

SPECIAL INSPECTION TABLES

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STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS			
GENERAL The Owner shall engage and employ a qualified special inspection agency or agencies to conduct special inspections of structural work as required by chapter 17 of the 2012 International Building Code and as delineated below. Agencies that are considered qualified and acceptable to act as special inspectors will be those acceptable to the building official of the jurisdiction that grants the building permit and the owner.			
SPECIAL INSPECTION REPORT REQUIREMENTS Special Inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the Building Official, Owner, Architect, Structural Engineer, and Contractor. Reports shall indicate that the structural work inspected was done in conformance to approved Contract Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official, Owner, Architect, and Structural Engineer prior to the completion of that phase of work. A final report of inspections documenting required special inspections of structural work and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the Owner and the Building Official prior to the start of work.			
REQUIRED SPECIAL INSPECTIONS The following types of structural work require special inspections. Refer to individual Specification Sections for specific testing and inspecting requirements. Continuous inspection is the full-time observation of work by a qualified special inspector who is present in the area where the work is being performed. Periodic special inspection is the part-time or intermittent observation of work by a qualified special inspector who is present in the area where the work has been or is being performed and at the completion of the work.			

SOILS			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	
2. Verify excavations are extended to proper depth and have reached proper material.		X	
3. Perform classification and testing of compacted fill materials.		X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	

CONCRETE CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Inspection of steel reinforcement, including size, quantity and placement.		X	
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706. b. Inspect single-pass fillet welds, maximum 5/16"; and c. Inspect all other welds.		X	
3. Inspection of anchor rods, headed bolts, headed studs, shear stud shear reinforcing and other headed items prior to and during placement of concrete.	X		
4. Inspection of anchors installed in hardened concrete.			See "Post Installed Anchors" table
5. Verification of use of required design mixture.		X	
6. Testing of slump, air content, and temperature of concrete at the time fresh concrete is sampled to fabricate specimens for strength tests.	X		Frequency of test per specifications.
7. Inspection of concrete placement, including conveying and depositing.	X		
8. Inspection of curing procedures and maintenance of curing temperatures.		X	
9. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic force resisting system.	X		
10. Erection of precast concrete members.		X	
11. Verification of concrete strength before removal of shores and forms from beams and slabs.		X	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	
13. Verification that approved shop drawings are being used on site.		X	

POST INSTALLED ANCHORS TO CONCRETE AND MASONRY			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Use of proper anchor system and manufacturer.		X	
2. Review of installer's qualifications including certification by anchor manufacturer.		X	* See Note 1
3. Anchor installation process as noted in general notes.			* See Note 2
4. Verification of supporting material's condition.		X	
5. Proof testing as outlined in general notes.		X	
6. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		
7. Mechanical anchors and adhesive anchors not defined in Note 6.		X	

* Remark Notes:
 1. Inspector shall be familiar with anchor manufacturer's written installation procedure and ESR report.
 2. Refer to manufacturer's ESR for type of inspection periodic vs. continuous.

SEISMIC FORCE RESISTING SYSTEM			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. RBS requirements, if applicable: • Contour and finish • Dimensional tolerances	X		
2. Protected zones - no holes and unapproved attachments made by fabricator or erector, as applicable.	X		

WELDED STEEL CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to welding: a. Welding procedure specifications (WPS) available. X b. Manufacturer certifications for welding consumables available. X c. Material identification (type/grade). X d. Welder identification system. X e. 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) • Backing type and fit (if applicable) f. Configuration and finish of access holes. X g. Fit-up of fillet welds: • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location) h. Check welding equipment. X			
2. Inspection tasks during welding: a. Use of qualified welders. X b. Control and handling of welding consumables: • Packaging • Exposure control c. No welding over cracked tack welds. X d. Environmental conditions: • Wind speed within limits • Precipitation and temperature e. WPS followed: • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flow rate • Preheat applied • Interpass temperature maintained (min/max) • Proper position (F, V, H, OH) f. Welding techniques: • Interpass and final cleaning • Each pass within profile limitations • Each pass meets quality requirements			
3. Inspection tasks after welding: a. Welds cleaned. X b. Size, length and location of welds. X c. Welds meet visual acceptance criteria: • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity d. Arc strikes. X e. Visually inspect the web k-area for cracks within 3" of doubler plates, continuity plates and stiffeners welded in the k-areas. X f. Placement of reinforcing or contouring fillet welds (if required). X g. Backing removed and weld tabs removed (if required). X h. Repair activities. X i. Document acceptance or rejection of welded joint or member. X			

COMPOSITE STEEL CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks of steel elements of composite construction prior to concrete placement: a. Placement and installation of steel deck. X b. Placement and installation of steel headed stud anchors. X c. Document acceptance or rejection of steel elements. X			

STRUCTURAL LIGHT GAGE STUD CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Material verification of studs and weld electrodes.		X	
2. Inspection of light gage welds to structure.		X	
3. Inspection of screw attachment, bolting, anchoring and other fastening of components.		X	
4. Inspection of screw attachment, bolting, anchoring and other fastening of components within wind and seismic force resisting systems, including shear walls, braced, diaphragms, collectors (drag struts) and hold-downs.		X	

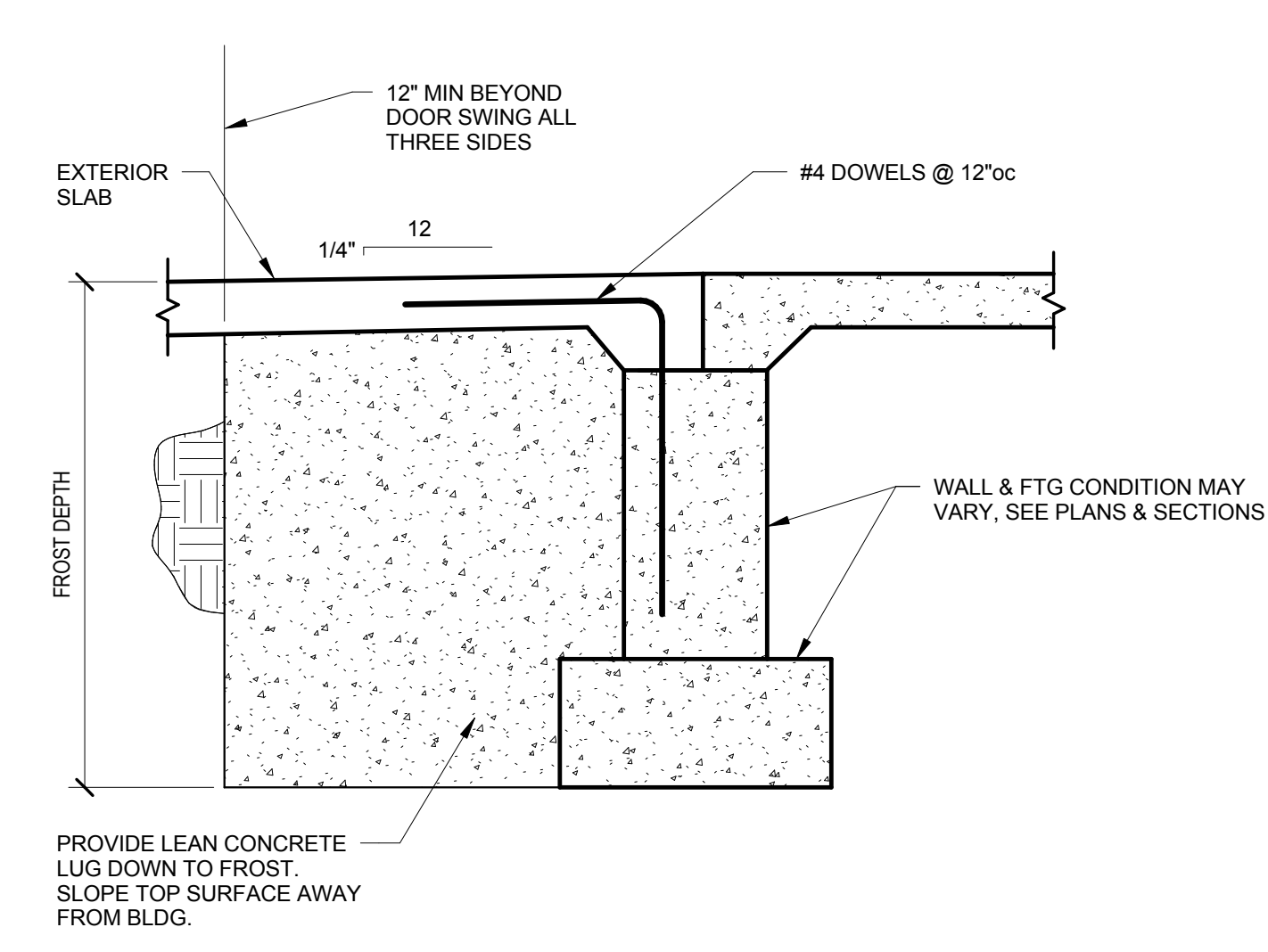
STEEL DECKING CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection or execution tasks prior to deck placement: a. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness. X b. Document acceptance or rejection of deck & deck accessories. X			
2. Inspection or execution tasks after deck placement: a. Verify compliance of deck and all deck accessories installation with construction documents. X b. Verify deck materials are represented by the mill certifications that comply with the construction documents. X c. Document acceptance or rejection of installation of deck and deck accessories. X			
3. Inspection or execution tasks prior to welding: a. Welding procedure specifications (WPS) available. X b. Manufacturer certifications for welding consumables available. X c. Material identification (type/grade). X d. Check welding equipment. X			
4. Inspection or execution tasks during welding: a. Use of qualified welders. X b. Control and handling of welding consumables. X c. Environmental conditions (wind speed, moisture, temperature) X d. WPS followed. X			
5. Inspection or execution tasks after welding: a. Verify size and location of welds, including support, sidelap, and perimeter welds. X b. Welds meet visual acceptance criteria. X c. Verify repair activities. X d. Document acceptance or rejection of welds. X			
6. Inspection or execution tasks prior to mechanical fastening: a. Manufacturer installation instructions available for mechanical fasteners. X b. Proper tools available for fastener installation. X c. Proper storage for mechanical fasteners. X			
7. Inspection or execution tasks during mechanical fastening: a. Fasteners are positioned as required. X b. Fasteners are installed in accordance with manufacturer's instructions. X			
8. Inspection or execution tasks after mechanical fastening: a. Check spacing, type, and installation of support fasteners. X b. Check spacing, type, and installation of sidelap fasteners. X c. Check spacing, type, and installation of perimeter fasteners. X d. Verify repair activities. X e. Document acceptance or rejection of mechanical fasteners. X			

BOLTED STEEL CONSTRUCTION			
SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to bolting: a. Manufacturer's certifications available for fastener material. X b. Fasteners marked in accordance with ASTM requirements. X c. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane). X d. Proper bolting procedure selected for joint detail. X e. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements. X f. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used. X g. Proper storage provided for bolts, nuts, washers and other fastener components. X			
2. Inspection tasks during bolting: a. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required. X b. Joint brought to the snug-tight condition prior to the pretensioning operation. X c. Fastener component not turned by the wrench prevented from rotating. X d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges. X			
3. Inspection tasks after bolting: a. Document acceptance or rejection of bolted connections. X			

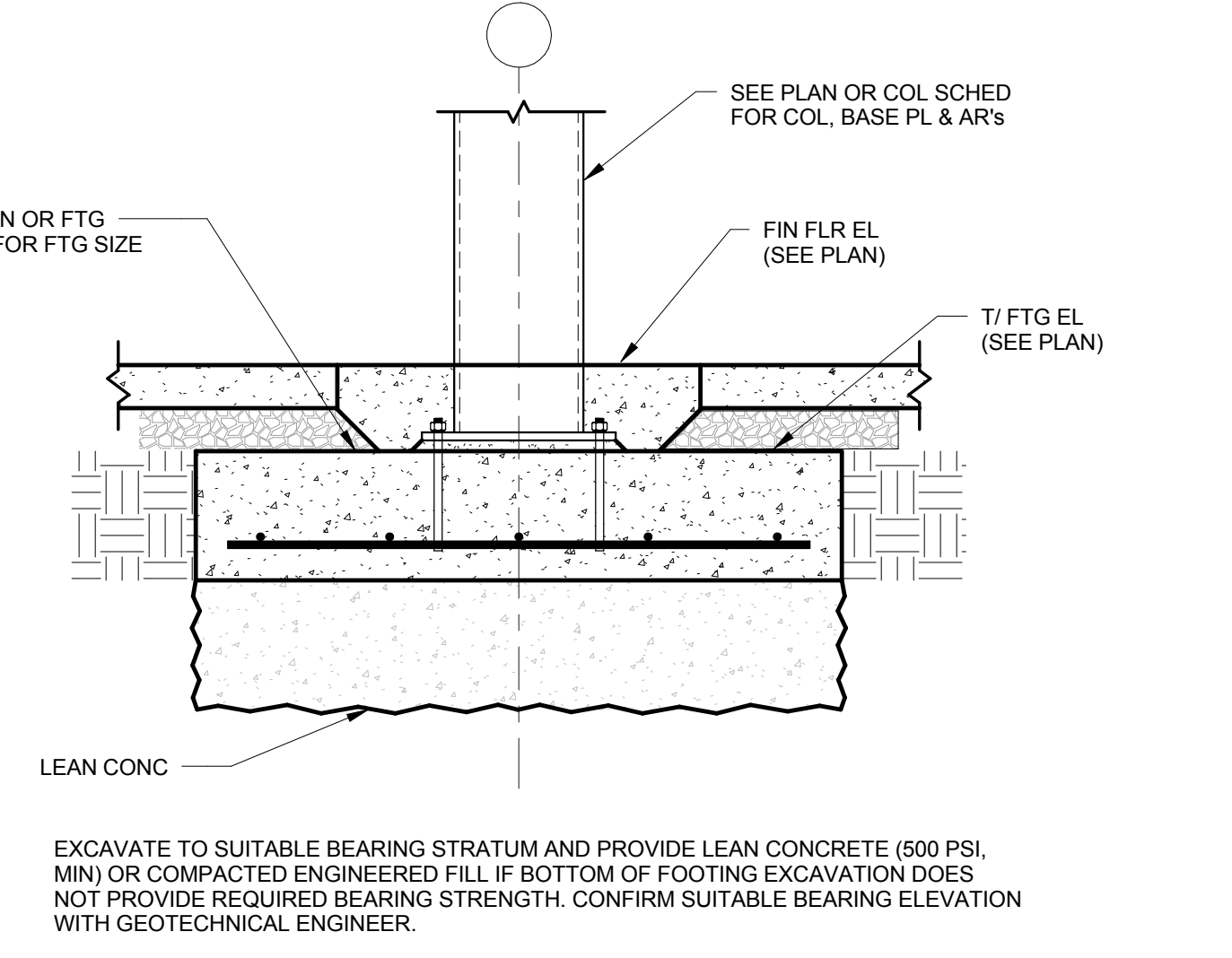
Date 03.19.2018
 Job Number 1700341
 Drawn By TEP
 Checked By JPM

Revision		
Number	Date	Description
	03/19/18	STRUCTURAL STEEL PACKAGE

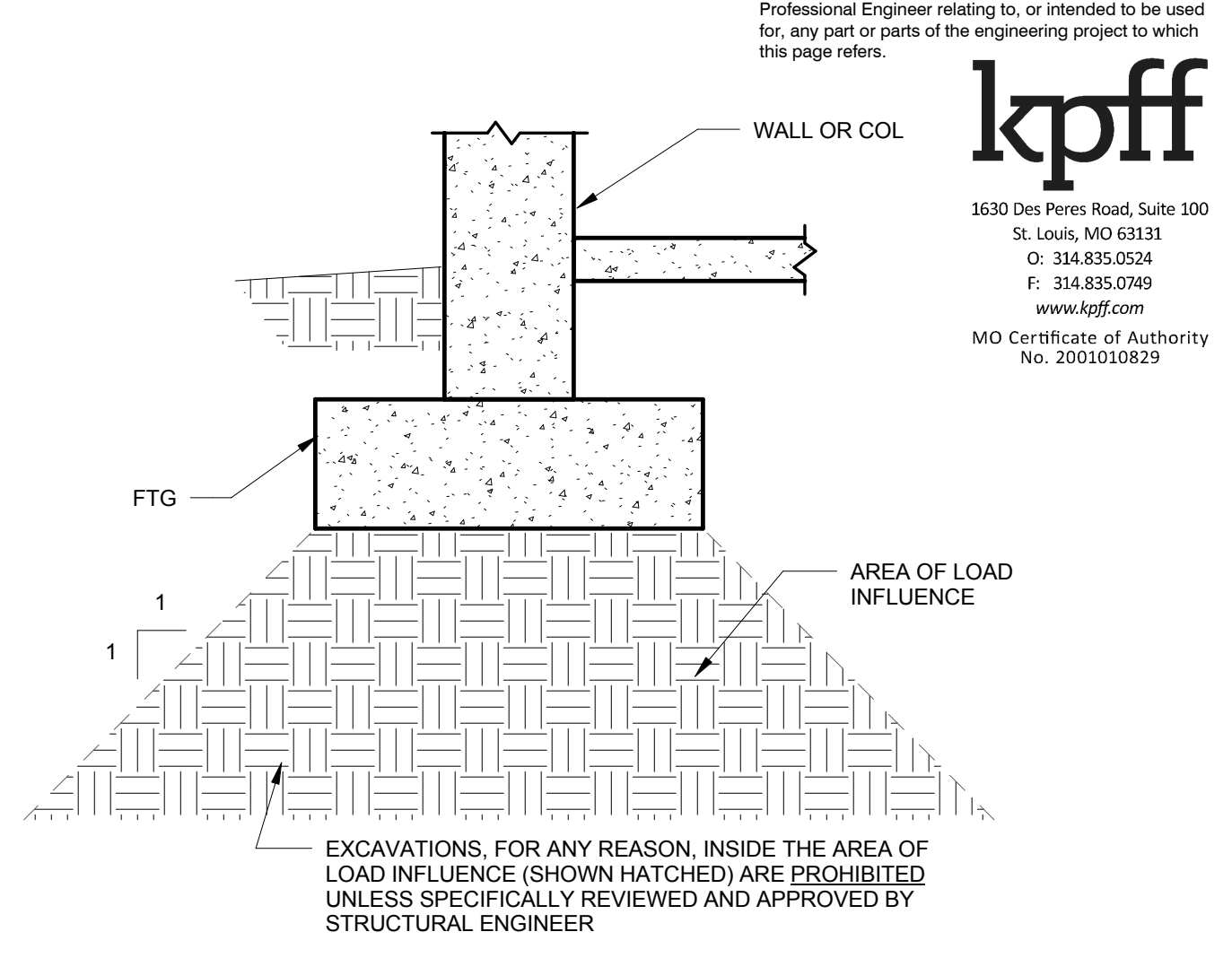
LIST OF ABBREVIATIONS	
ABOVE FINISH FLOOR ADDITIONAL ALTERNATE ANCHOR, ANCHORAGE ANCHOR ROD APPROXIMATE ARCHITECT ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	AFF ADDNL ALT ANCH ANCH ROD APPROX ARCH ARCHT ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
BACK TO BACK BALANCE BEAM BEARING BENT BETWEEN BLOCKING BOTTOM BOTTOM OF BOTTOM OF CONCRETE BOTTOM OF METAL DECK BOTTOM OF PIER BOTTOM OF WALL BRICK EDGE BRIDGING BUILDING	BB BAL BM BRG BT BTWN BLKG BOT BTM BC BMD BP BW BL BRDG BLDG
CAMBER CANTILEVER CAST IN PLACE CENTER CENTER TO CENTER CENTERLINE CLEAR COLUMN, COLUMNS COLUMN STRIP CONCRETE CONCRETE MASONRY UNIT CONNECT CONNECTION CONSTRUCTION CONSTRUCTION JOINT OR CONTROL JOINT CONTINUE, CONTINUOUS CONTRACTOR COORDINATE	C OR C CANT CIP CTR CC CL CLR COL CS CONC CMU CONN CONX CONXT CJ CONT CONTR COORD
DEAD LOAD DEGREE DIAGONAL DIAMETER DIAMETER OF REBAR DOWEL DOWN DRAWING	DL DEG DIAG DIA DB DWL DWN DWS
EACH EACH END EACH FACE EACH SIDE EACH WAY ECCENTRICALLY BRACED FRAME EDGE OF SLAB ELECTRICAL ELEVATION ELEVATOR EMBEDMENT ENGINEER EQUAL EXISTING EXP EXPANSION JOINT EXTERIOR	EA EE EF ES EW EBF EOS ELEC EL ELEV EMB, EMB ENG EQ EX (OR E) EXP EXT
FABRICATOR FACE OF BRICK FAR FACE FAR SIDE FIELD VERIFY FINISH, FINISHED FINISH FLOOR ELEVATION FIRE TREATED FLANGE FLOOR FLOOR DRAIN FOOTING FOUNDATION	FAB F.O.B. FF FS FV FIN FFE F.T. FLG FLR FD FTG FDN
GALVANIZED GAUGE GENERAL GIRDER TRUSS GLUE-LAMINATED BEAM GRADE GRADE BEAM	GALV ga, GA GEN GT GLB GR GB
HEADED HEIGHT HIGH POINT HOLLOW CLAY TILE HOOK HORIZONTAL	HD HT HP HCT HK HORIZ, HOR
INFORMATION INSIDE DIAMETER INSIDE FACE INTERIOR INTERMEDIATE MOMENT FRAME	INFO ID INF. INT IMF
JOINT JOIST JOIST SUBSTITUTE	JT JST JS
KIP, KIPS KNEE BRACE	K OR K KB
LAMINATED STRAND LUMBER LAMINATED VENEER LUMBER LIGHT LIVE LOAD LOCATION LONG LONG LEG HORIZONTAL LONG LEG OUT LONG LEG VERTICAL LONG SIDE HORIZONTAL OR LONG SLOTTED HOLES LOW POINT	LSL LVL LT LL LOC LG LH LLO LLV LSV LSH LP
MANUFACTURER MASONRY MAXIMUM MECHANICAL MEZZANINE MIDDLE MIDDLE STRIP MINIMUM MISCELLANEOUS	MFR MAS MAX MECH MEZZ MID MS MIN MISC
NEAR FACE NEAR SIDE NEW NOT IN CONTRACT NOT TO SCALE	NF NS (N) NIC NTS
ON CENTER OPENING OPPOSITE OPPOSITE HAND ORDINARY CONCENTRICALLY BRACED FRAME ORDINARY MOMENT FRAME OUT TO OUT OUTSIDE DIAMETER OUTSIDE FACE	OC OPNG OPP OPPHD OCBF OMF OO OD O.F.
PARALLEL, STRANDED LUMBER PIER CAP, PILE CAP PLATE PLUMBING PLYWOOD POINT POST-TENSIONED POUND PER SQUARE FOOT POUND PER SQUARE INCH POWDER ACTUATED FASTENER PRECAST PREFABRICATED	PSL PC PL PLMB PLYWD PT PT-T PSF PSI PAF PVC PREFAB
QUANTITY	QTY
RADIUS REFER, REFERENCE REINFORCING OR REINFORCEMENT REQUIRED ROOF TOP UNIT SCHEDULE SECTION SHEAR WALL SHEET SHEET METAL SHORT LEG OUT SIMILAR SLAB ON GRADE SLIP CRITICAL SPACE SPECIAL SPECIAL CONCENTRICALLY BRACED FRAME SPECIAL MOMENT FRAME SPECIFICATIONS SQUARE STAINLESS STEEL STANDARD STEEL STIFFENER STRUCTURAL SYMMETRICAL	RAD REF REIN REQD RTU SCHD SECT SW SHT SHTMTL SLO SIM SOG SC SPA SP SCBF SMF SPEC SQ SS STD STL STIFF STRUC SYM
THICK, THICKNESS THREAD, THREADED TIE BEAM TO BE REMOVED TOP & BOTTOM TOP OF TOP OF CONCRETE TOP OF FOOTING TOP OF STEEL TOP OF MASONRY TOP OF PIER, PILASTER TOP OF PIER CAP, PILE CAP TOP OF WALL TREAD TYPICAL	THK OR T THD TB TBR T&B T/ TC TF TM TP TPC TS TW T OR TR TYP
UNLESS NOTED OTHERWISE	UNO
VERTICAL BRACE VERTICAL, VERTICALLY VERIFY IN FIELD	VB VT OR VERT VIF
WELDED WIRE REINFORCING WITH WOOD WORKING POINT WATERSTOP, WATERSEAL	WWR W WD WP WS
X-BRACING	X-BR



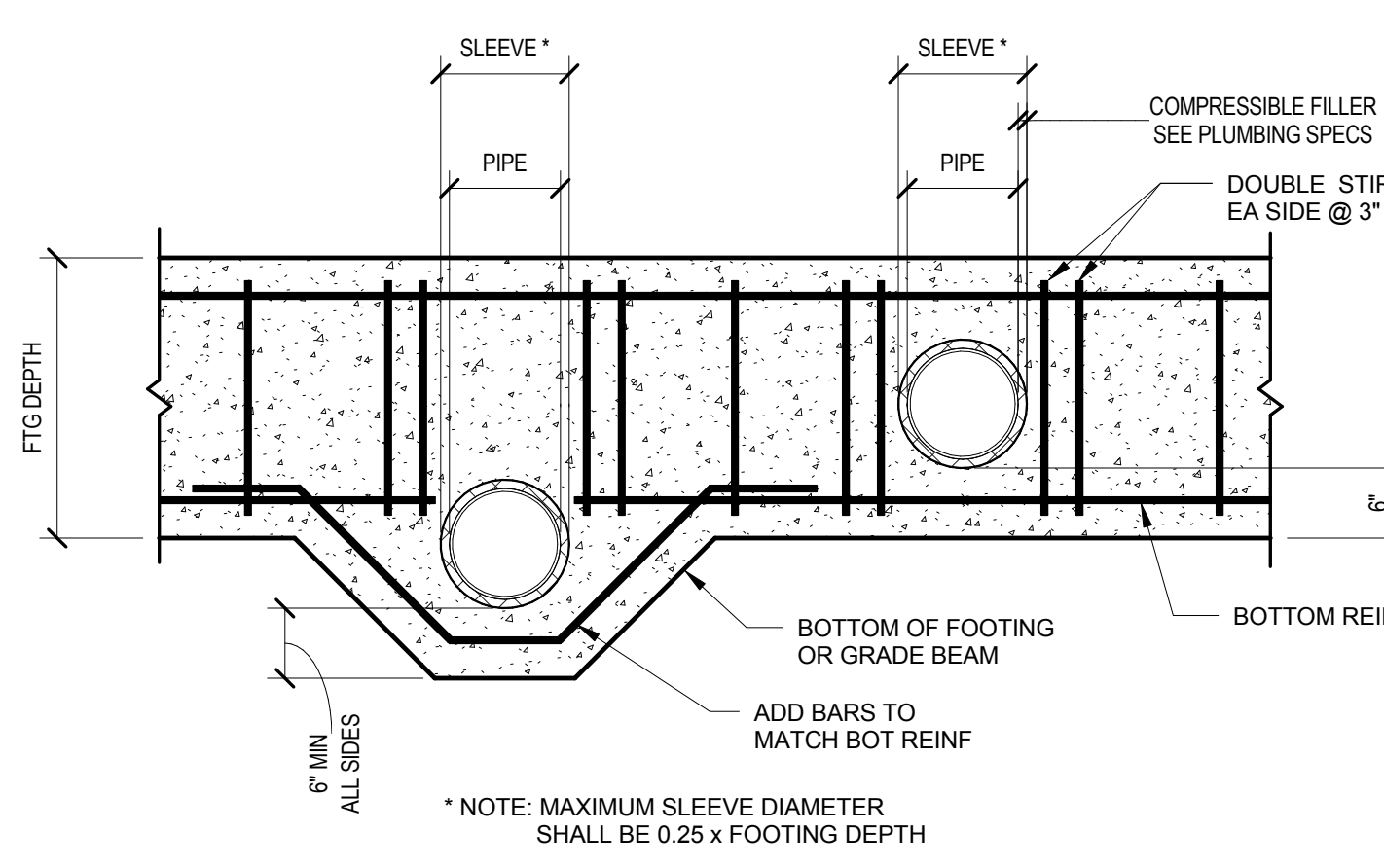
3 TYPICAL FROST BLOCK DETAIL AT EXTERIOR DOOR
S1.3 3/4" = 1'-0"



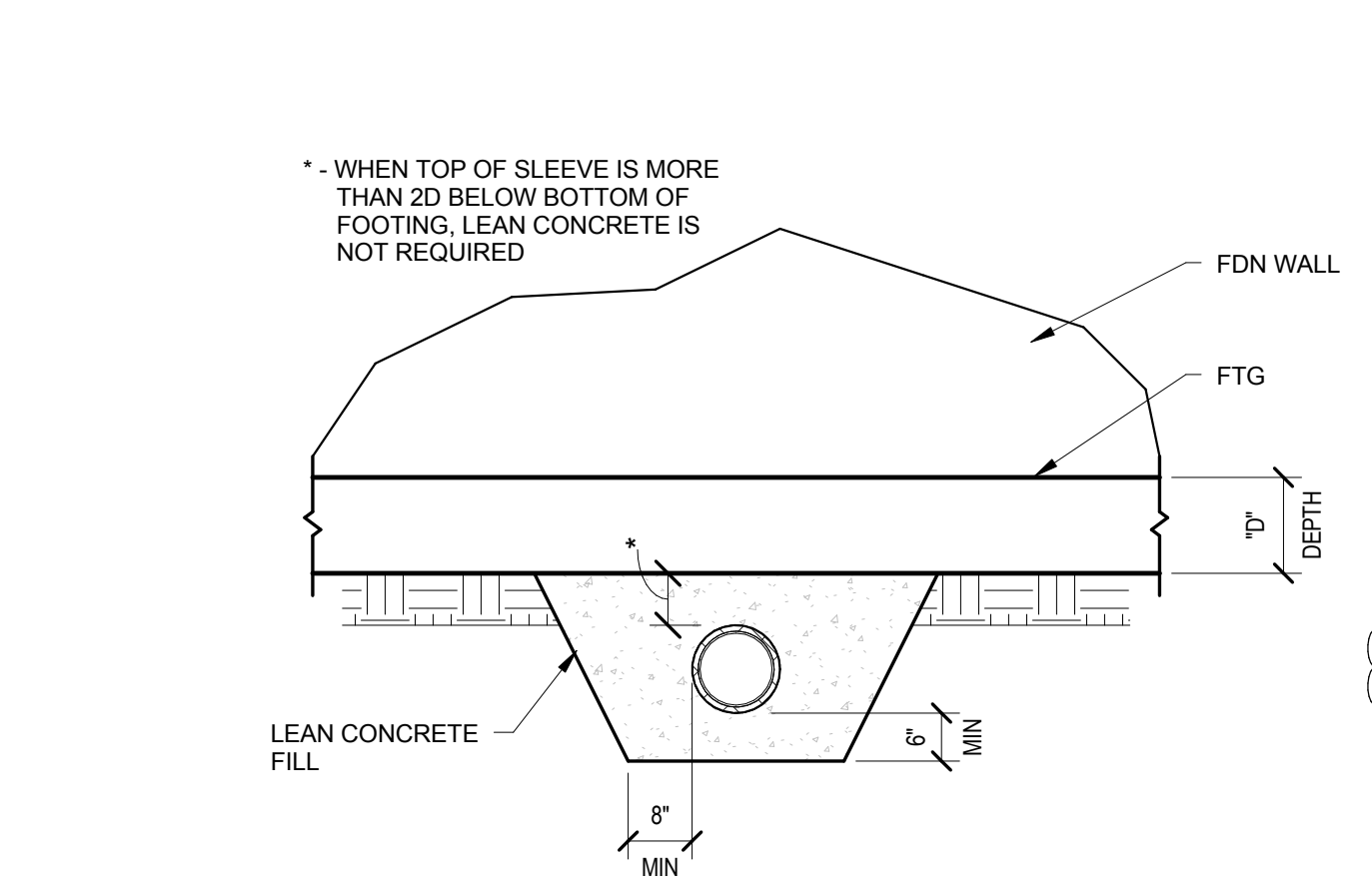
2 TYPICAL FOOTING OVEREXCAVATION DETAIL
S1.3 N.T.S.



