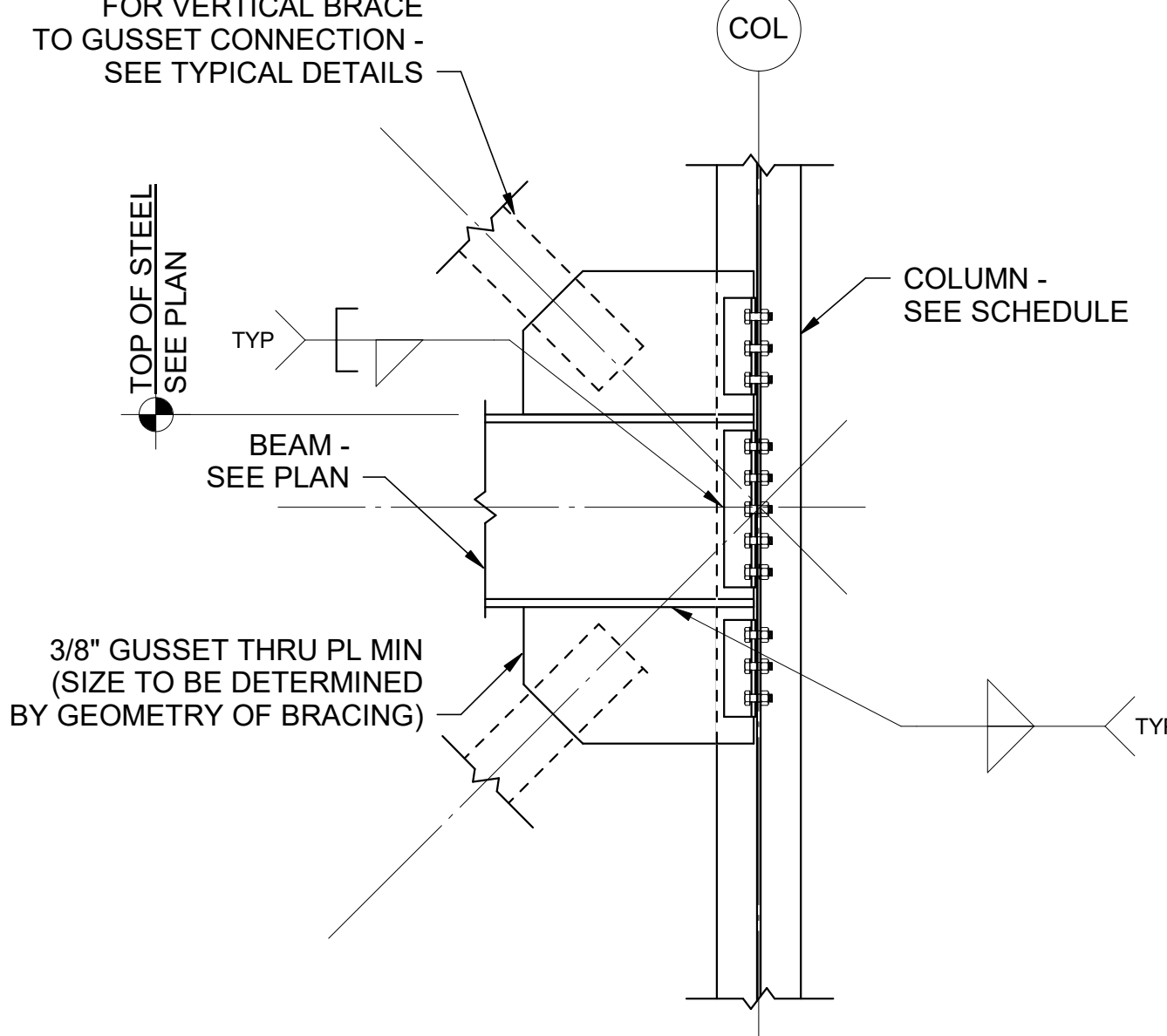
Brace Base Plate Detail

NOTE:  
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COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.  
2. SLAB NOT SHOWN FOR CLARITY



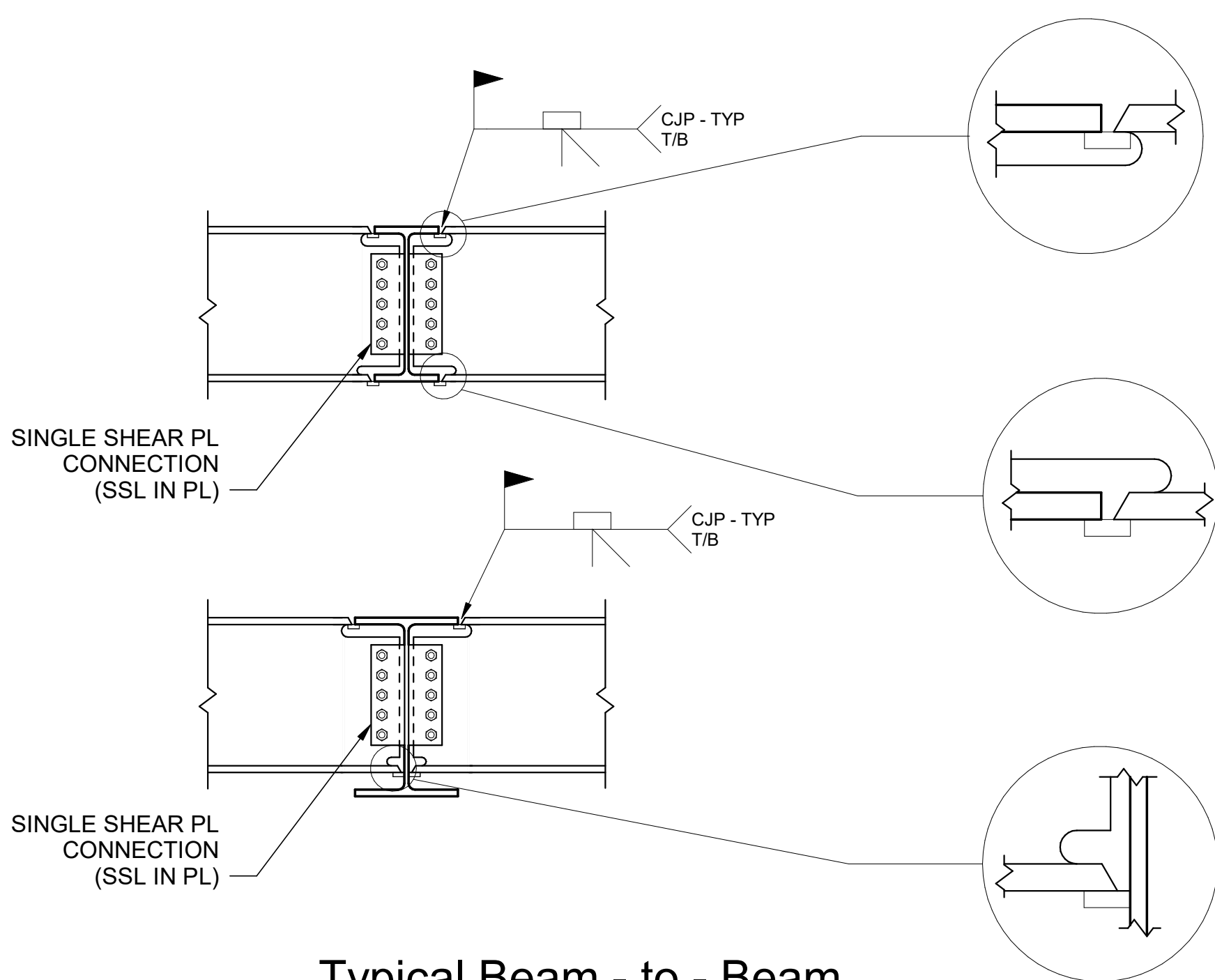
Vertical Brace Joint Connection Detail

NOTE:  
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COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.



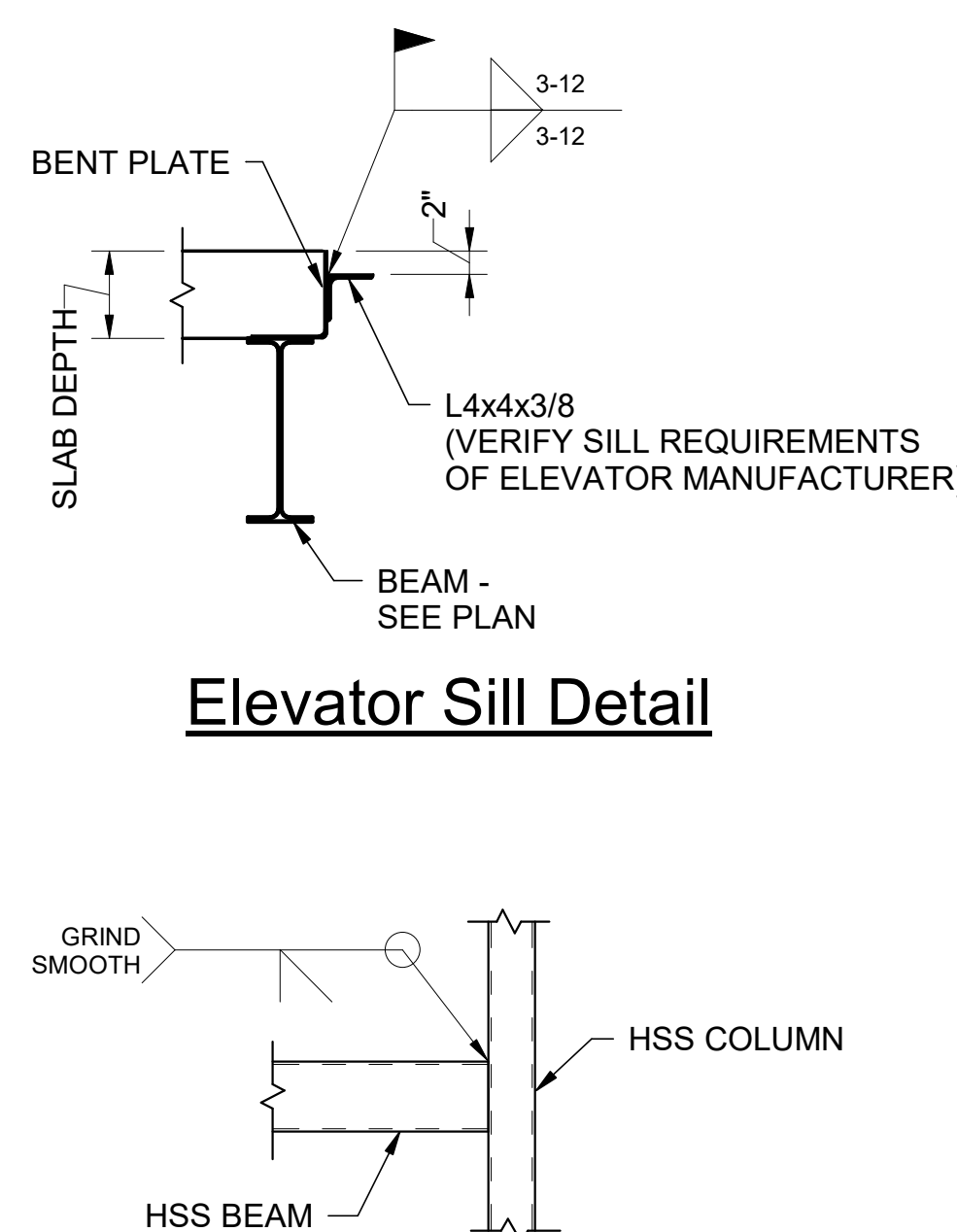
Vertical Brace Joint Connection Detail

NOTE:  
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COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.

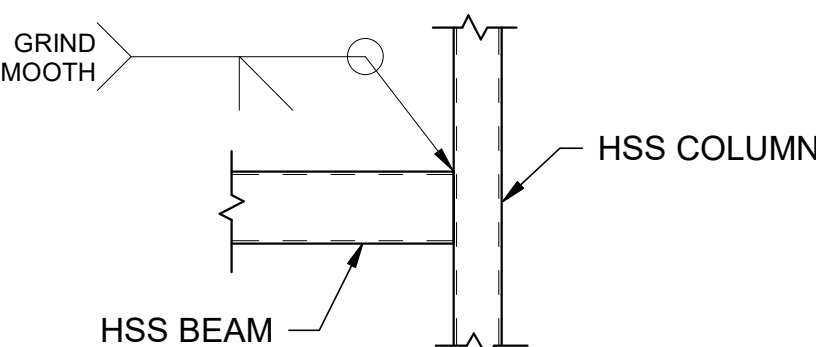


Typical Beam - to - Beam  
Moment Connection Details

NOTES:  
1. SEE PLAN FOR MOMENT CONNECTION LOCATIONS.  
2. ENSURE FULL PENETRATION OF SUPPORTED BEAM FLANGE.

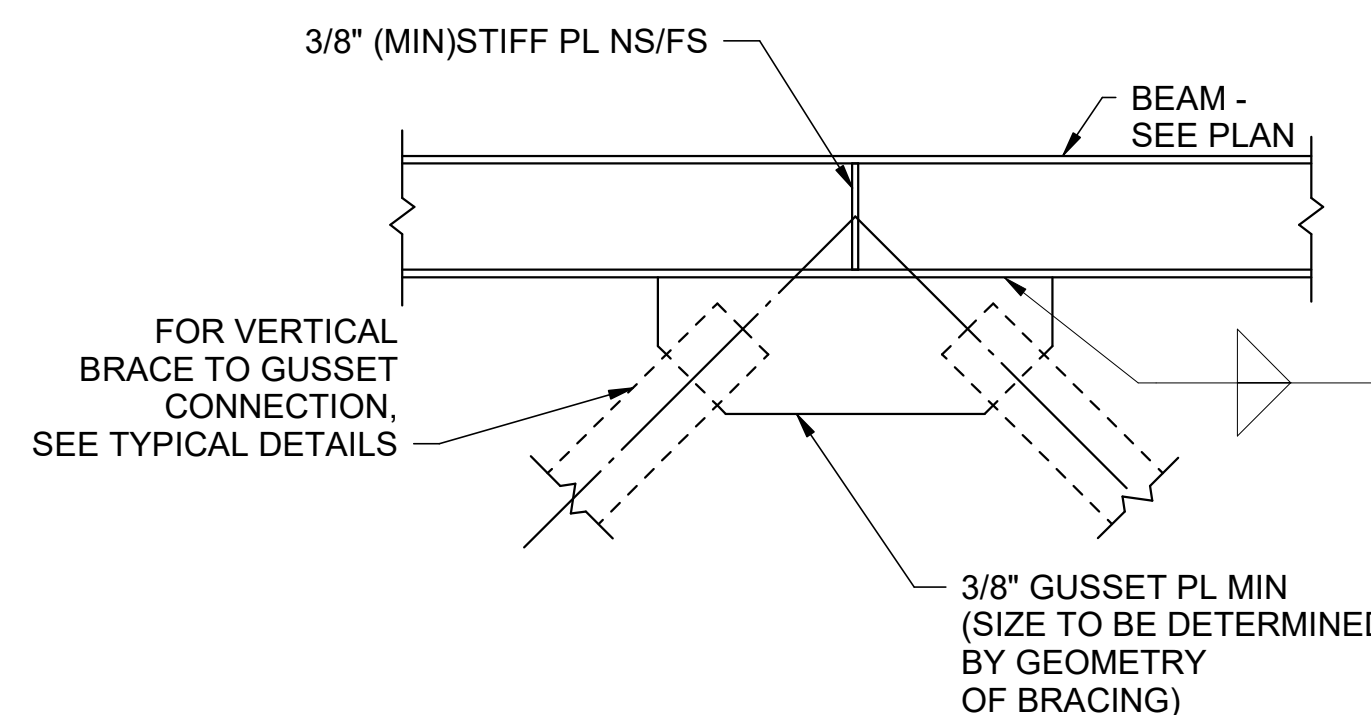


Elevator Sill Detail



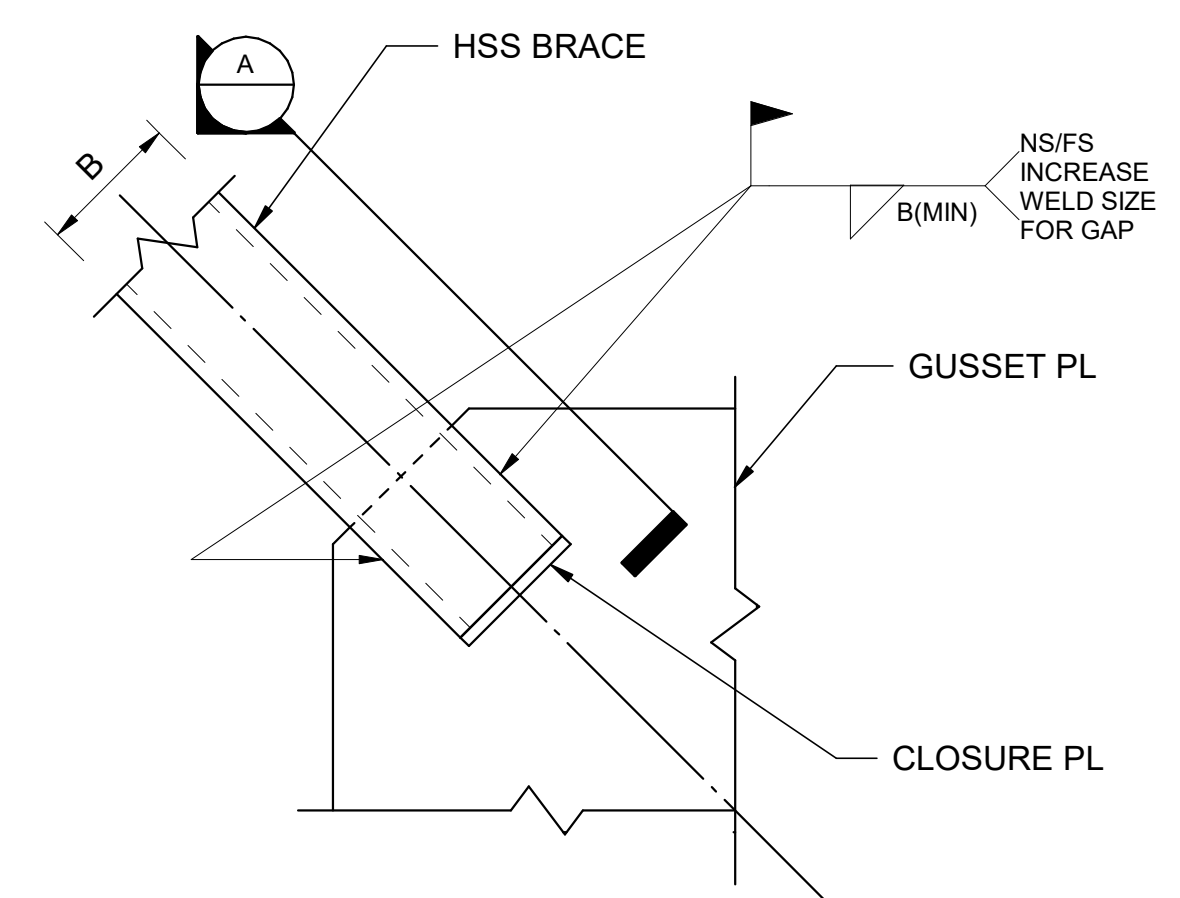
Elevator Frame Connection

NOTE:  
FOR FRAMING  
CONFIGURATION  
SEE ARCH.

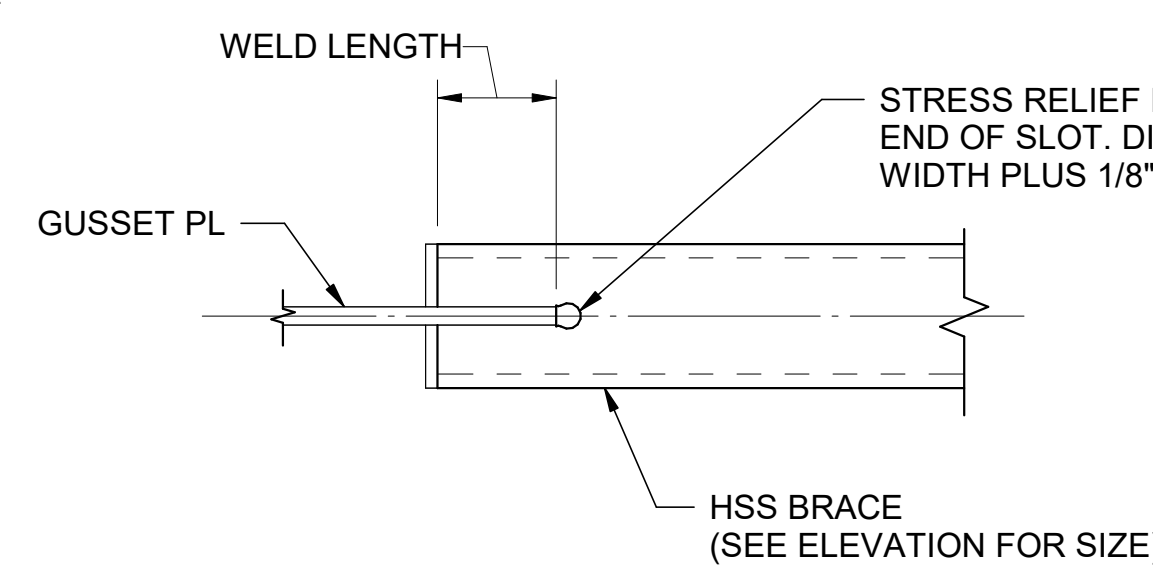


Concentric Brace Connection To Beam

NOTE: THIS DETAIL IS SCHEMATIC AND IS NOT A  
COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.



Elevation

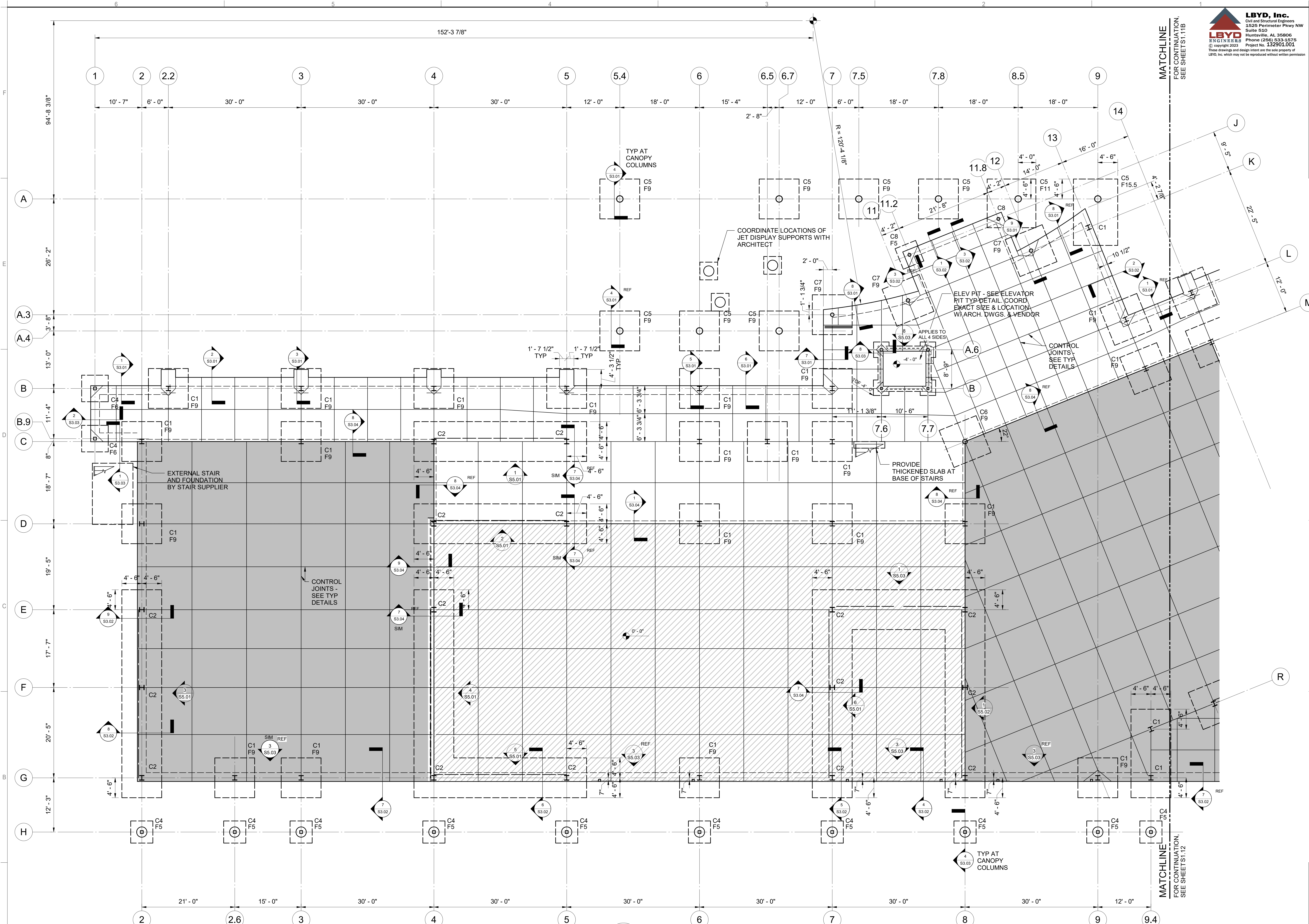


Section A

HSS Brace To Gusset Connection

NOTE:  
THIS DETAIL IS SCHEMATIC AND IS NOT  
A COMPLETE DESIGN. DESIGN IS BY  
FABRICATOR/CONNECTION ENGINEER.





Structural Column Schedule				
DESIGNATION	SIZE	BASE PLATE	ANCHOR RODS	NOTES
C1	W12x79	3/4x20x1'-8"	(4) X"Φ - XX" EMBED.	
C2	W12x120	1x20x2'-4"	(6) X"Φ - XX" EMBED.	1, 2, 3, 4
C3	W8x40	3/4x16x1'-4"	(4) X"Φ - XX" EMBED.	
C4	HSS8x8x1/4	1x16x1'-4"	(4) X"Φ - XX" EMBED.	
C5	HSS18x0.500	1 1/4x20x1'-8"	(4) X"Φ - XX" EMBED.	1, 2, 3
C6	HSS12.75x0.500	1x20x1'-8"	(4) X"Φ - XX" EMBED.	
C7	HSS10x0.500	3/4x18x1'-6"	(4) X"Φ - XX" EMBED.	
C8	HSS8.625x0.500	3/4x16x1'-4"	(4) X"Φ - XX" EMBED.	1, 2

COLUMN SCHEDULE NOTES:  
1. PROVIDE PLATE WASHERS AT NOTED COLUMN ANCHOR RODS.  
2. WELD COLUMN TO BASE PLATE W/ 5/16" WELDS.  
3. ANCHOR RODS AT NOTED COLUMNS SHALL BE F1554 GRADE 55  
4. BASE PLATES AND ANCHOR LAYOUTS AT NOTED COLUMNS SHALL BE PER THE BRACE BASE PLATE DETAILS



### Foundation Plan - Part A

- 1/8" = 1'-0"
- FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
  - TOP OF INTERIOR FOOTING -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
  - TOP OF EXTERIOR FOOTING -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
  - FOR SLAB ON GRADE CONSTRUCTION, SEE GENERAL NOTES AND TYPICAL DETAILS
  - SLAB THICKNESS 0'-4", UNLESS NOTED WITH HATCH ON PLAN.  
HATCH DENOTES 8" SLAB.
  - FOR SLAB RECESS AND RAMP LOCATION, SEE ARCHITECTURAL DRAWINGS.
  - GENERAL CONTRACTOR SHALL COORDINATE TILE JOINT LOCATIONS WITH CONTROL JOINTS.
  - FOOTING STEP ELEVATIONS AND LOCATION ARE APPROXIMATE. GENERAL CONTRACTOR SHALL COORDINATE ALL FOOTING STEPS WITH CIVIL, PLUMBING AND UTILITY DRAWINGS.

Structural Foundation Schedule						
DESIGNATION	LENGTH	WIDTH	THICKNESS	TOP REINF	BOTTOM REINF	NOTES
F3.5	3'-6"	3'-6"	1'-0"	---	---	
F4	4'-0"	4'-0"	1'-0"	---	---	
F5	5'-0"	5'-0"	1'-6"	6#5 EW	6#5 EW	
F6	6'-0"	6'-0"	1'-6"	---	7#6 EW	
F9	9'-0"	9'-0"	1'-6"	---	9#6 EW	
F11	11'-0"	11'-0"	2'-0"	---	9#6 EW	
F13.5	13'-6"	13'-6"	2'-0"	---	14#7 EW	
F15.5	15'-0"	10'-0"	2'-0"	---	9#6 EW	

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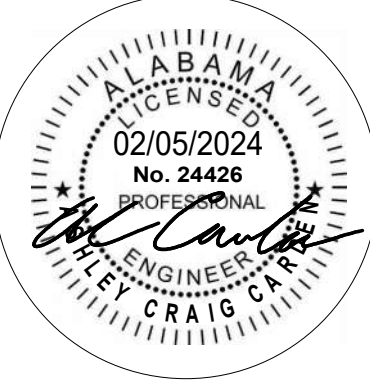
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PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	Date
No. Description	
DRAWING TITLE <b>FOUNDATION AND FIRST FLOOR PLAN - PART A</b>	
DRAWN BY: RST/GVA CHECKED BY: KLL	
PROJECT NUMBER <b>225029-00</b>	
DRAWING NO. <b>S1.11</b>	



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No.	Description	Date
DRAWING TITLE		
FOUNDATION AND FIRST FLOOR PLAN - PART B		
DRAWN BY:		RST/GWA
CHECKED BY:		KLL
PROJECT NUMBER		
225029-00		
DRAWING NO.		S1.12



1. PLAN NOTES SEE SHEET S1.11A.



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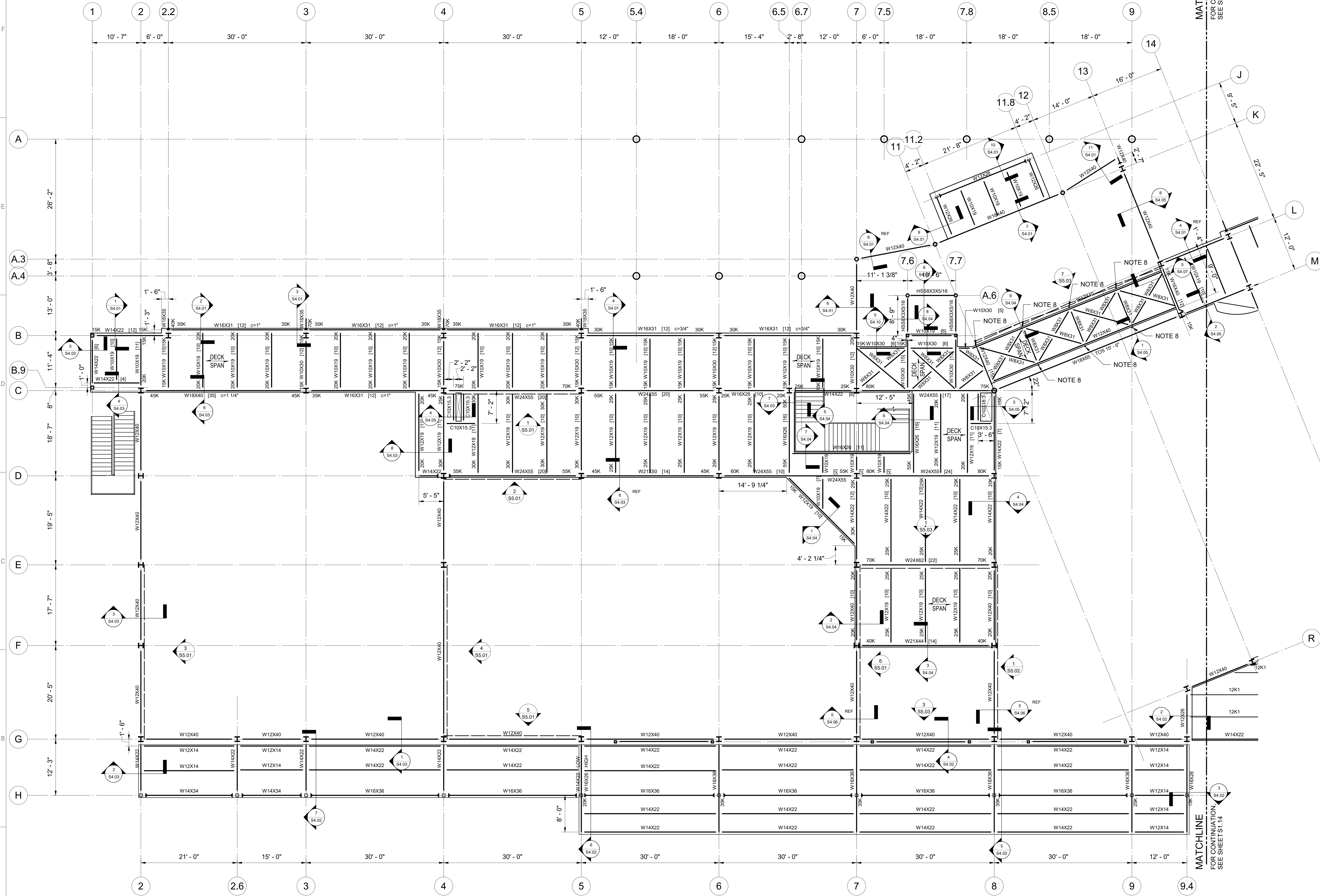
# USSRC - INSPIRATION 4 TRAINING FACILITY

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Huntsville, AL 35800



PROJECT STATUS: ISSUED:		BID SET
ISSUE DATE:	FEBRUARY 05, 2024	
REVISIONS		
No.	Description	Date
DRAWING TITLE <b>SECOND FLOOR FRAMING PLAN - PART A</b>		
DRAWN BY:	RST/GVA	
CHECKED BY:	KLL	
PROJECT NUMBER <b>225029-00</b>		
		DRAWING NO. <b>S1.13</b>



## Second Floor Framing Plan - Part A

1/8" = 1'-0"

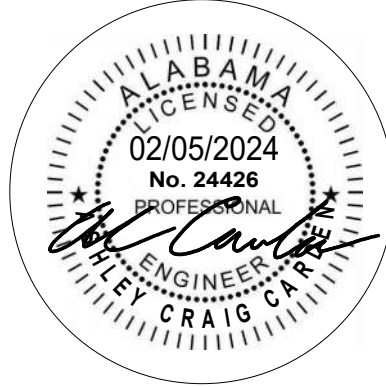
1. FINISH FLOOR (TOP OF SLAB) ELEVATION 16'-0", UNLESS NOTED.
2. TOP OF STEEL ELEVATION 15'-6", UNLESS NOTED.
3. FLOOR SYSTEM: 4" CONCRETE SLAB ON 2" COMPOSITE STEEL DECK (6" TOTAL).  
SEE GENERAL NOTES.
4. SPACE BEAMS EQUALLY BETWEEN COLUMN CENTERLINES AND DIMENSIONED BY LOCATIONS, UNLESS NOTED.
5. STEEL BEAM CAMBERS INDICATED AS C = X, WHERE "X" IS THE NUMBER OF INCHES OF CAMBER.

6. COORDINATE MECHANICAL OPENINGS WITH MECHANICAL DRAWINGS AND UNIT MANUFACTURER.
7. BEAM REACTIONS ARE INDICATED AT ENDS OF BEAMS AS "XK" WHERE "X" IS THE MAGNITUDE OF THE ULTIMATE LOAD SHEAR REACTIONS IN KIPS. REACTIONS SHOWN ON PLANS DO NOT INCLUDE VERTICAL COMPONENT OF AXIAL FORCES IN BRACES. MINIMUM BEAM REACTION IS 10K, UNLESS NOTED.
8. 1 1/2" DIAMETER THREADED HANGER ROD HANGER ROD CONNECTION TO ROOF BEAM ABOVE. SEE SECTIONS AND DETAILS.



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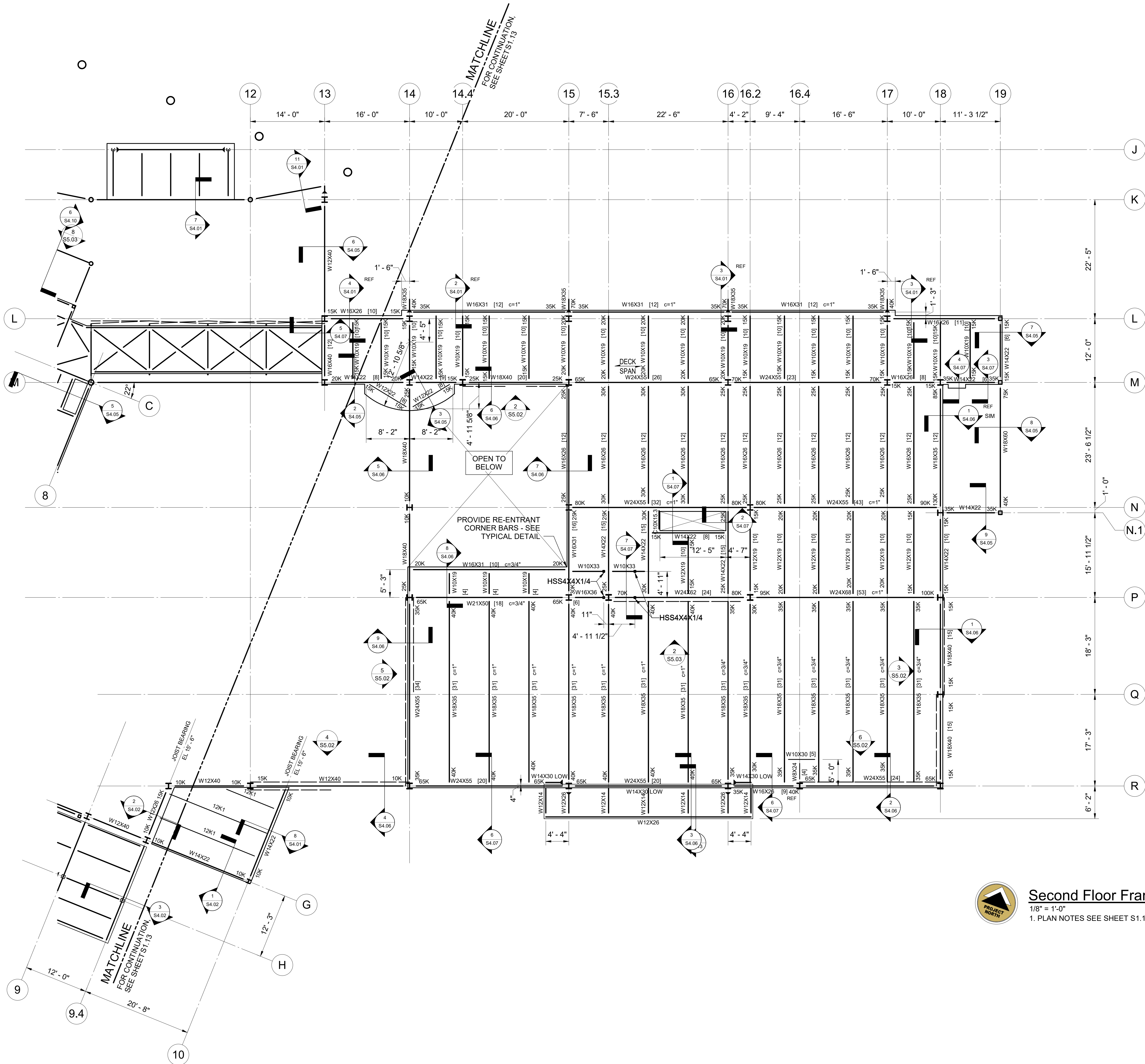
REVISIONS  
No. Description Date

DRAWING TITLE  
SECOND FLOOR  
FRAMING PLAN -  
PART B

DRAWN BY: RST/GVA  
CHECKED BY: KLL

PROJECT NUMBER  
225029-00

DRAWING NO.  
**S1.14**



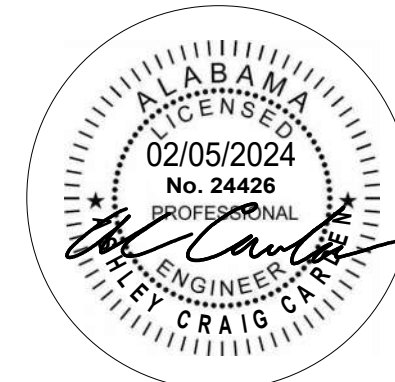
Second Floor Framing Plan - Part B

1/8" = 1'-0"  
1. PLAN NOTES SEE SHEET S1.12A.





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ISSUE DATE:

FEBRUARY 05, 2024

REVISIONS

No.

Description

Date

DRAWING TITLE

ROOF FRAMING  
PLAN - PART A

DRAWN BY:

RST/GVA

CHECKED BY:

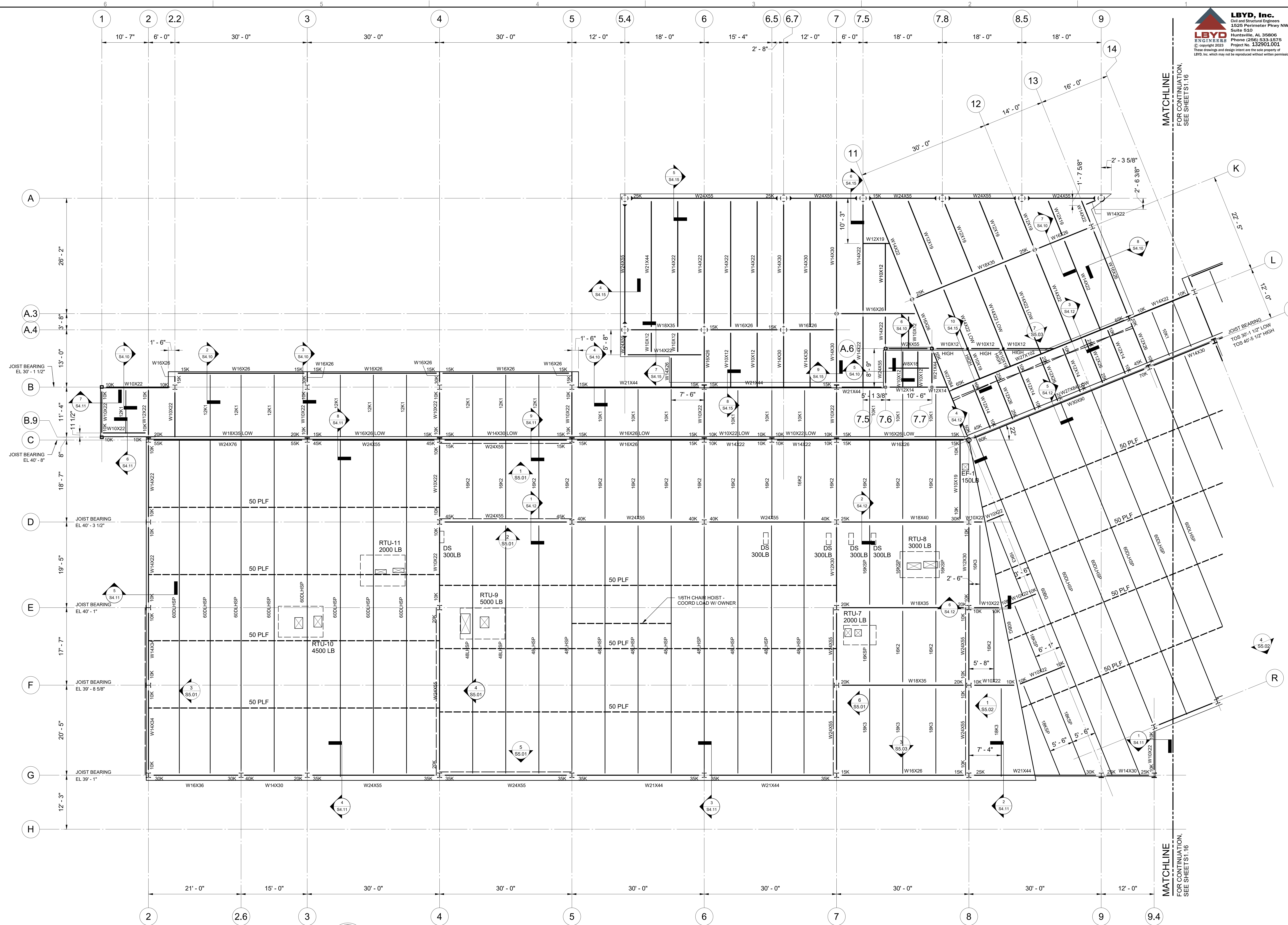
KLL

PROJECT NUMBER

225029-00

DRAWING NO.

S1.15



## Roof Framing Plan - Part A

1/8" = 1'-0"

1. TOP OF STEEL (JOIST BEARING) ELEVATION IS SET BASED ON ELEVATION ABOVE 0'-0", FIRST FLOOR ELEVATION.
2. ROOF SYSTEM: TYPE B, 1.5" DEEP, 20 GAGE ROOF DECK ON STEEL JOISTS, BEAMS AND JOIST GIRDS. SEE GENERAL NOTES.
3. TOP OF STEEL IS EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
4. BEAMS PARALLEL TO JOISTS ARE 2 1/2" HIGHER THAN SUPPORTING MEMBERS.
5. AT JOISTS DESIGNATED "S", STEEL JOIST MANUFACTURER'S COLL. LINES UNLESS NOTED.
6. AT JOISTS DESIGNATED "S", JOIST MANUFACTURER SHALL DESIGN JOIST AND SUPPORTING JOIST GIRDS FOR 25 PSF DEAD LOAD AND 20 PSF LIVE LOAD PLUS ANY ADDITIONAL LOADS INDICATED. JOIST GIRDER PANEL POINT LOADS DO NOT INCLUDE THESE ADDITIONAL LOADS.

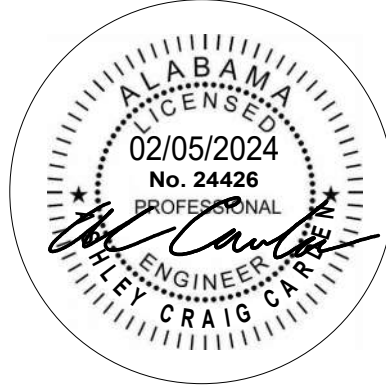
7. JOIST GIRDER LOADING DOES NOT INCLUDE ANY MECHANICAL UNIT LOADS OR RAIN LEADER PIPING LOADS. JOIST MANUFACTURER TO COORDINATE MECHANICAL UNITS AND PIPING WITH GENERAL CONTRACTOR AND INCREASE JOIST LOADING AS REQUIRED.
8. "GUE" DENOTES JOIST GIRDER WHICH SHALL BE DESIGNED FOR UNEQUAL JOIST SPACING ON EACH SIDE. THE MAGNITUDE AND LOCATION OF JOIST LOADS FOR THE GIRDER ARE SHOWN ON PLAN.
9. EQUIPMENT LOCATIONS AND WEIGHTS SHOWN ARE APPROXIMATE. THE GENERAL CONTRACTOR TO SHOW EXACT LOCATION, EQUIPMENT SIZE, WEIGHT AND LOCATION OF ALL MECHANICAL UNITS WITH THE JOIST MANUFACTURER. DO NOT SCALE FROM THESE DRAWINGS.
10. PROVIDE ROOF EQUIPMENT FRAME AT ALL ROOF DRAINS.

11. HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY THE GENERAL CONTRACTOR WITH THE JOIST MANUFACTURER, FOR WEIGHT OF PIPING AND ANY ADDITIONAL JOIST REINFORCING, SEE TYPICAL DETAIL.
12. GENERAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF STEEL BEAMS WITH HVAC EQUIPMENT CURBS AND SUPPORTS PRIOR TO FABRICATION OF STEEL. UNSUPPORTED DECK LENGTH NOT TO EXCEED 8'-0".
13. JOIST BEARING DEPTHS ARE INDICATED AT ENDS OF JOIST AS "X", WHERE "X" IS IN INCHES. UNLESS NOTED OTHERWISE, ALL JOIST BEARING DEPTHS ARE 2 1/2".
14. BEAM REACTIONS ARE INDICATED AT ENDS OF BEAMS AS "XK" WHERE "X" IS THE MAGNITUDE OF THE REACTION AND "K" INDICATES REACTIONS IN KIPS. REACTIONS SHOWN ON PLANS DO NOT INCLUDE VERTICAL COMPONENTS OF AXIAL FORCES IN BRACES.
15. MINIMUM BEAM REACTION IS 10K, UNLESS NOTED.



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Huntsville, AL 35805



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ISSUED: BID SET

ISSUE DATE: FEBRUARY 05, 2024

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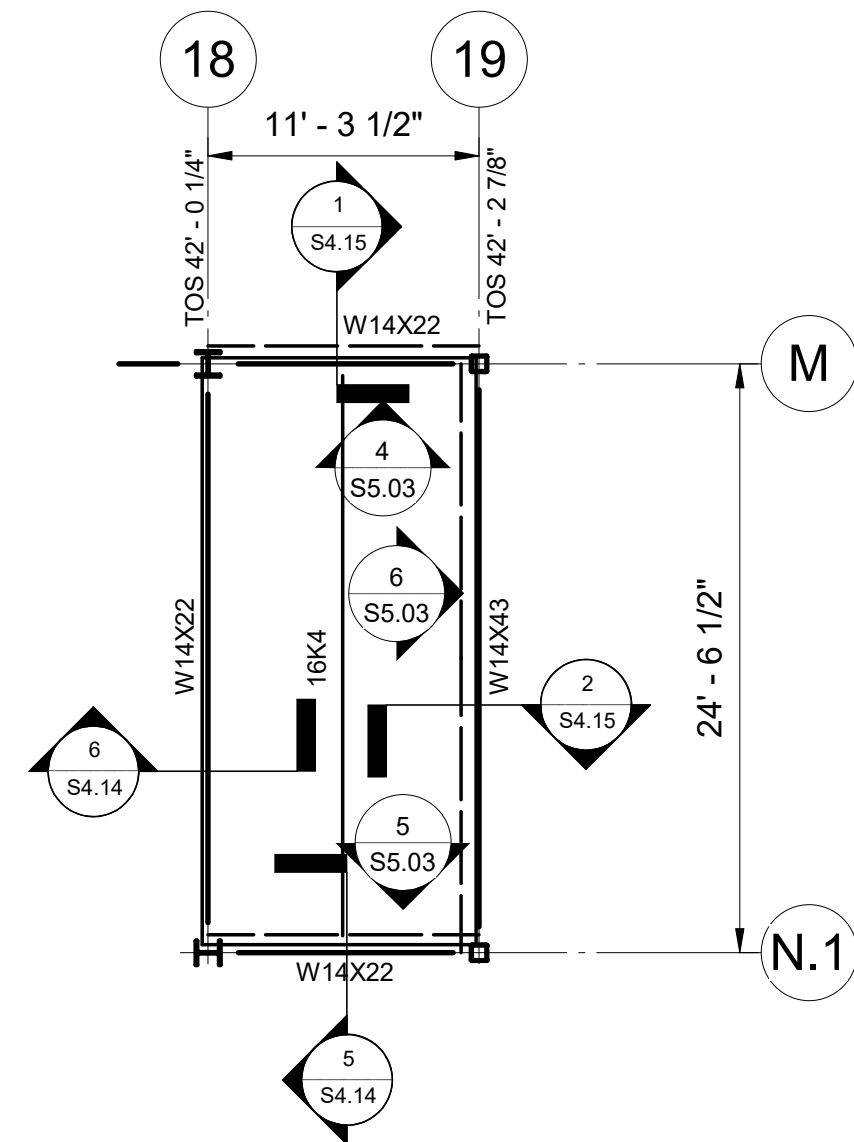
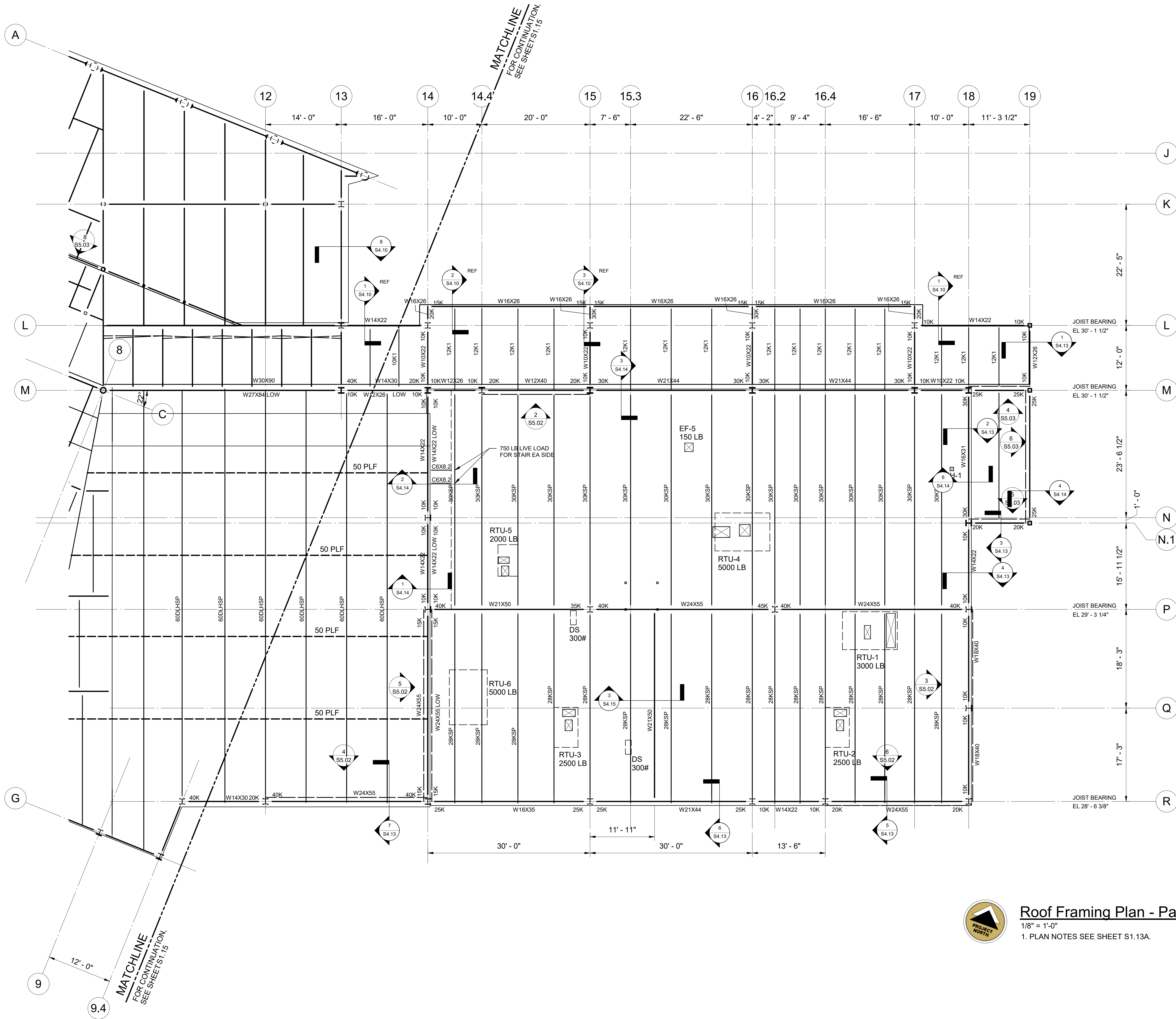
DRAWING TITLE  
ROOF FRAMING  
PLAN - PART B

DRAWN BY: RST/GVA  
CHECKED BY: KLL

PROJECT NUMBER  
225029-00

DRAWING NO.

**S1.16**



Partial Roof Framing Plan  
1/8" = 1'-0"



Roof Framing Plan - Part B

1/8" = 1'-0"  
1. PLAN NOTES SEE SHEET S1.13A.



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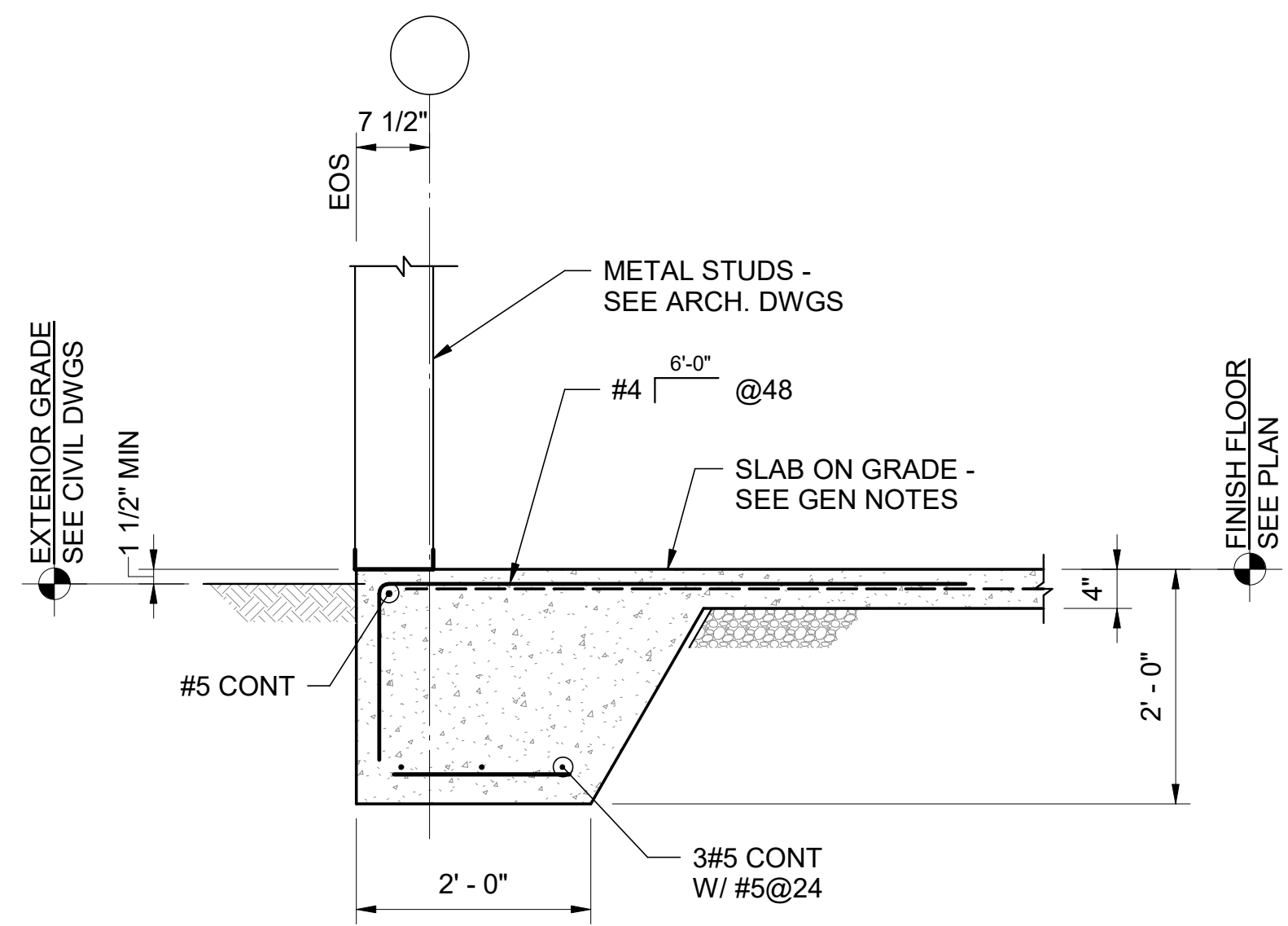
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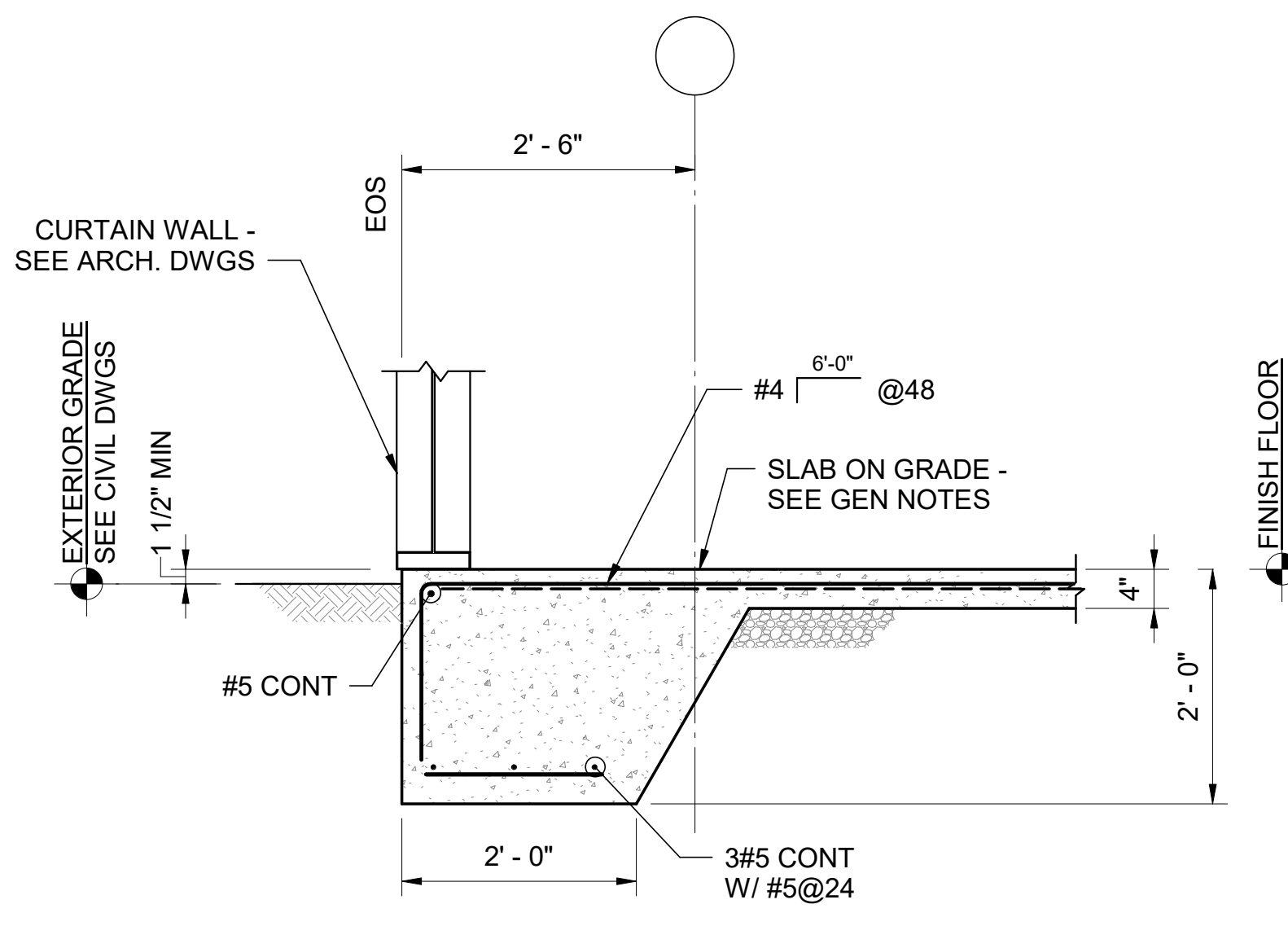
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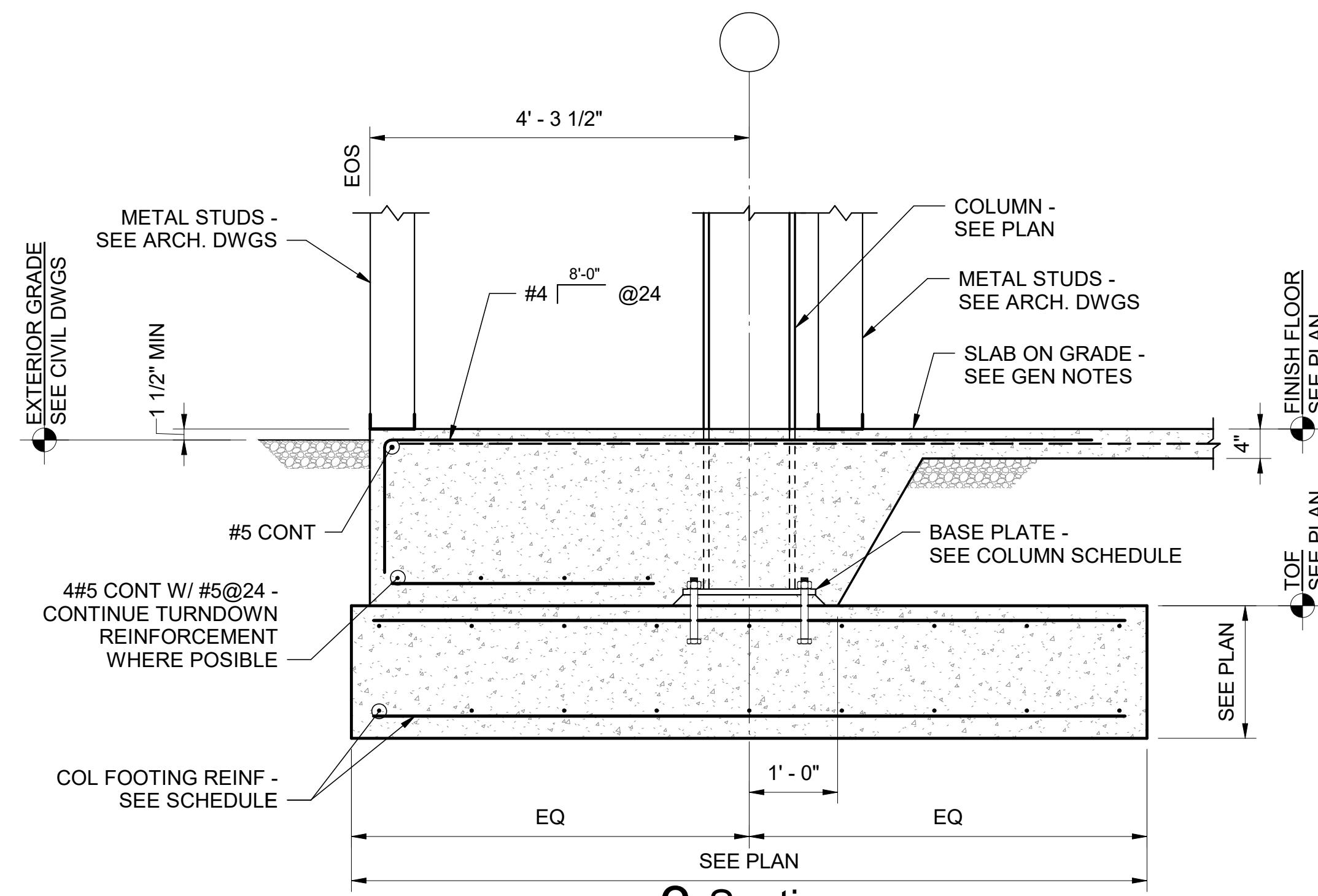
PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE FOUNDATION SECTIONS	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO <b>S3.01</b>	



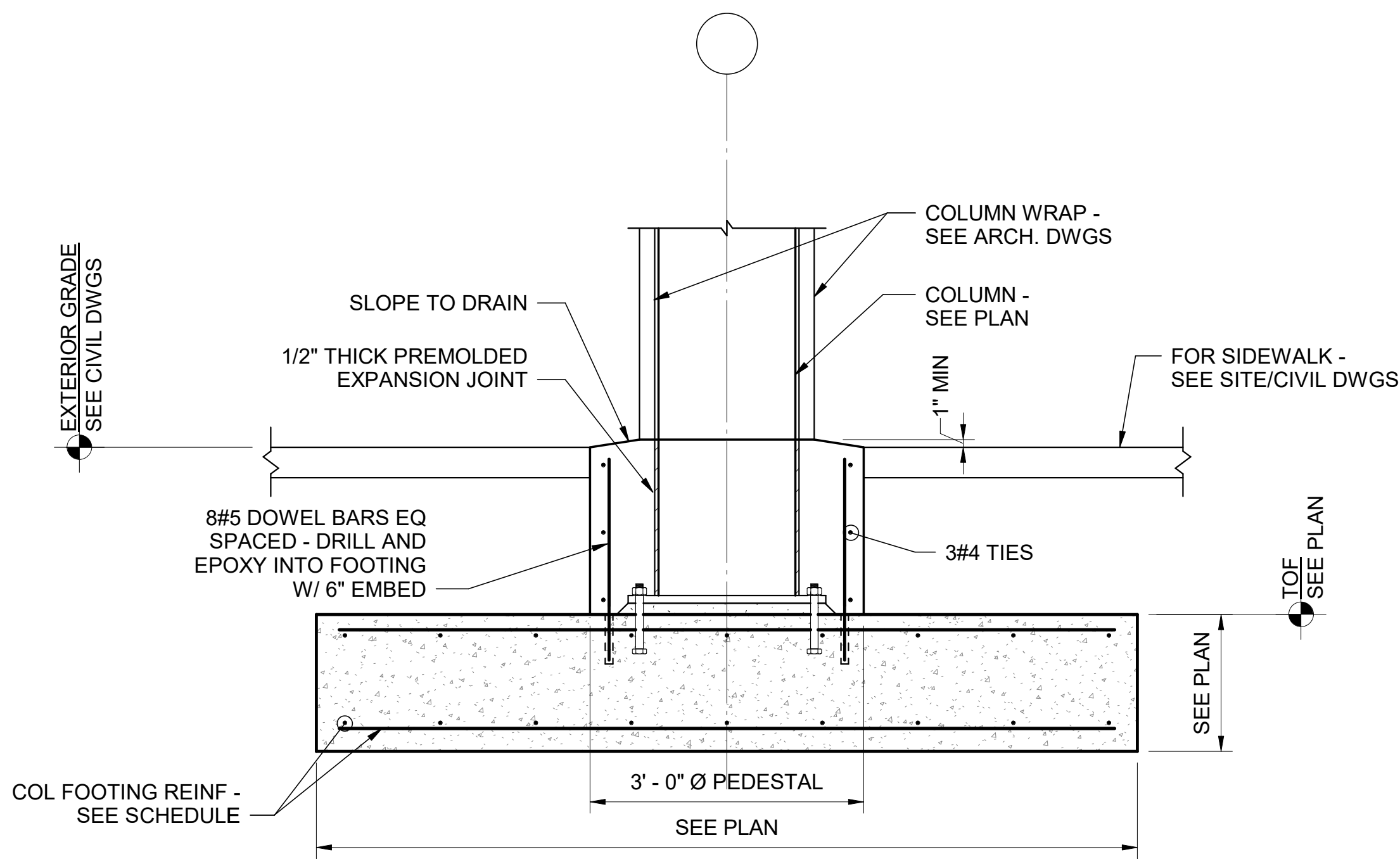
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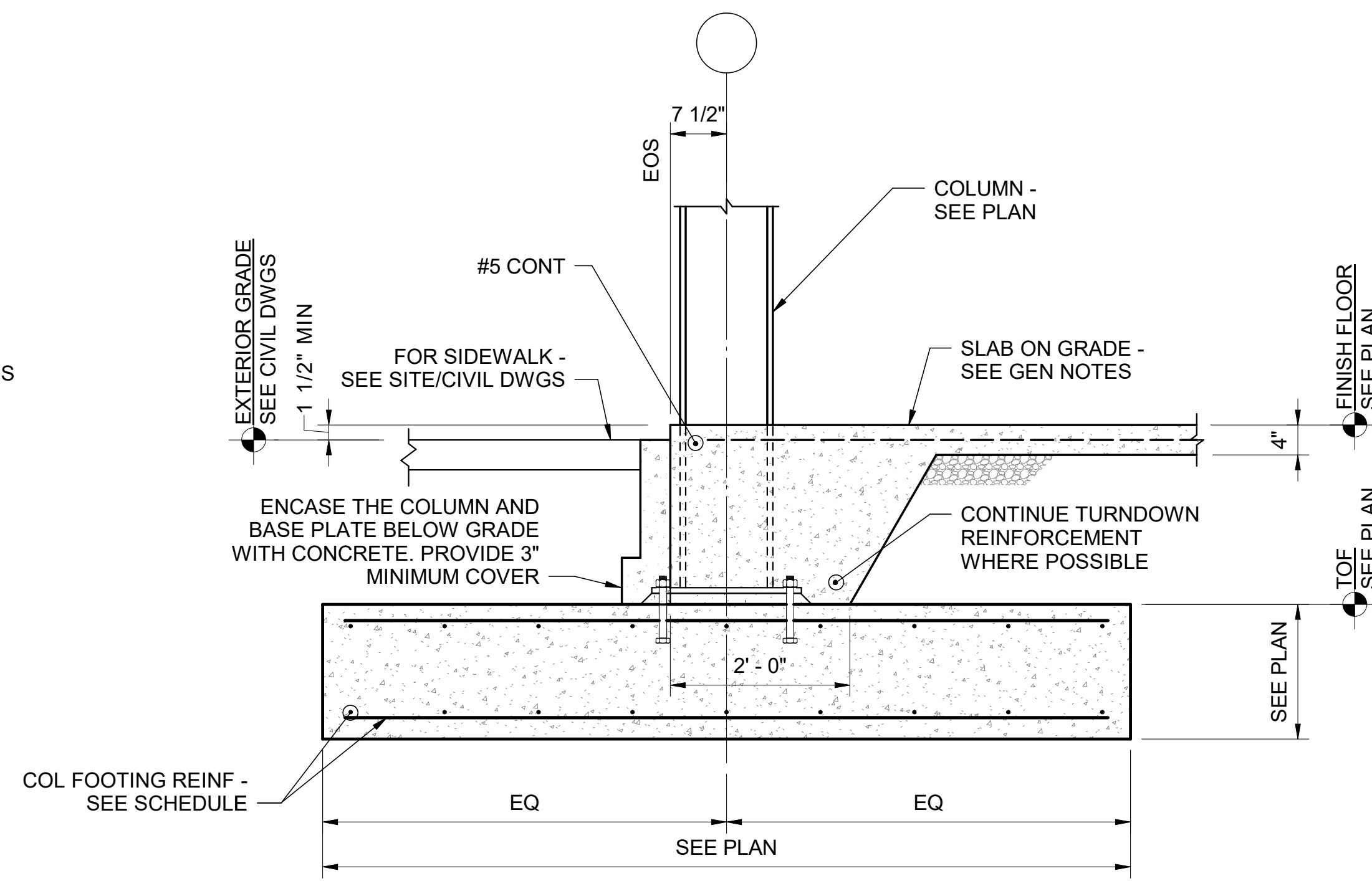
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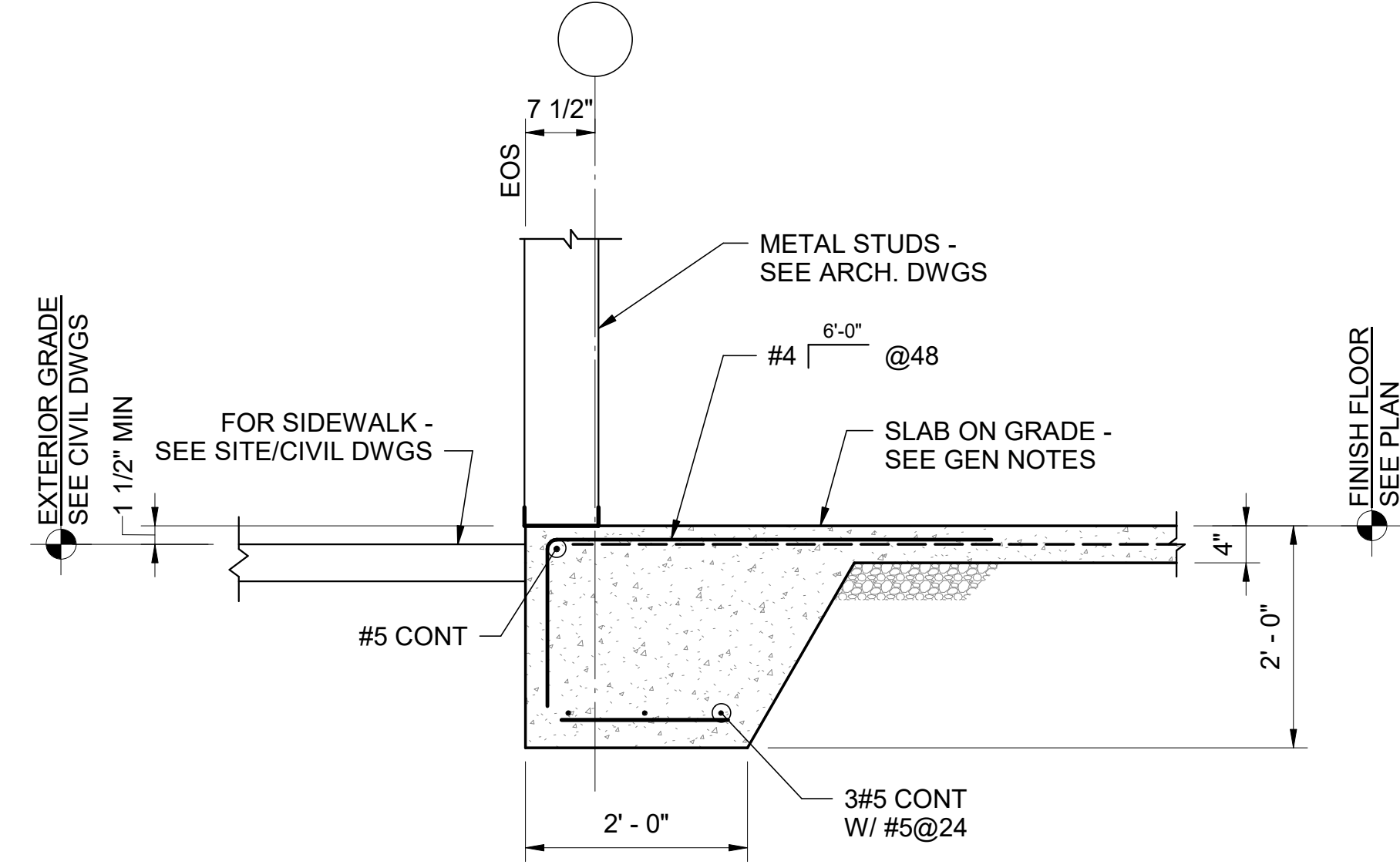
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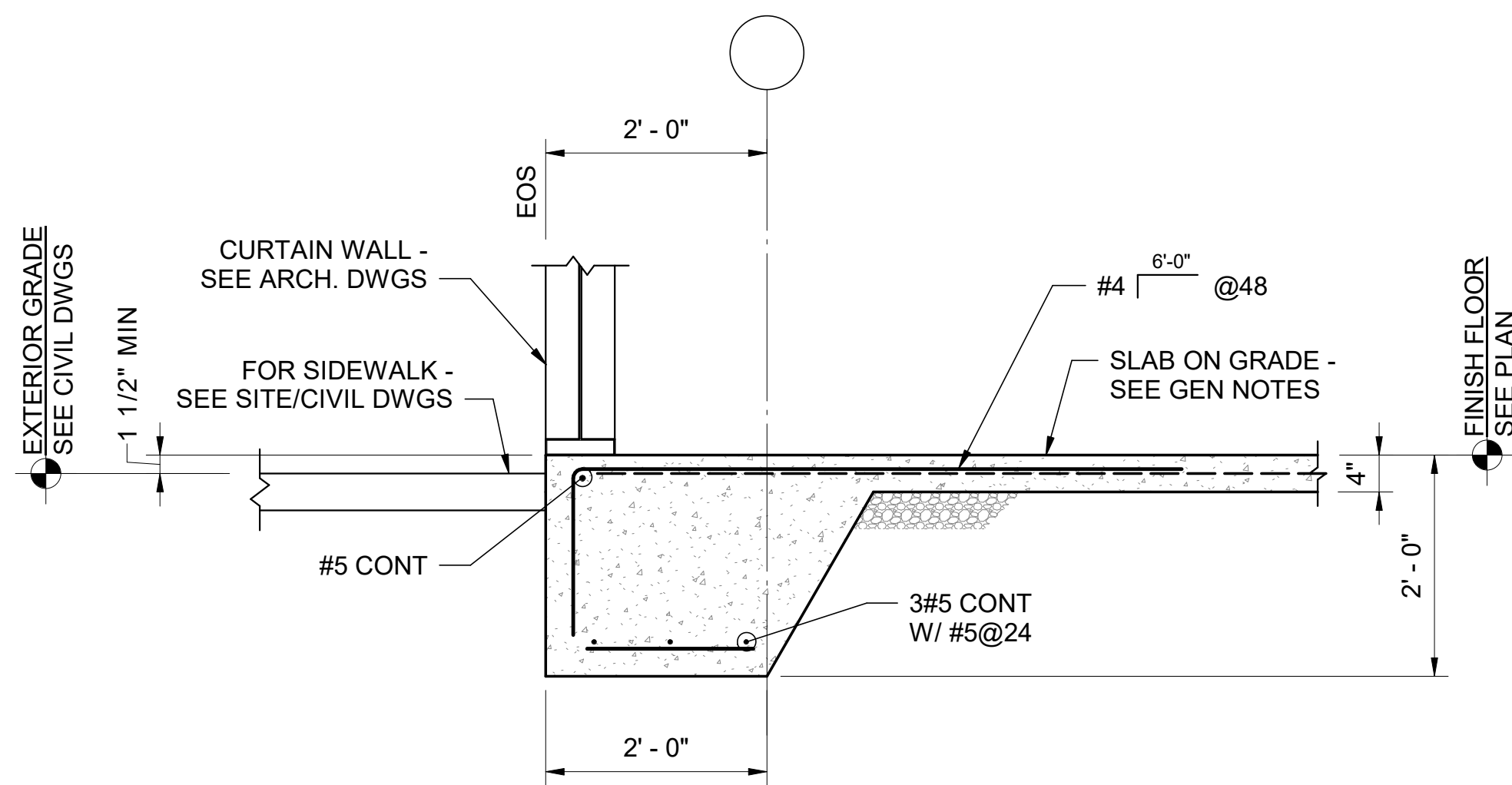
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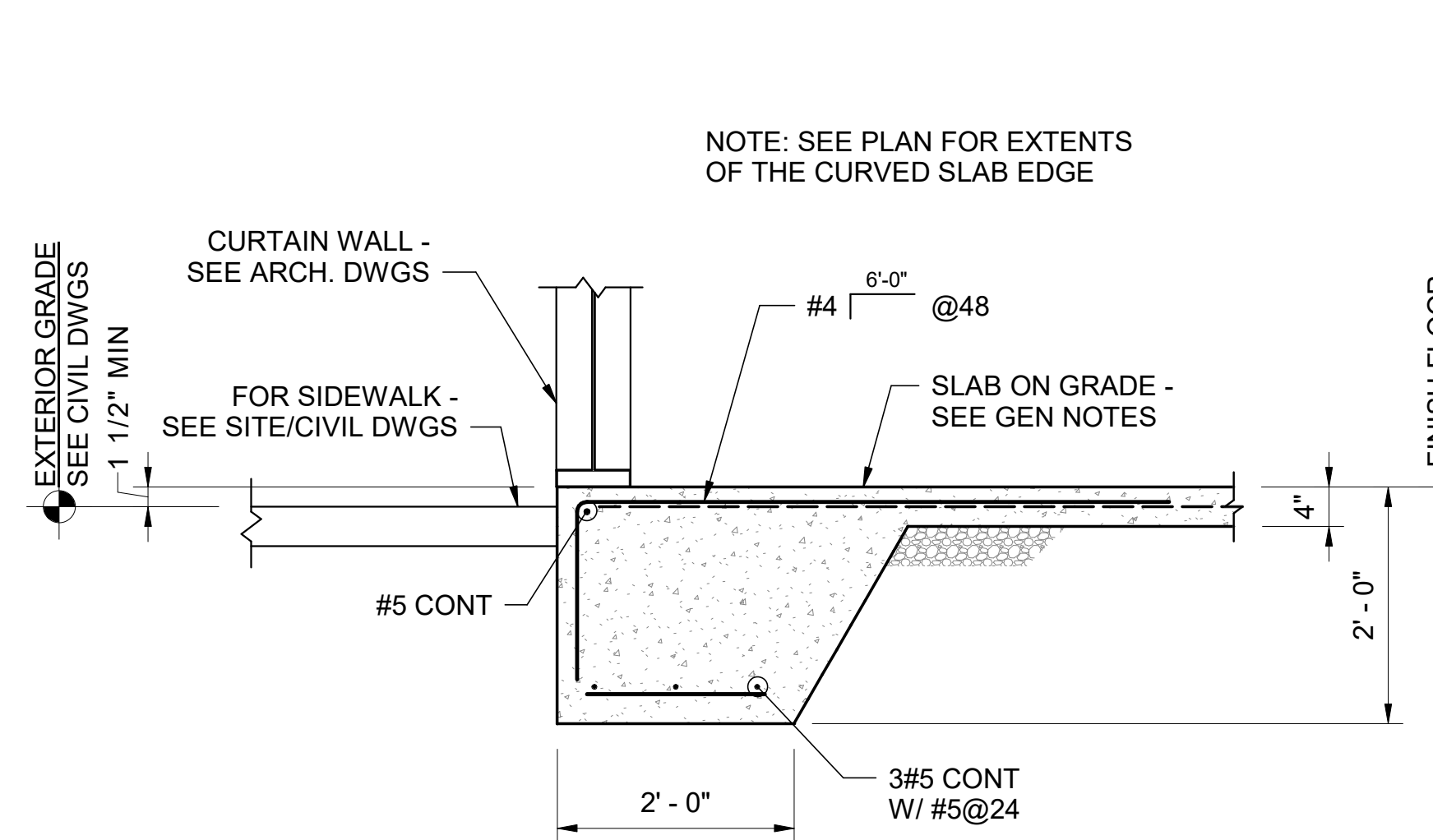
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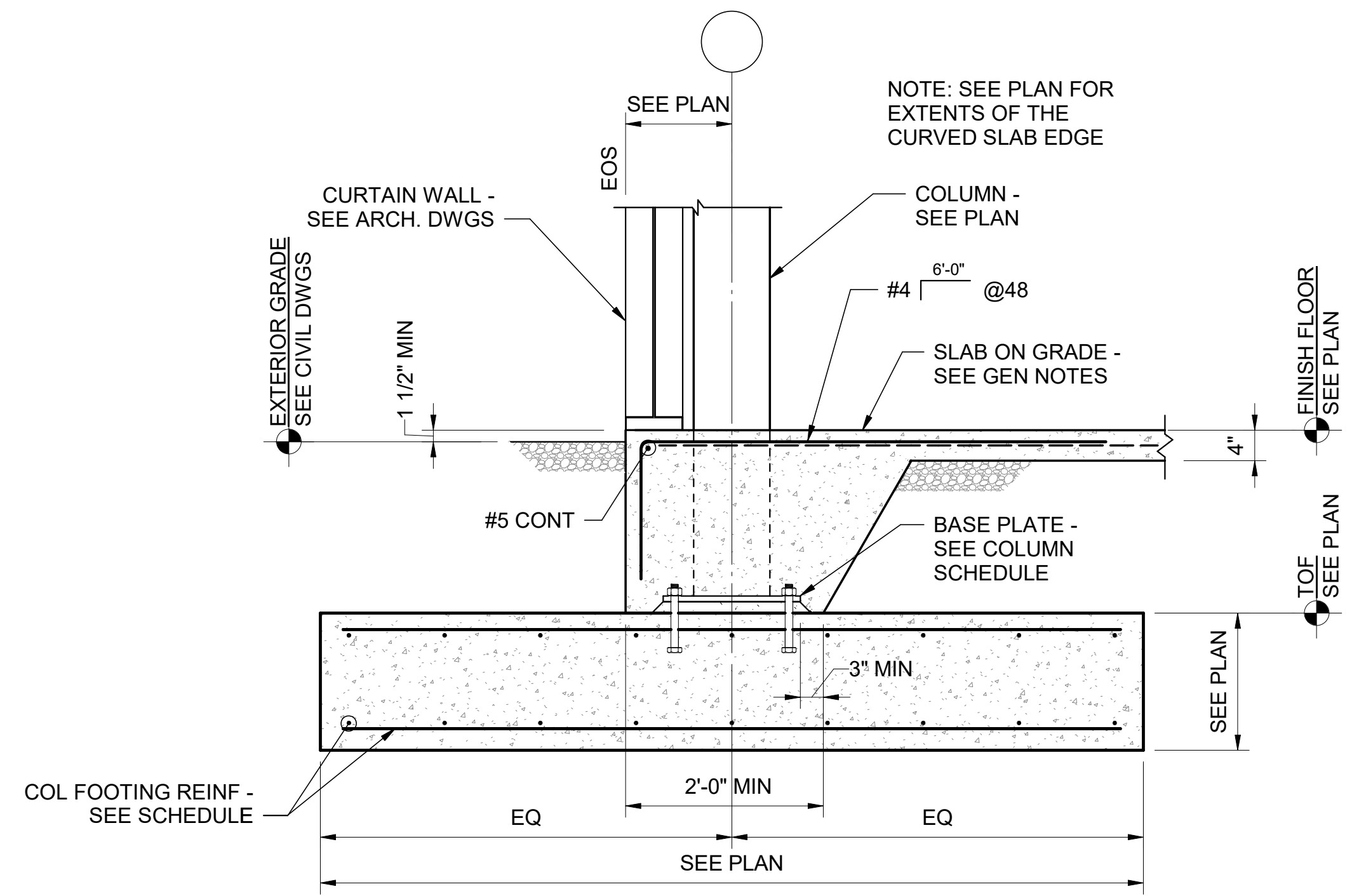
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S3.01 3/4" = 1'-0"