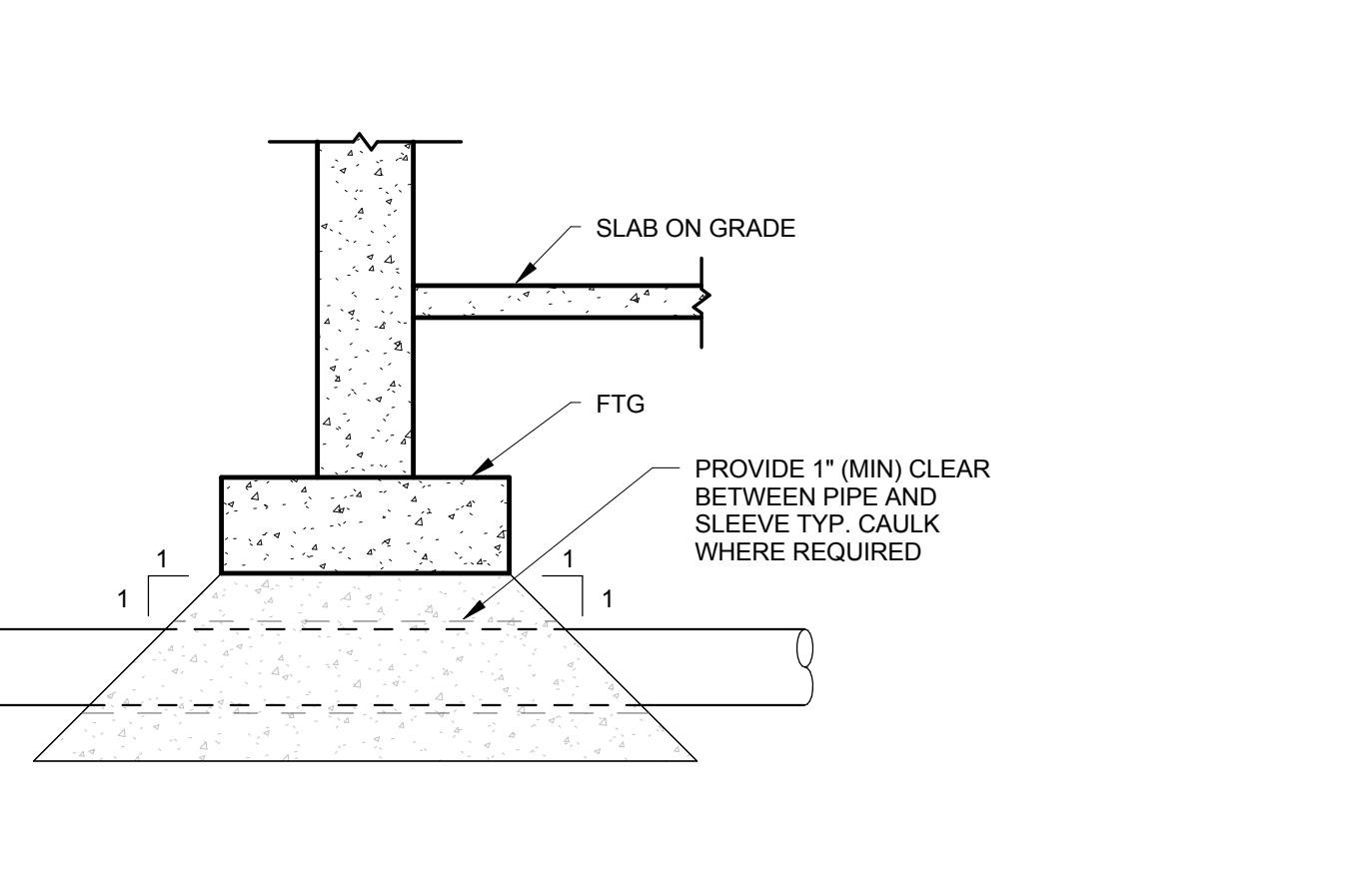
1 TYPICAL PROHIBITED EXCAVATIONS AT FOUNDATION
S1.3 3/4" = 1'-0"



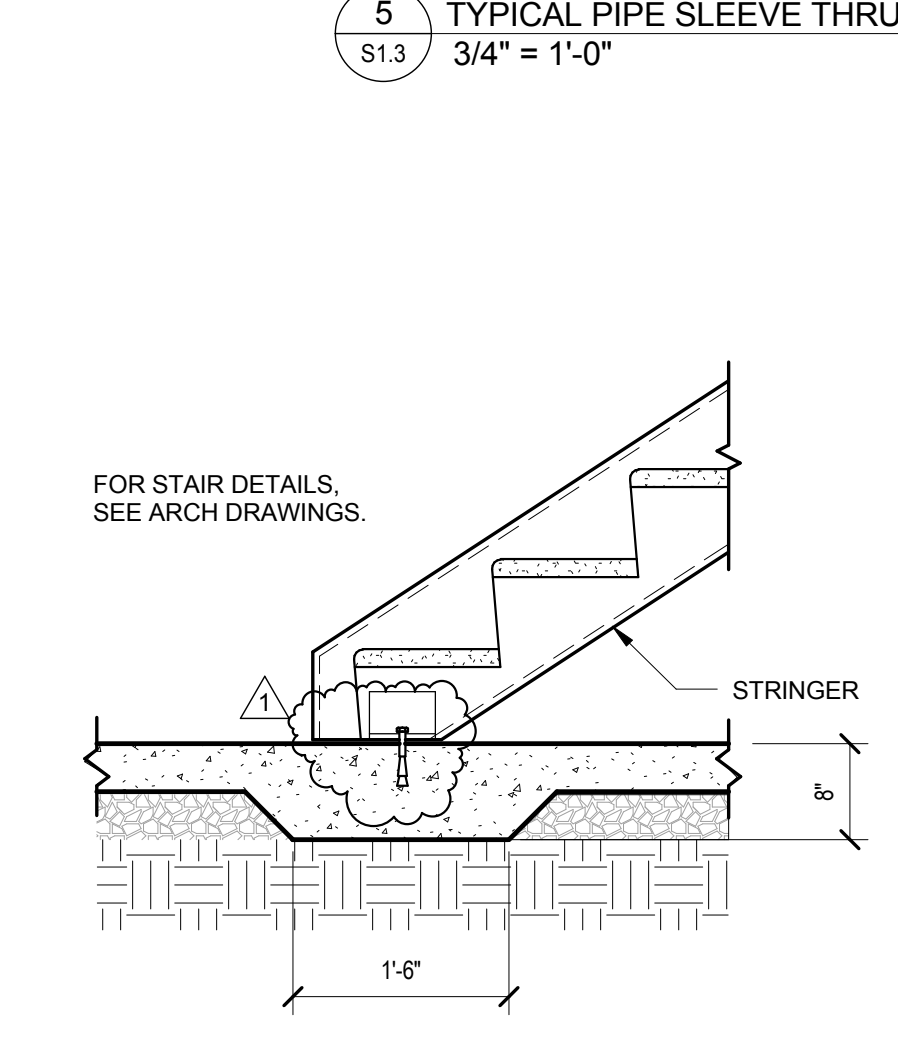
5 TYPICAL PIPE SLEEVE THRU FOUNDATION DETAIL
S1.3 3/4" = 1'-0"



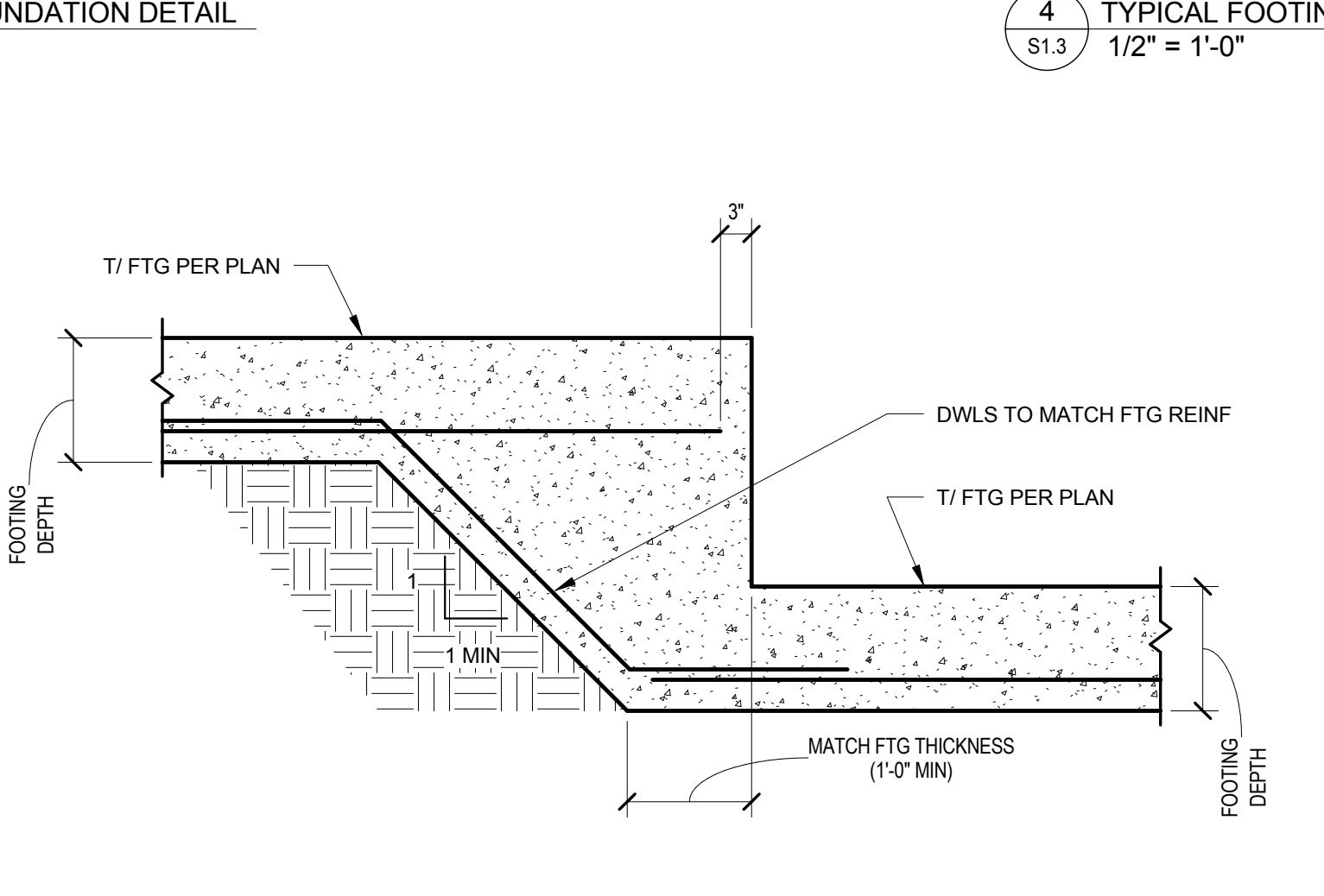
4 TYPICAL FOOTING DETAIL WHERE PLUMBING PASSES BELOW FOOTING
S1.3 1/2" = 1'-0"



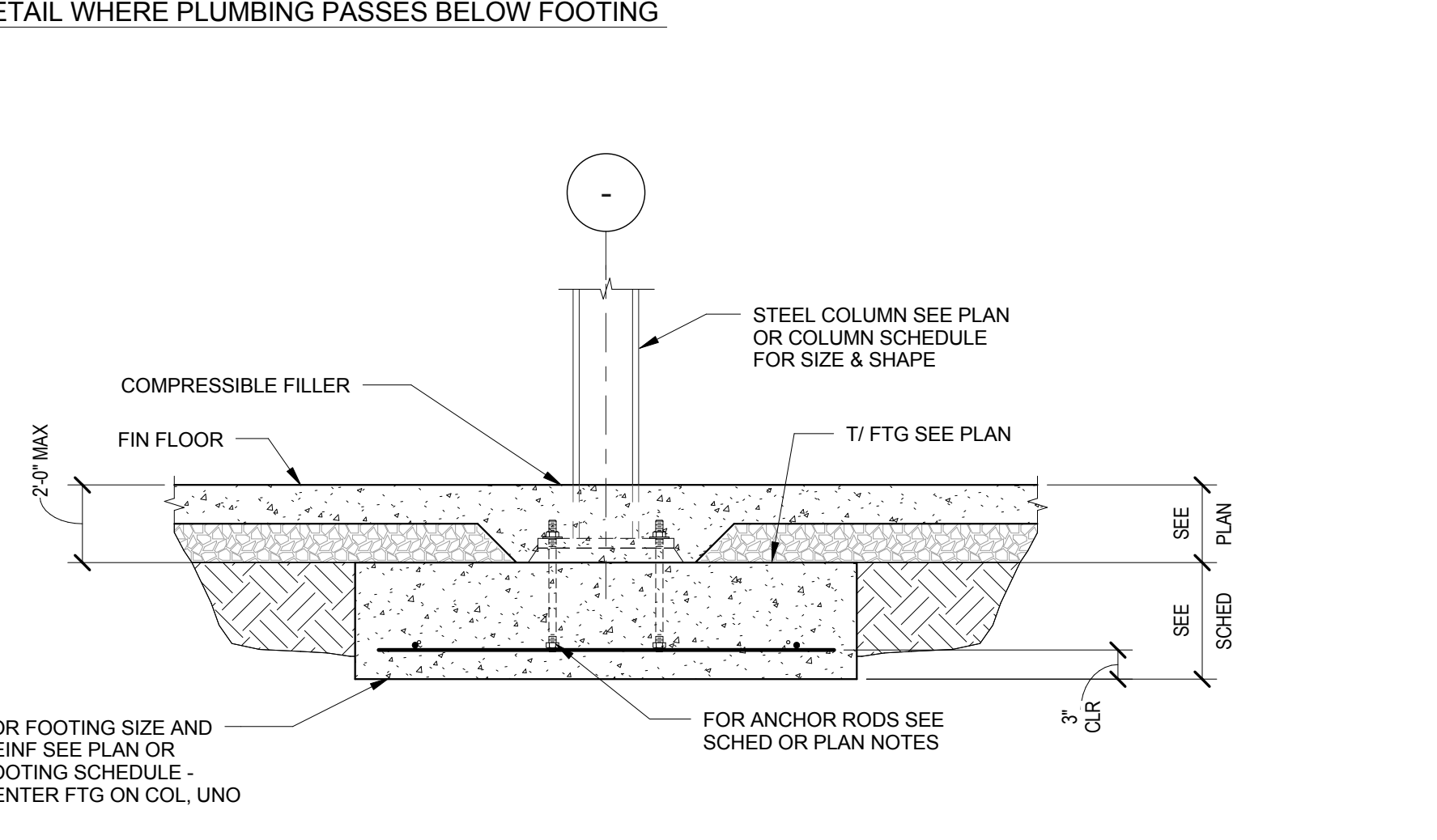
6 TYPICAL INTERIOR STEEL COLUMN FOOTING DETAIL
S1.3 3/4" = 1'-0"



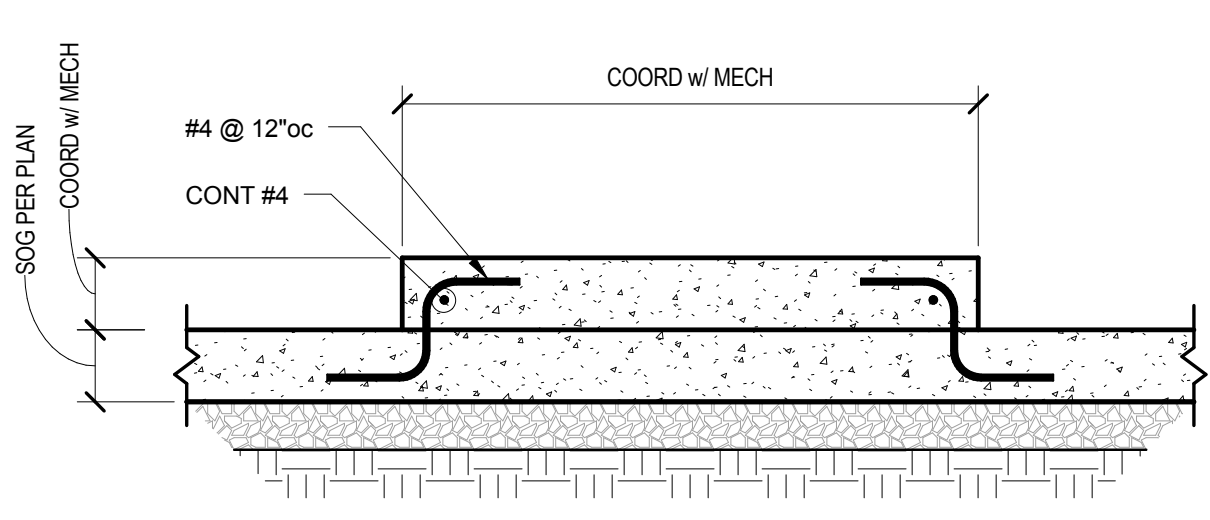
8 TYPICAL STAIR STRINGER AT SLAB ON GRADE DETAIL
S1.3 3/4" = 1'-0"



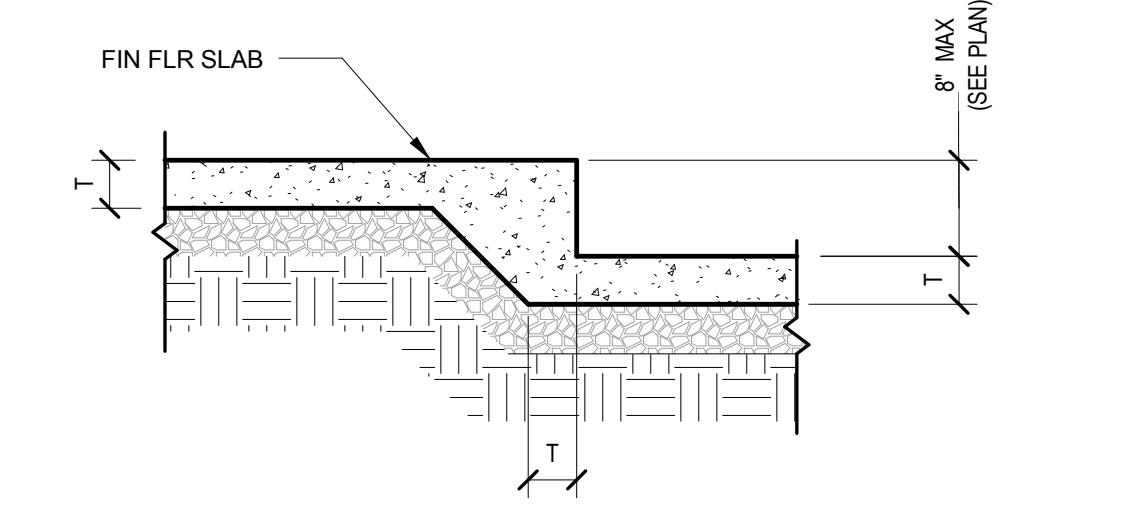
7 TYPICAL STEPPED FOOTING DETAIL
S1.3 3/4" = 1'-0"



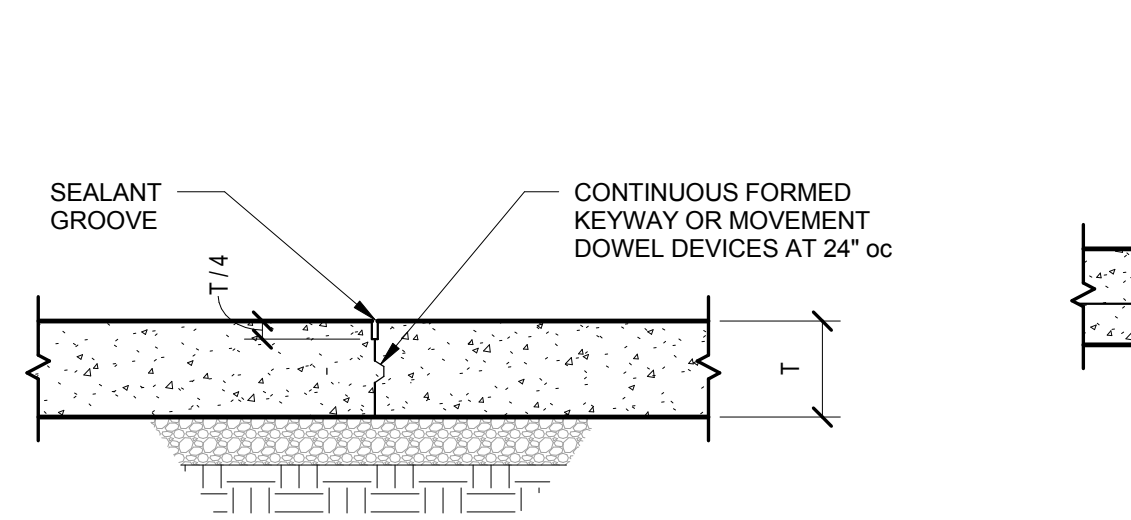
9 TYPICAL FOUNDATION WALL CONSTRUCTION JOINT DETAIL
S1.3 3/4" = 1'-0"



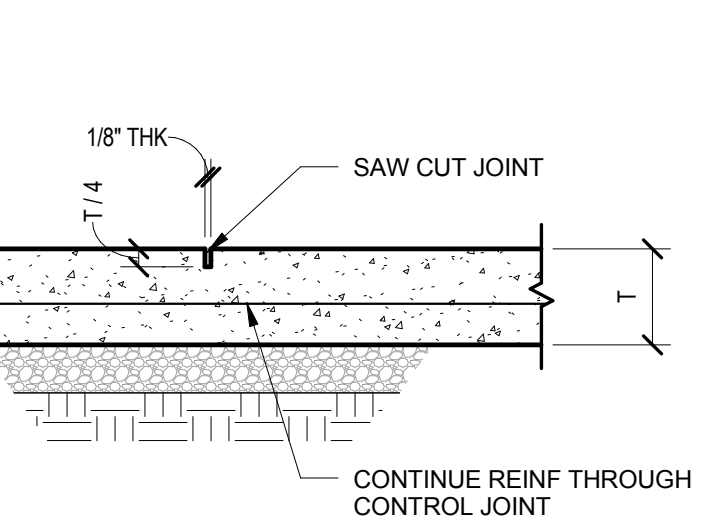
13 TYPICAL HOUSEKEEPING PAD
S1.3 3/4" = 1'-0"



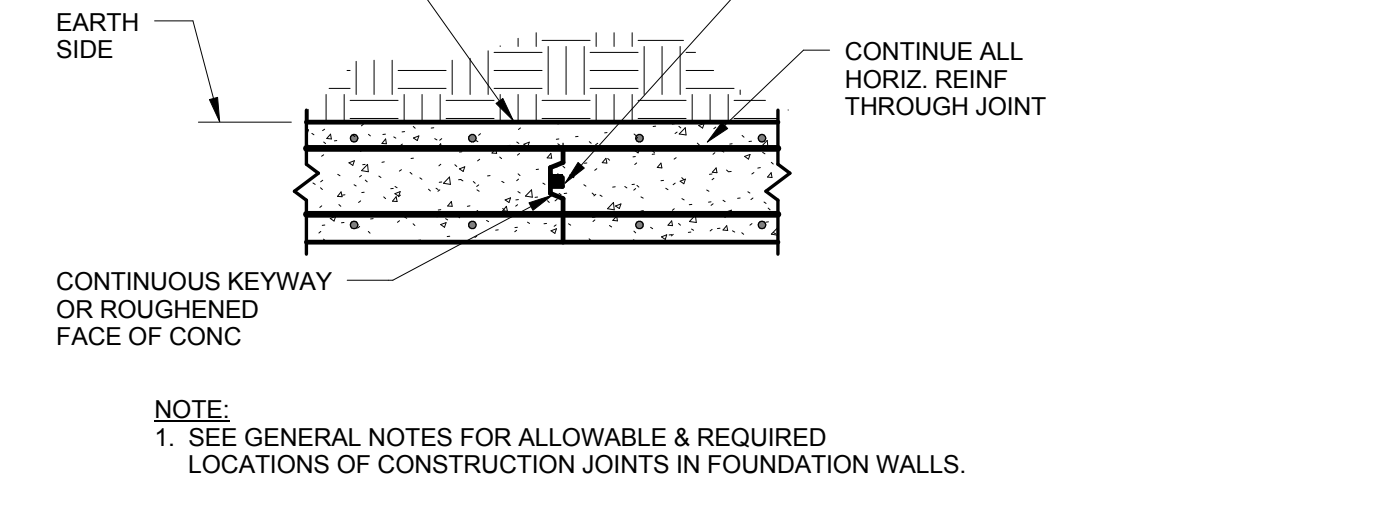
12 TYPICAL DEPRESSION OR STEP IN SLAB ON GRADE DETAIL
S1.3 3/4" = 1'-0"



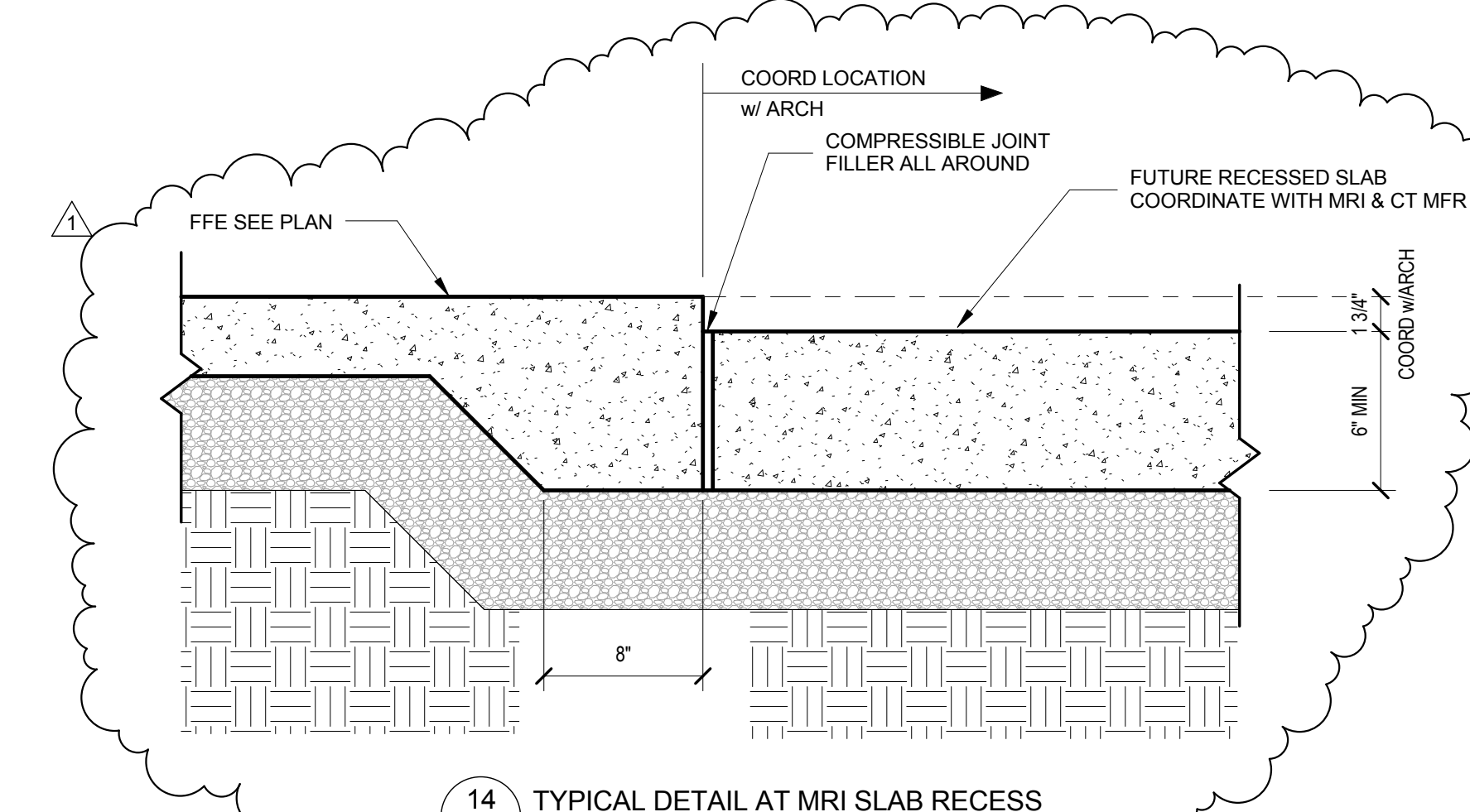
11 TYPICAL SLAB ON GRADE CONSTRUCTION JOINT DETAIL
S1.3 N.T.S.



10 TYPICAL SLAB ON GRADE CONTROL JOINT DETAIL
S1.3 3/4" = 1'-0"



9 TYPICAL FOUNDATION WALL CONSTRUCTION JOINT DETAIL
S1.3 3/4" = 1'-0"



14 TYPICAL DETAIL AT MRI SLAB RECESS
S1.3 1 1/2" = 1'-0"

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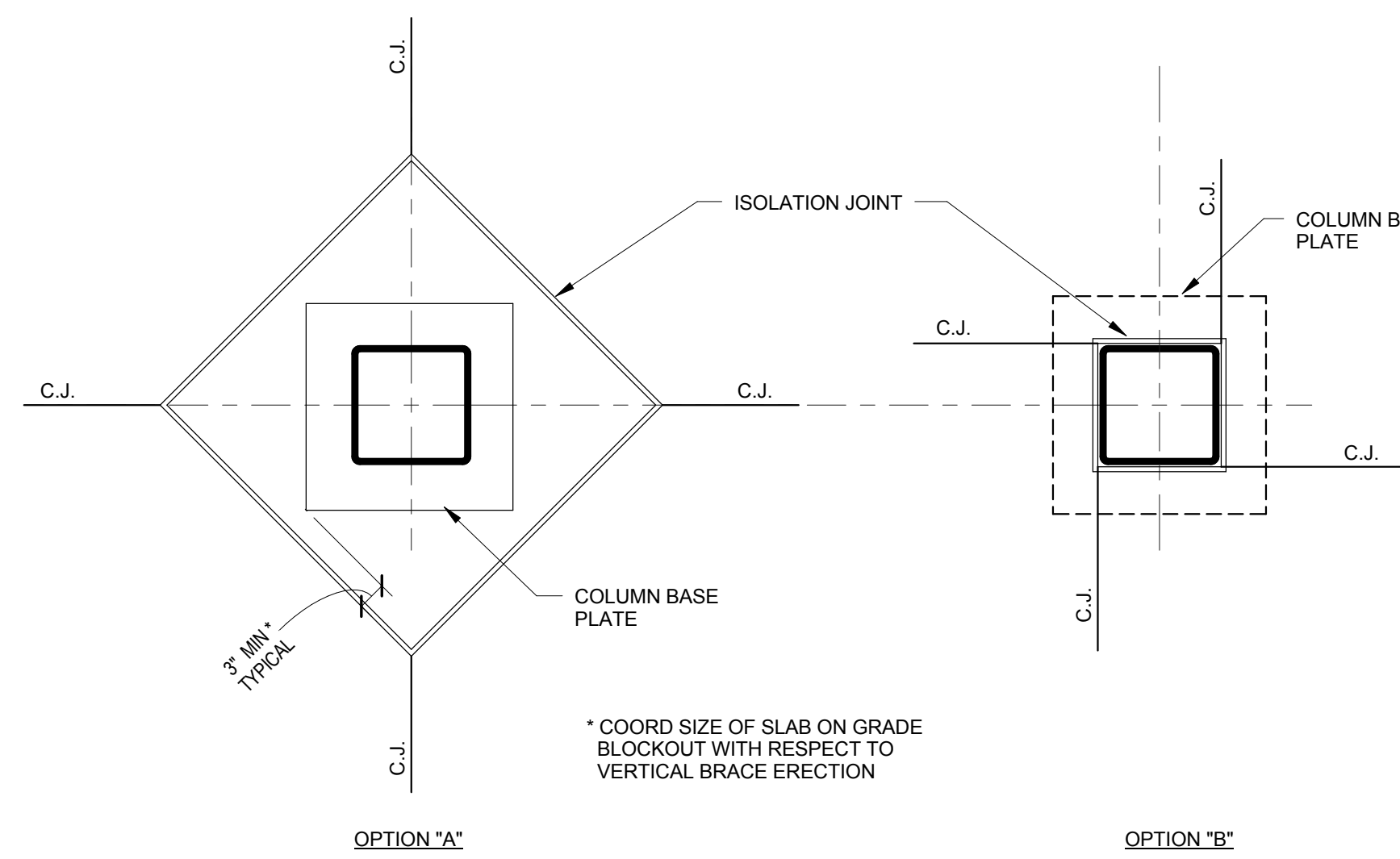
Lee's Summit Surgical
2861 NE Independence Avenue
Lee's Summit, Missouri 64064

Date	03.19.2018
Job Number	1700341
Drawn By	TEP
Checked By	JPM

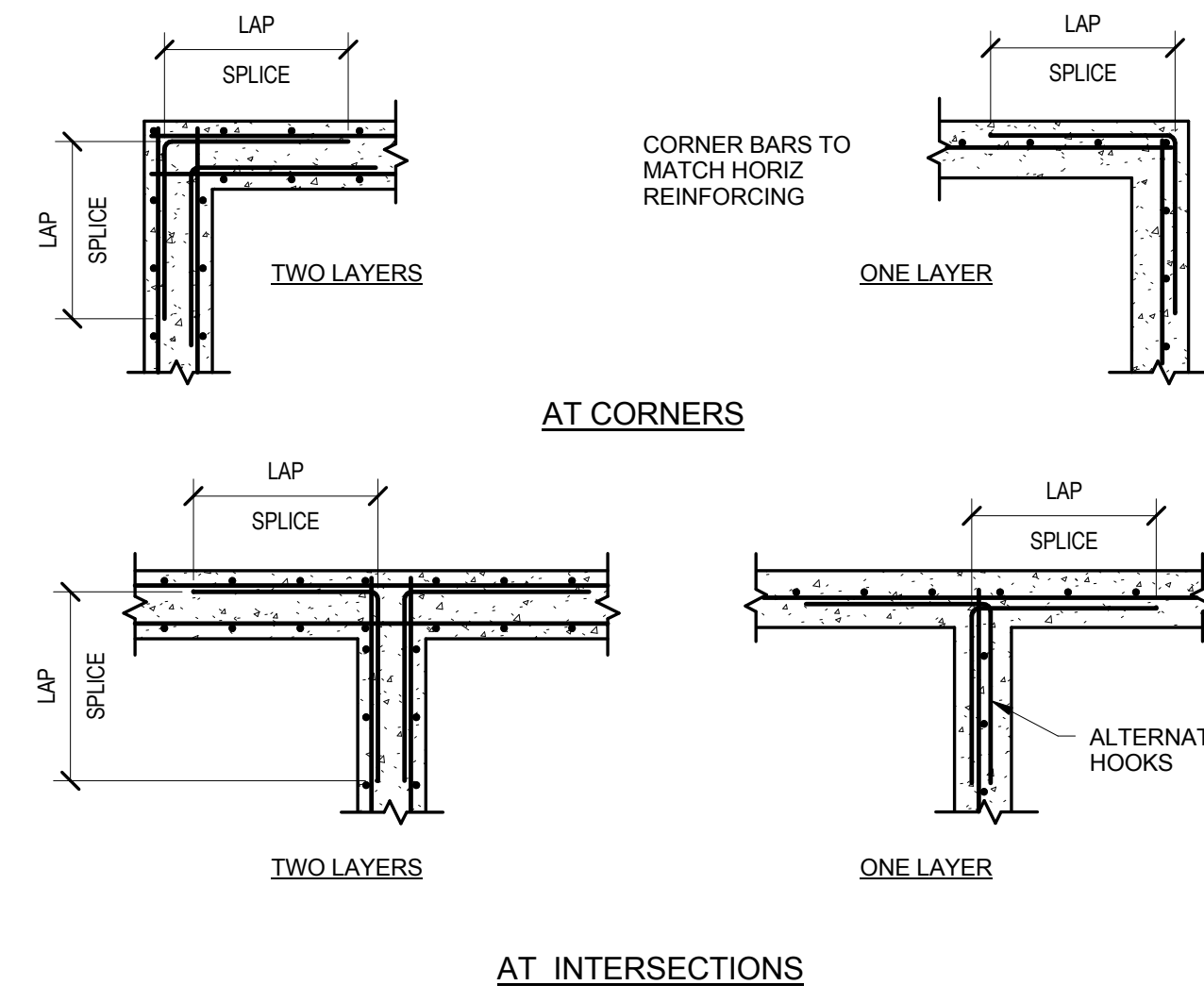
Revision	Date	Description
1	03/30/18	REVISION 1

S1.3

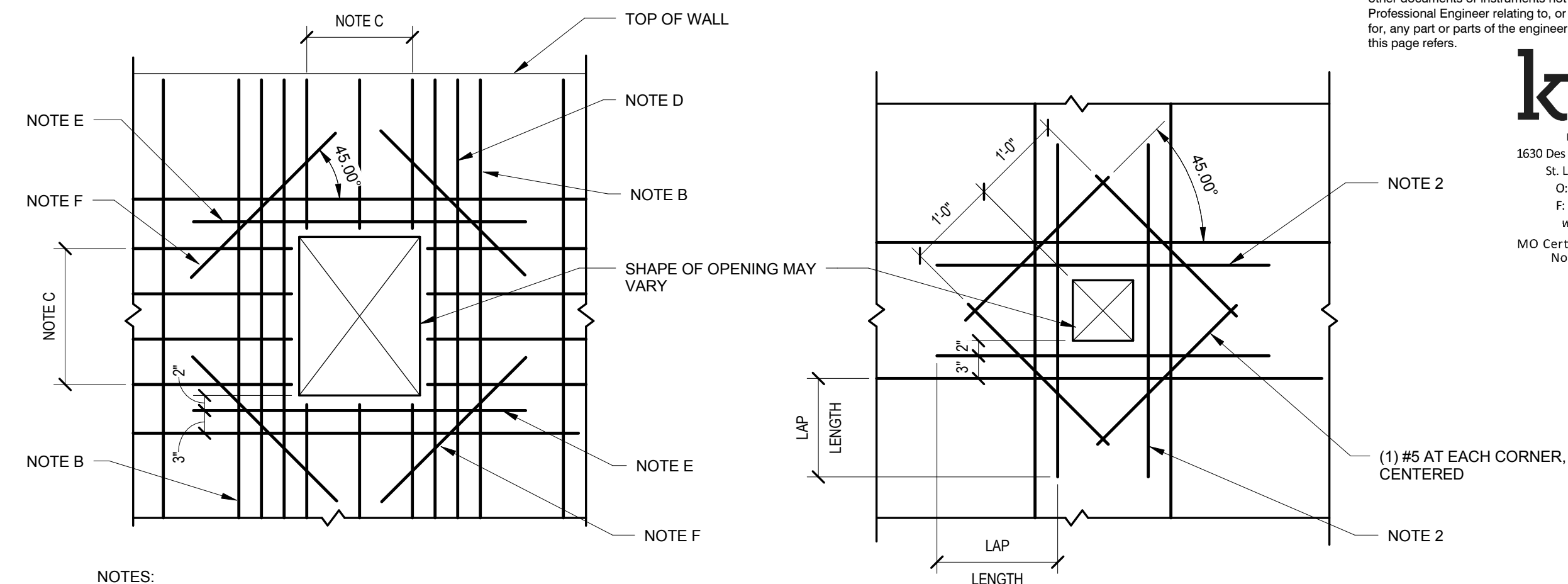
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TYPICAL DETAILS



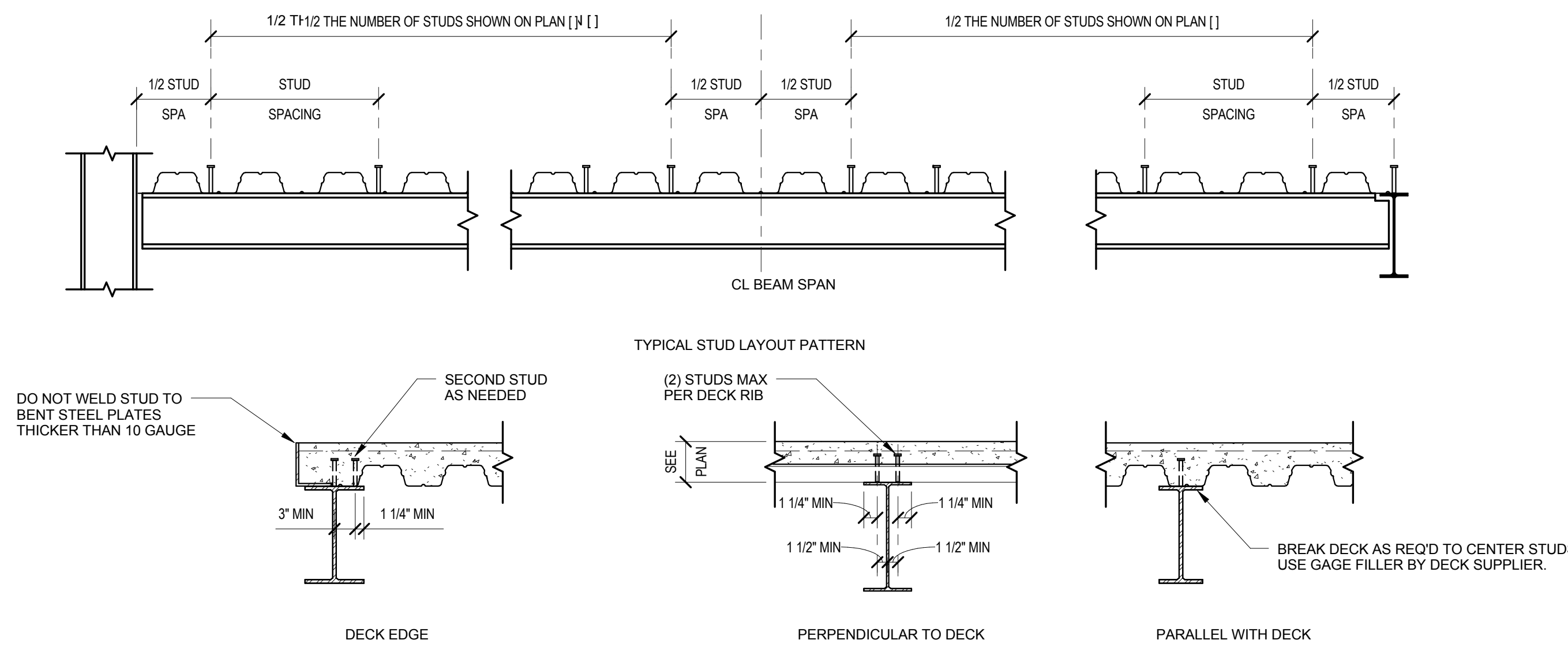
3 TYPICAL CONTROL JOINT PLAN AT STEEL COLUMN DETAIL
S14 N.T.S.



2 TYPICAL CONCRETE WALL / GRADE BEAM REINFORCING DETAILS AT INTERSECTIONS AND CORNERS
S14 N.T.S.



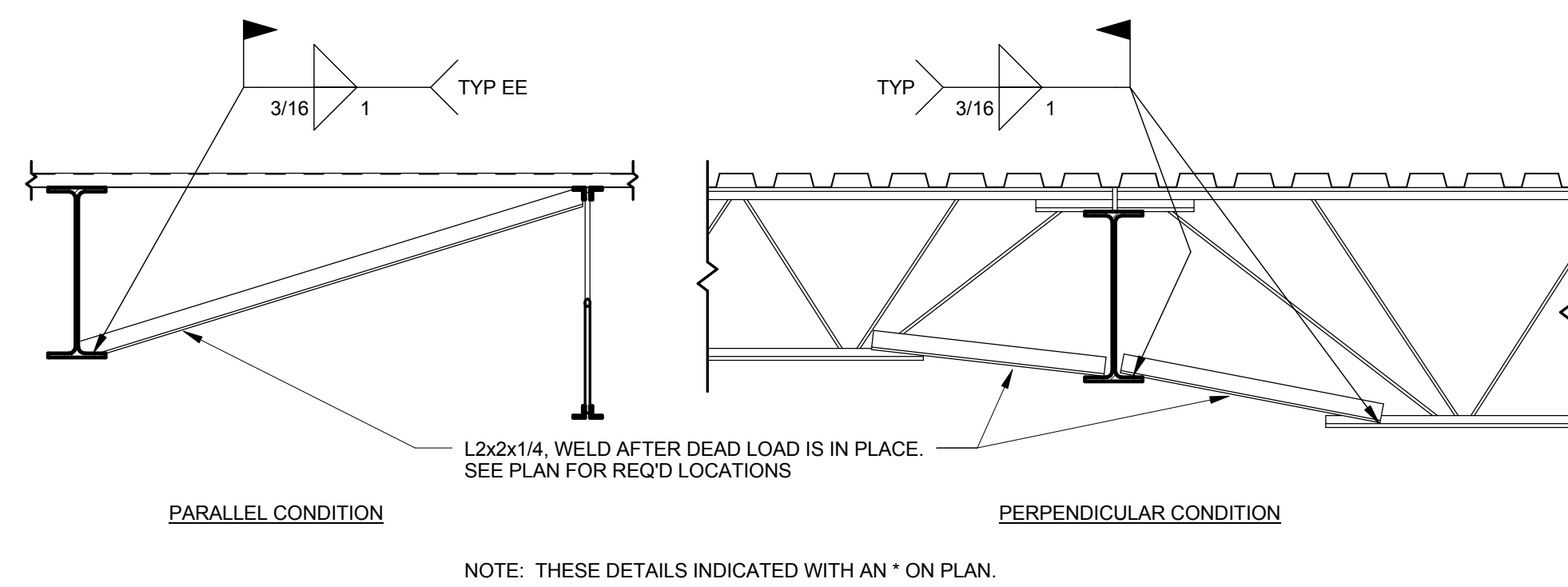
1 TYPICAL ADDITIONAL REINFORCEMENT DETAIL AT OPENINGS IN CONCRETE WALL OR SLAB
S14 N.T.S.



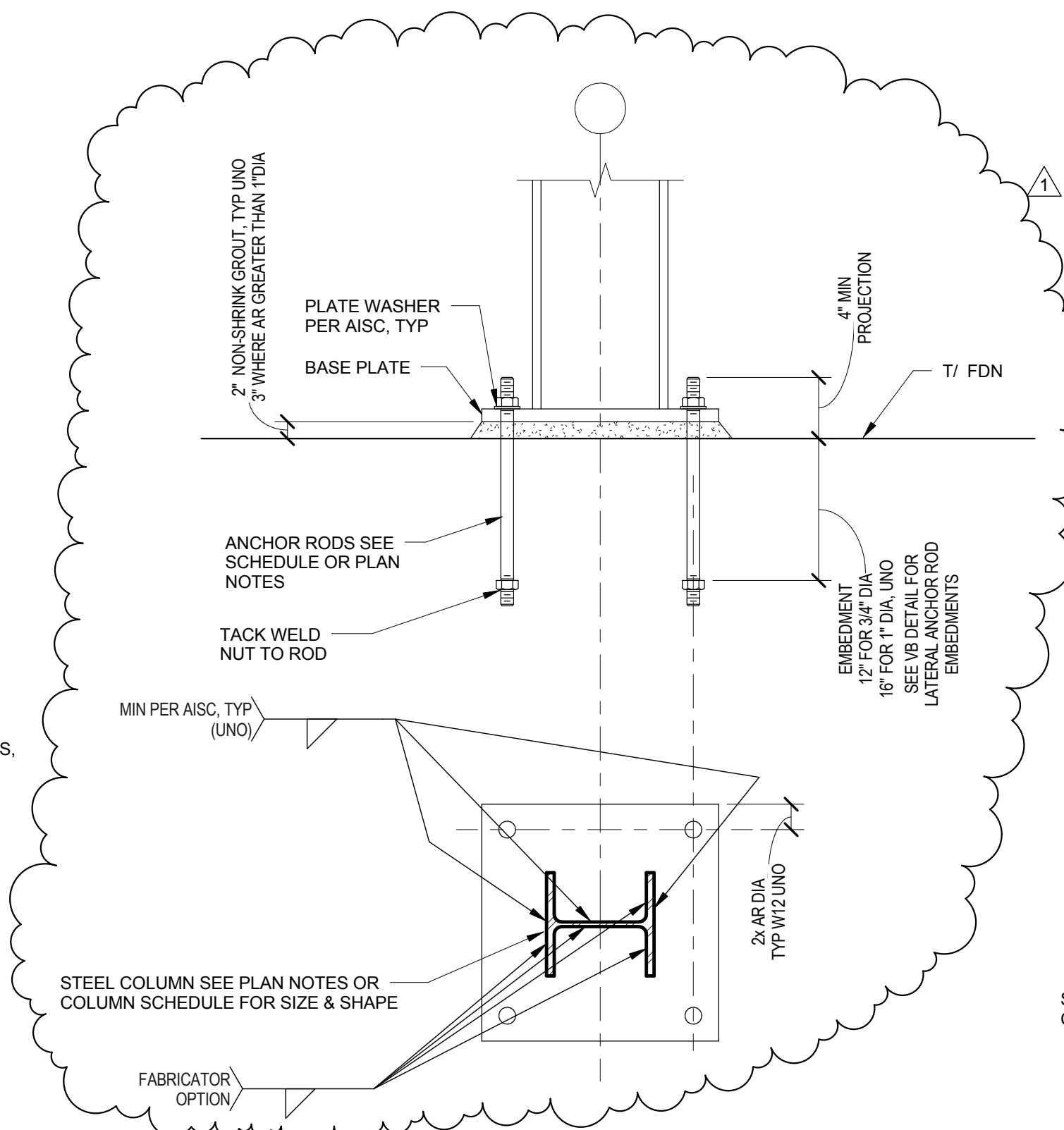
NOTE: MINIMUM DIMENSIONS APPLY TO BOTH PERPENDICULAR AND PARALLEL CONDITIONS.

NOTES:
1. NUMBER IN BRACKETS AFTER BEAM DESIGNATION [X] INDICATES THE NUMBER OF END WELDED STUDS EQUALLY SPACED ON TOP FLANGE OF BEAM. COMPOSITE BEAM IS DESIGNED UNSHORED, UNLESS NOTED OTHERWISE IN PLAN.
2. WELD DECK AT EACH SUPPORT WITH (3) 5/8" PUDDLE WELDS PER SHEET. STUD WELDING THROUGH DECKING CAN BE CONSIDERED AS ONE PUDDLE WELD. DO NOT PRIME TOP FLANGE OF STEEL BEAMS. SIDE LAPS TO BE CRIMPED OR SCREWED AT 30" OC MAX.
3. PLACE STUDS IN DECK VALLEYS. USE TWO ROWS OF STUDS IF REQUIRED.
4. MINIMUM SPACING FOR STUDS IS 4 1/2" OC. MAXIMUM SPACING IS 3'-0" OC. PROVIDE 2 ROWS OF STUDS IF MINIMUM SPACING CANNOT BE MET.
5. FOR W10x12, W12x14, AND W12x16 BEAMS, STUDS SHALL BE WELDED DIRECTLY OVER THE BEAM WEB.

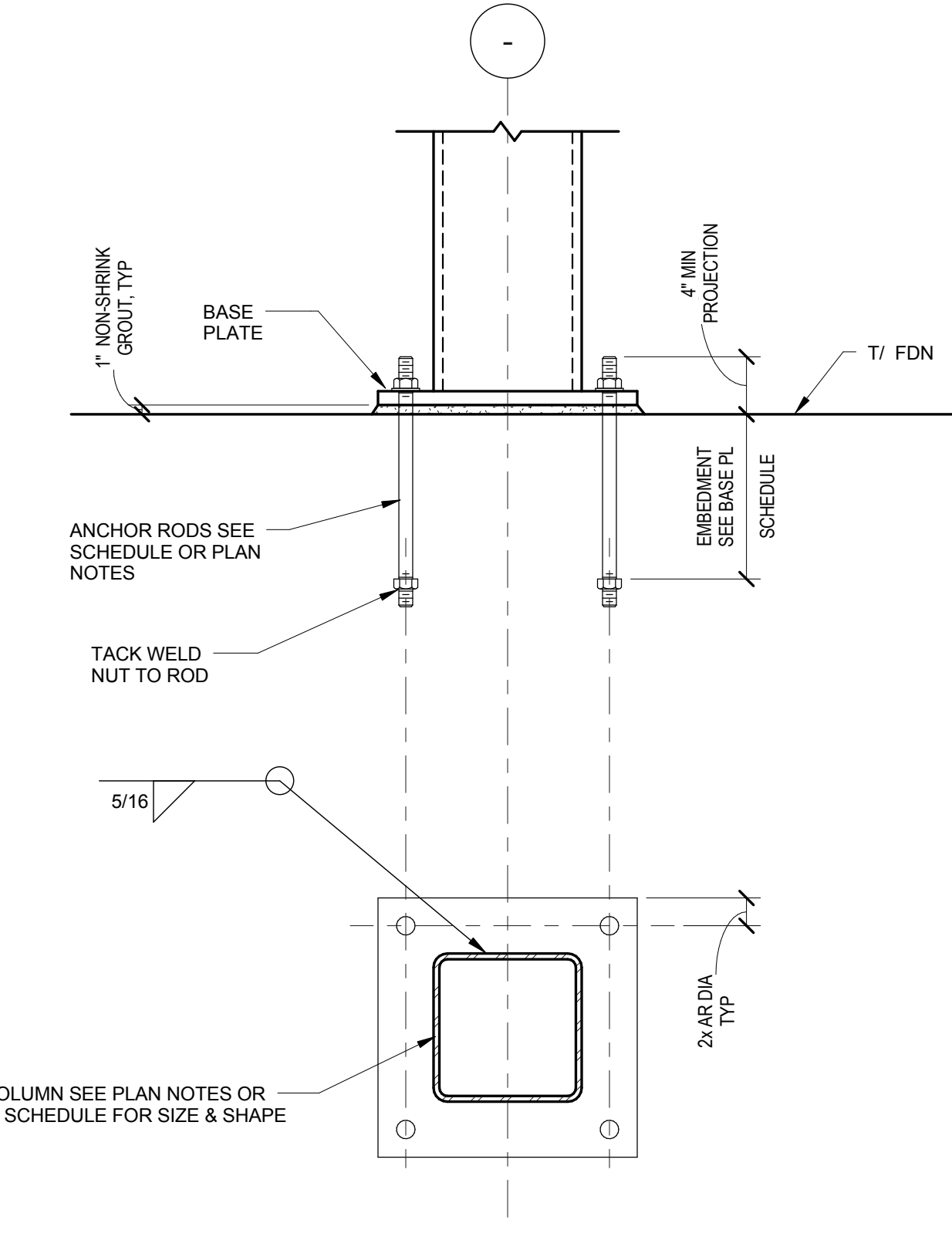
6 TYPICAL COMPOSITE BEAM HEADED STUD DETAILS
S14 N.T.S.



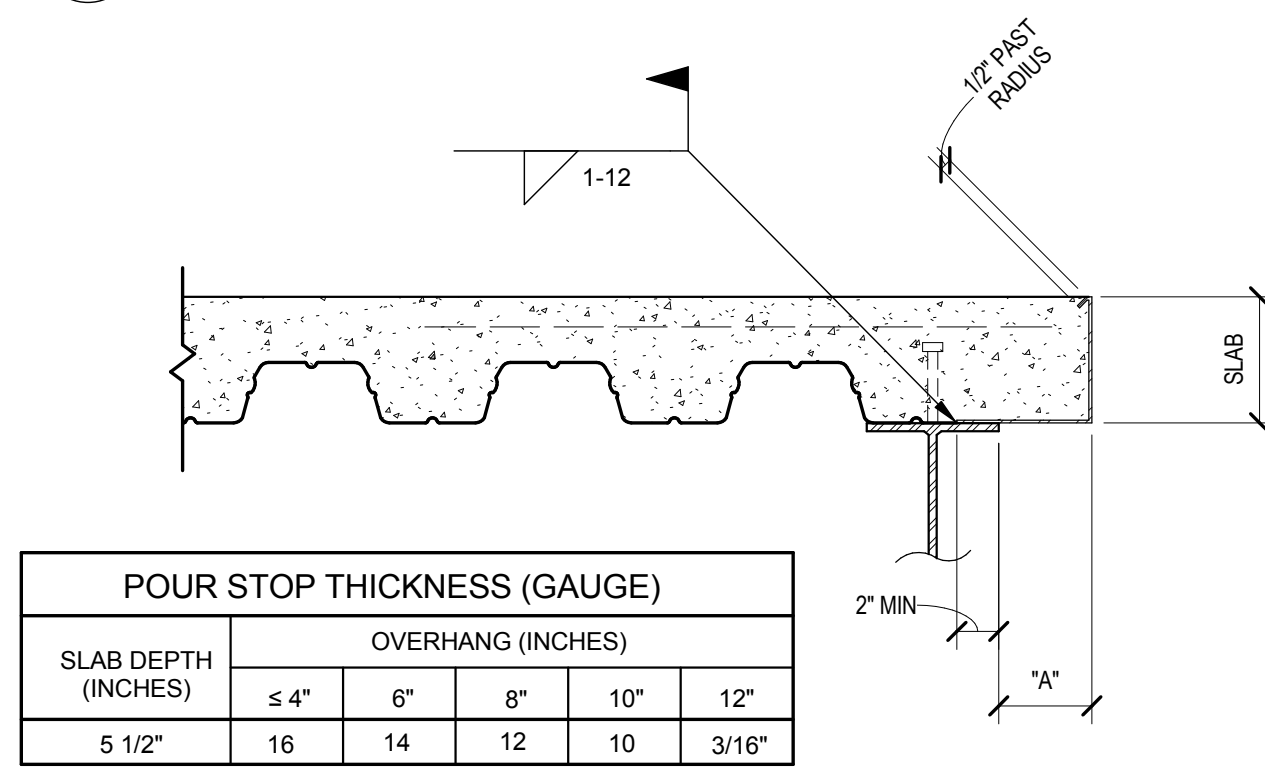
9 TYPICAL BEAM BOTTOM FLANGE BRACE ANGLE DETAIL
S14 N.T.S.



5 TYPICAL WIDE FLANGE COLUMN BASE PLATE AND ANCHOR ROD DETAIL
S14 N.T.S.

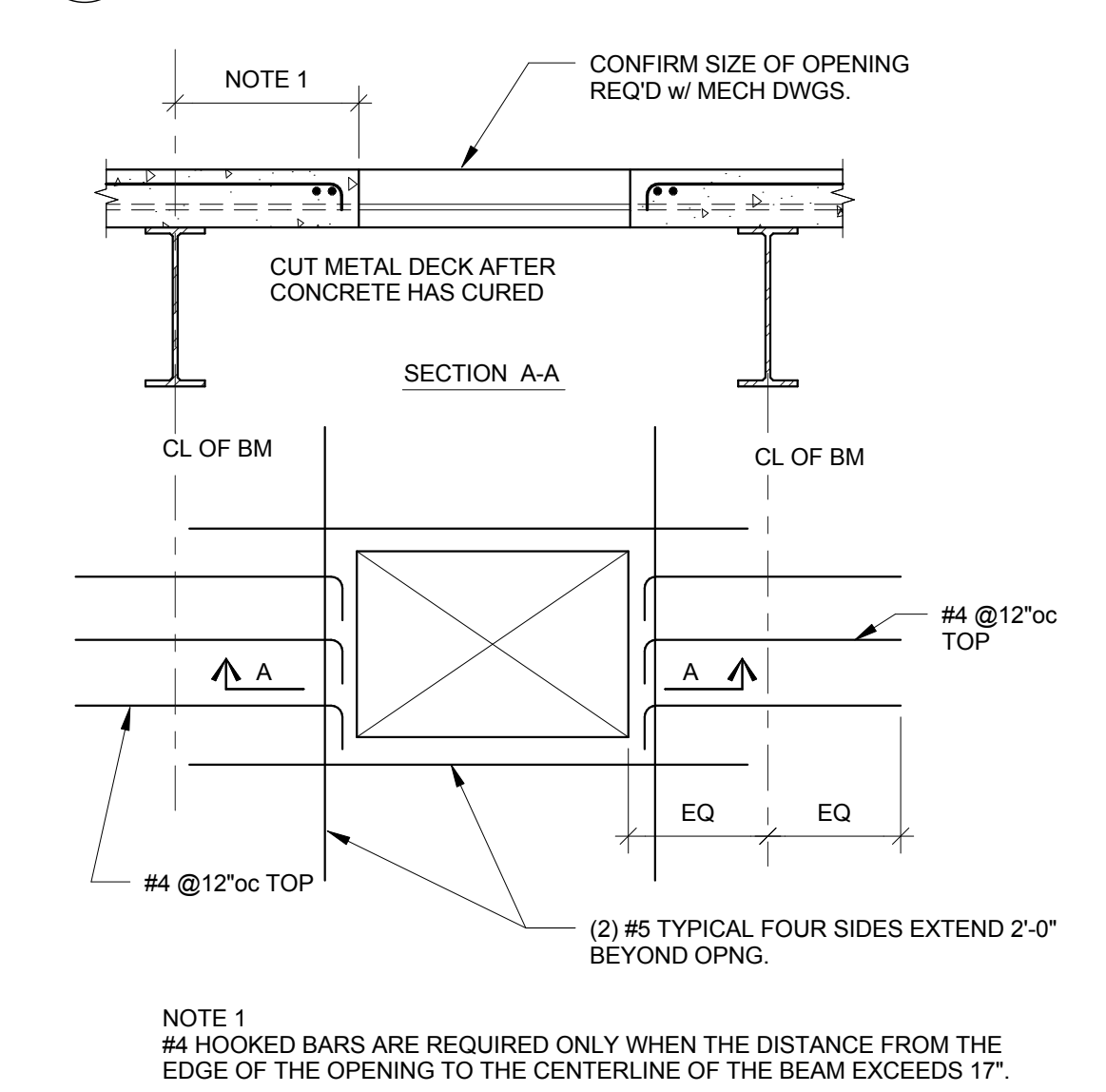


4 TYPICAL HSS COLUMN BASE PLATE AND ANCHOR ROD DETAIL
S14 N.T.S.



NOTES:
1. FOR DETERMINING POUR STOP THICKNESS ROUND ALL DIMENSIONS UP (OVERHANG "A").
2. FOR POUR STOPS LONGER THAN 12" OR FOR OVERHANGS NOT ON THE CHART CONTACT THE STRUCTURAL ENGINEER.
3. FOR NORMAL OR LIGHT WEIGHT CONCRETE SLABS, MAXIMUM 150 PPF PLASTIC WEIGHT.
4. COMPOSITE STUDS MAY BE OVER LIGHT GAUGE POUR STOP, PROVIDED STUD IS FUSED TO BEAM.
5. SEE DETAILS FOR POUR STOPS NOT DETAILED HERE.
6. DO NOT USE LIGHT GAUGE POUR STOPS WHERE SLAB EDGE SUPPORTS STRUCTURE.