**7 Section**  
S3.01 3/4" = 1'-0"



**8 Section**  
S3.01 3/4" = 1'-0"



**9 Section**  
S3.01 3/4" = 1'-0"



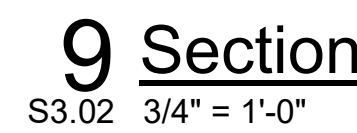
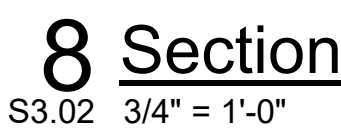
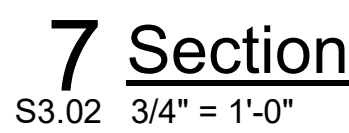
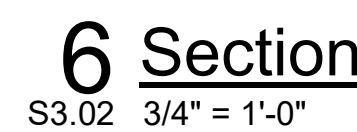
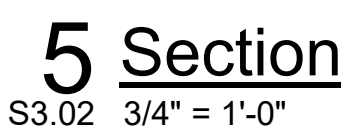
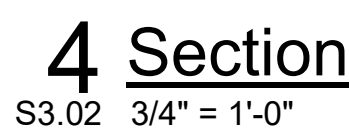
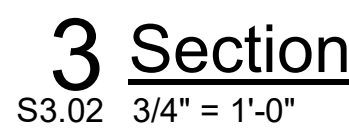
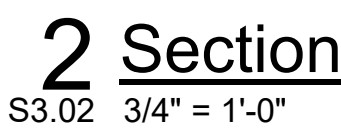
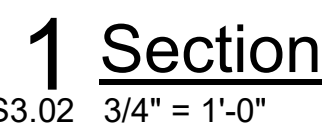
The Architect shall not have control or charge of, and shall not be responsible for construction Means and Methods, deviations, techniques, sequences, or procedures, or for safety programs and precautions in connection with the Work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the Work in accordance with the Contract Documents.



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No.	Description	Date
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FOUNDATION SECTIONS		
DRAWN BY:		RST/GVA
CHECKED BY:		KLL
PROJECT NUMBER		
225029-00		
DRAWING NO.		S3.02





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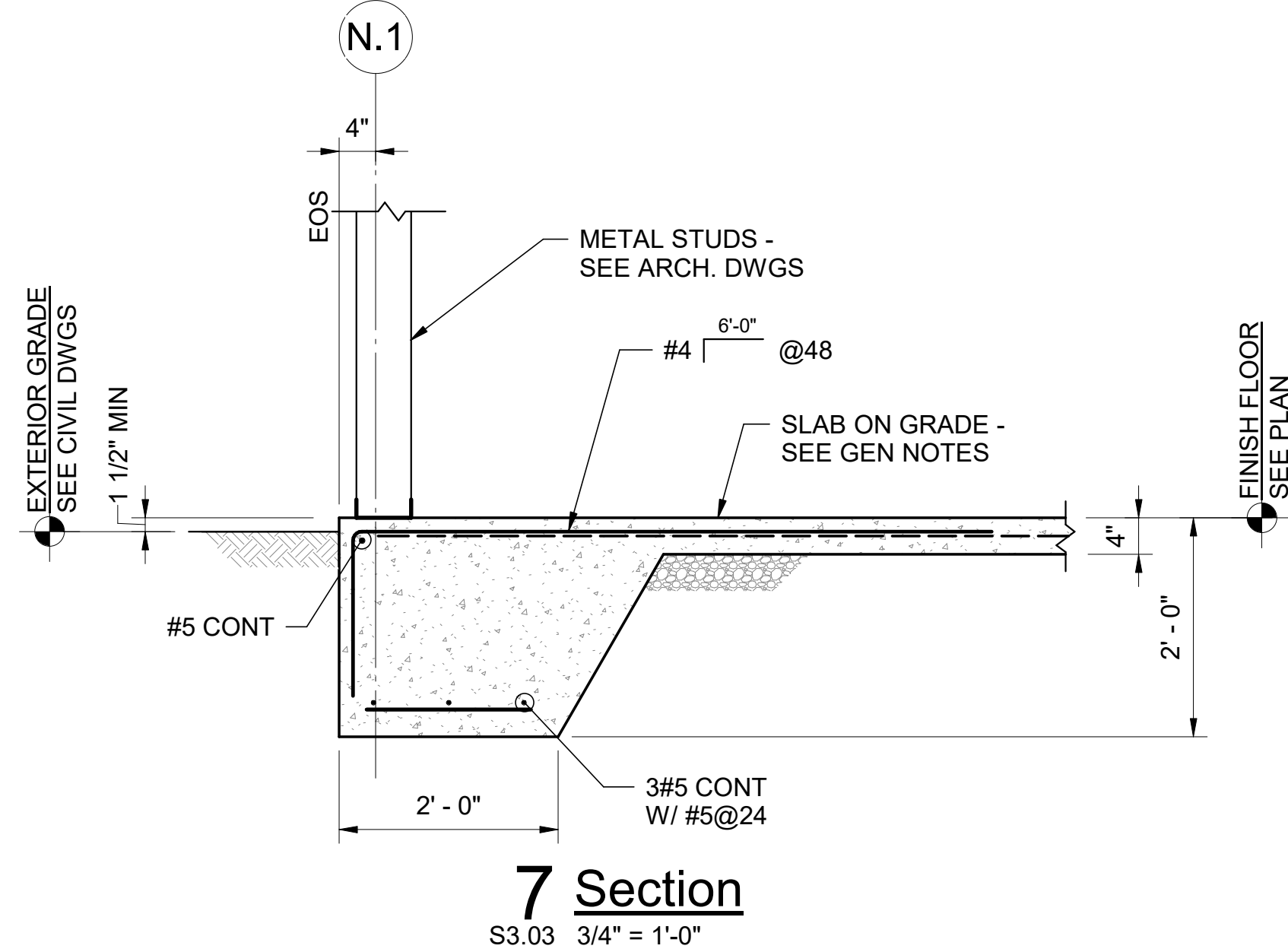
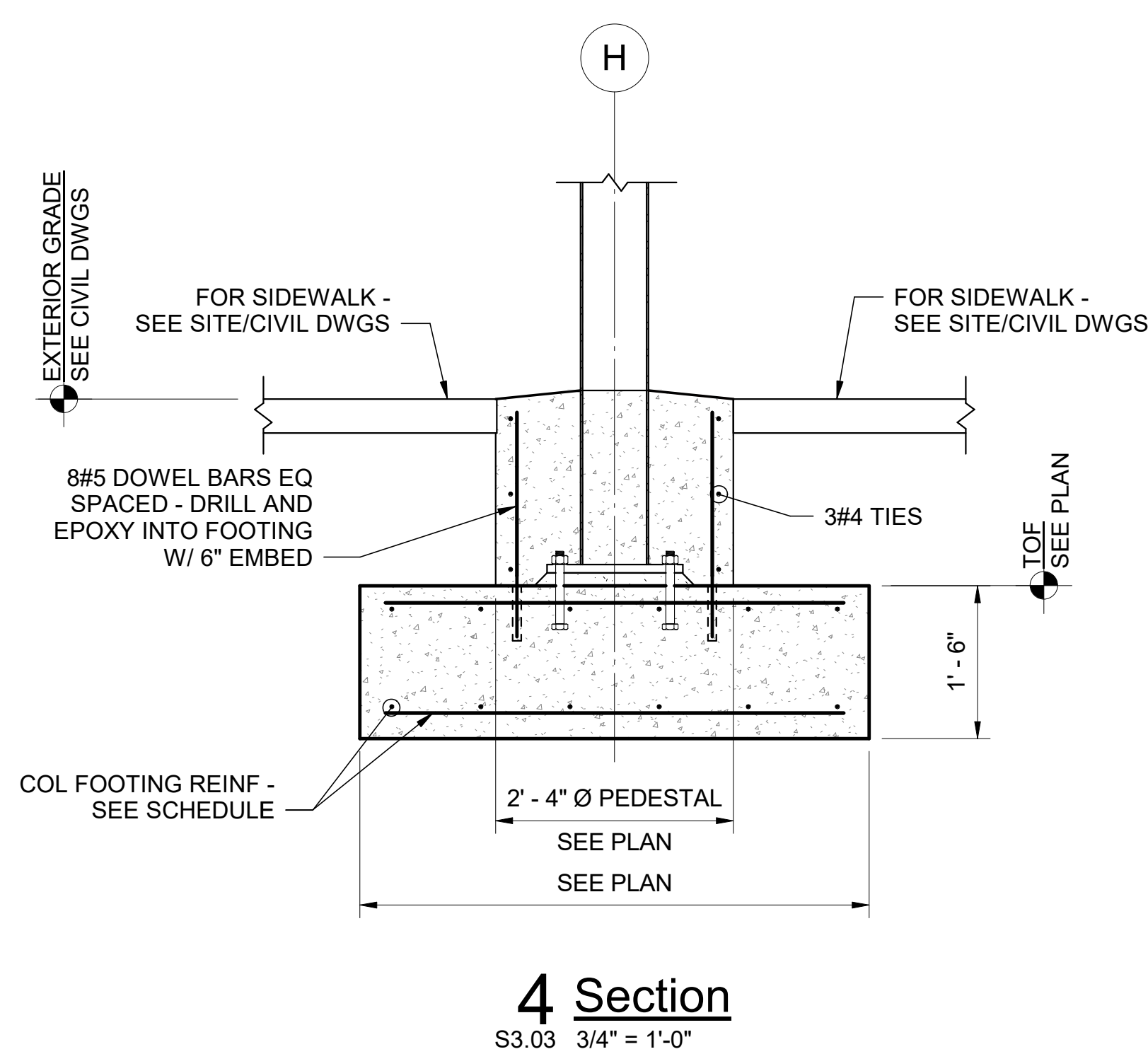
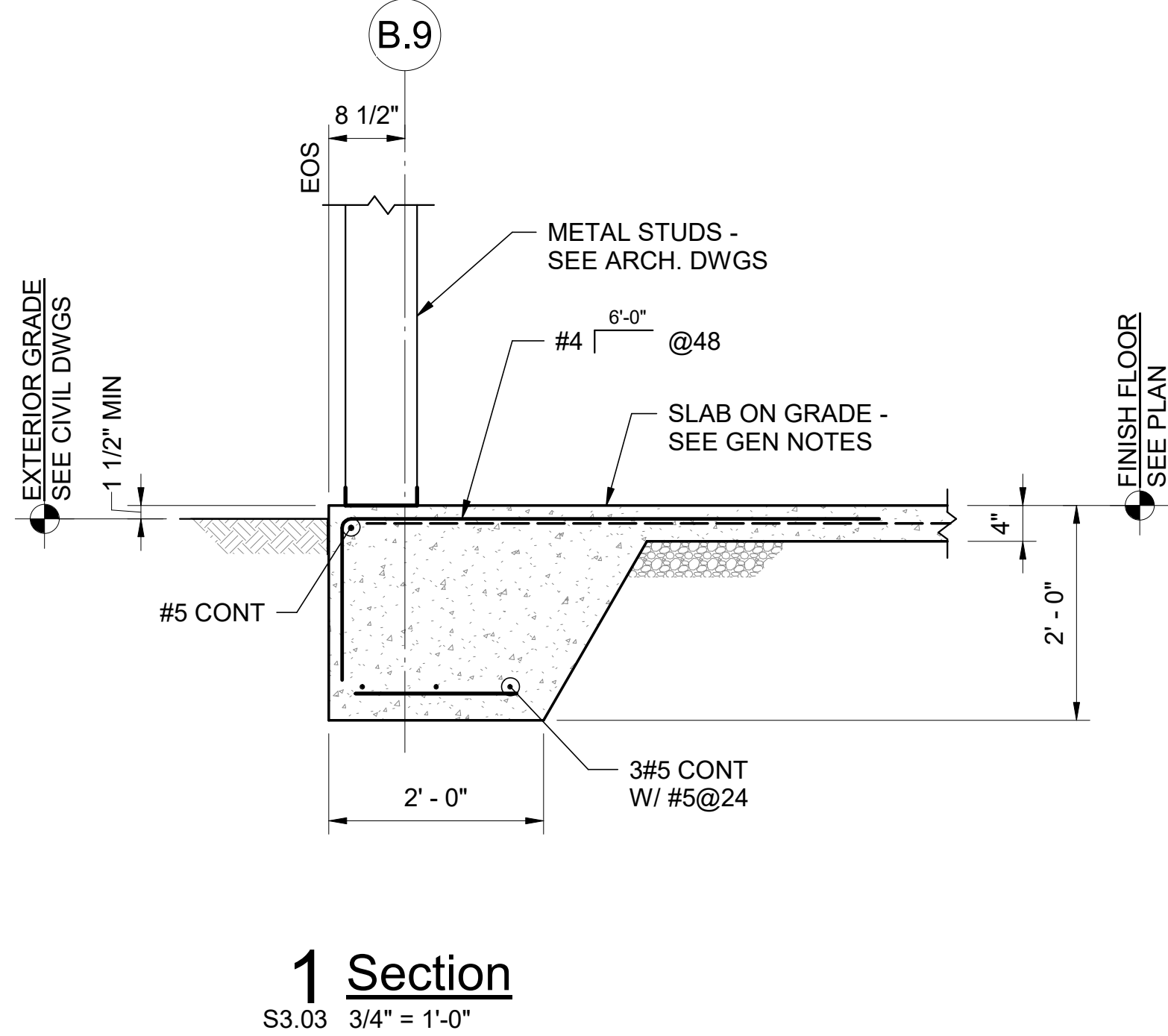
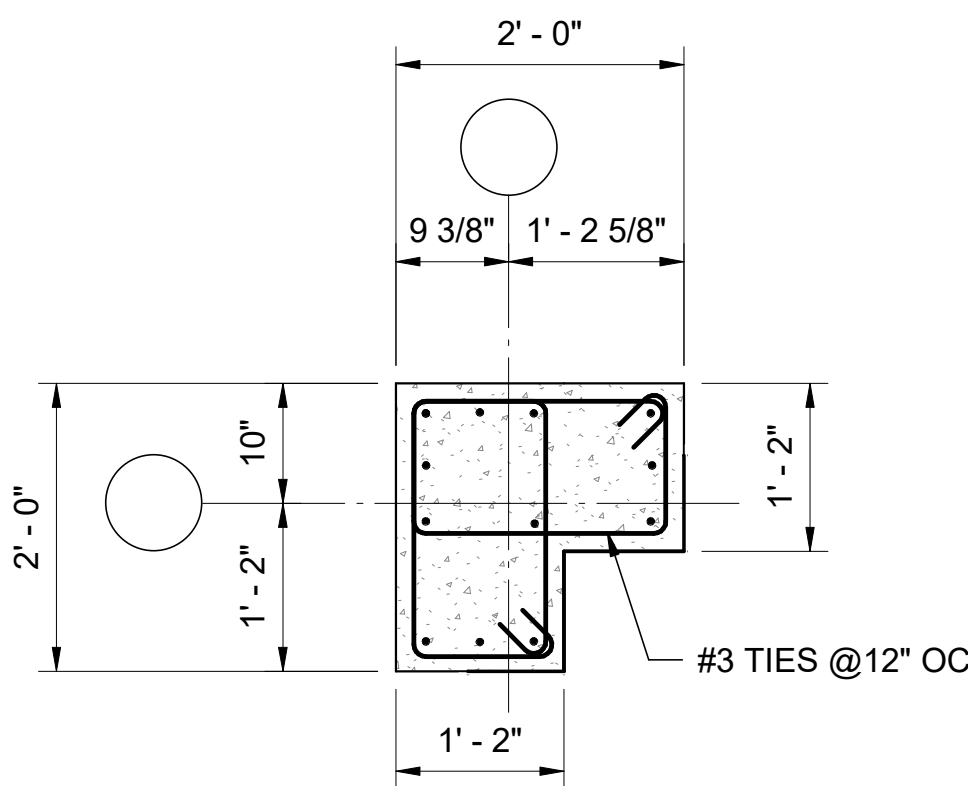
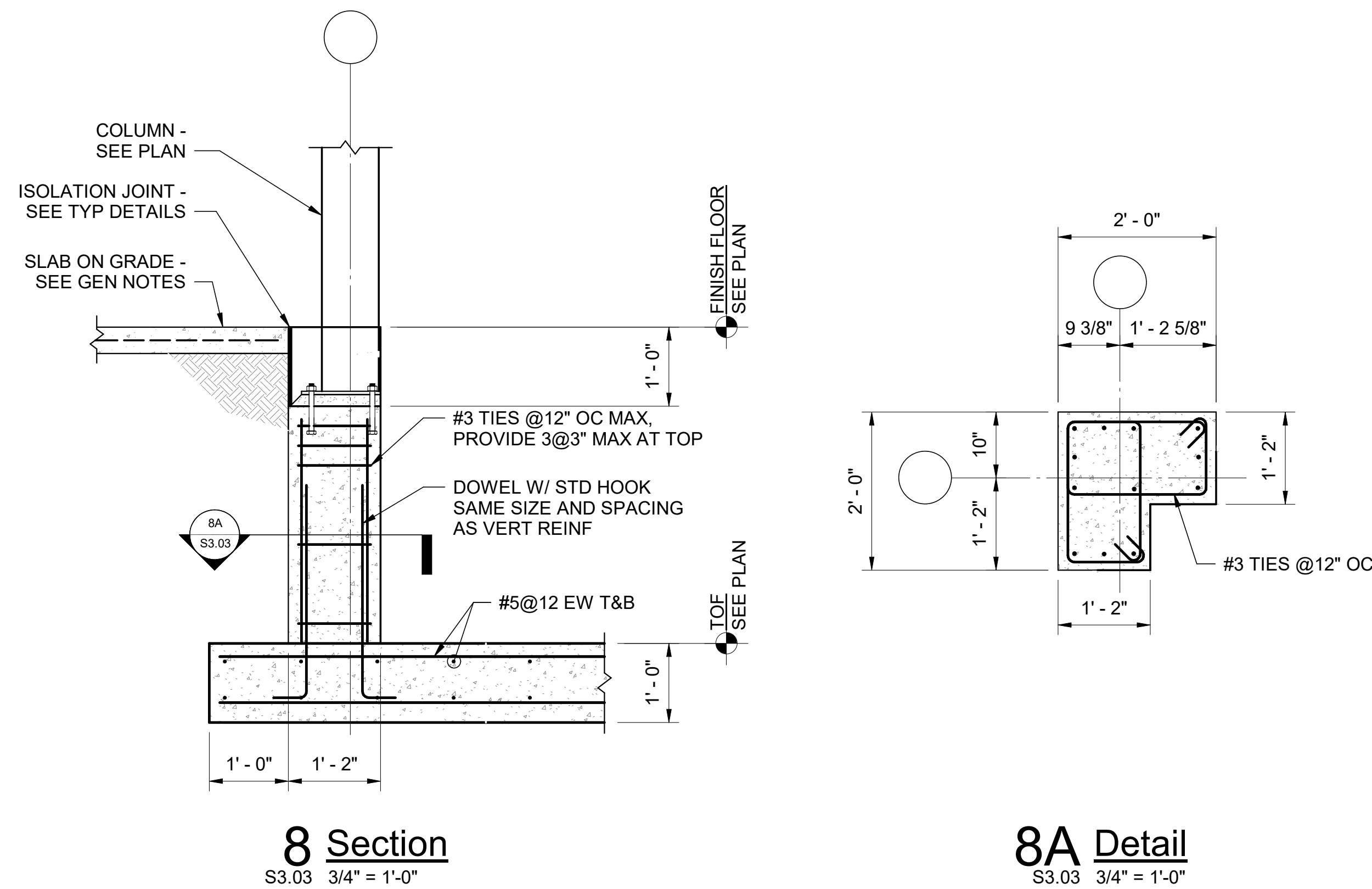
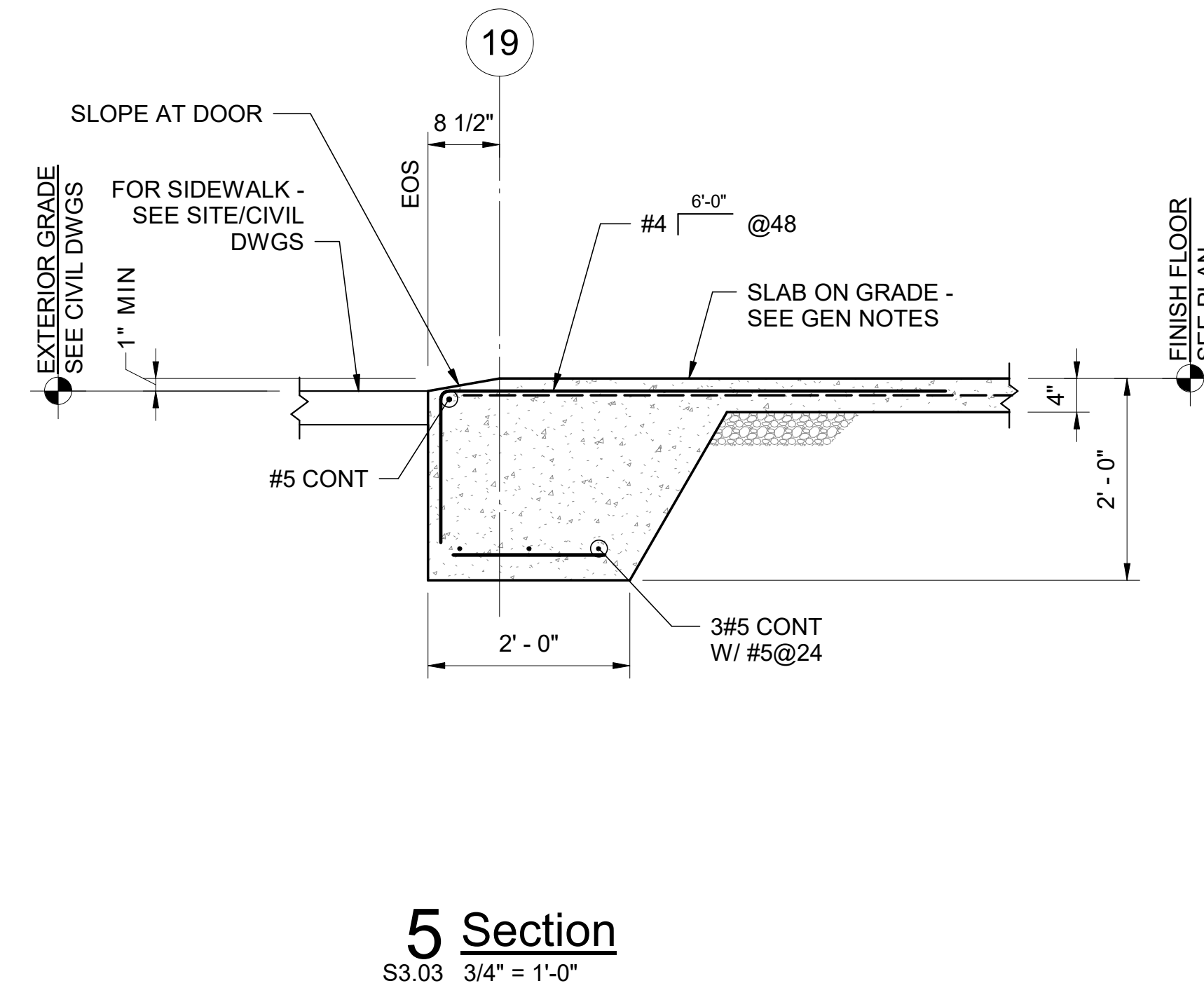
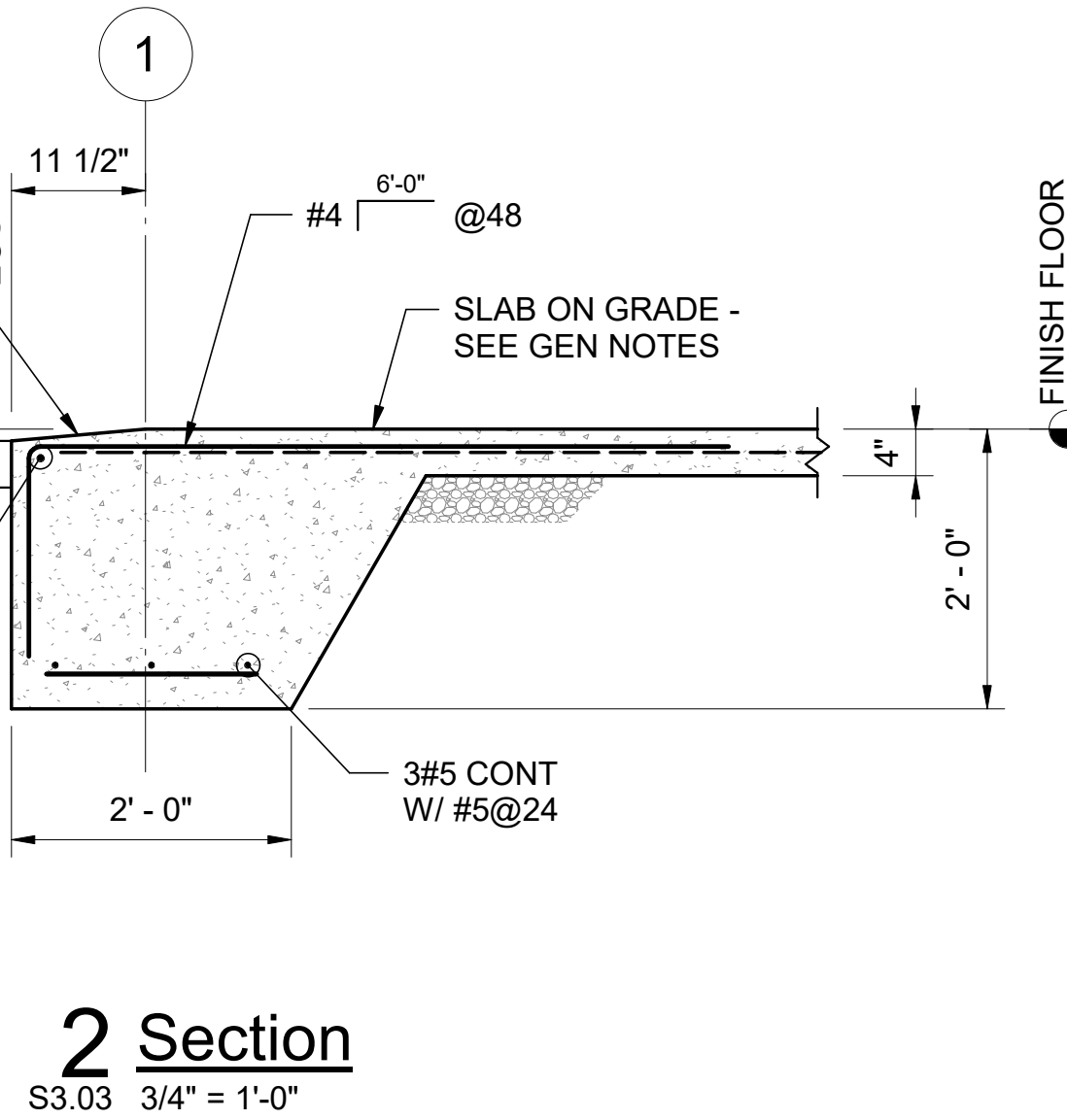
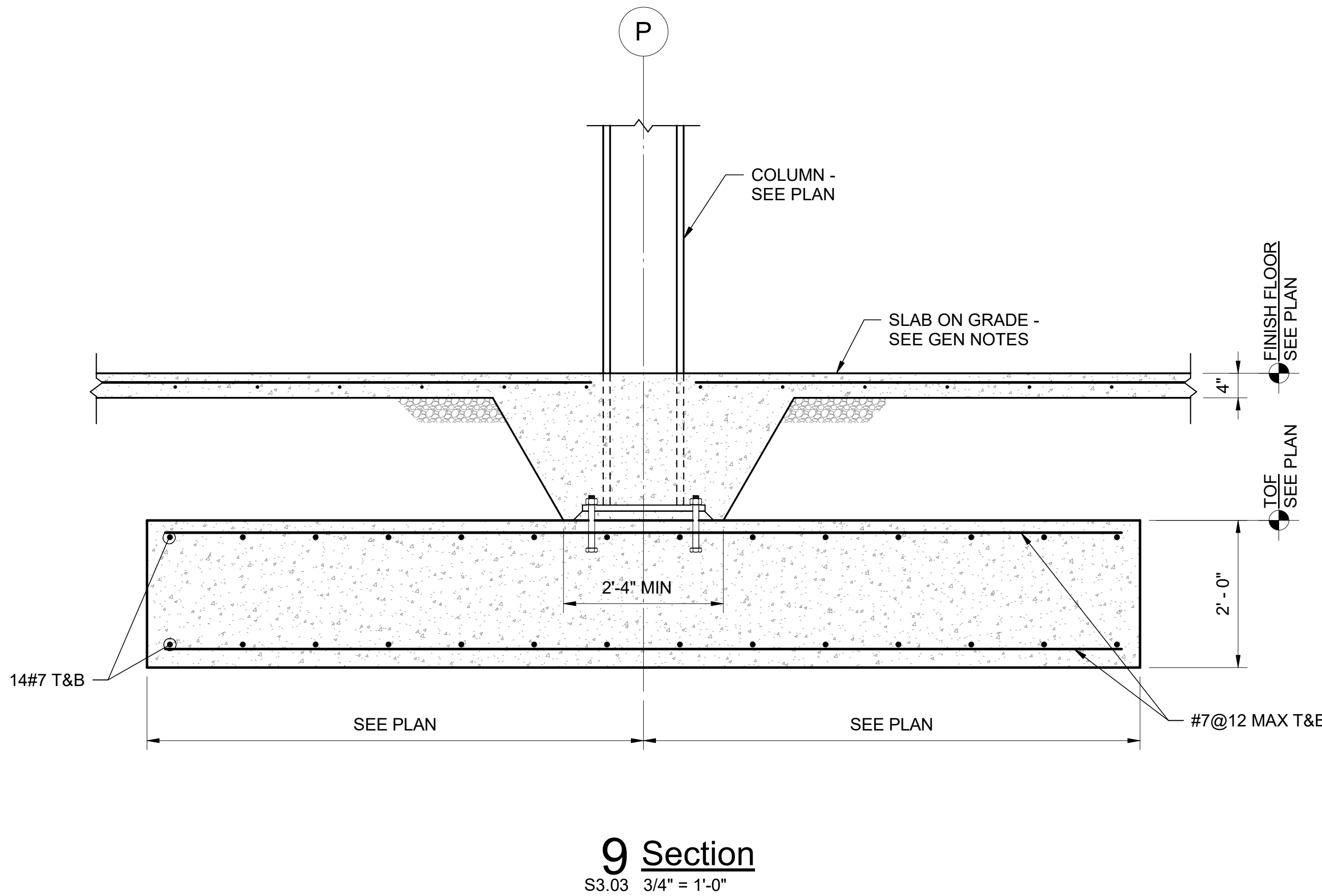
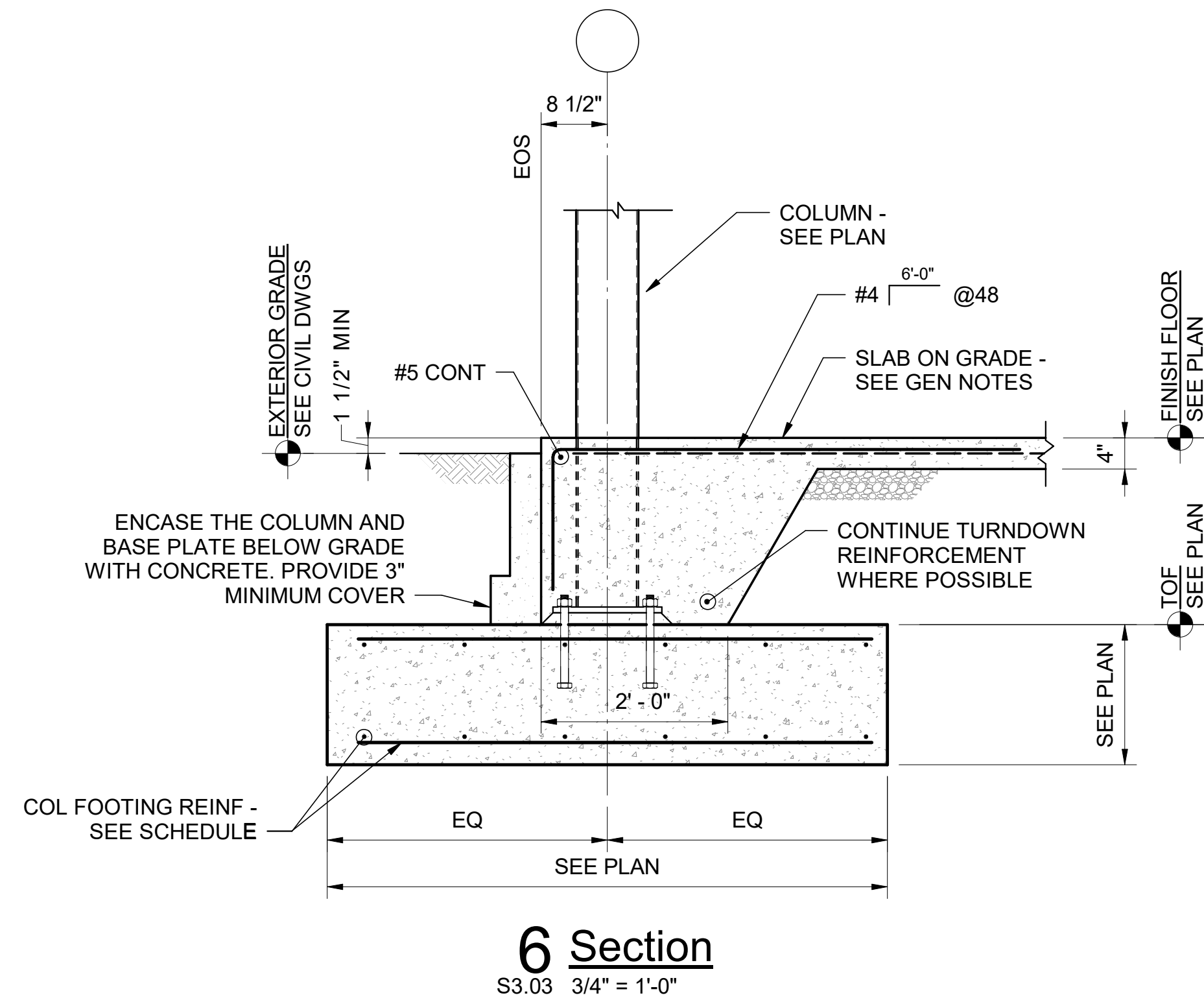
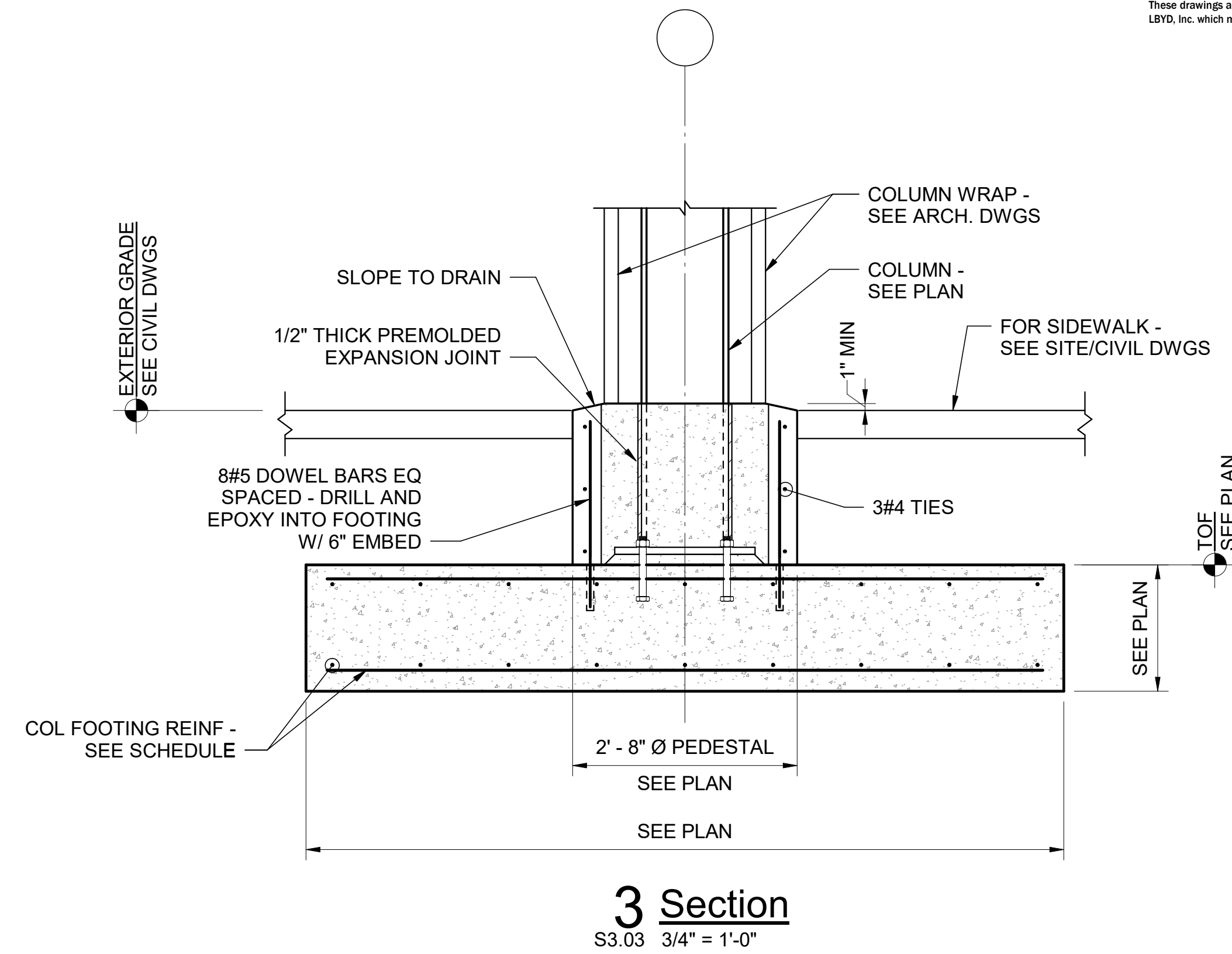
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DRAWING TITLE FOUNDATION SECTIONS	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S3.03</b>	





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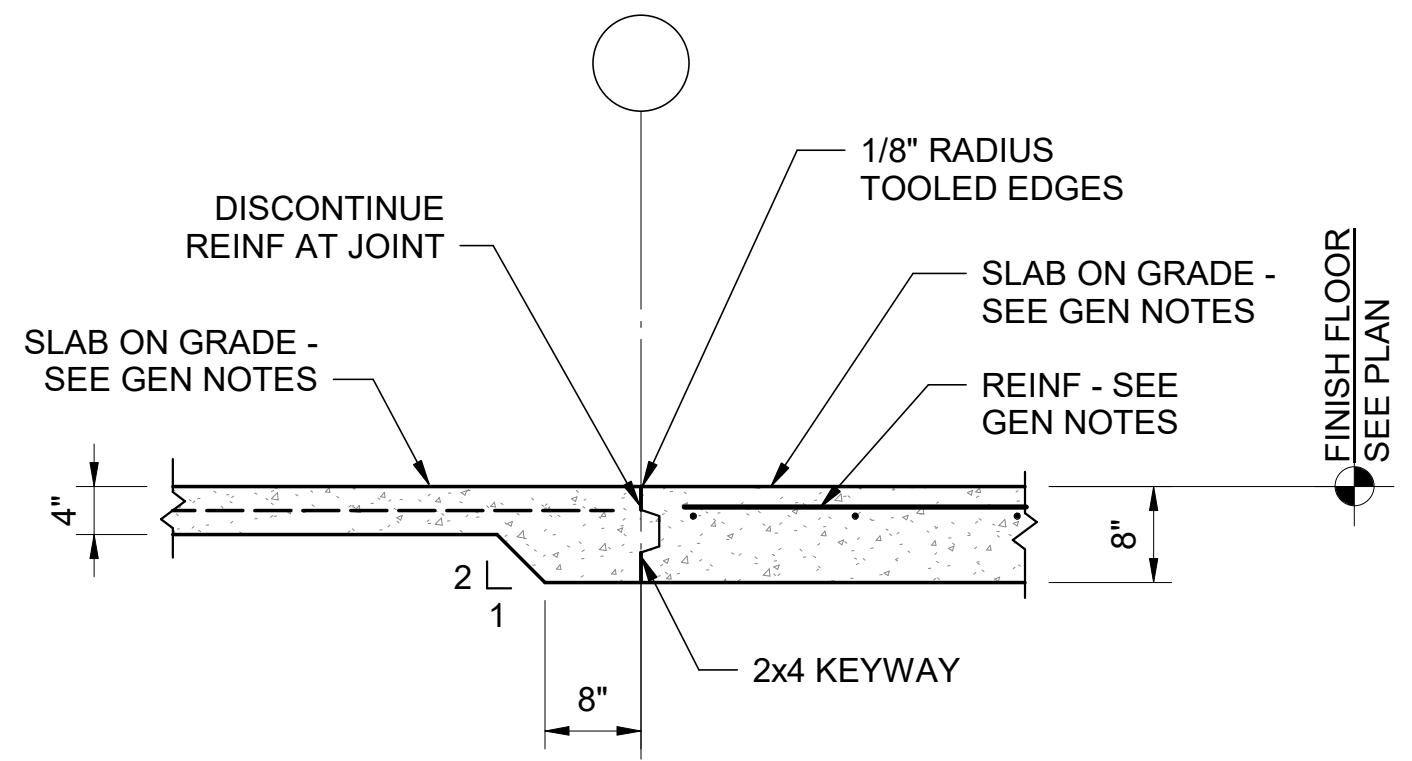
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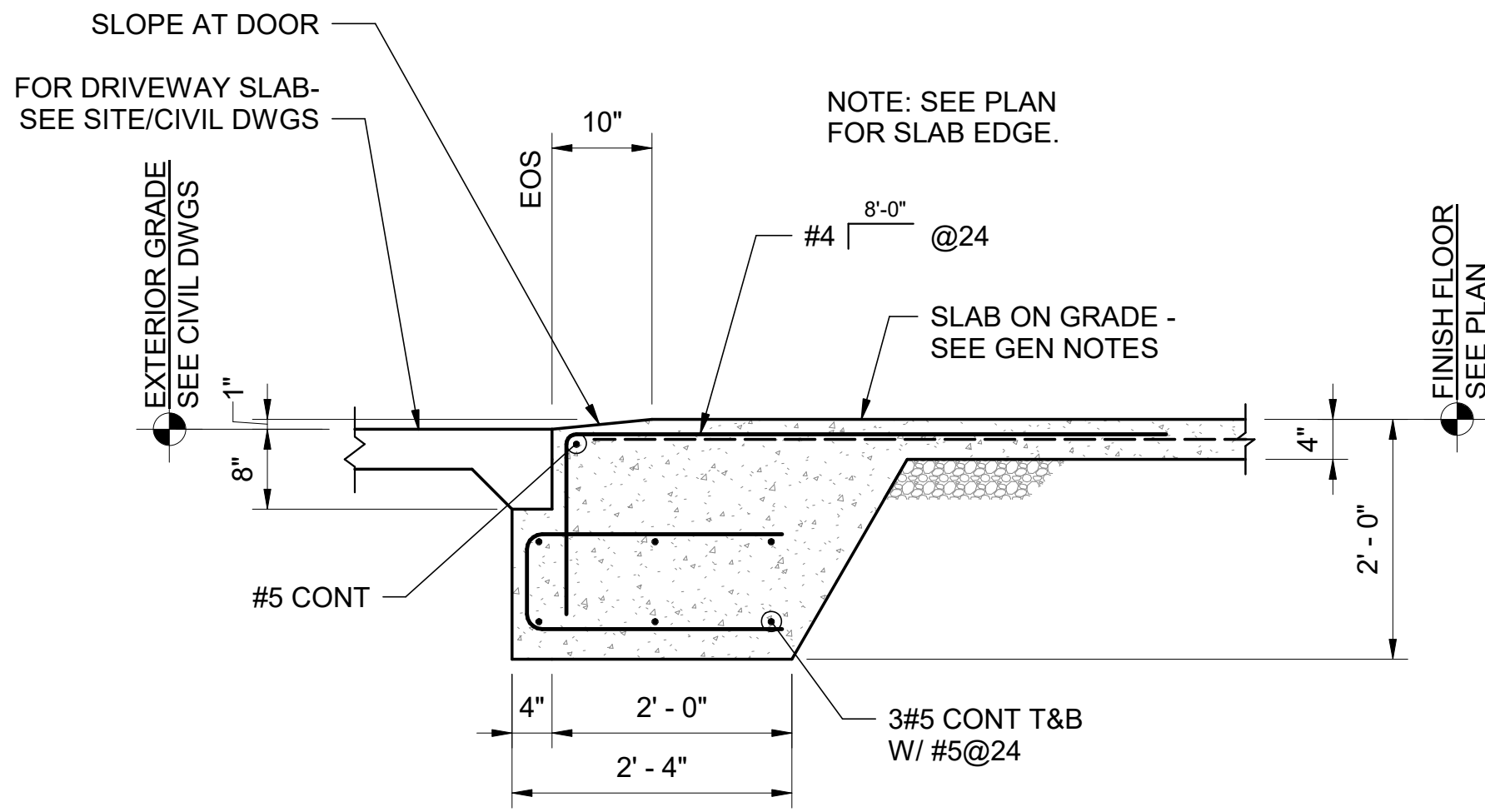
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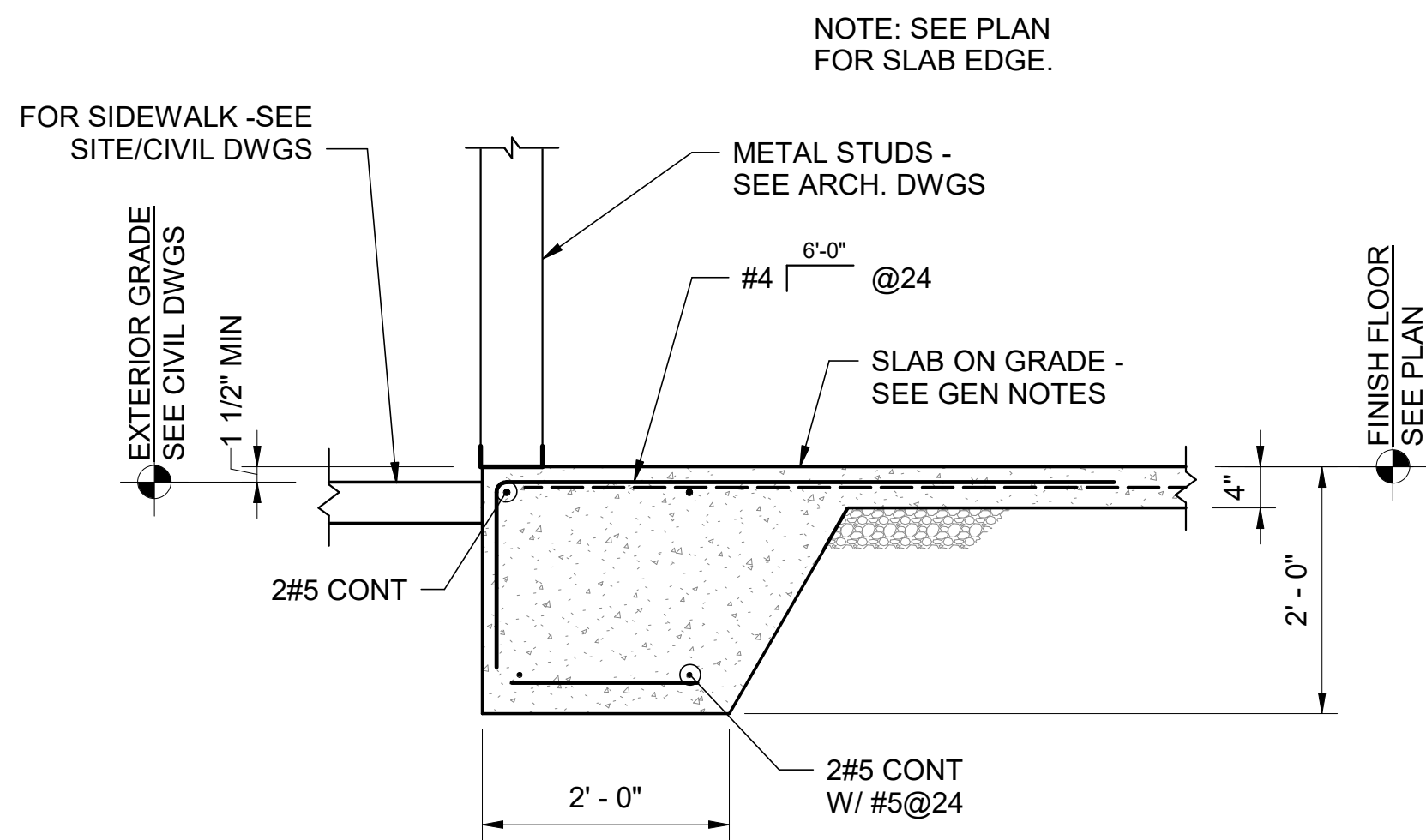
PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE FOUNDATION SECTIONS	
DRAWN BY: CHECKED BY:	RST/GVA KLL
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S3.04</b>	