8 TYPICAL POUR STOP DETAIL
S14 N.T.S.



7 TYPICAL OPENING IN COMPOSITE SLAB DETAIL
S14 3/4" = 1'-0"

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Lee's Summit Surgical
2861 NE Independence Avenue
Lee's Summit, Missouri 64064

Date 03.19.2018
Job Number 1700341
Drawn By TEP
Checked By JPM

Revision		
Number	Date	Description
1	03/30/18	REVISION 1

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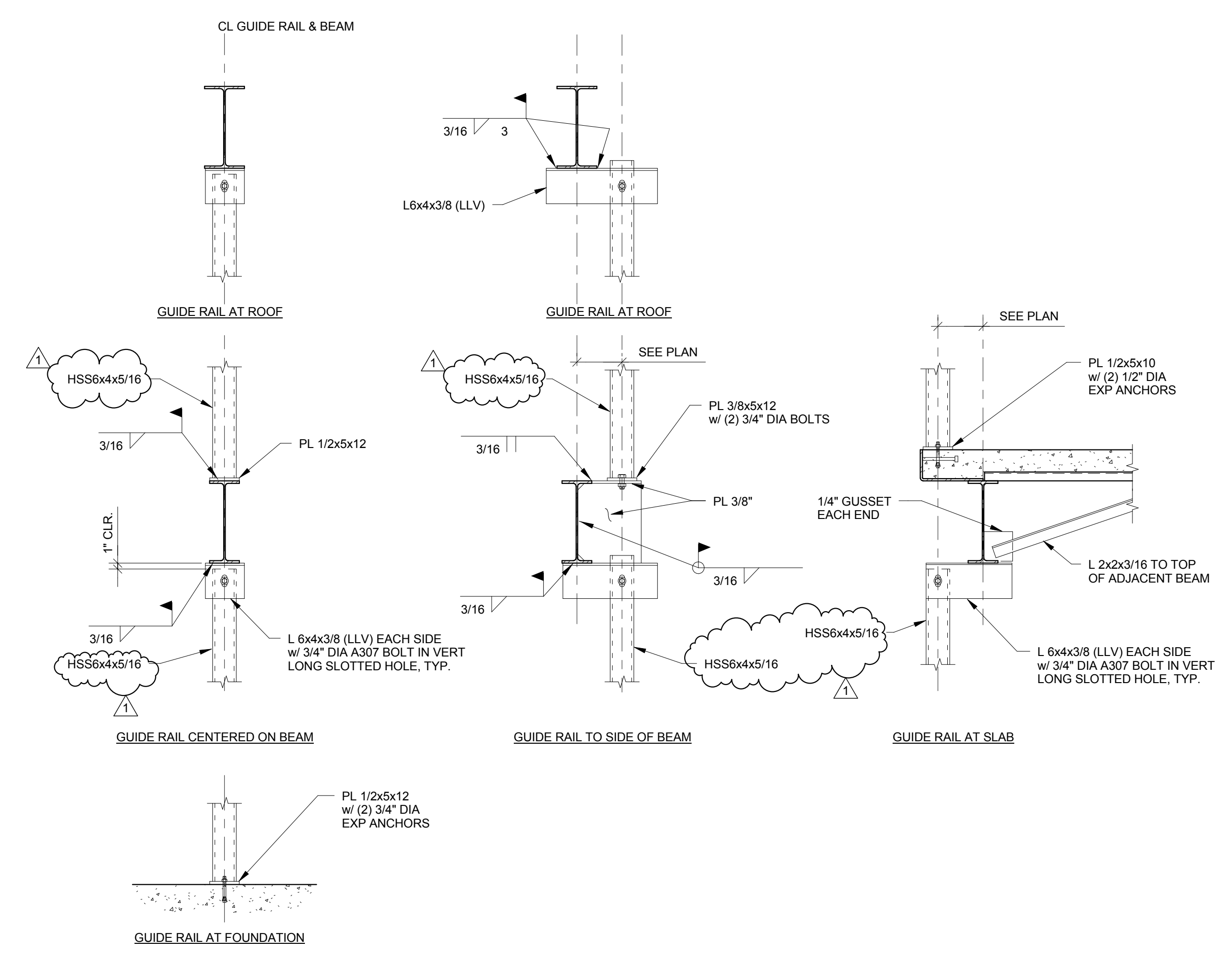
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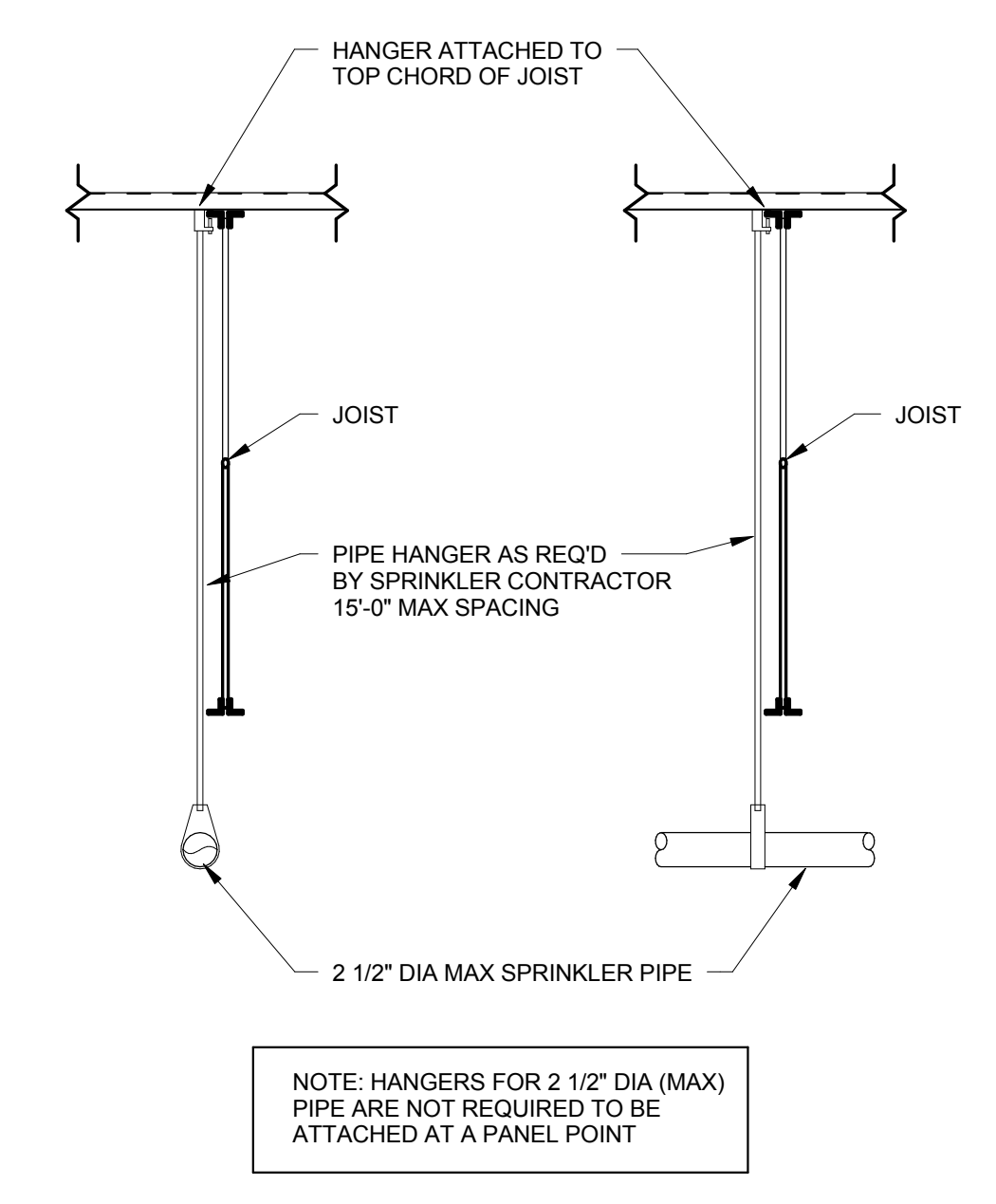
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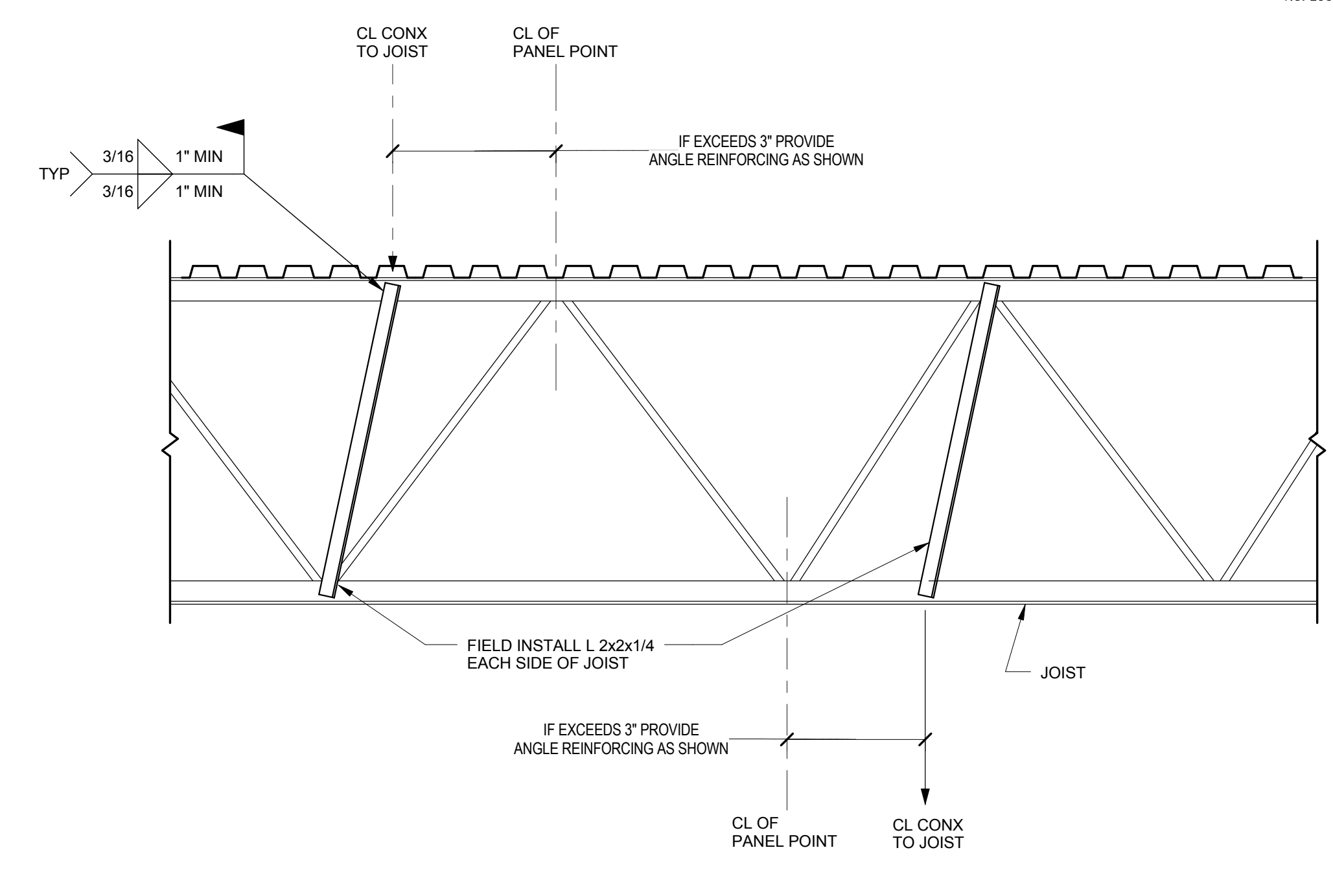
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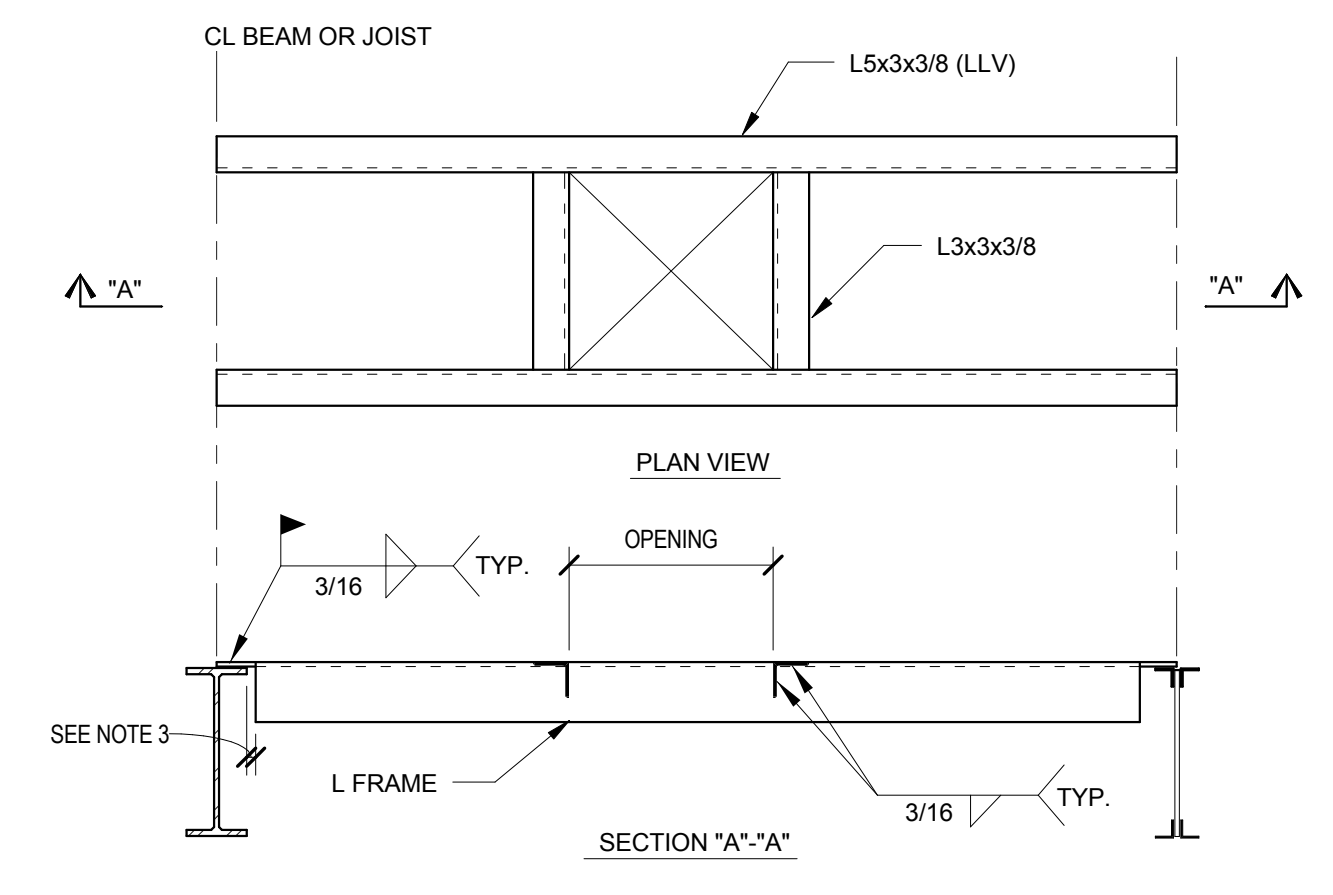
3 TYPICAL ELEVATOR GUIDE RAIL SUPPORT DETAIL
 S1.5 N.T.S.



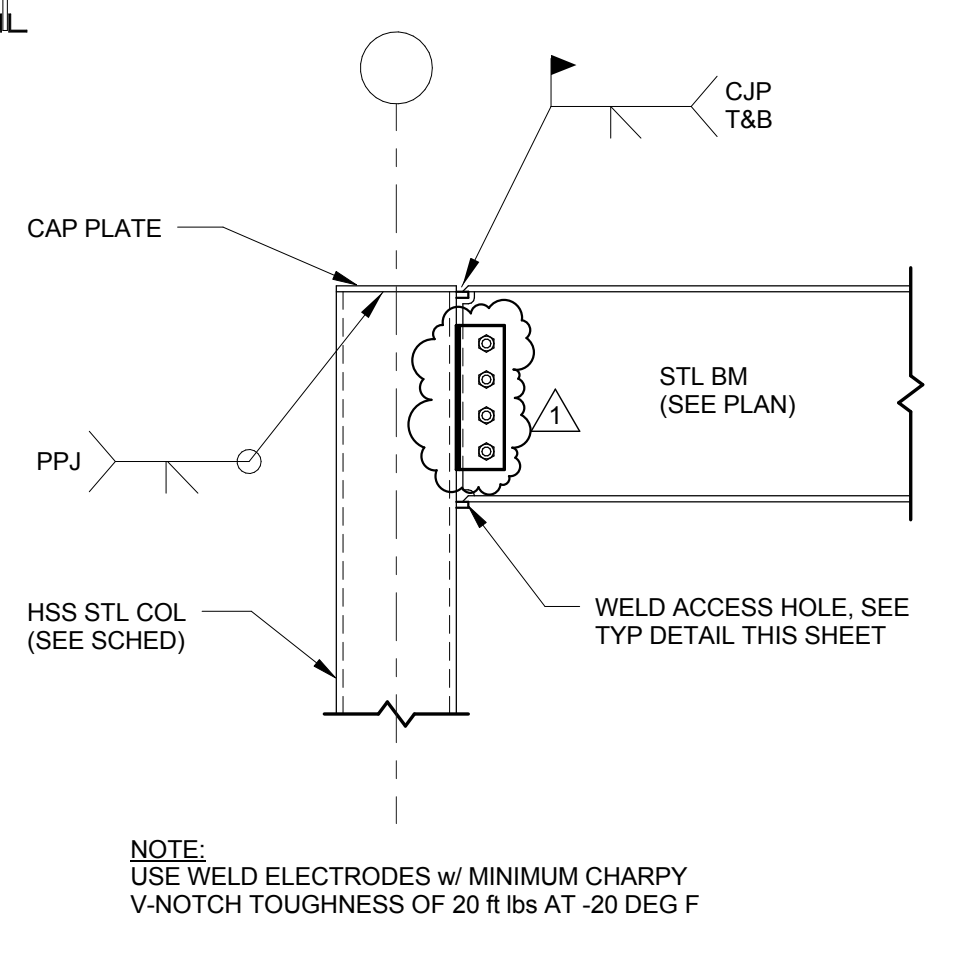
2 TYPICAL HANGER DETAIL FOR 2 1/2\"/>



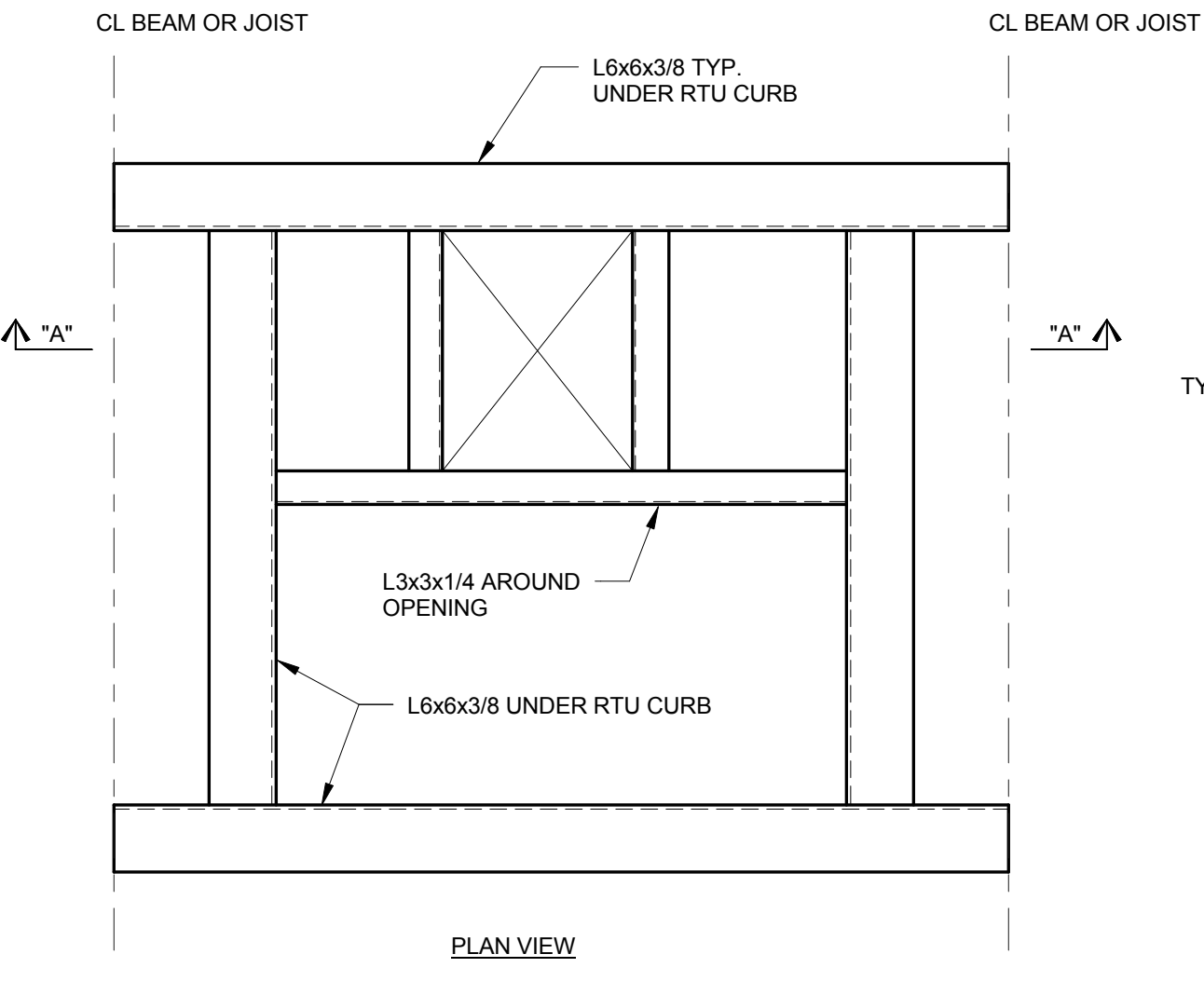
1 TYPICAL JOIST REINFORCING AT CONCENTRATED LOADS
 S1.5 3/4\"/>



5 TYPICAL ROOF OPENING DETAIL
 S1.5 N.T.S.

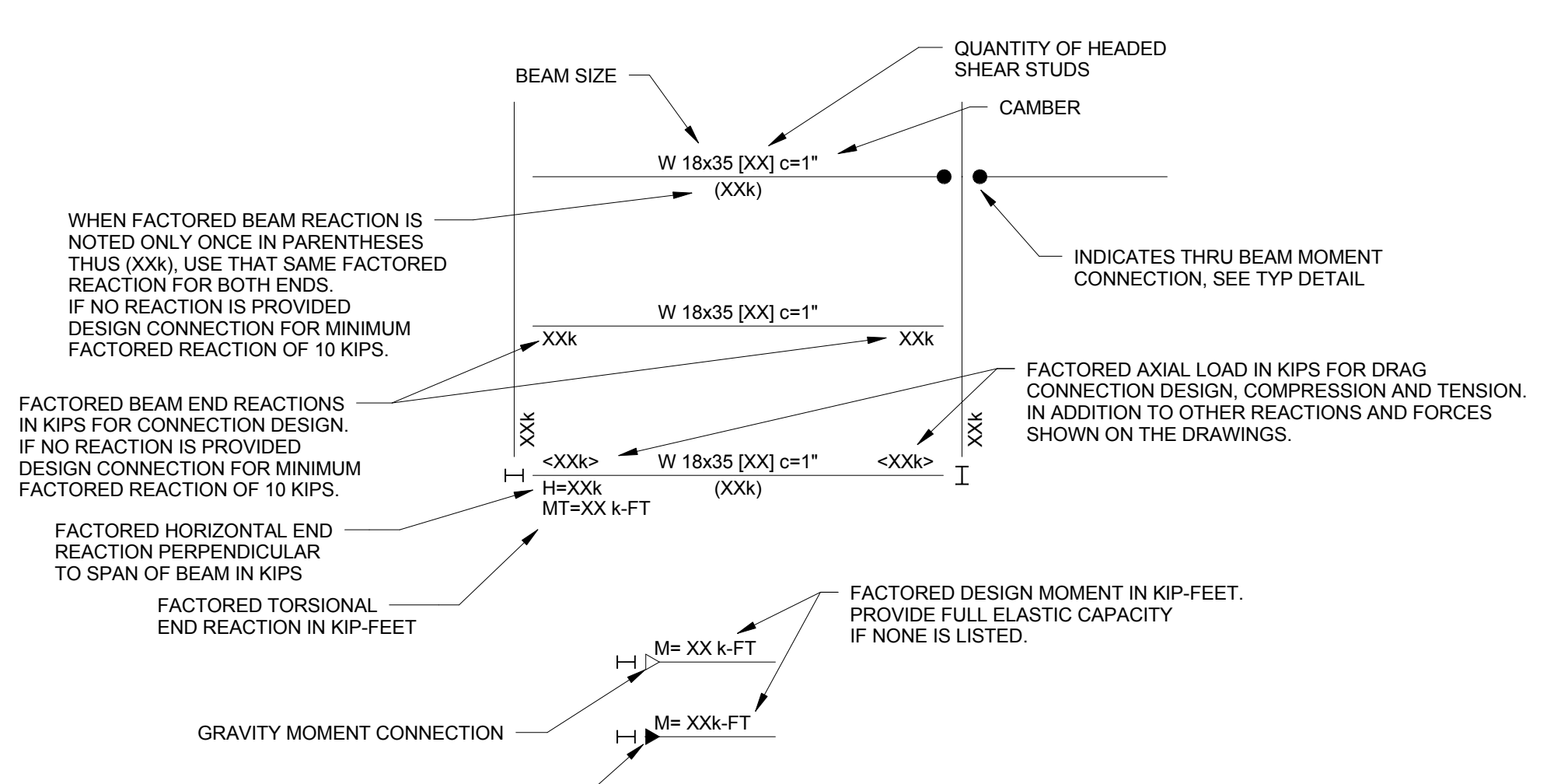


10 TYPICAL MOMENT CONNECTION AT HSS COLUMN DETAIL
 S1.5 3/4\"/>

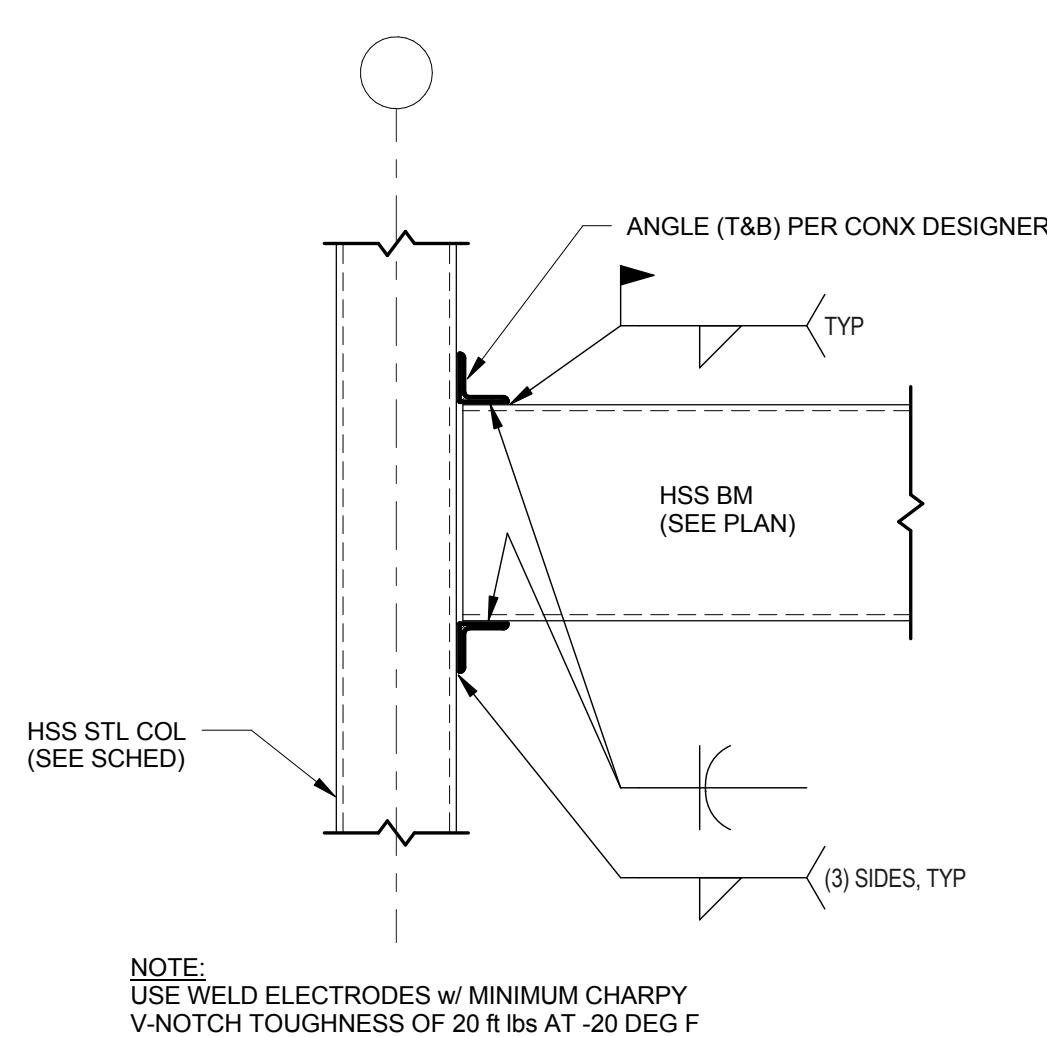


4 TYPICAL ROOF TOP UNIT CURB SUPPORT DETAIL
 S1.5 3/4\"/>

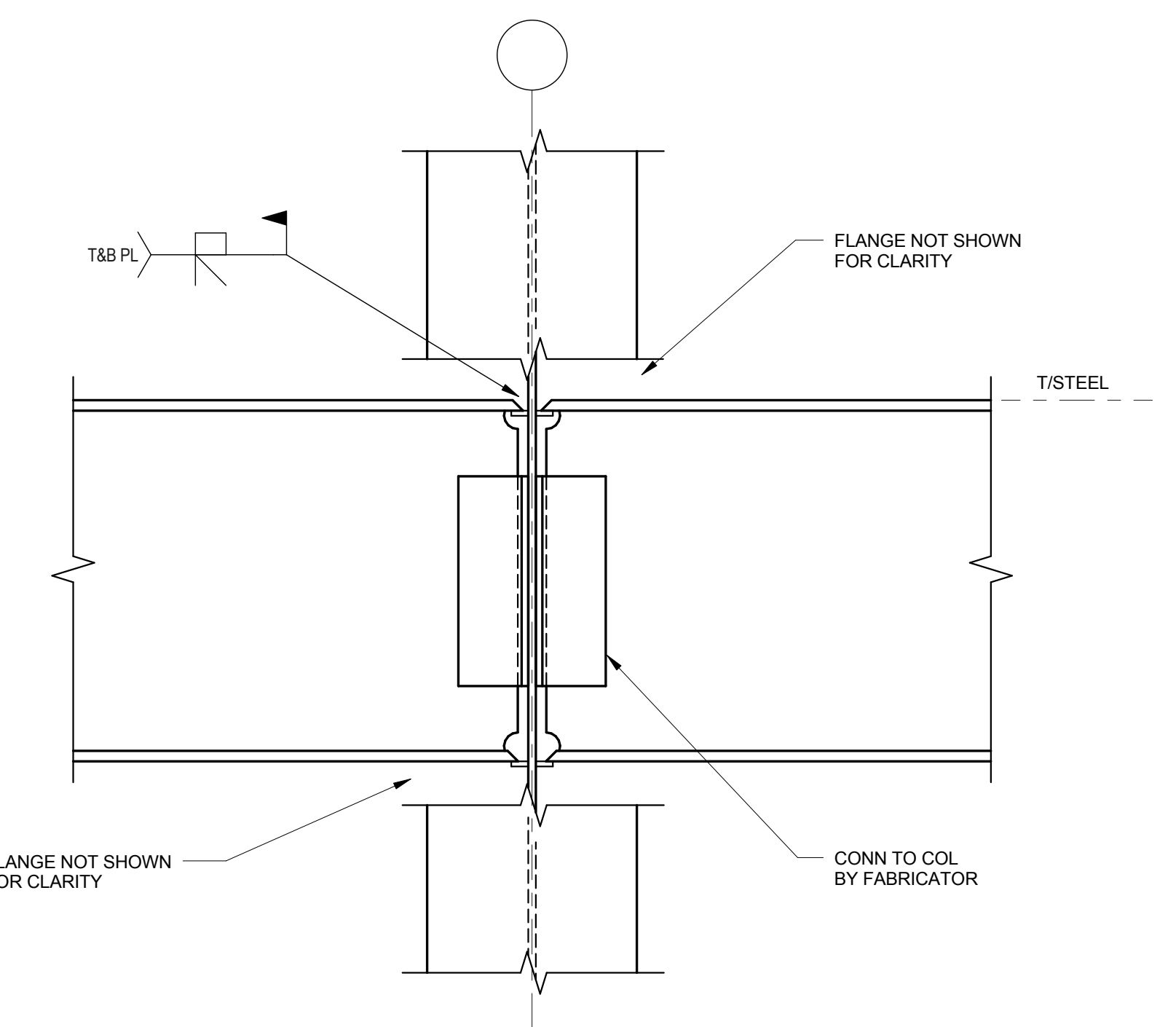
6/S1.5 - NOT USED



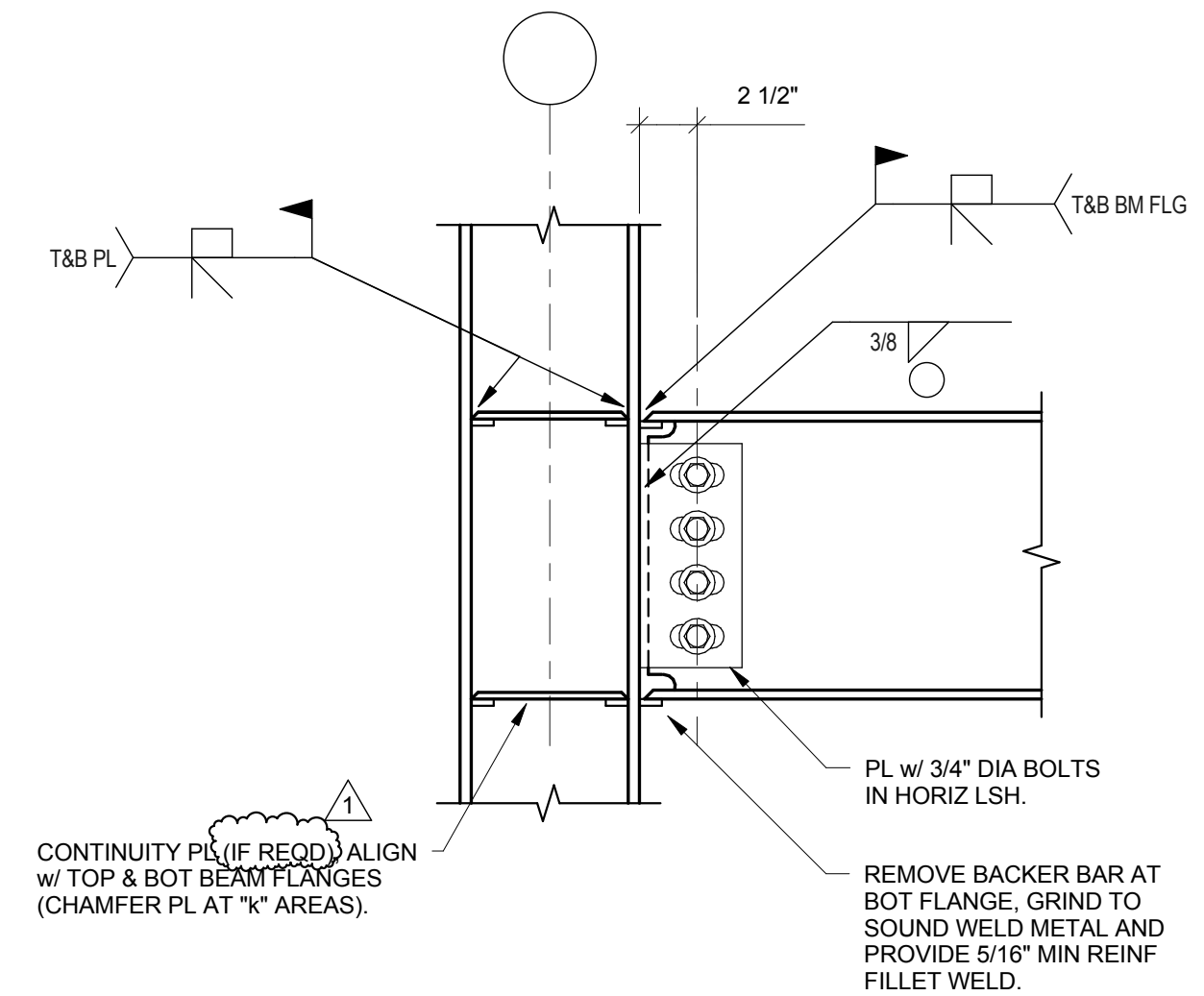
11 STEEL BEAM LEGEND
 S1.5 N.T.S.



9 TYPICAL HSS TO HSS MOMENT CONNECTION DETAIL
 S1.5 3/4\"/>



8 TYPICAL MOMENT CONNECTION INTO WEAK AXIS OF WF COLUMN
 S1.5 N.T.S.



7 TYPICAL MOMENT CONNECTION AT WIDE FLANGE COLUMN DETAIL
 S1.5 N.T.S.

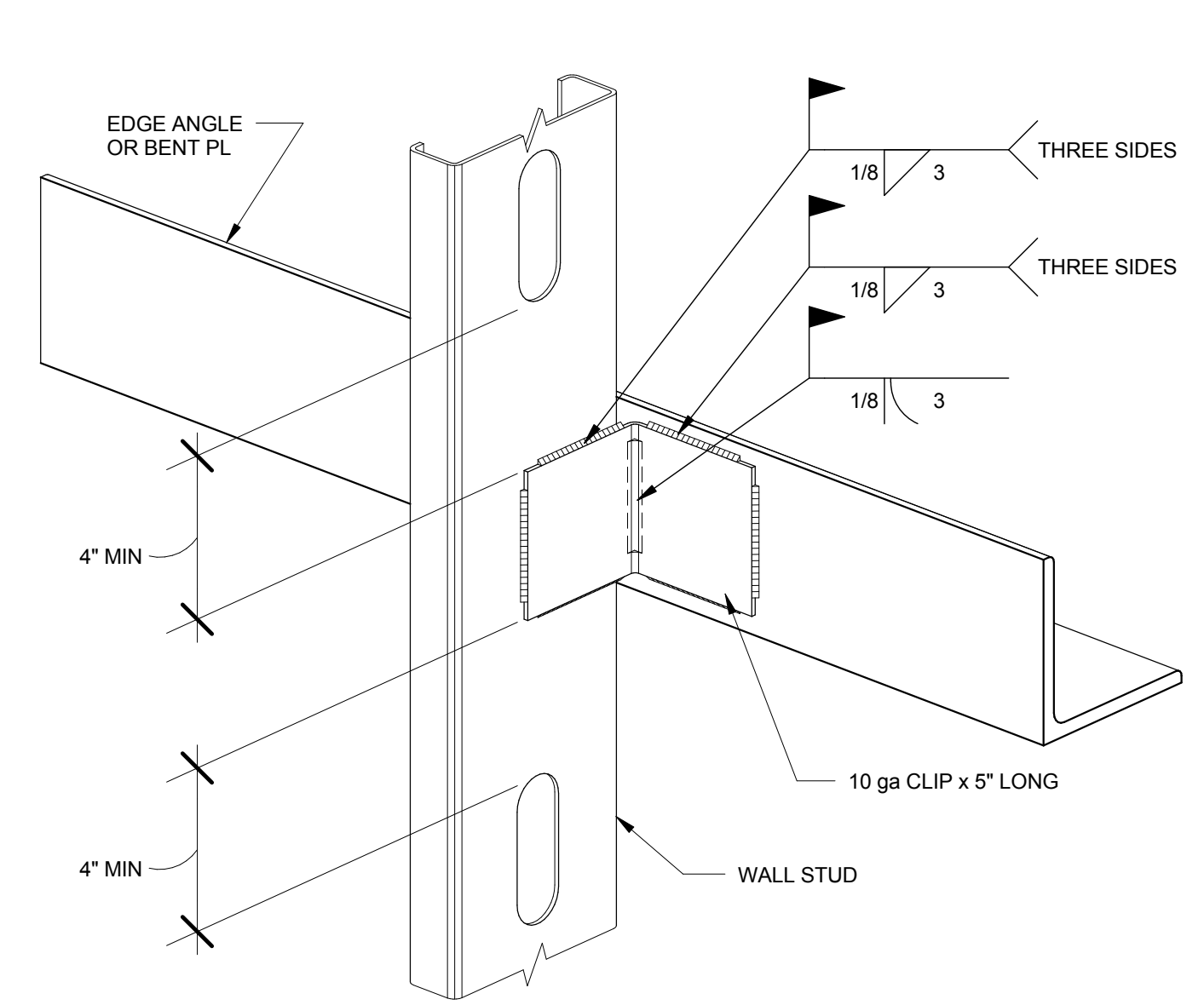
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Job Number	1700341
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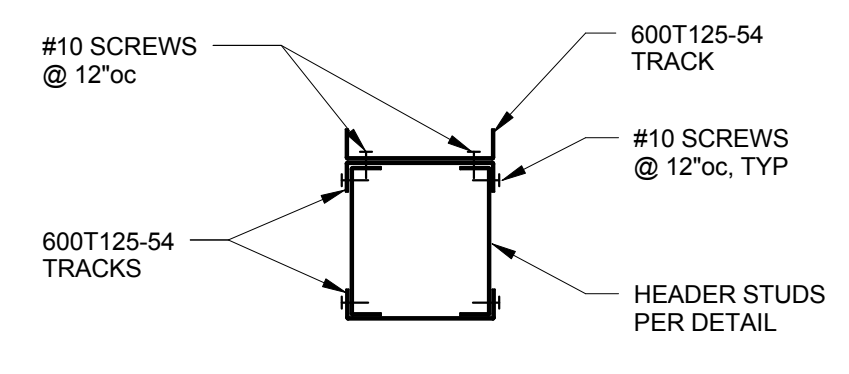
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 Number Date Description
 03/19/18 STRUCTURAL STEEL PACKAGE
 1 03/30/18 REVISION 1

S1.5
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 TYPICAL DETAILS

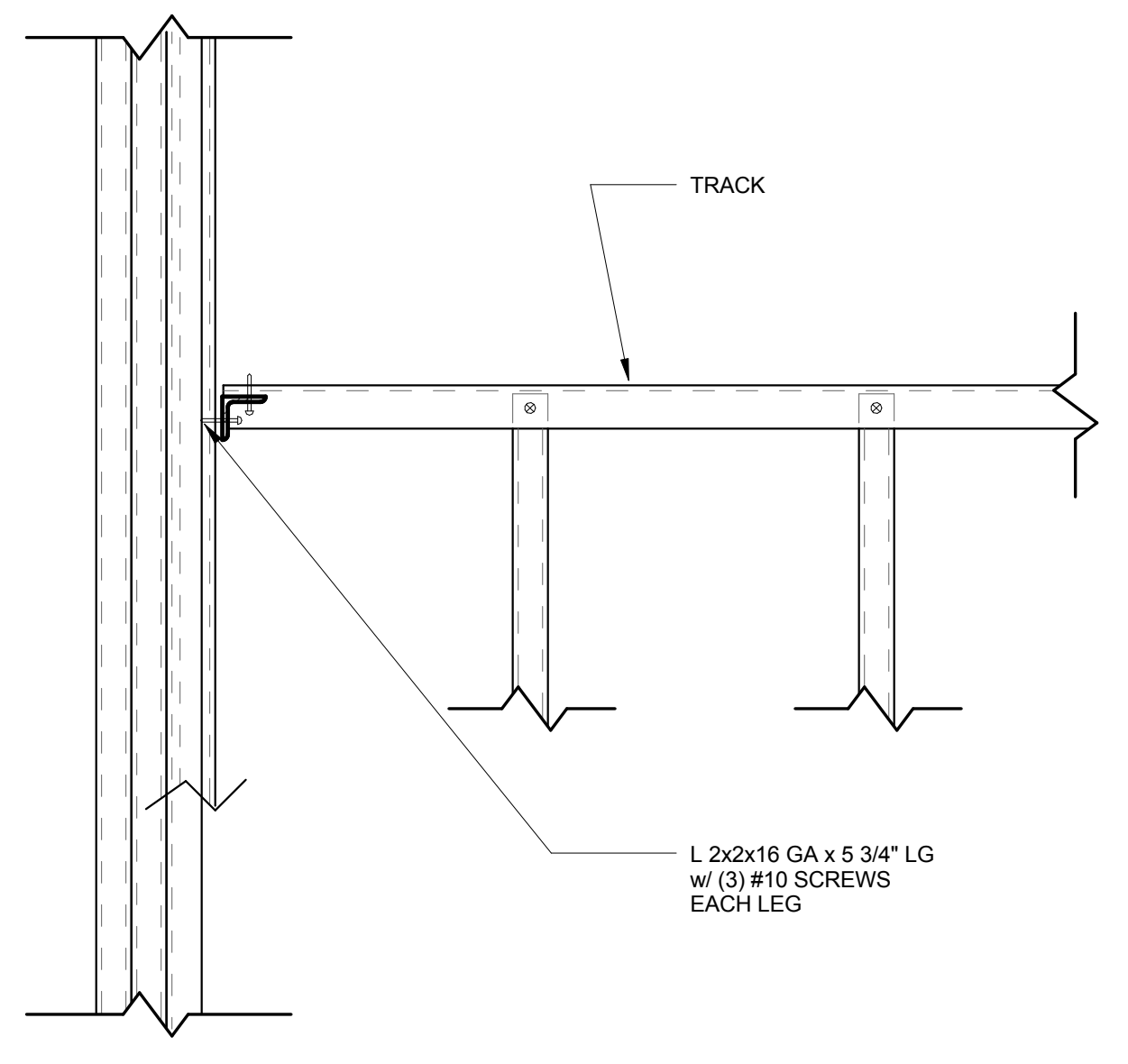


3 TYPICAL LIGHT GAUGE STUD CLIP ATTACHMENT DETAIL
 S1.6 3/4" = 1'-0"

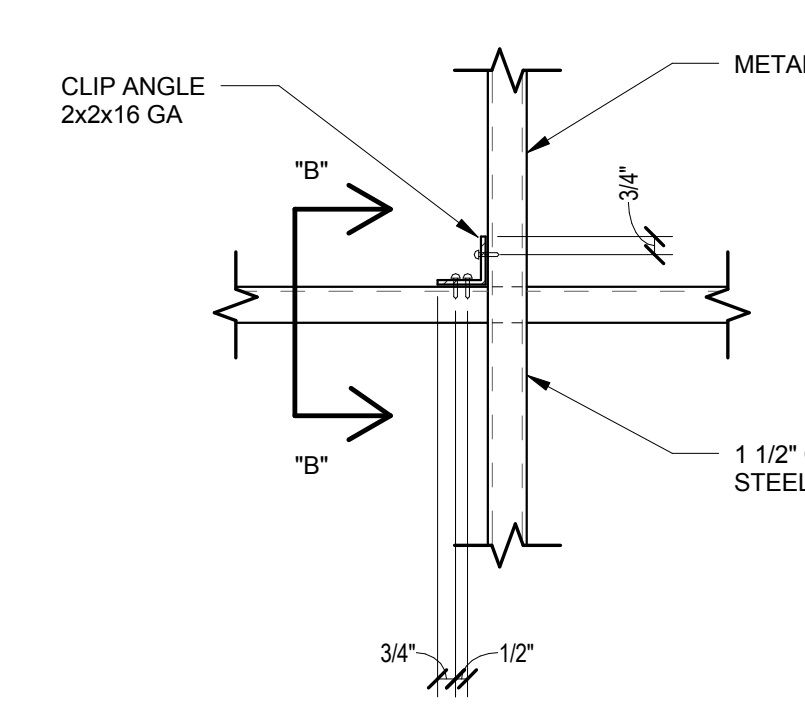
LIGHT GAUGE HEADER SCHEDULE		
MARK	HEADER STUDS (UNPUNCHED)	COMMENTS
LGH-1		
LGH-2		
LGH-3		



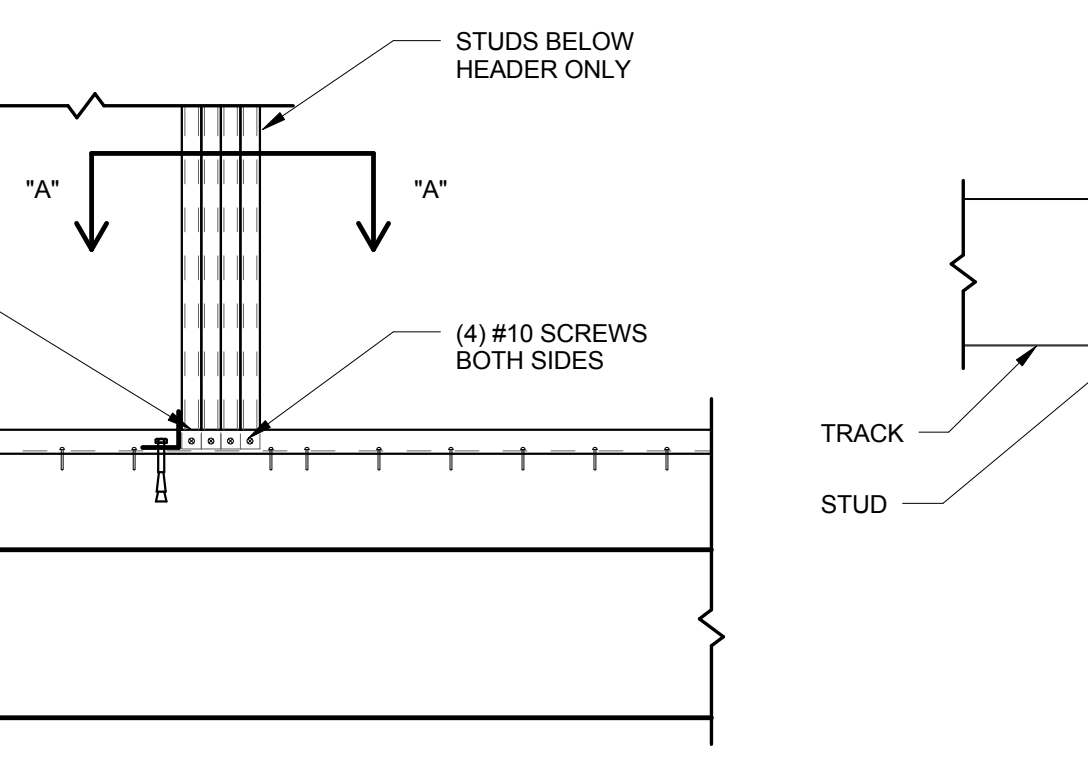
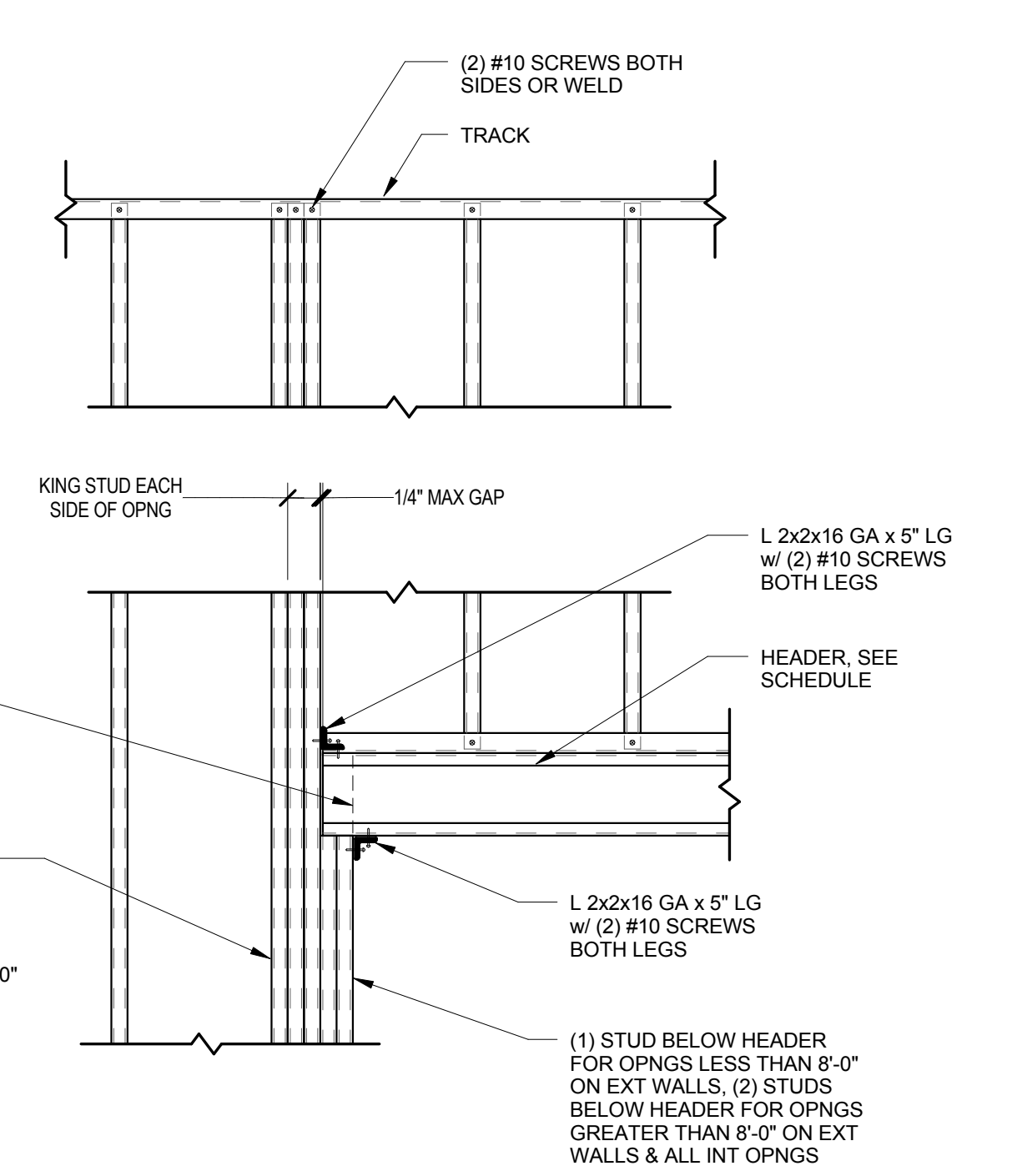
5 TYPICAL LIGHT GAUGE HEADER SCHEDULE
 S1.6 1 1/2" = 1'-0"



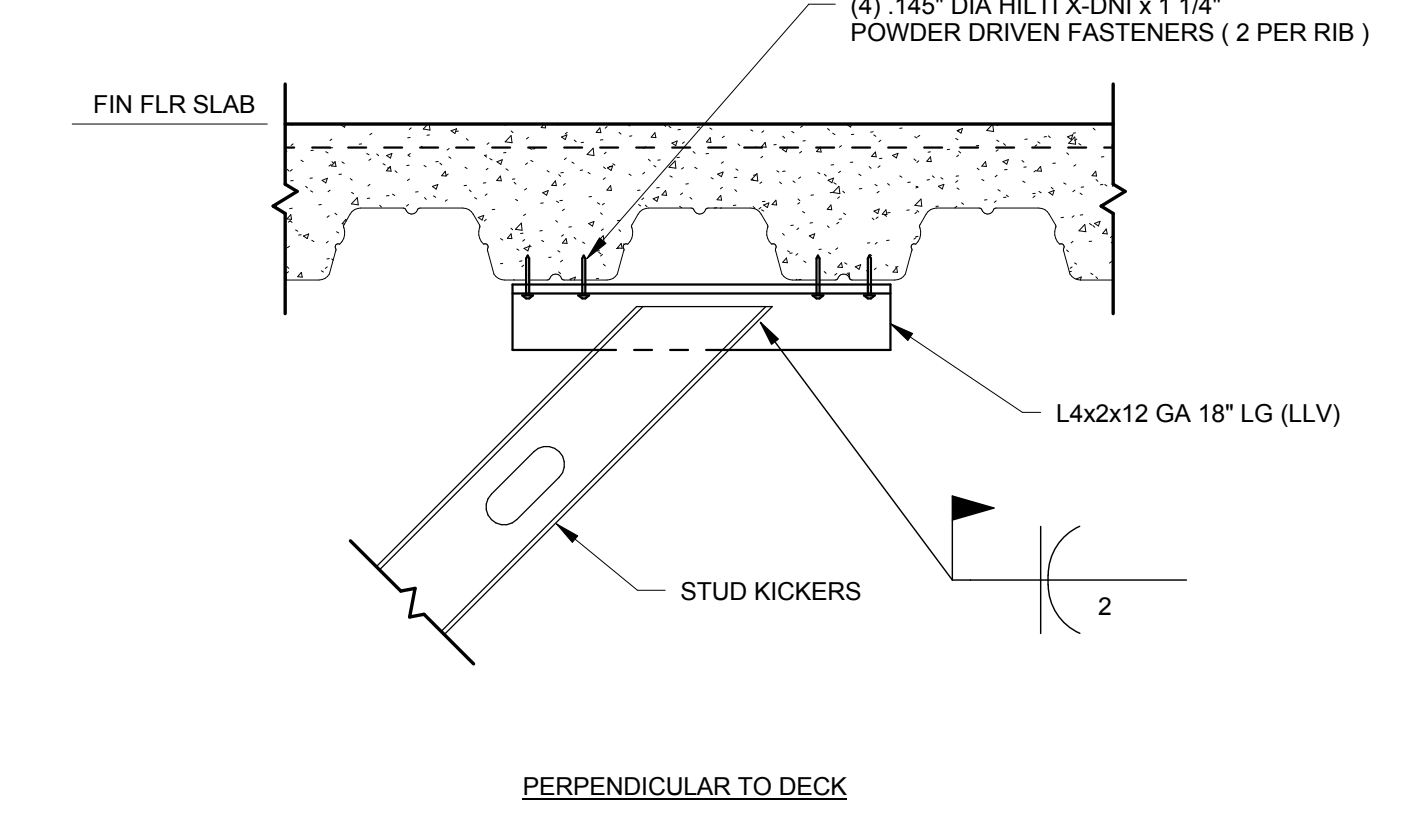
2 TYPICAL LIGHT GAUGE EXTERIOR WALL SILL ATTACHMENT TO JAMB DETAIL
 S1.6 1 1/2" = 1'-0"