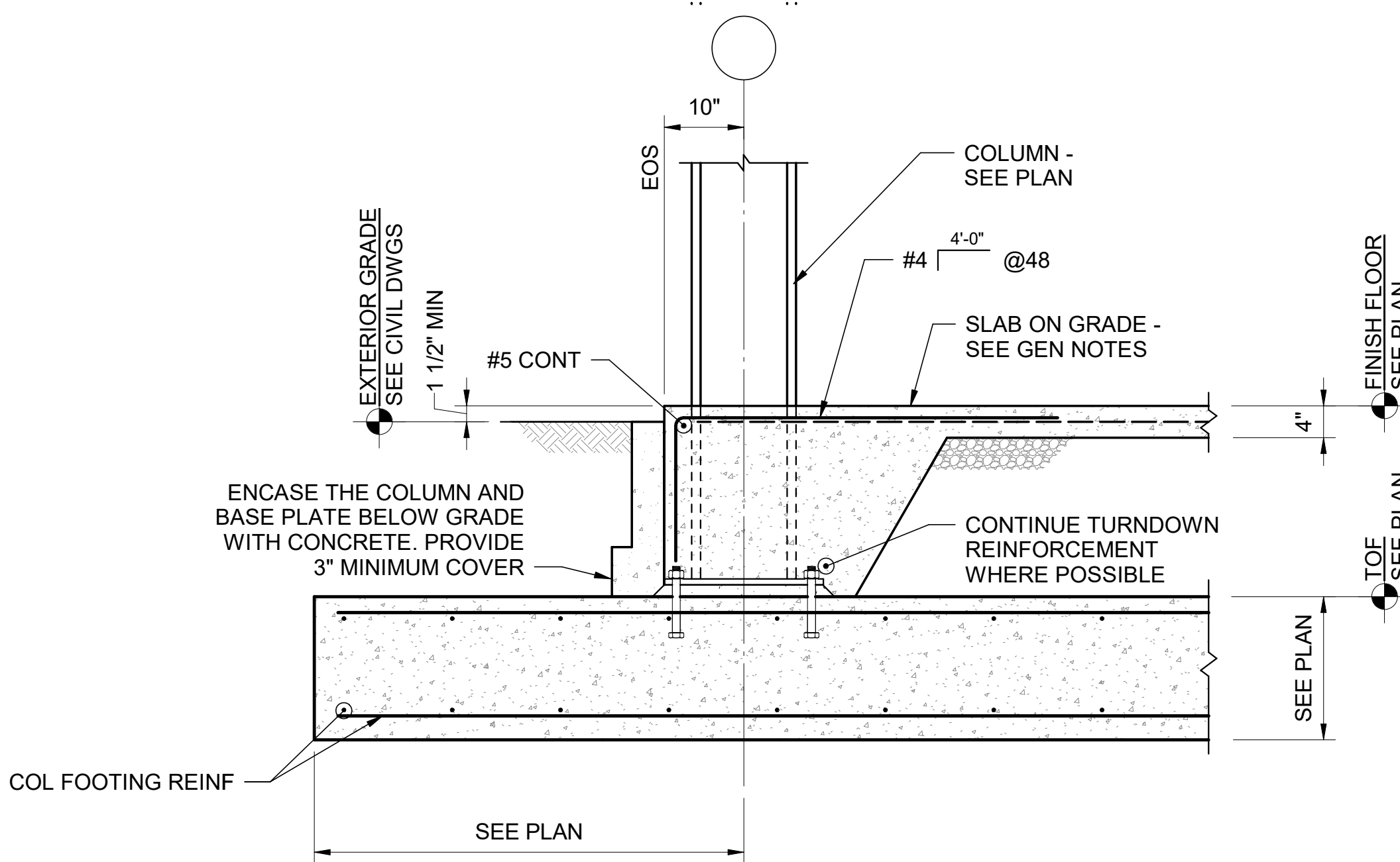
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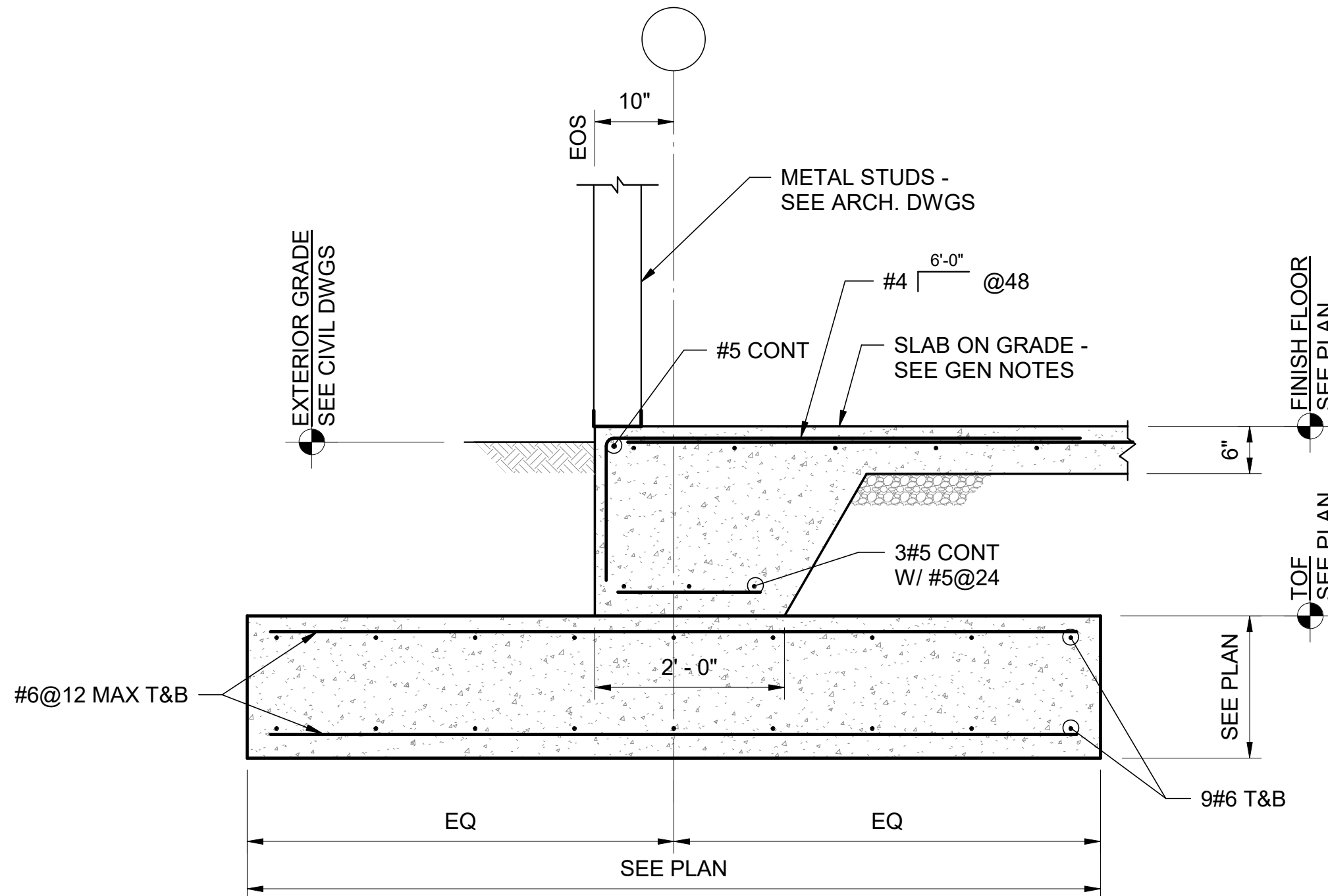
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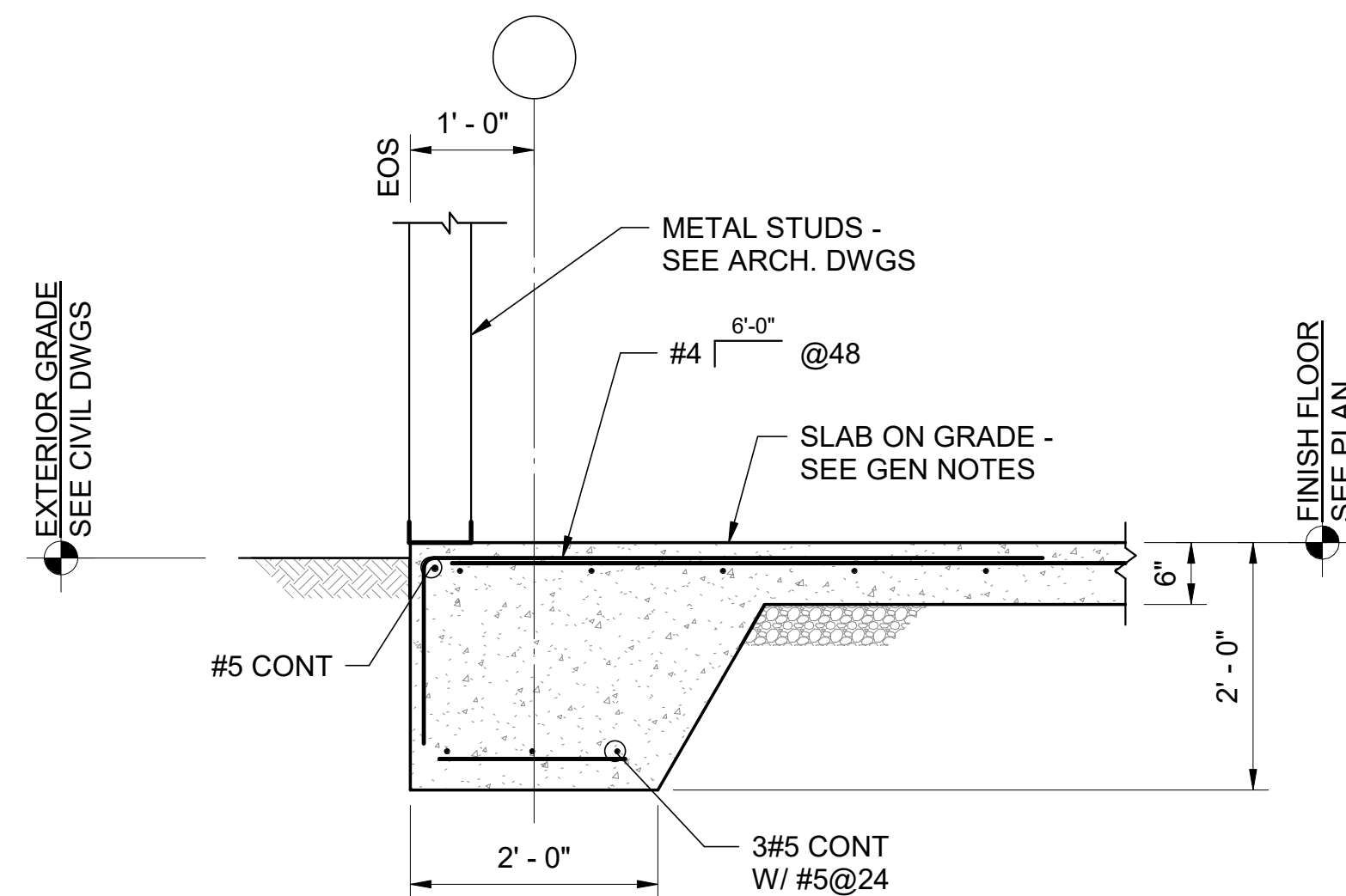
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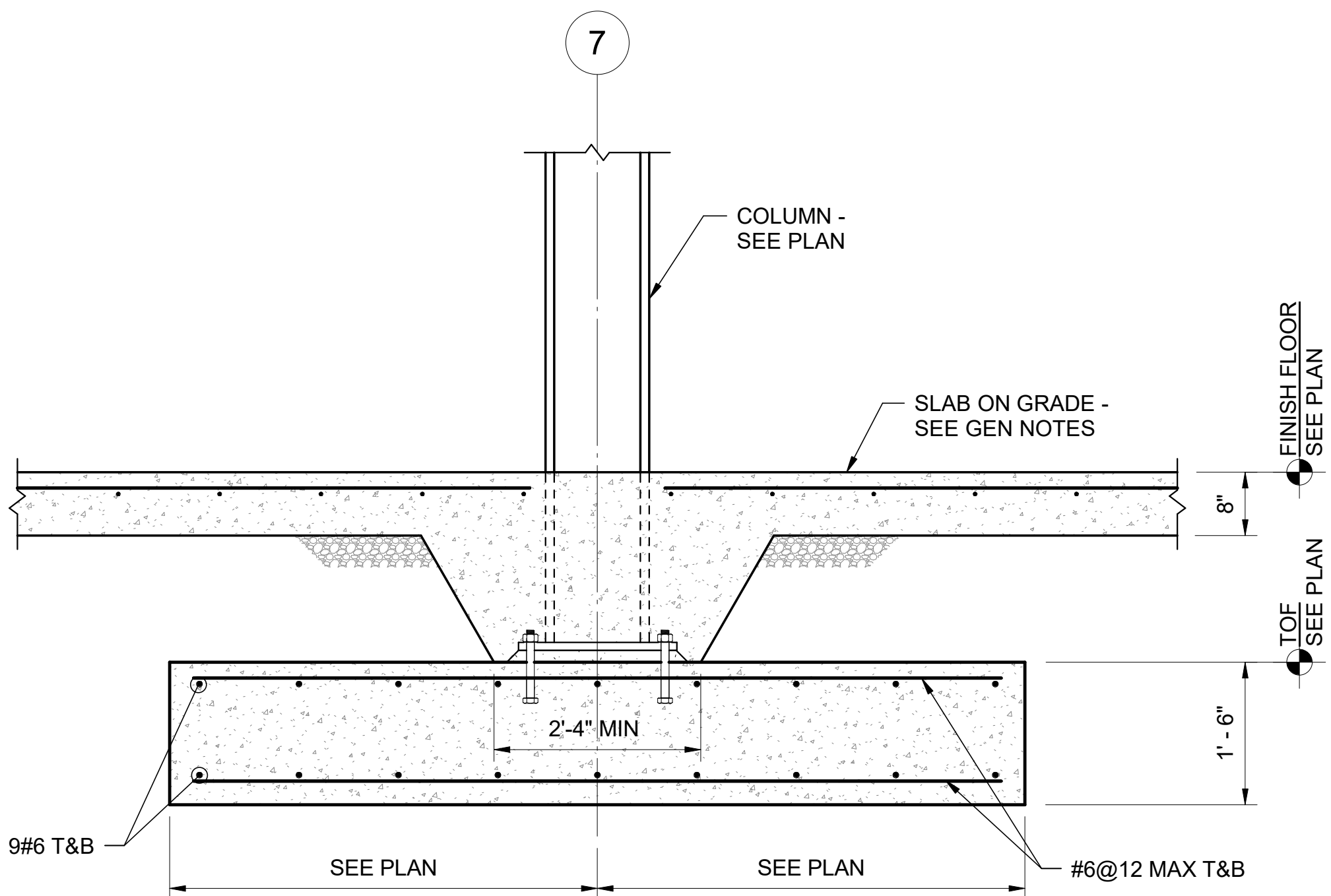
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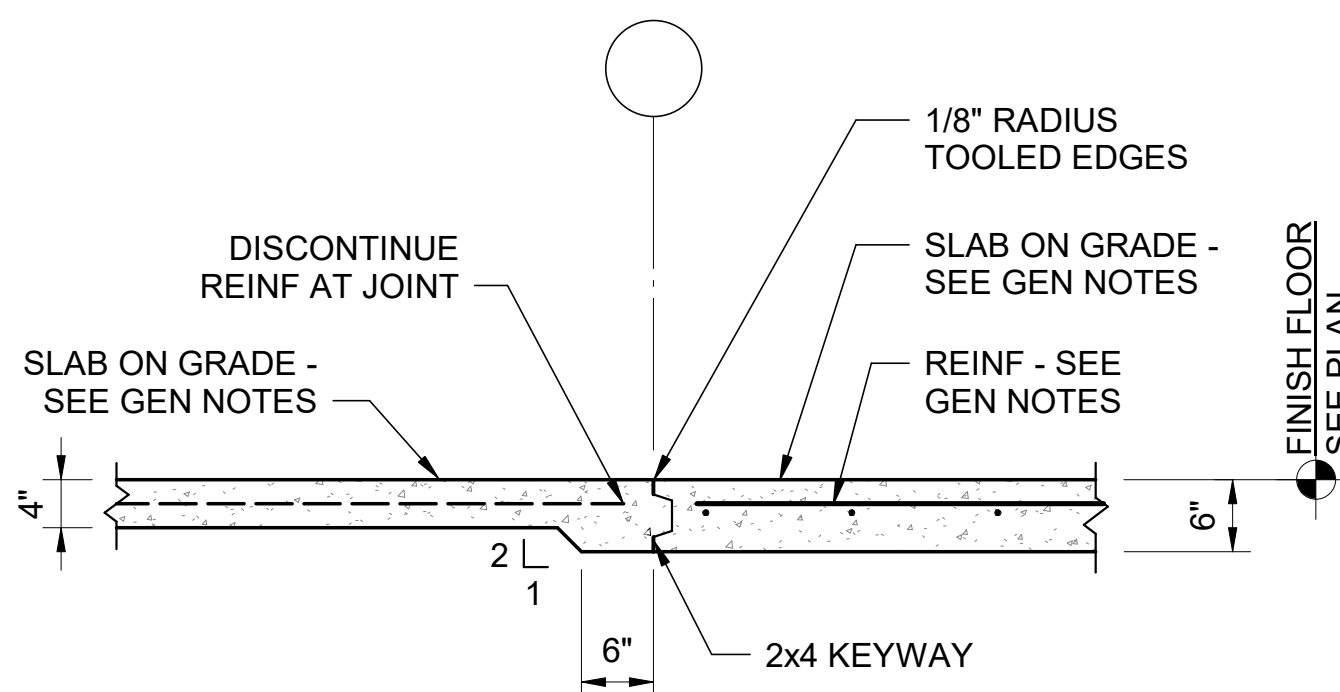
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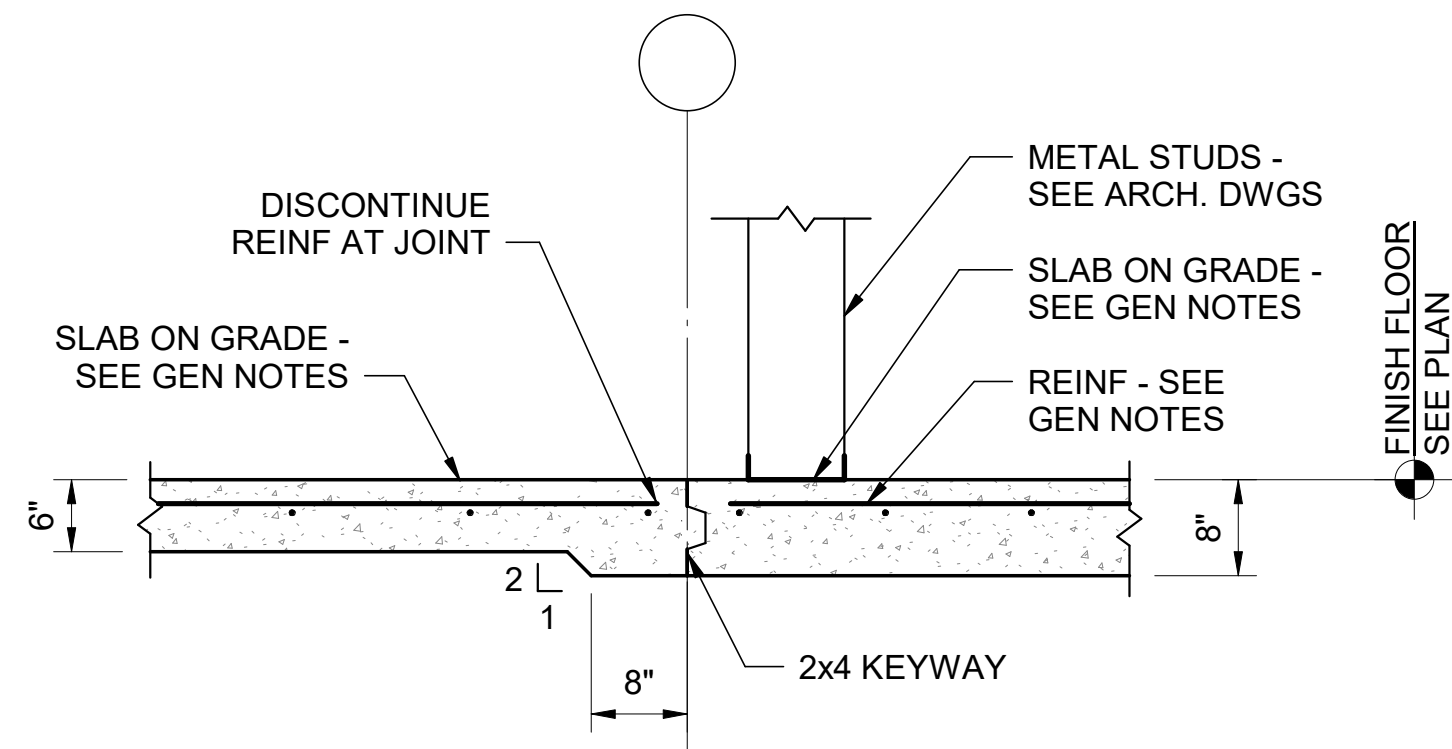
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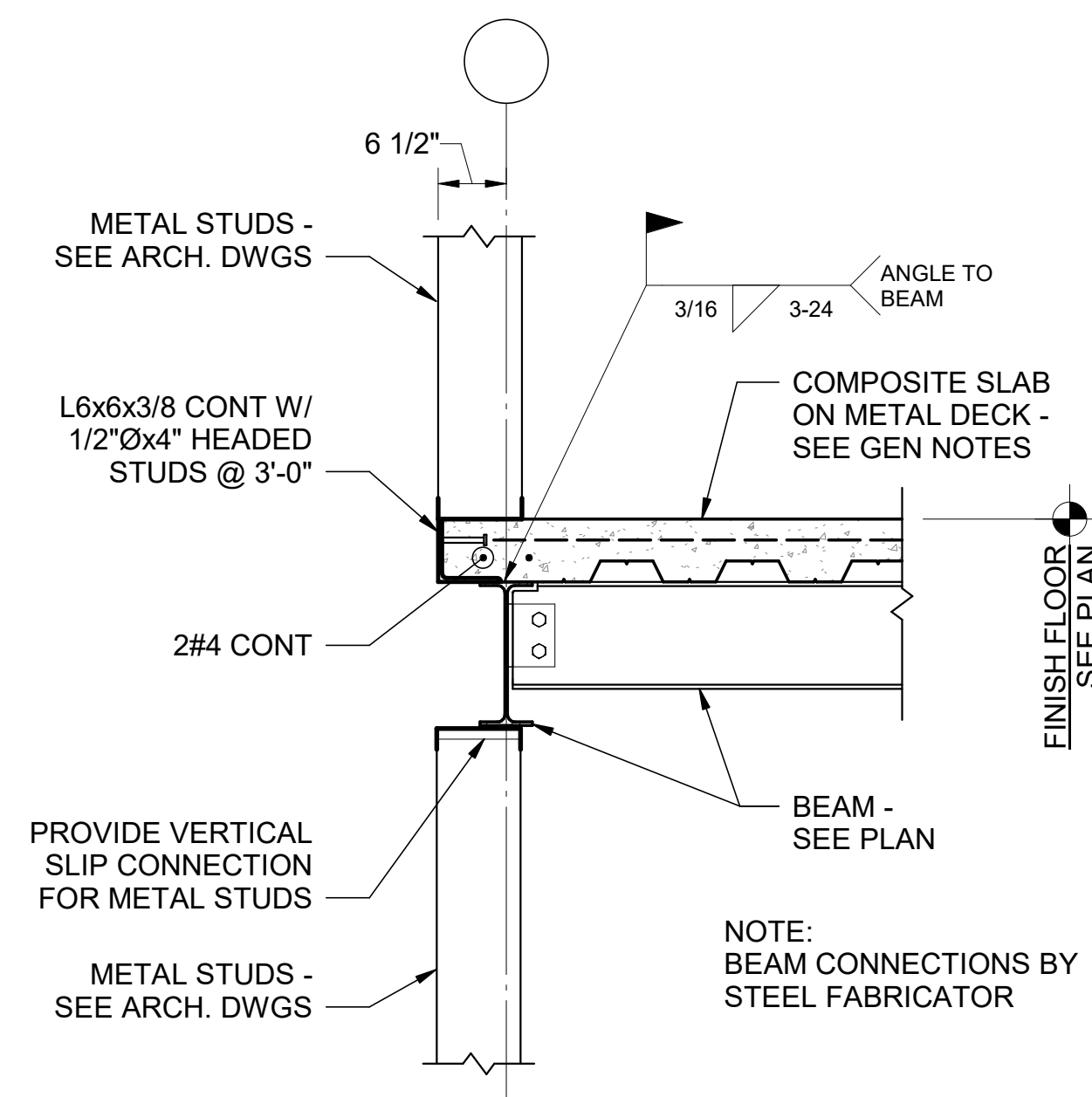
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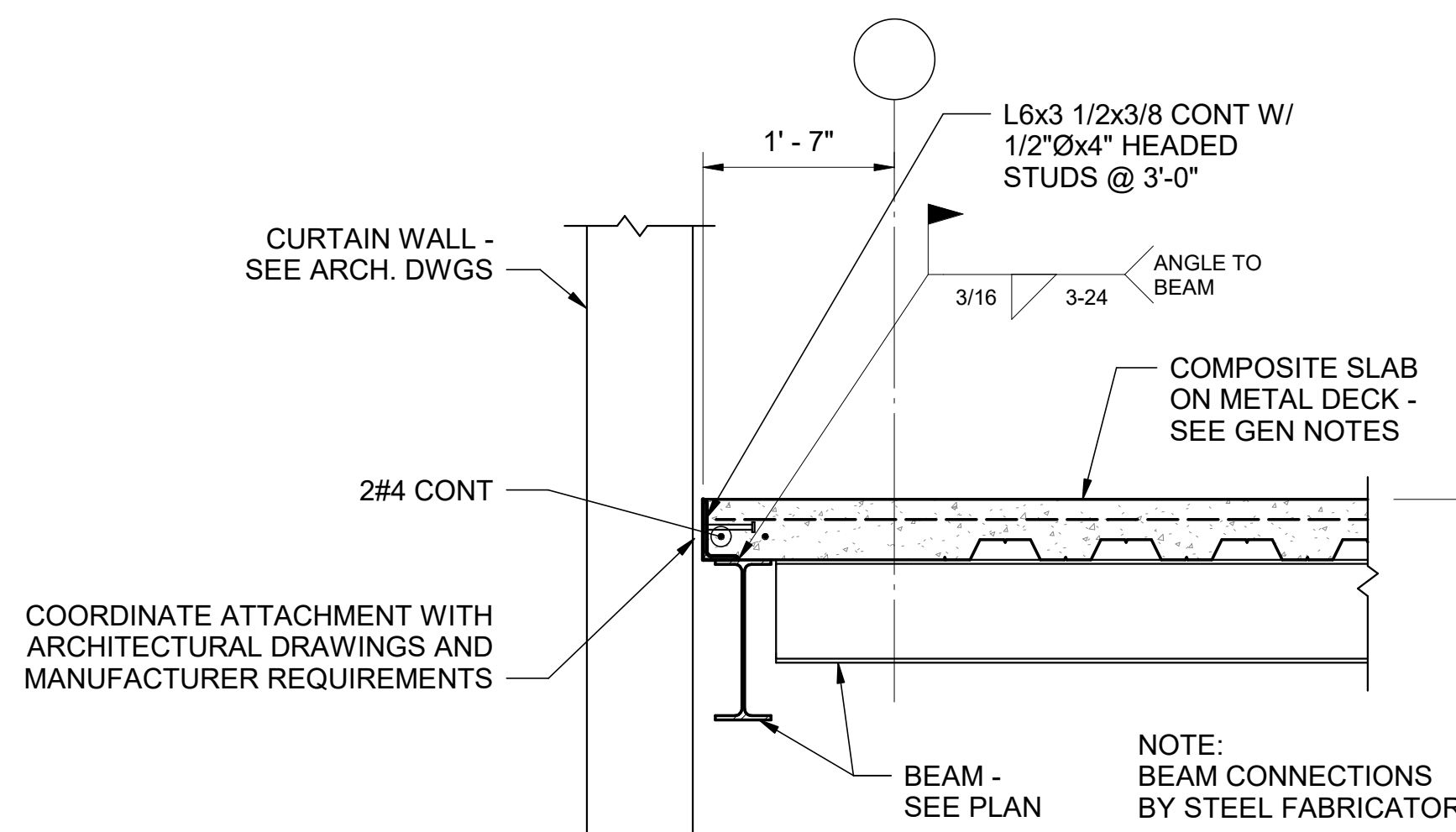
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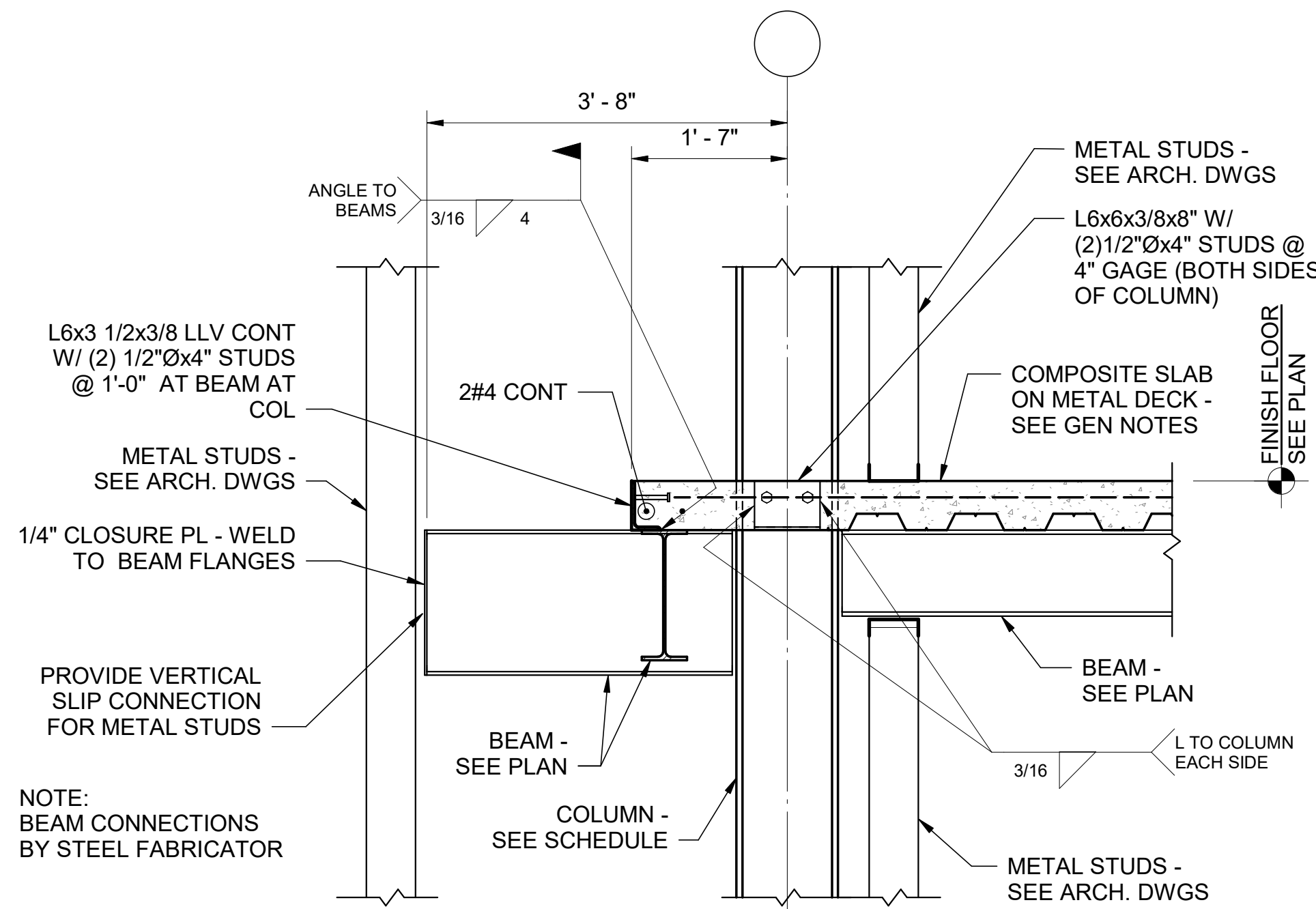
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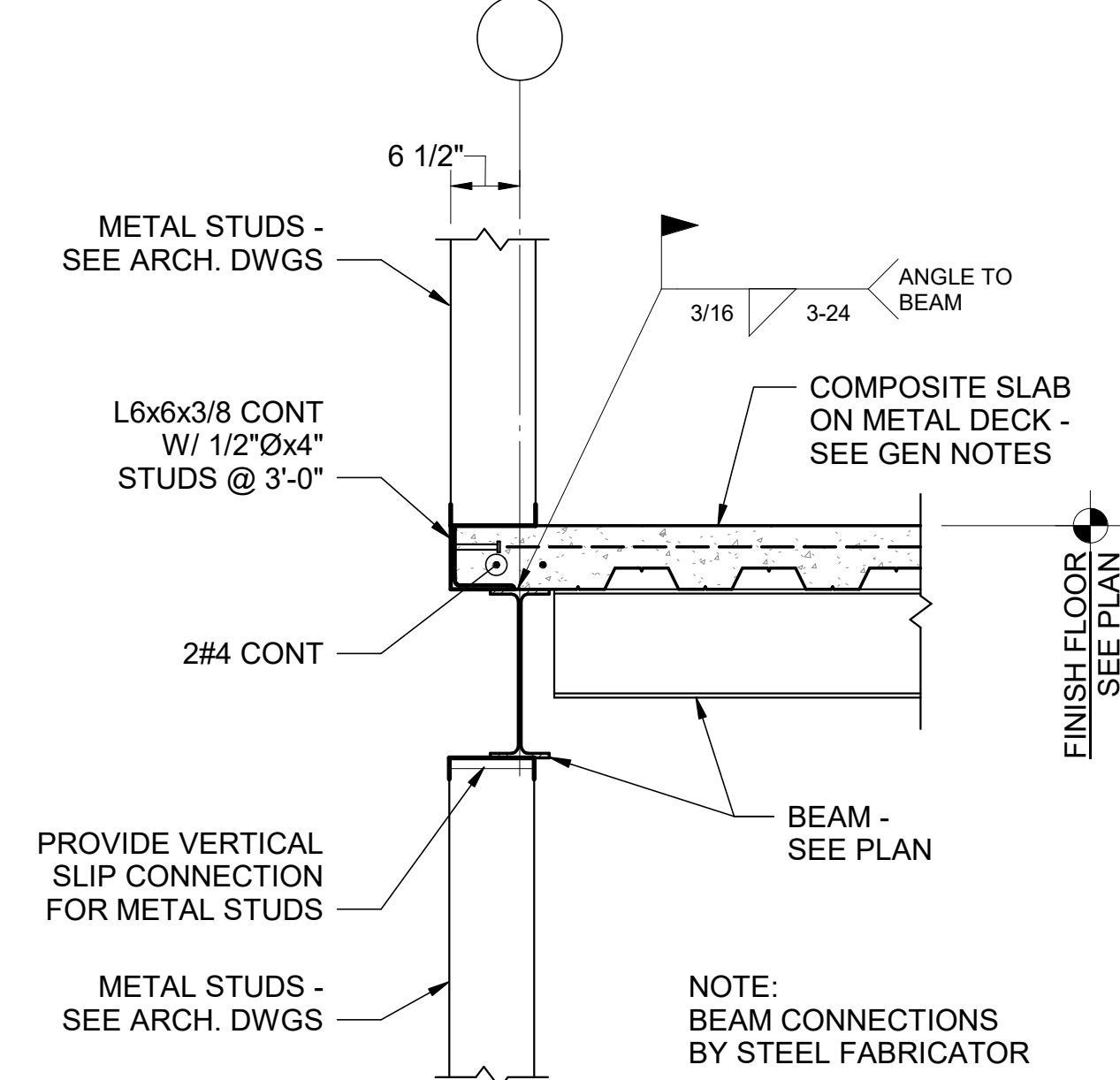
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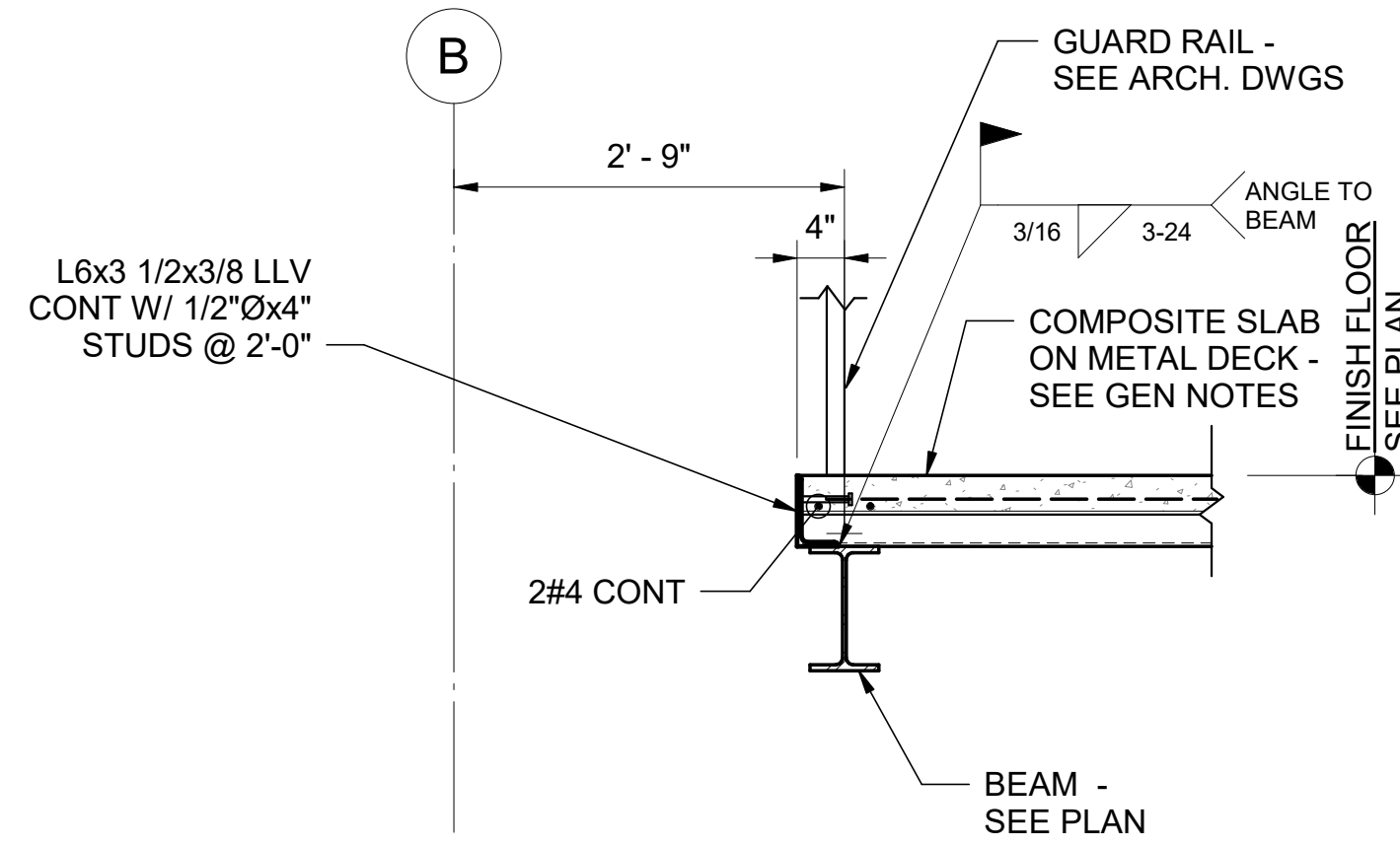
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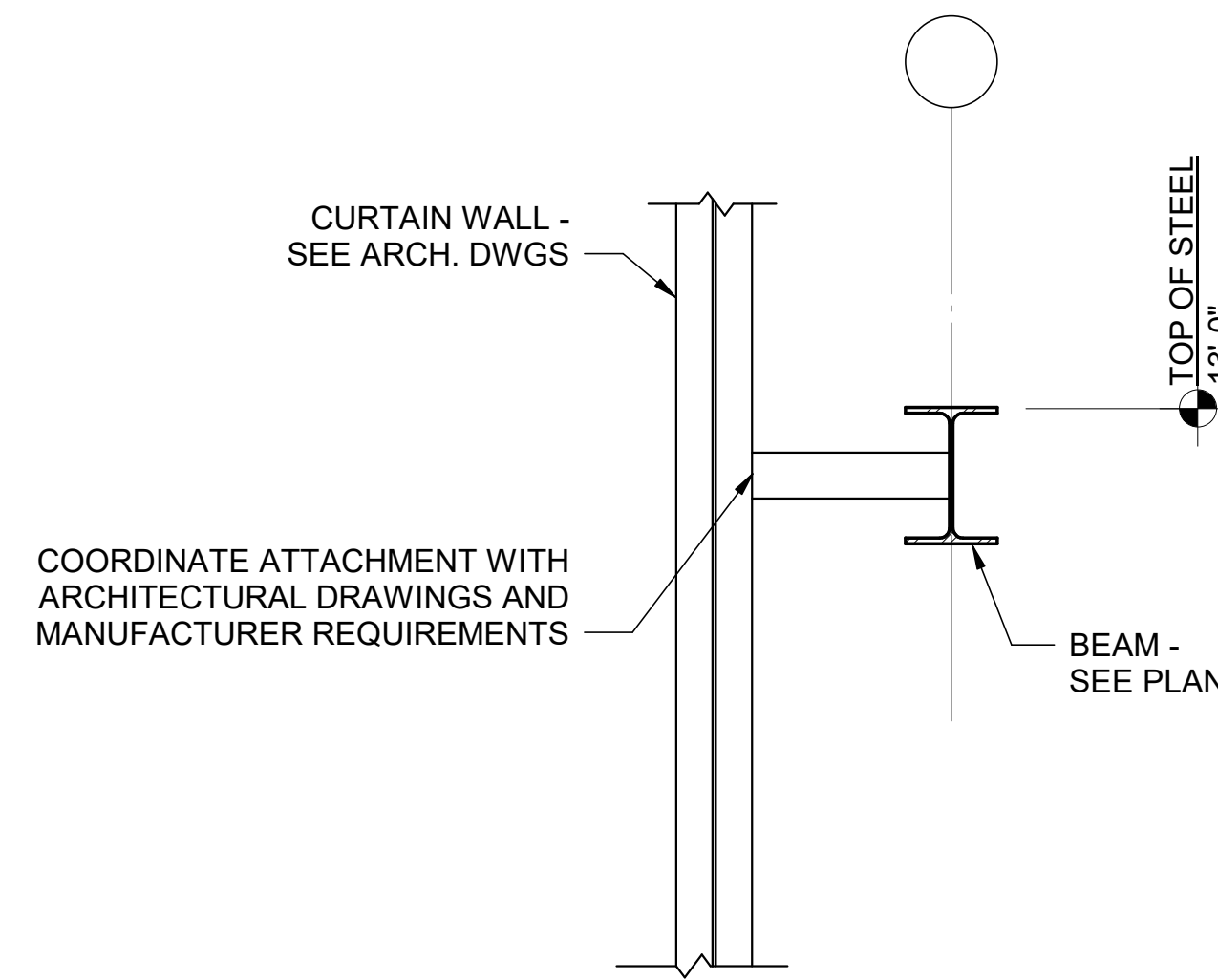
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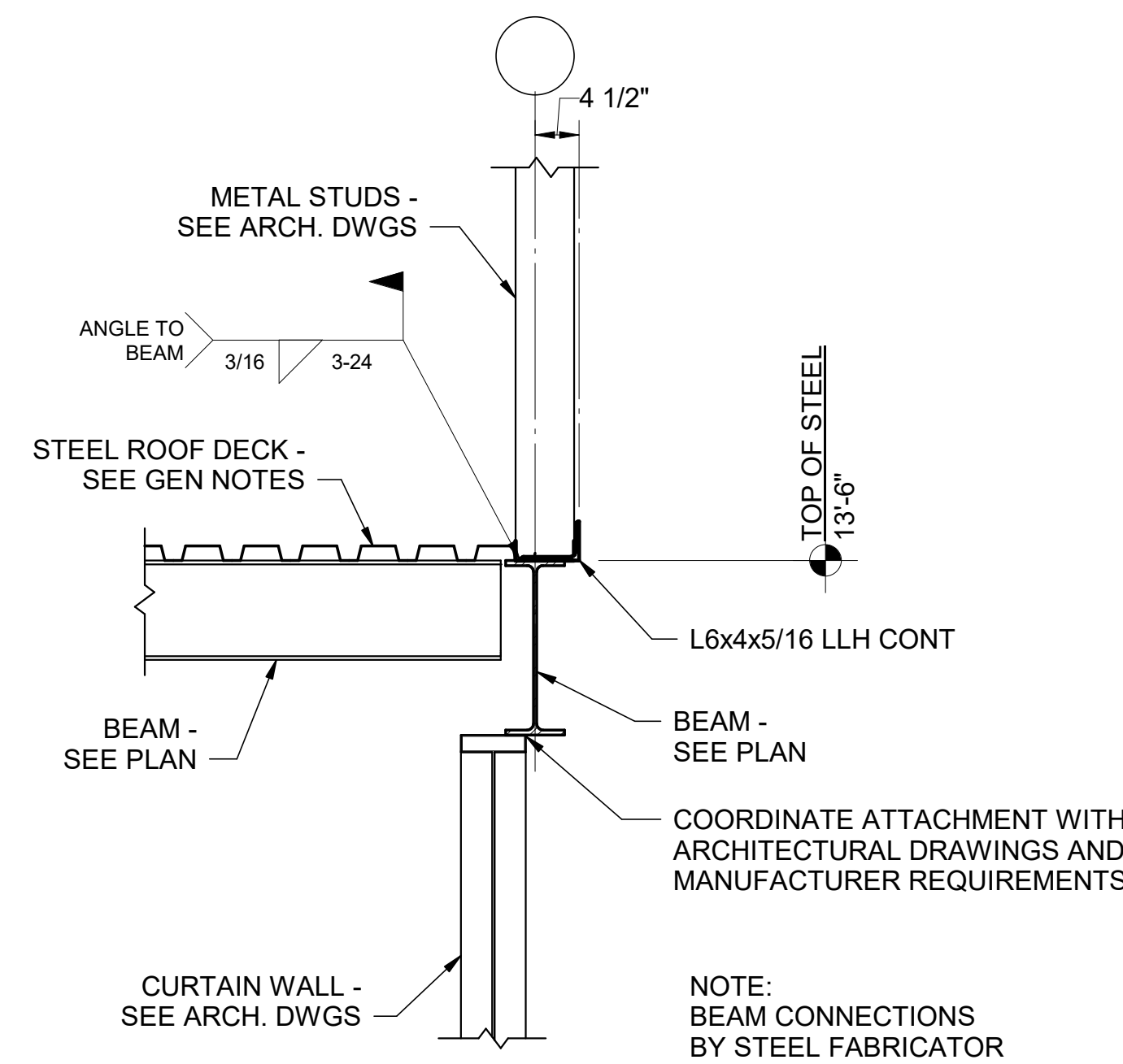
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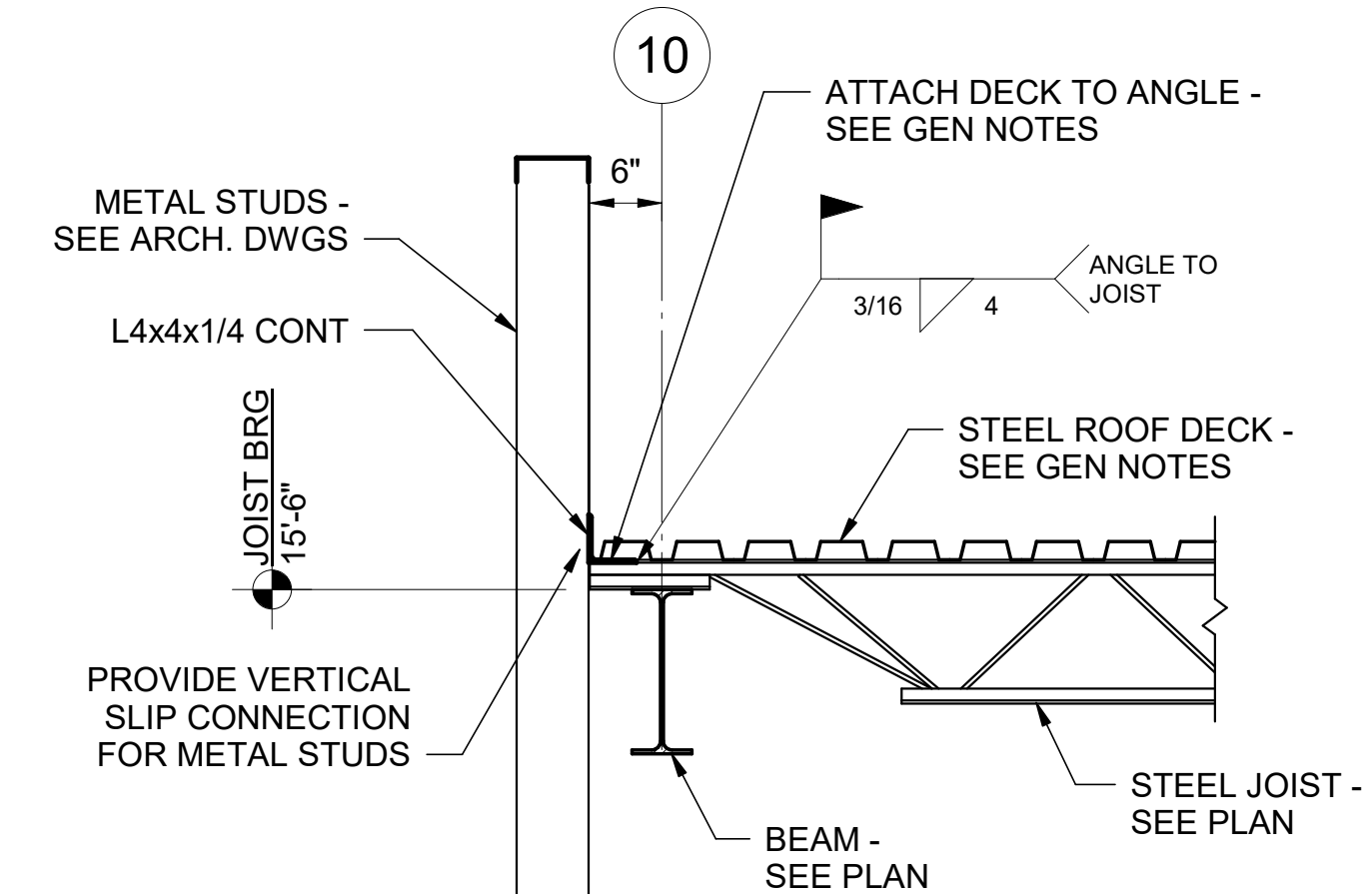
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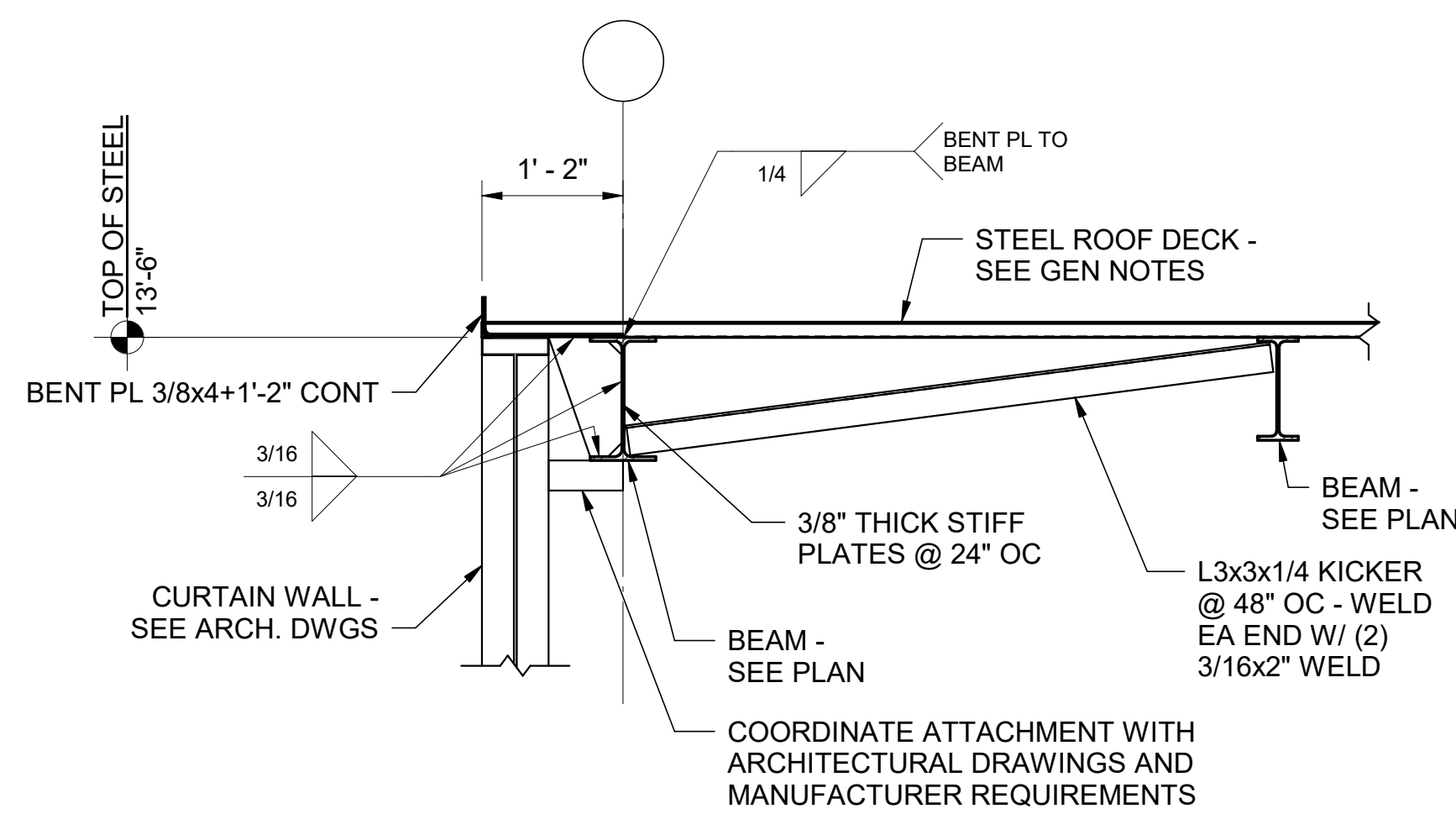
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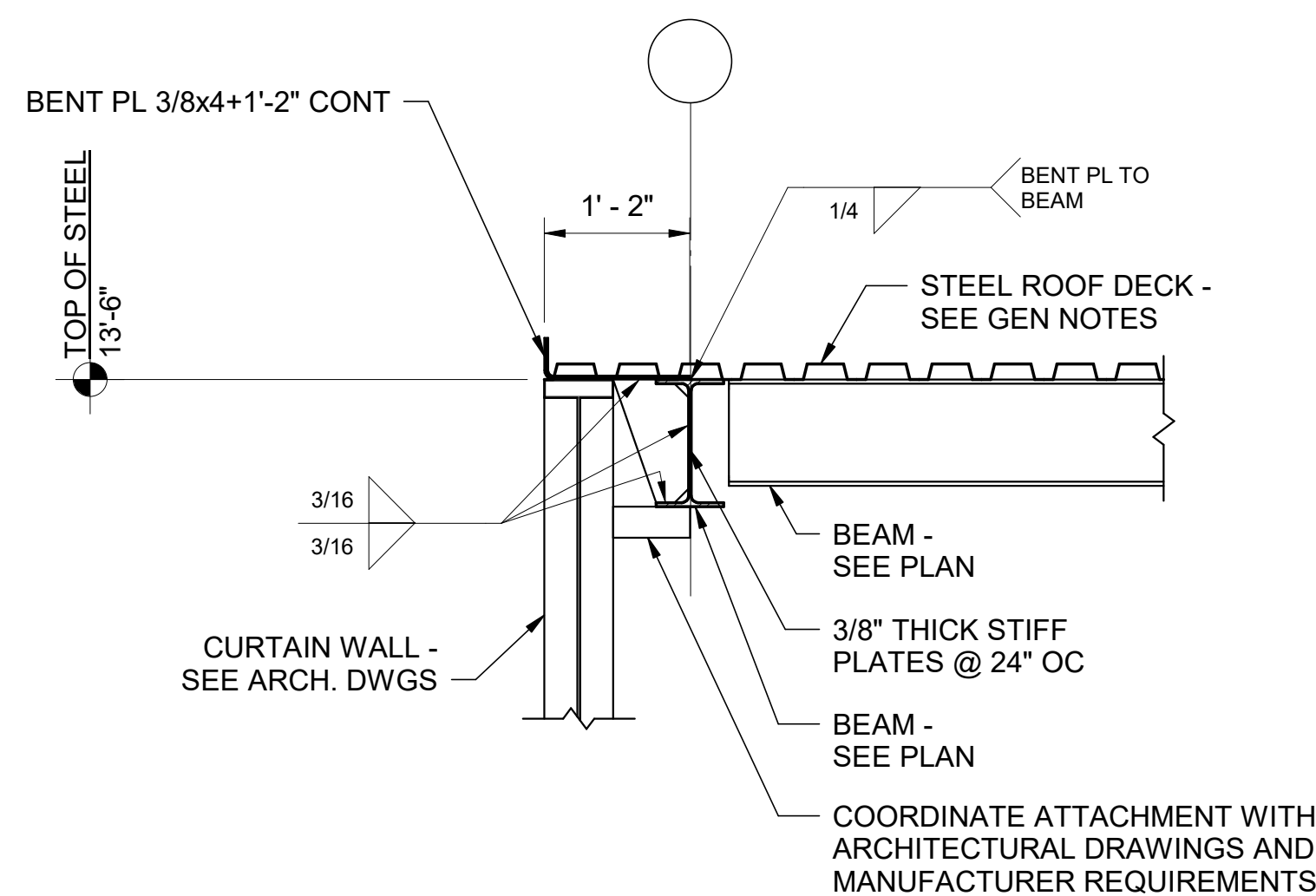
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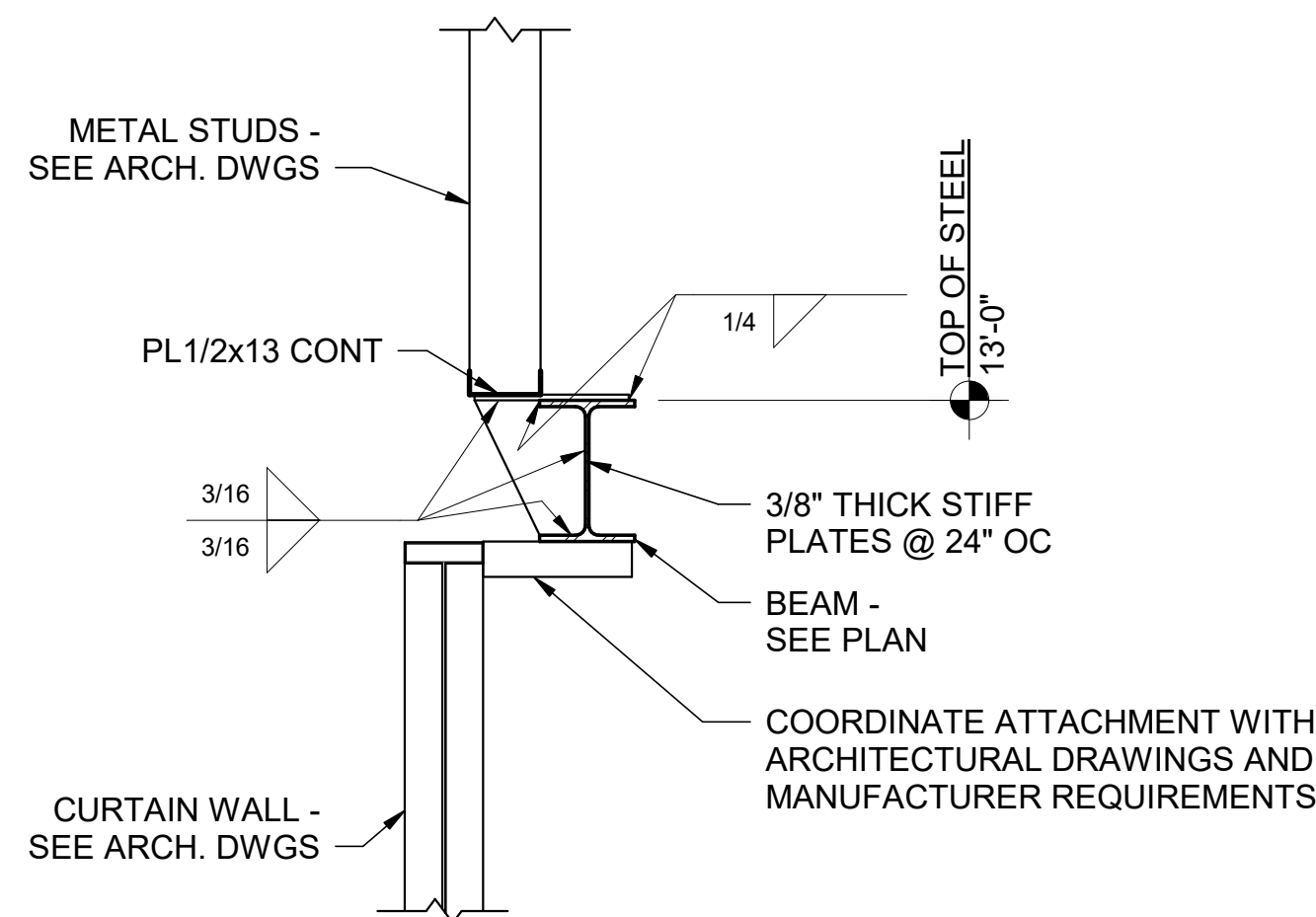
**8 Section**  
S4.01 3/4" = 1'-0"



**9 Section**  
S4.01 3/4" = 1'-0"



**10 Section**  
S4.01 3/4" = 1'-0"



**11 Section**  
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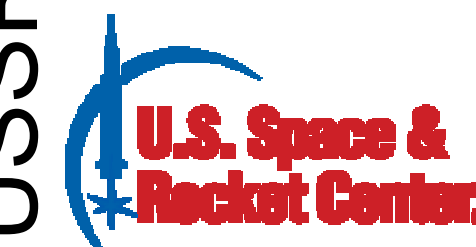
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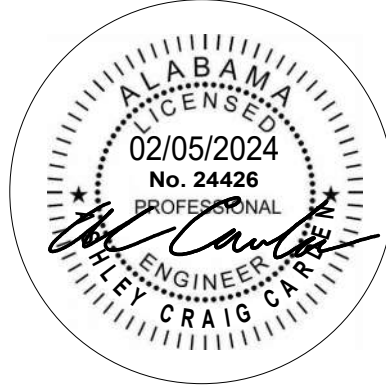


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DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
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PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.01</b>	



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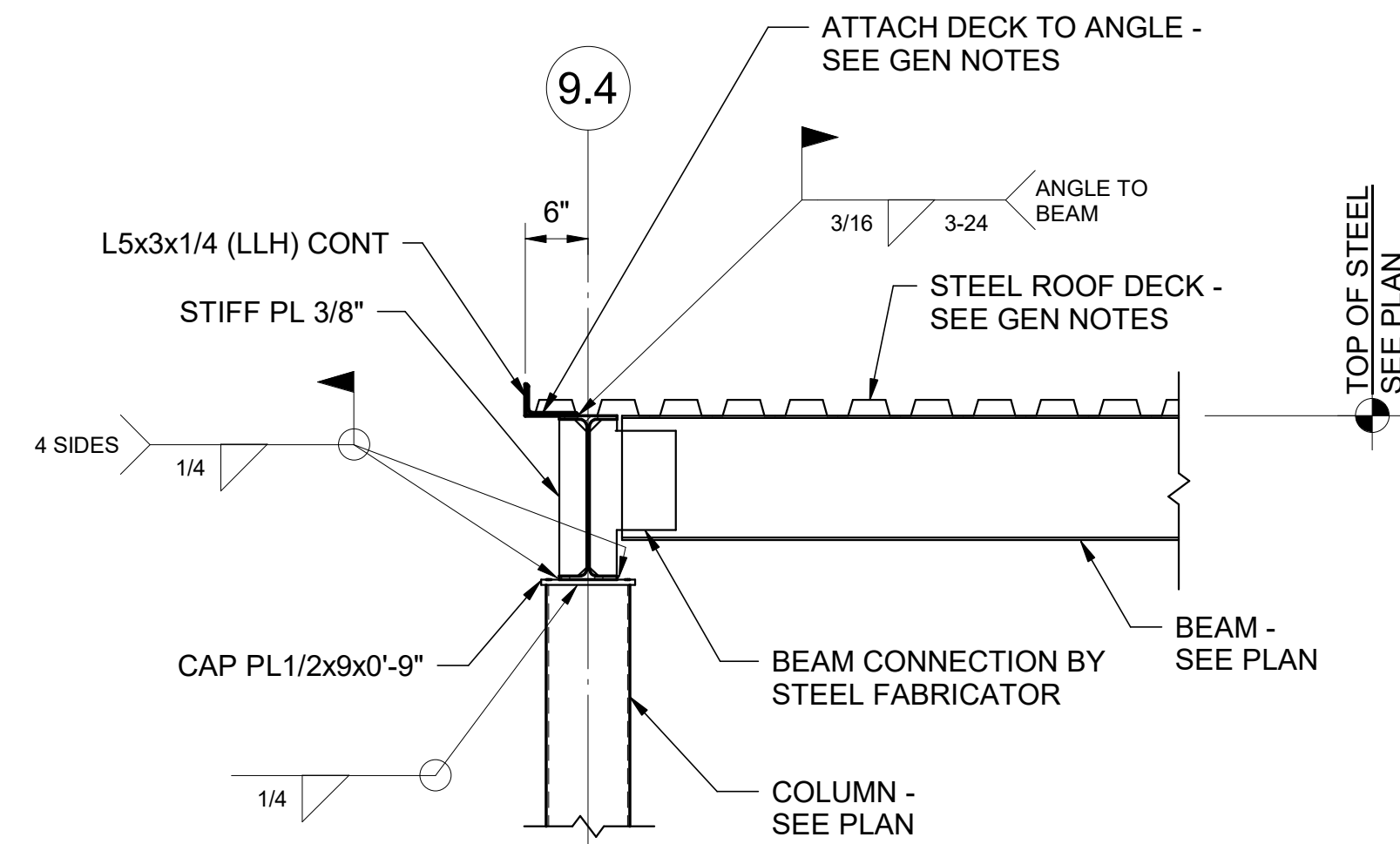
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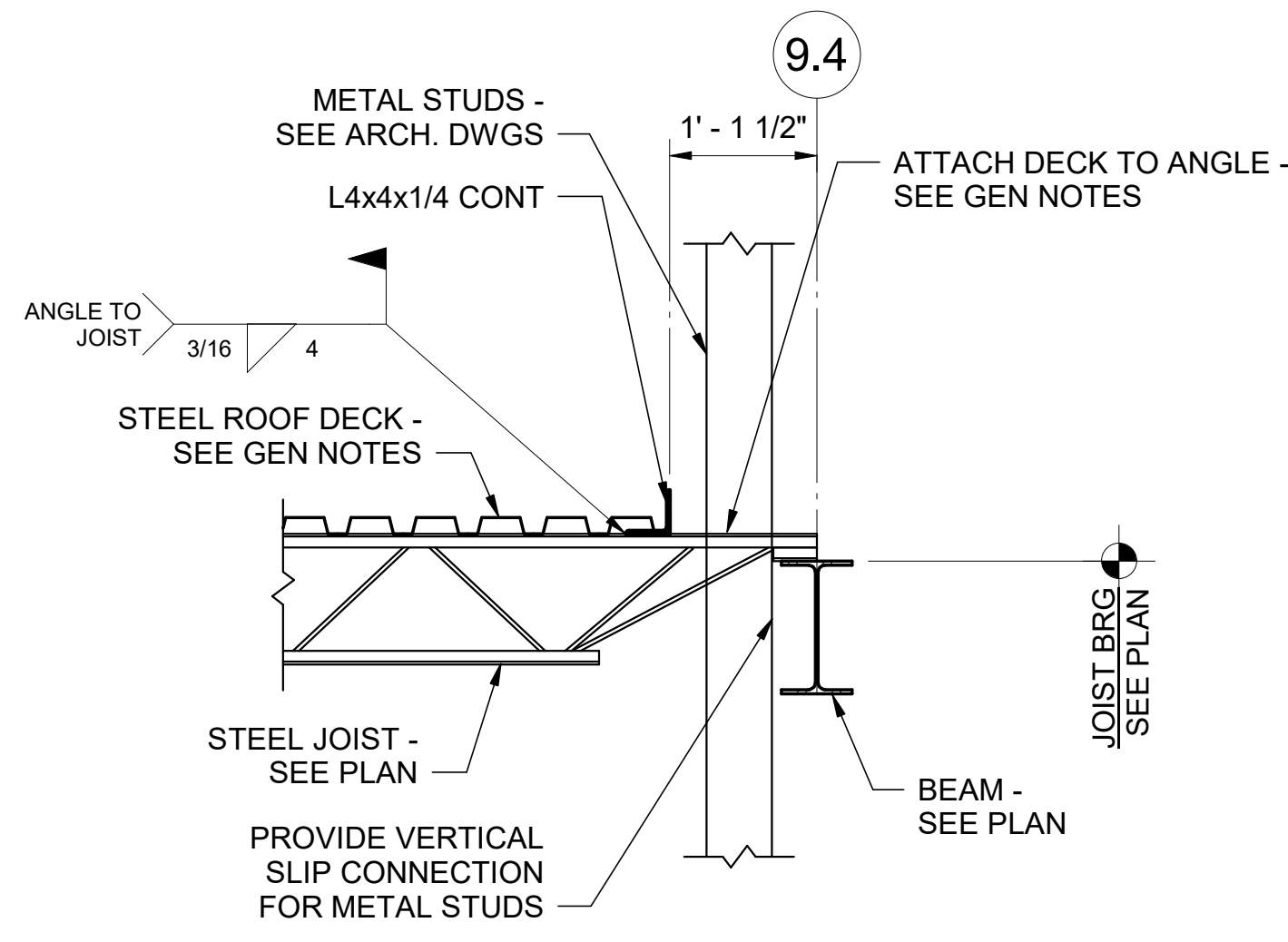
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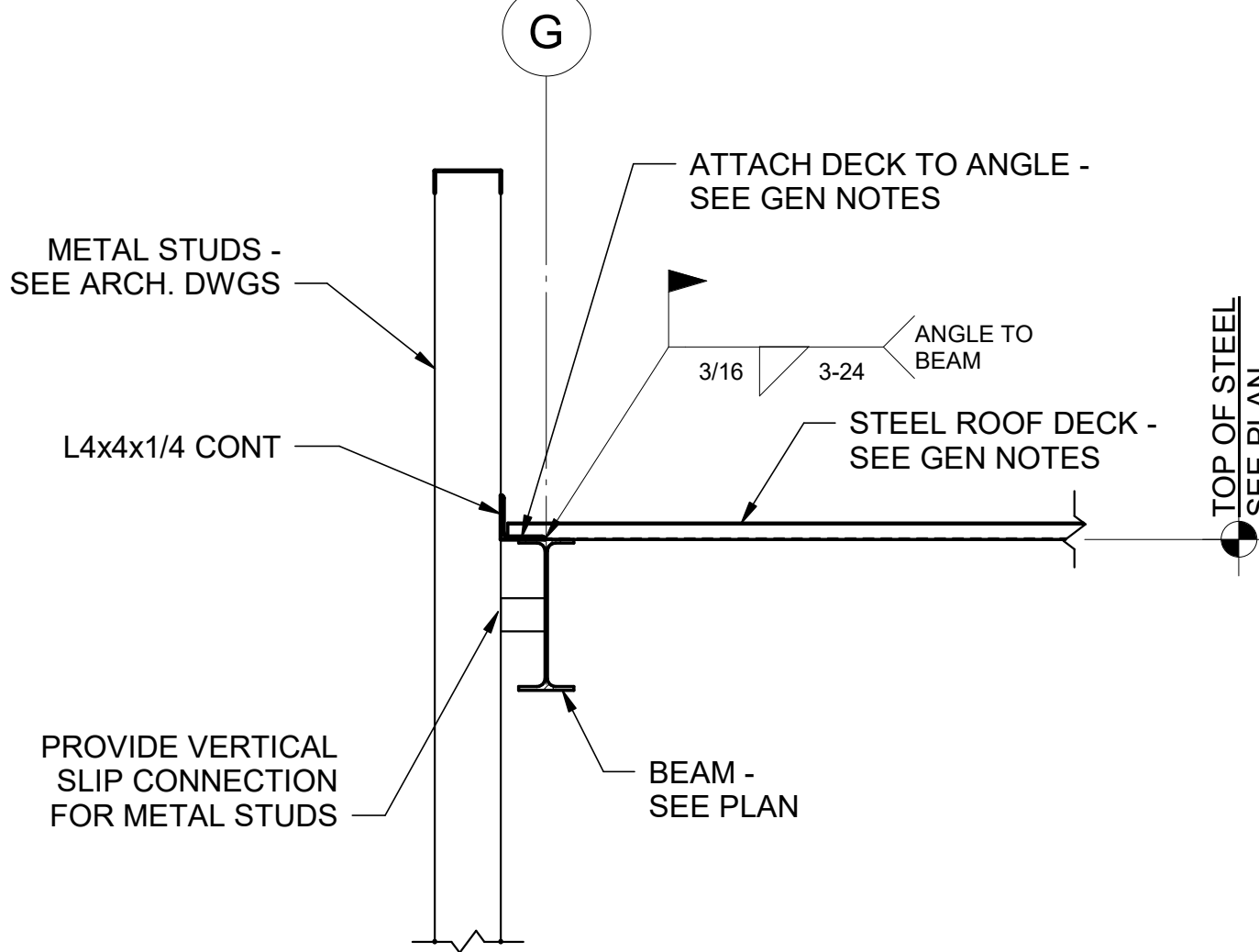
PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
DRAWN BY: RST/GVA CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.02</b>	



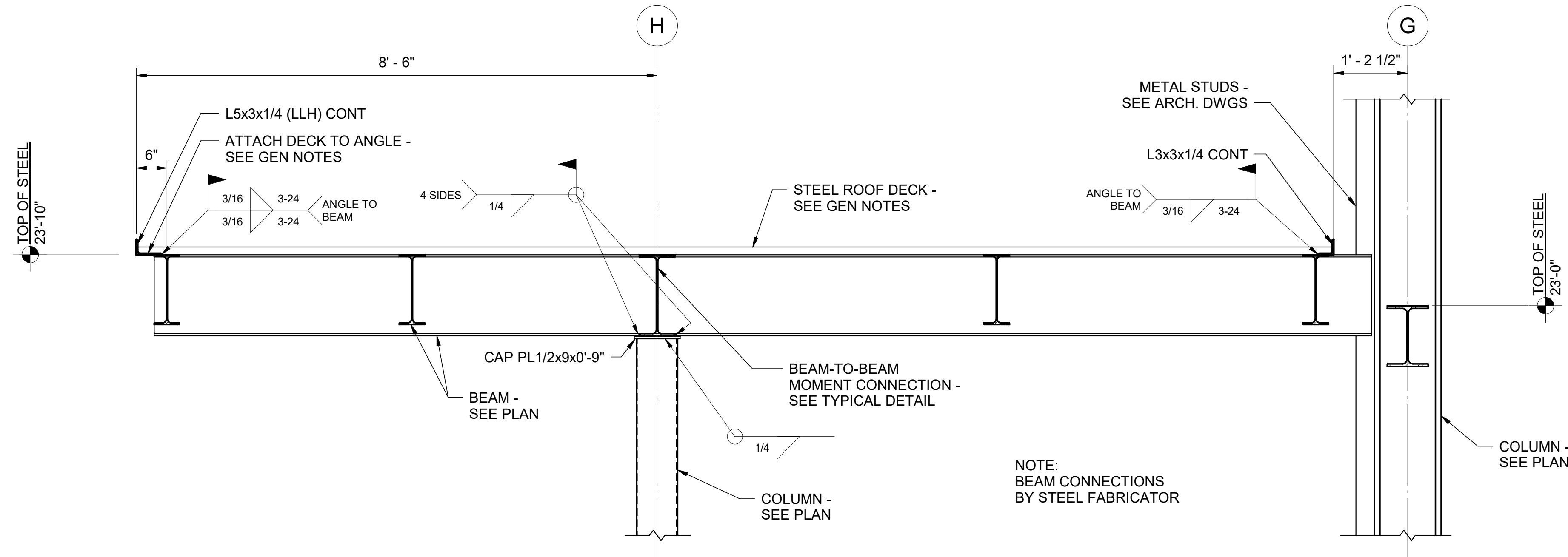
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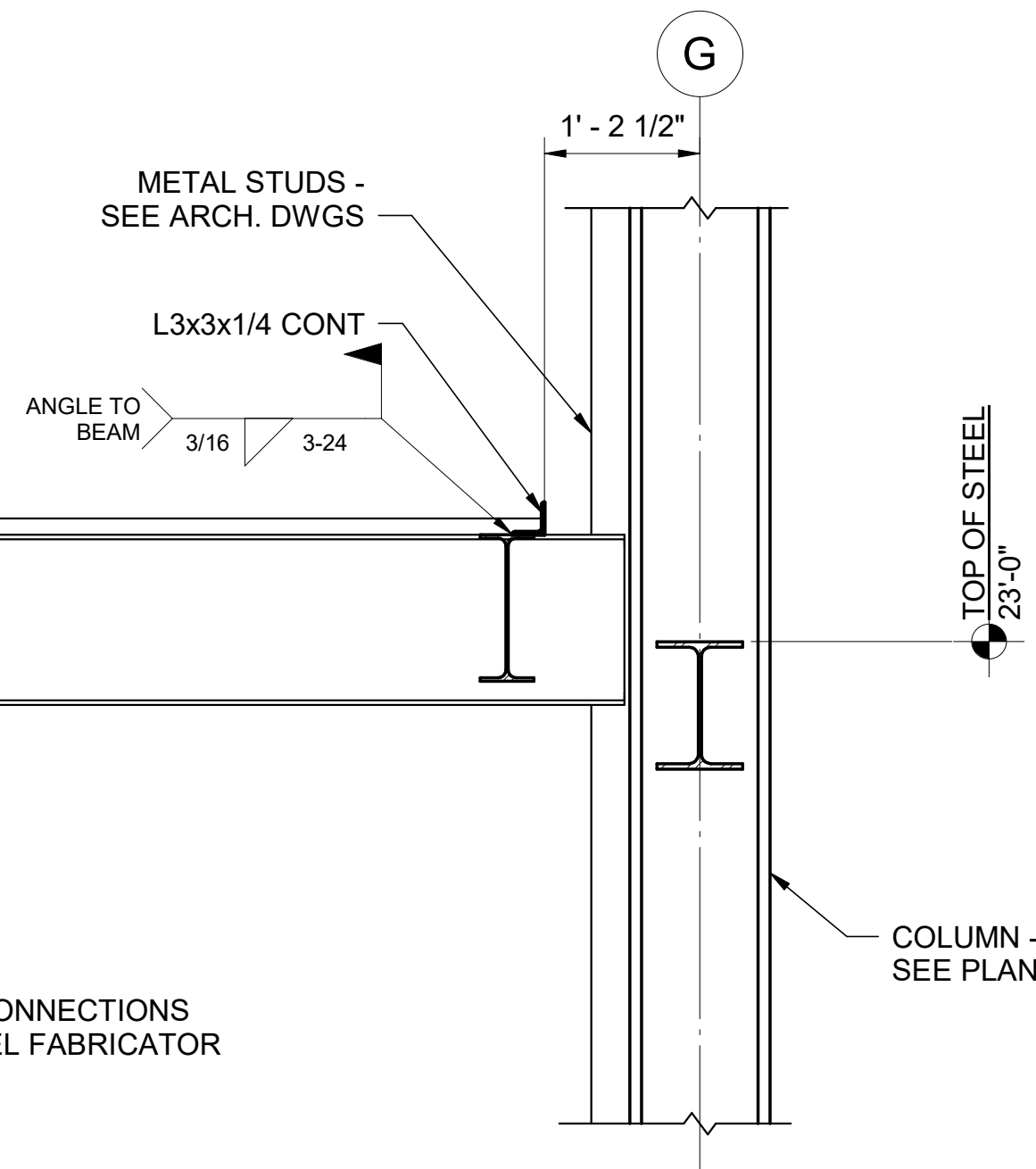
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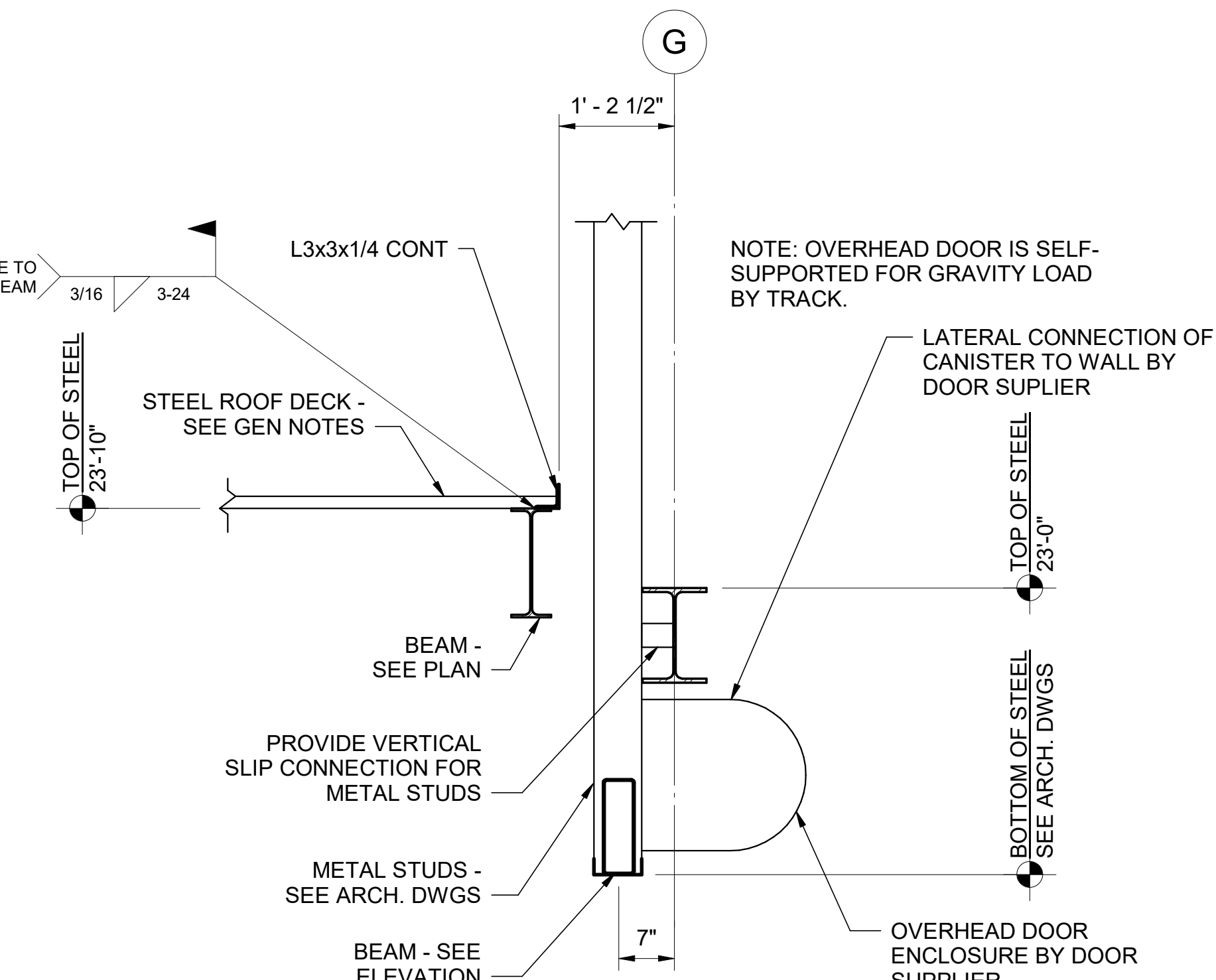
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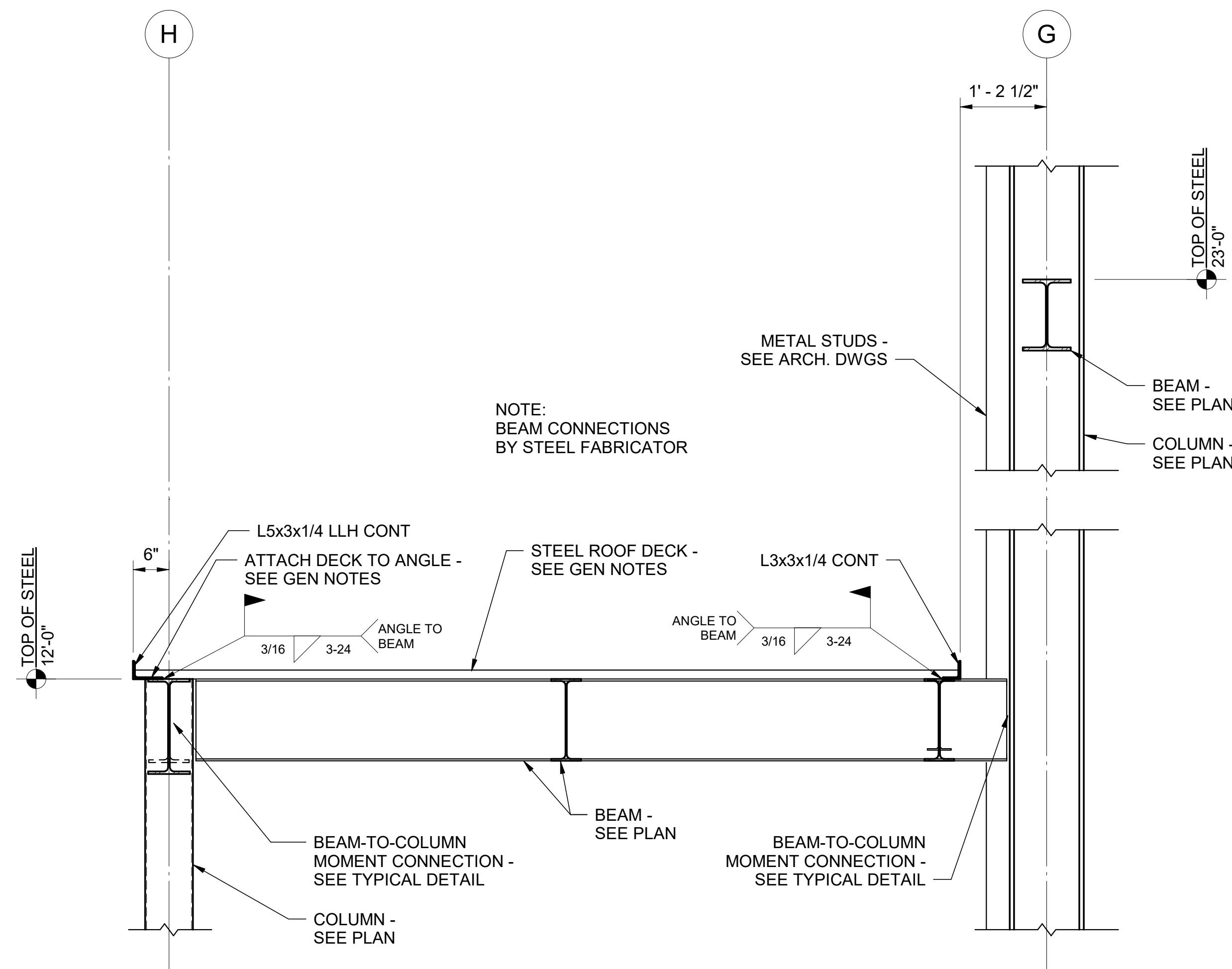
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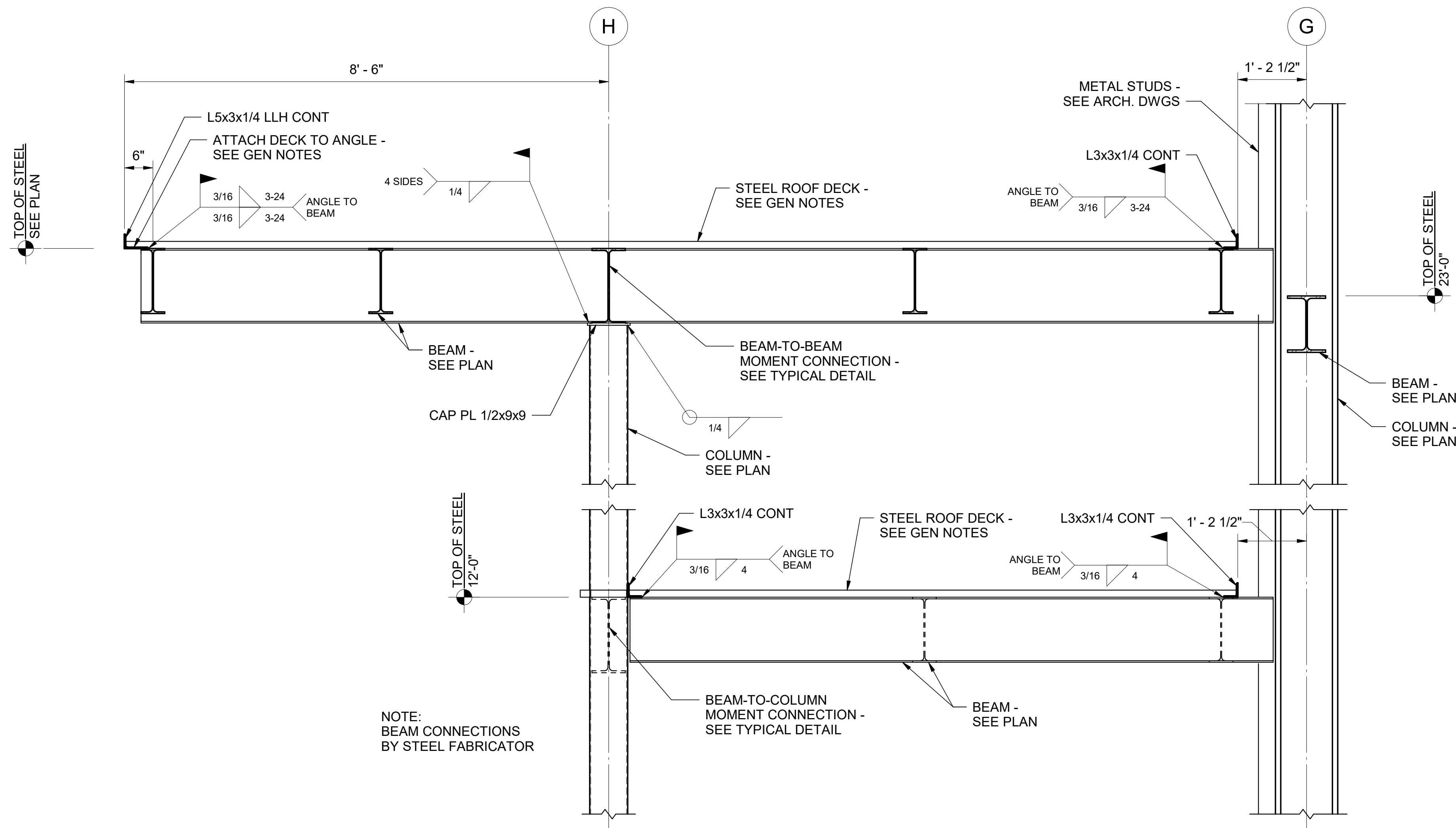
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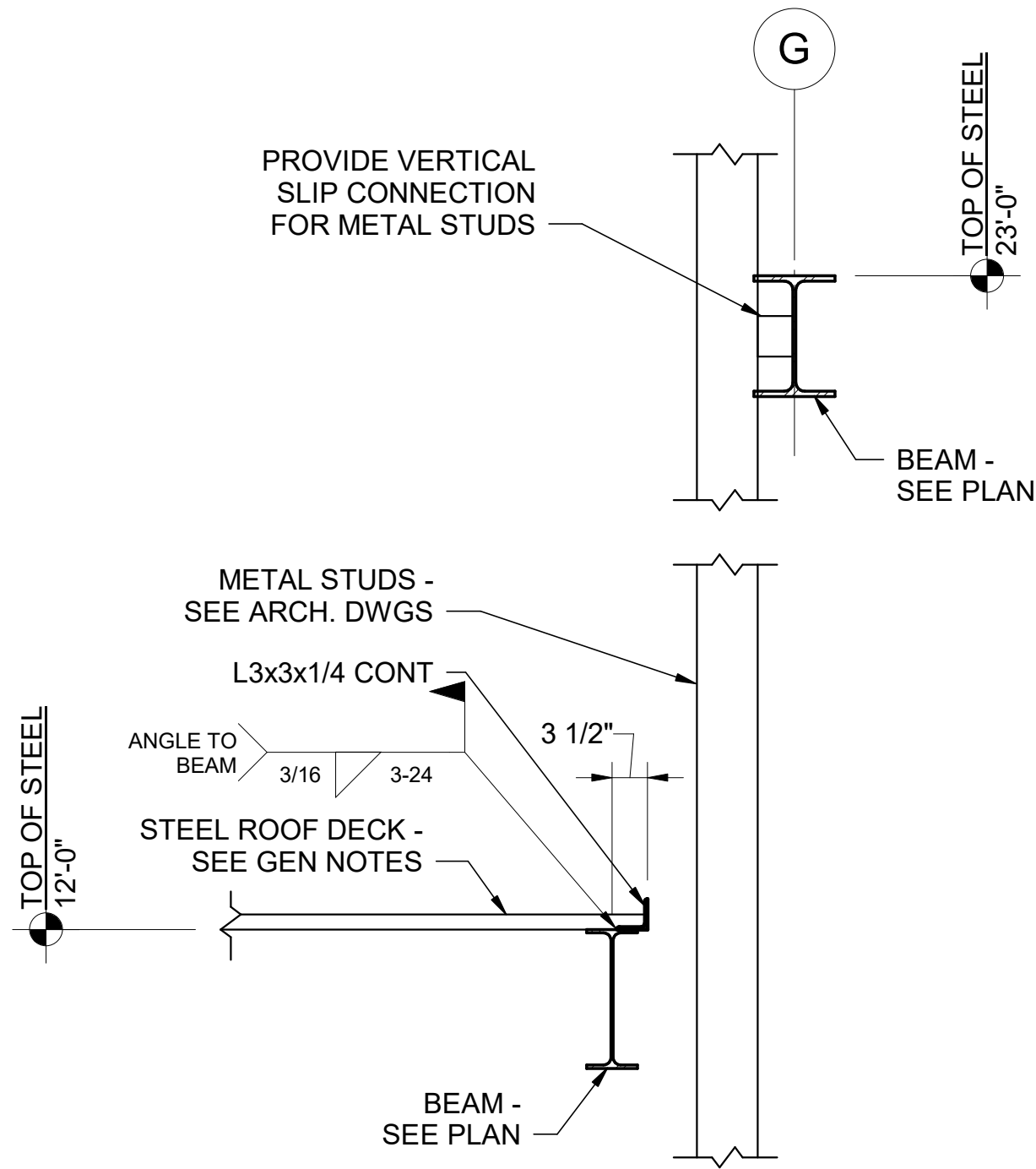
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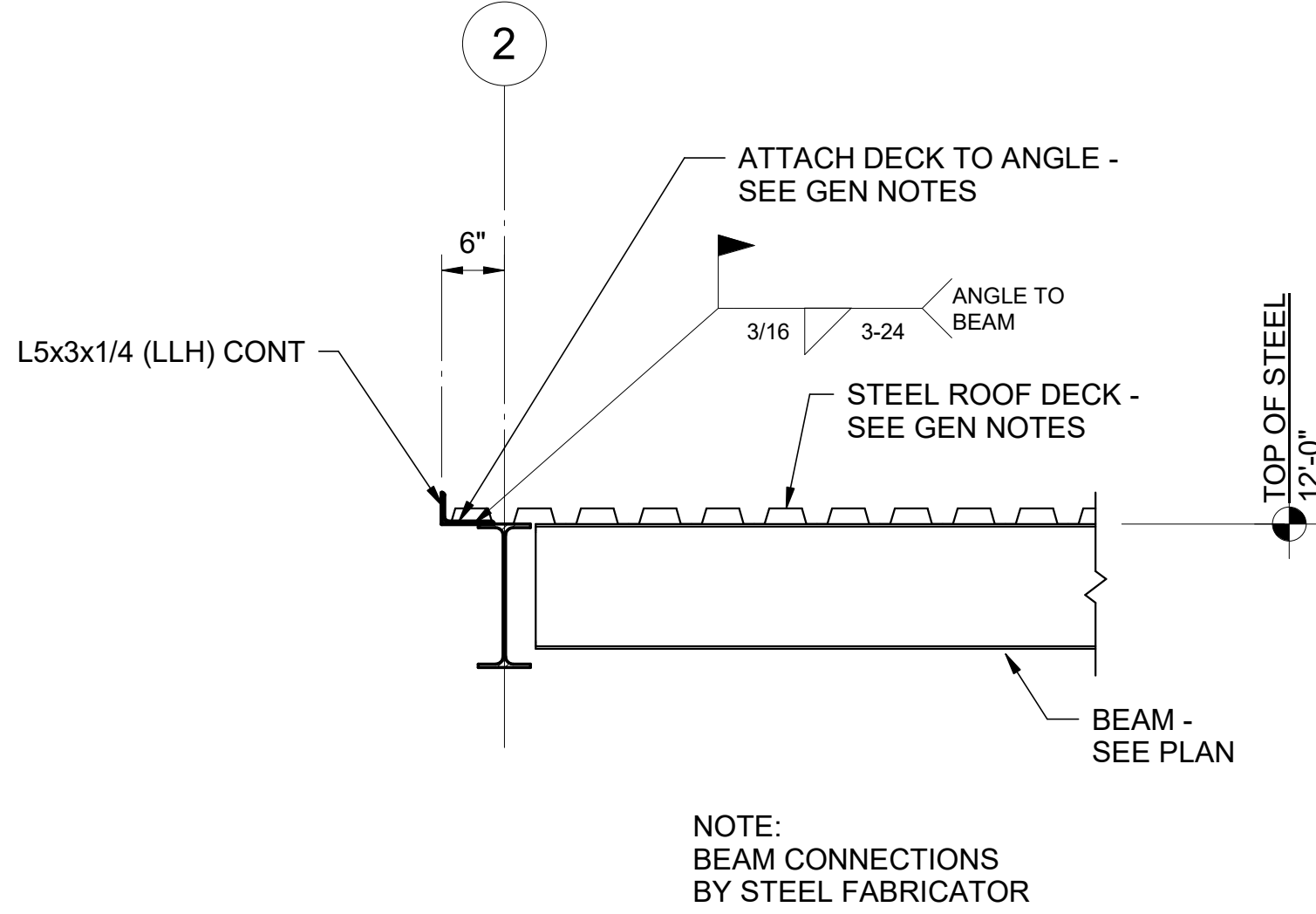
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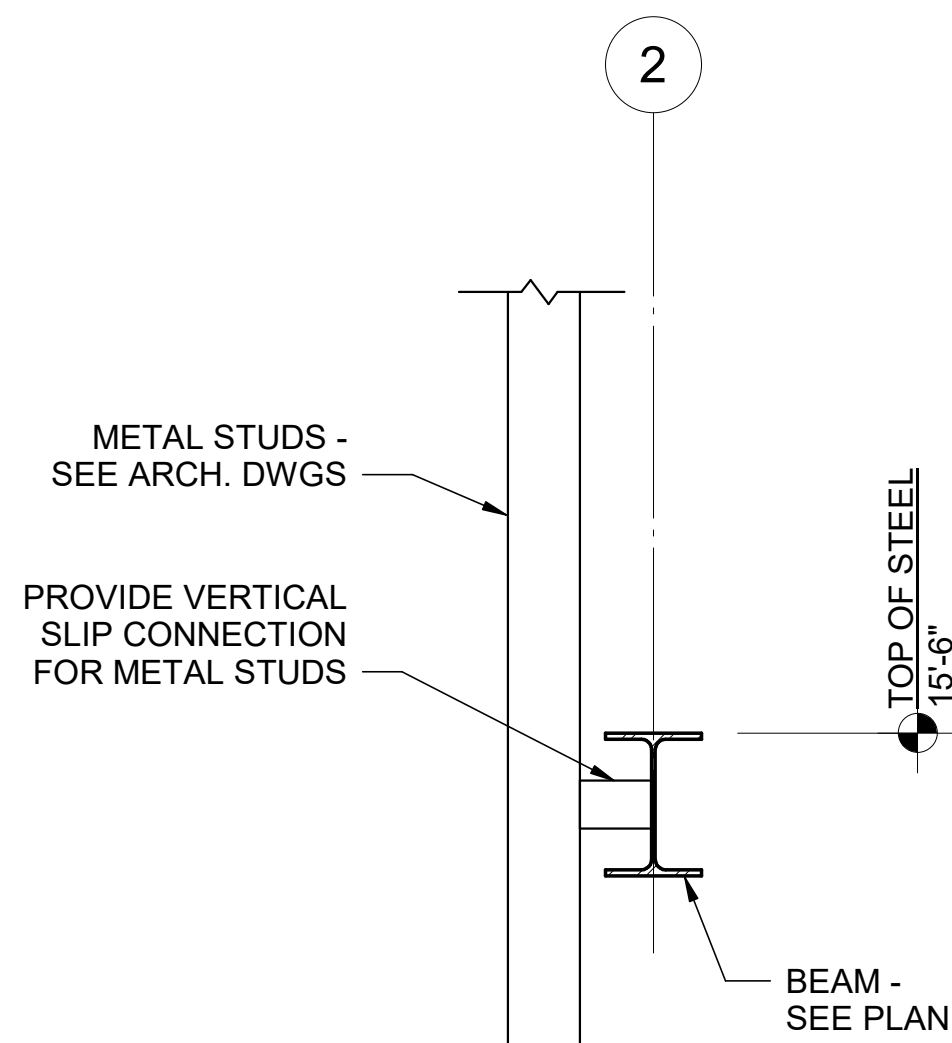