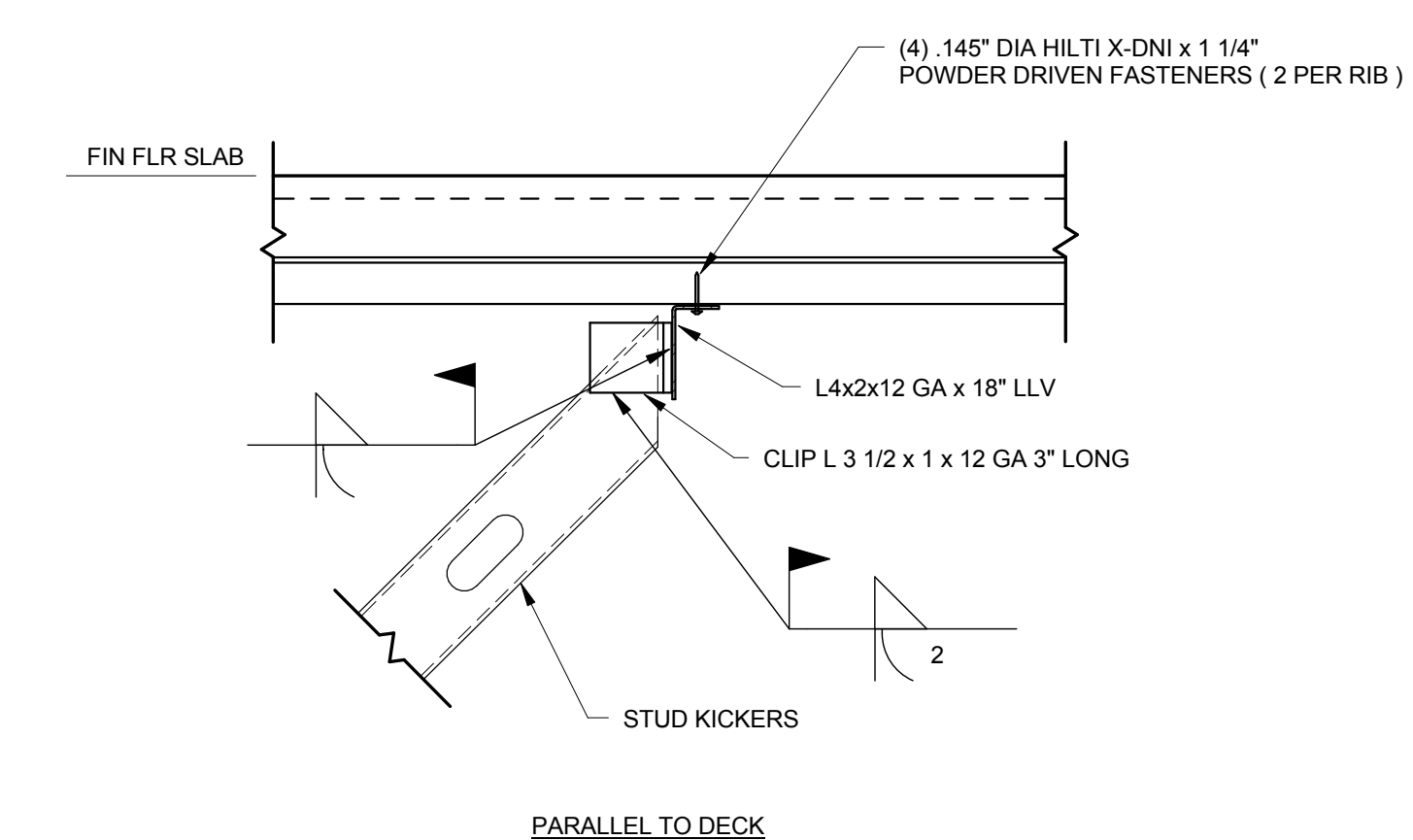
4 TYPICAL LIGHT GAUGE METAL STUD WALL BRIDGING CHANNEL DETAILS
 S1.6 1 1/2" = 1'-0"



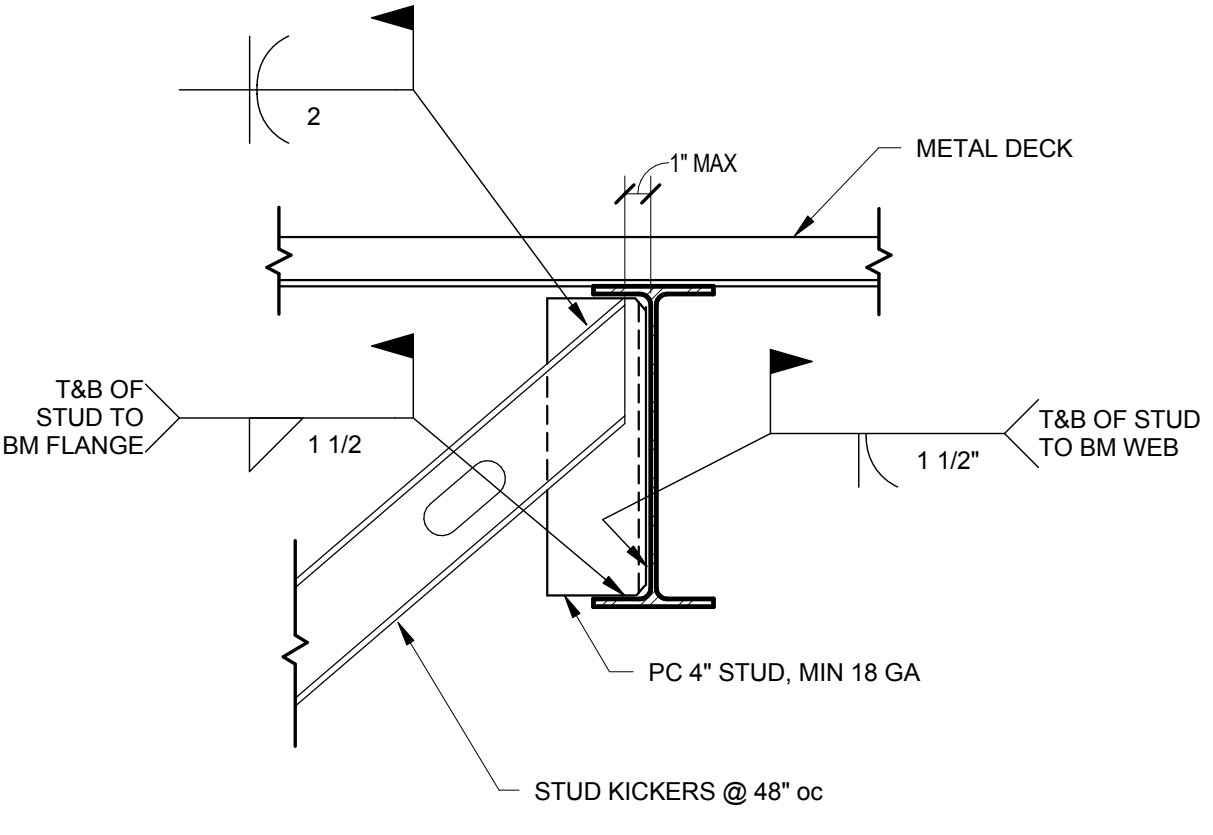
6 TYPICAL STUD KICKER TO COMPOSITE SLAB ATTACHMENT
 S1.6 3/4" = 1'-0"



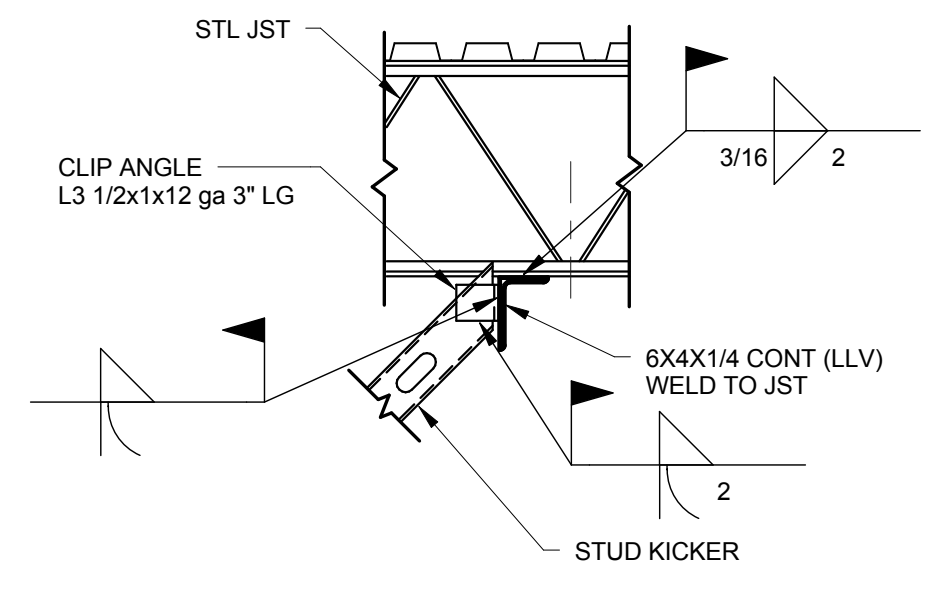
7 TYPICAL STUD KICKER TO JOIST ATTACHMENT
 S1.6 3/4" = 1'-0"



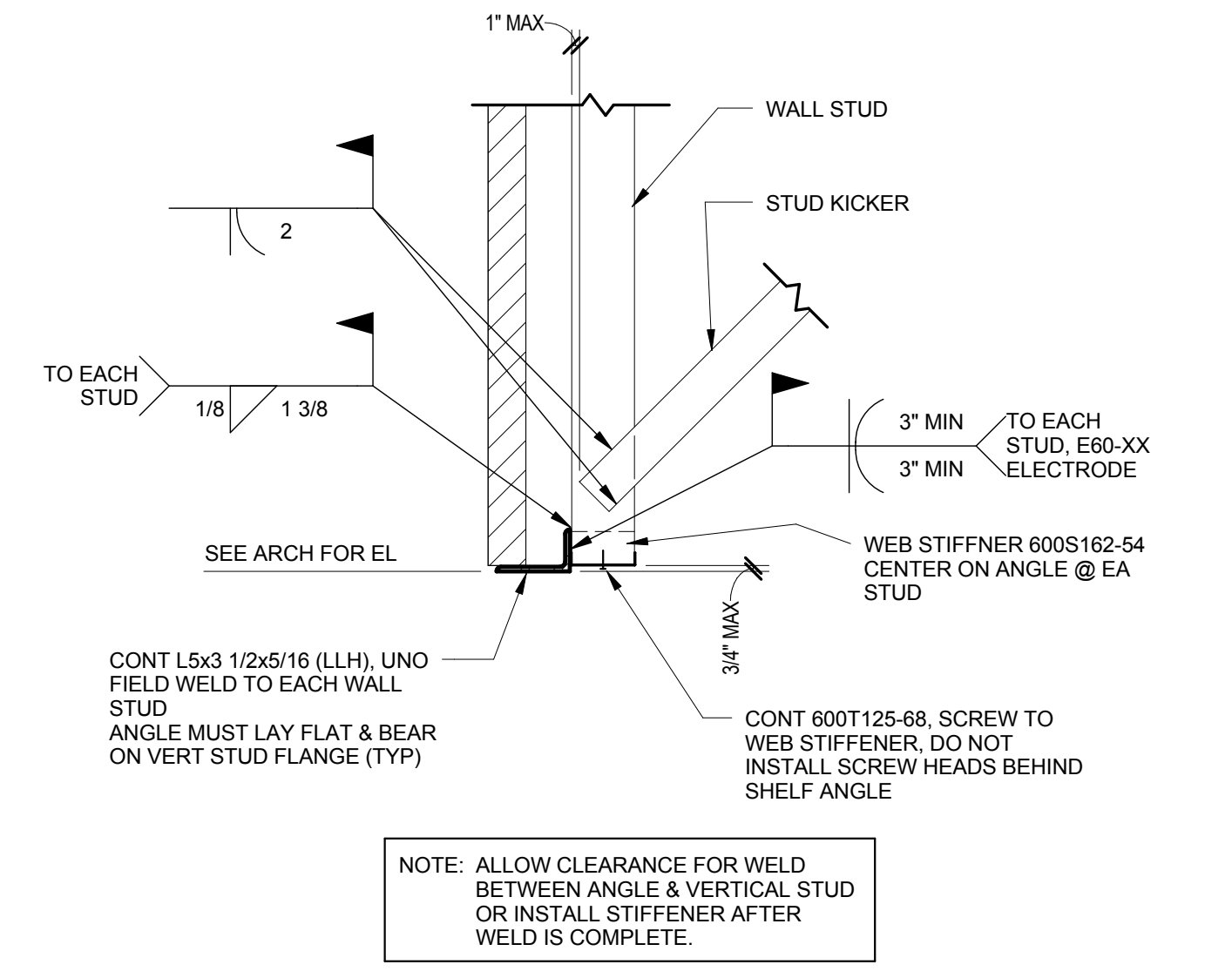
8 TYPICAL STUD KICKER TO FORM DECK ATTACHMENT
 S1.6 3/4" = 1'-0"



10 TYPICAL STUD KICKER ATTACHMENT TO STEEL BEAM
 S1.6 3/4" = 1'-0"



9 TYPICAL STUD KICKER TO BOTTOM OF JOIST ATTACHMENT
 S1.6 3/4" = 1'-0"



11 TYPICAL SHELF ANGLE AND STUD KICKER ATTACHMENT DETAIL
 S1.6 3/4" = 1'-0"

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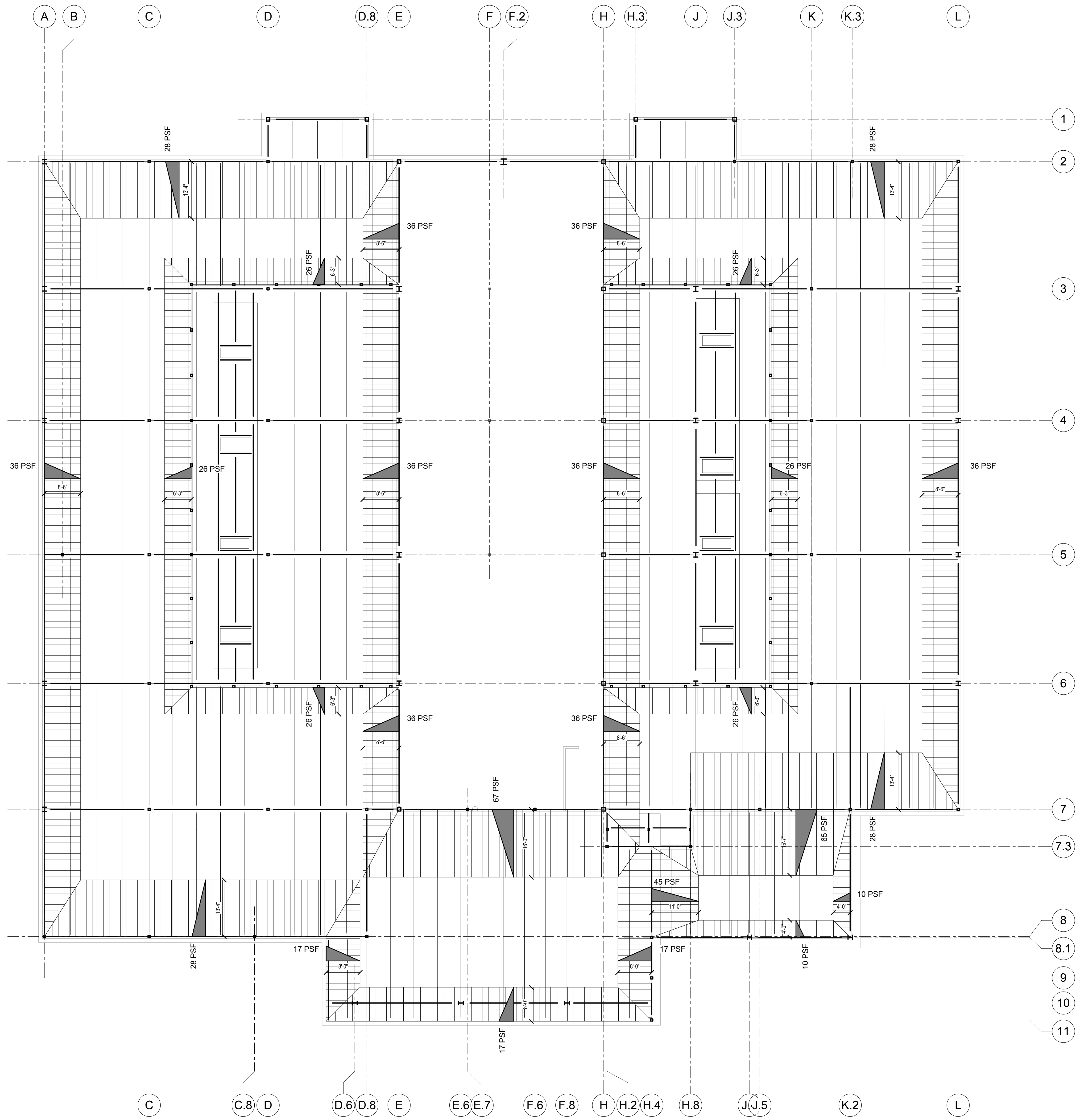
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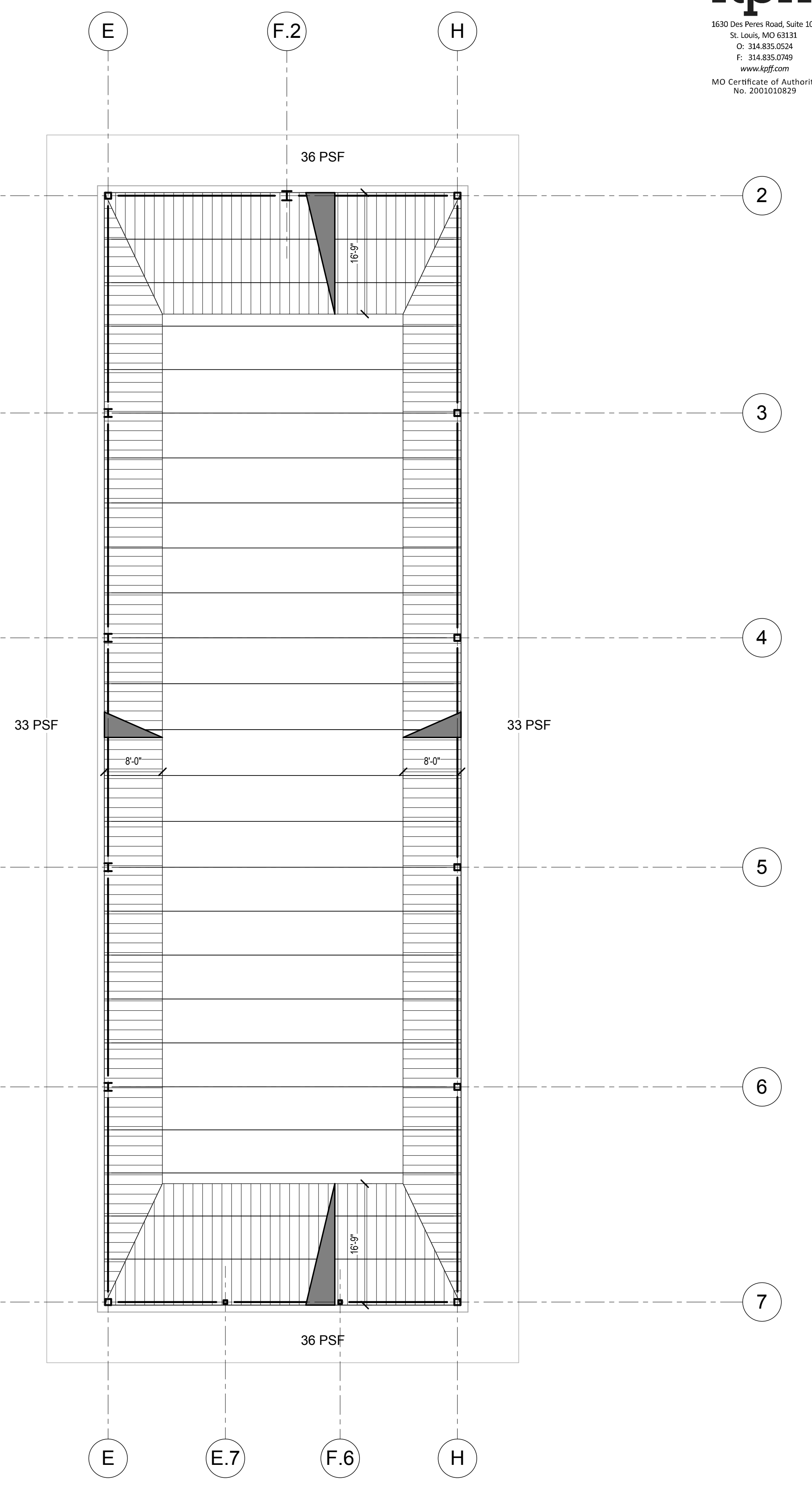
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2 MAIN ROOF SNOW DRIFT DIAGRAM
 S1.7
 3/32" = 1'-0"



1 HIGH ROOF SNOW DRIFT DIAGRAM
 S1.7
 3/32" = 1'-0"

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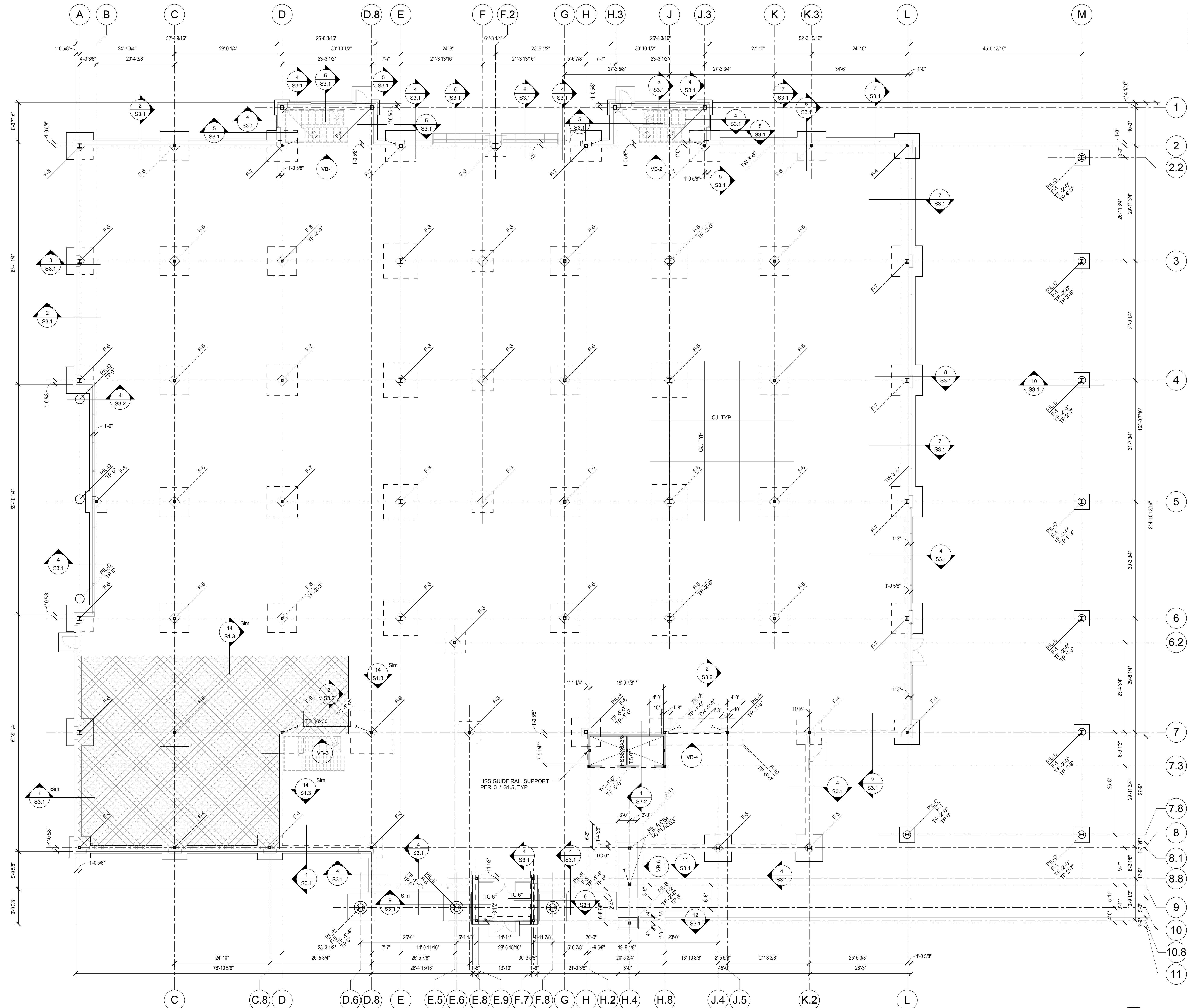
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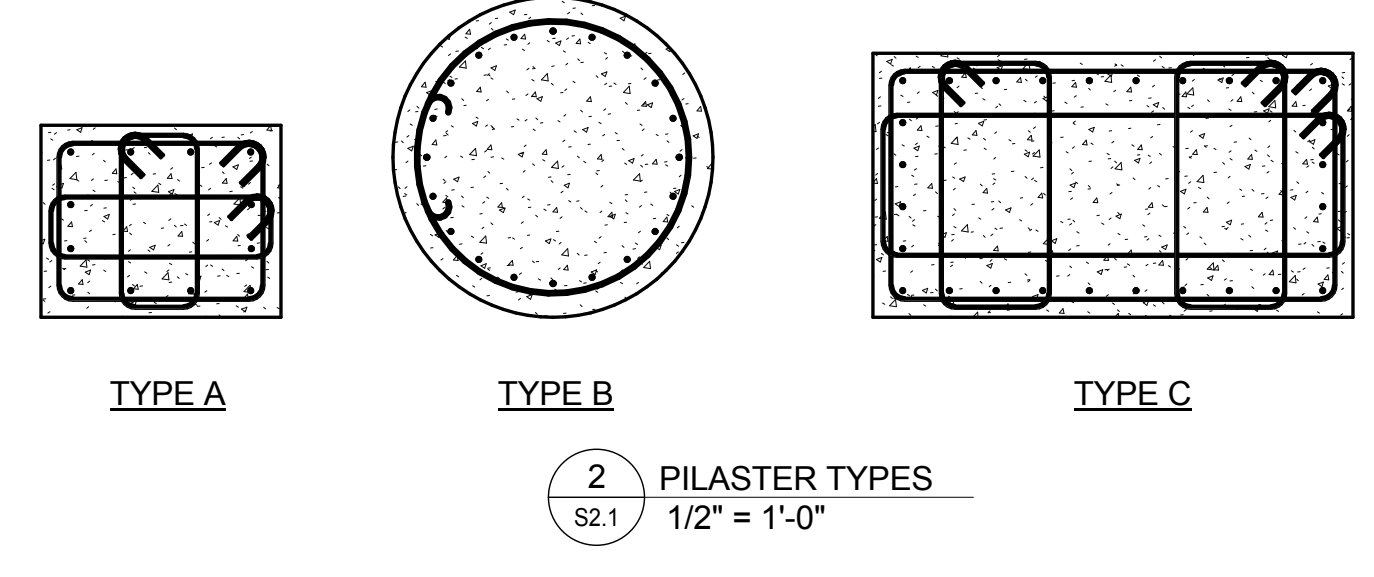


FOOTING SCHEDULE			
MARK	SIZE	Reinf Ea Way, Bot - UNO	COMMENTS
F-1	4'-0" x 4'-0" x 2'-0"	(4) #6	
F-2	5'-8" x 3'-5" x 1'-4"	#6 @ 12" oc, EW	
F-3	5'-8" x 5'-8" x 2'-0"	(5) #6	
F-4	6'-0" x 6'-0" x 2'-0"	(6) #6	
F-5	7'-0" x 7'-0" x 2'-0"	(7) #6 (T&B)	
F-6	7'-6" x 7'-6" x 2'-0"	(7) #6	
F-7	8'-0" x 8'-0" x 2'-0"	(8) #6 (T&B)	
F-8	9'-0" x 9'-0" x 2'-0"	(9) #6 (T&B)	
F-9	11'-0" x 11'-0" x 2'-0"	(11) #6 (T&B)	
F-10	24'-4" x 6'-0" x 2'-0"	(15) #6 LONG DIR; (7) #6 LONG DIR; (1) #6 @ 12" oc SHORT DIR (T&B)	
F-11	22'-7" x 7'-0" x 2'-0"	(10) #6 LONG DIR (T&B); #6 @ 12" oc SHORT DIR (T&B)	

FOUNDATION PLAN
 3/32" = 1'-0"

NOTES:
 1. FINISHED FLOOR ELEVATION = 0'-0" (USGS 888.5) UNO.
 2. FLOOR CONSTRUCTION TO BE A 4" CONC SLAB ON GRADE REINFORCED w/ 6x6-W2.1 WWR ON 15 MIL VAPOR RETARDER, OVER 4" COMPACTED GRANULAR FILL (UNO).
 3. TOP OF FOOTING EL = -1'-4" (UNO) EXTERIOR, TF EL = -1'-0" (UNO) INTERIOR.
 4. TOP OF FOUNDATION WALL EL = -1'-4" (UNO).
 5. COLUMN FOOTINGS ARE CENTERED EACH WAY ON CENTERLINES (UNO).
 6. * INDICATES DIMENSION TO BE COORDINATED w/ ELEVATOR SUPPLIER PRIOR TO CONSTRUCTION.
 7. * INDICATES AREA OF FUTURE SLAB ON GRADE. THICKNESS TO BE COORDINATED w/ MRI EQUIPMENT MANUFACTURER (6" MIN). COORDINATE BLOCKOUTS FOR TRENCH DUCTS IN FUTURE MRI. CT SCAN AND X-RAY SLABS w/ MANUFACTURER.