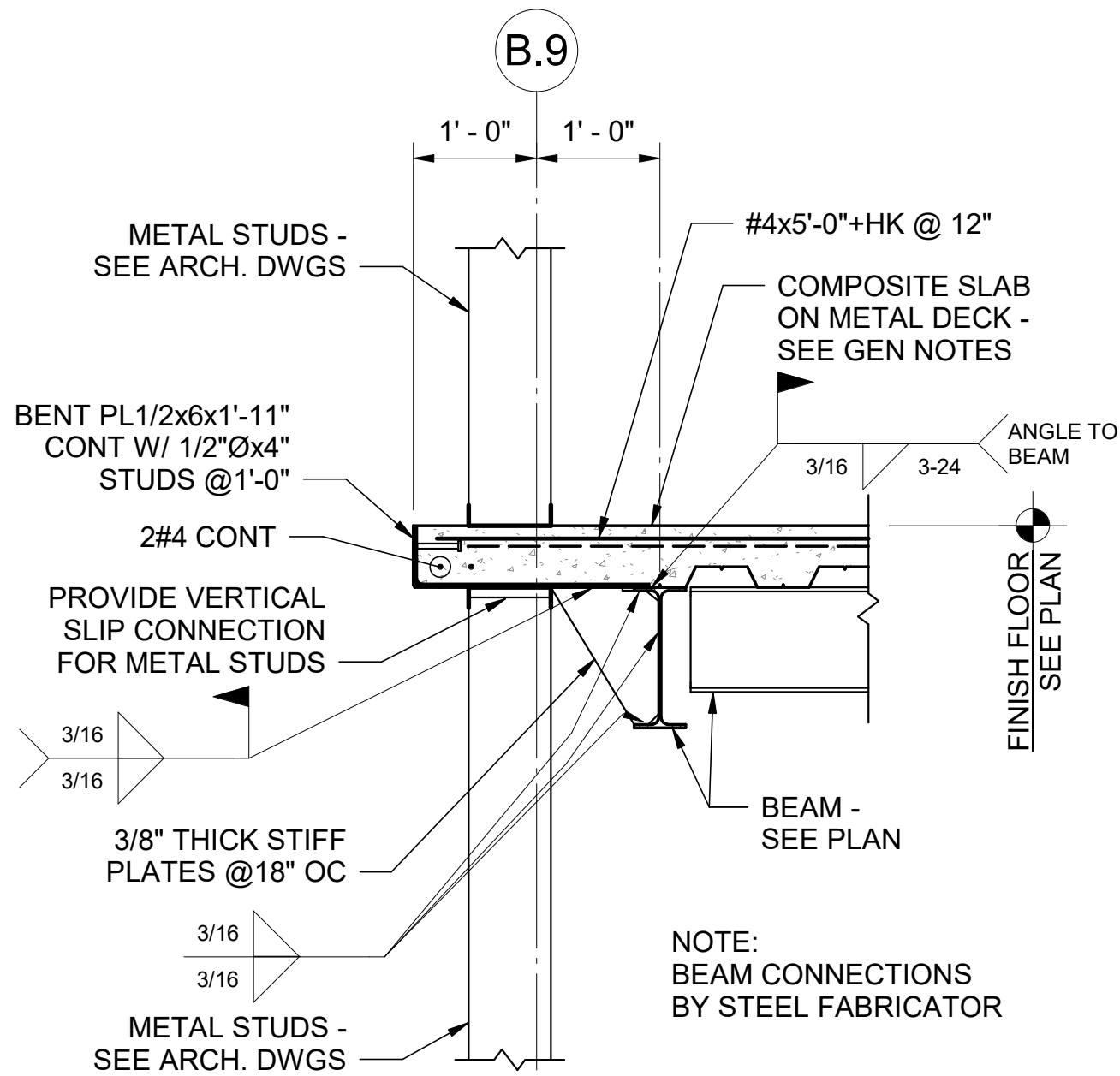
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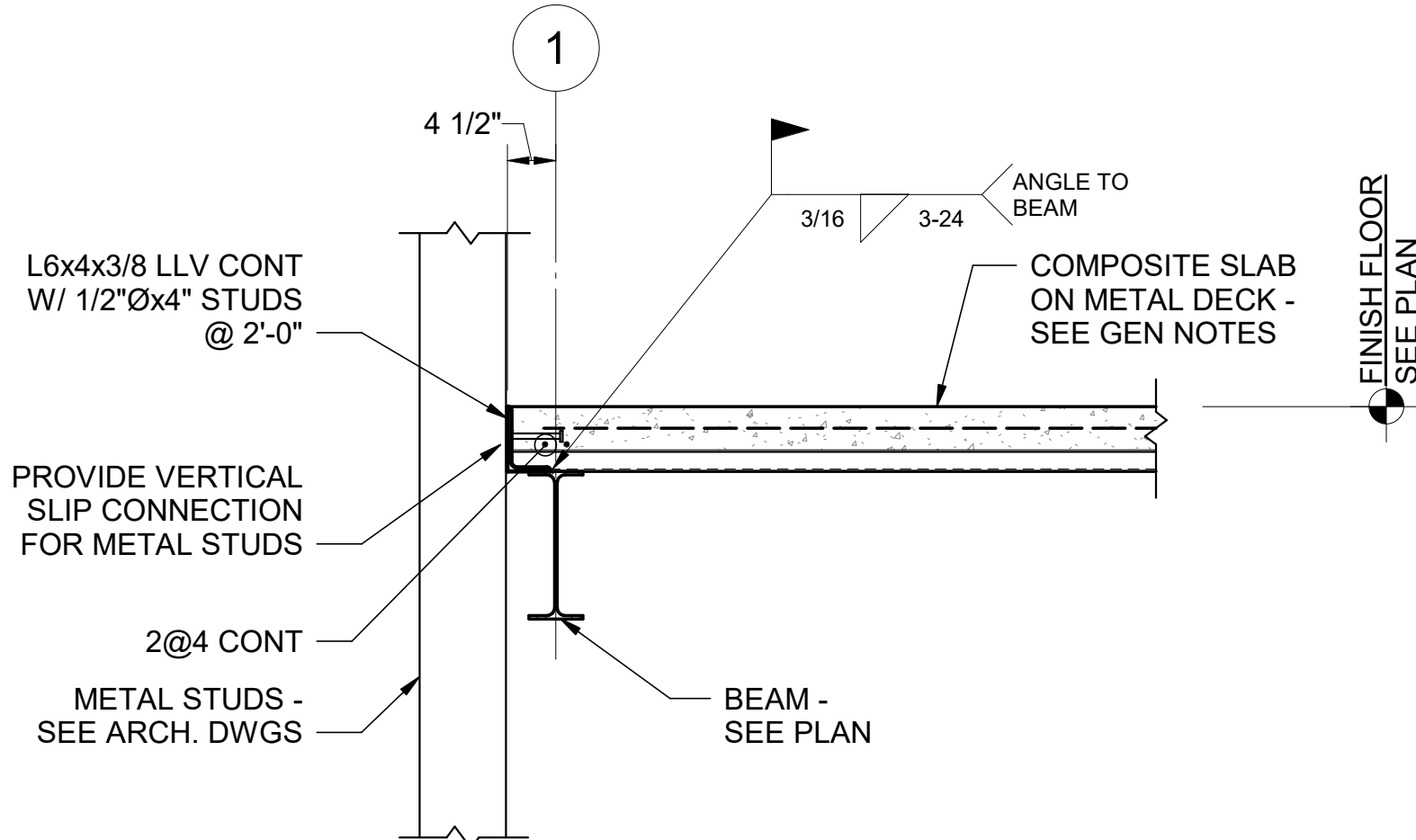
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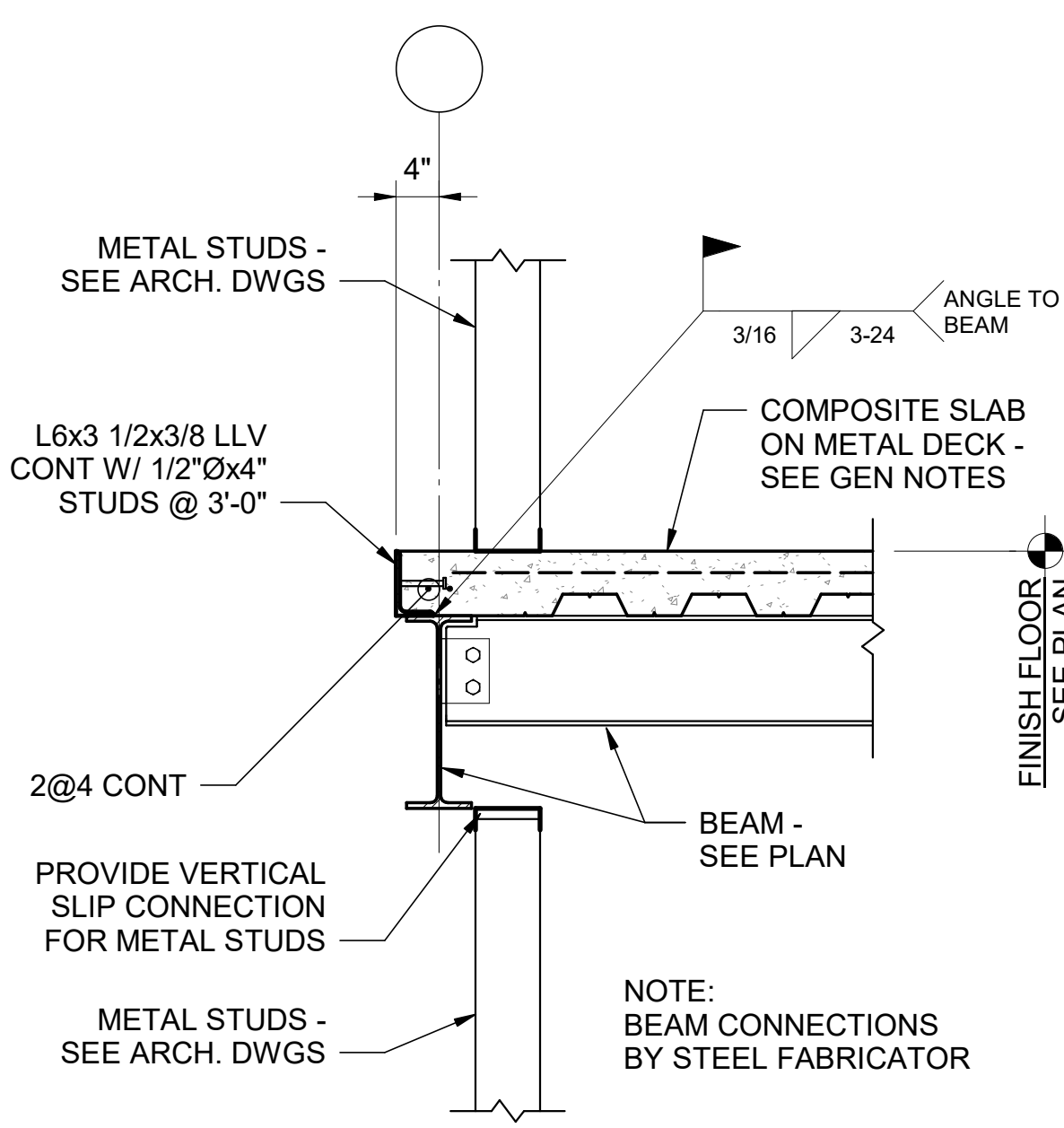
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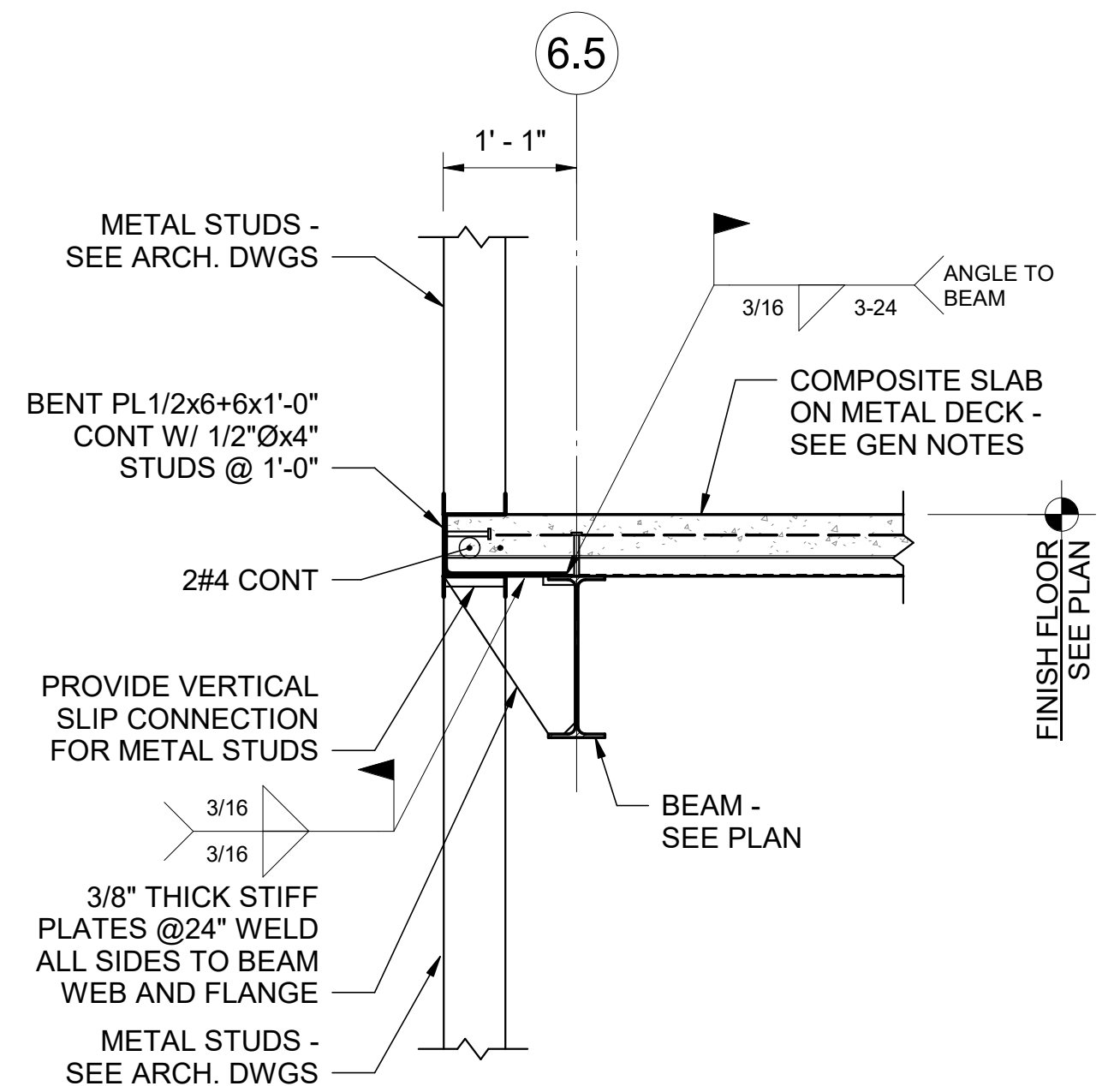
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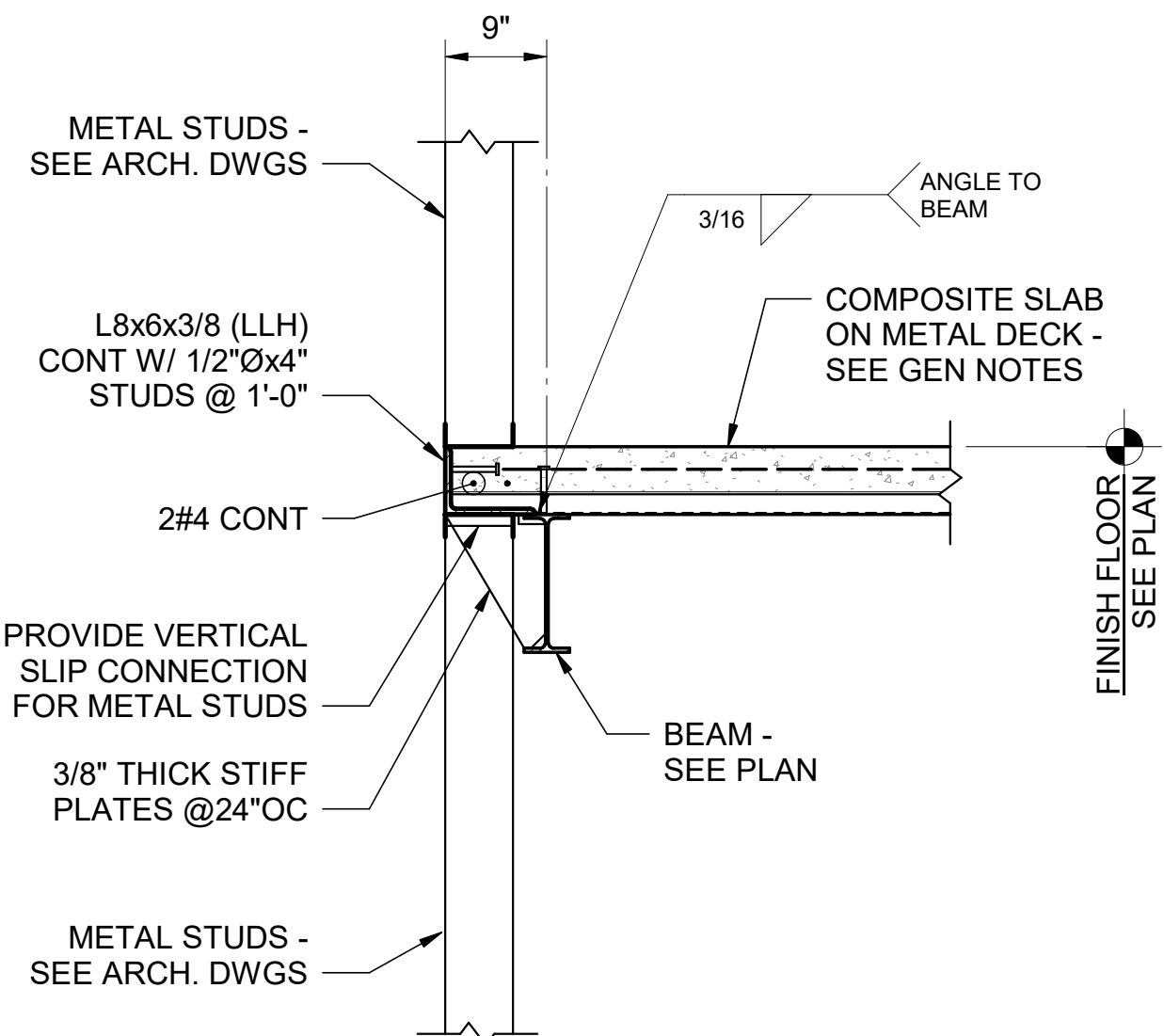
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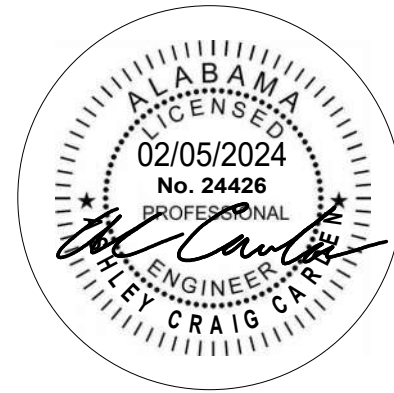
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S4.03 3/4" = 1'-0"



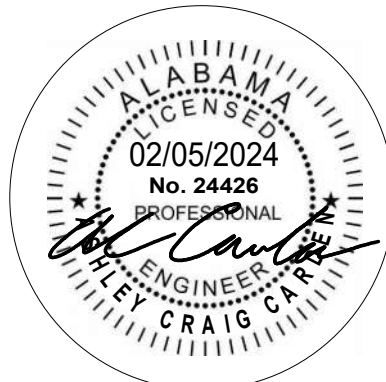
**8 Section**  
S4.03 3/4" = 1'-0"





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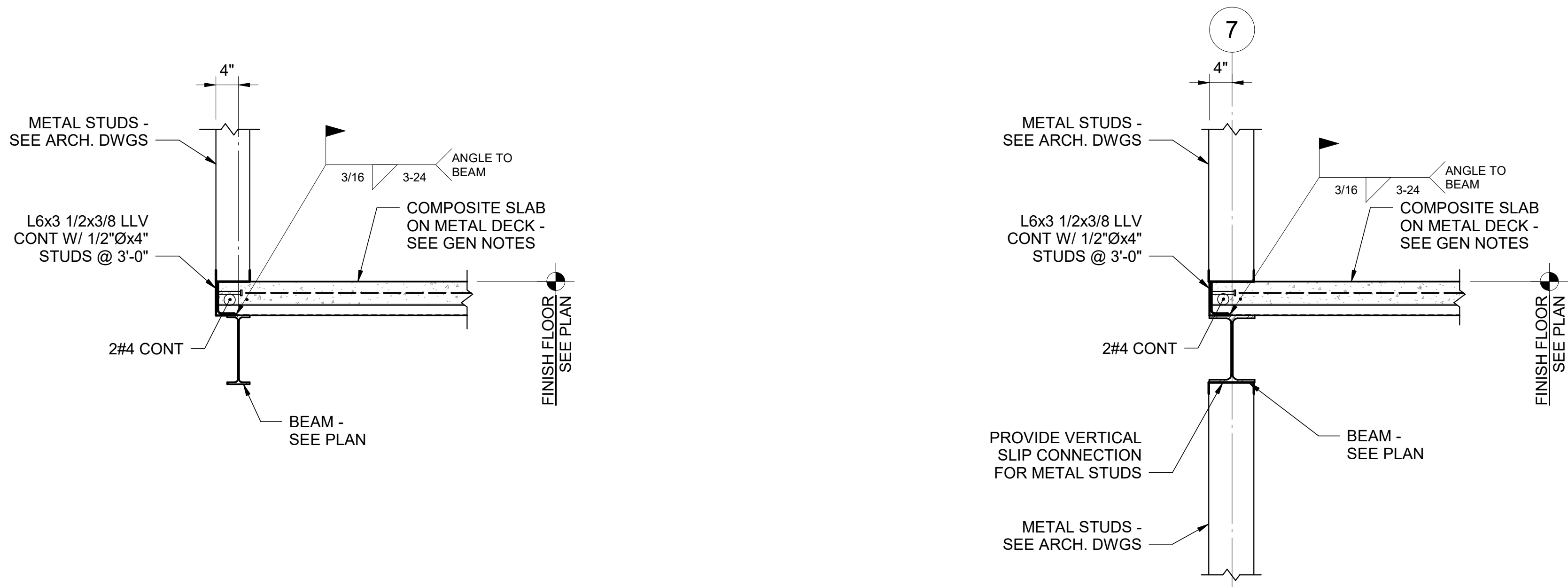
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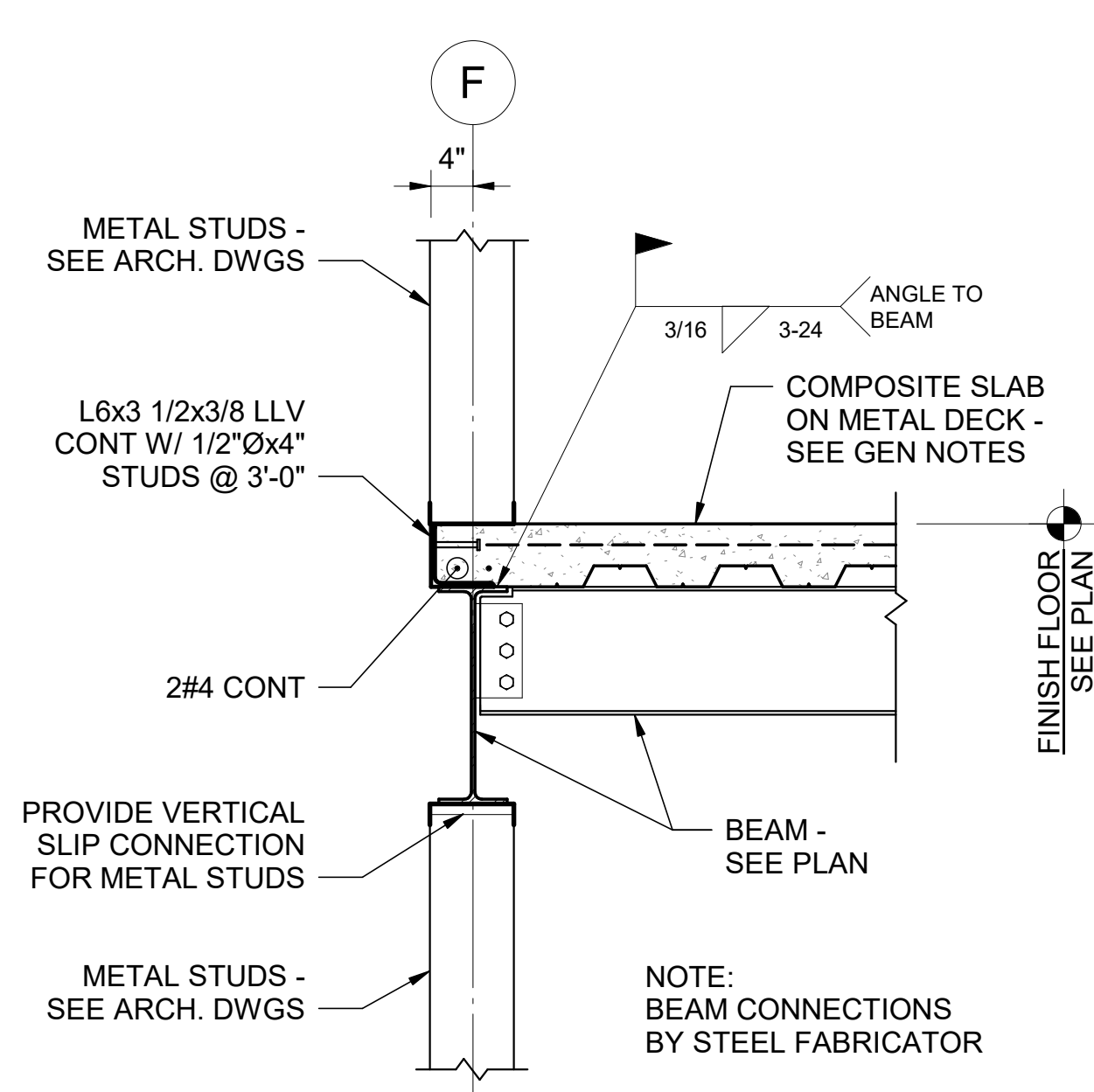


PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
DRAWN BY: CHECKED BY:	RST/GVA KLL
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.04</b>	

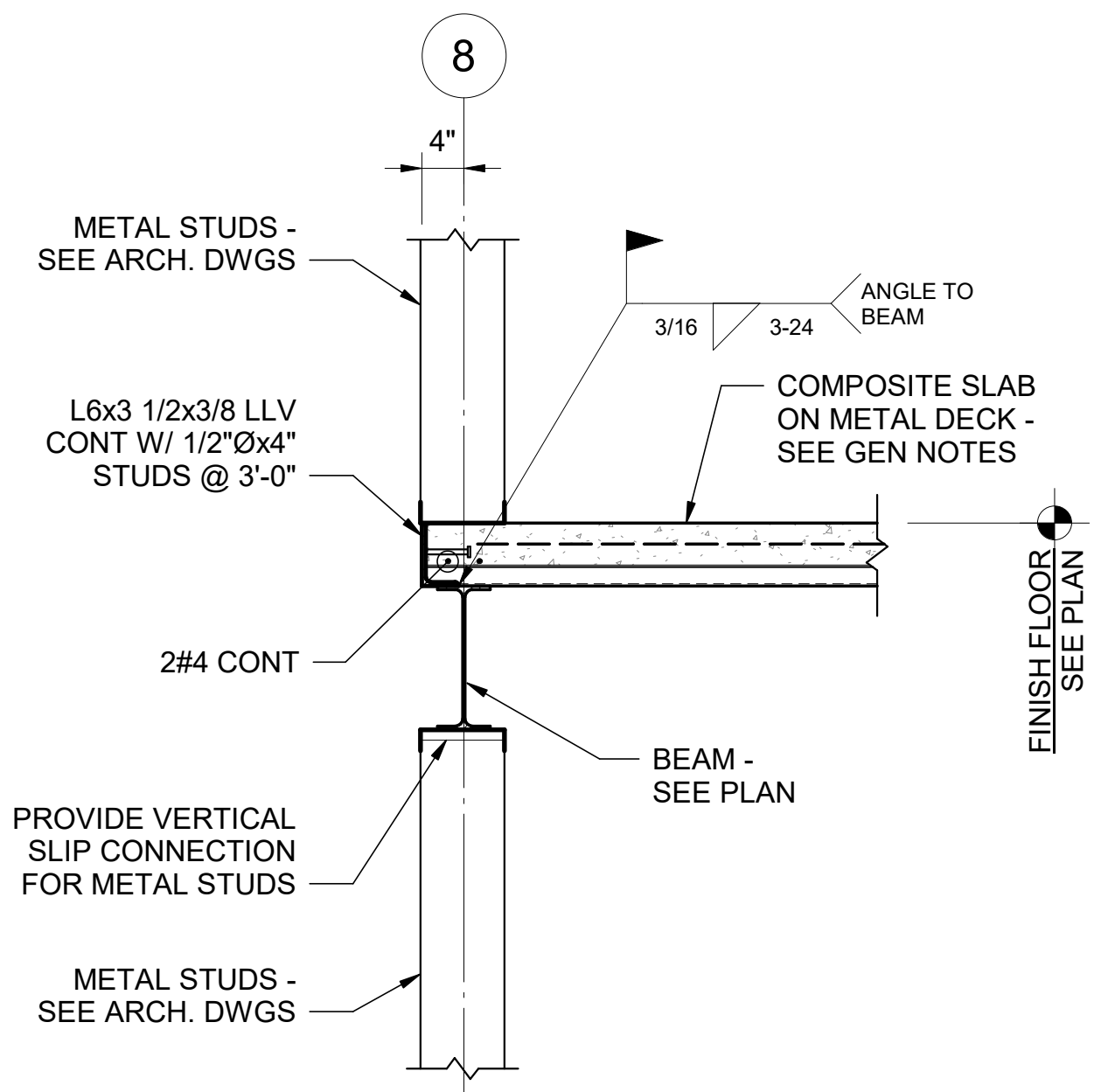


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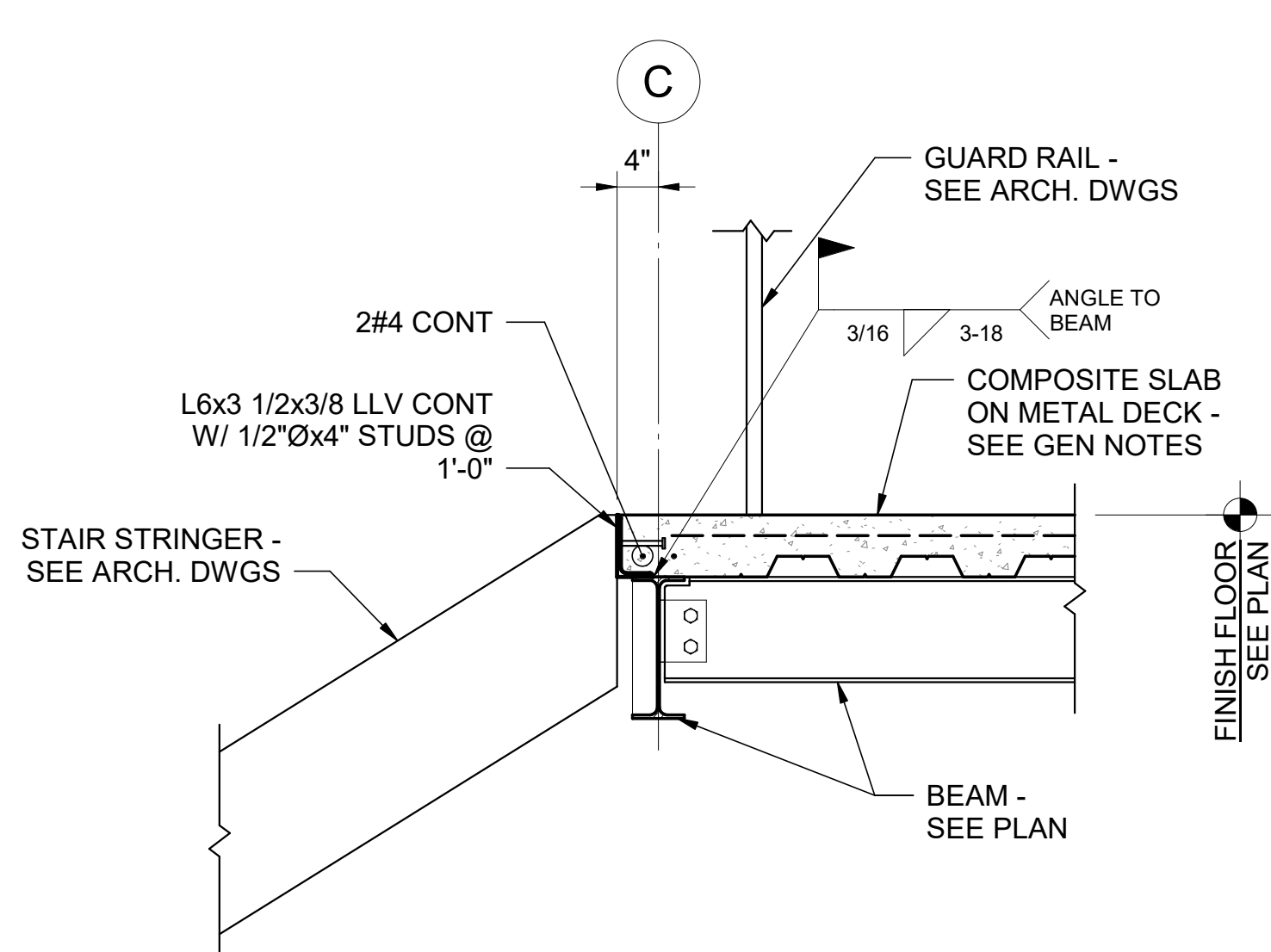
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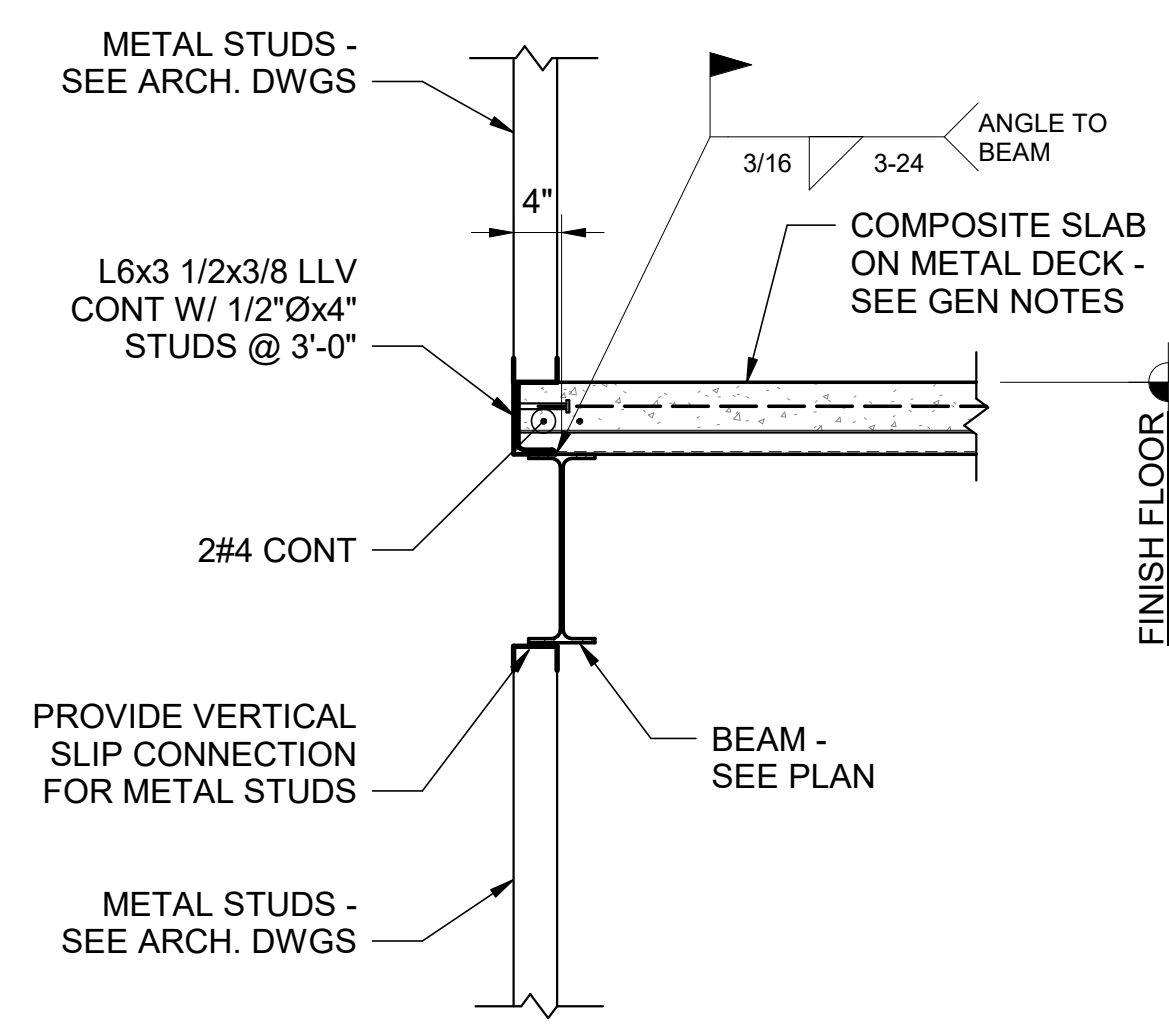
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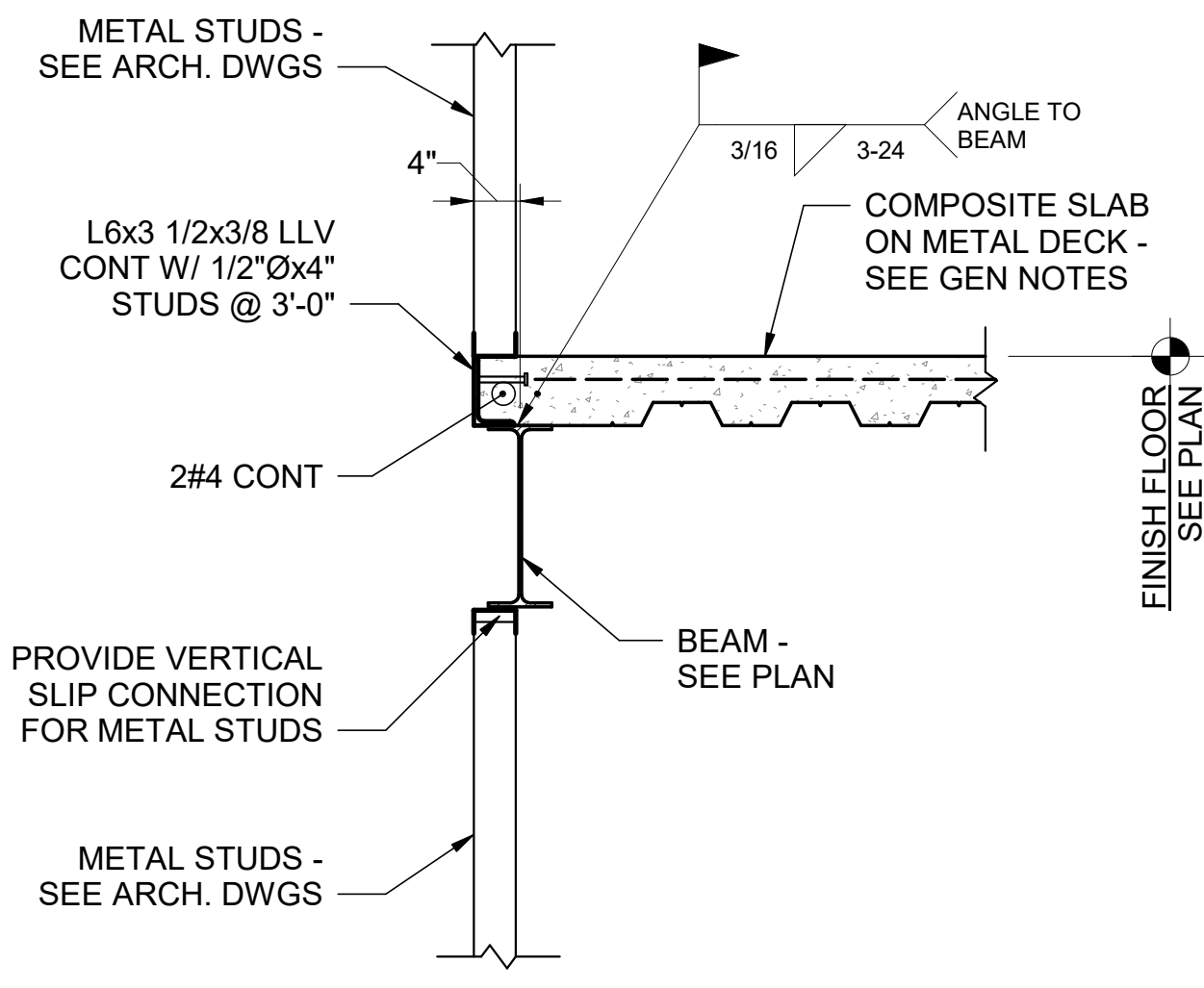
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S4.04 3/4" = 1'-0"



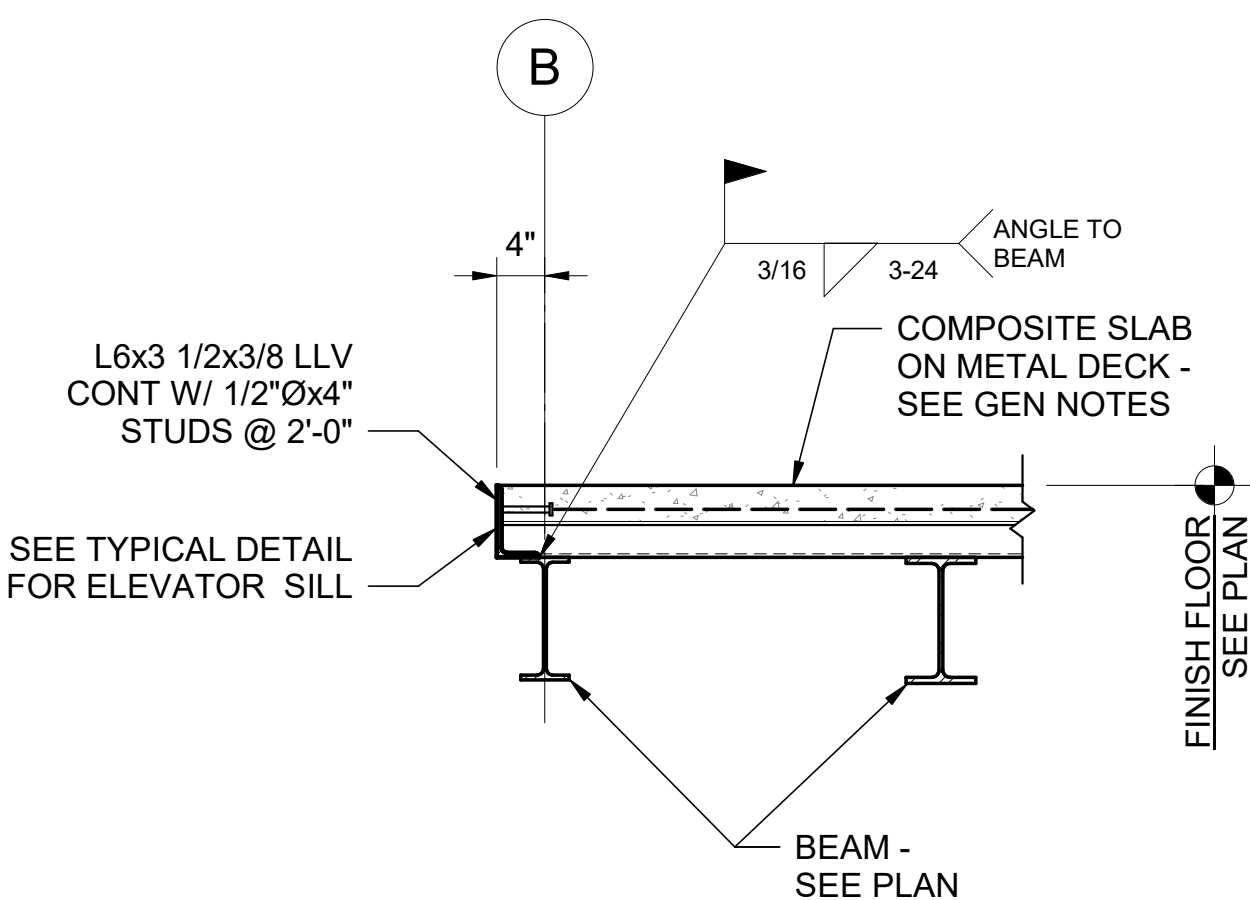
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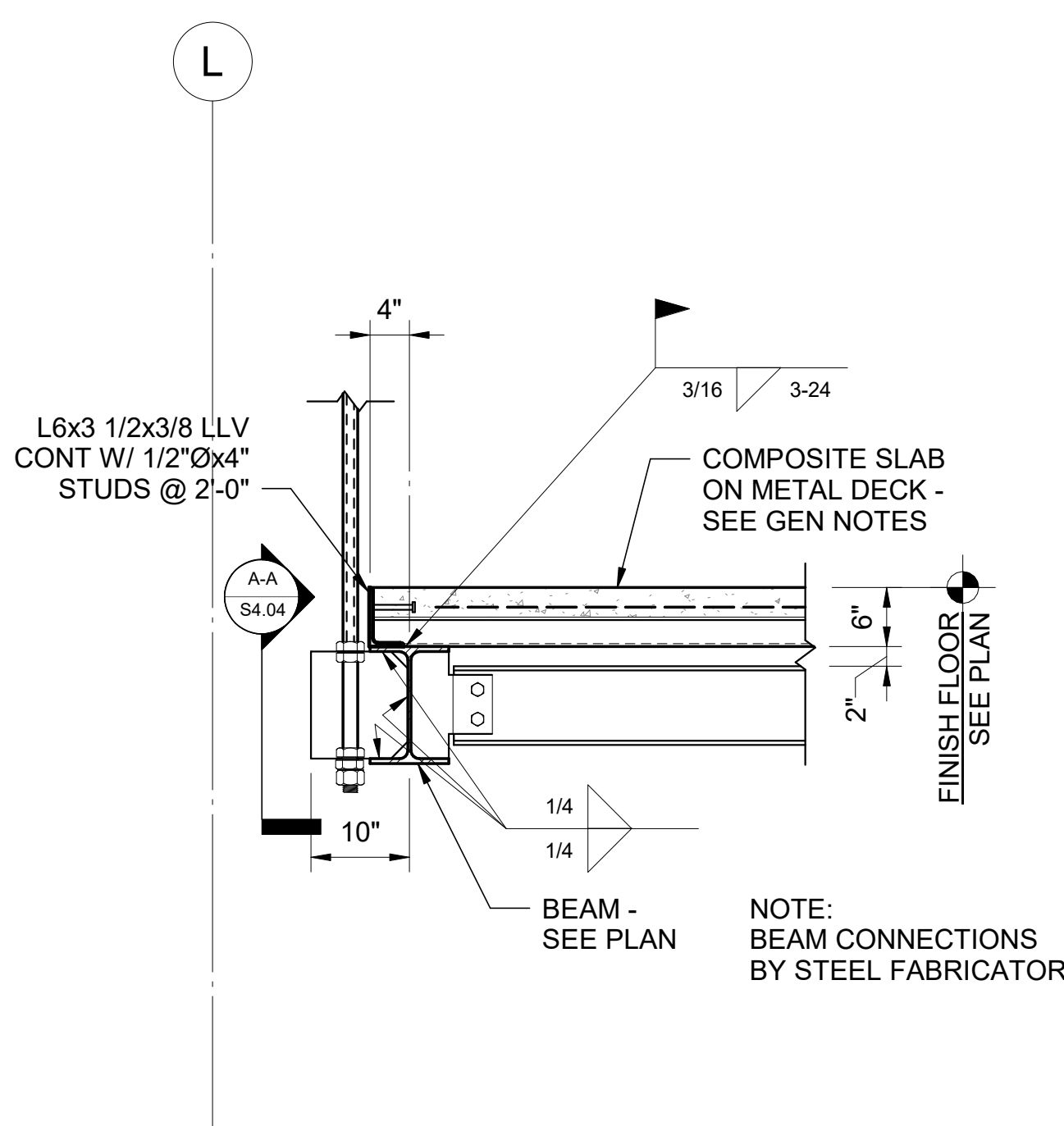
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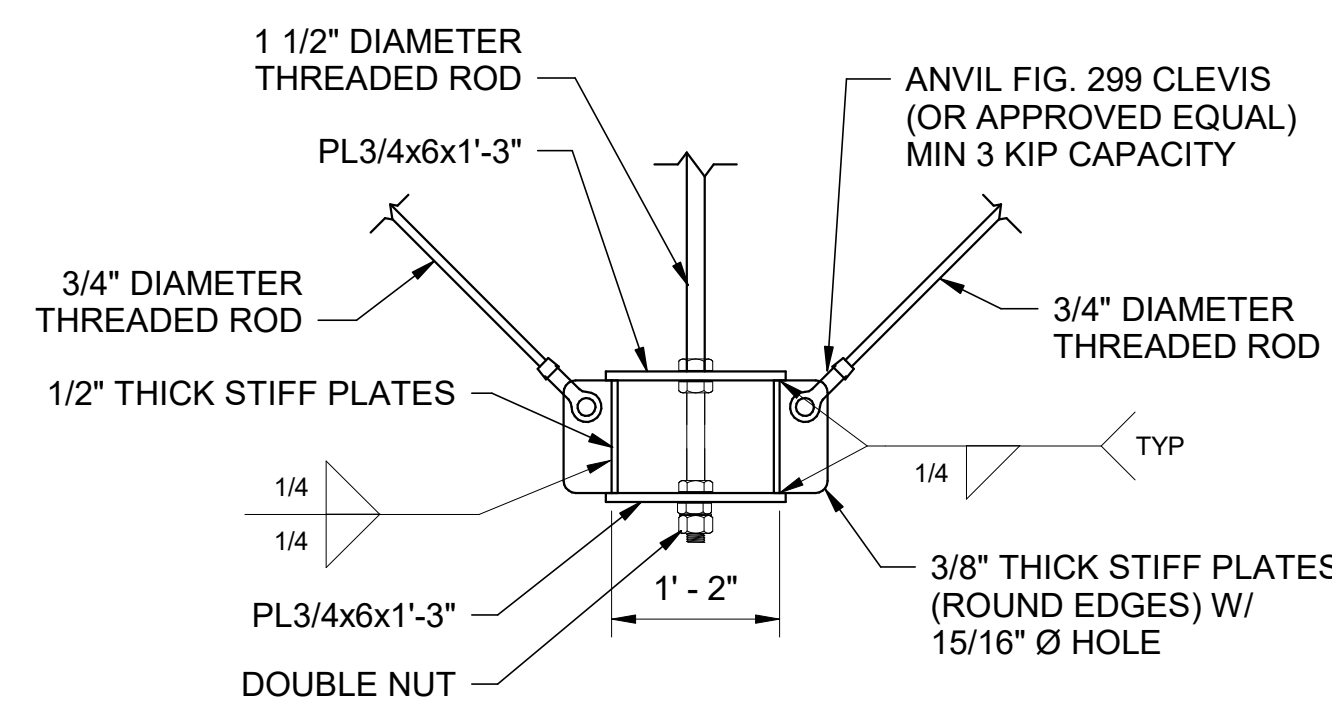
**7 Section**  
S4.04 3/4" = 1'-0"



**8 Section**  
S4.04 3/4" = 1'-0"



**9 Section**  
S4.04 3/4" = 1'-0"

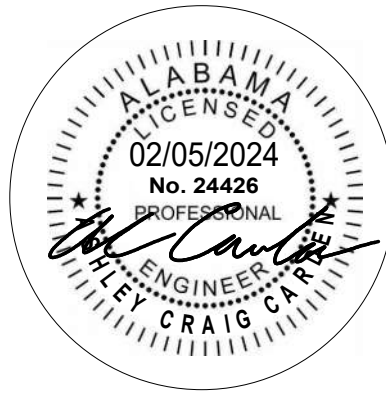


**A-A Section**  
S4.04 3/4" = 1'-0"



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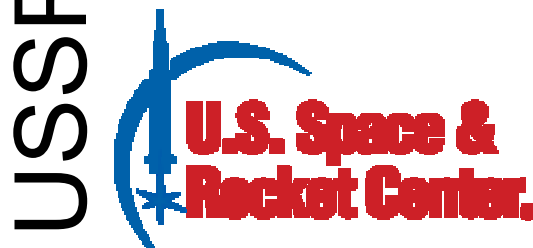
The Architect shall not have control or charge of, and shall not be responsible for construction Means and Methods, deviations, techniques, sequences, or procedures, or for safety programs and precautions in connection with the Work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the Work in accordance with the Contract Documents.



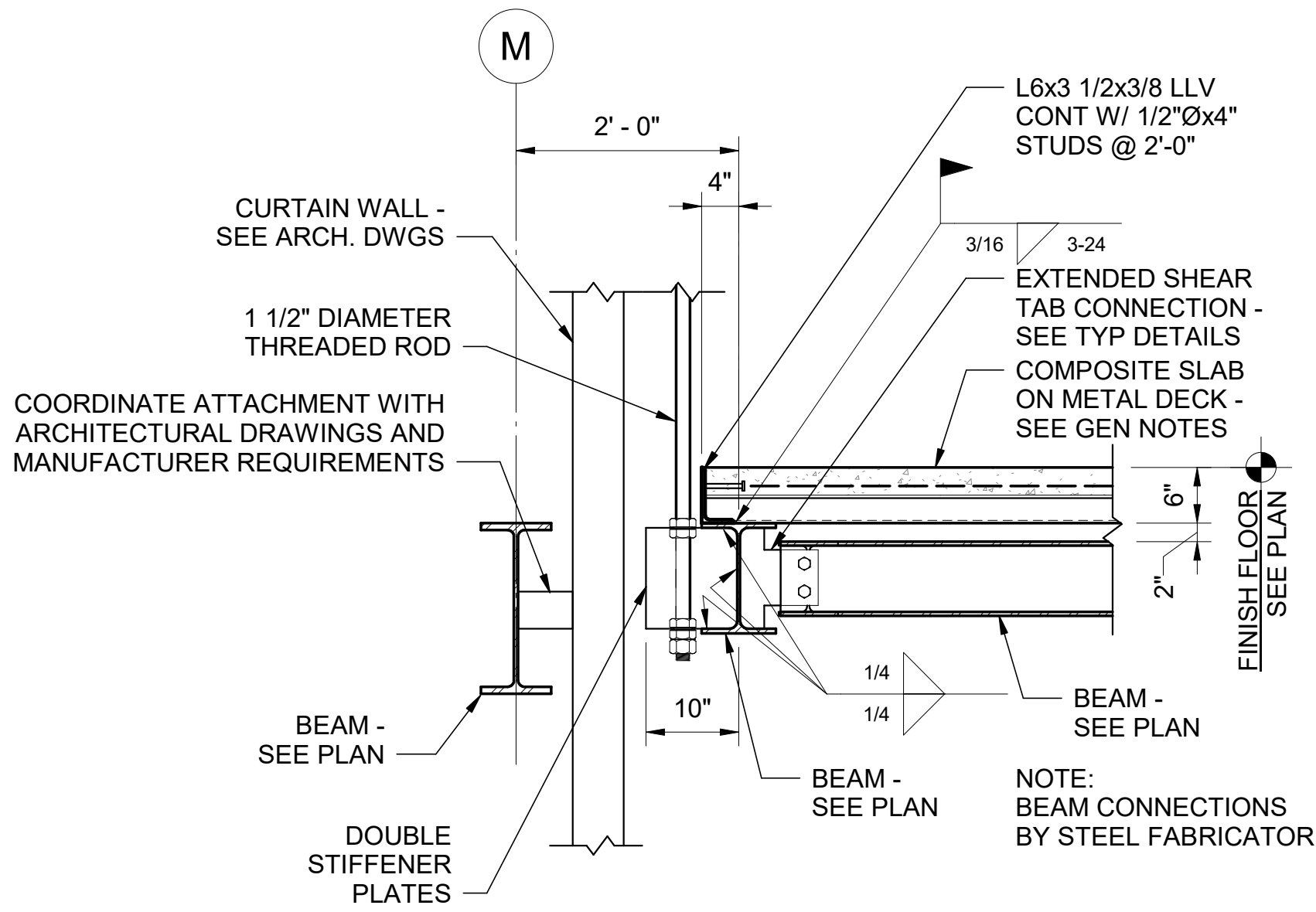
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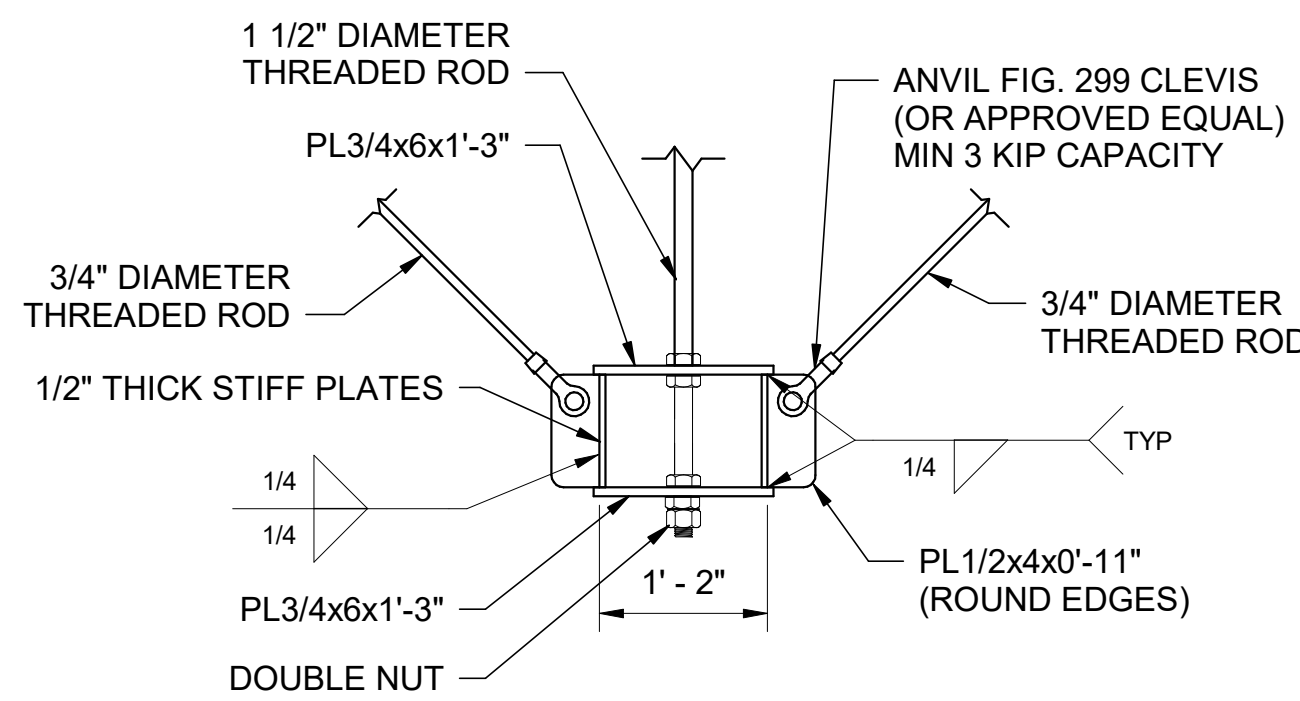
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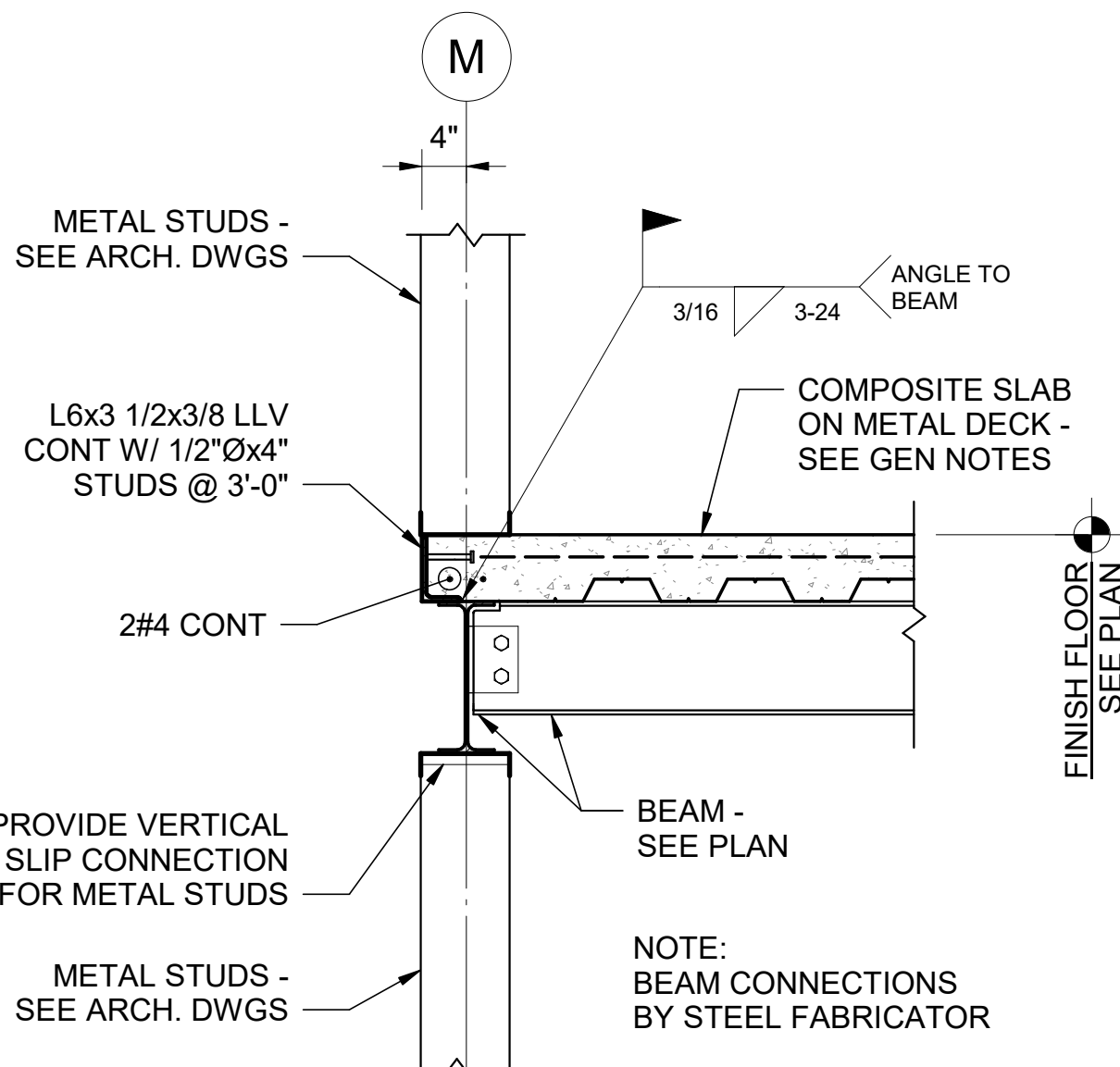
PROJECT STATUS: ISSUED	BID SET
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DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
DRAWN BY: CHECKED BY:	RST/GVA KLL
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.05</b>	