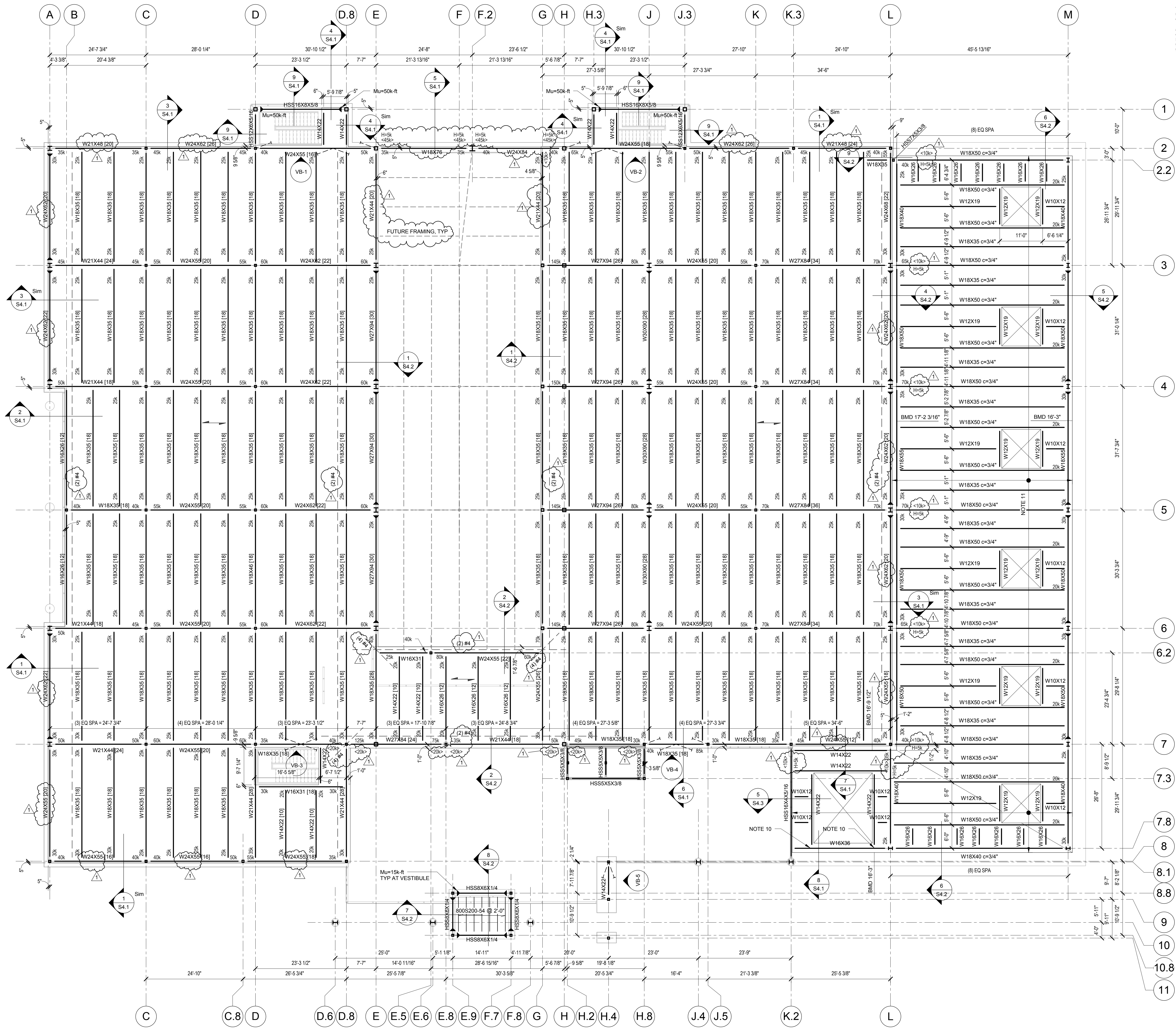
PILASTER SCHEDULE				
MARK	SIZE	Vert Reinf	Ties	COMMENTS
PIL-A	24" x 30"	(12) #5	#4: (3) @ 4" oc (TOP), BAL @ 10" oc	TYPE A - HOOK TOP OF VERT REINF
PIL-B	60" x 33"	(28) #5	#4: (3) @ 4" oc (TOP), BAL @ 10" oc	TYPE C
PIL-C	24" DIA	(8) #5	#4: (3) @ 4" oc (TOP), BAL @ 10" oc	TYPE B
PIL-D	28" DIA	(8) #5	#4: (3) @ 4" oc (TOP), BAL @ 12" oc	TYPE B
PIL-E	40" DIA	(20) #5	#4: (3) @ 4" oc (TOP), BAL @ 10" oc	TYPE B



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 Lee's Summit, Missouri 64064

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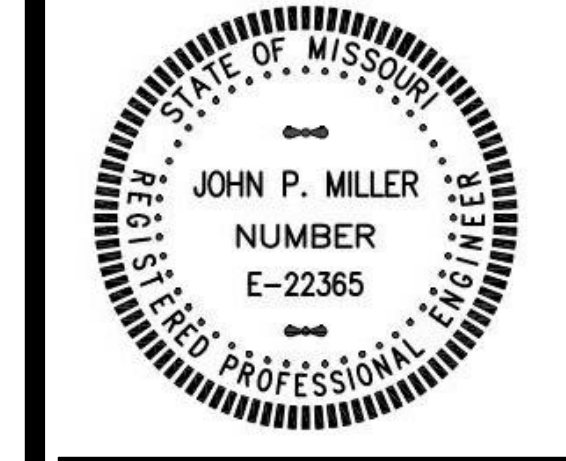
1 SECOND FLOOR
 3/32" = 1'-0"

NOTES:

1. FINISHED FLOOR SLAB EL IS 15'-0" UNO.
2. FLOOR CONSTRUCTION TO BE 3 1/4" LIGHT WEIGHT CONCRETE SLAB ON 2" x 20 GA COMPOSITE METAL DECK (5 1/4" TOTAL THICKNESS) REINFORCED w/ 6#-W2, 1W2, 1 WWR.
3. 'XX' INDICATES NUMBER OF STUDS PER BEAM, EQUALLY SPACED FROM MIDSPAN OF BEAM. UNO. SEE TYPICAL DETAILS FOR MORE INFORMATION.
4. 'VB-X' INDICATES VERTICAL BRACE. SEE SHEET S5.1 FOR ELEVATIONS & DETAILS.
5. 'SEE DETAIL S5.1 FOR STEEL BEAM LEGENDS.'
6. 'S' INDICATES DIRECTION OF DECK SPAN.
7. 'CONTRACTOR SHALL DESIGN STRUCTURAL STEEL CONNECTIONS.'
8. 'NOT USED.'
9. 'INDICATES DIMENSION TO BE COORDINATED w/ ELEVATOR SUPPLIER PRIOR TO CONSTRUCTION.'
10. WHERE INDICATED ON PLAN, PROVIDE FULL DEPTH SHEAR TAB CONNECTION w/ STIFFENER PL 3/8" ON OPPOSITE SIDE. CONNECTION SHALL BE DESIGNED FOR T_u=2.0k-ft TORSION LOAD.
11. WHERE INDICATED ON PLAN, ROOF DECK TO BE 1 1/2" x 20 GA WIDE RIB METAL DECK. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE. BOTTOM OF METAL ROOF DECK ELEVATION (BMD) VARIES. SEE PLAN.

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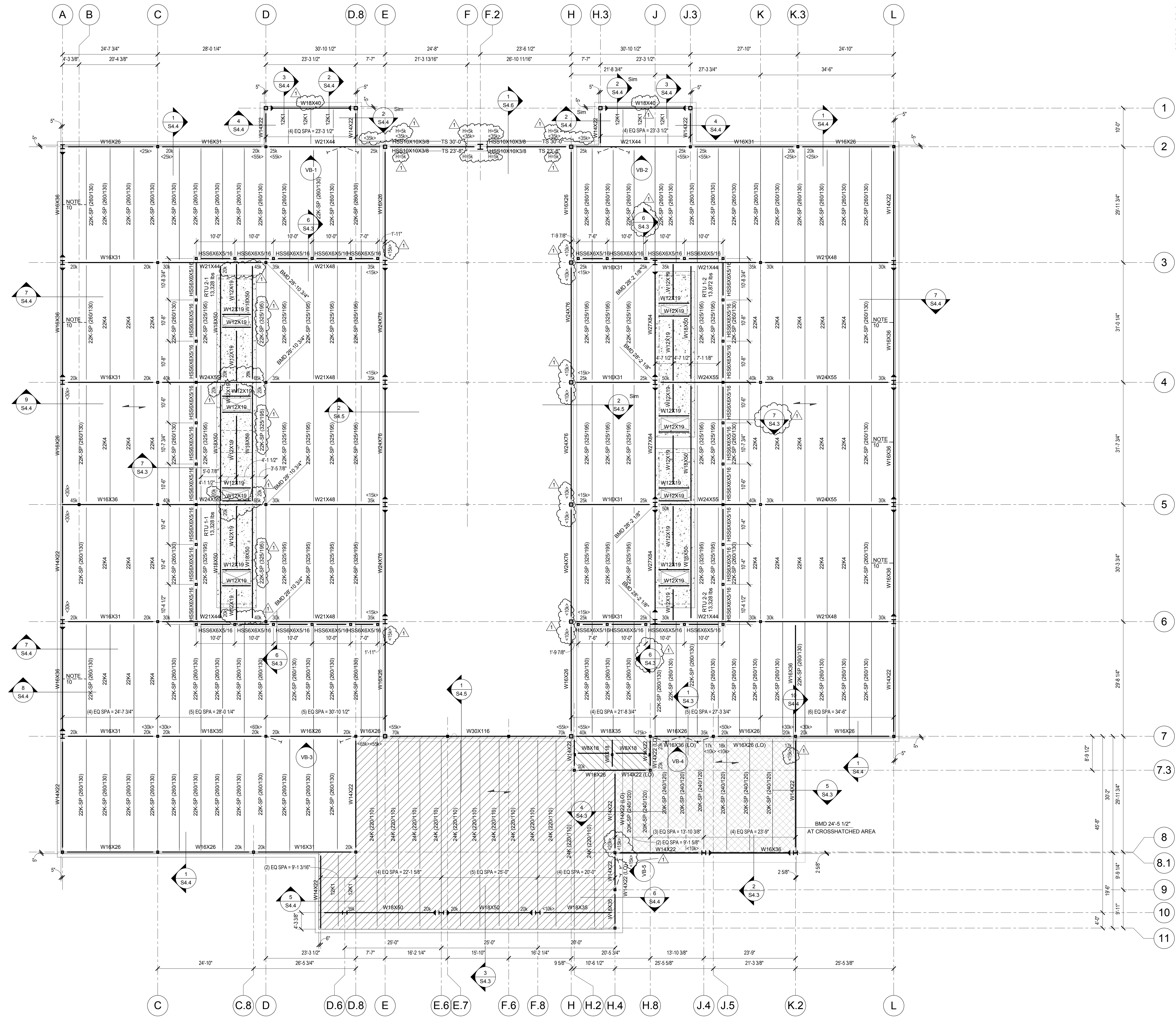
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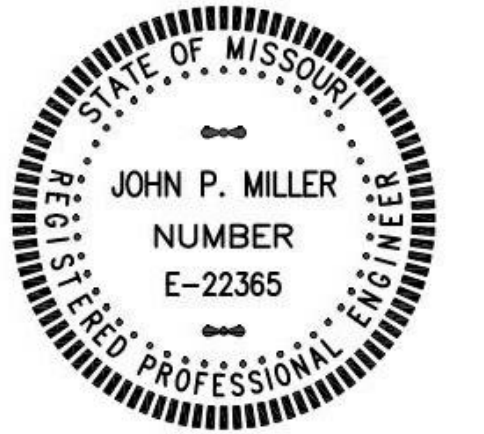


1 ROOF FRAMING PLAN
3/32" = 1'-0"

- NOTES:
1. BOTTOM OF METAL DECK EL. (BMD) = 30'-0". UNO.
 2. ROOF DECK TO BE 1/2" x 20 GA WIDE RIB METAL ROOF DECK UNO. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.
 3. INDICATES DIRECTION OF DECK SPAN.
 4. ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME ROOF OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. VERIFY SIZE & LOCATION OF ALL OPENINGS WITH CONTRACTOR.
 5. CONTRACTOR SHALL DESIGN STRUCTURAL STEEL CONNECTIONS. SEE DETAIL S4.1 FOR STEEL BEAM LEGS.
 6. INDICATES CONCRETE MERTER PAD AT EACH UNIT. MERTER PAD TO BE 1/2" REINFORCED W/ 6x6 W2-1xW2-1 WWR. SIZE PAD 1'-0" PAST EACH SIDE OF RTU FOOTPRINT. SEE AS115 FOR BALANCE OF INFORMATION.
 7. NORMAL WEIGHT CONC SLAB (ABOVE HIGH PT OF DECK) ON 1 1/2" METAL ROOF DECK.
 8. VB-X INDICATES VERTICAL BRACE. SEE SHEET S4.1 FOR ELEVATIONS & DETAILS.
 9. ATTACHMENT TO SUPPORTING STRUCTURE. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.
 10. WHERE INDICATED ON PLAN PROVIDE BEAM BOTTOM FLANGE BRACE PER DETAIL S4.4.
 11. INDICATES 2x20 GA EPICOR BRACE ATTACHED TO METAL ROOF DECK. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.

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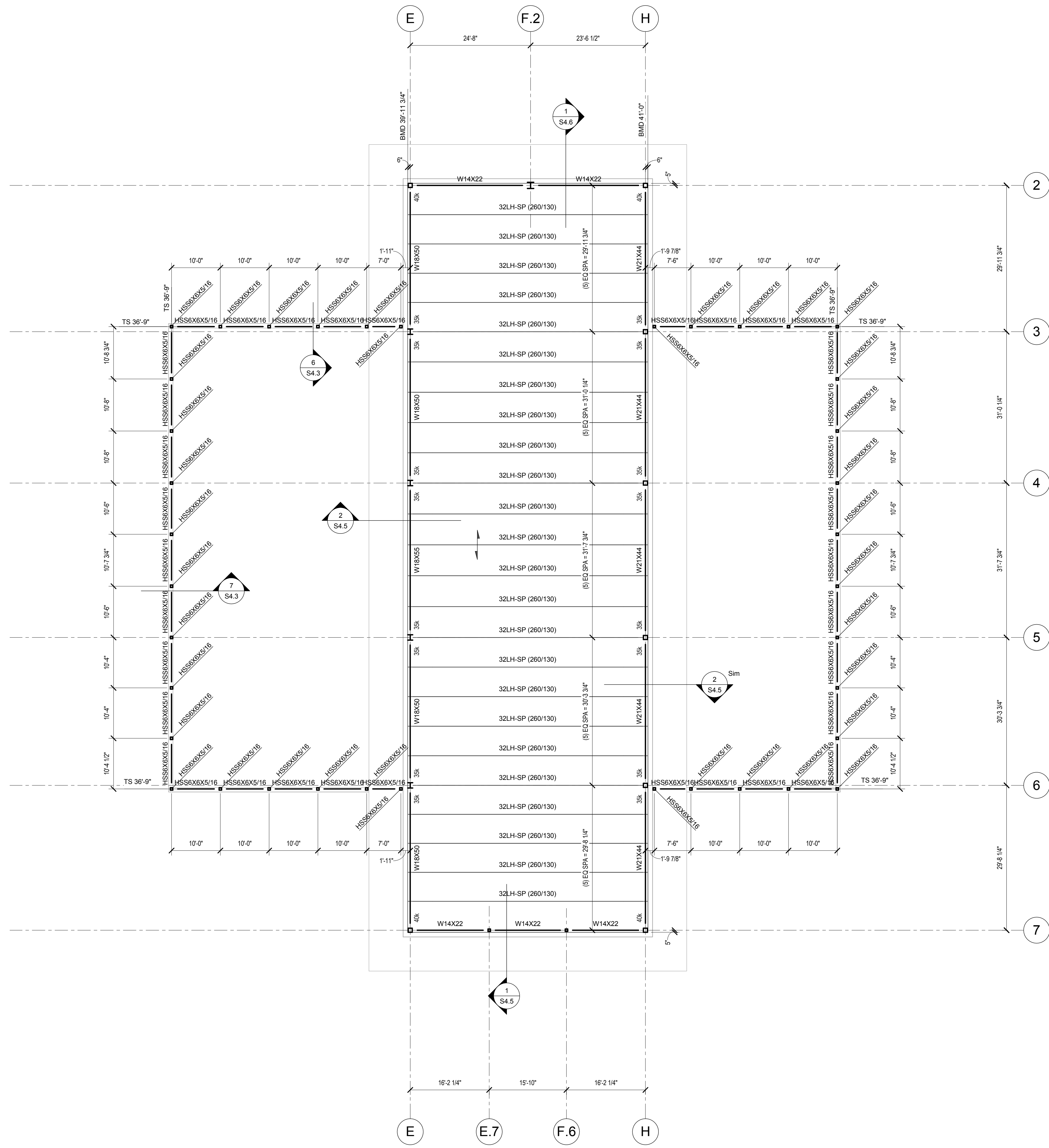
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Date	03.19.2018
Job Number	1700341
Drawn By	TEP
Checked By	JPM

Revision		
Number	Date	Description
1	03/30/18	REVISION 1



1 HIGH ROOF
3/32" = 1'-0"

- NOTES:
1. BOTTOM OF METAL DECK ELEVATION VARIES. SEE PLAN.
 2. ROOF DECK TO BE PER 2015 IBC CODES FOR ACQUISITION OF METAL ROOF DECK. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.
 3. INDICATES DIRECTION OF DECK SPAN.
 4. ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME ROOF OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. VERIFY SIZE & LOCATION OF ALL OPENINGS w/ MECH CONTRACTOR.
 5. CONTRACTOR SHALL DESIGN STRUCTURAL STEEL CONNECTIONS. NUMBER AT ENDS OF BEAMS INDICATES FACTORED GRAVITY DESIGN LOAD IN KIPS TO BE COMBINED w/ AXIAL LOAD WHEN APPLICABLE. MINIMUM DESIGN LOAD IS 15K FOR BEAMS w/o REACTIONS.

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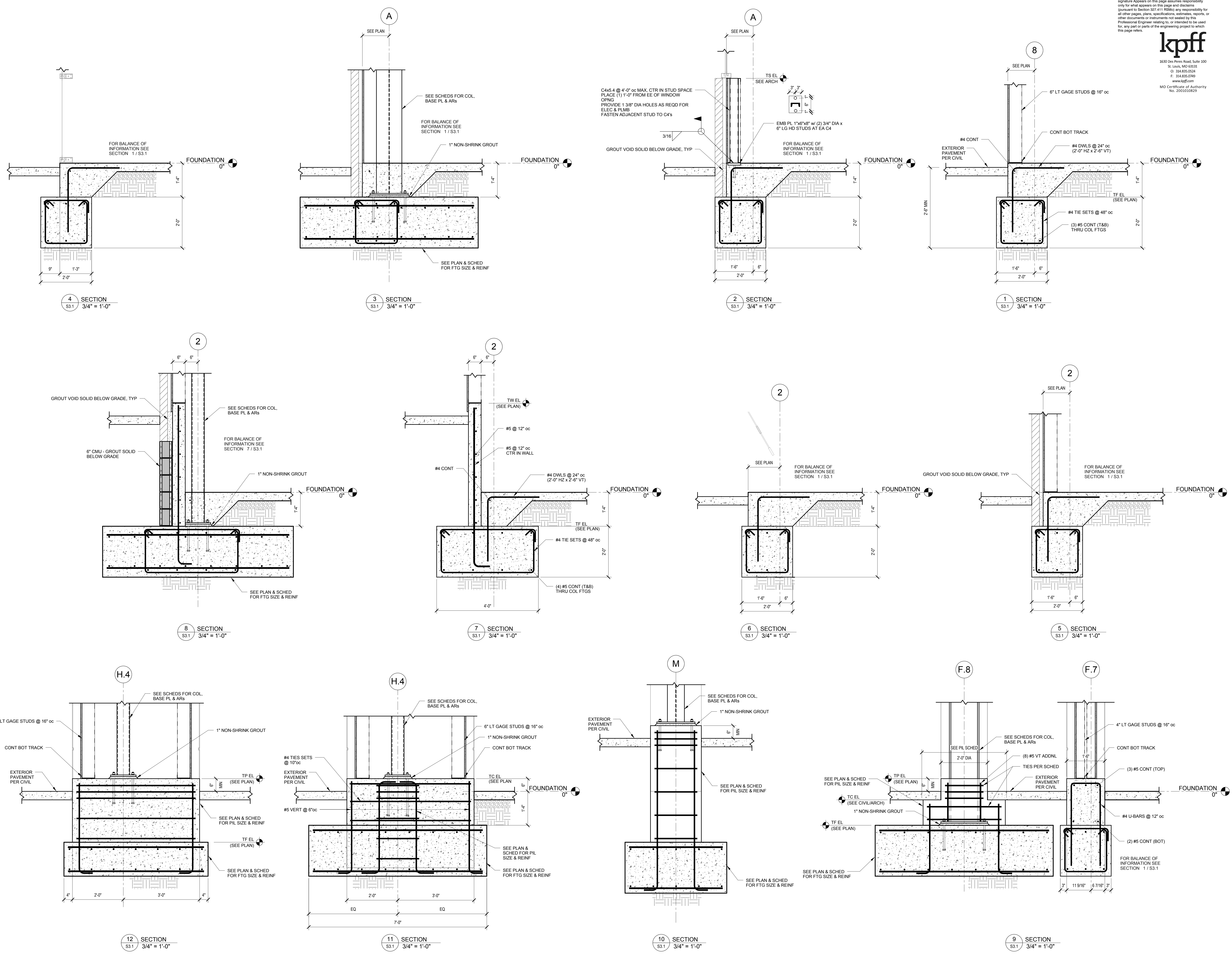
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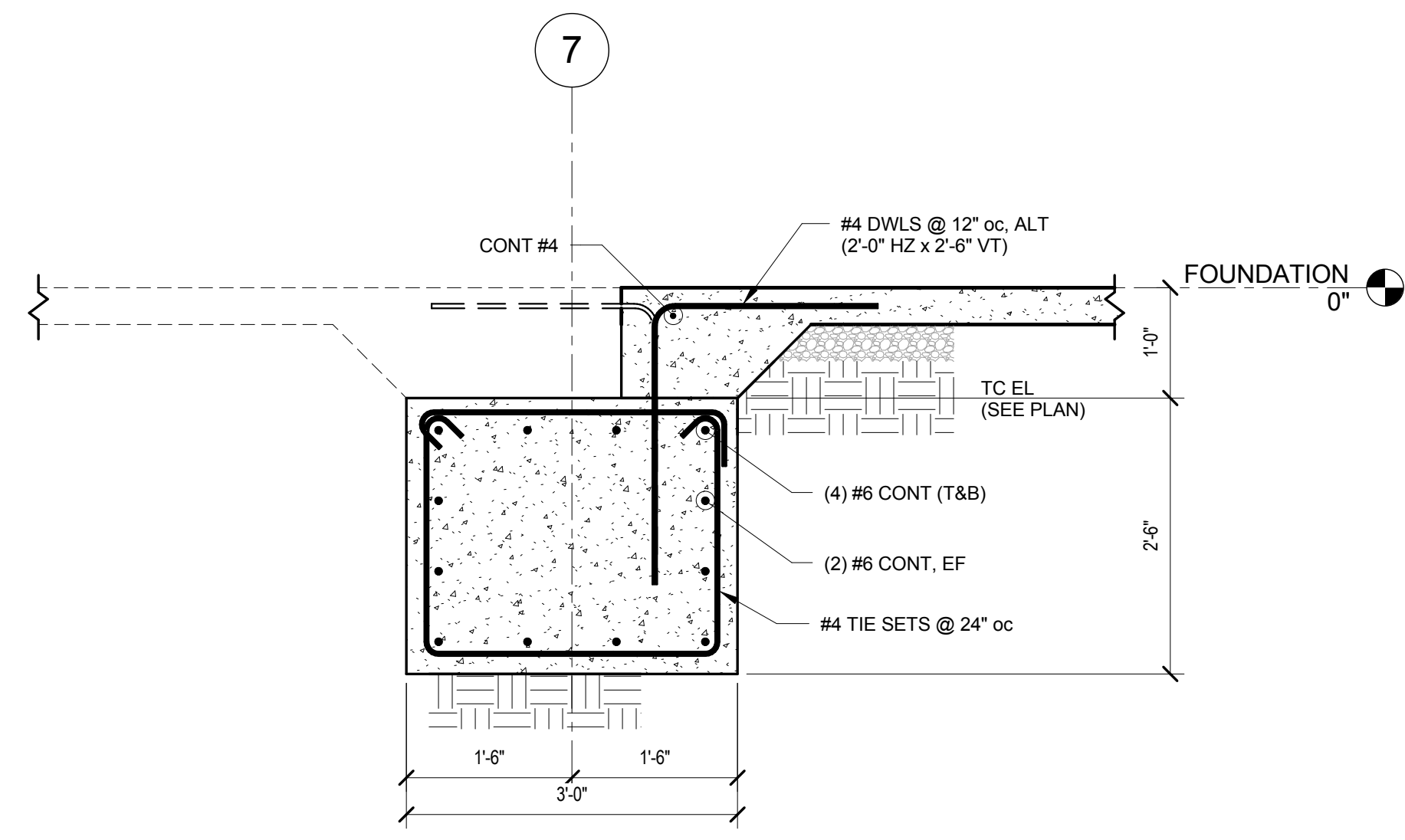
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1	03/19/18	STRUCTURAL STEEL PACKAGE



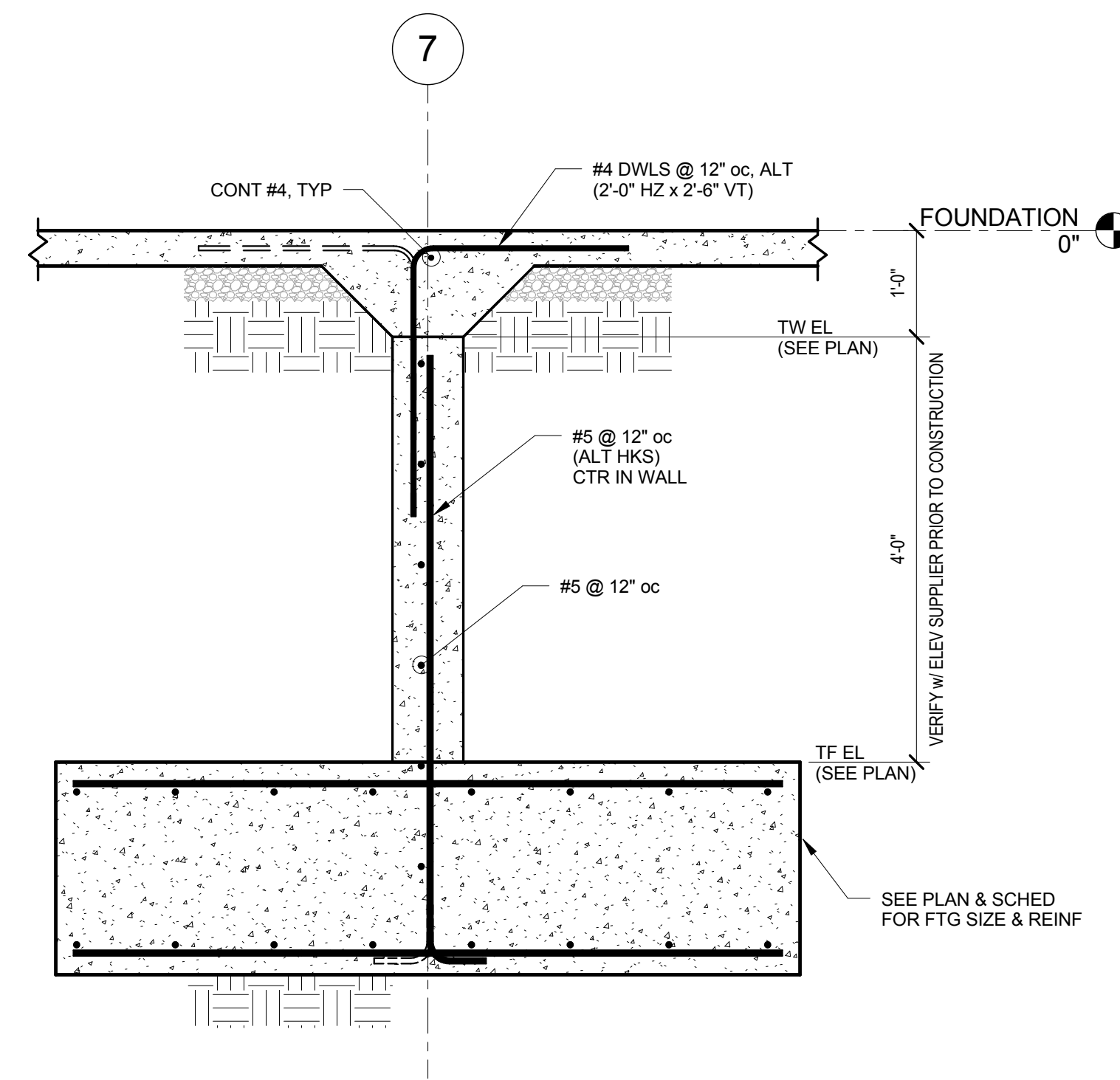
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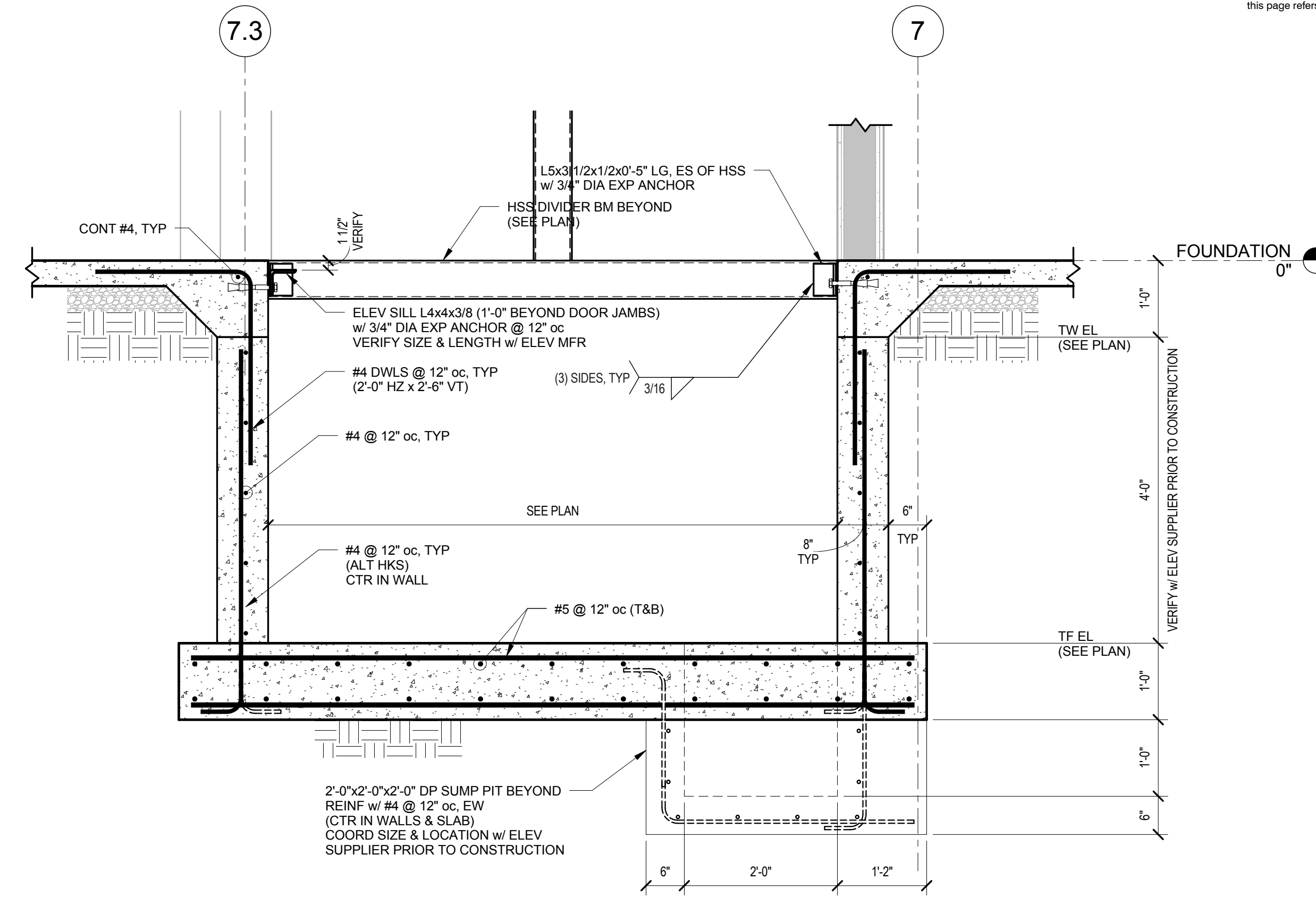
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Number	Date	Description
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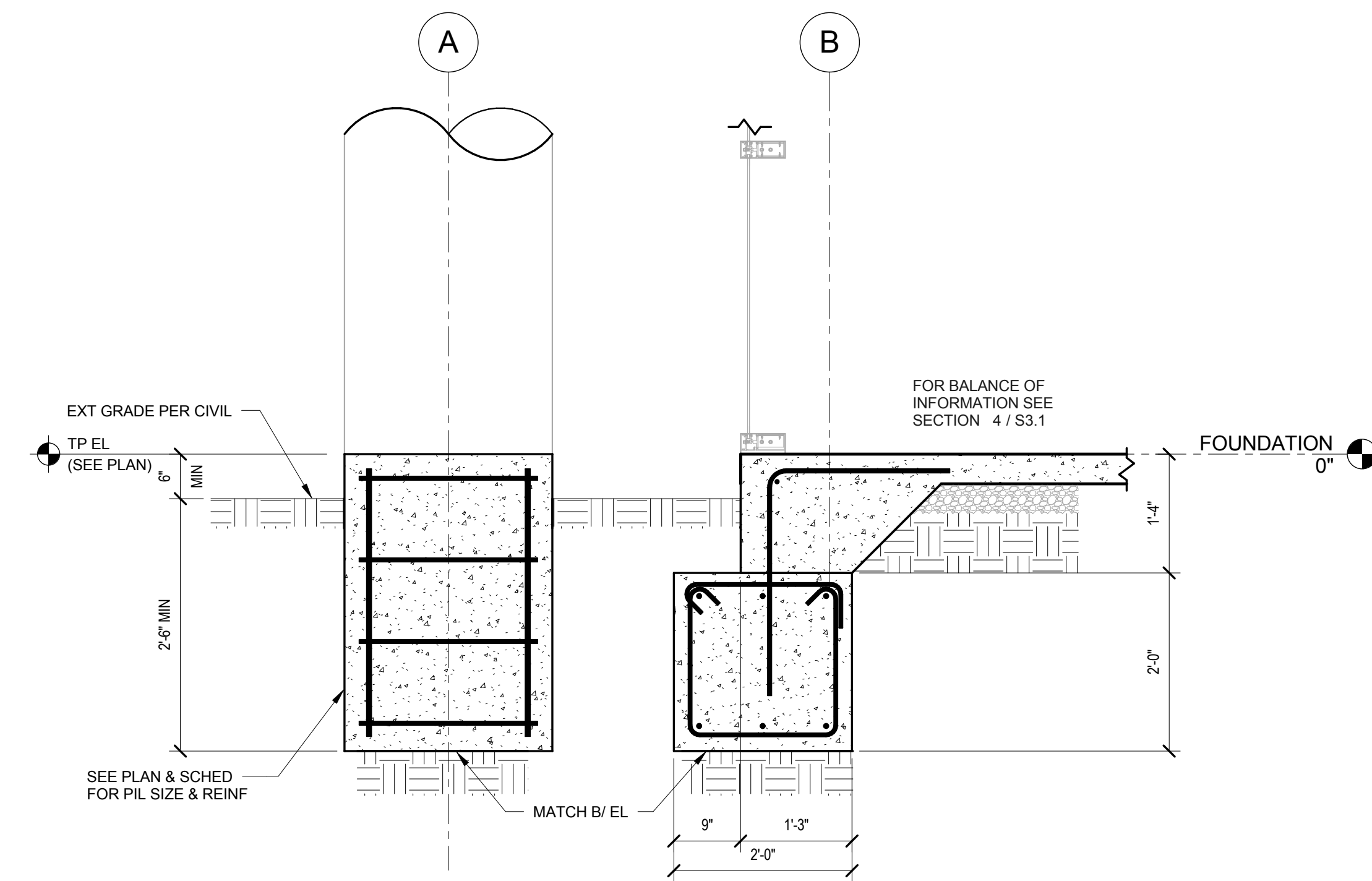
3 SECTION
S3.2 3/4" = 1'-0"