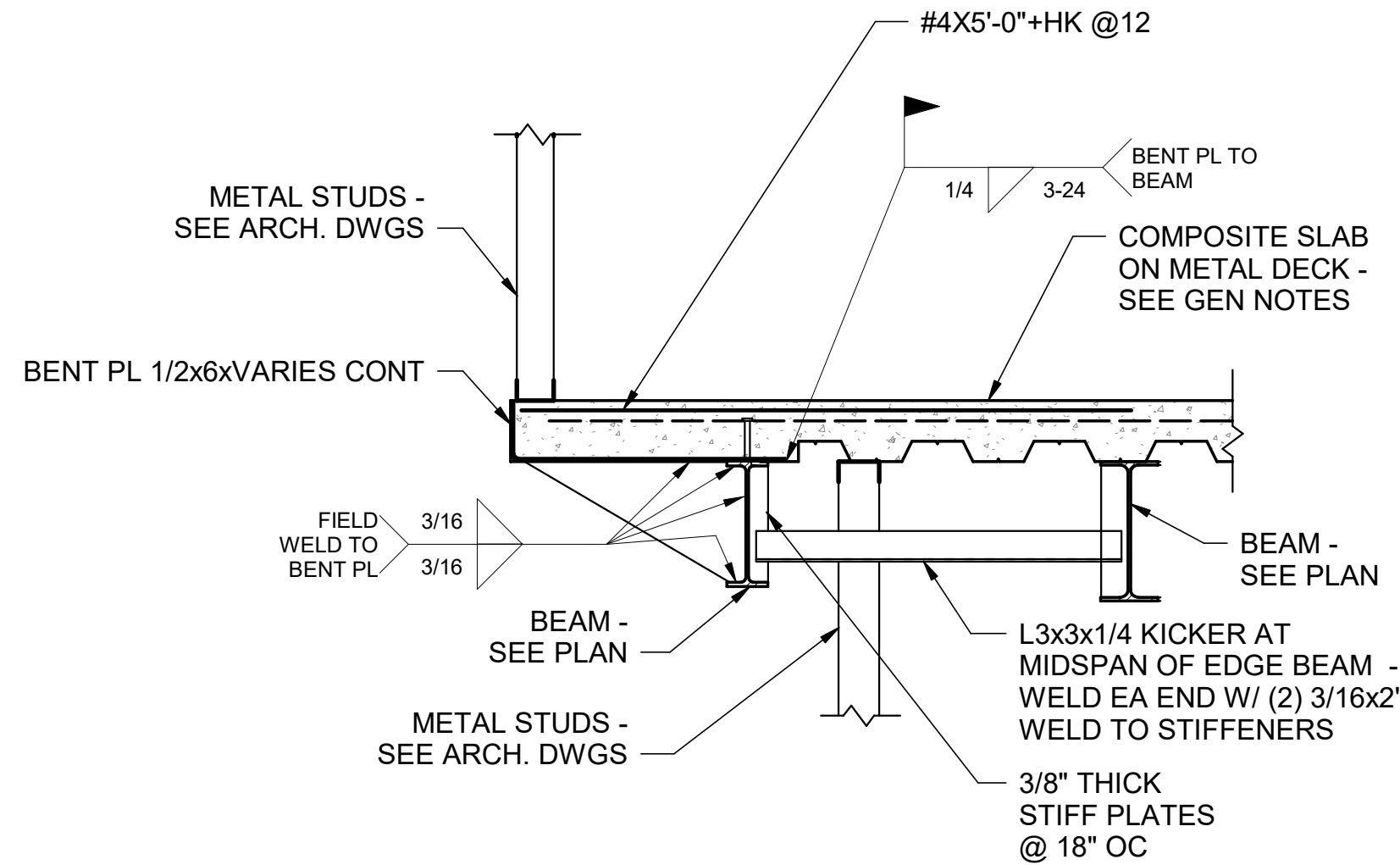
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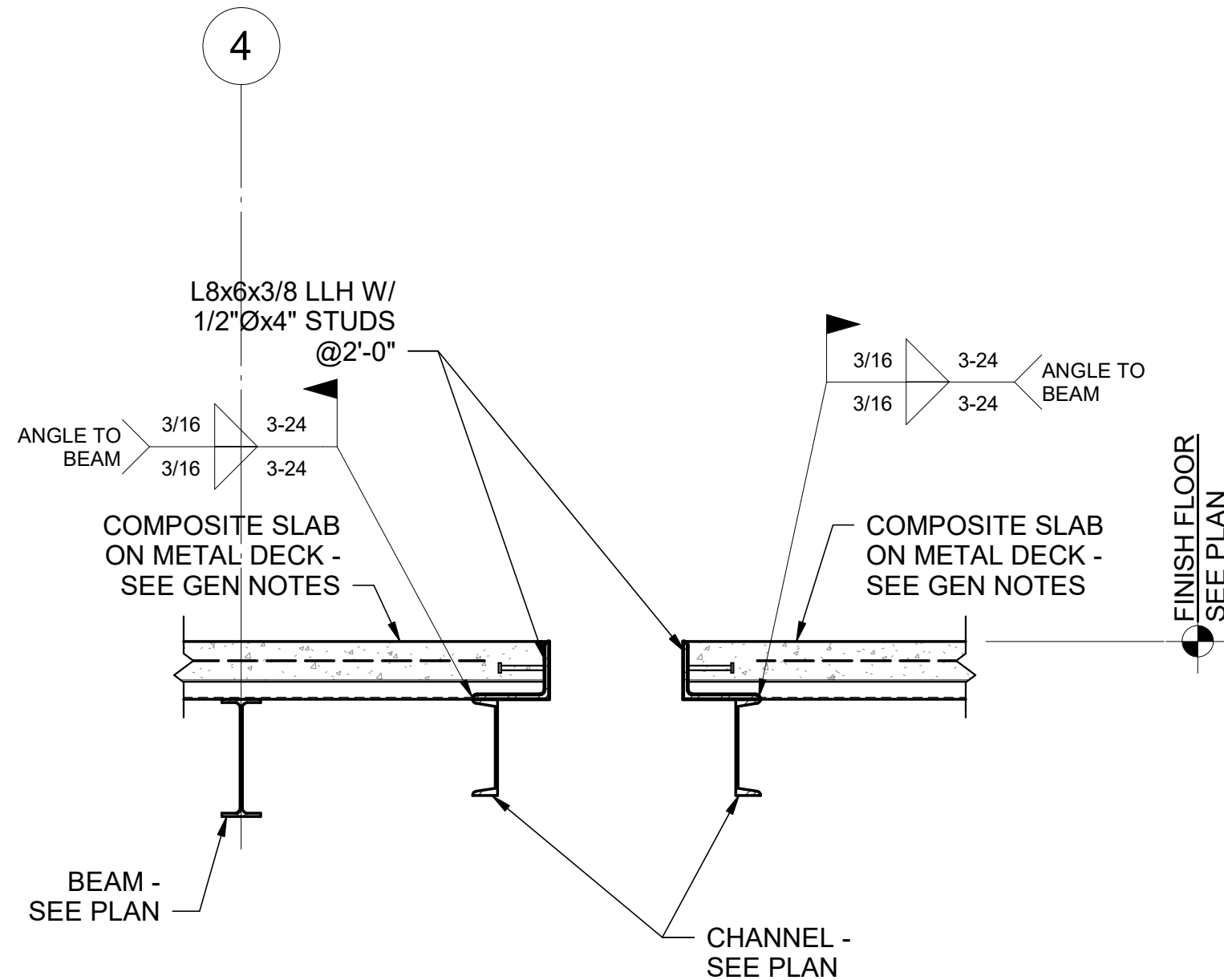
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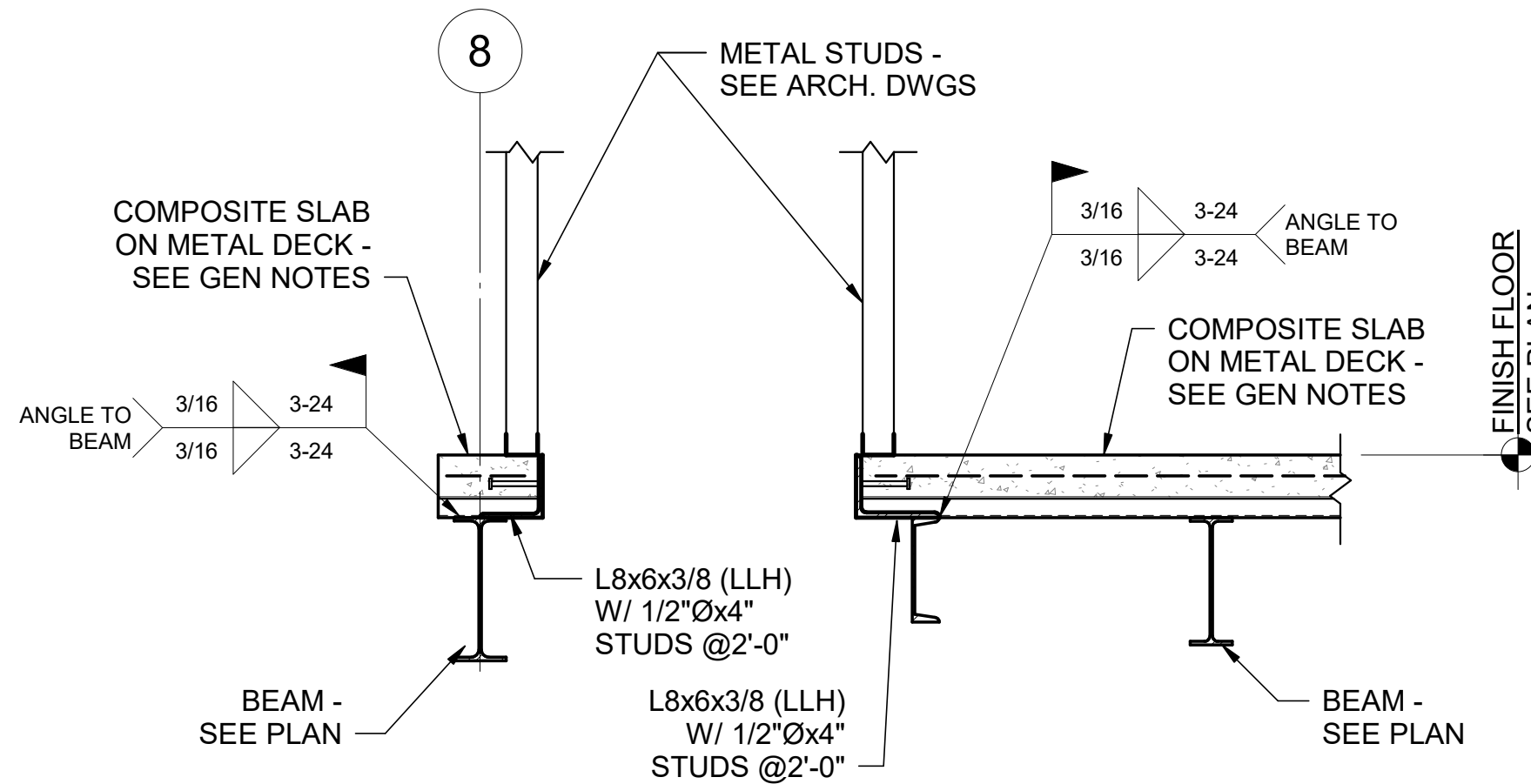
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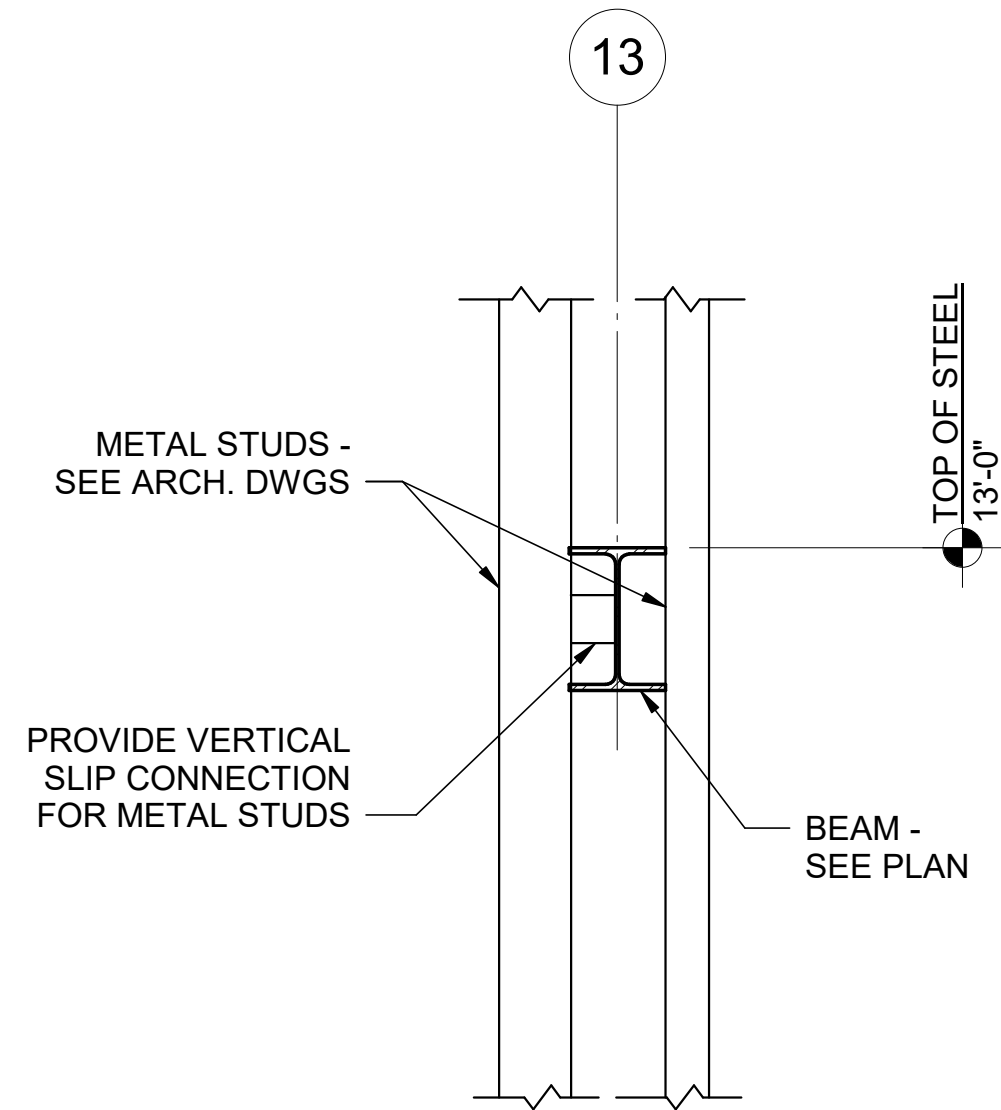
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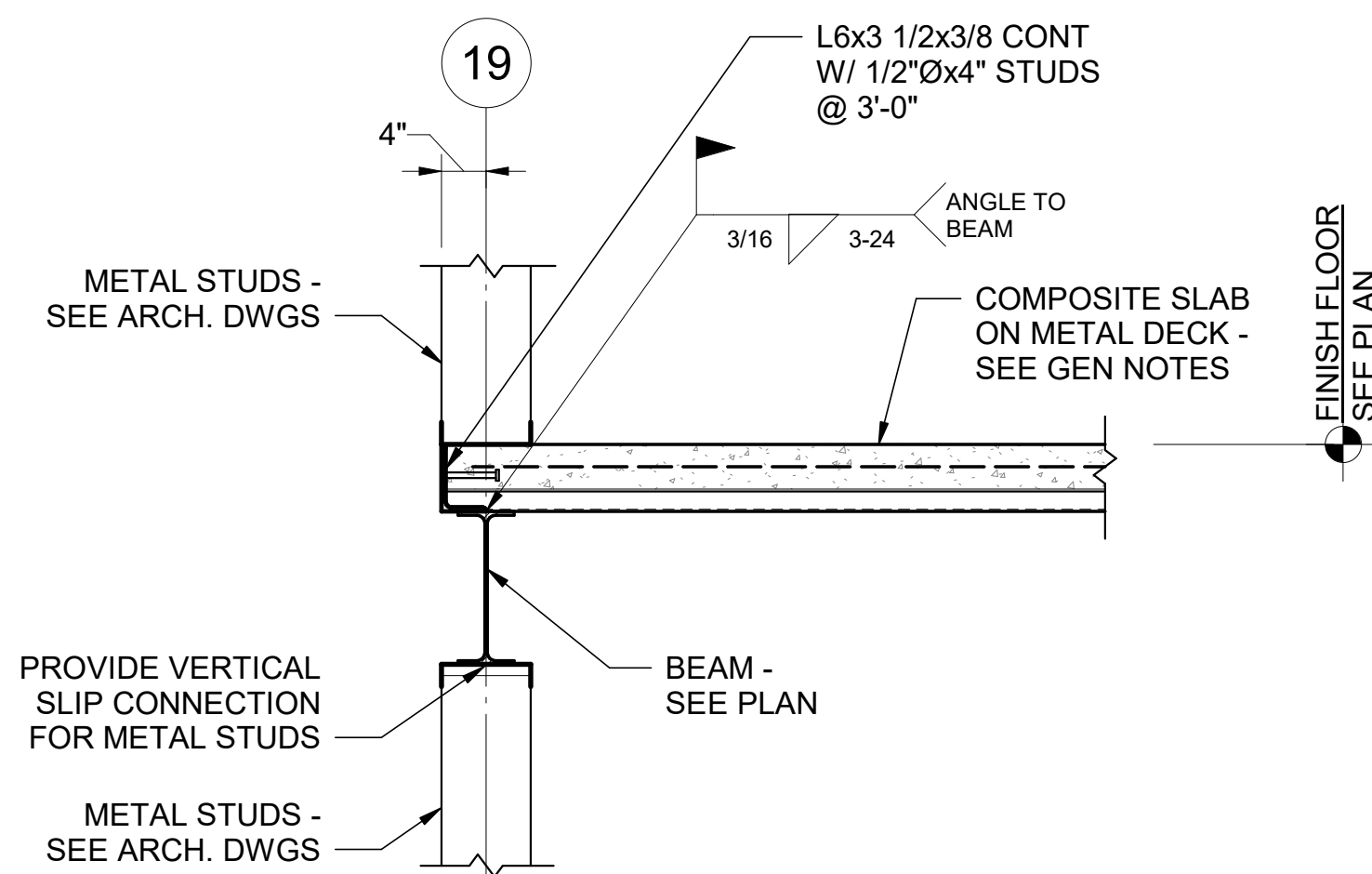
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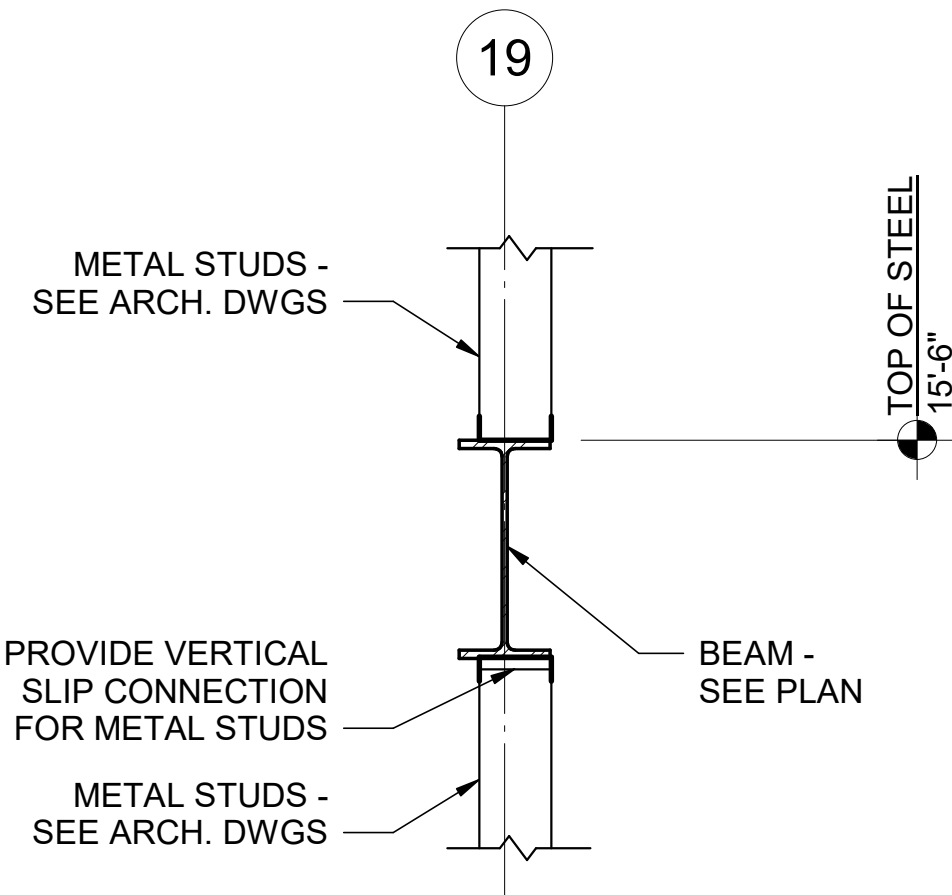
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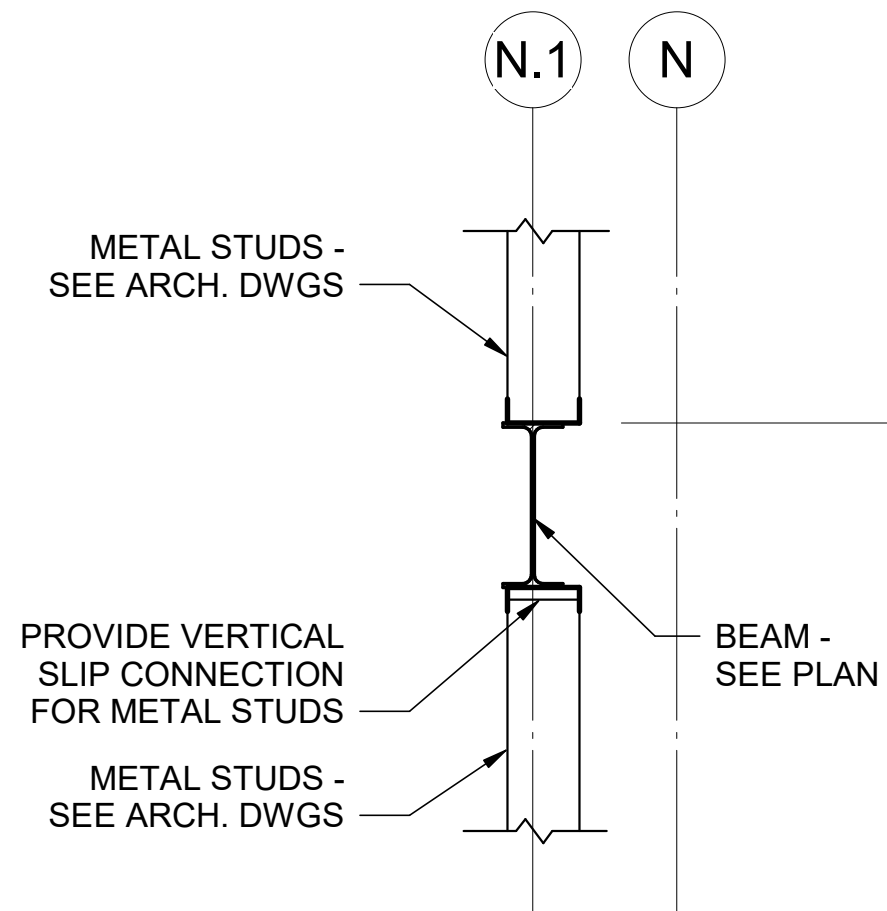
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S4.05 3/4" = 1'-0"



**7 Section**  
S4.05 3/4" = 1'-0"

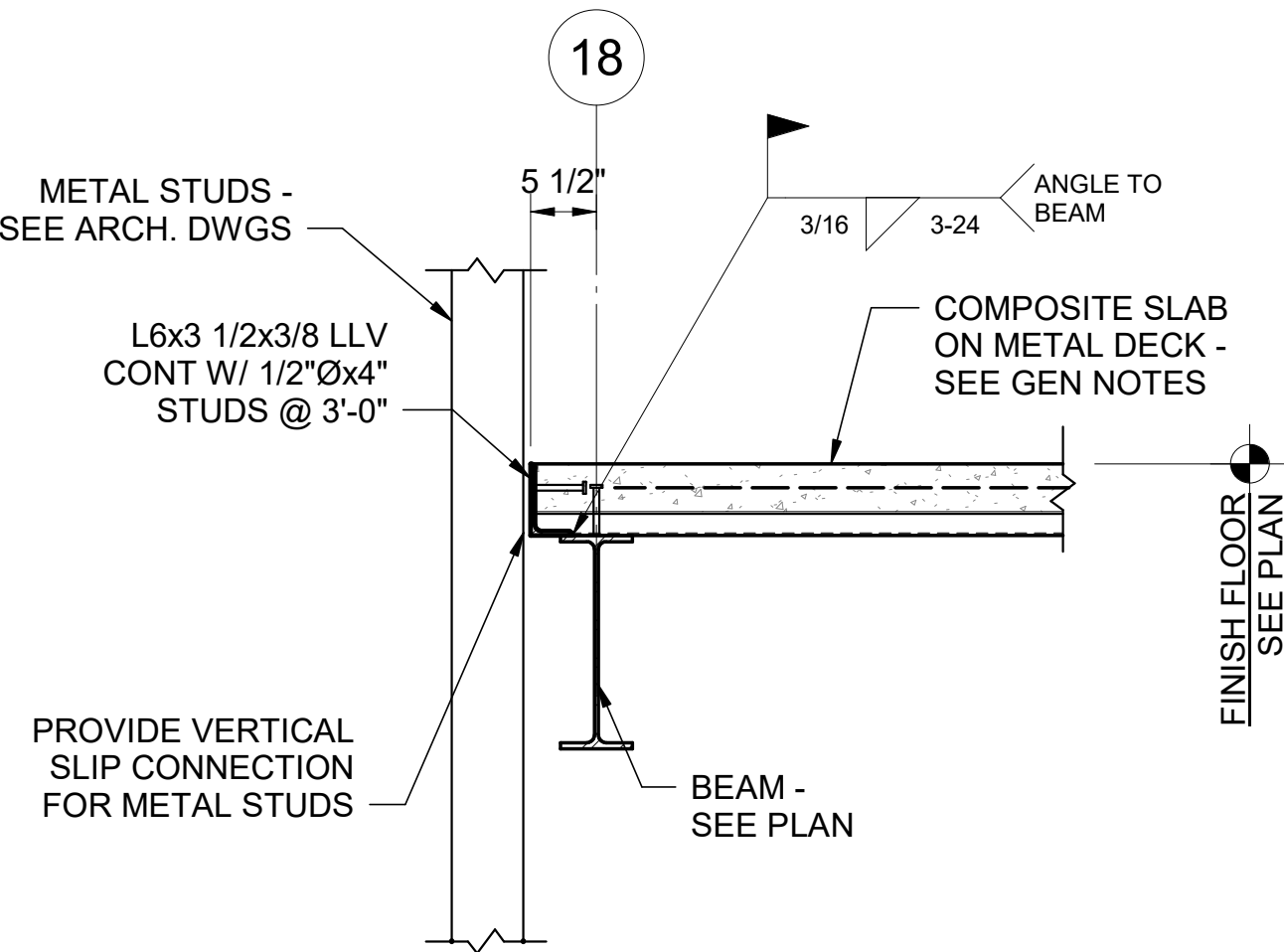


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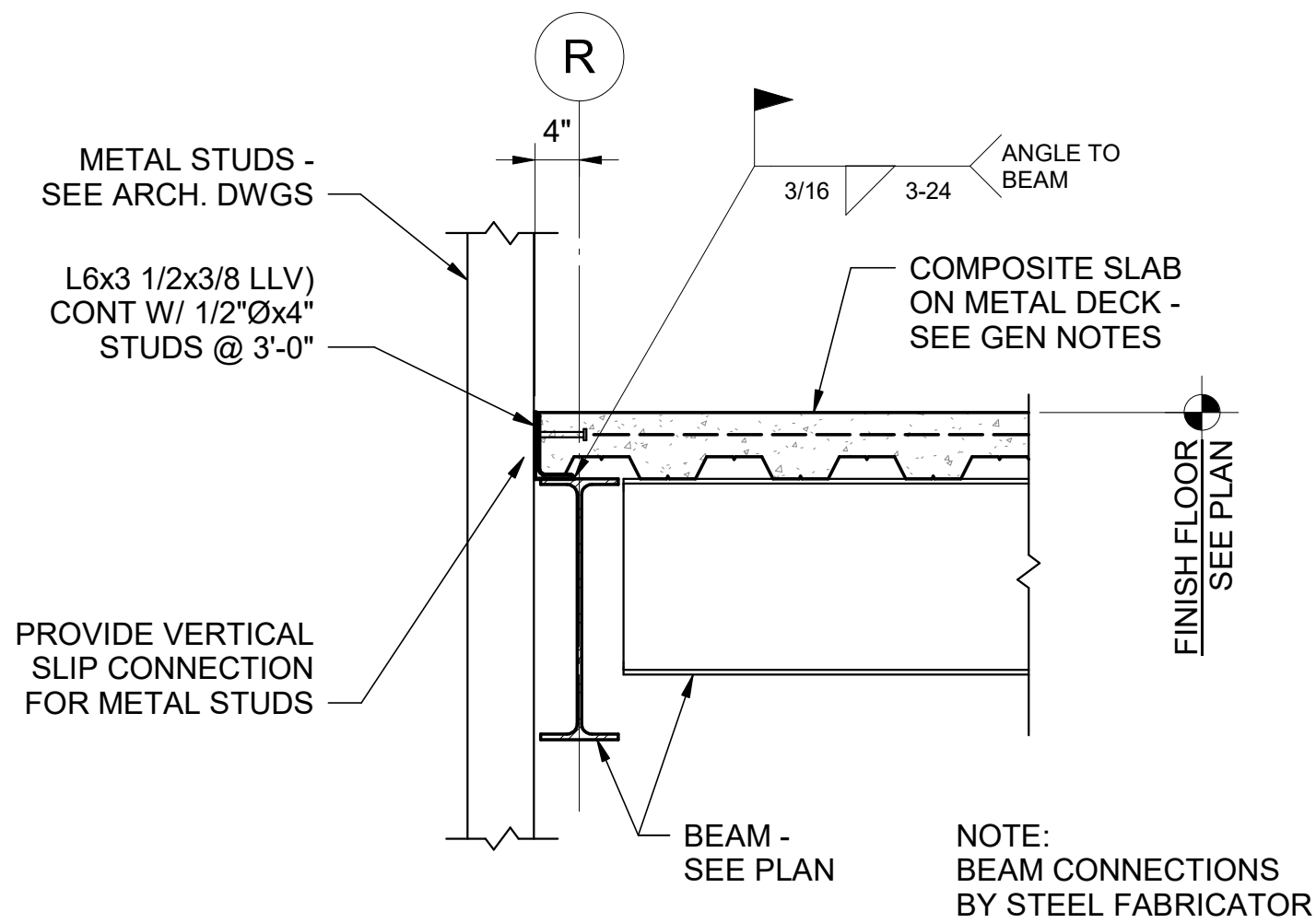


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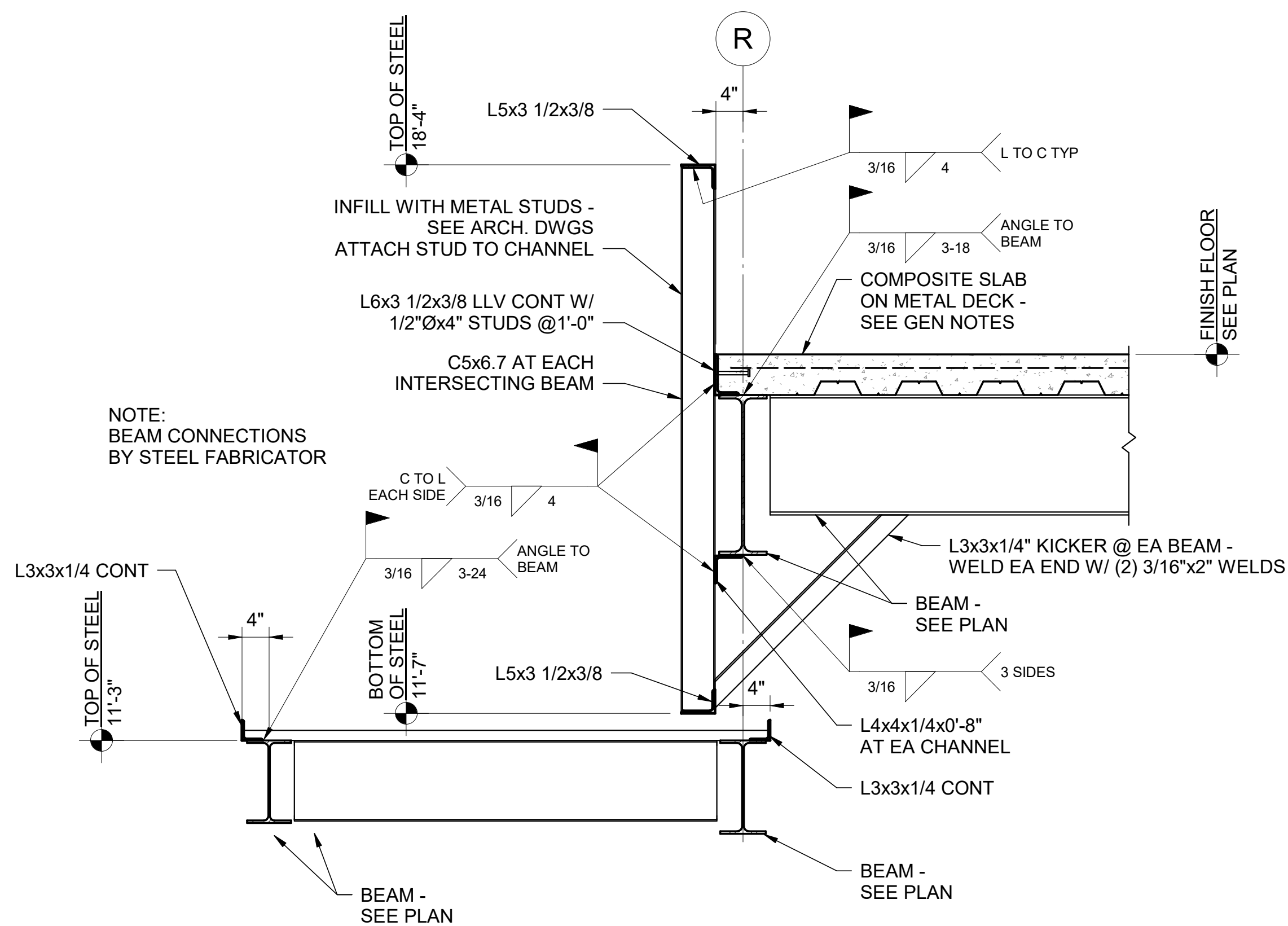




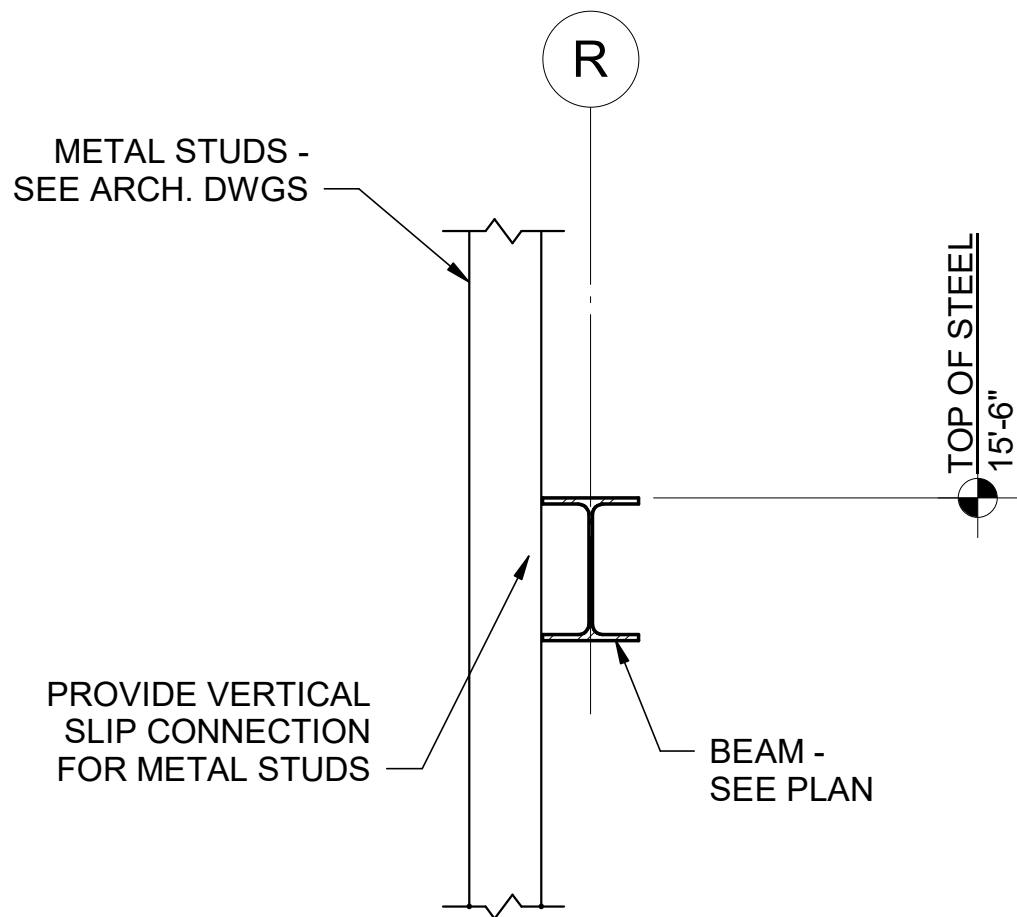
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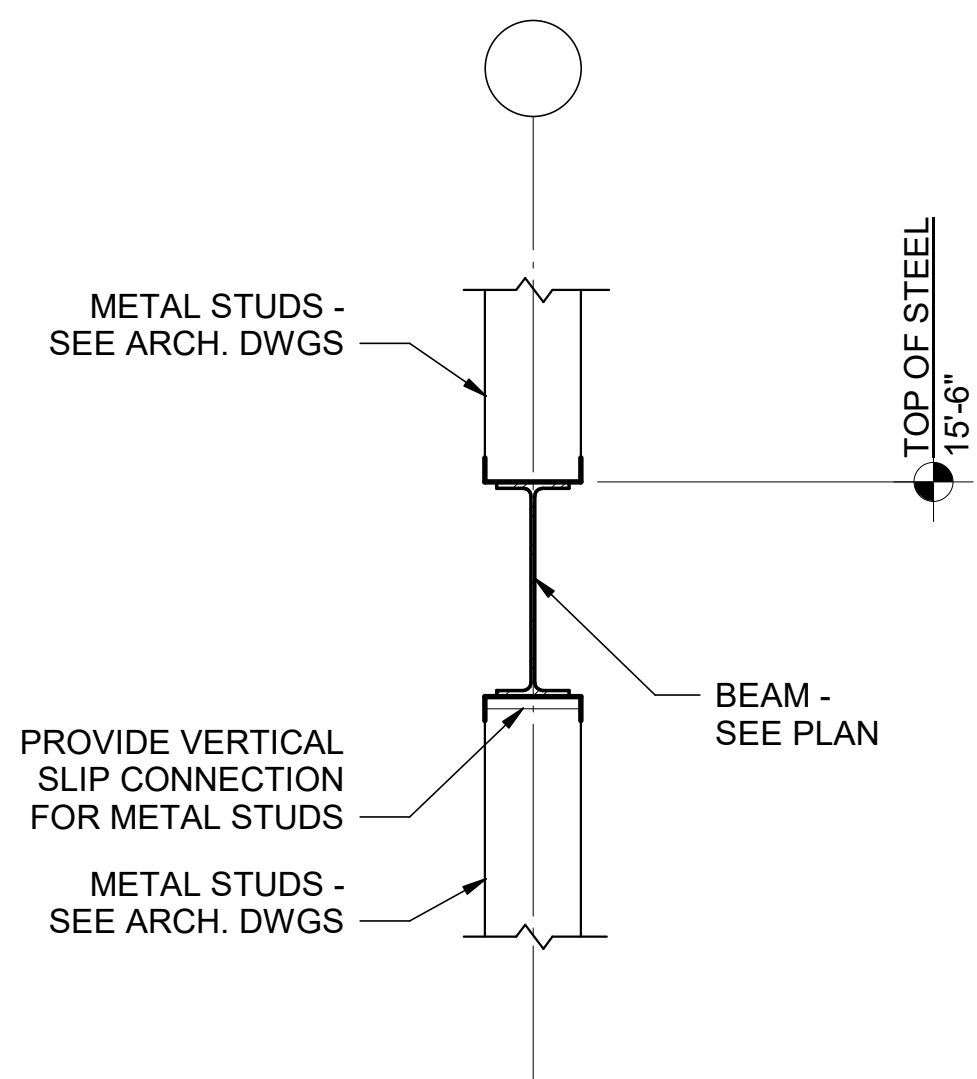
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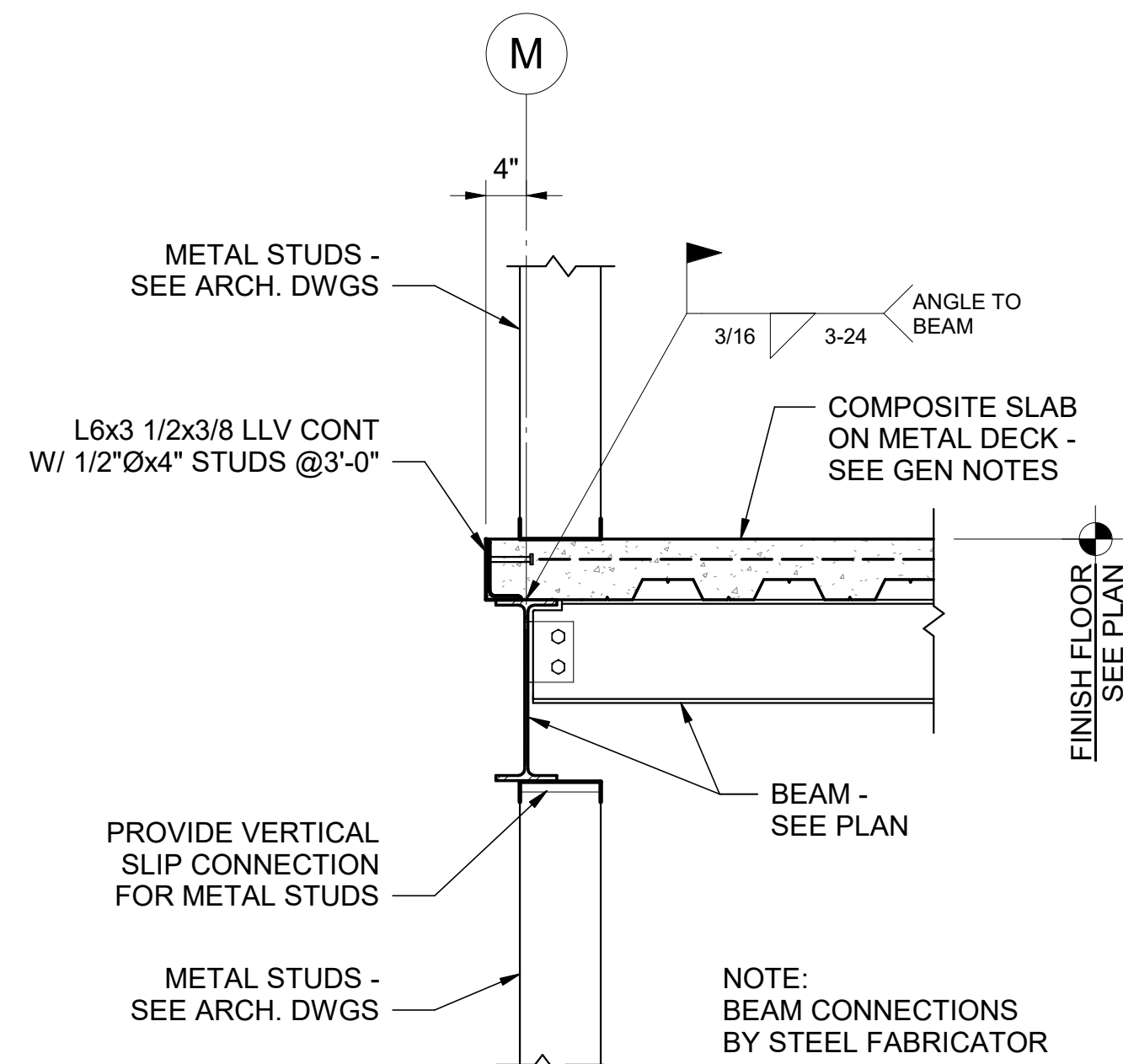
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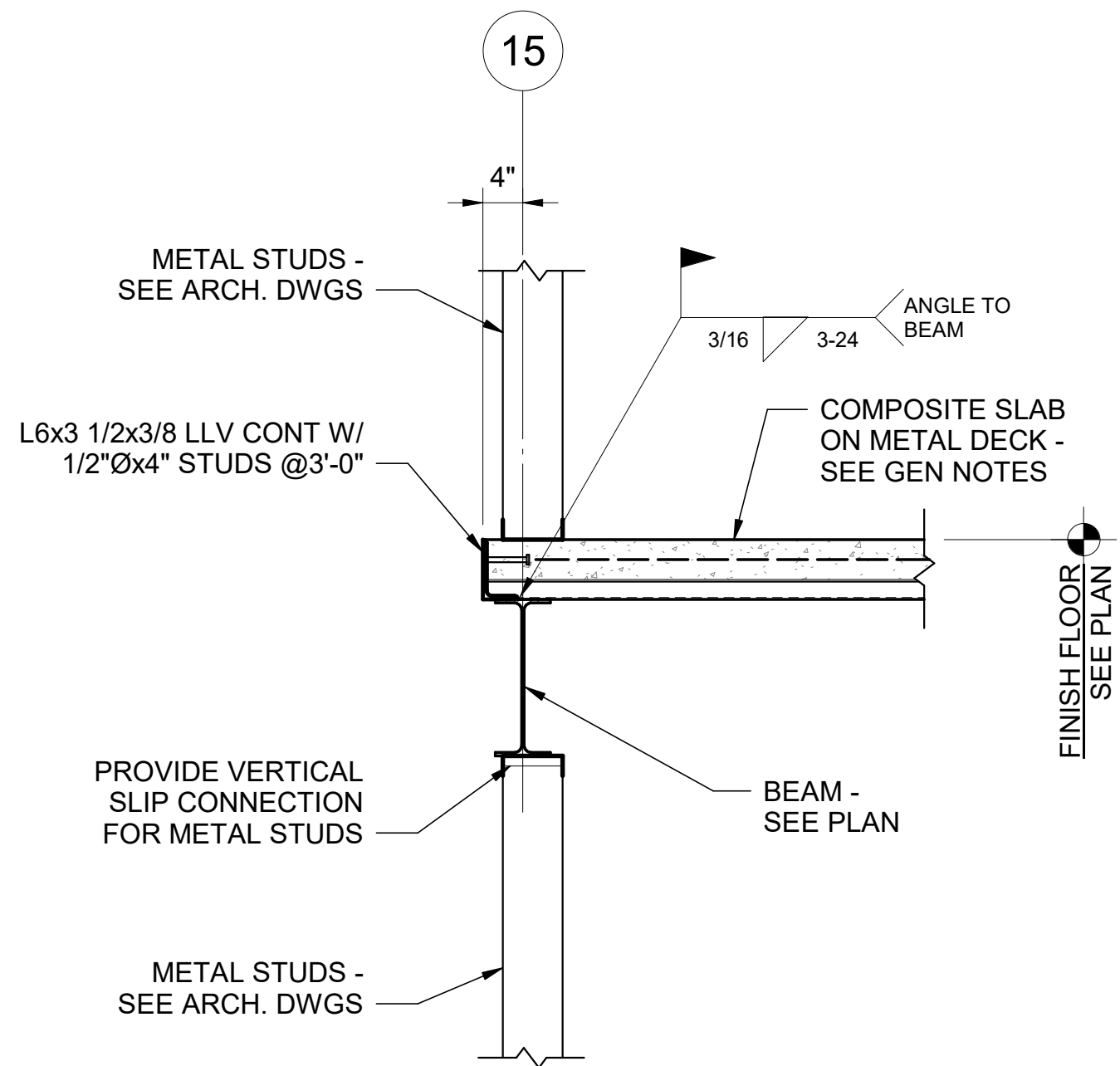
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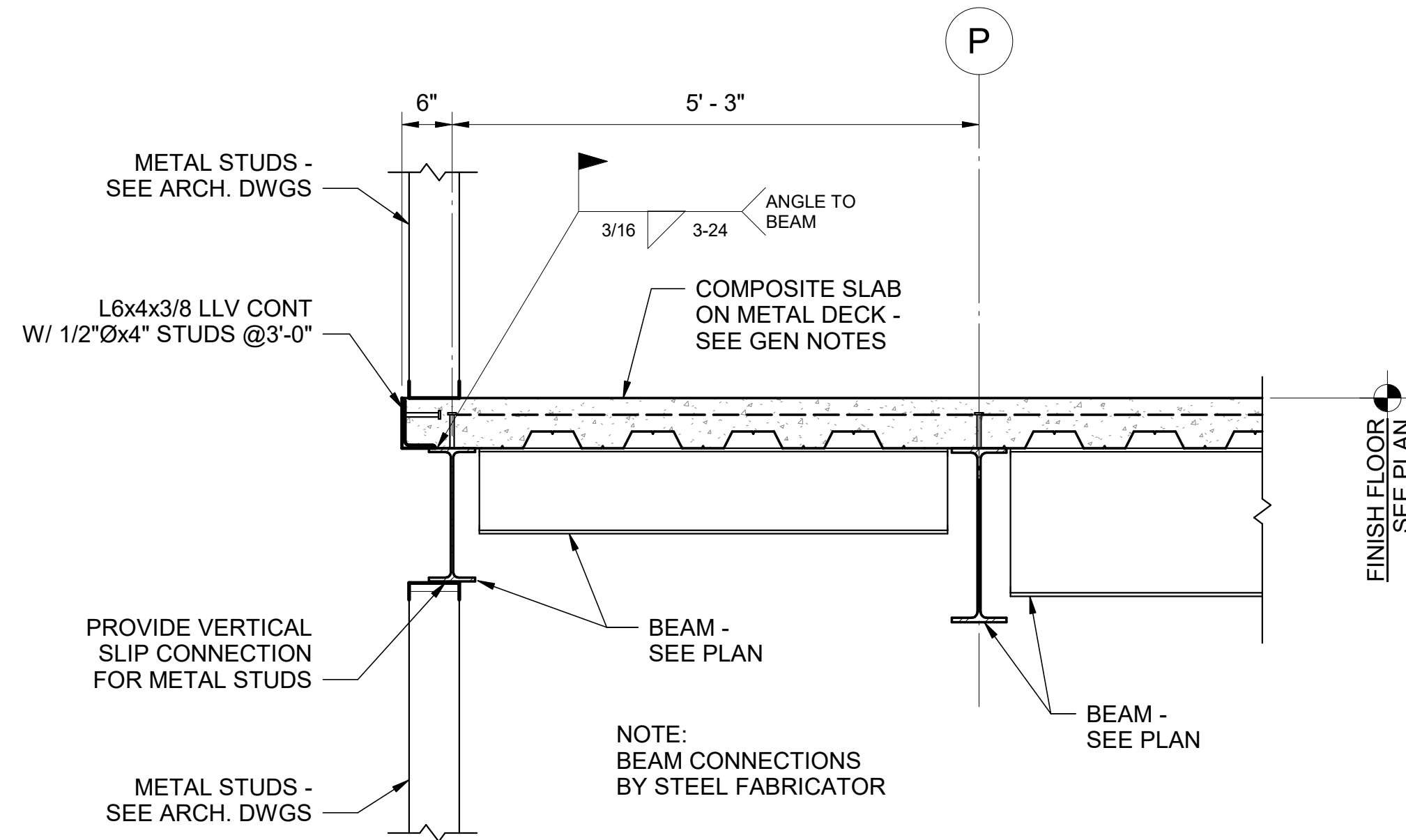
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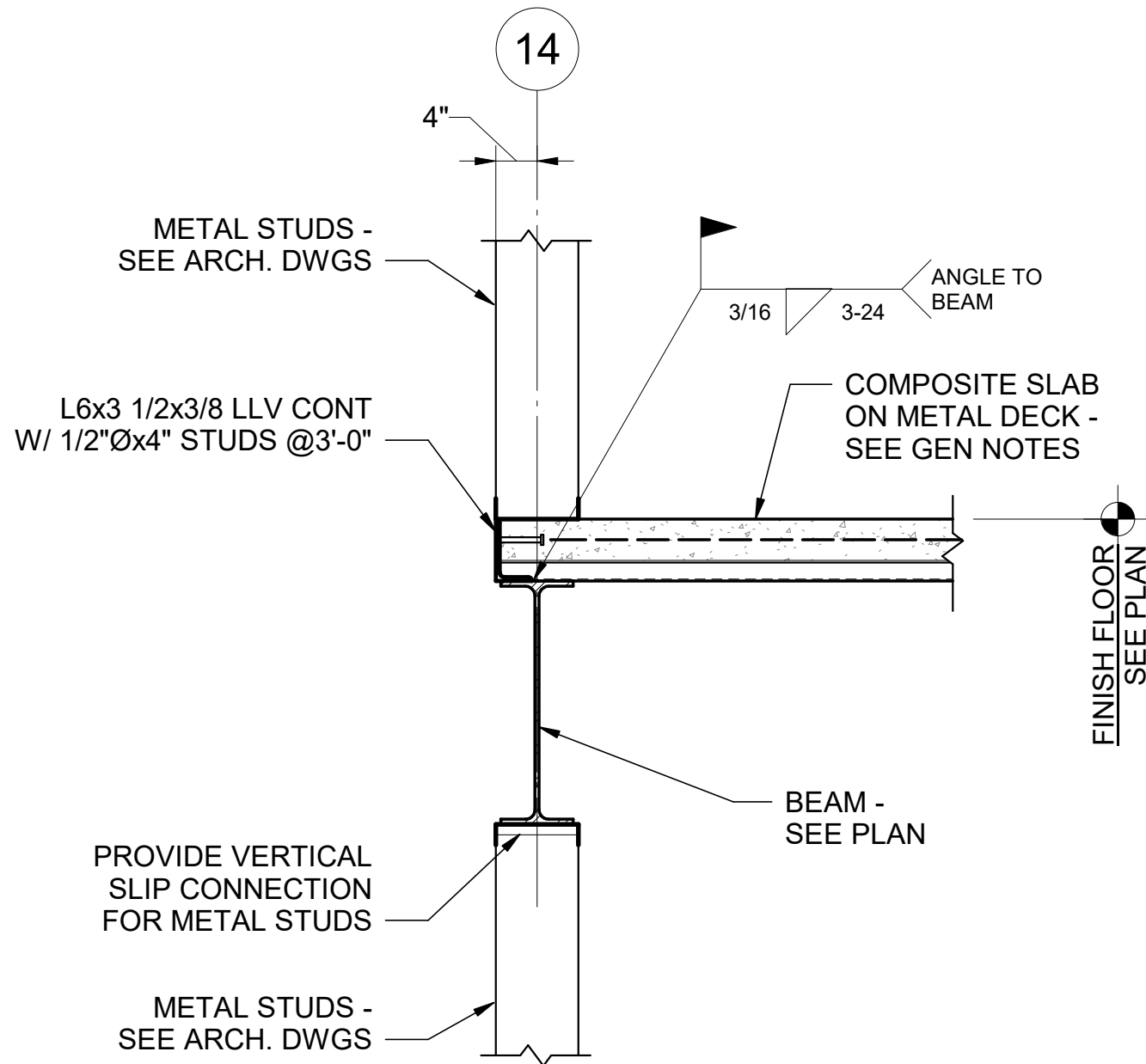
**6 Section**  
S4.06 3/4" = 1'-0"



**7 Section**  
S4.06 3/4" = 1'-0"



**8 Section**  
S4.06 3/4" = 1'-0"



**9 Section**  
S4.06 3/4" = 1'-0"

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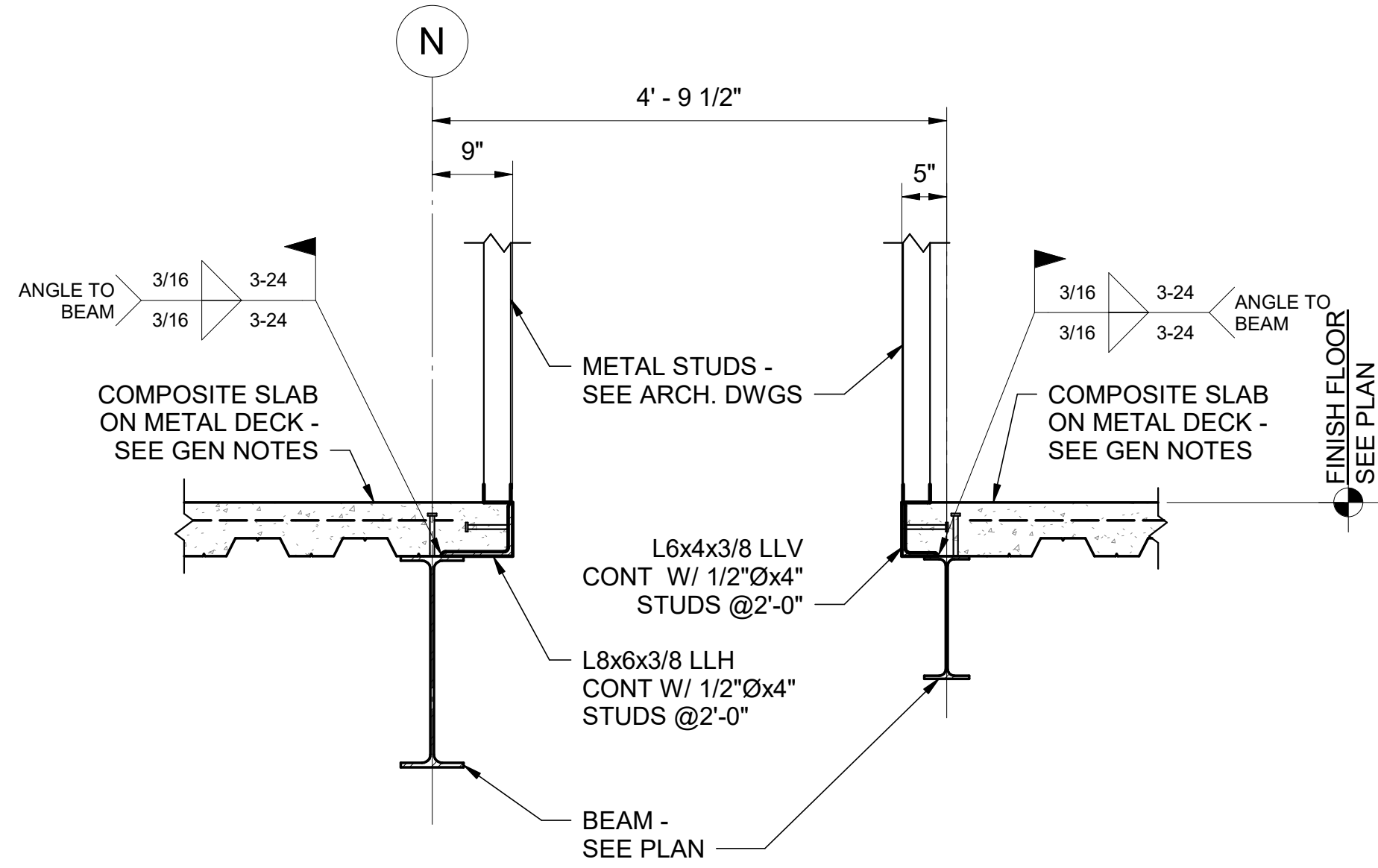


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No. Description Date	
DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
DRAWN BY: CHECKED BY:	RST/GVA KLL
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.06</b>	

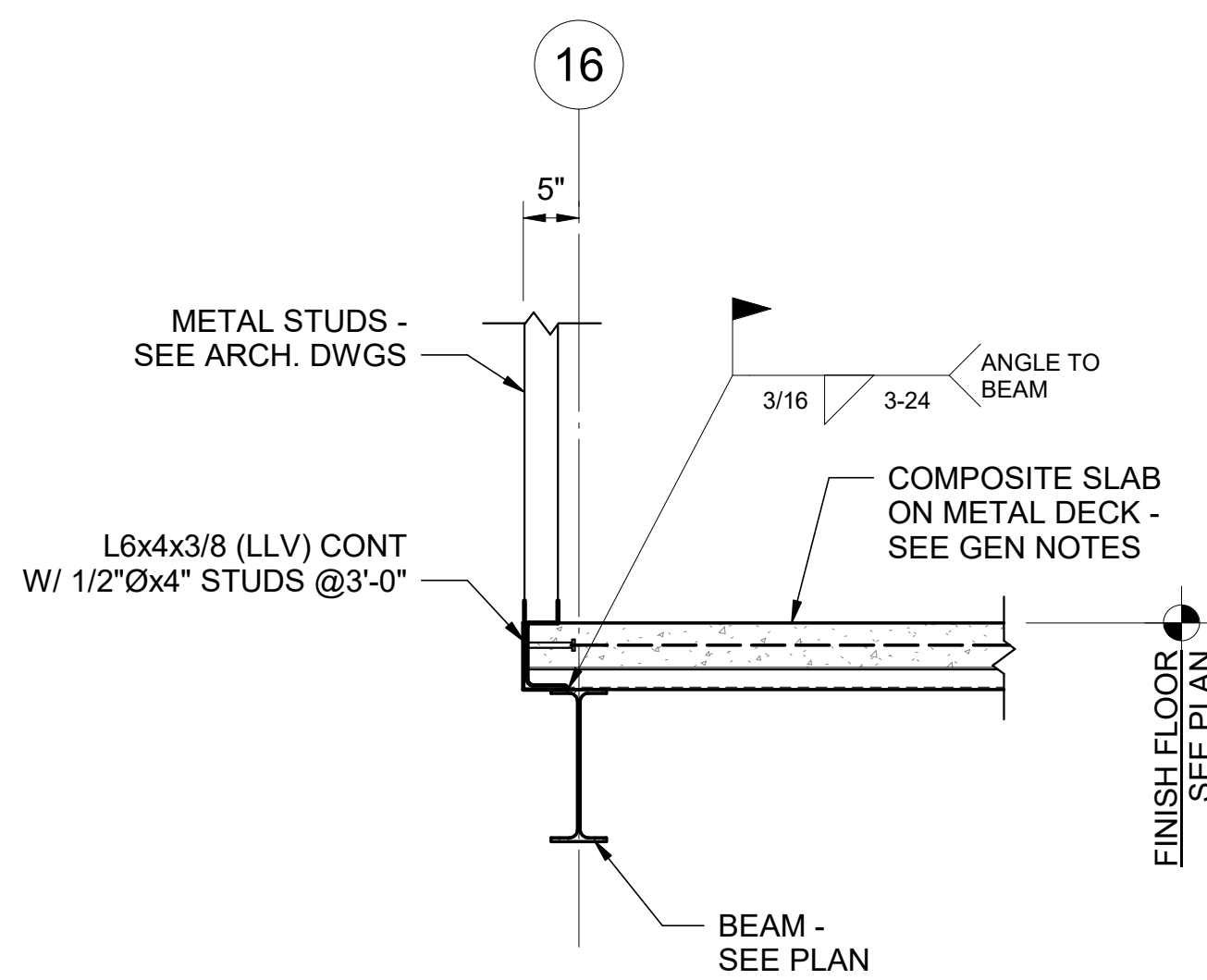


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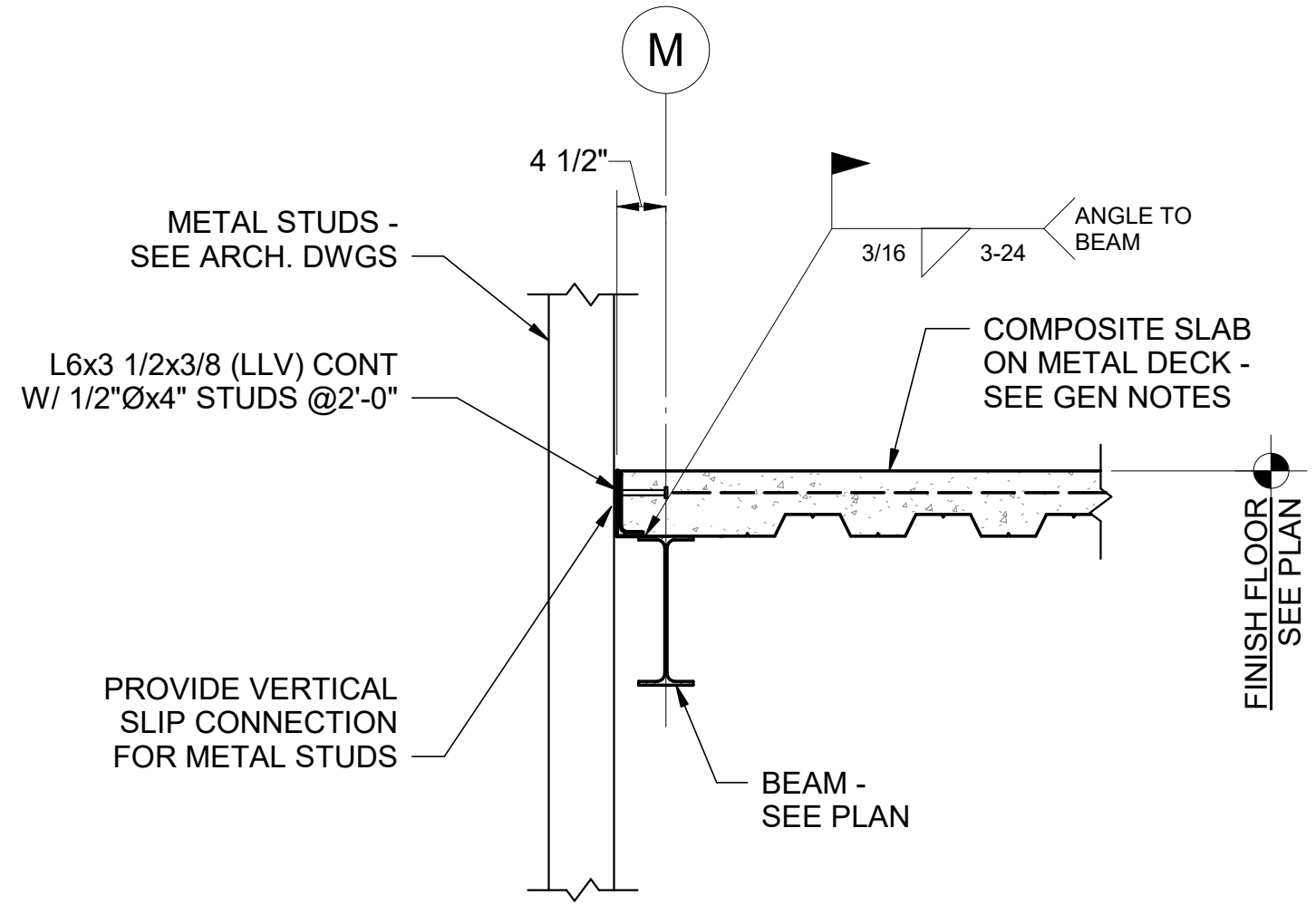
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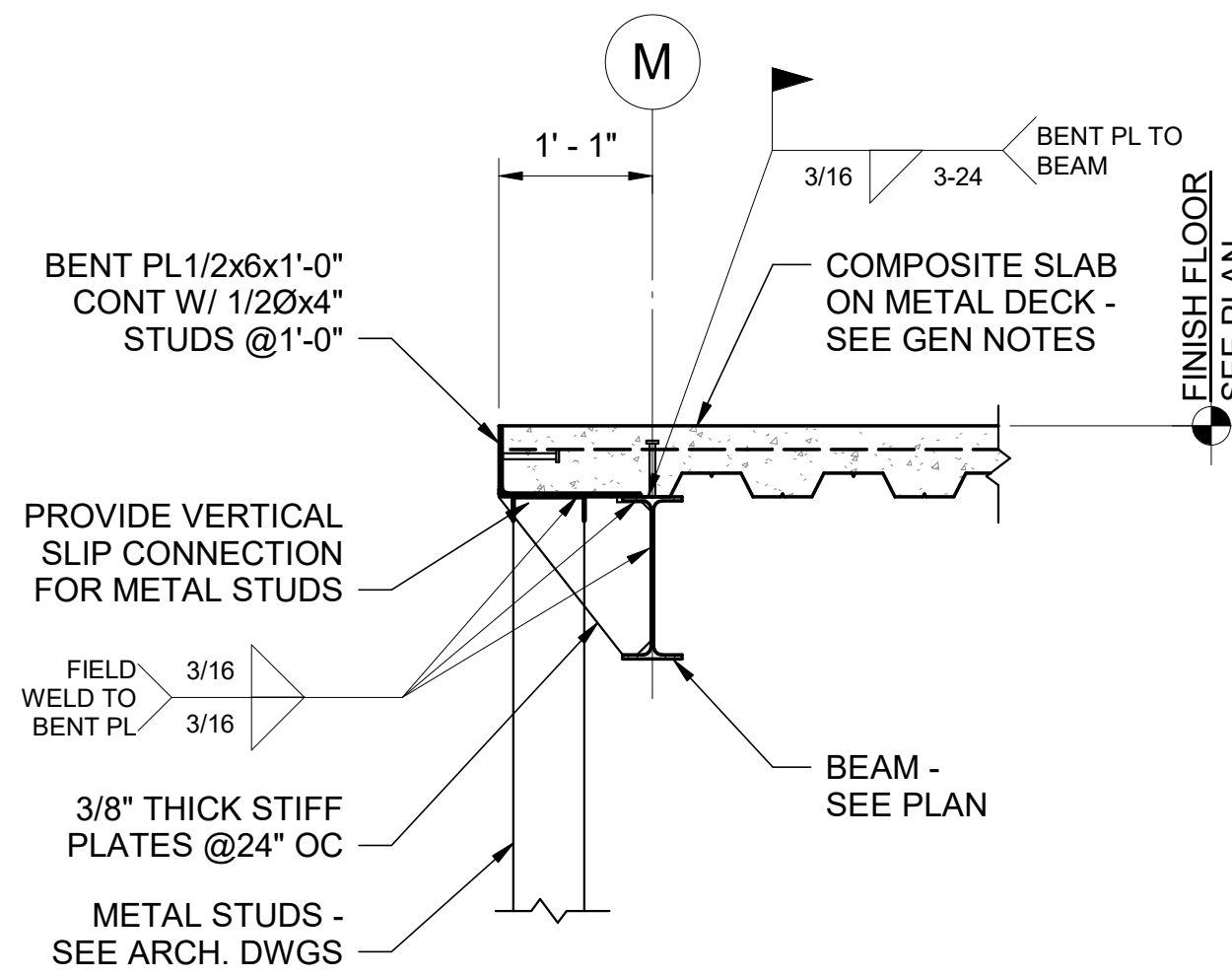
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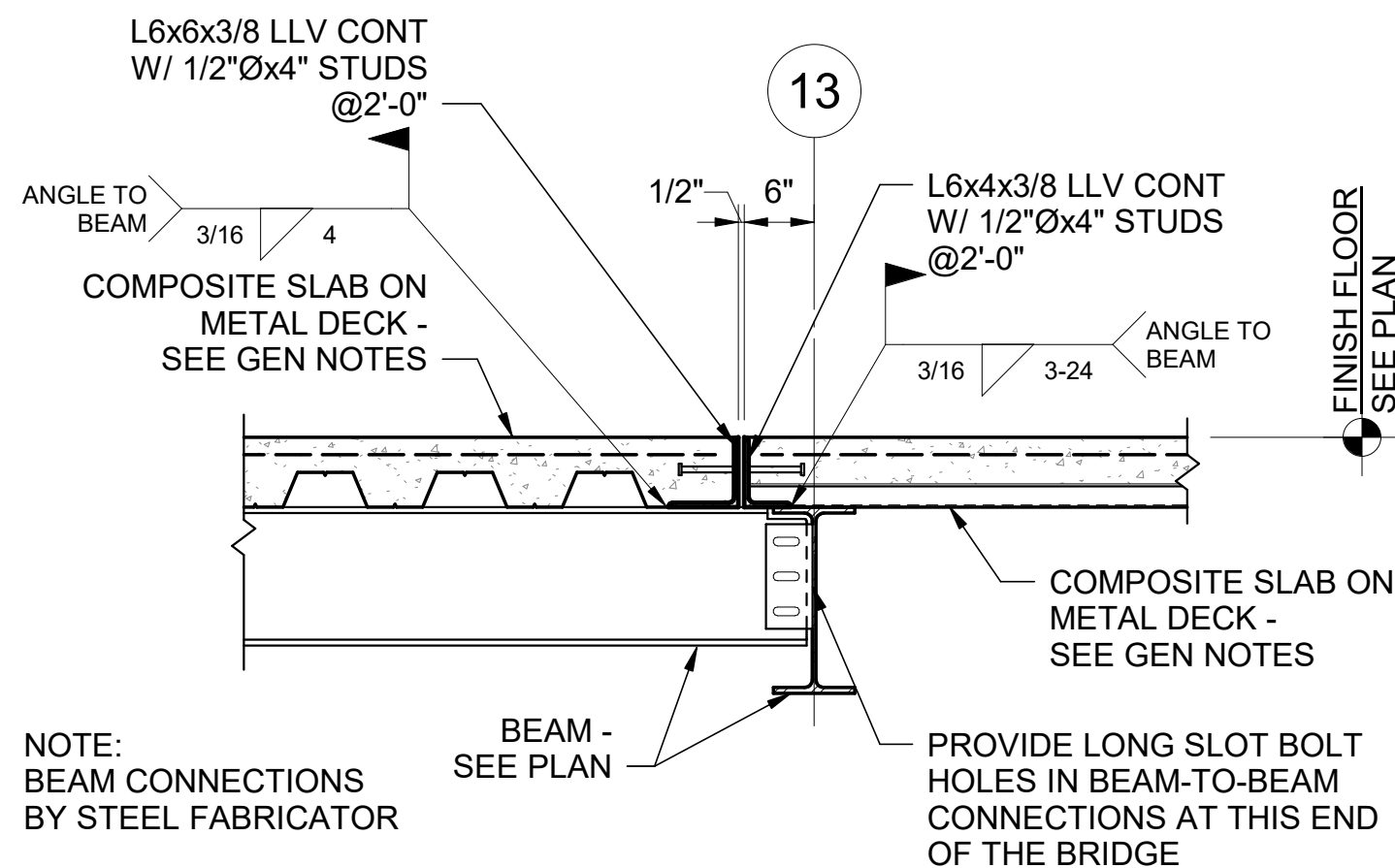
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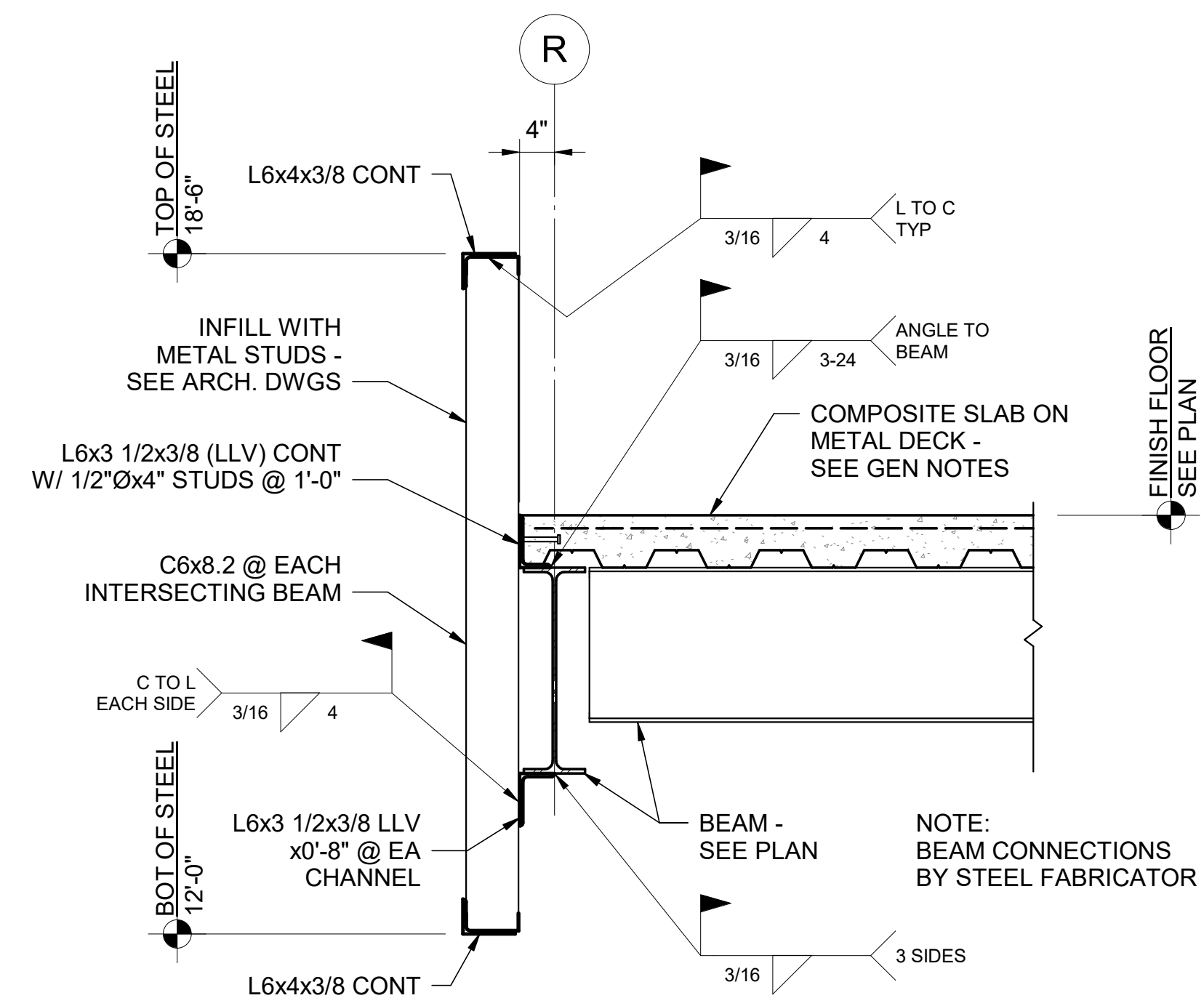
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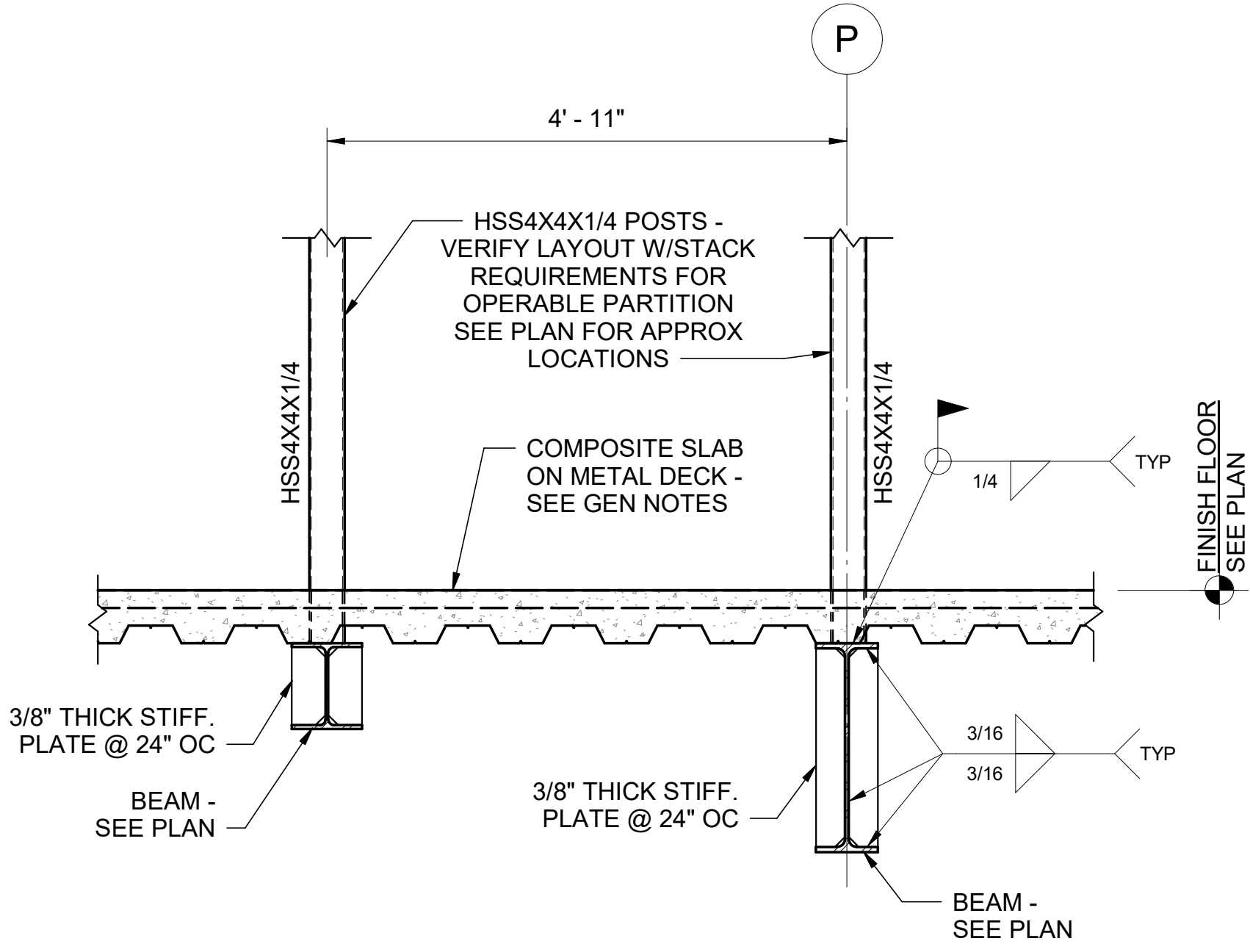
**4 Section**  
S4.07 3/4" = 1'-0"



**5 Section**  
S4.07 3/4" = 1'-0"



**6 Section**  
S4.07 3/4" = 1'-0"



**7 Section**  
S4.07 3/4" = 1'-0"

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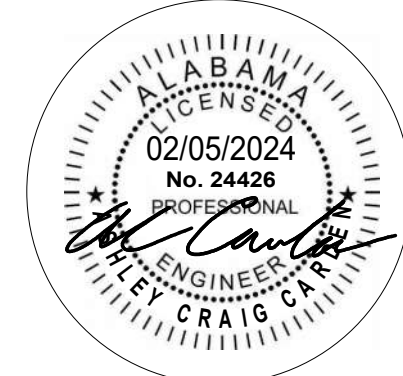


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DRAWING TITLE SECOND FLOOR FRAMING SECTIONS	
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PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.07</b>	



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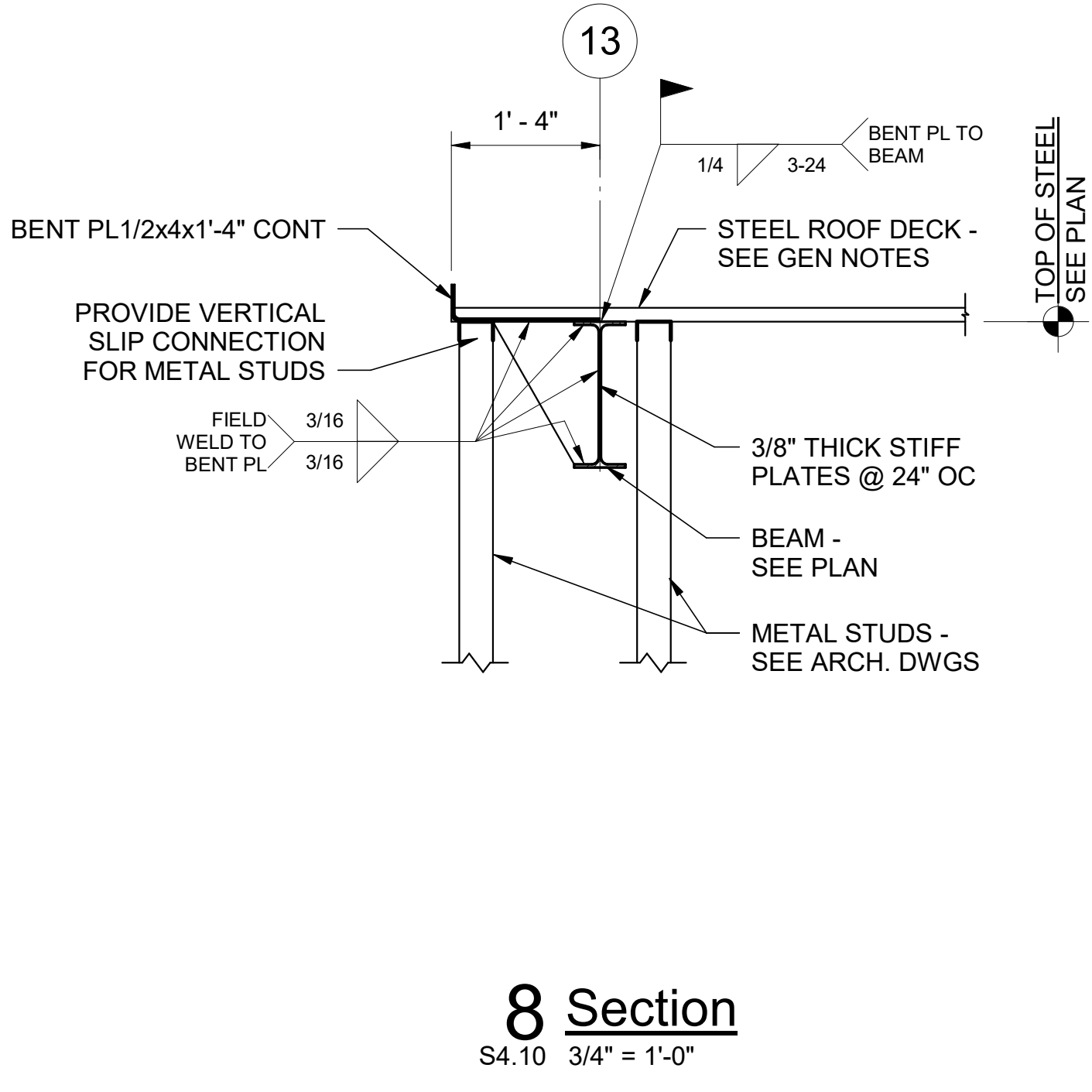
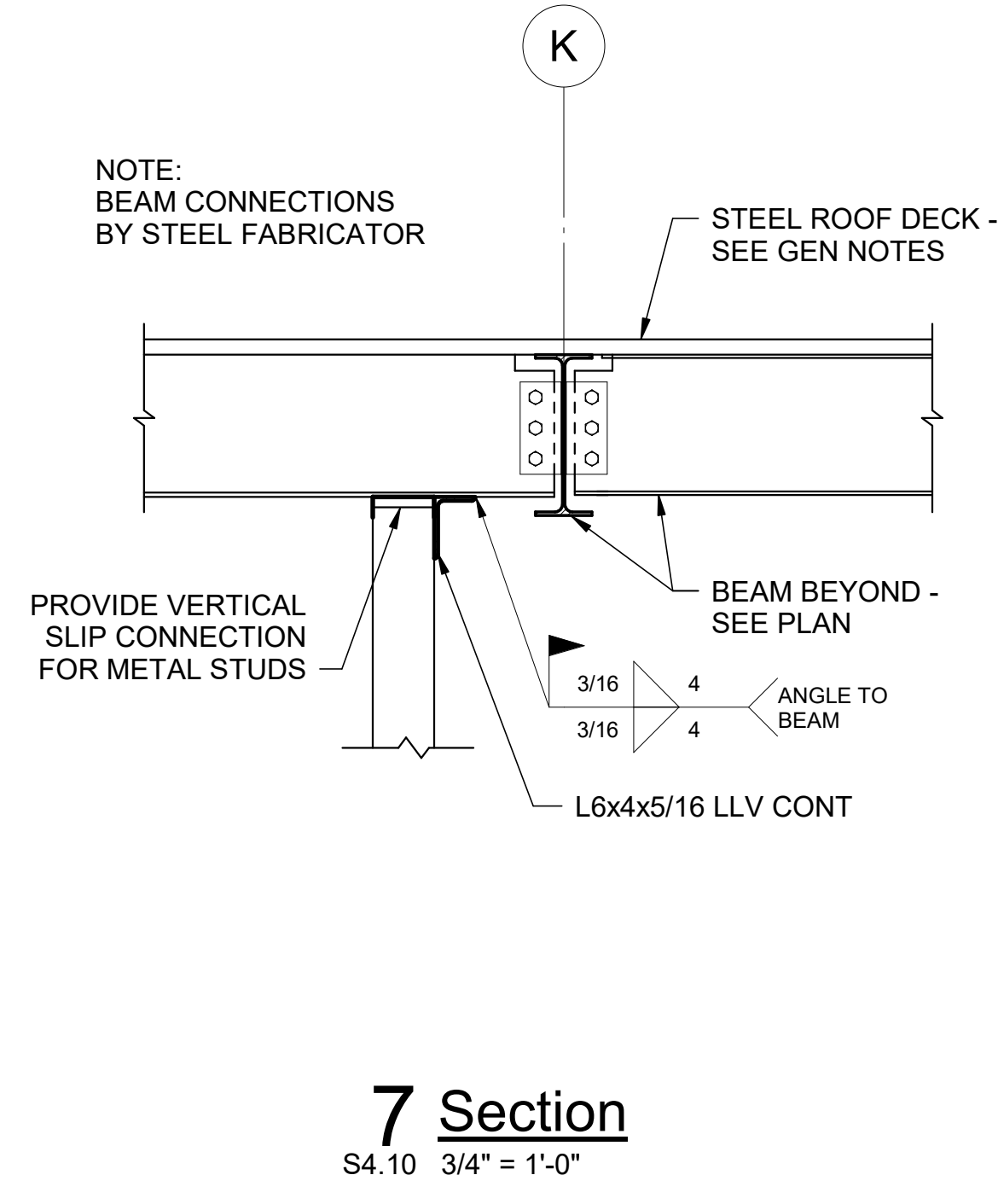
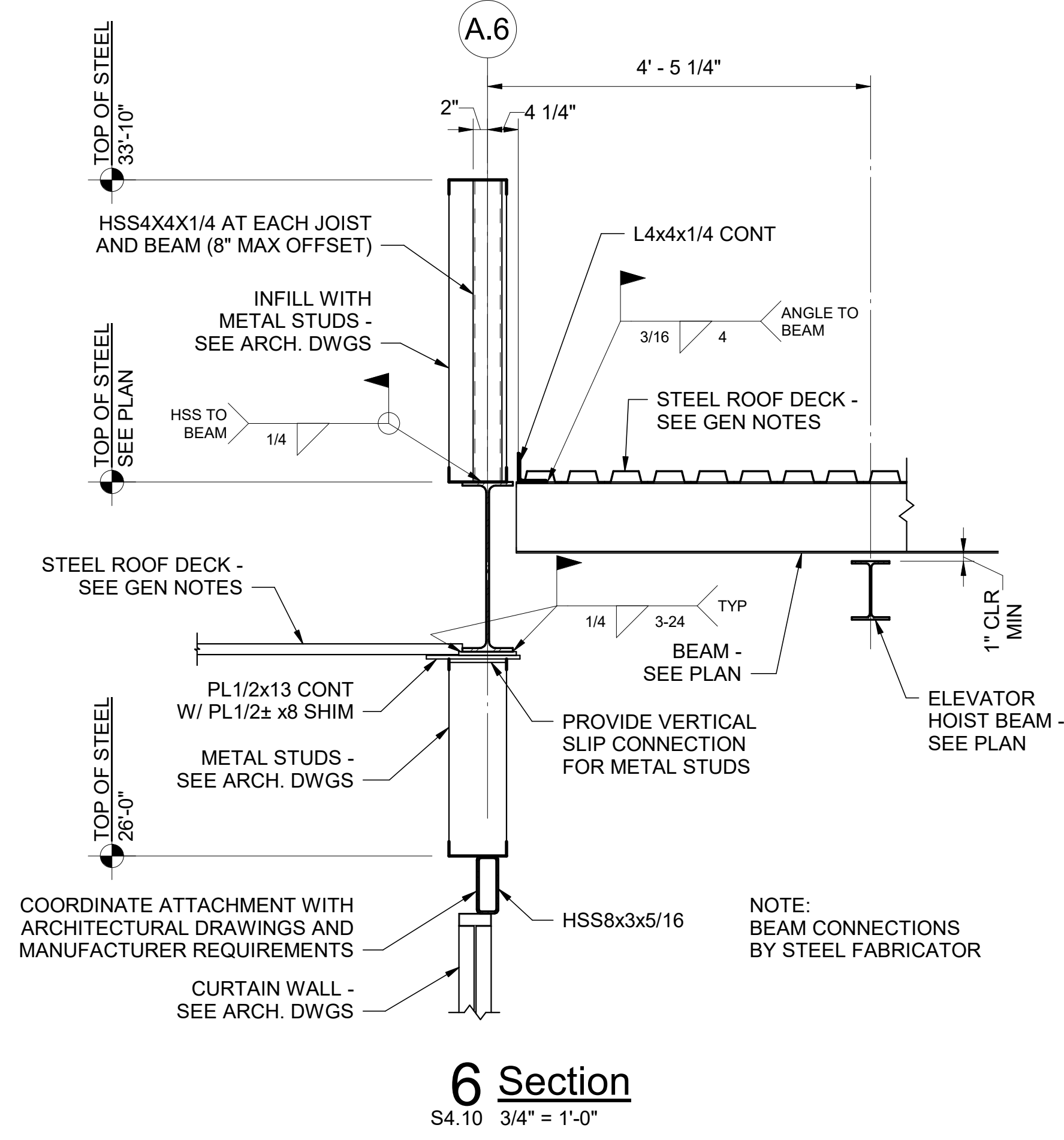
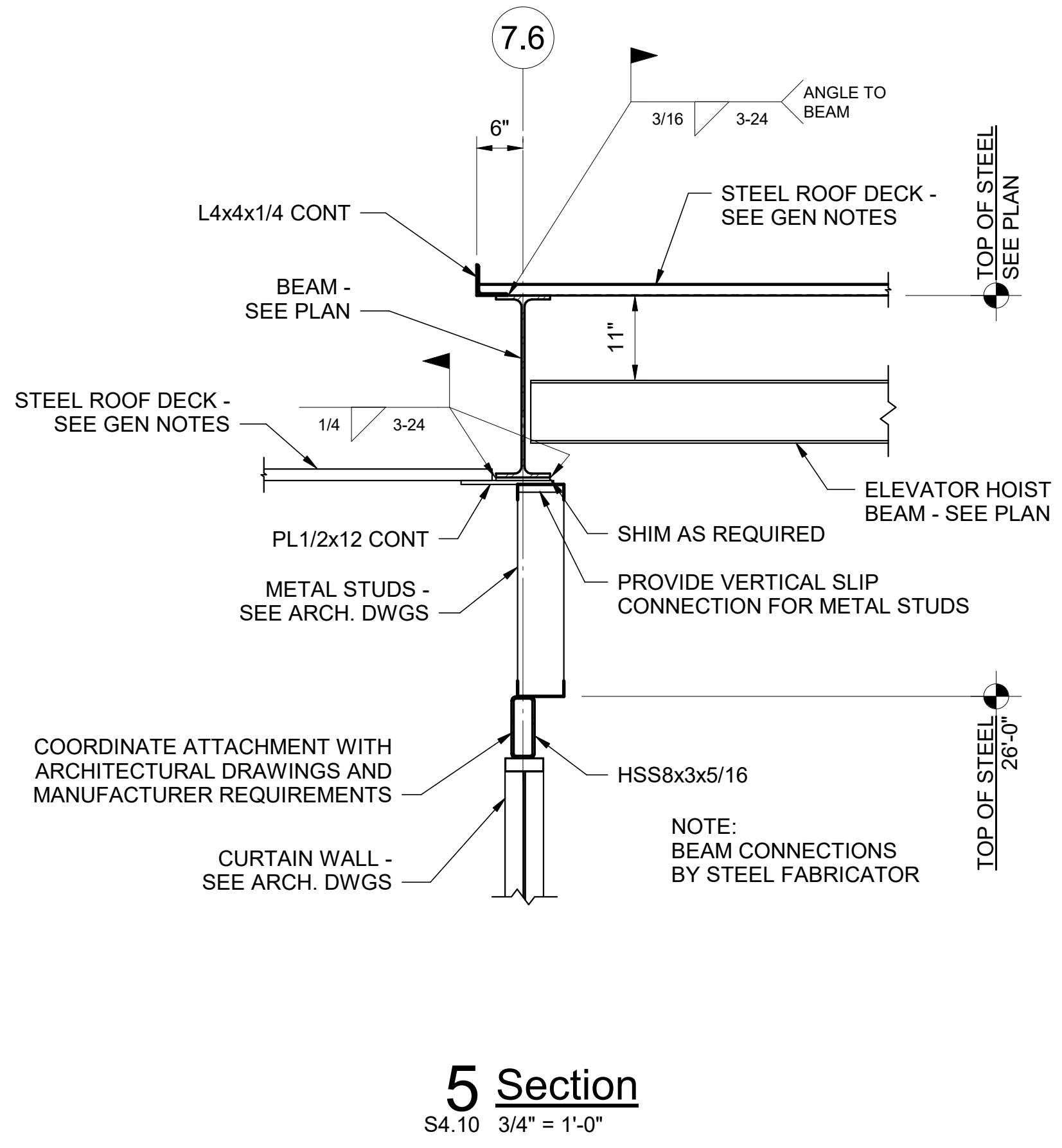
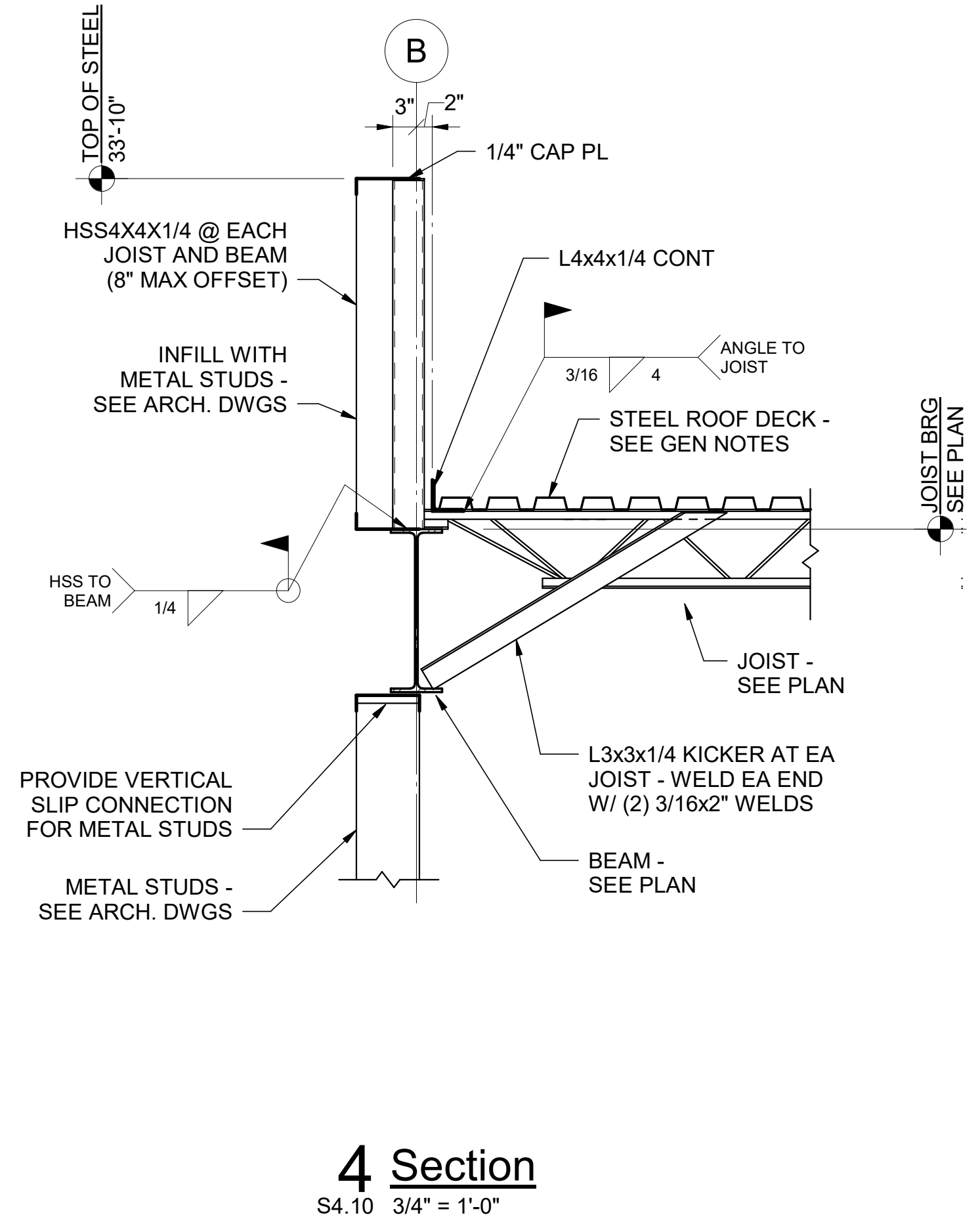
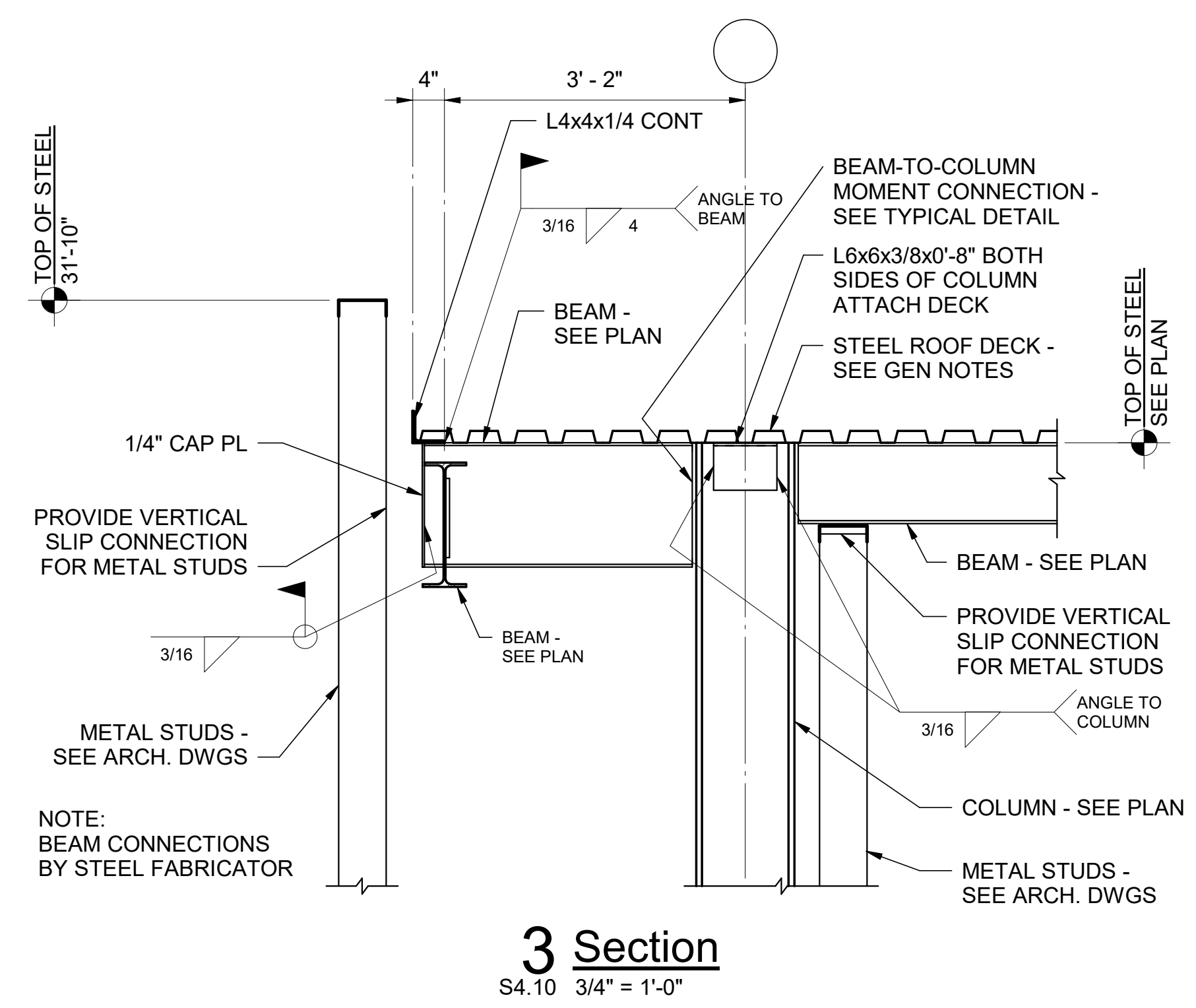
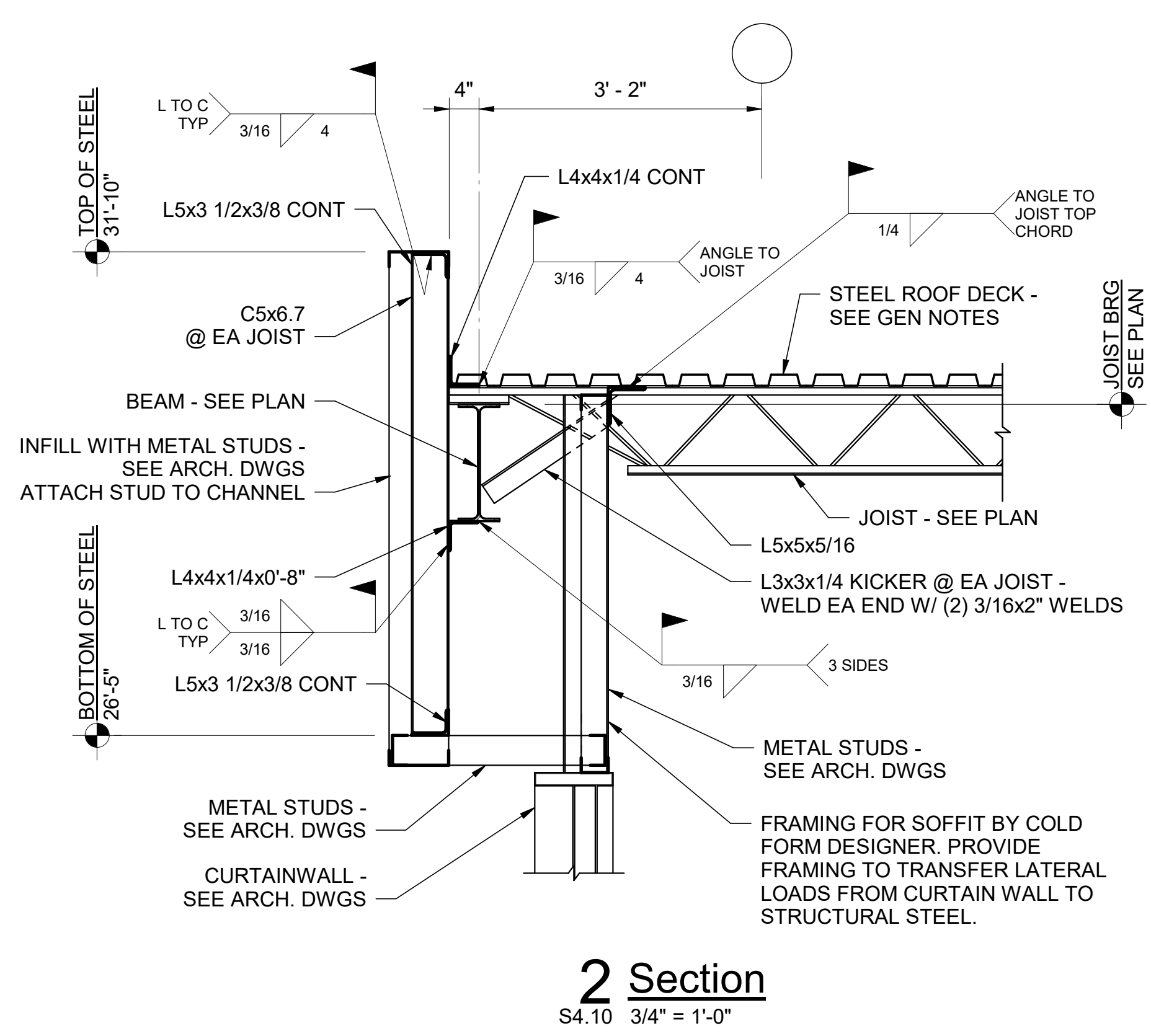
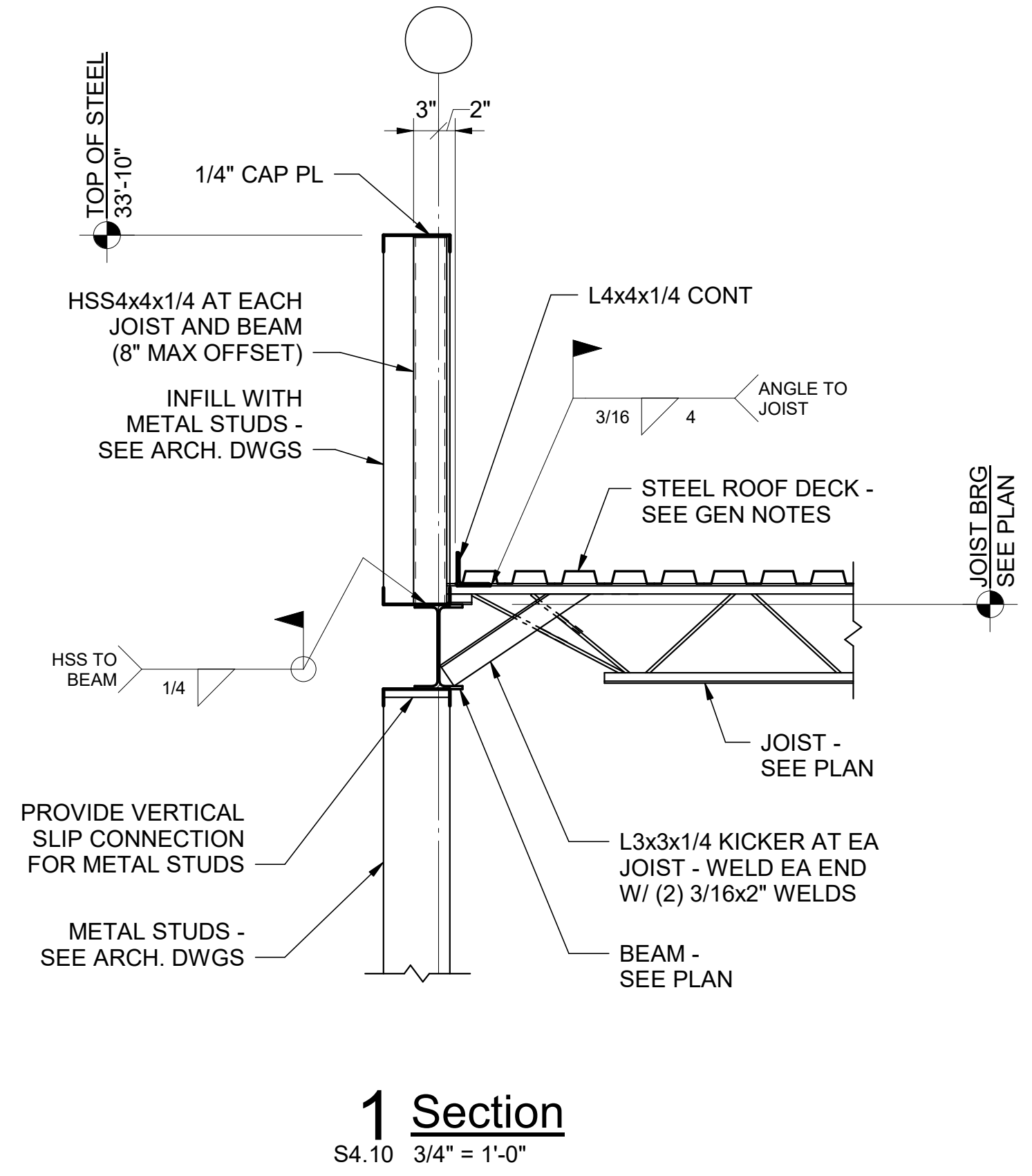
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DRAWING TITLE ROOF FRAMING SECTIONS		
DRAWN BY: RST/GVA		KLL
CHECKED BY:		
PROJECT NUMBER 225029-00		
DRAWING NO. <b>S4.10</b>		





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2/5/2024 1:13:10 PM

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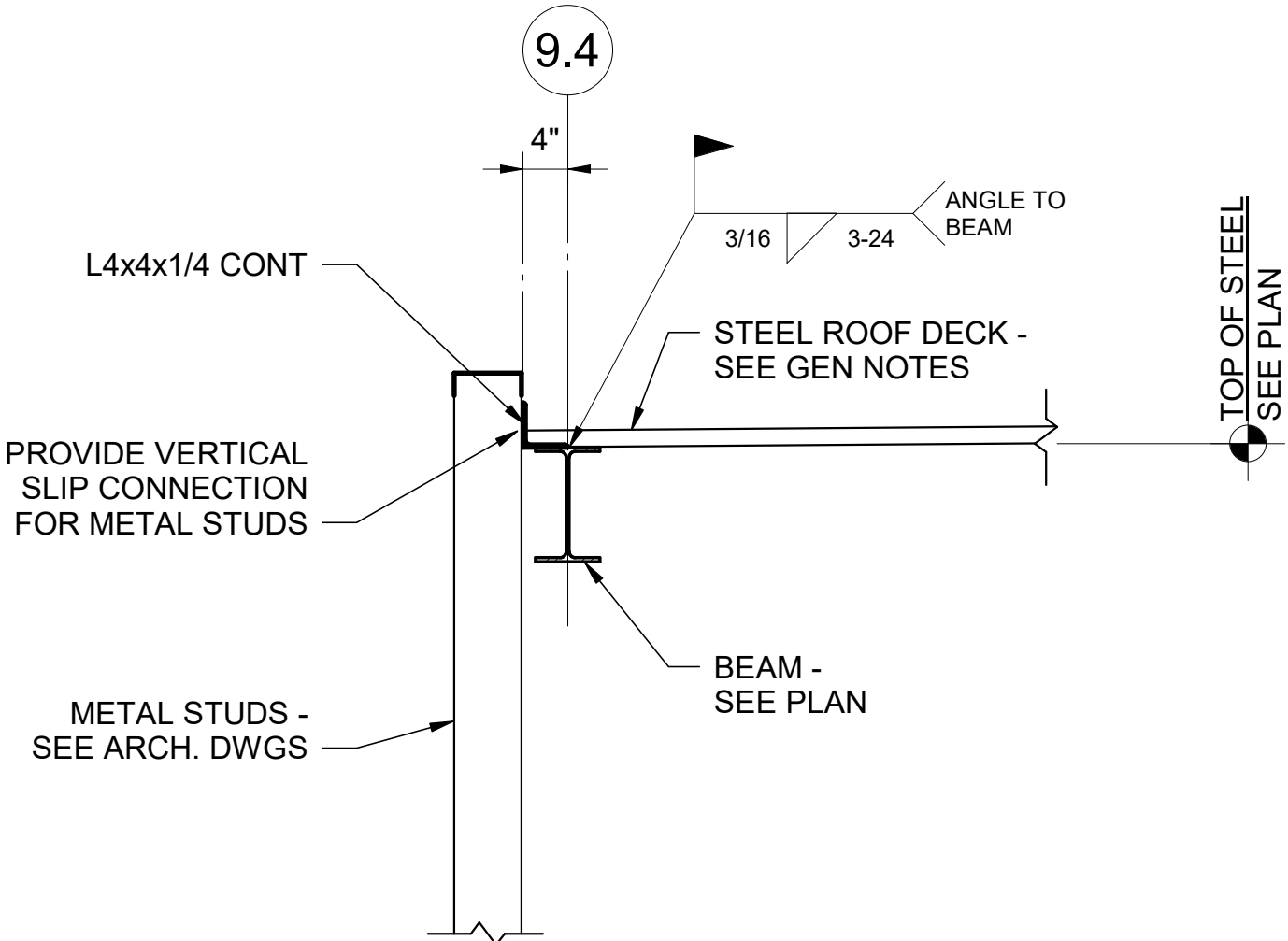
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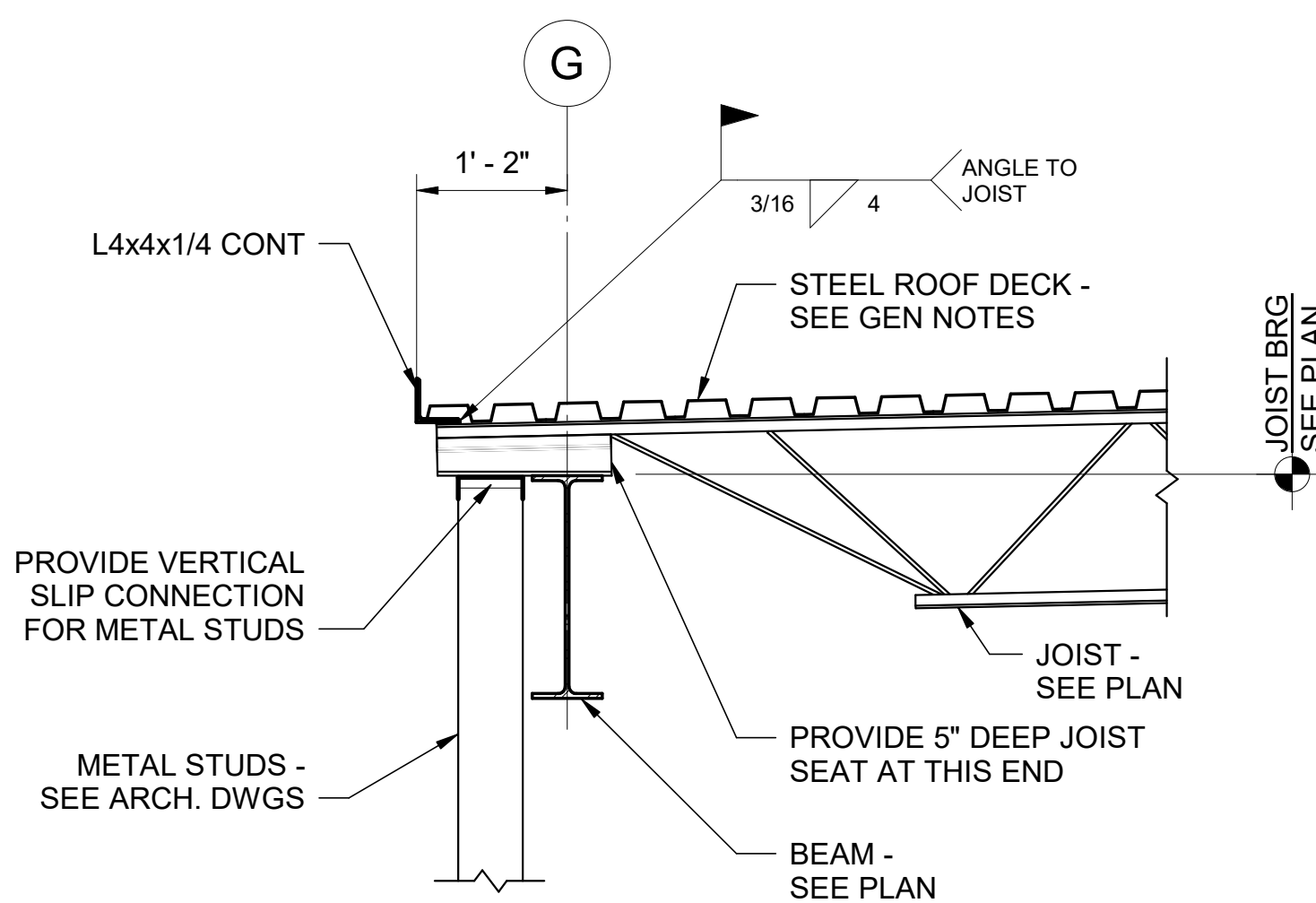
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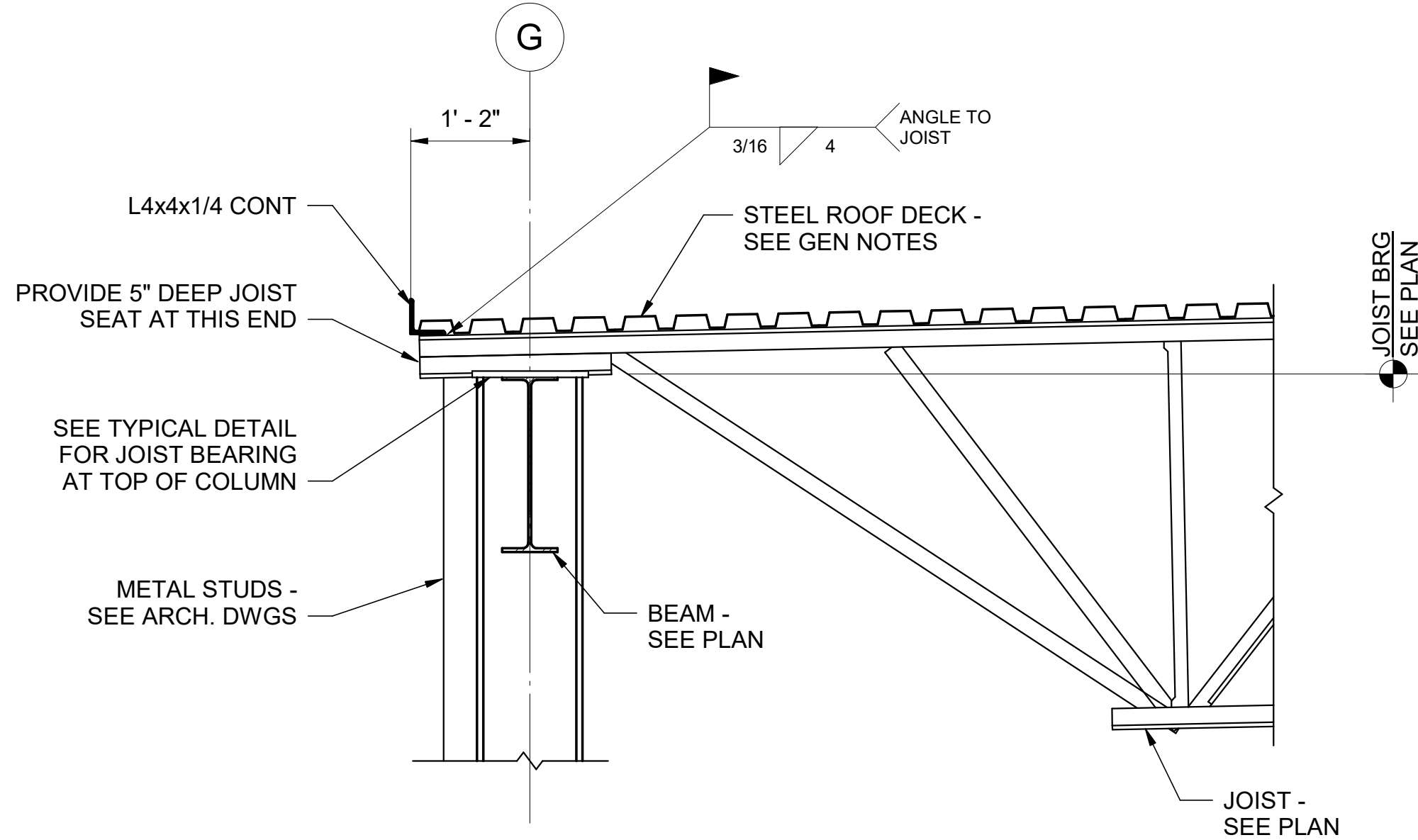
PROJECT STATUS: ISSUED:		BID SET
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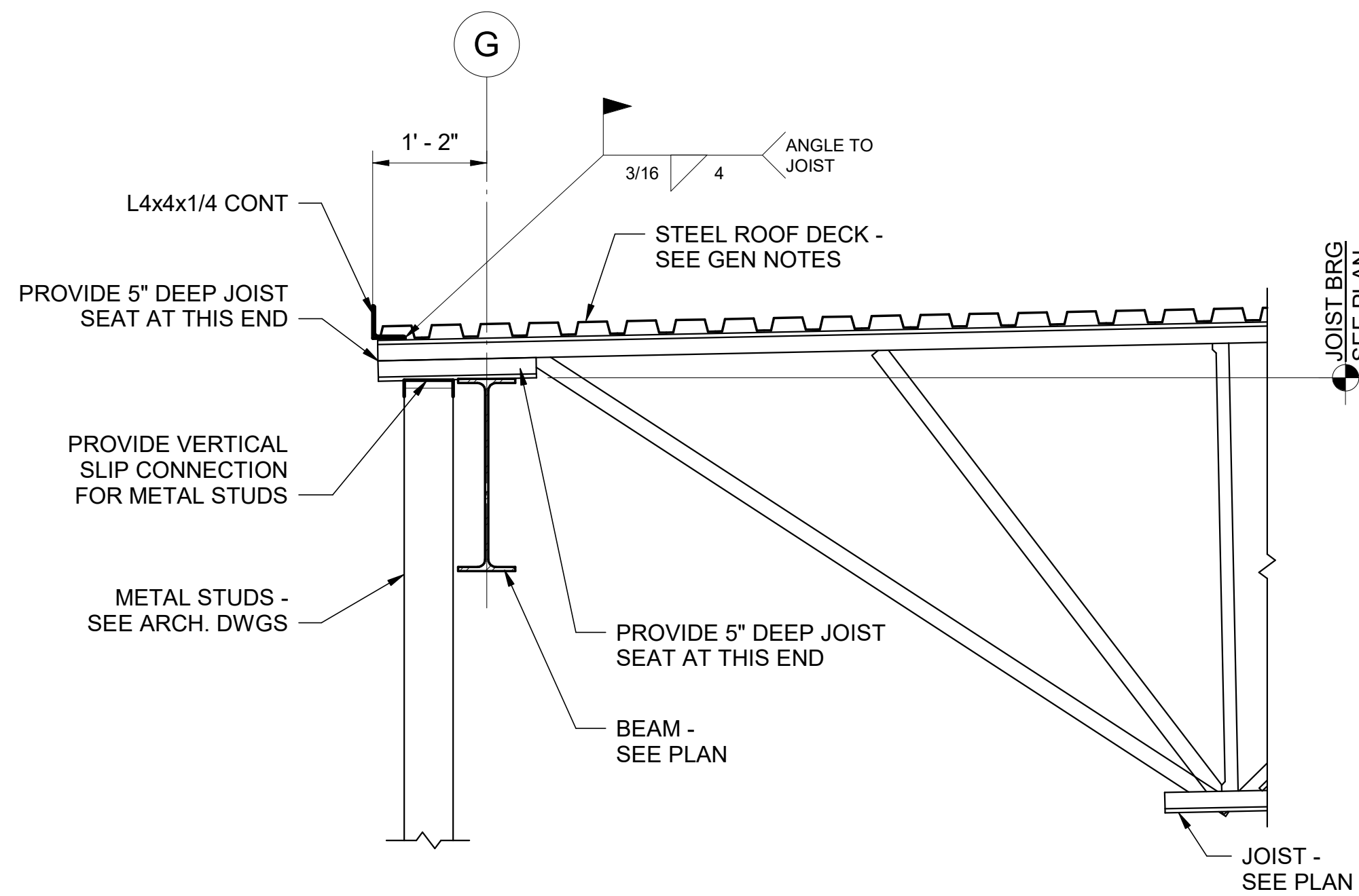
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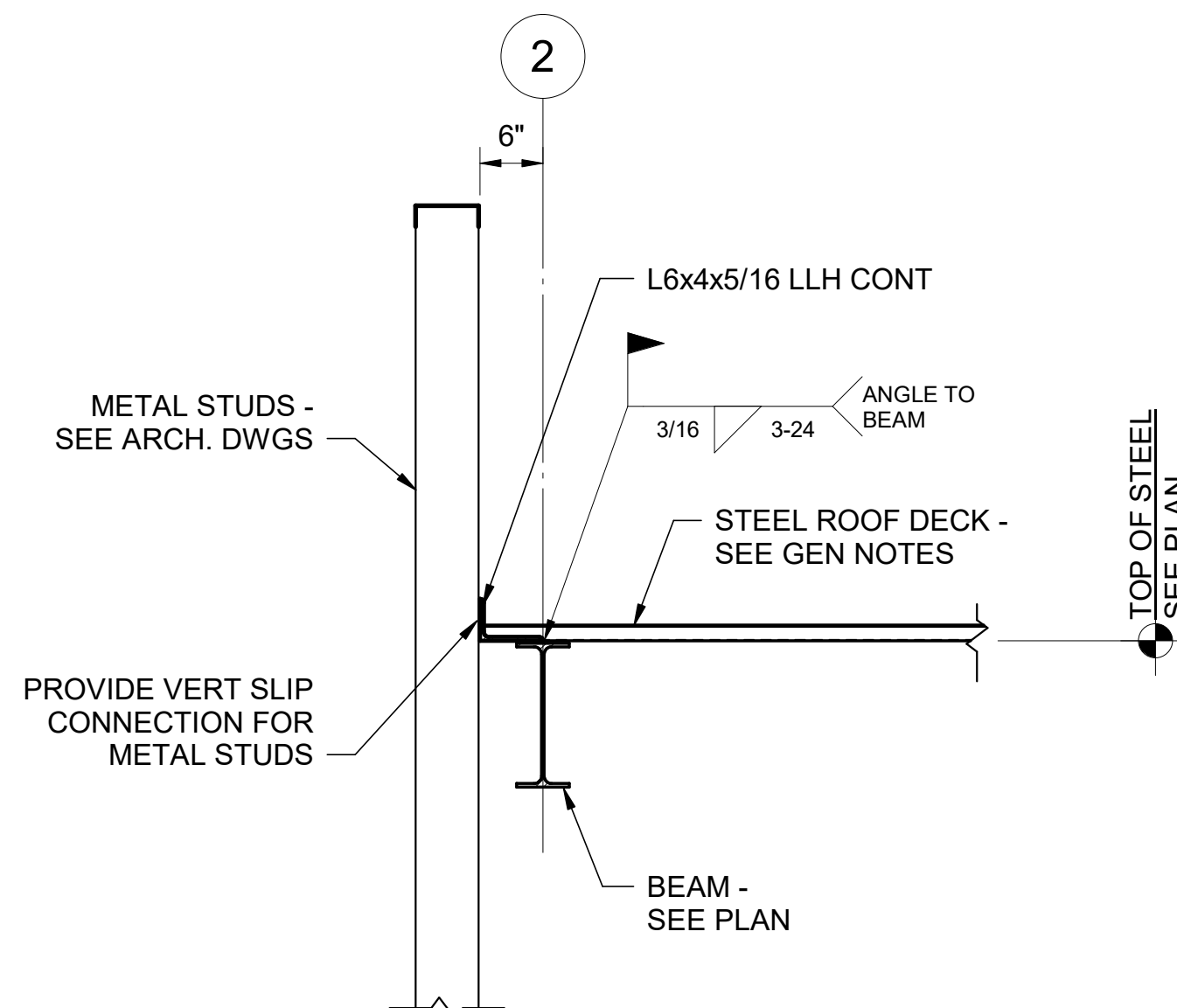
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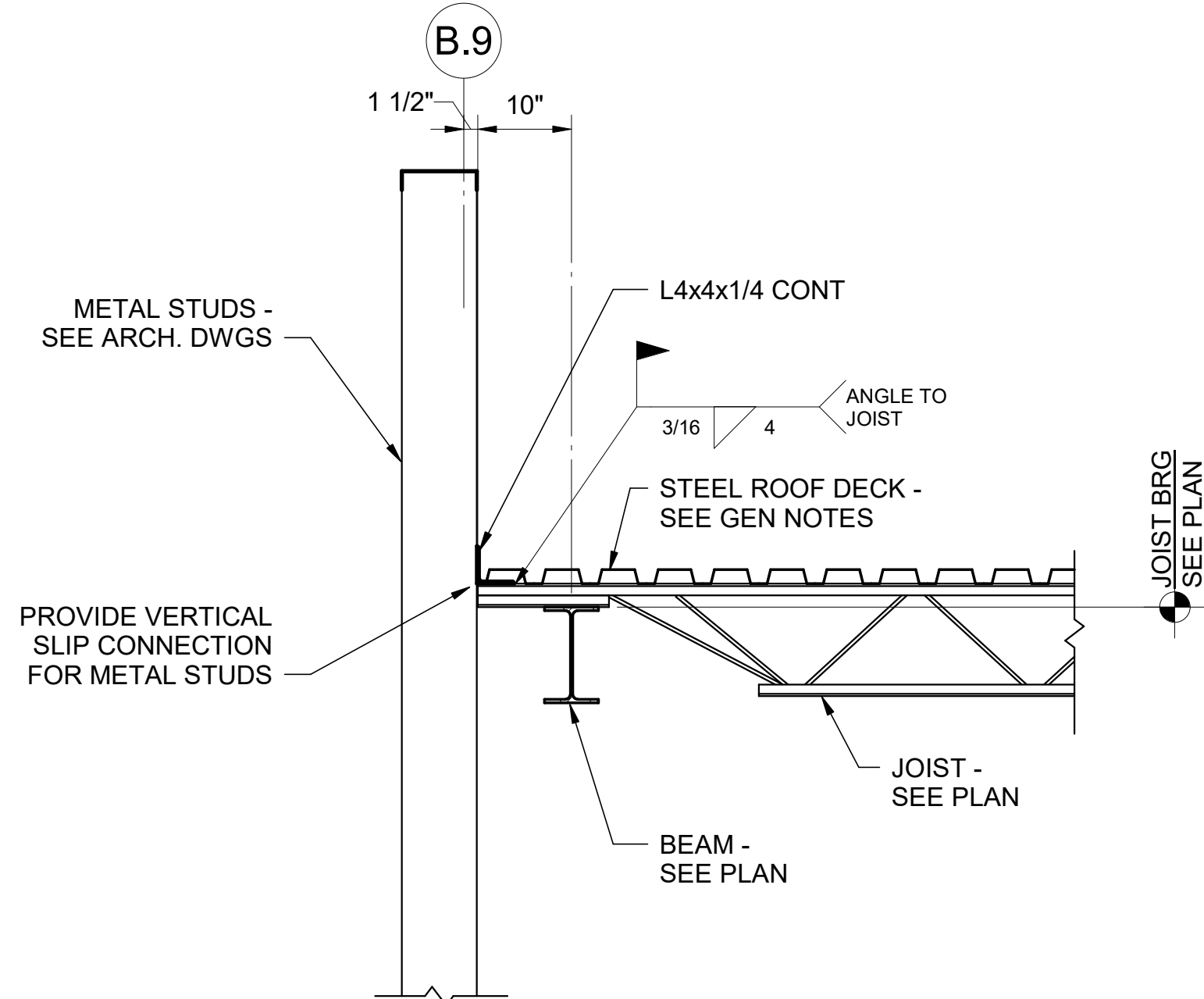
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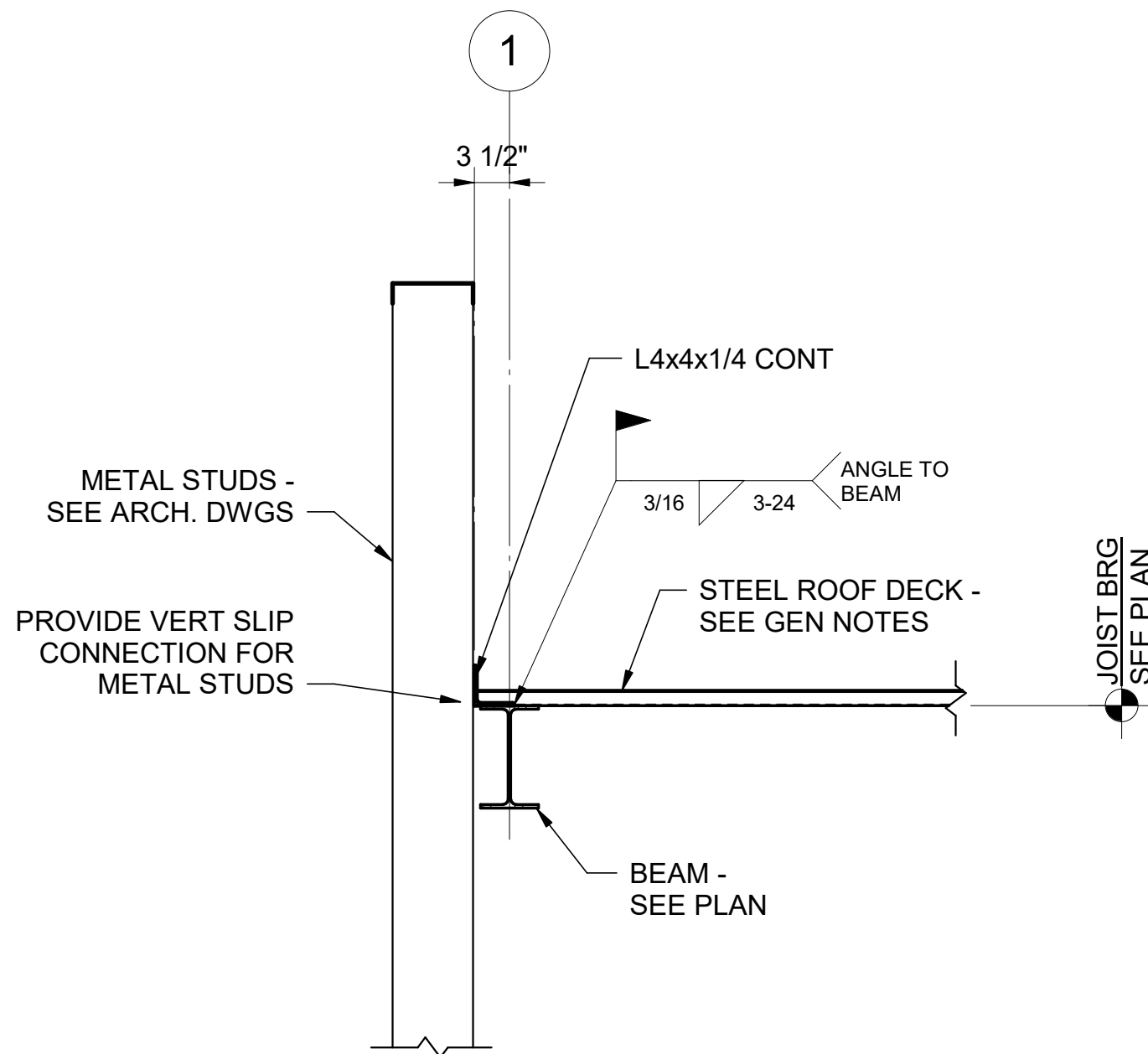
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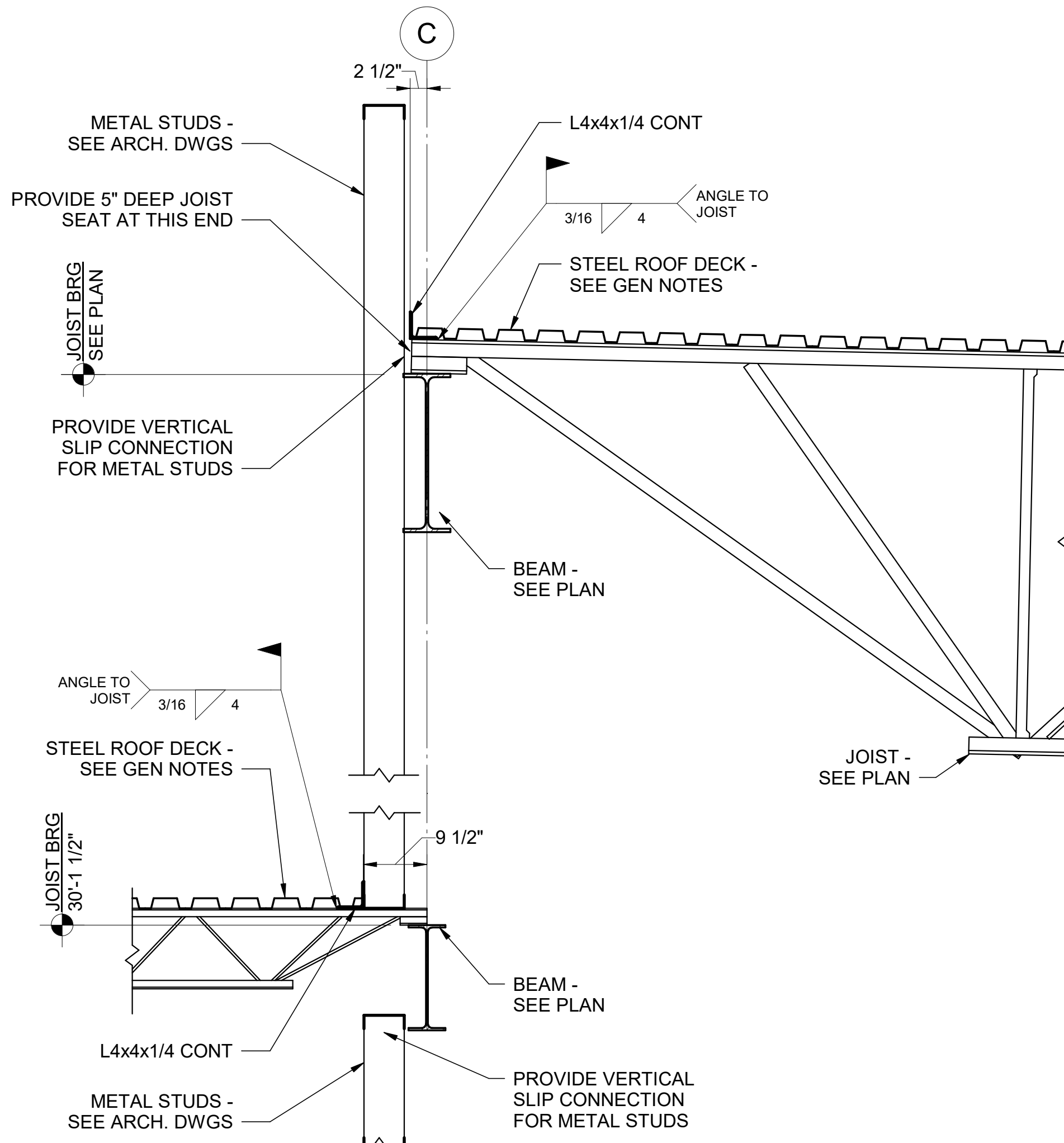
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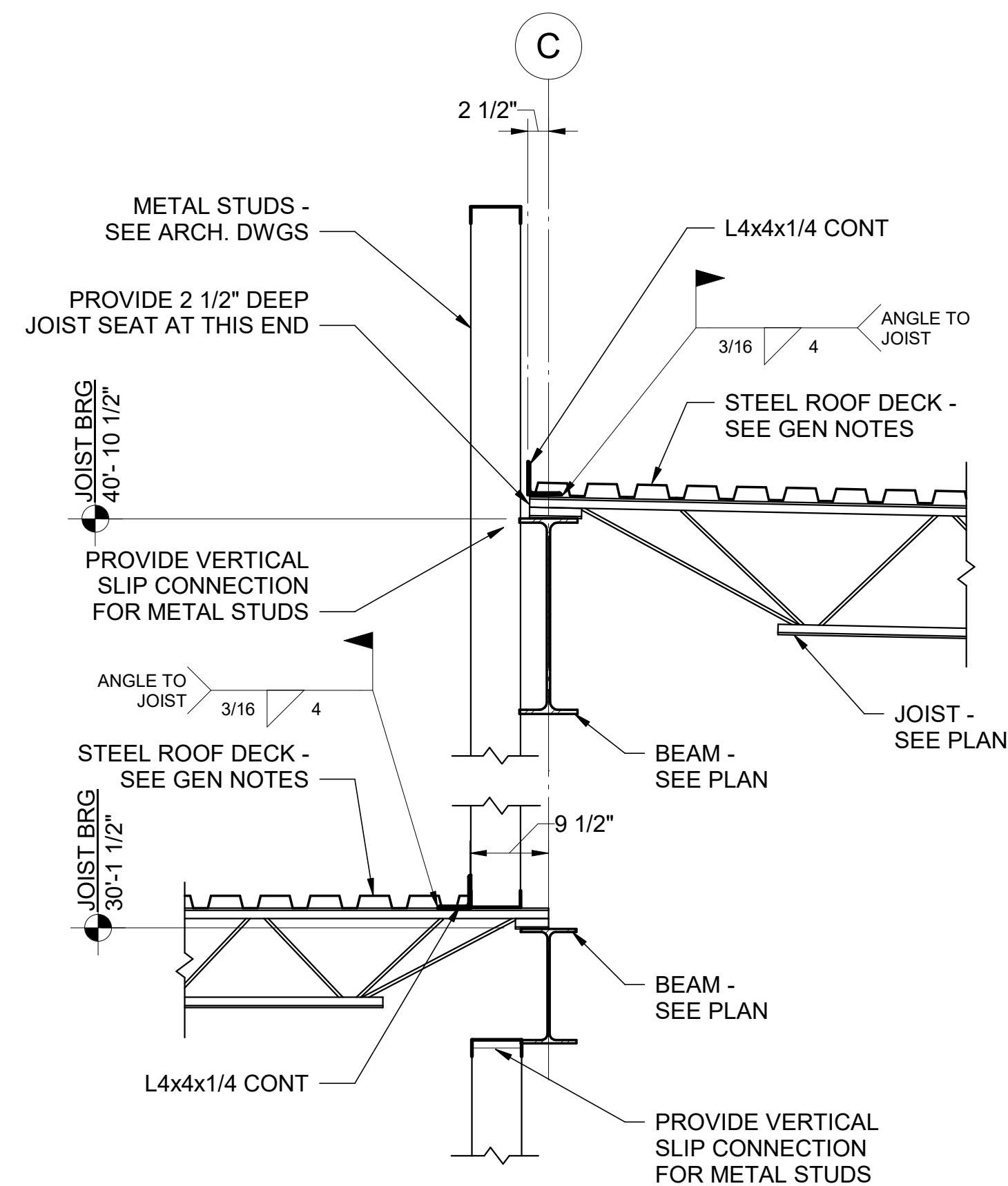
**6 Section**  
S4.11 3/4" = 1'-0"



**7 Section**  
S4.11 3/4" = 1'-0"



**8 Section**  
S4.11 3/4" = 1'-0"

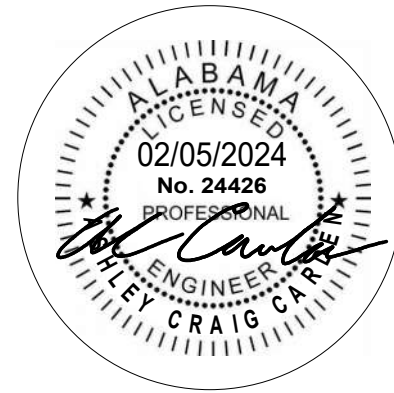


**9 Section**  
S4.11 3/4" = 1'-0"



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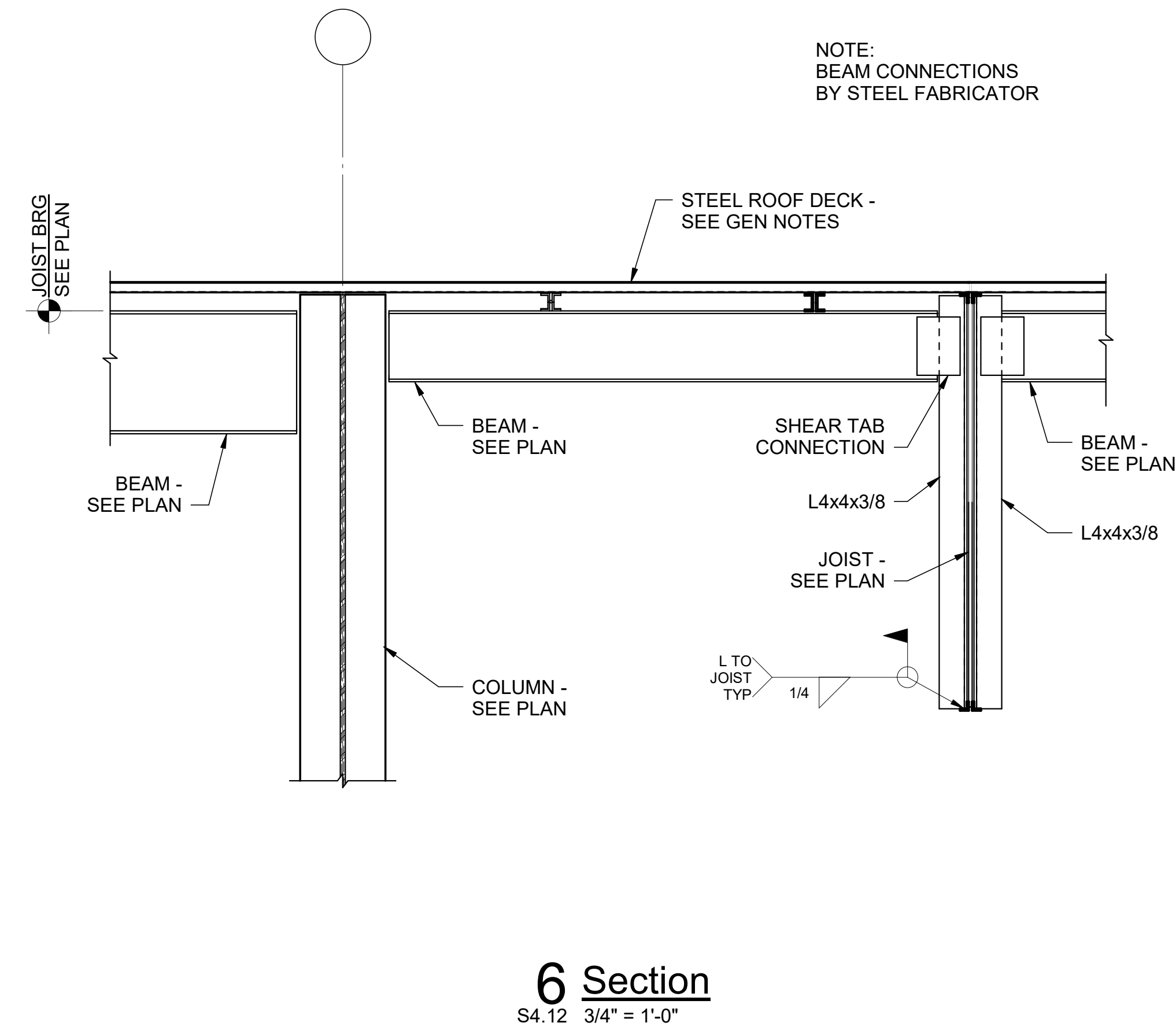
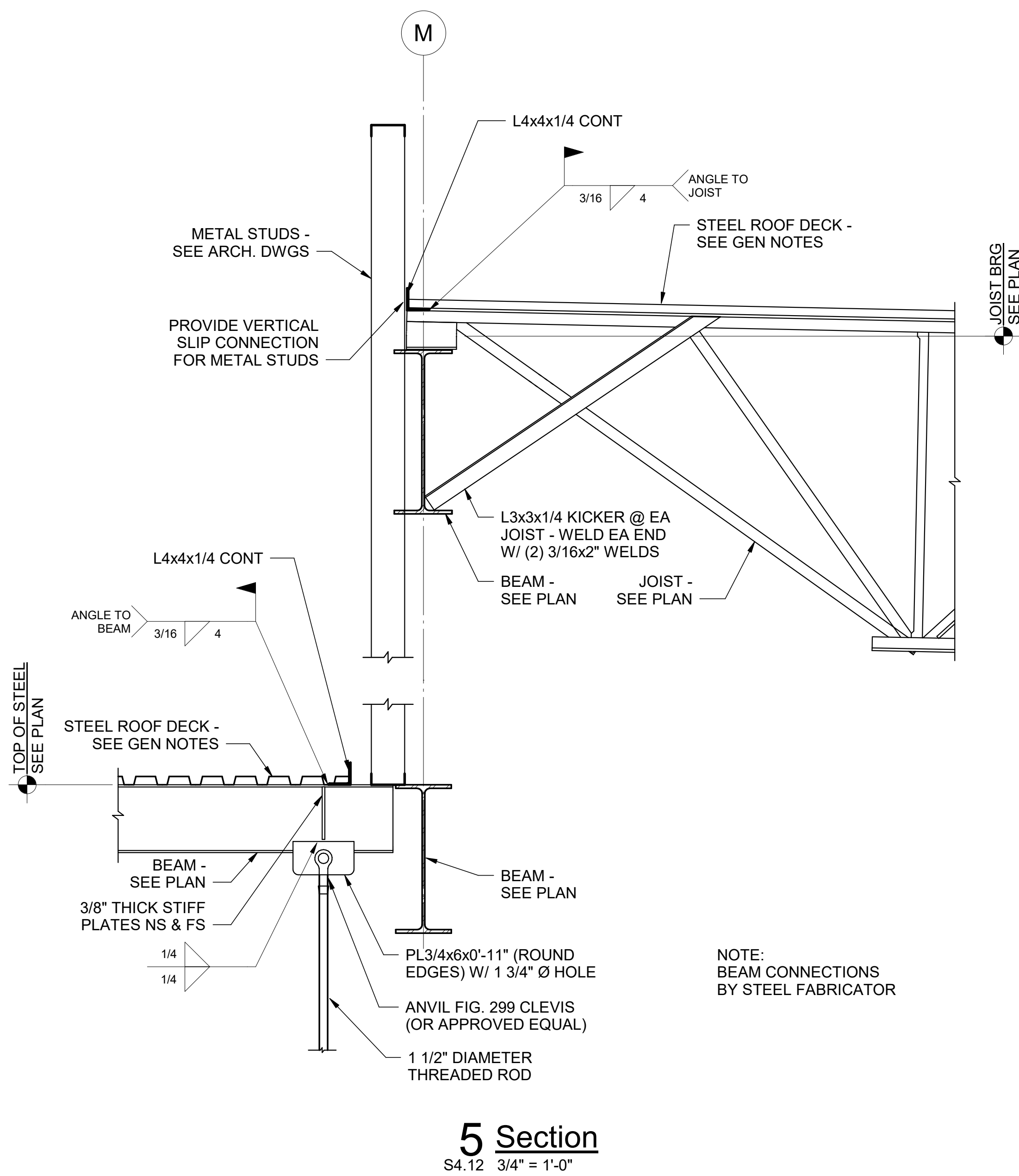
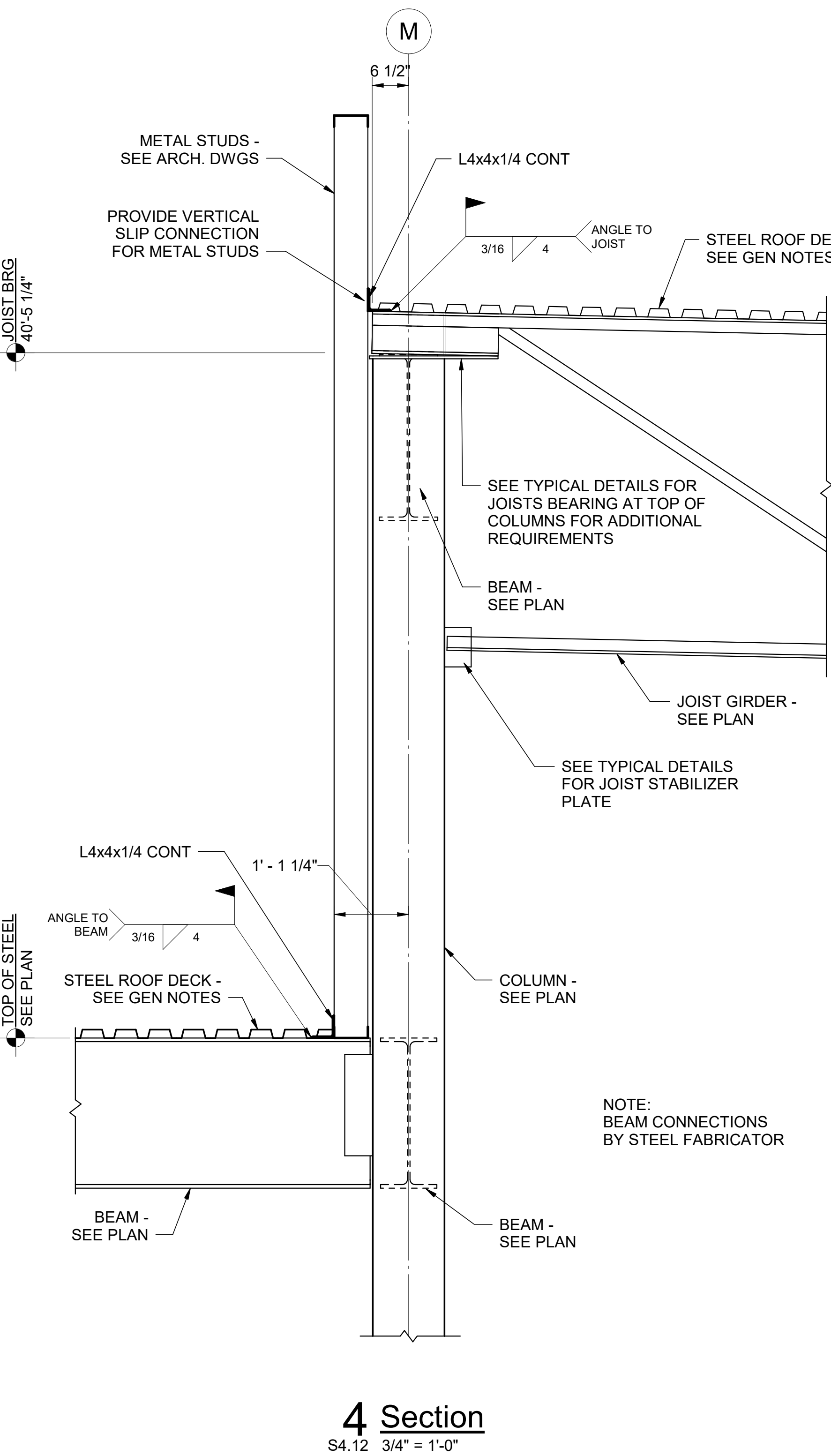
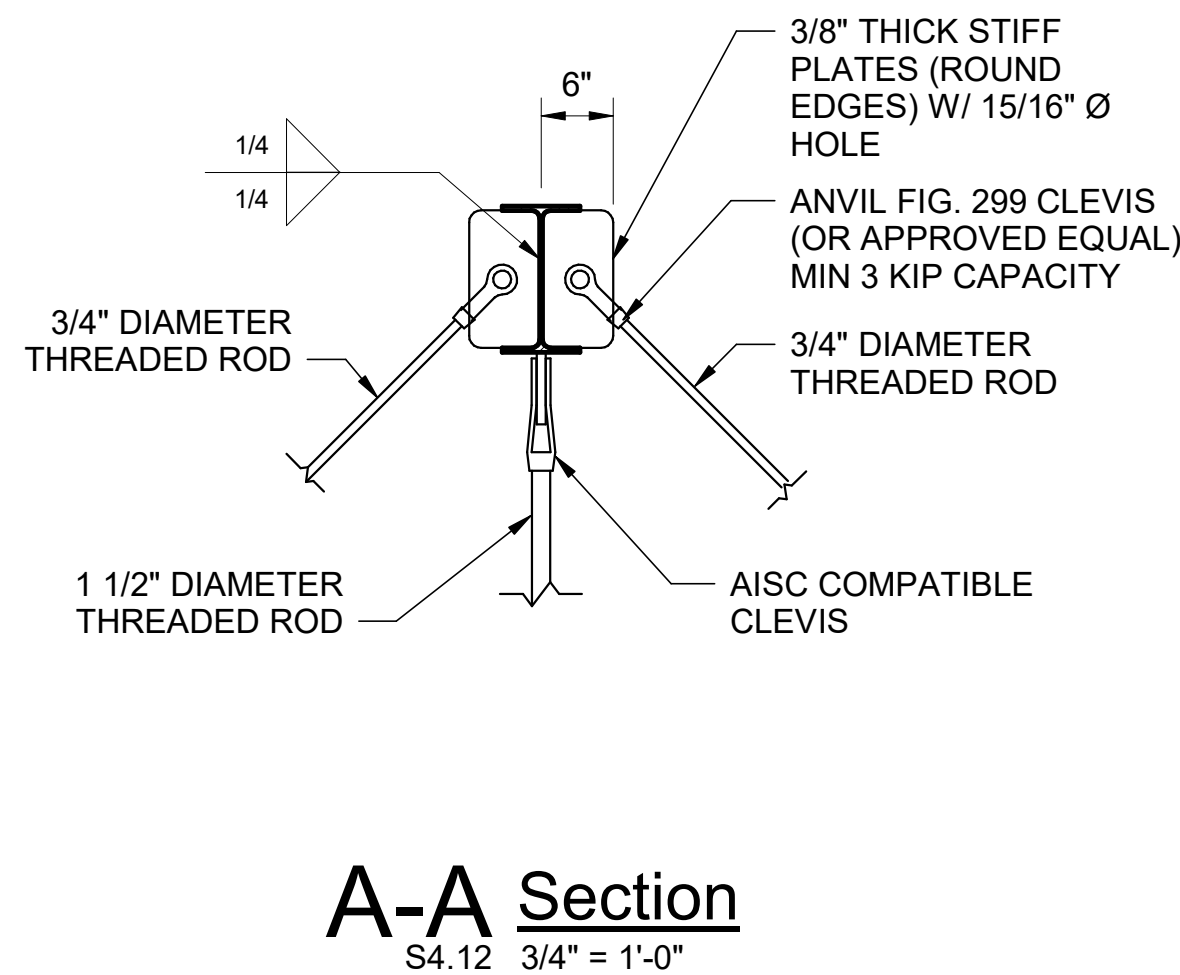
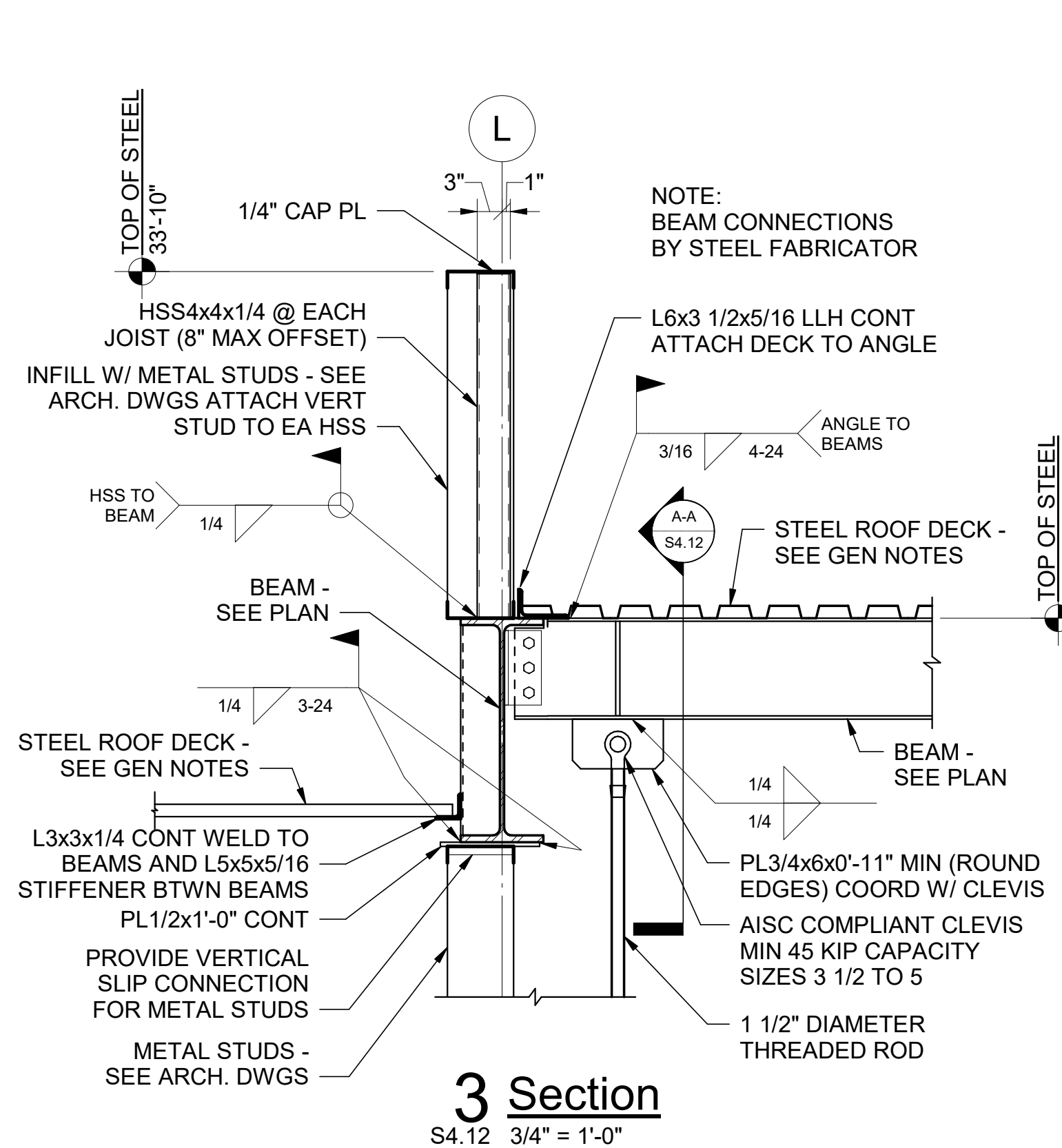
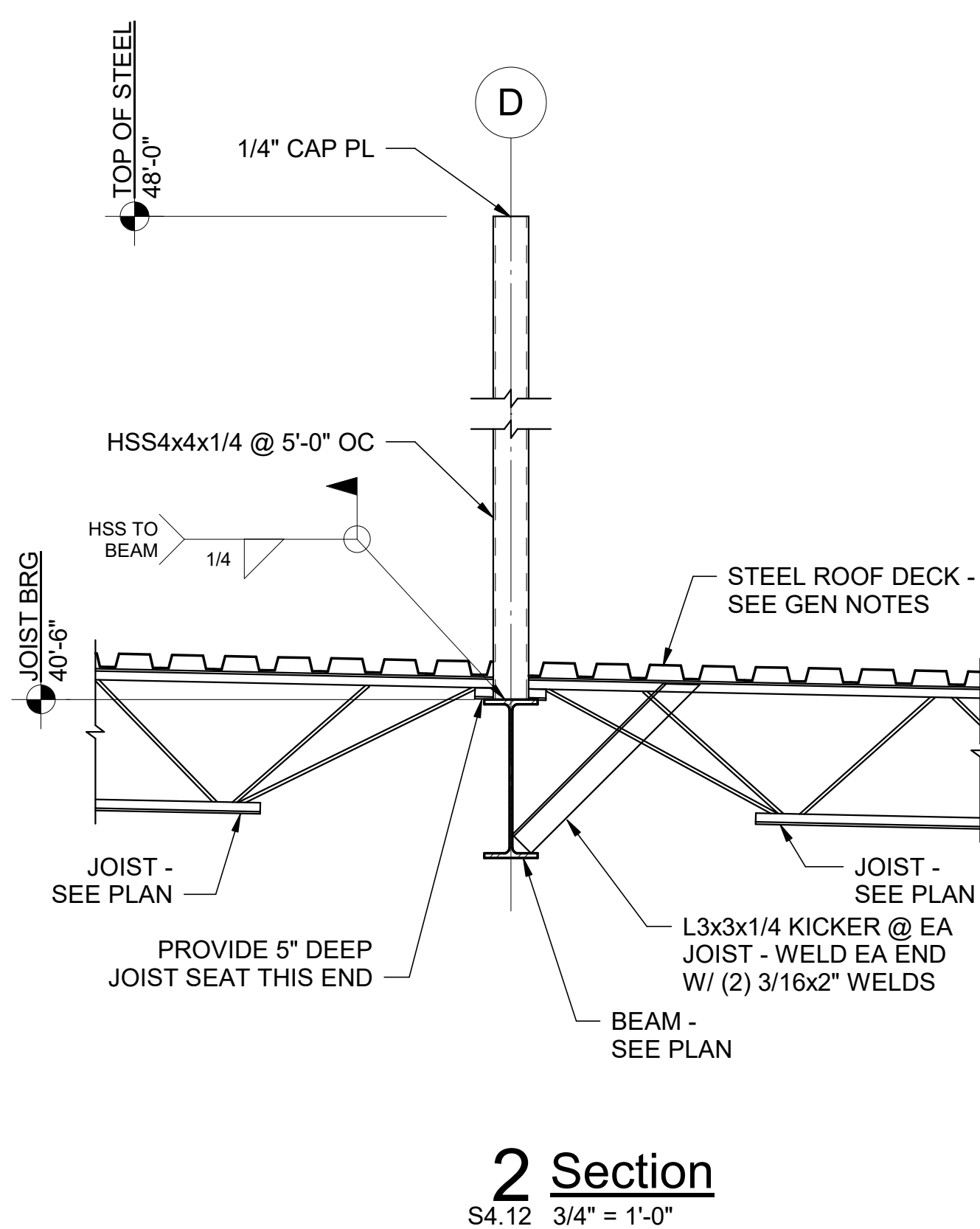
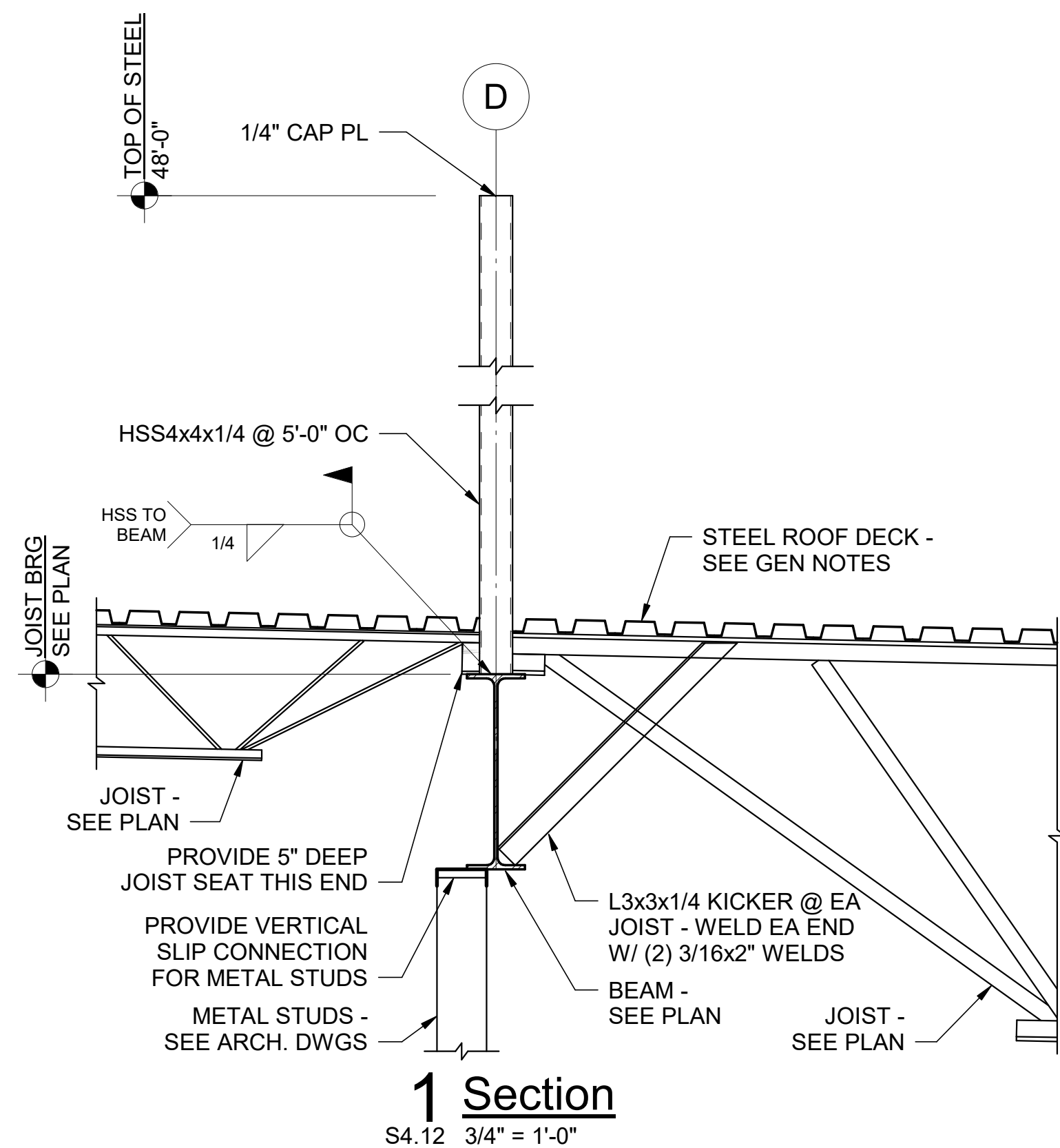


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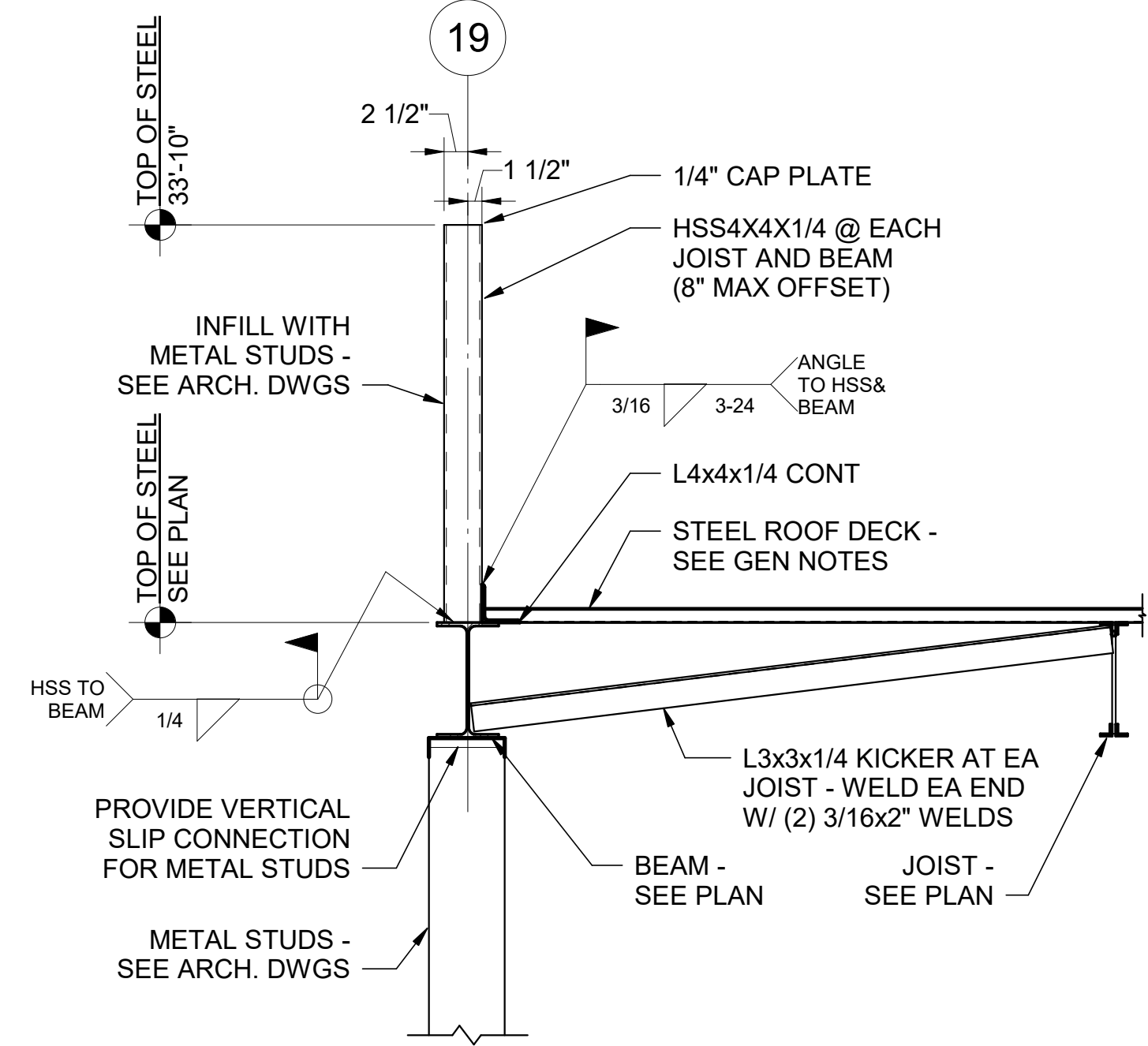
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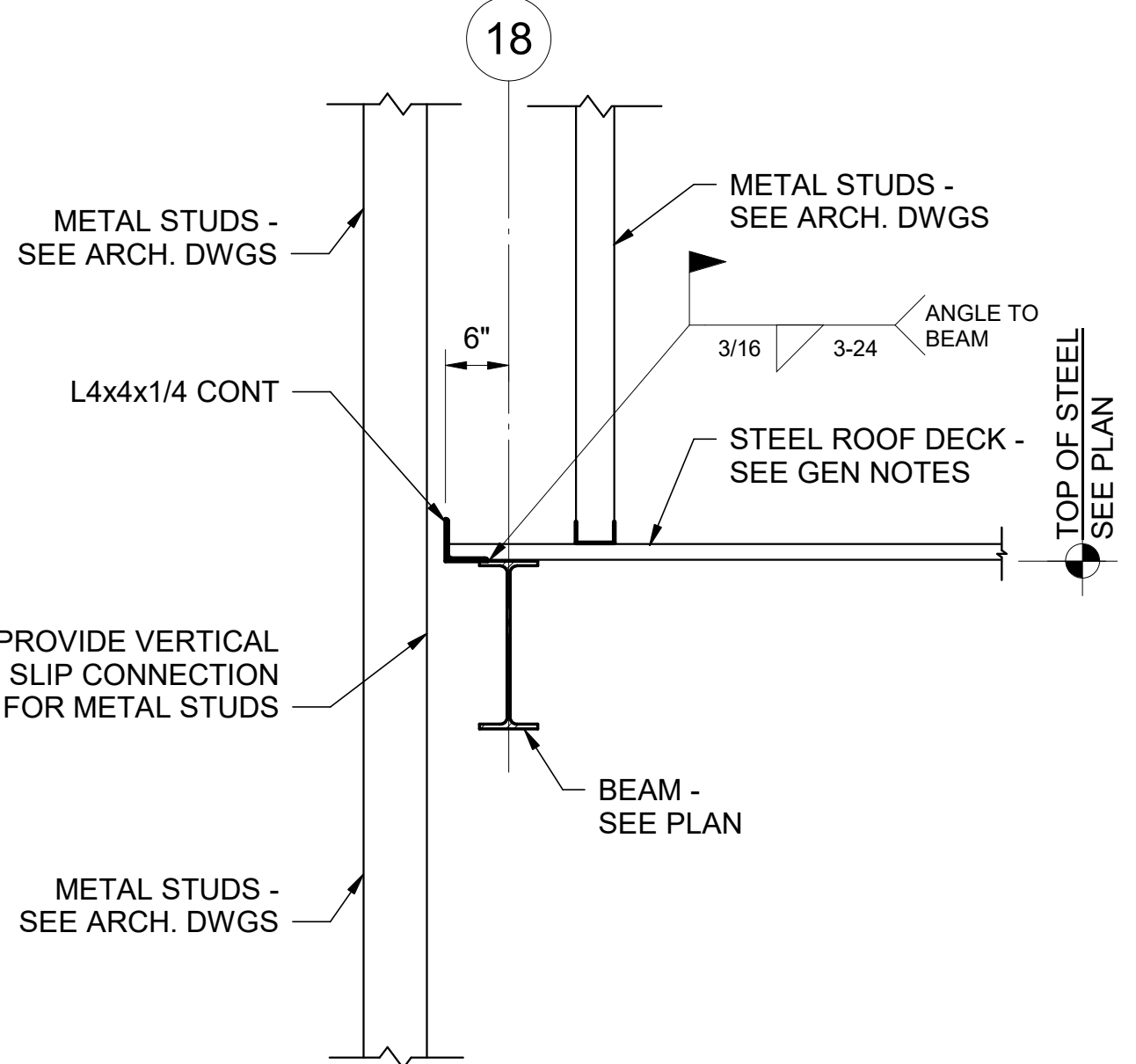
PROJECT ADDRESS  
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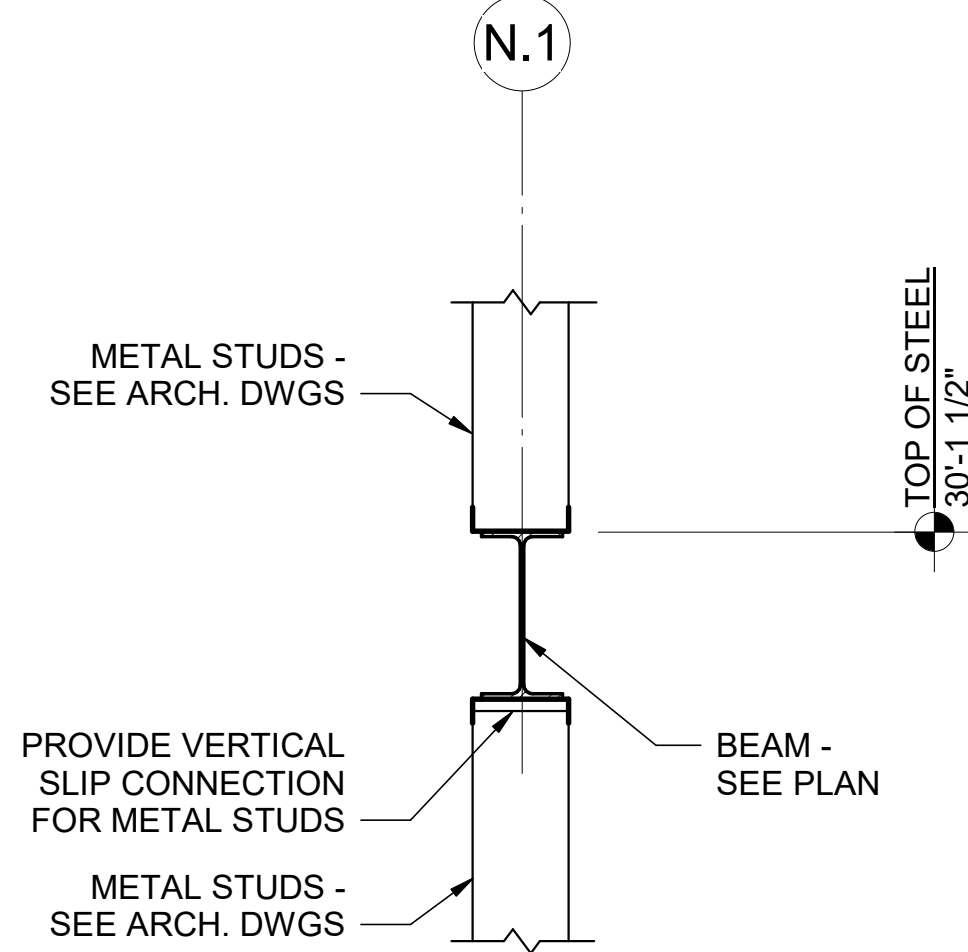
PROJECT STATUS: ISSUED		BID SET
ISSUE DATE: FEBRUARY 05, 2024		
REVISIONS		
No.	Description	Date
DRAWING TITLE ROOF FRAMING SECTIONS		
DRAWN BY: RST/GVA		
CHECKED BY: KLL		
PROJECT NUMBER 225029-00		
DRAWING NO. <b>S4.13</b>		



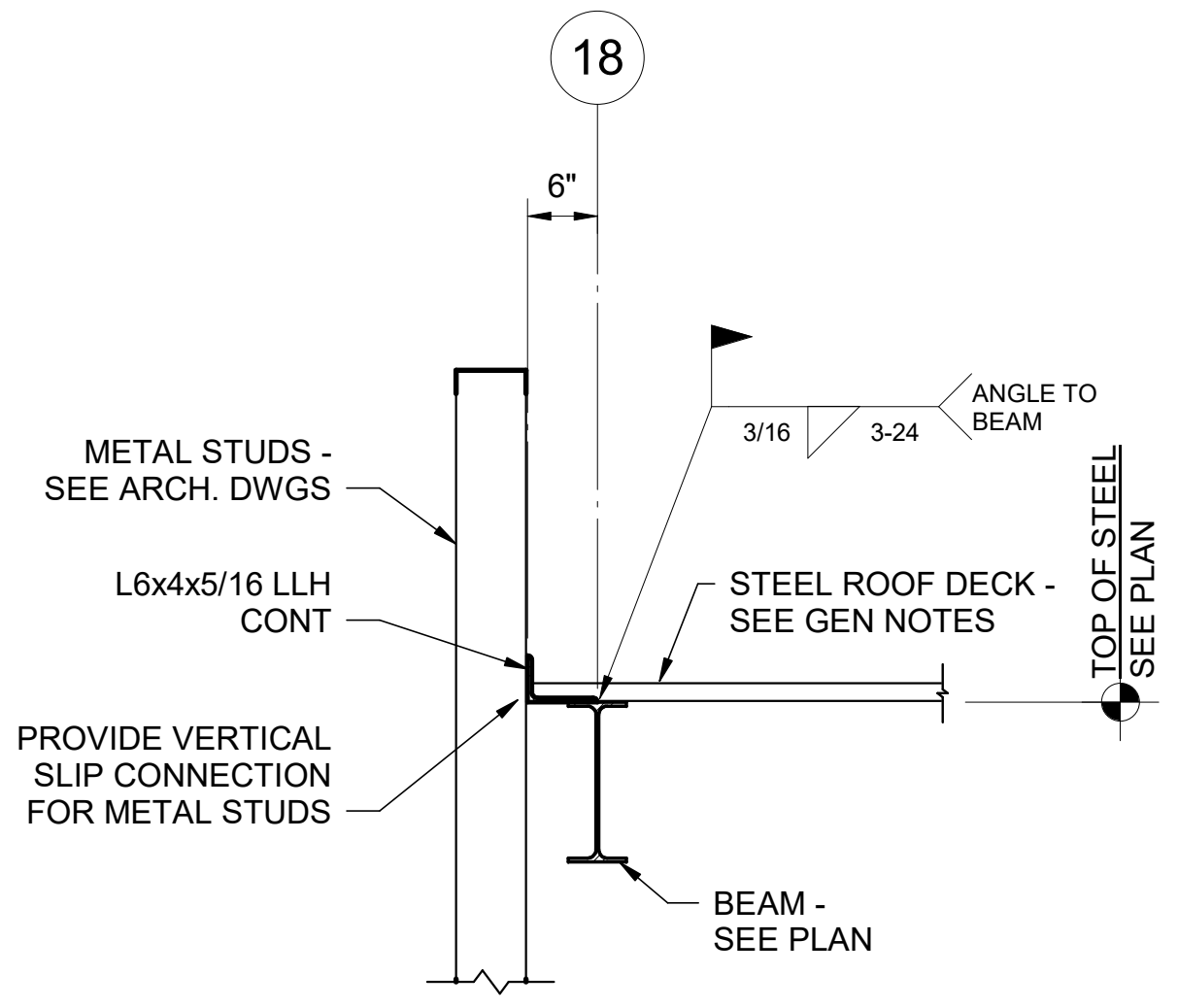
**1 Section**  
S4.13 3/4" = 1'-0"



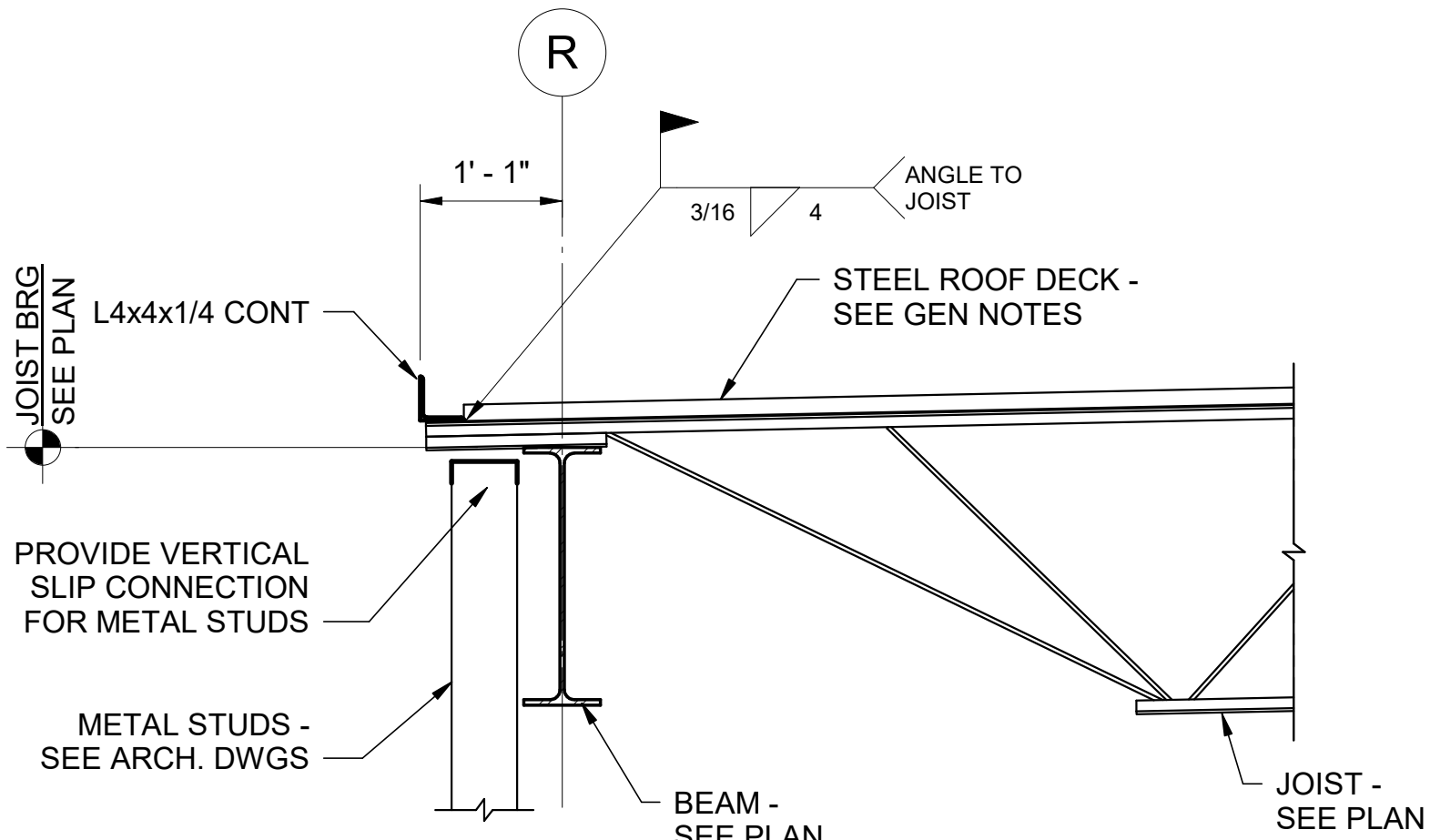
**2 Section**  
S4.13 3/4" = 1'-0"



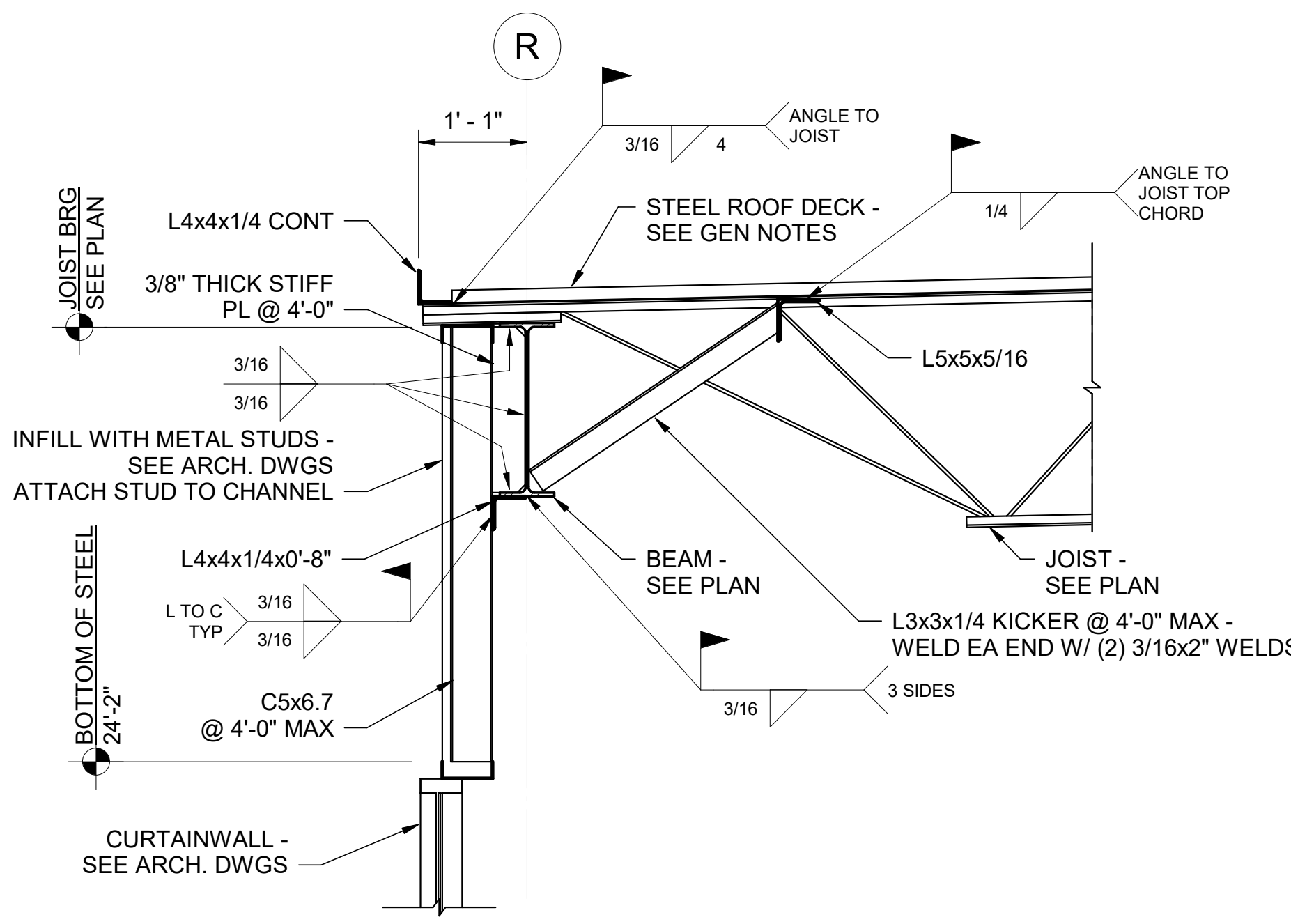
**3 Section**  
S4.13 3/4" = 1'-0"



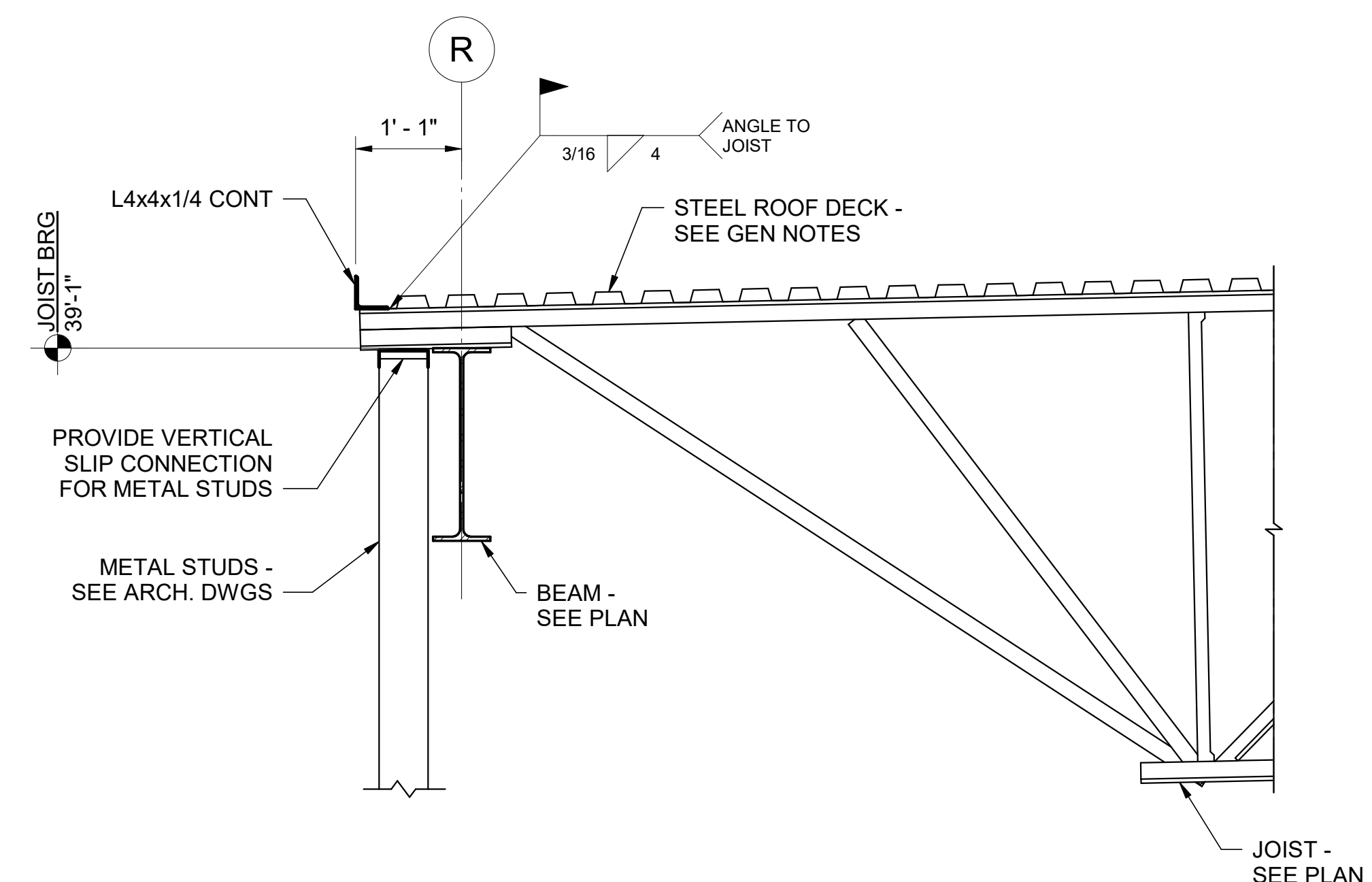
**4 Section**  
S4.13 3/4" = 1'-0"



**5 Section**  
S4.13 3/4" = 1'-0"



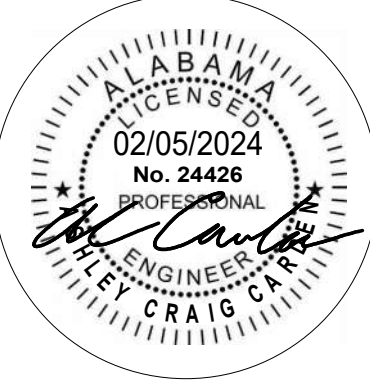
**6 Section**  
S4.13 3/4" = 1'-0"



**7 Section**  
S4.13 3/4" = 1'-0"



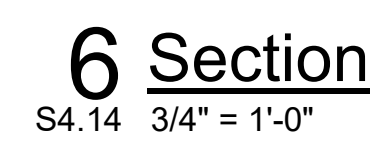
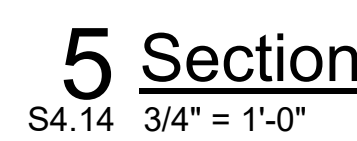
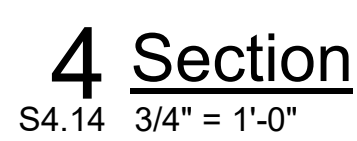
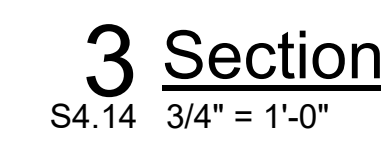
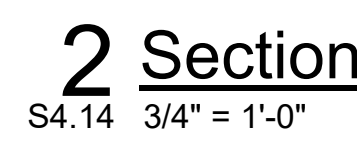
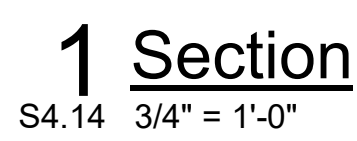
The Architect shall not have control or charge of, and shall not be responsible for construction Means and Methods, deviations, techniques, sequences, or procedures, or for safety programs and precautions in connection with the Work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the Work in accordance with the Contract Documents.



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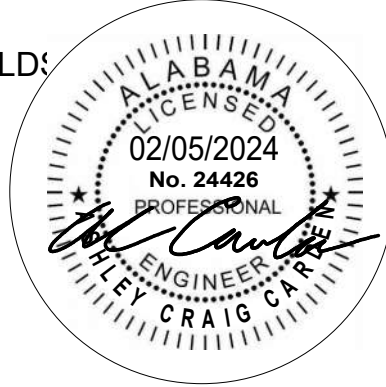
PROJECT STATUS: ISSUED:		BID SET
ISSUE DATE:		FEBRUARY 05, 2024
REVISIONS		
No.	Description	Date
DRAWING TITLE		
ROOF FRAMING		
SECTIONS		
DRAWN BY:		RST/GWA
CHECKED BY:		KLL
PROJECT NUMBER		
225029-00		
DRAWING NO		S4.14





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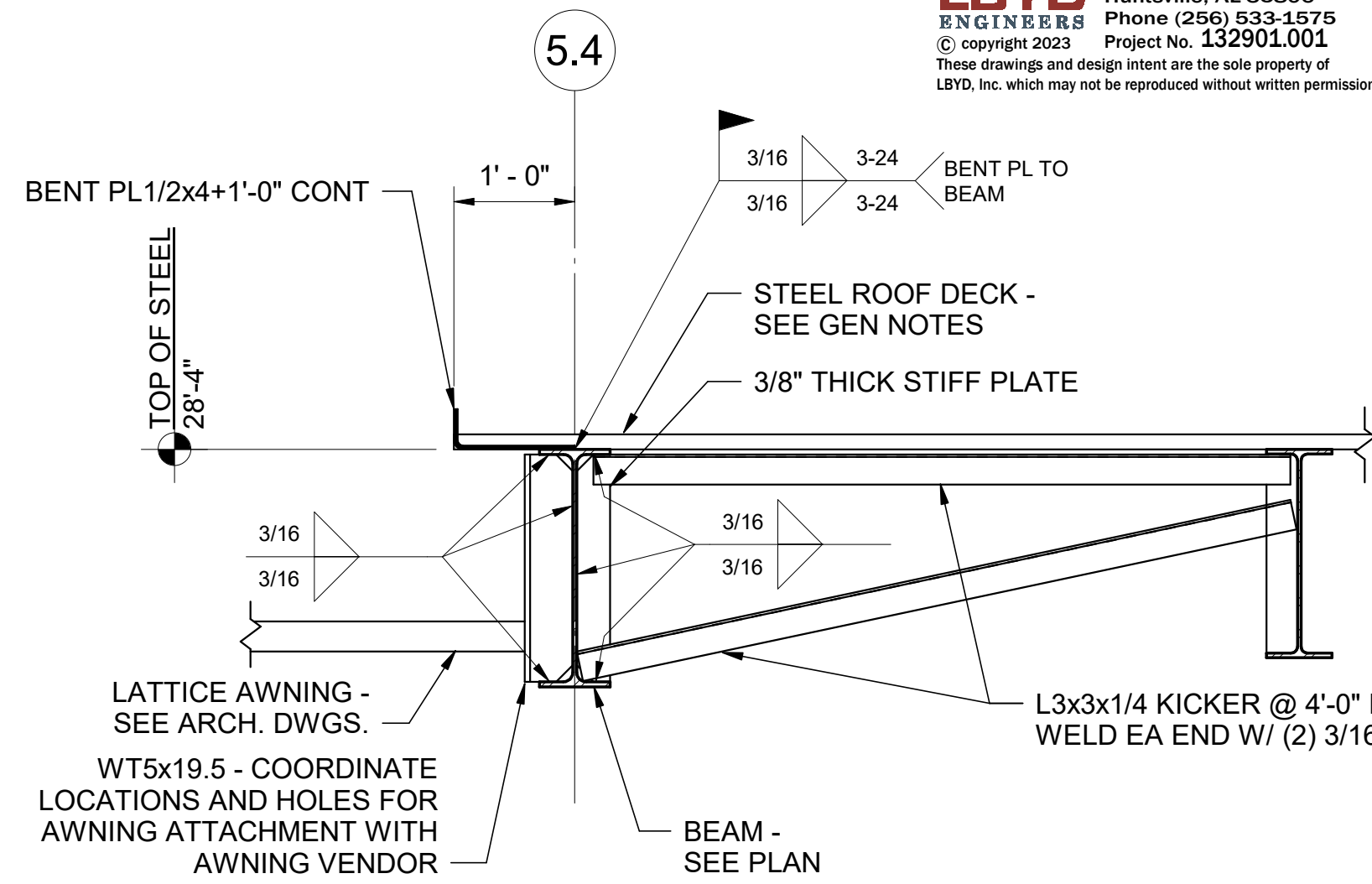
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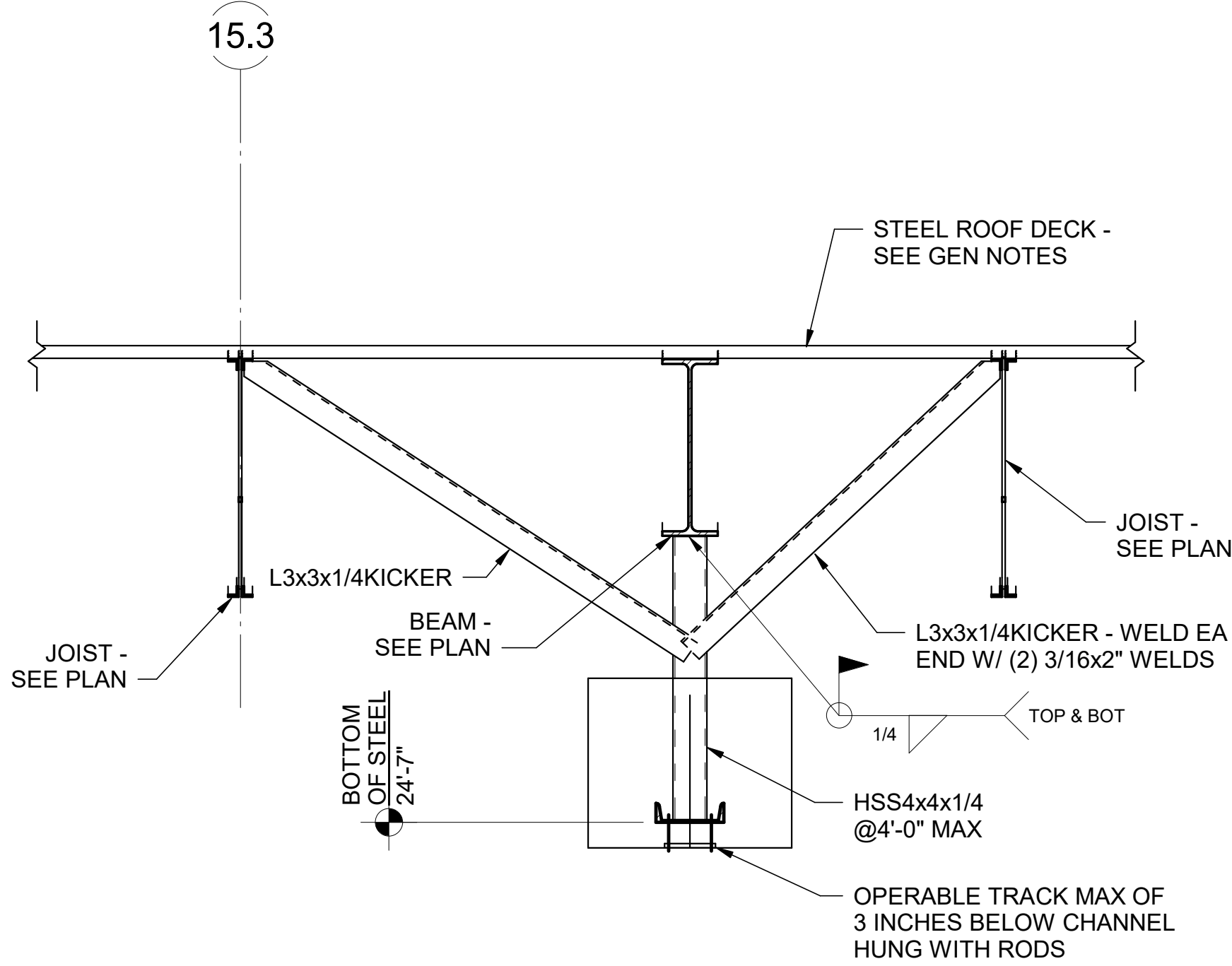
PROJECT ADDRESS  
1 Tranquility Base  
Huntsville, AL 35805



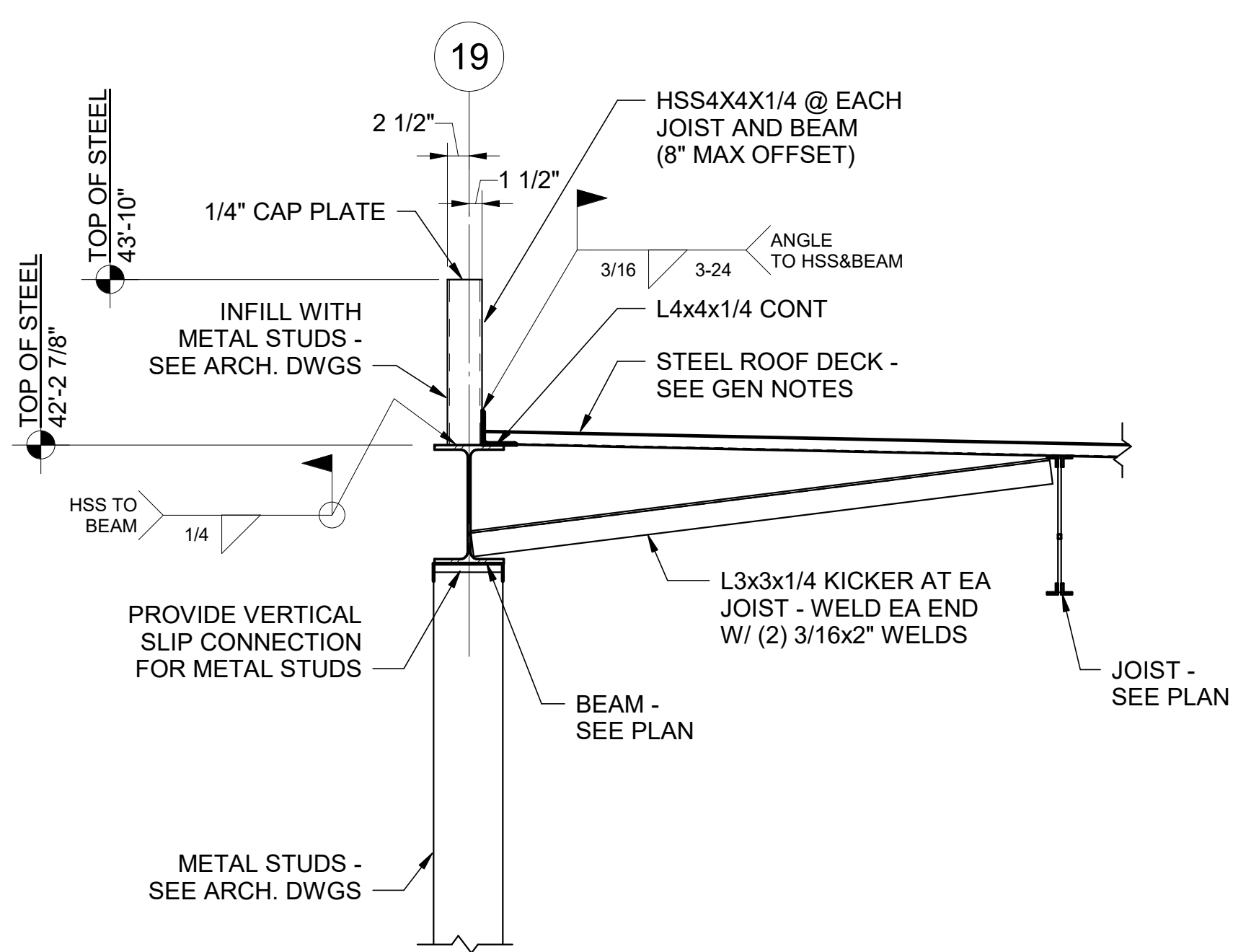
PROJECT STATUS: ISSUED	BID SET
ISSUE DATE: FEBRUARY 05, 2024	
REVISIONS	
No. Description Date	
DRAWING TITLE ROOF FRAMING SECTIONS	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S4.15</b>	



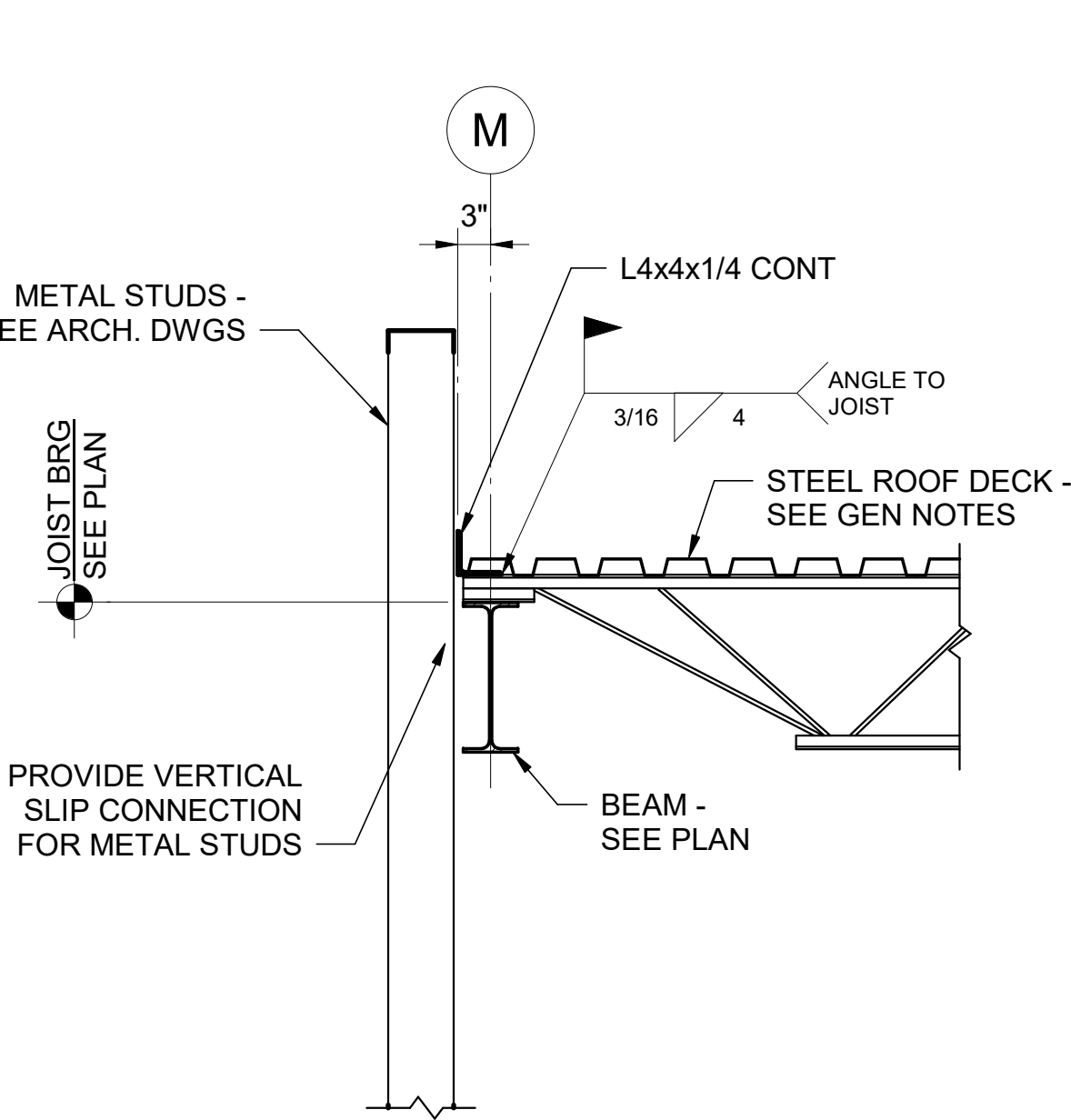
**4 Section**  
S4.15 3/4" = 1'-0"



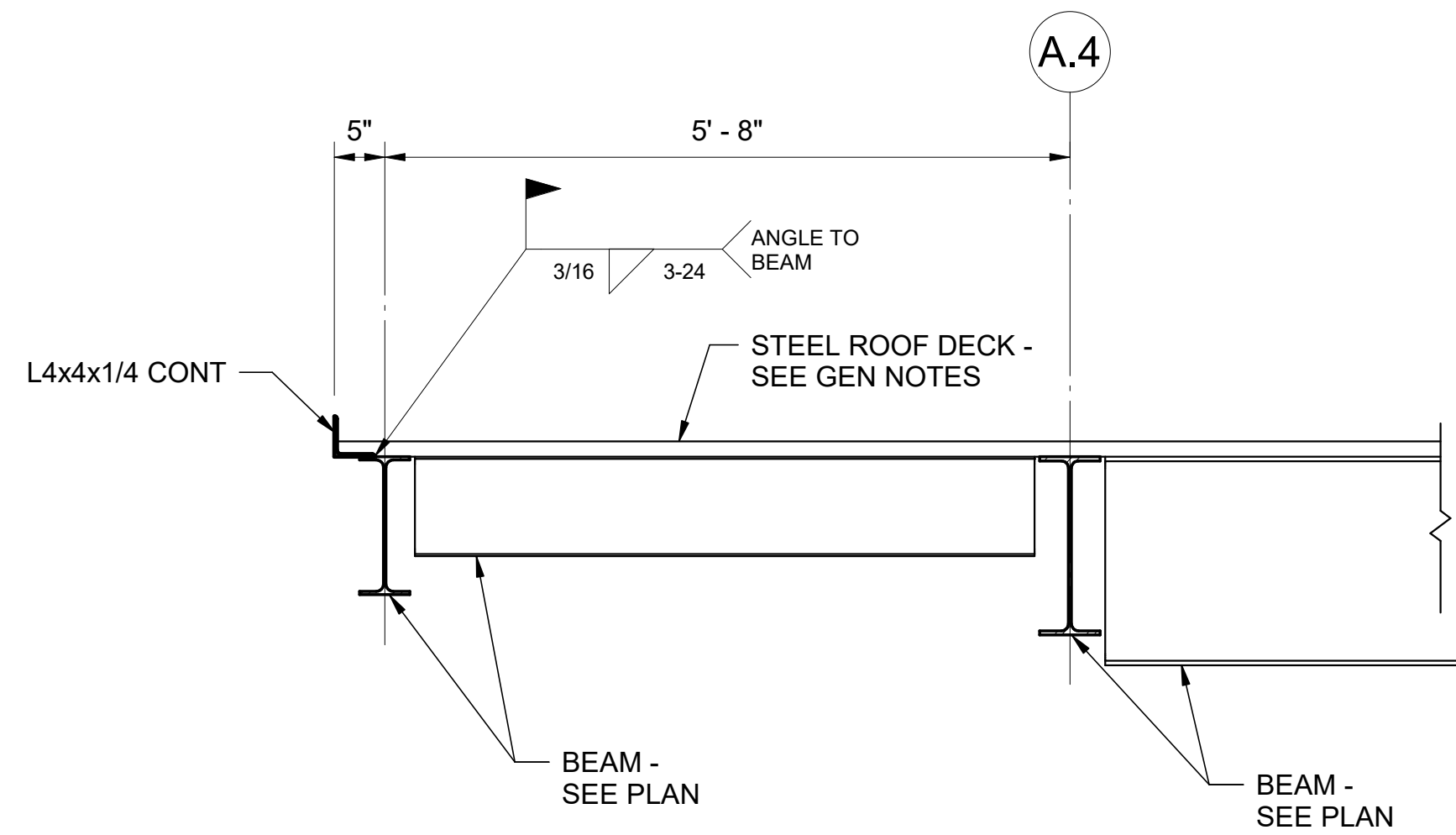
**3 Section**  
S4.15 3/4" = 1'-0"



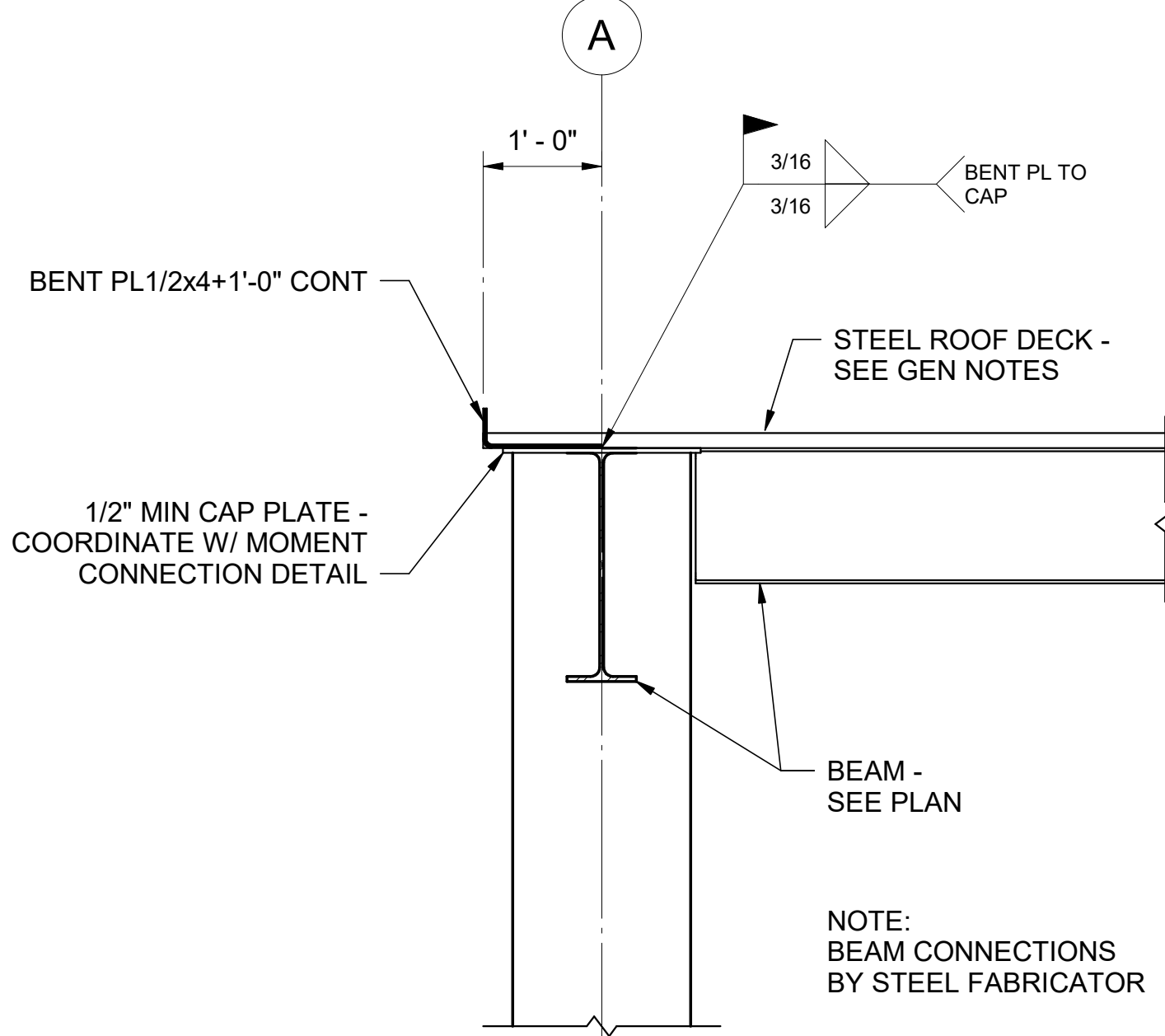
**2 Section**  
S4.15 3/4" = 1'-0"



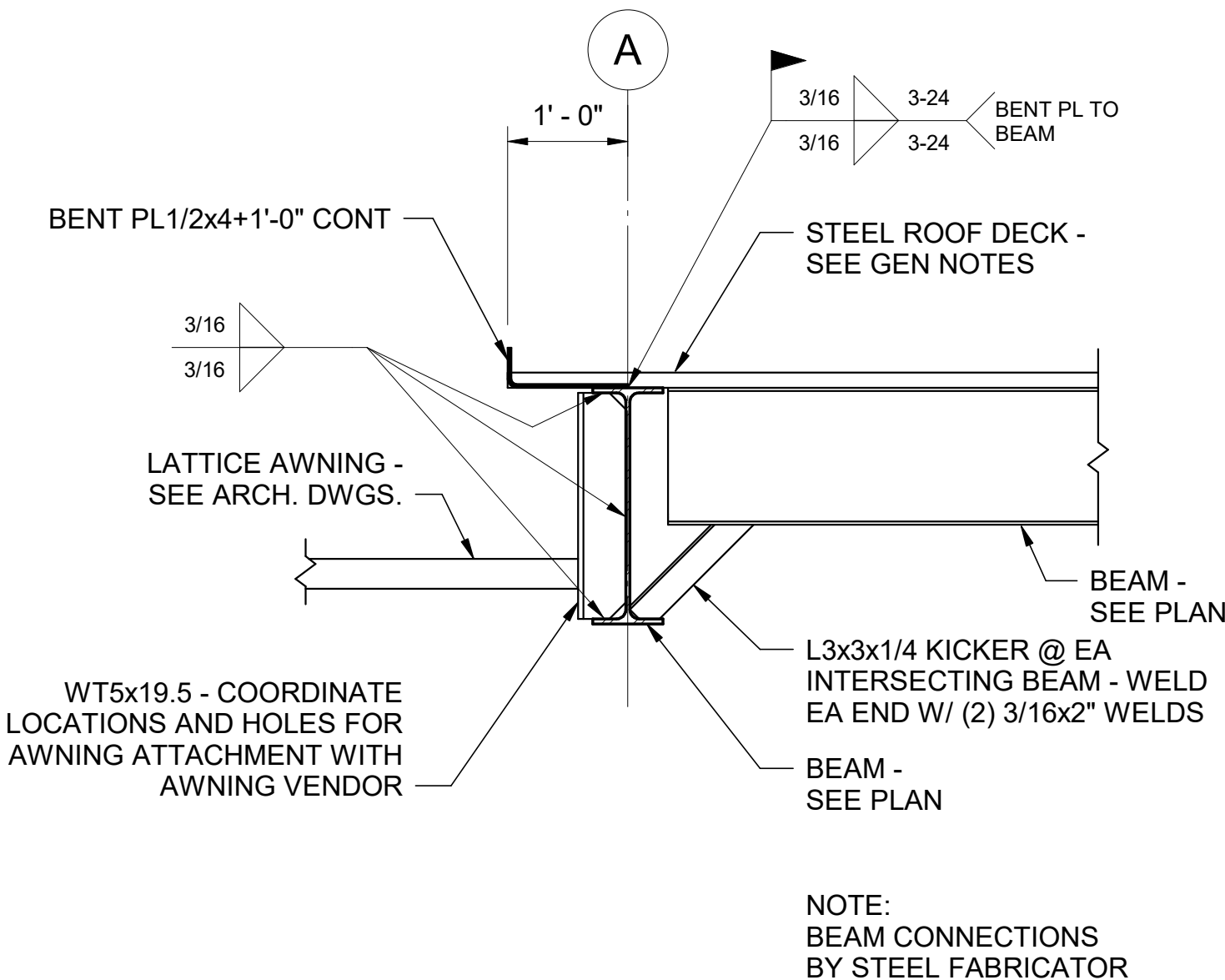
**1 Section**  
S4.15 3/4" = 1'-0"



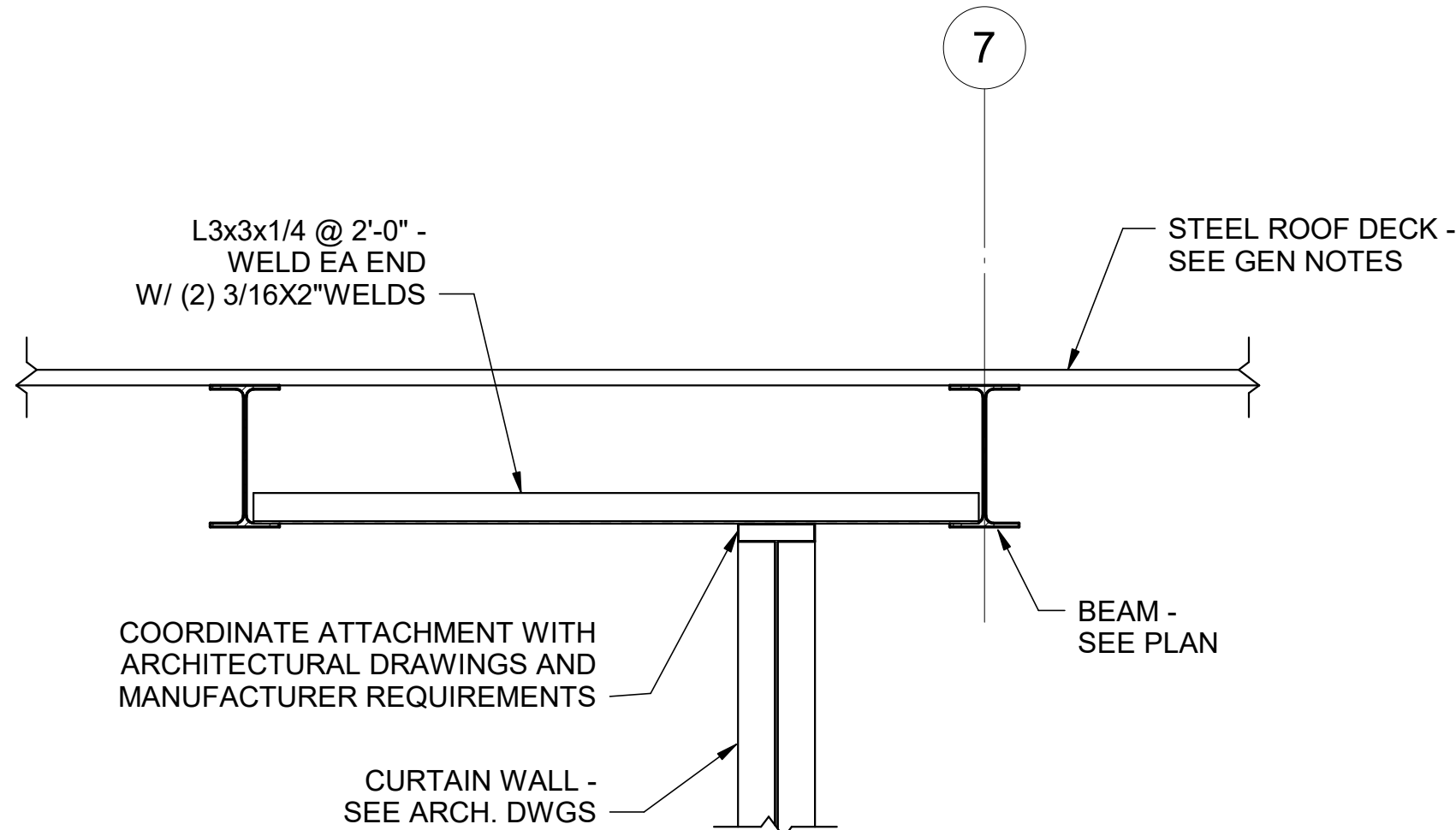
**7 Section**  
S4.15 3/4" = 1'-0"



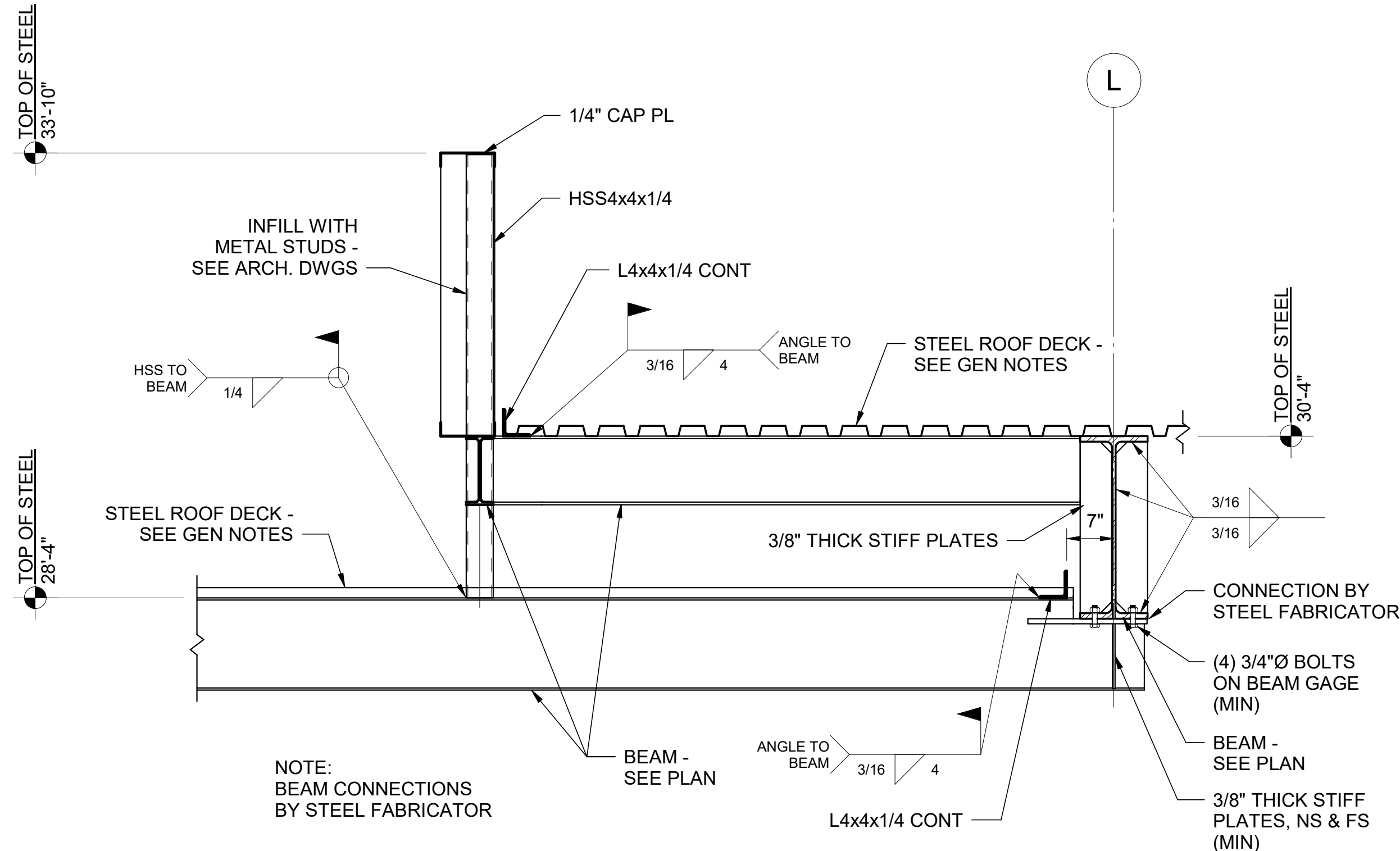
**6 Section**  
S4.15 3/4" = 1'-0"



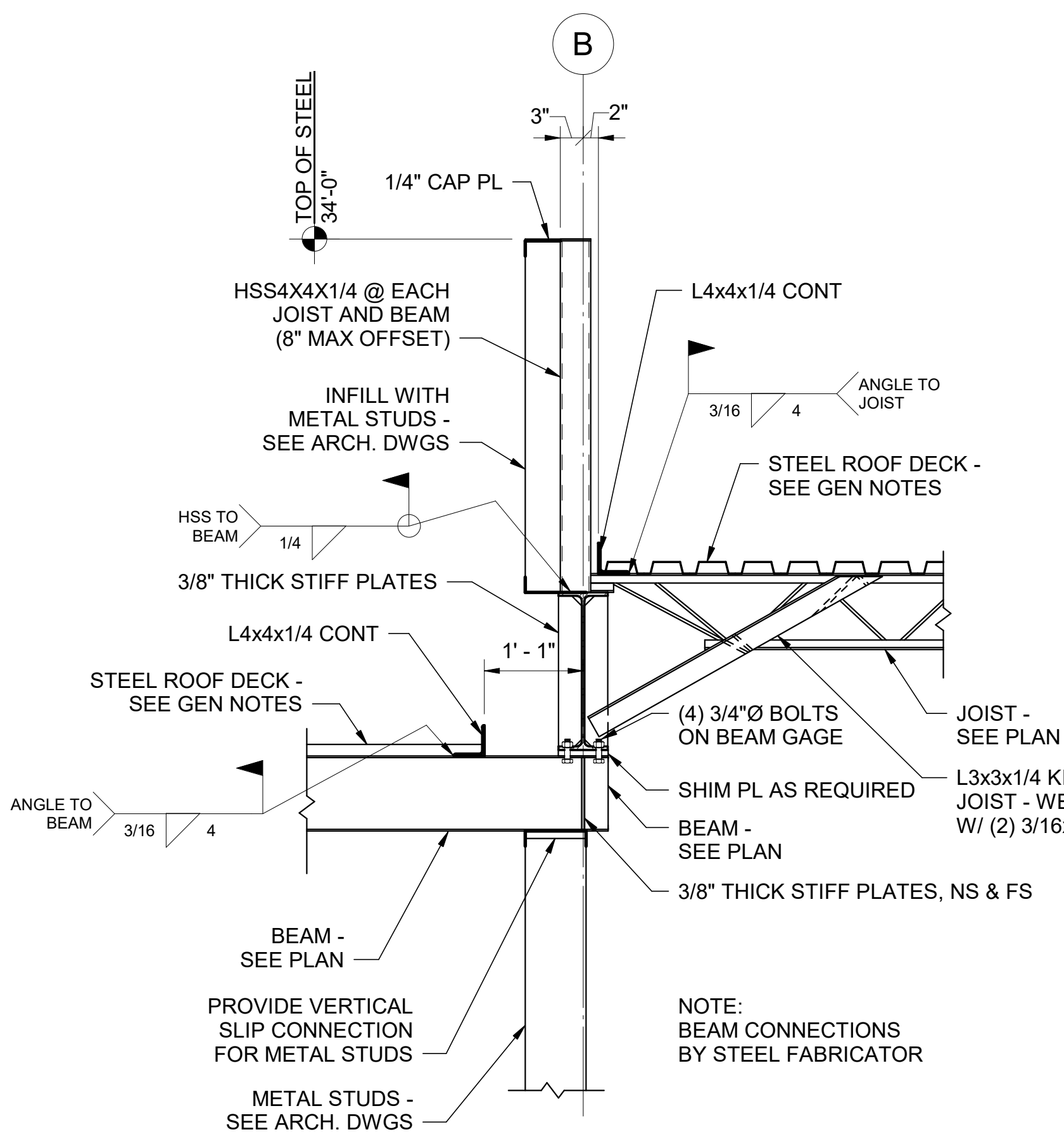
**5 Section**  
S4.15 3/4" = 1'-0"



**9 Section**  
S4.15 3/4" = 1'-0"

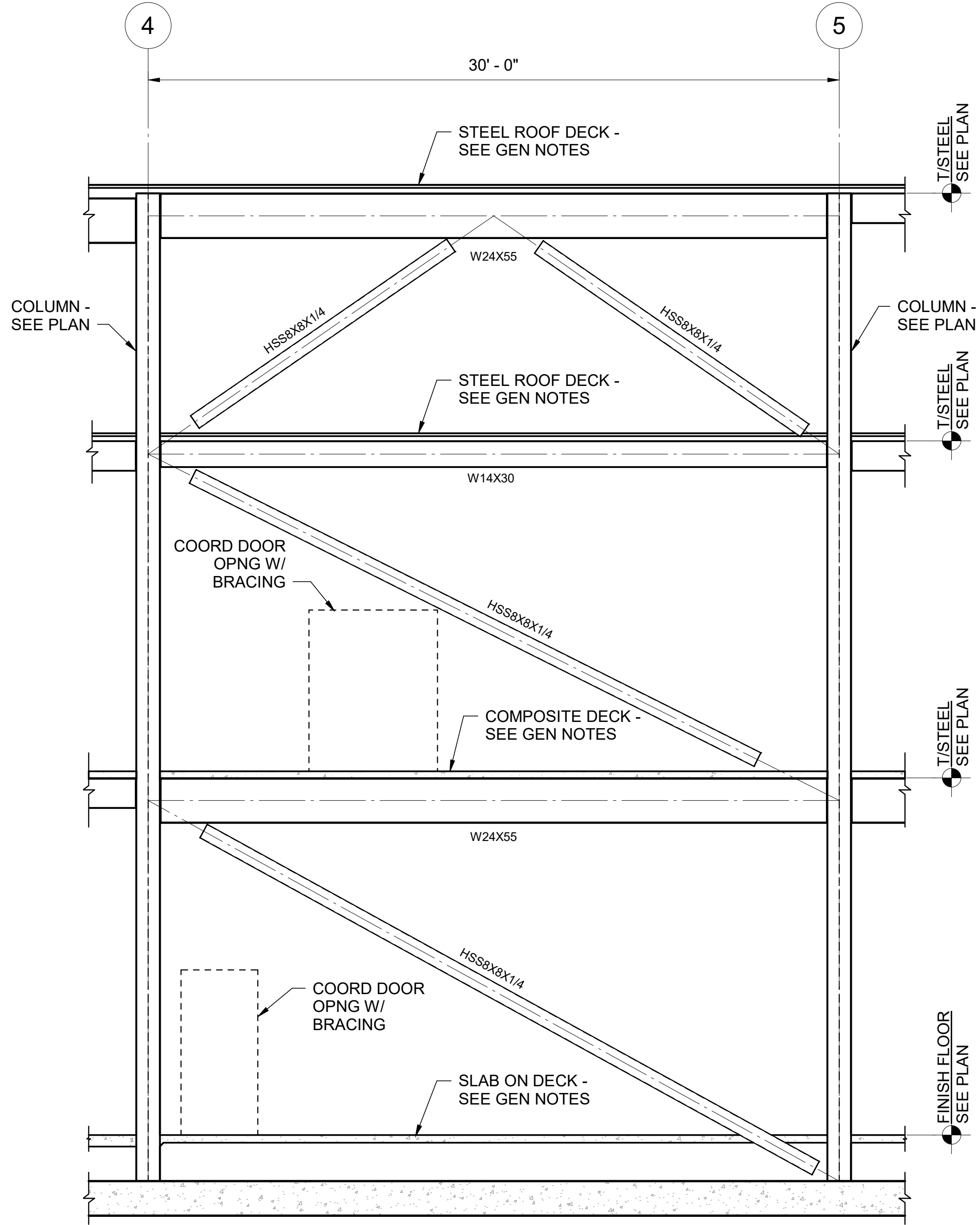


**10 Section**  
S4.15 3/4" = 1'-0"



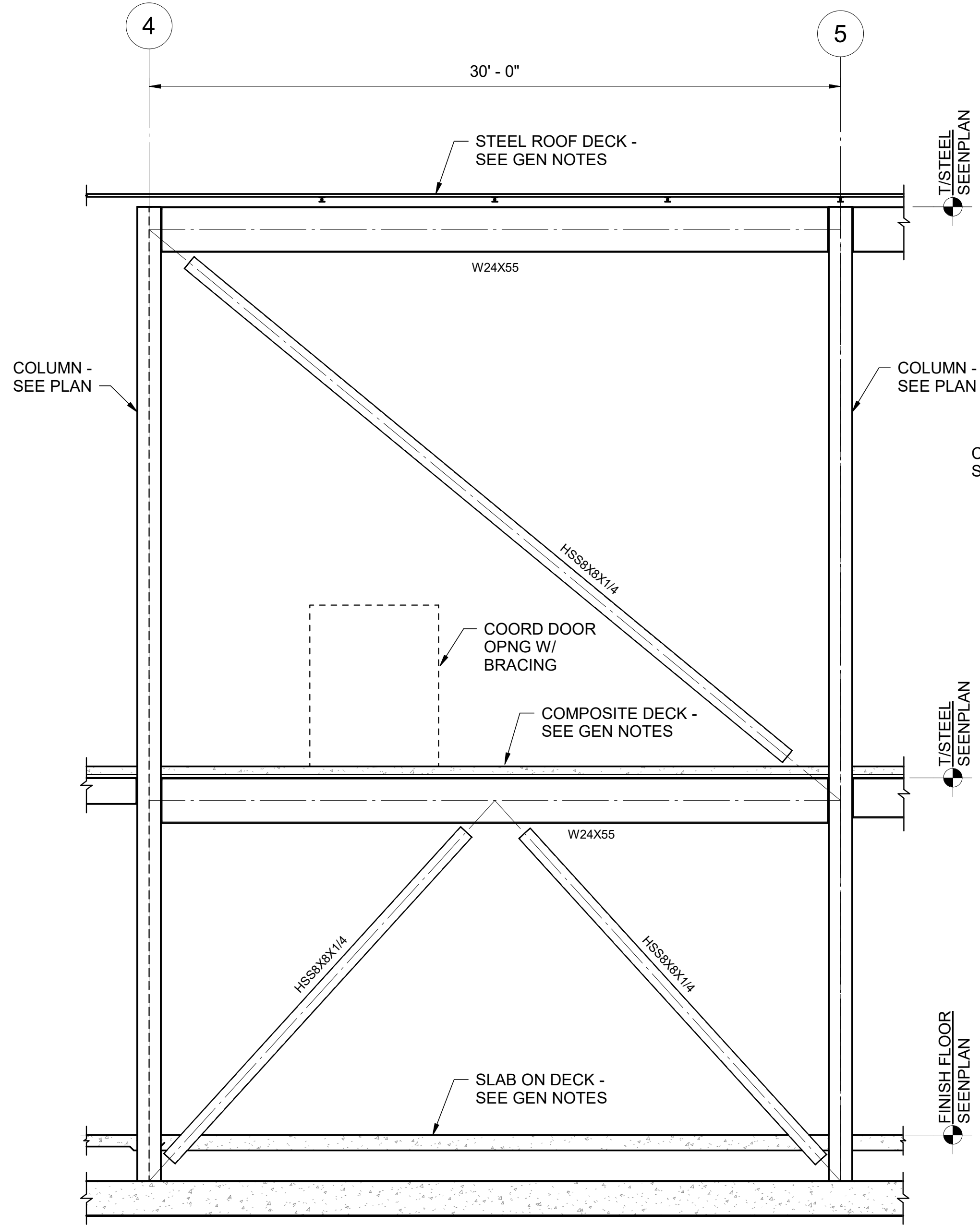
**8 Section**  
S4.15 3/4" = 1'-0"





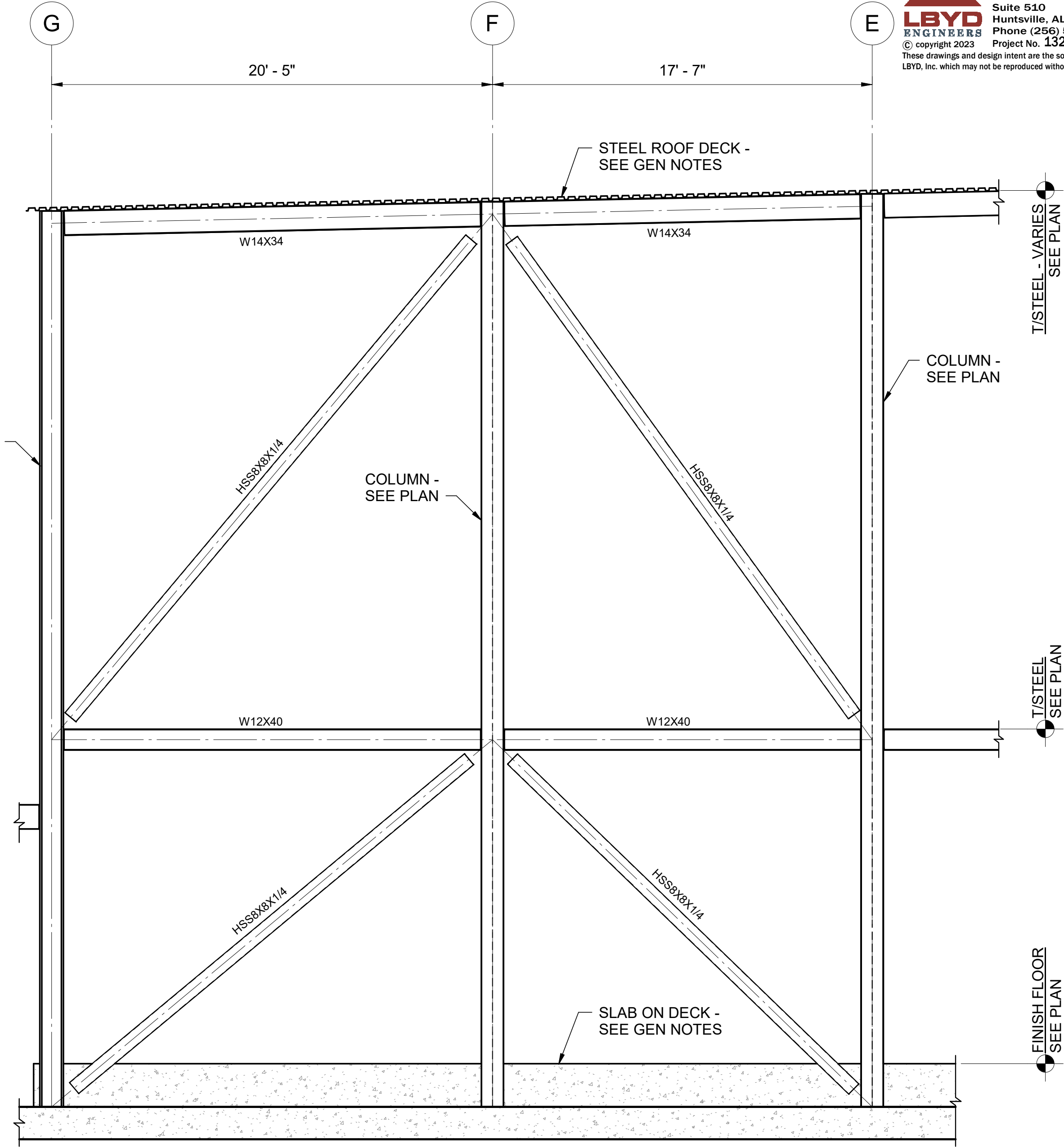
**1 Bracing Elevation**  
S5.01 1/4" = 1'-0"

NOTE:  
BEAM AND BRACING  
CONNECTIONS BY  
STEEL FABRICATOR



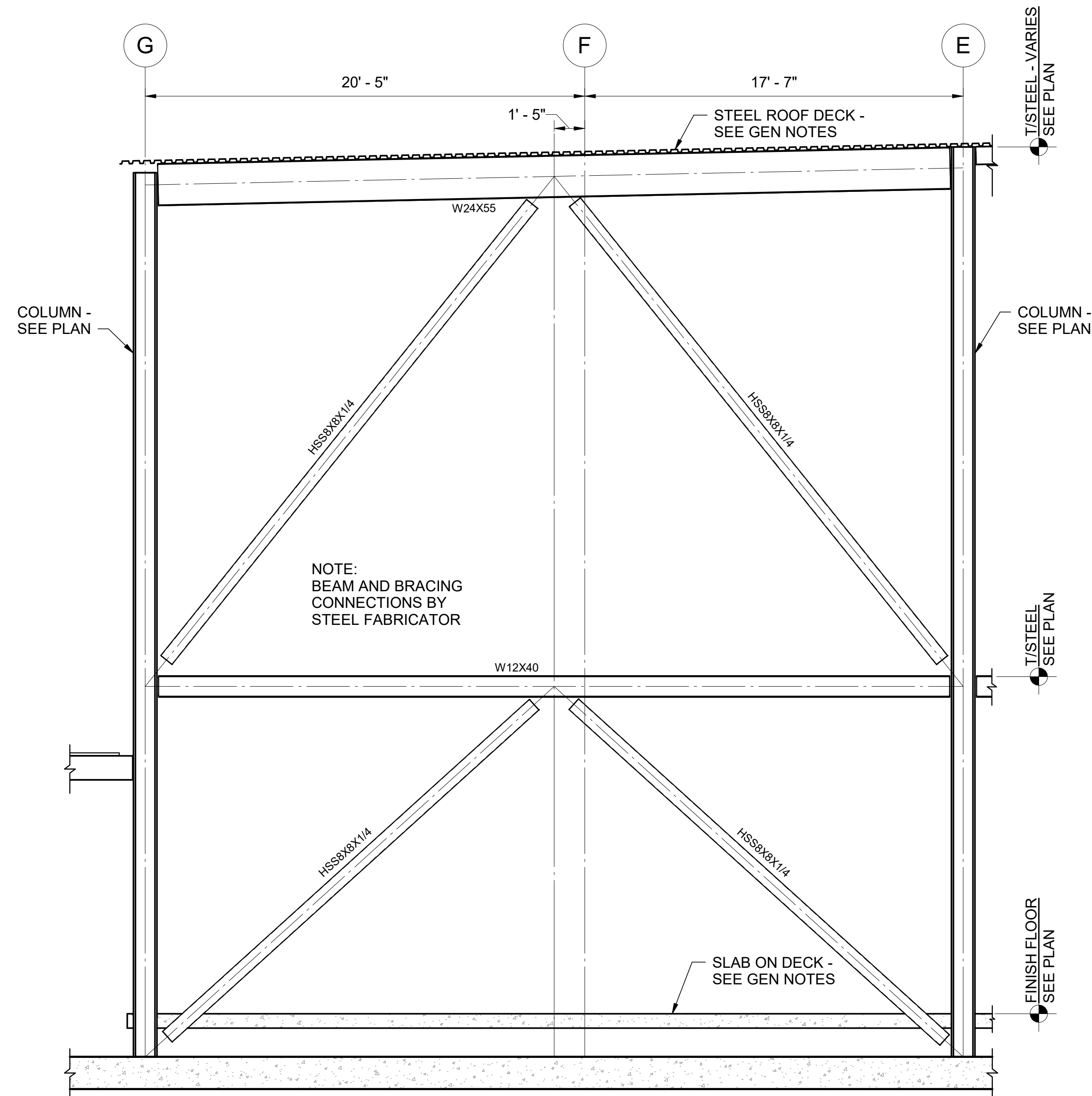
**2 Bracing Elevation**  
S5.01 1/4" = 1'-0"

NOTE:  
BEAM AND BRACING  
CONNECTIONS BY  
STEEL FABRICATOR

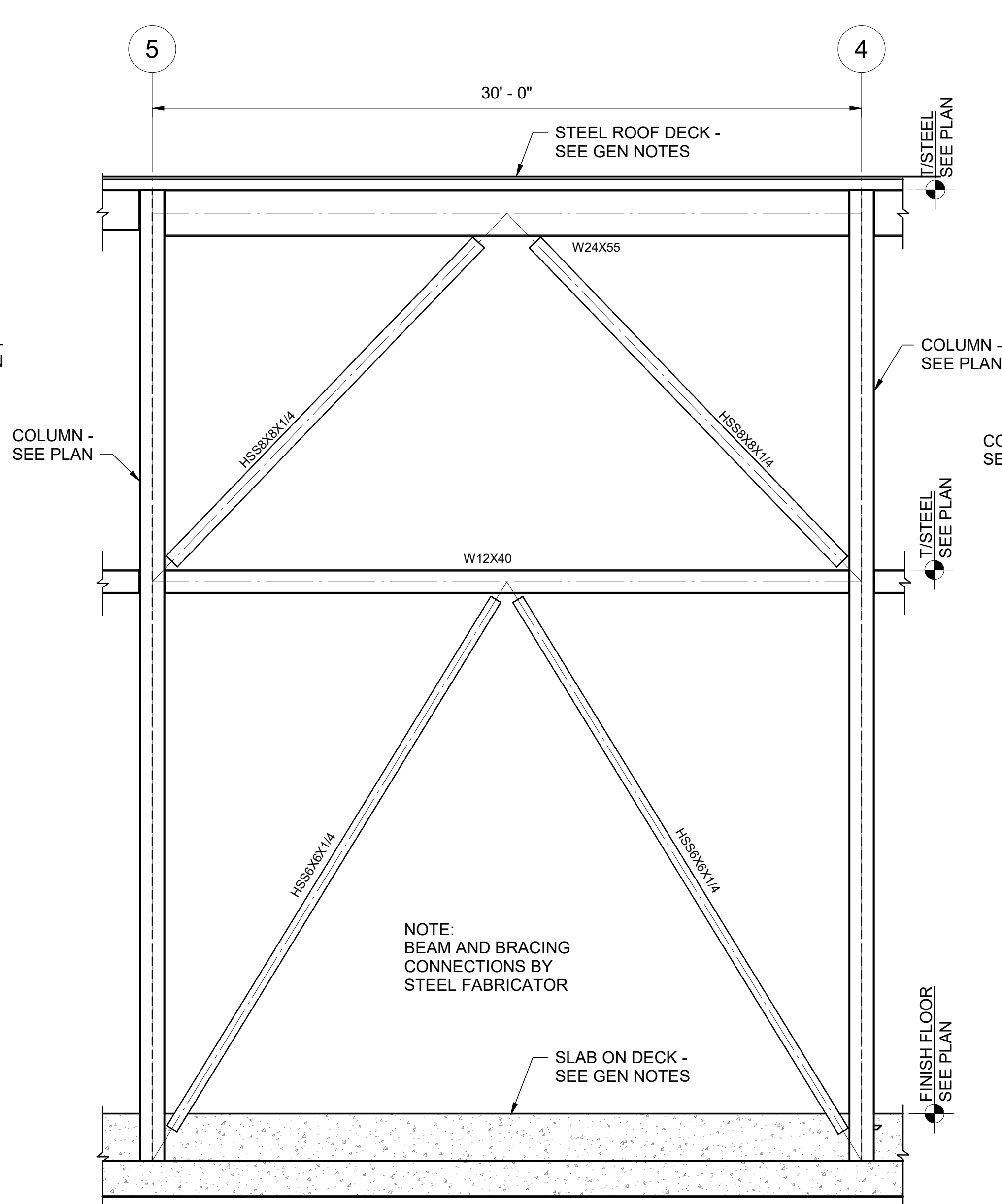


**3 Bracing Elevation**  
S5.01 1/4" = 1'-0"

NOTE:  
BEAM AND BRACING  
CONNECTIONS BY  
STEEL FABRICATOR

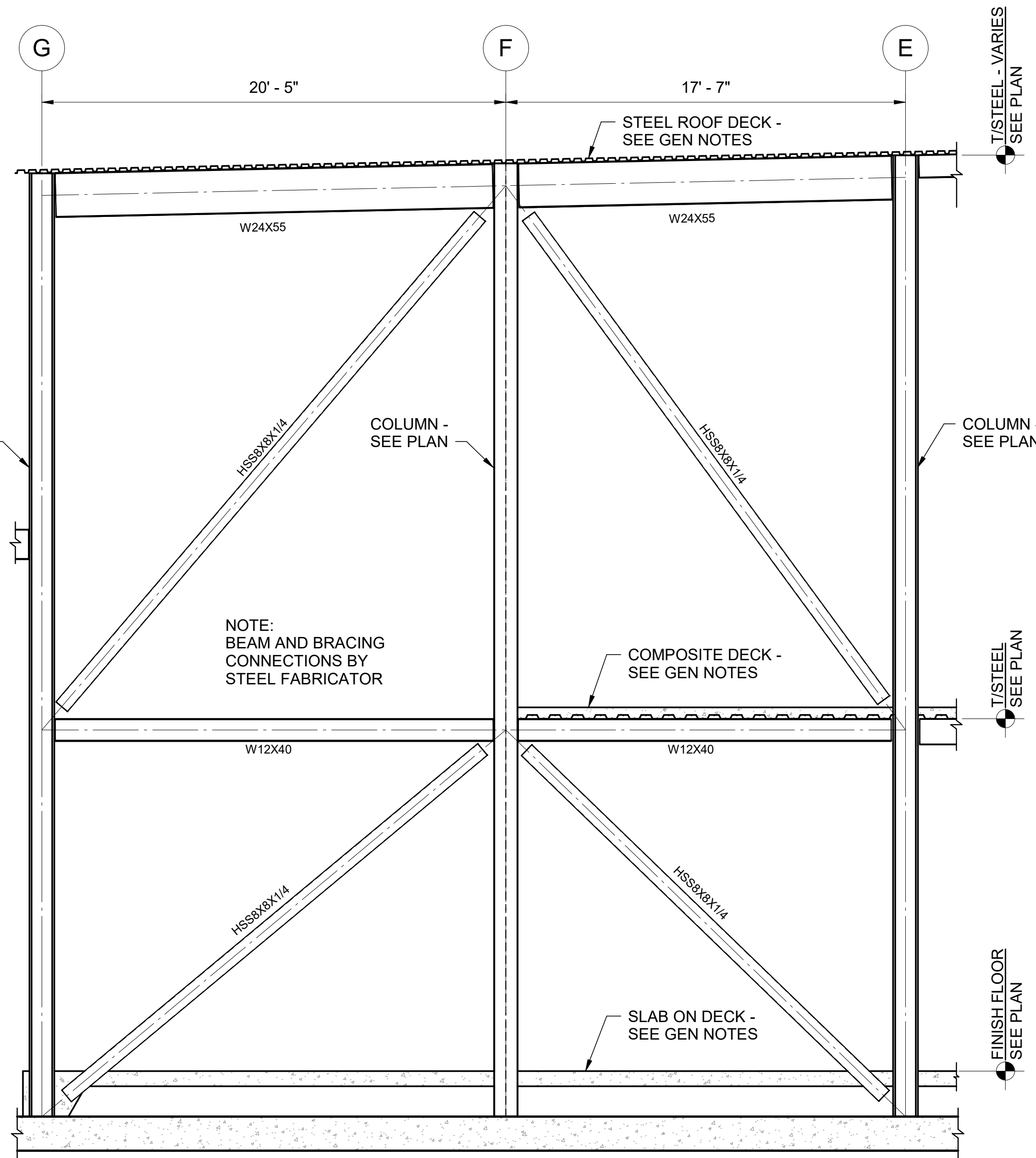


**4 Bracing Elevation**  
S5.01 1/4" = 1'-0"



**5 Bracing Elevation**  
S5.01 1/4" = 1'-0"

NOTE:  
BEAM AND BRACING  
CONNECTIONS BY  
STEEL FABRICATOR



**6 Bracing Elevation**  
S5.01 1/4" = 1'-0"

NOTE:  
BEAM AND BRACING  
CONNECTIONS BY  
STEEL FABRICATOR



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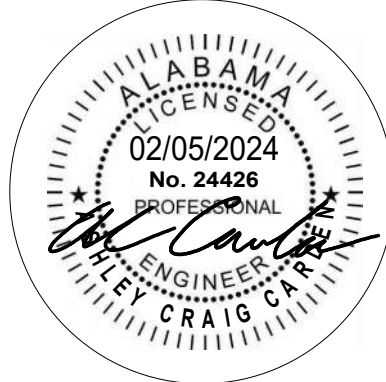


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DRAWING TITLE <b>BRACING ELEVATIONS</b>	
DRAWN BY: RST/GVA	
CHECKED BY: KLL	
PROJECT NUMBER <b>225029-00</b>	
DRAWING NO. <b>S5.01</b>	



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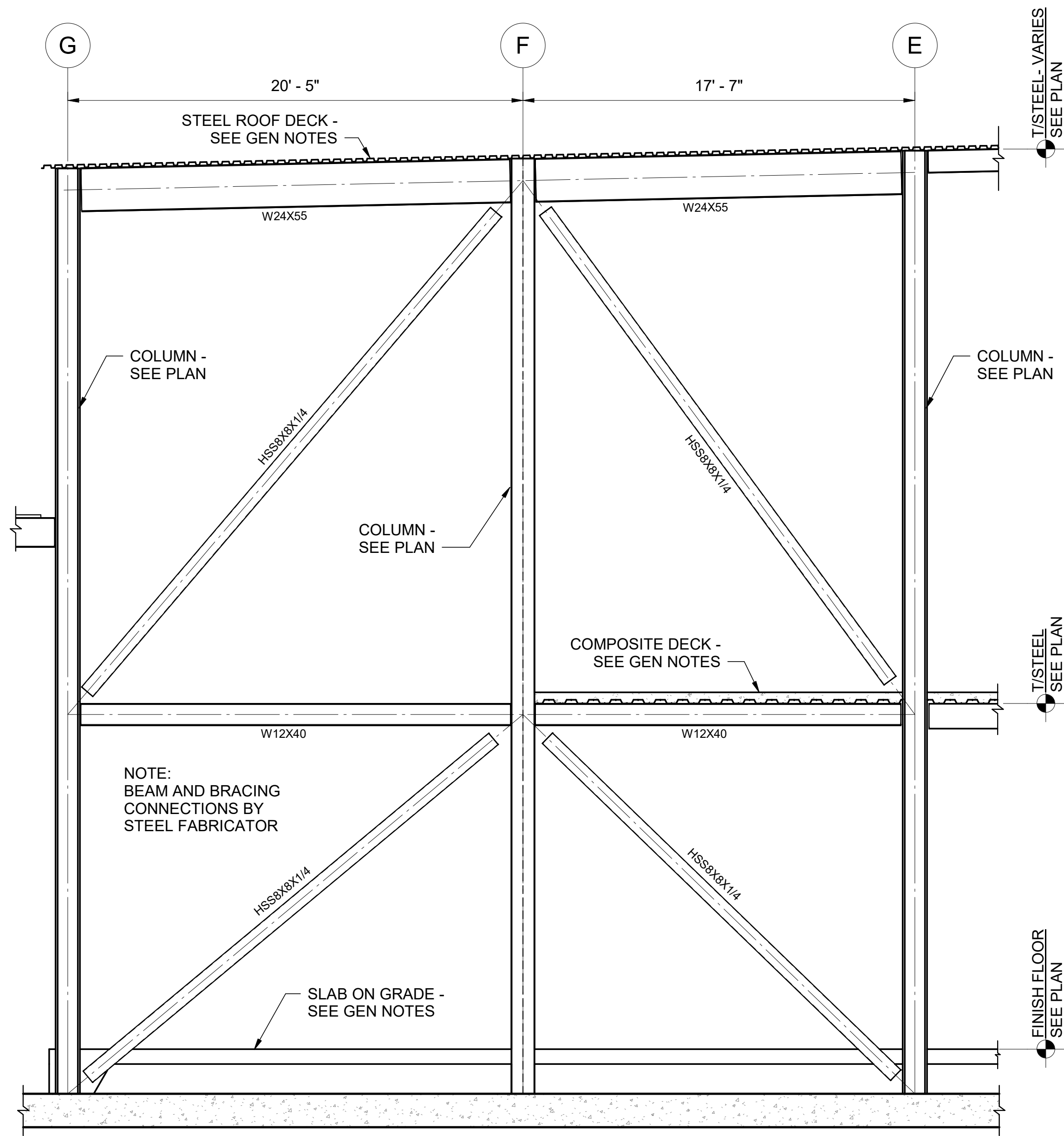
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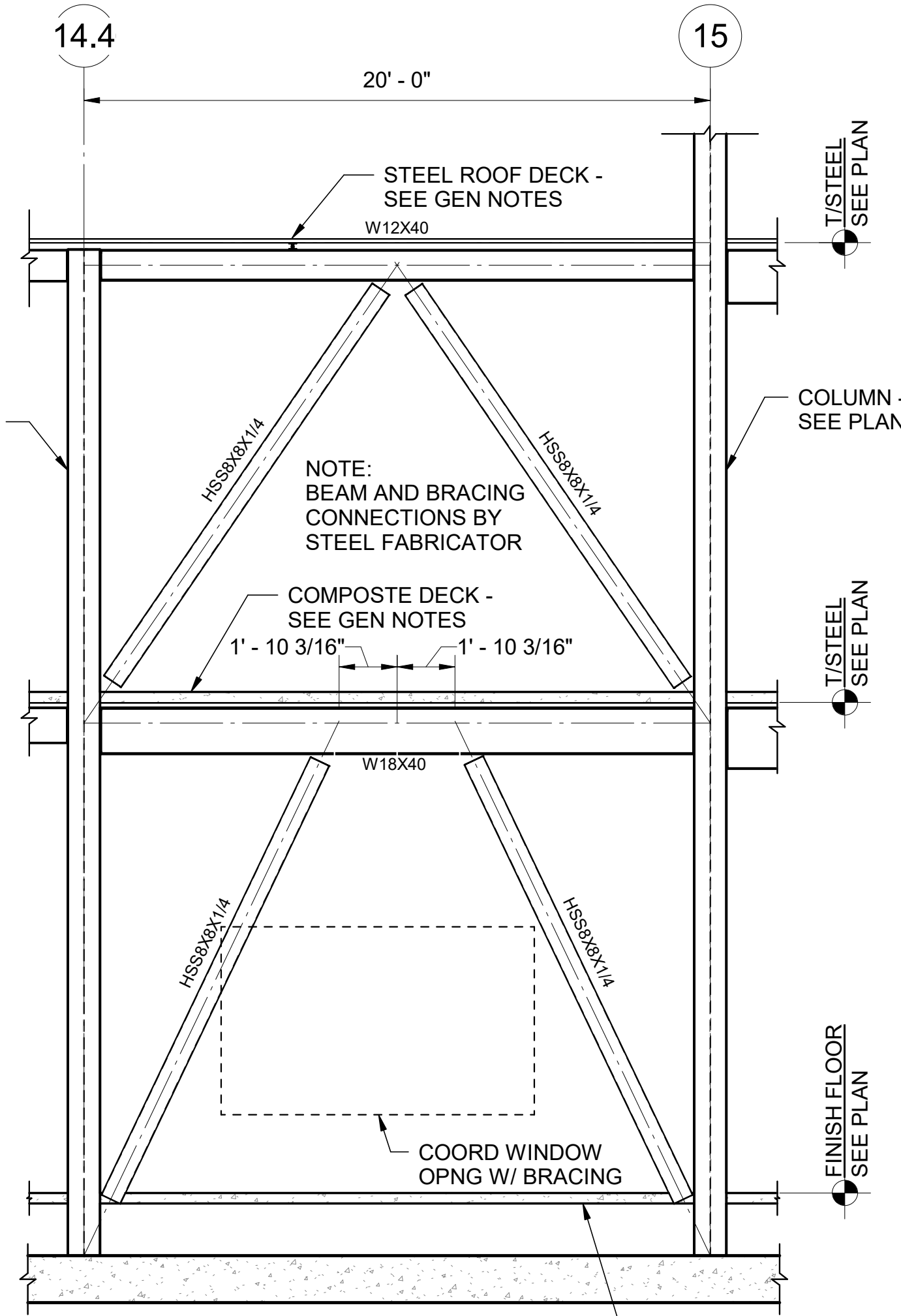
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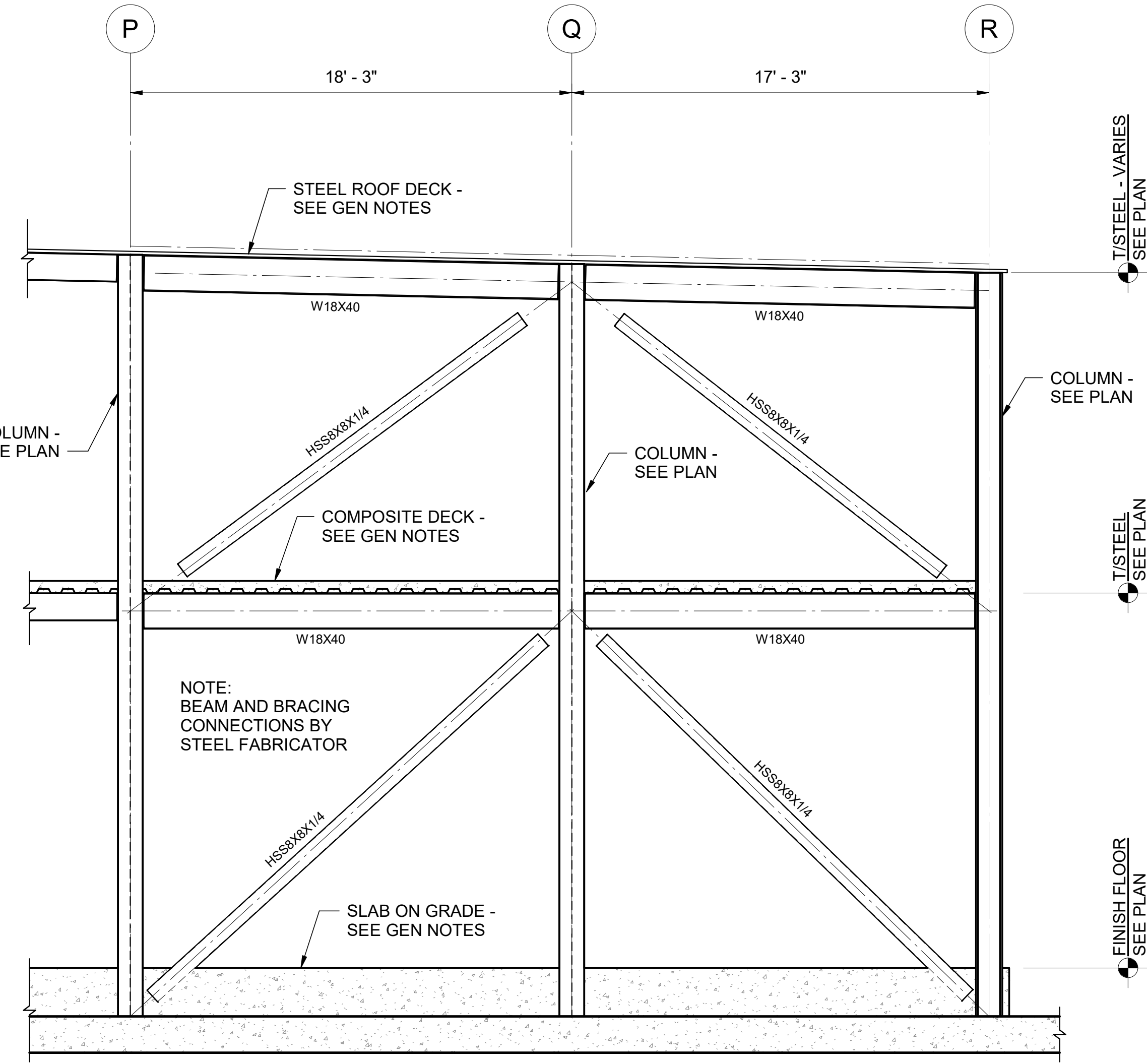
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No. Description Date	
DRAWING TITLE BRACING ELEVATIONS	
DRAWN BY: CHECKED BY:	RST/GVA KLL
PROJECT NUMBER 225029-00	
DRAWING NO. <b>S5.02</b>	



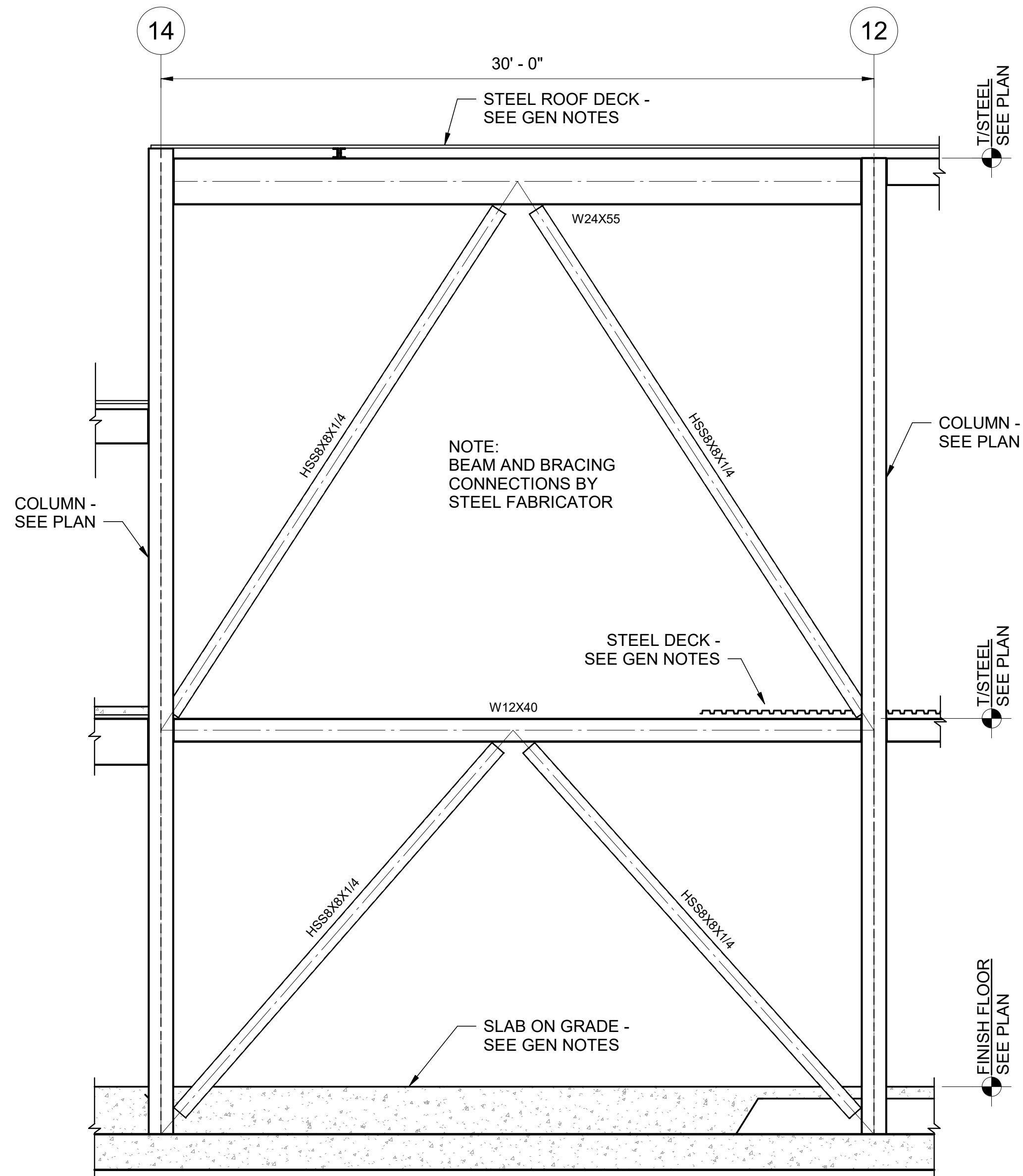
**1 Bracing Elevation**  
S5.02 1/4" = 1'-0"



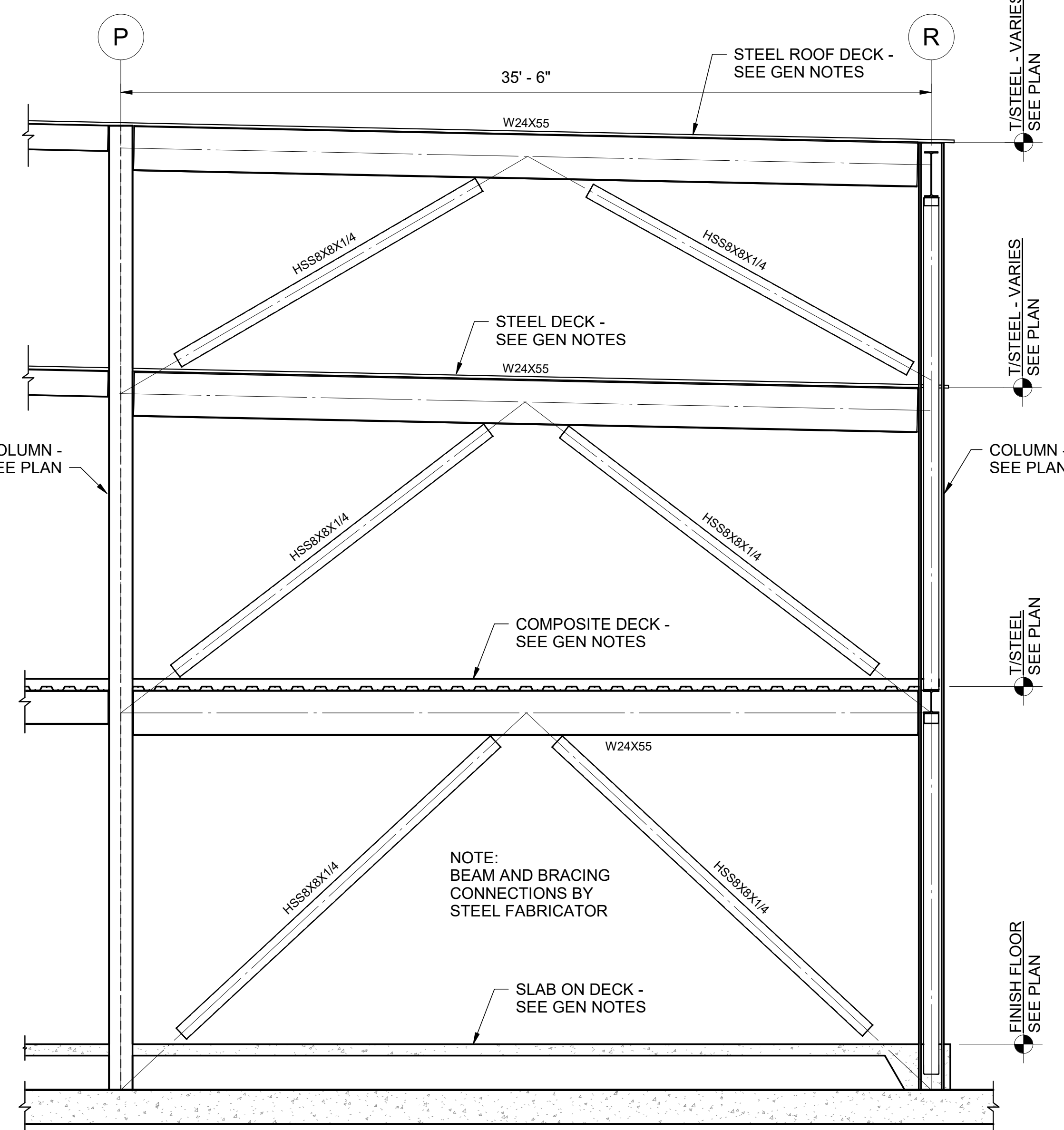
**2 Bracing Elevation**  
S5.02 1/4" = 1'-0"



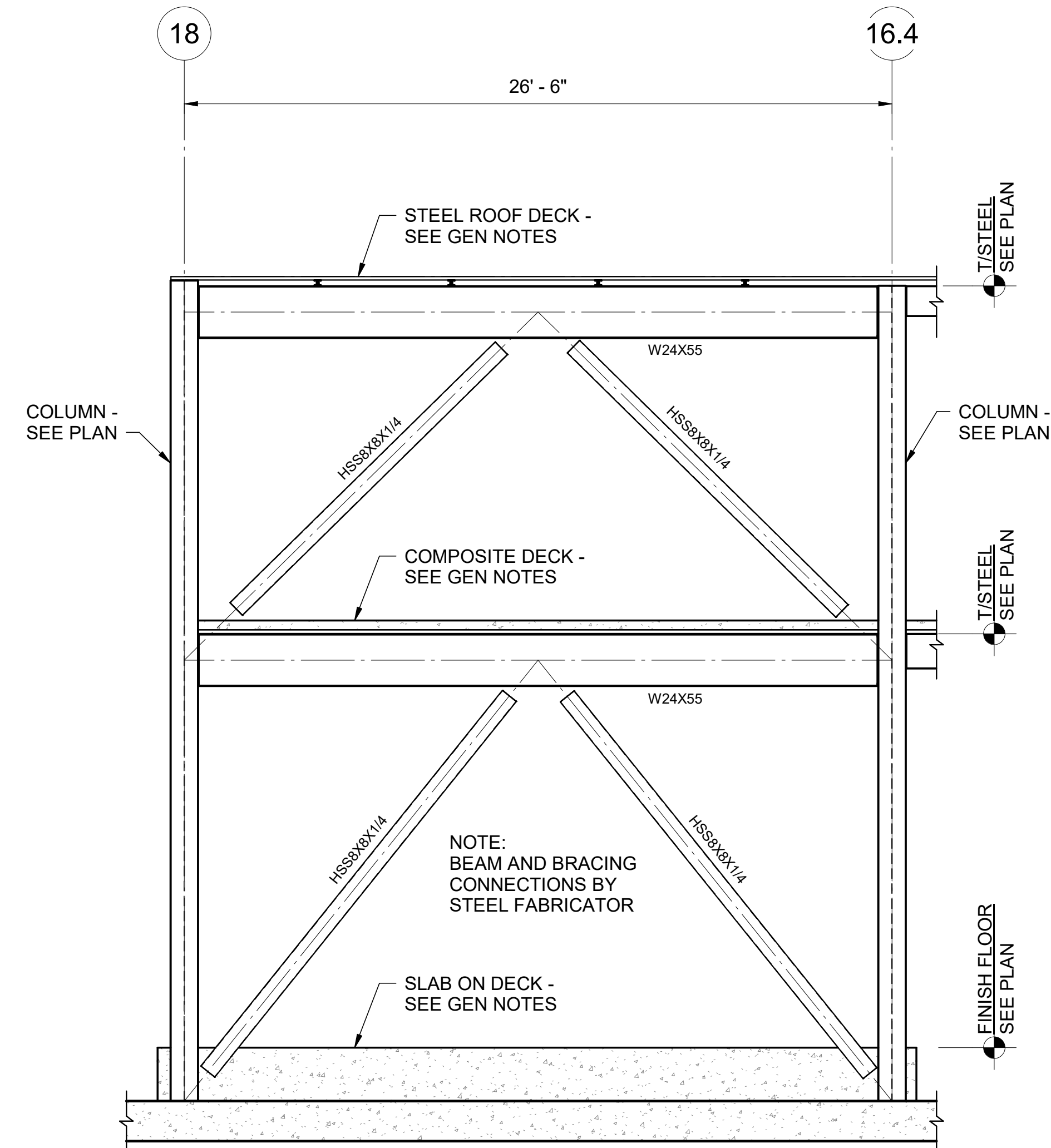
**3 Bracing Elevation**  
S5.02 1/4" = 1'-0"



**4 Bracing Elevation**  
S5.02 1/4" = 1'-0"



**5 Bracing Elevation**  
S5.02 1/4" = 1'-0"



**6 Bracing Elevation**  
S5.02 1/4" = 1'-0"



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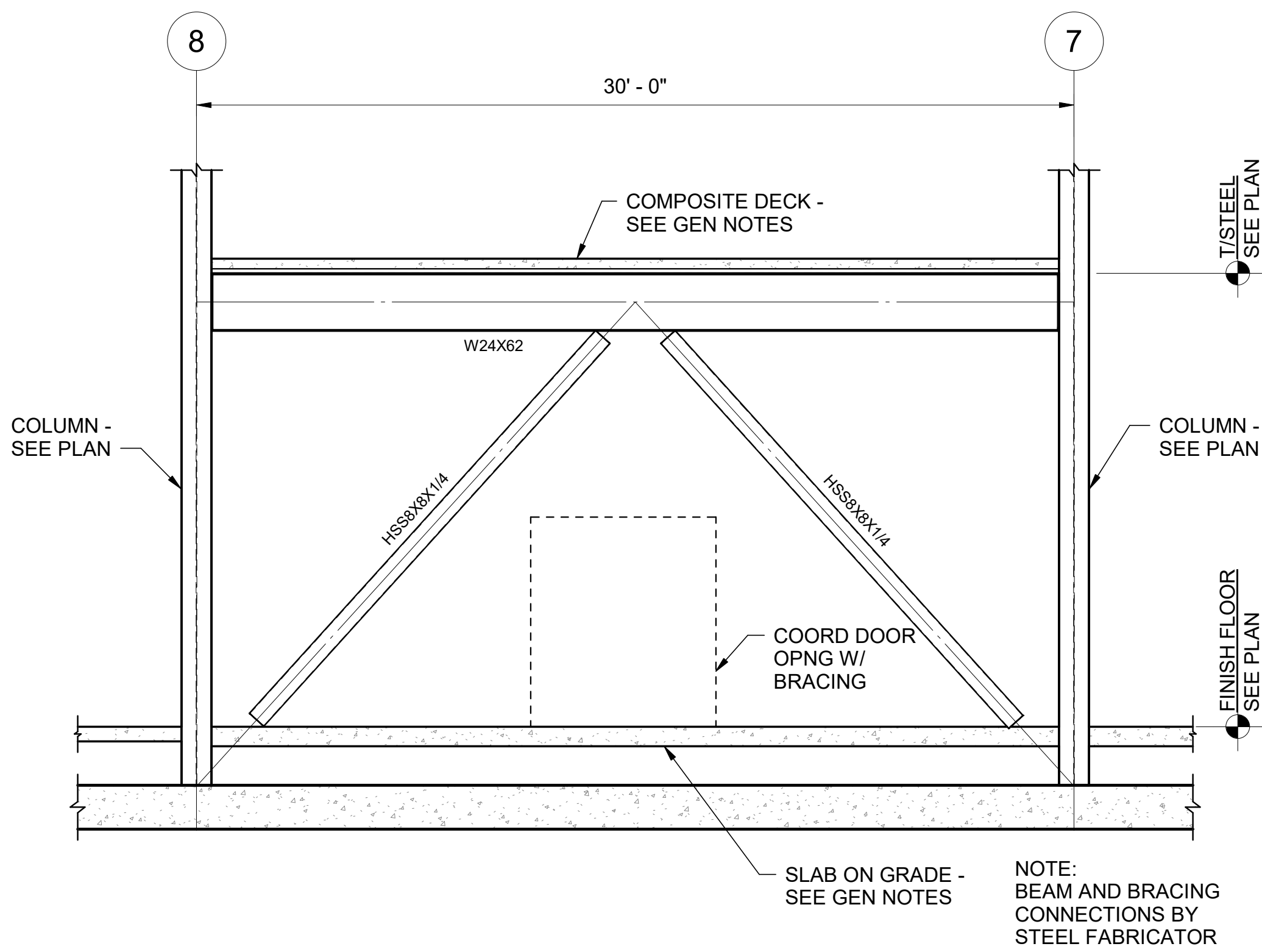
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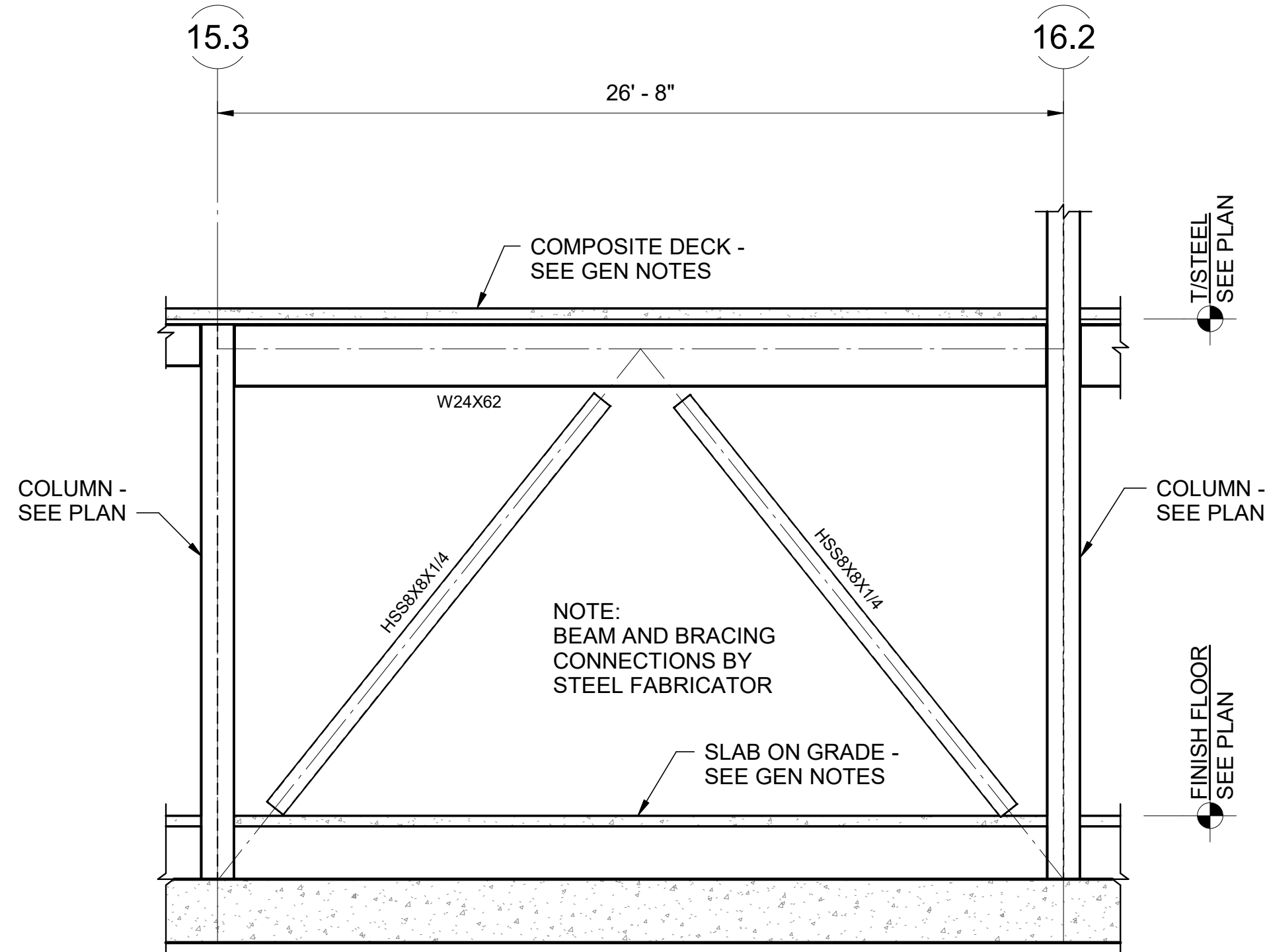
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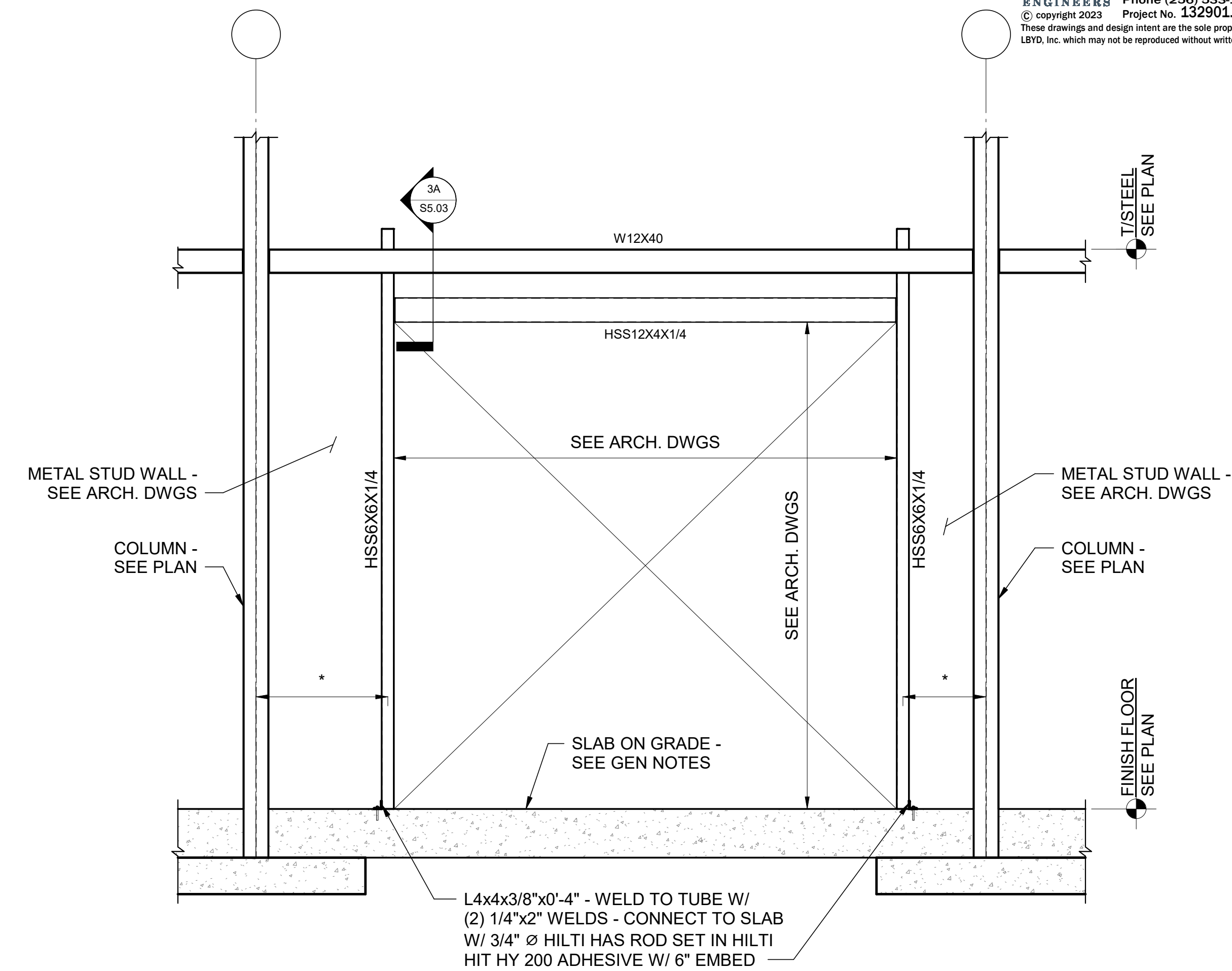
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DRAWING TITLE BRACING ELEVATIONS	
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DRAWING NO. <b>S5.03</b>	



**1 Bracing Elevation**  
S5.03 1/4" = 1'-0"

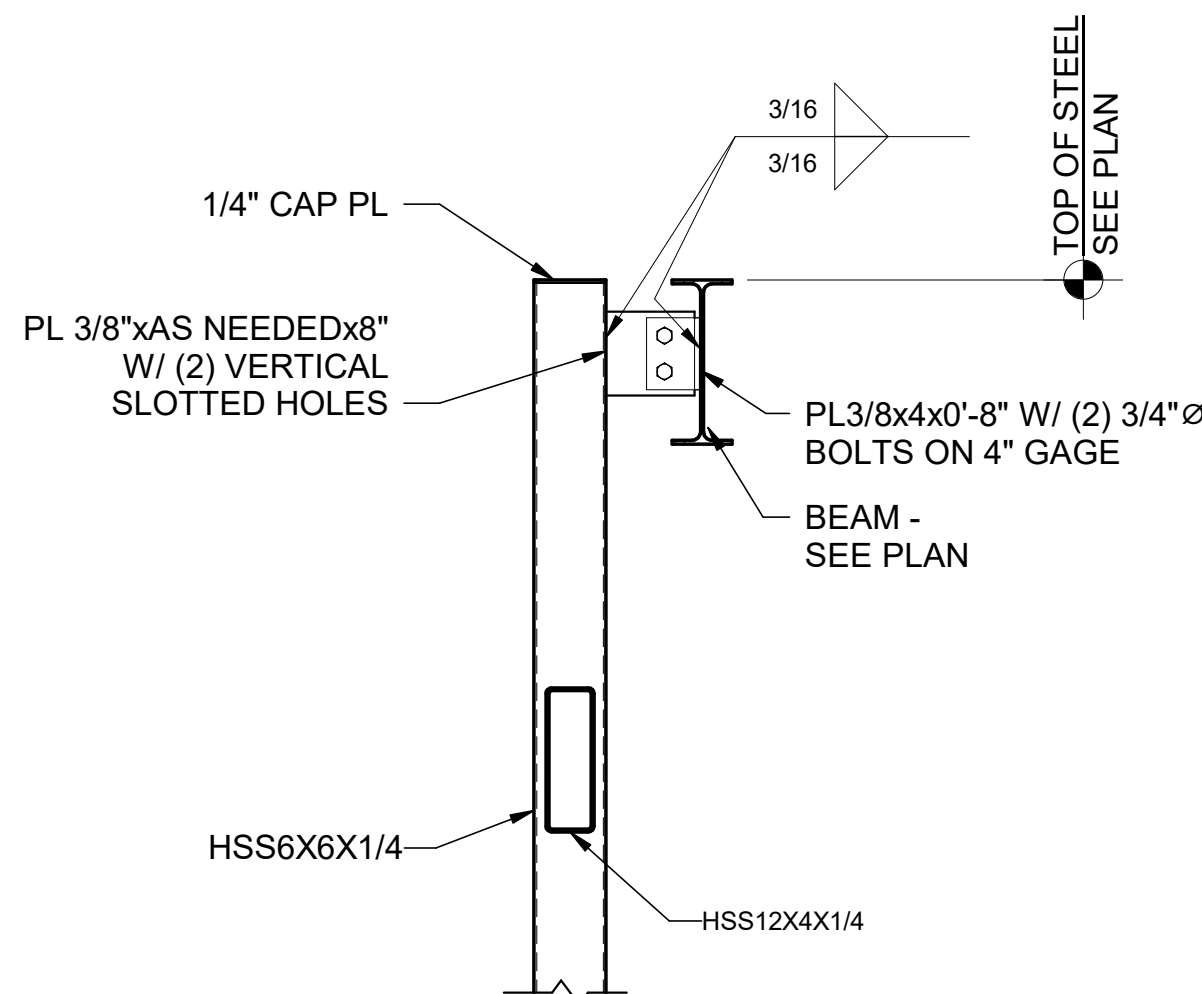


**2 Bracing Elevation**  
S5.03 1/4" = 1'-0"

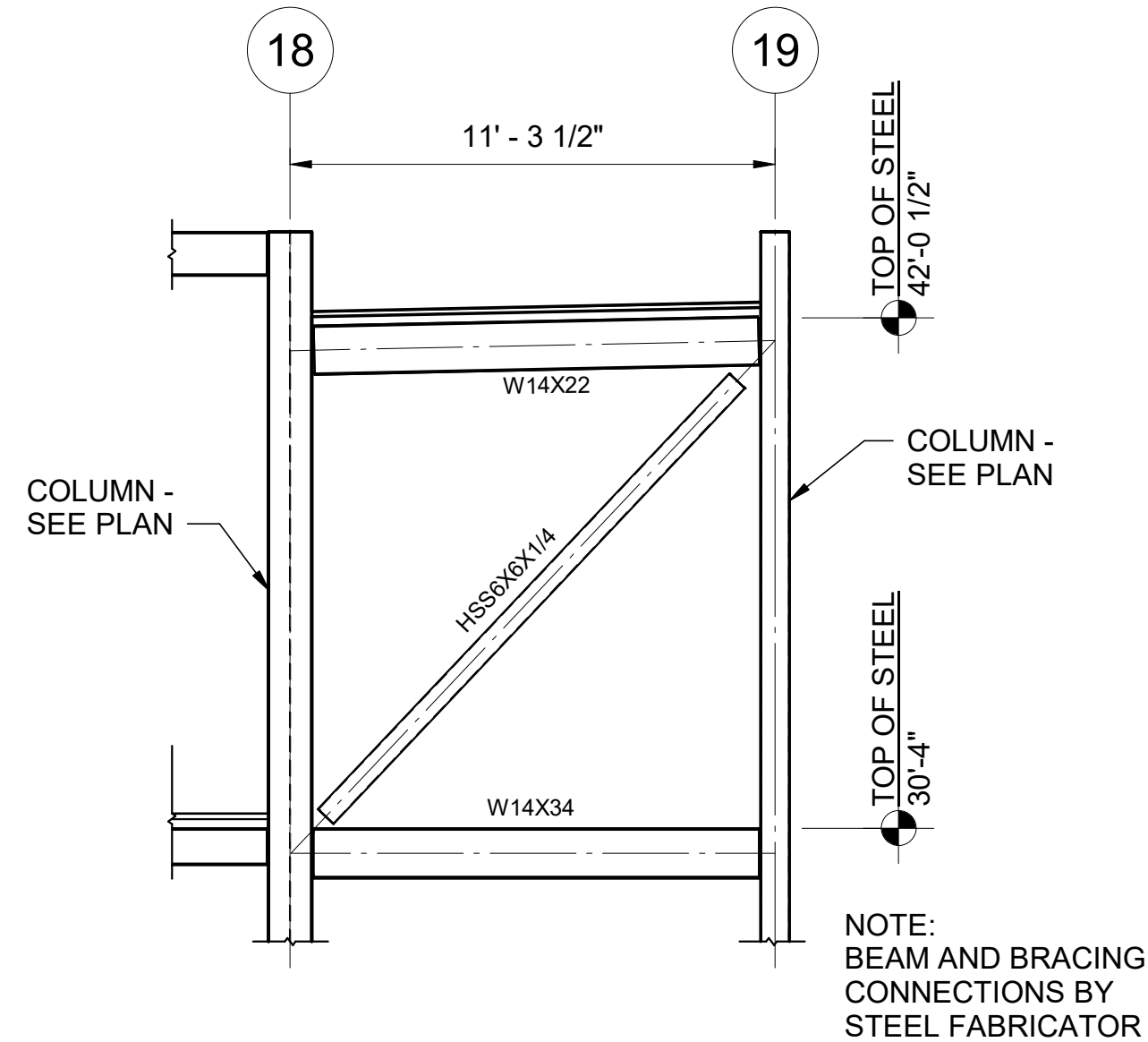


**3 Overhead Door Elevation**  
S5.03 1/4" = 1'-0"

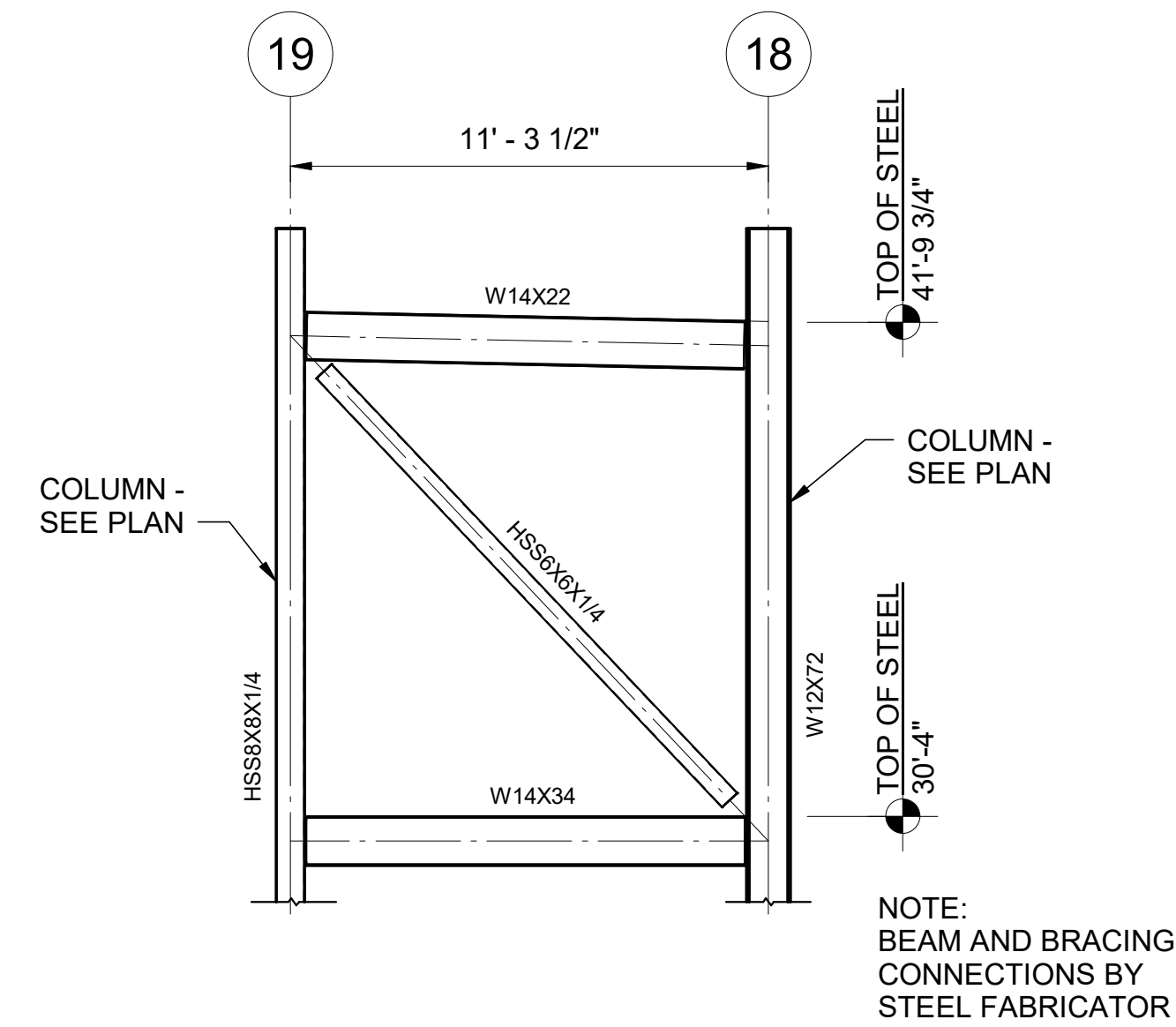
- NOTES:
- SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND LOCATIONS.
  - OVERHEAD DOOR IS SELF-SUPPORTED FOR GRAVITY LOAD BY TRACK.
  - LATERAL CONNECTION OF CANISTER TO WALL FRAME BY DOOR SUPPLIER.
  - WHERE DIMENSION "" IS LESS THAN 2'-0", EXTEND THE HSS POST DOWN TO THE COLUMN FOOTING AND ENLARGE THE COLUMN BLOCKOUT SO THAT IT ENCASES THE POST IN CONCRETE.



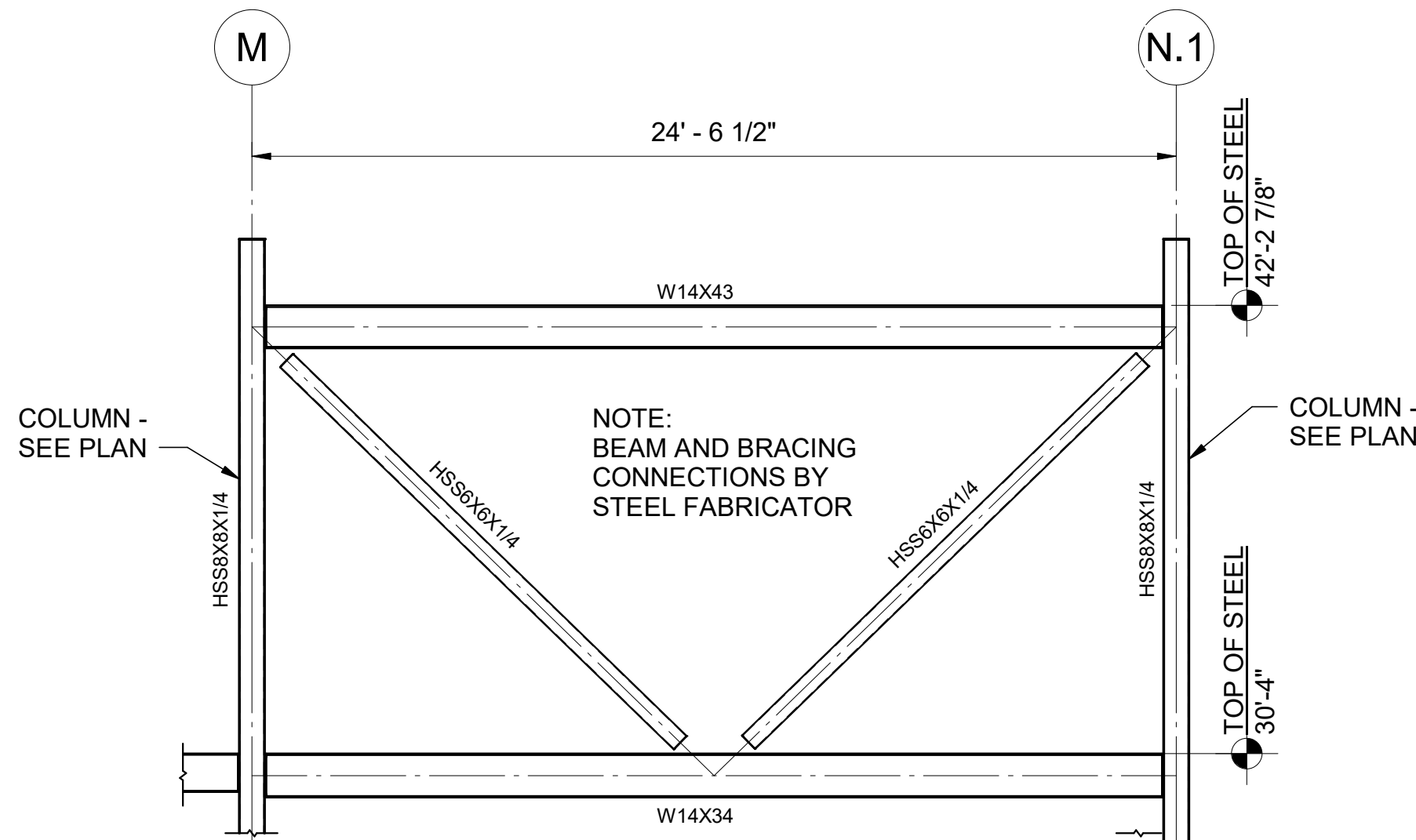
**3A Section**  
S5.03 3/4" = 1'-0"



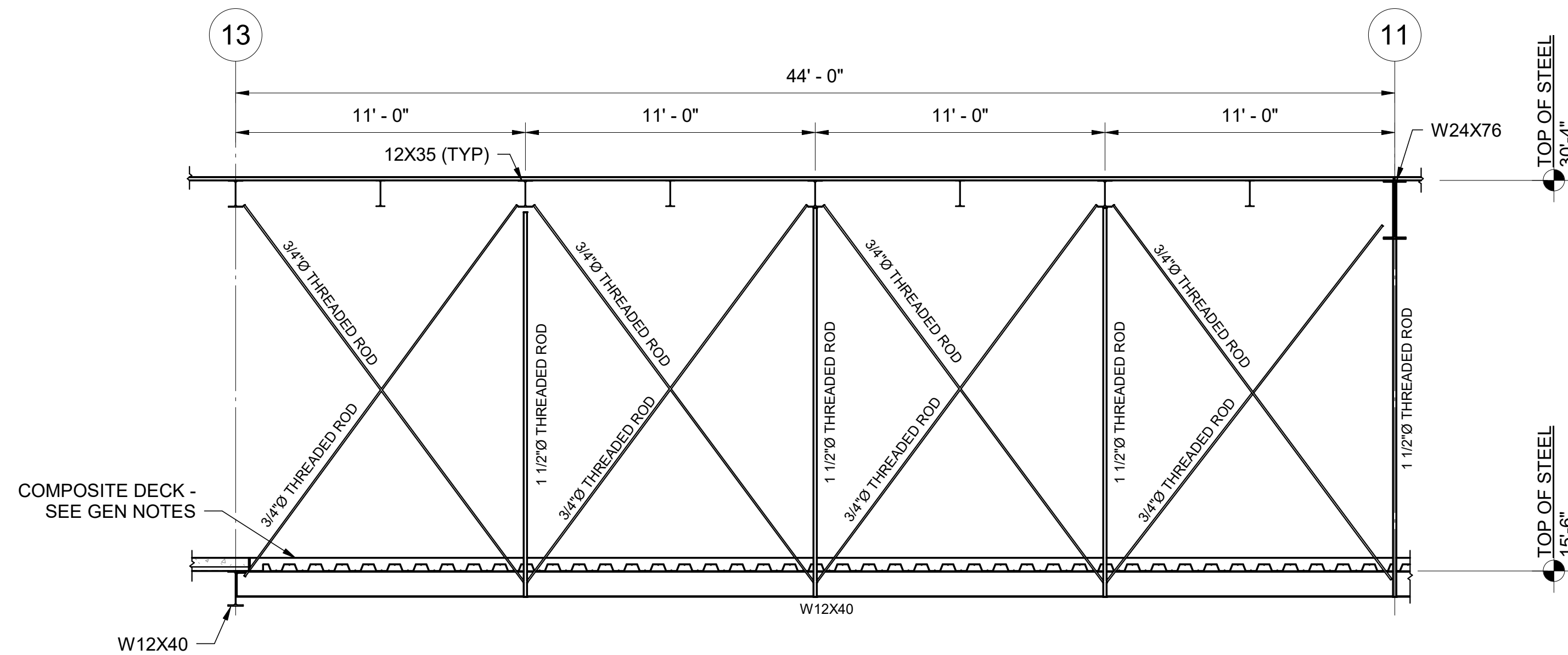
**4 Bracing Elevation**  
S5.03 1/4" = 1'-0"



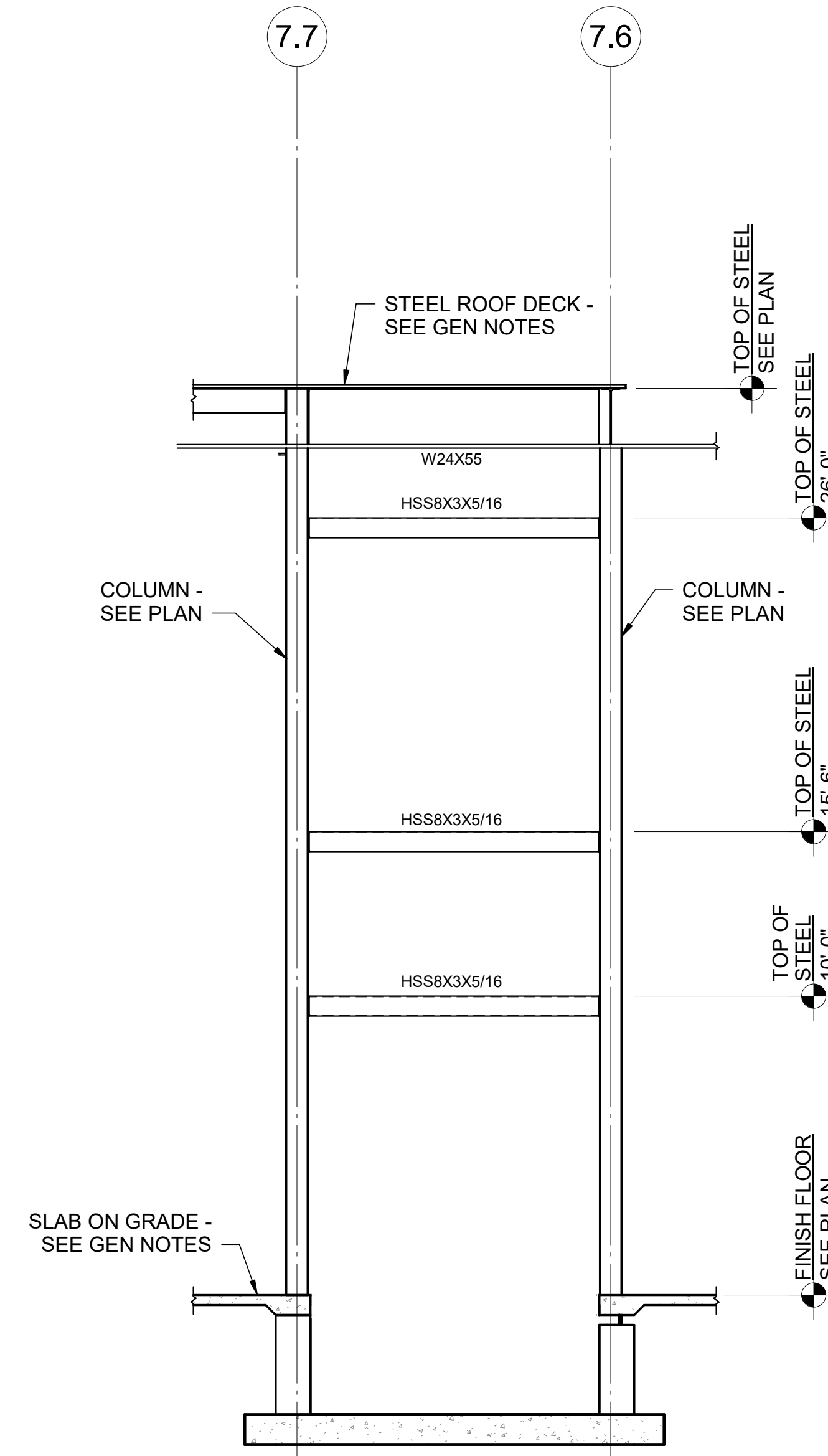
**5 Bracing Elevation**  
S5.03 1/4" = 1'-0"



**6 Bracing Elevation**  
S5.03 1/4" = 1'-0"



**7 Bracing Elevation**  
S5.03 1/4" = 1'-0"



**8 Elevation**  
S5.03 1/4" = 1'-0"