2 SECTION
S3.2 3/4" = 1'-0"



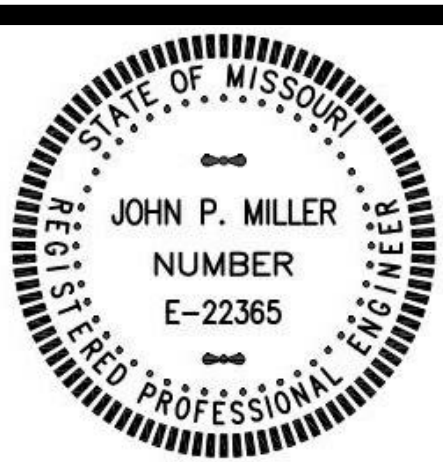
1 SECTION
S3.2 3/4" = 1'-0"



4 SECTION
S3.2 3/4" = 1'-0"

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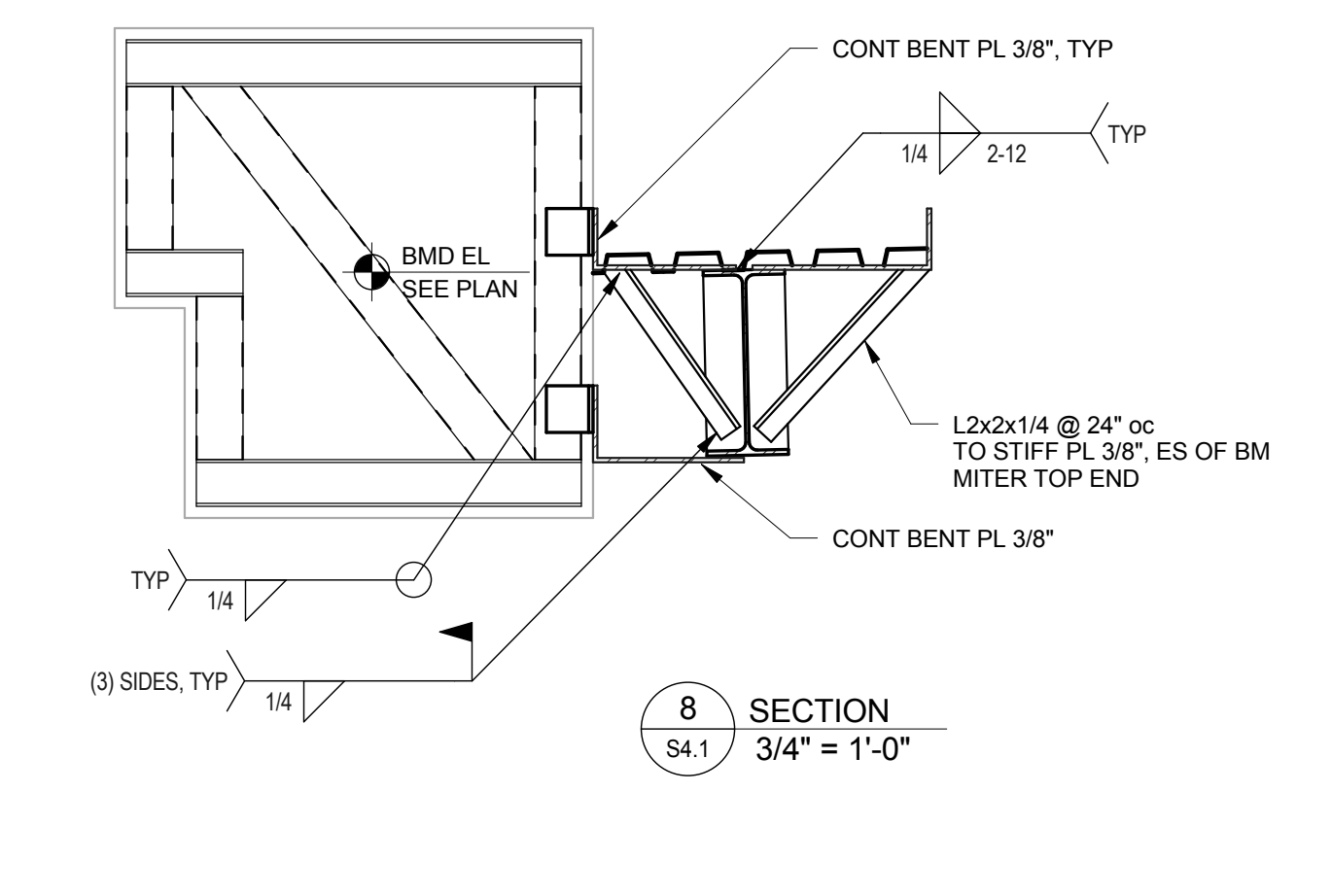
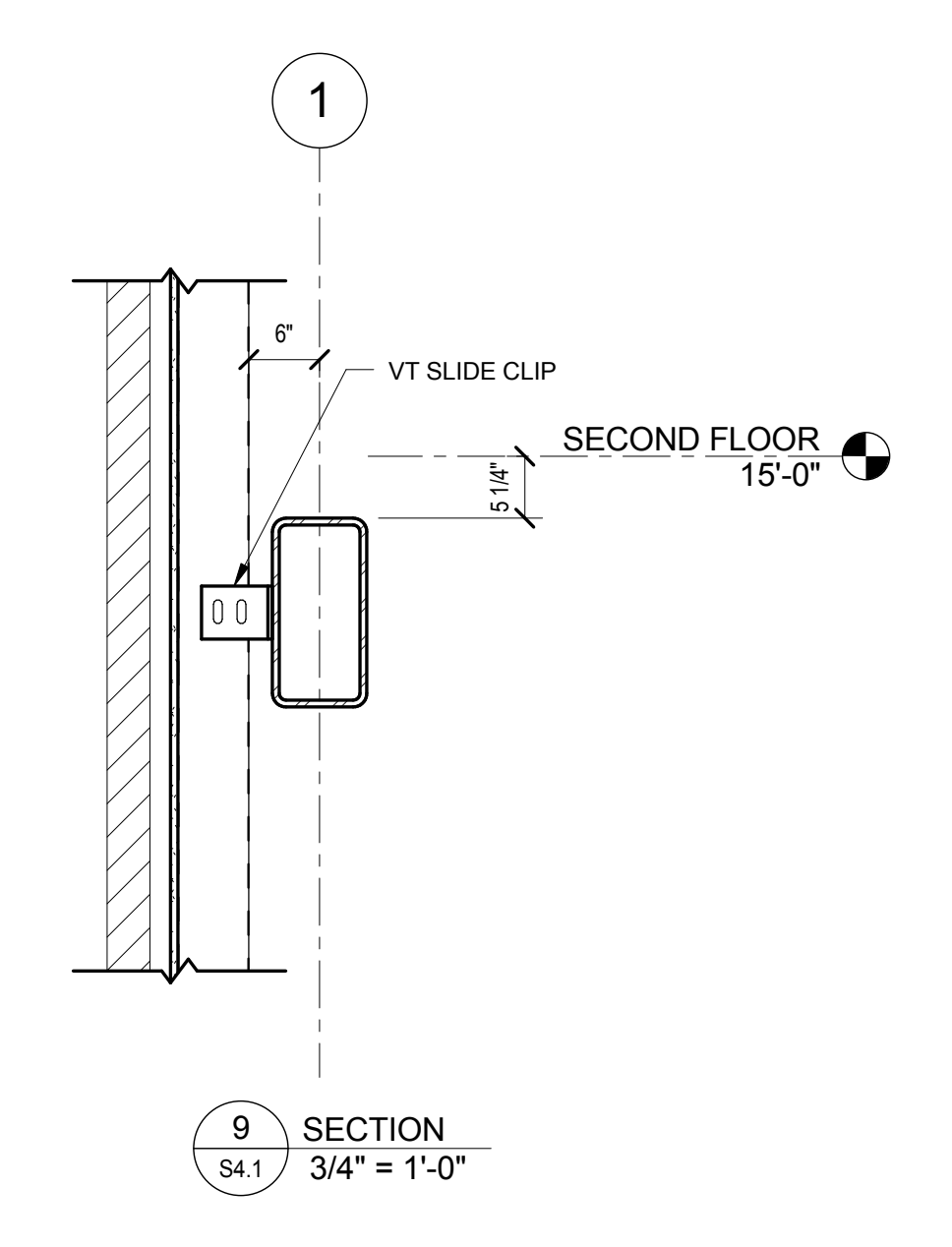
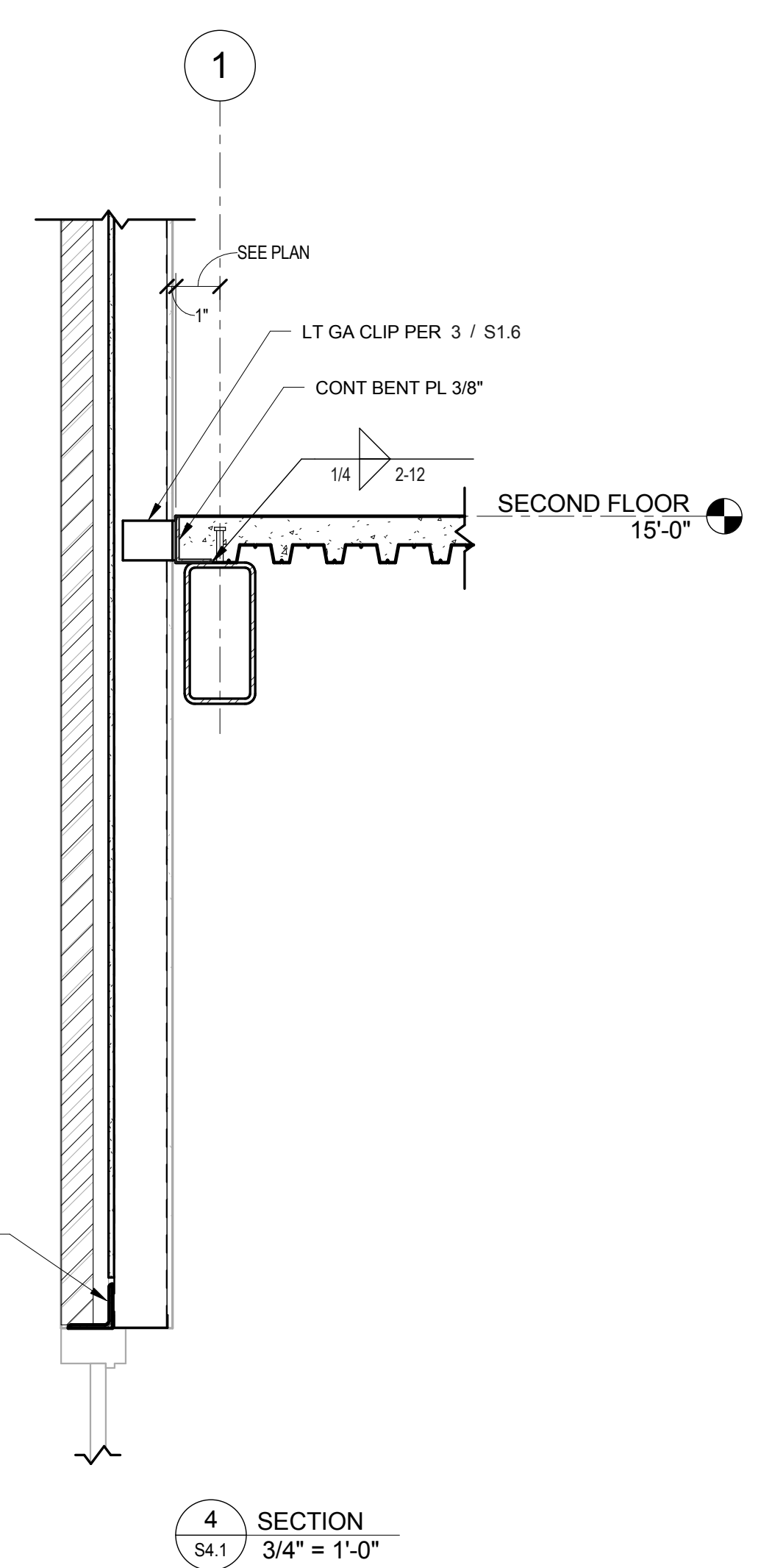
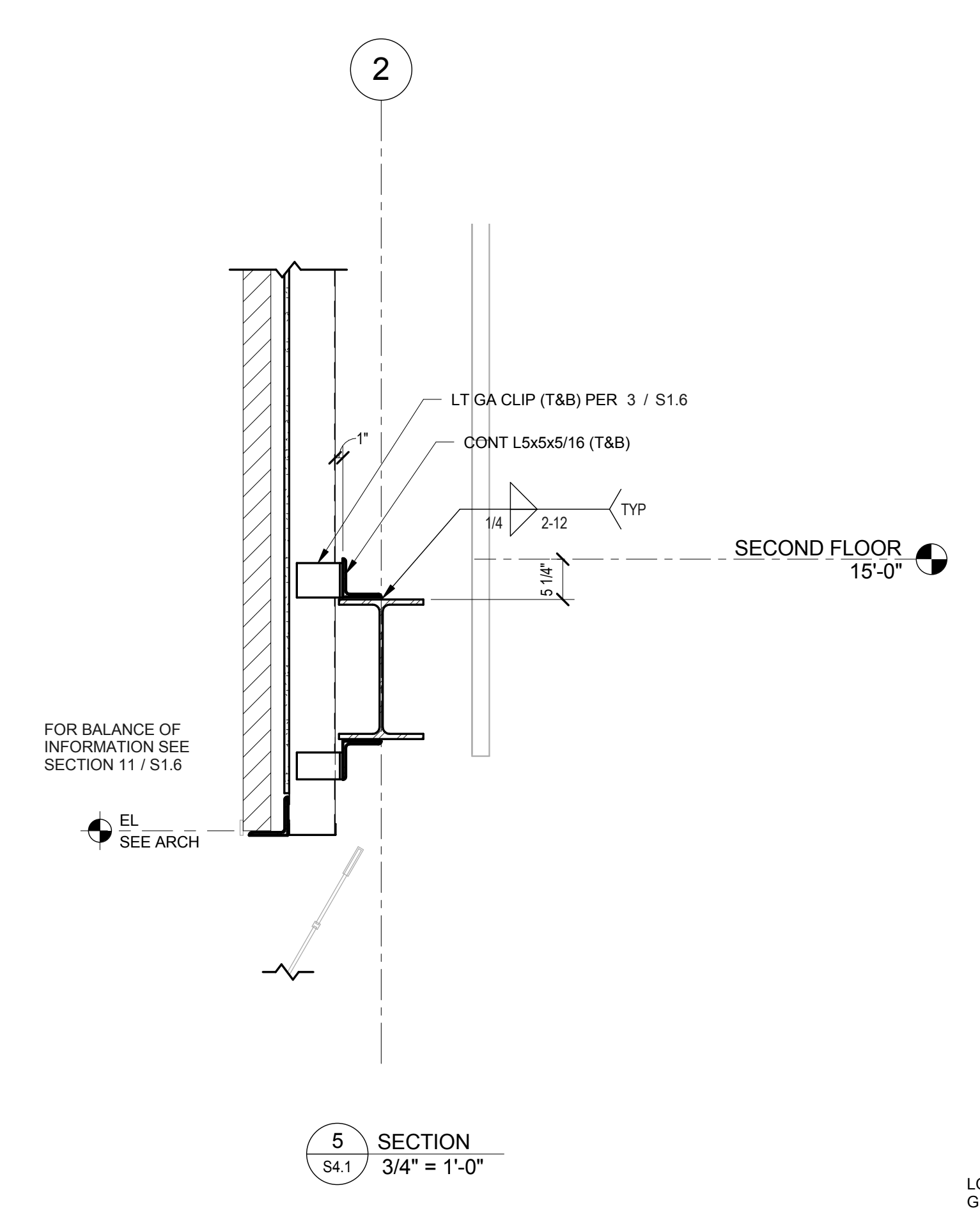
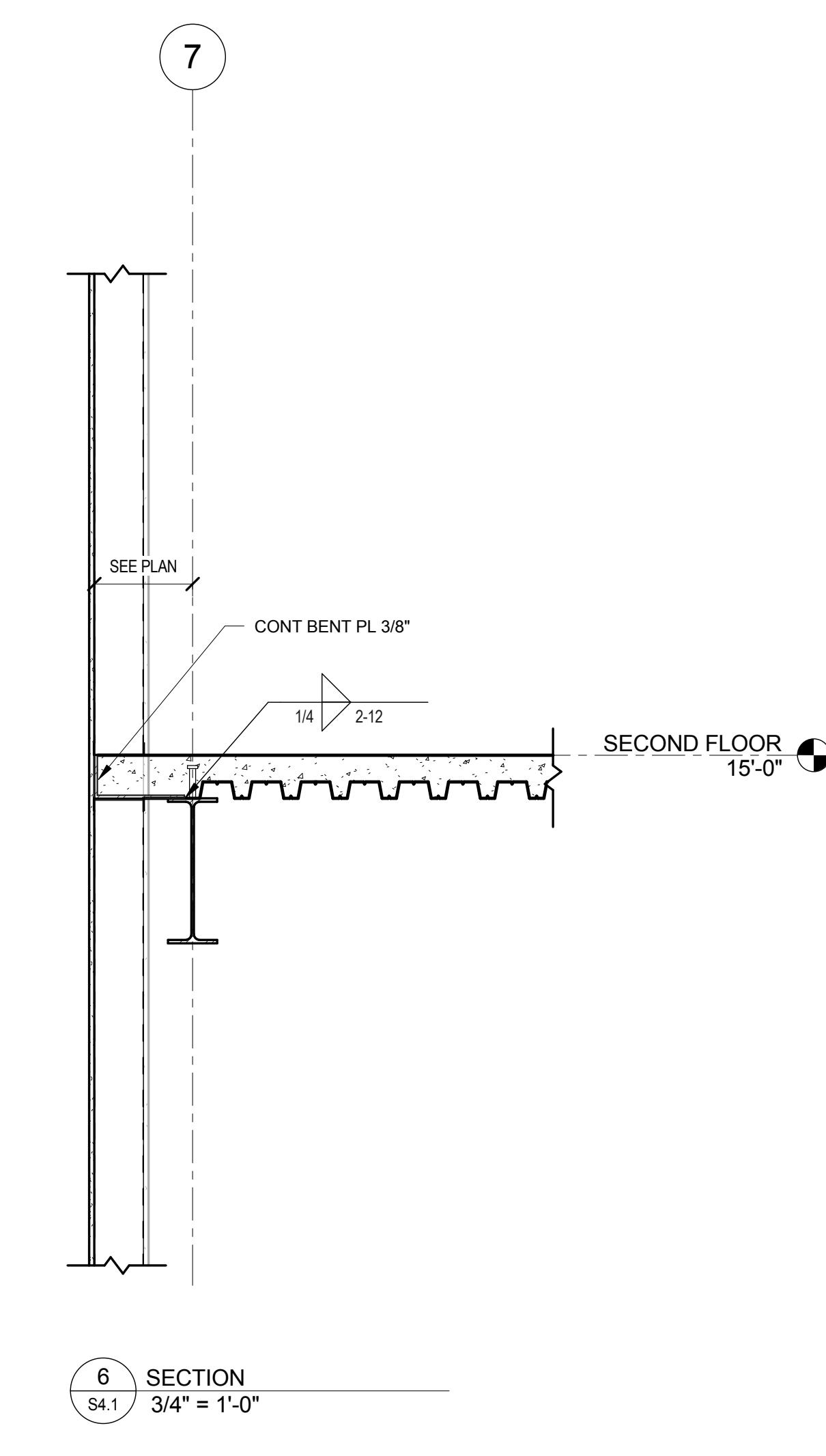
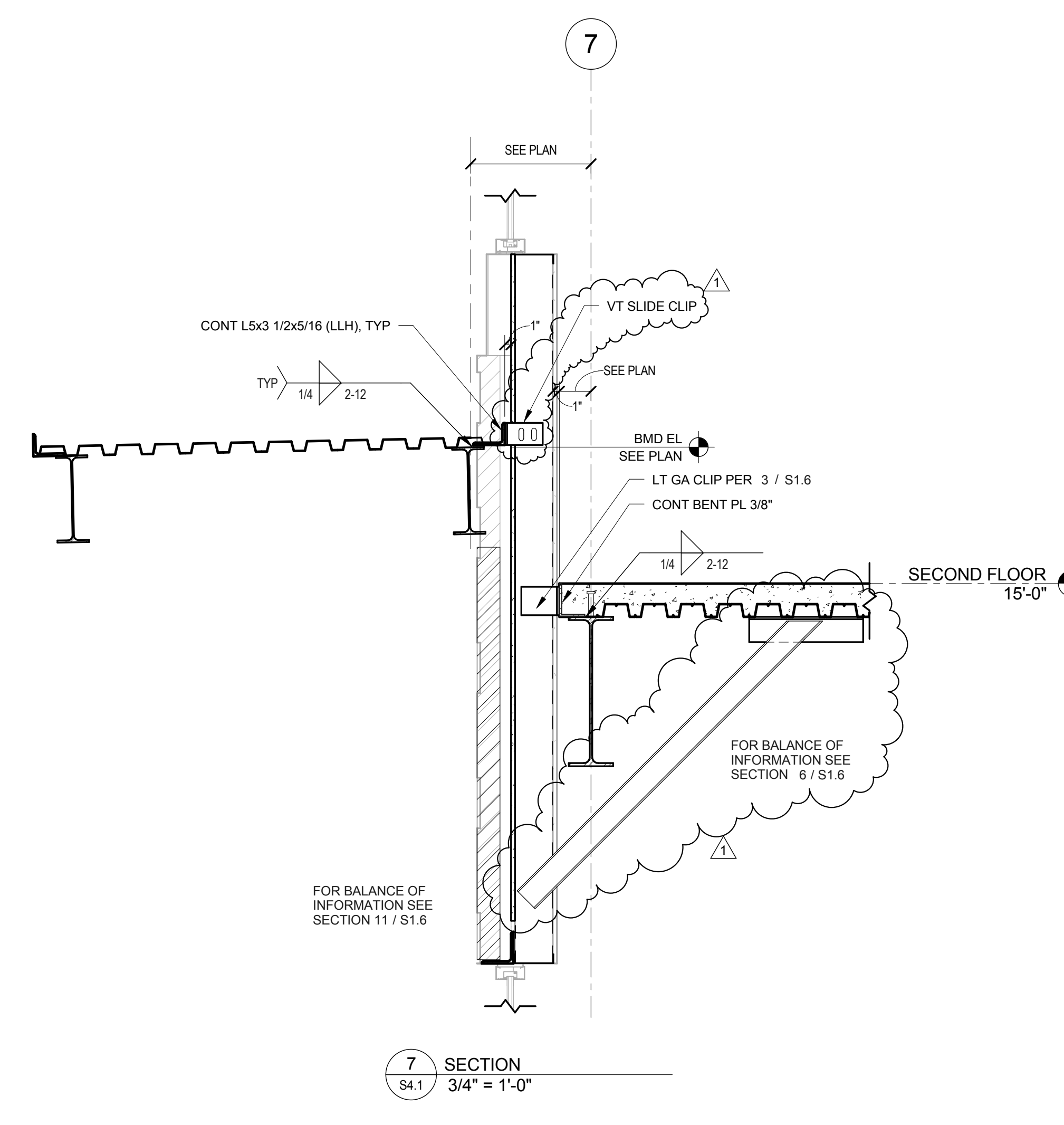
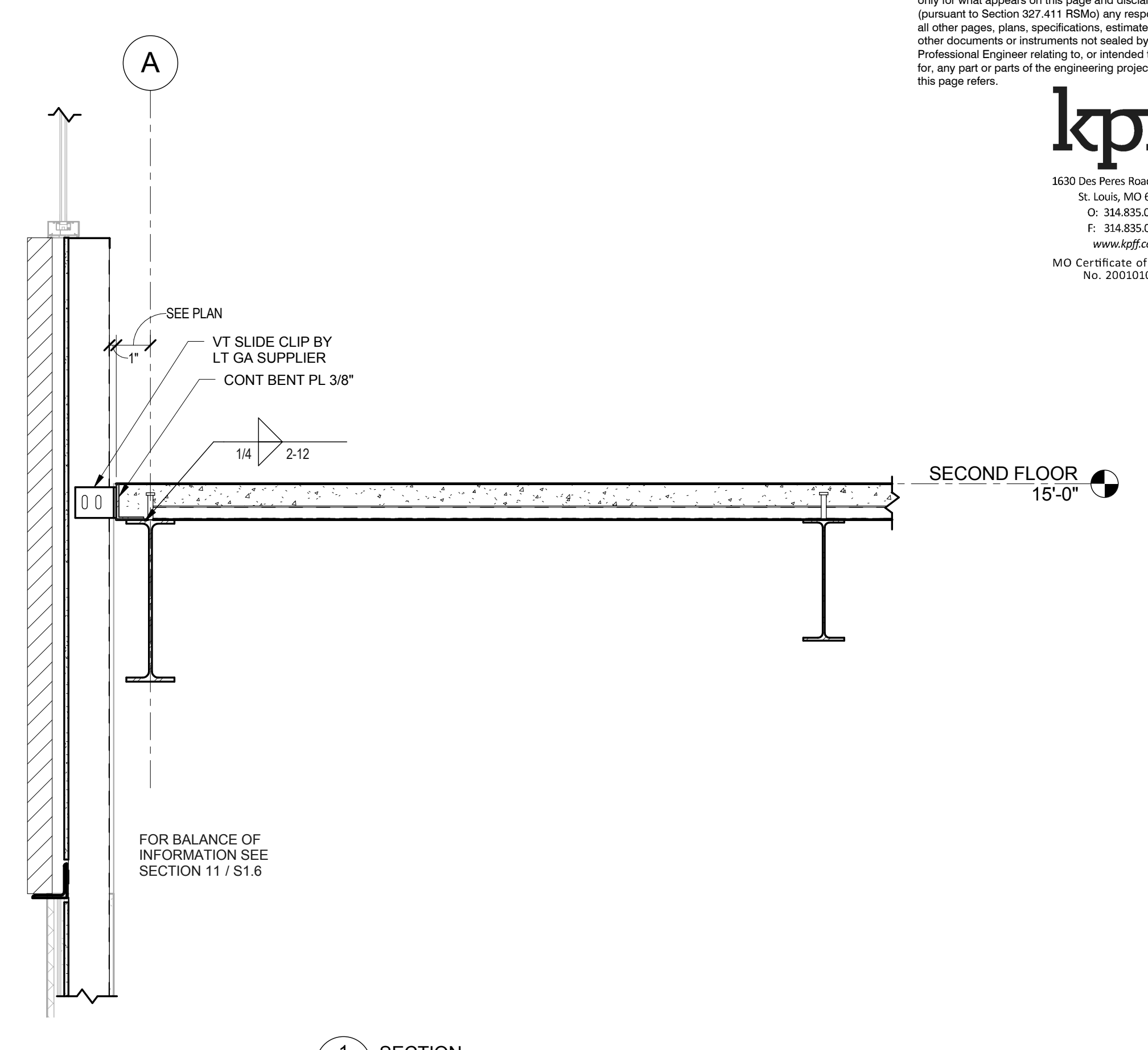
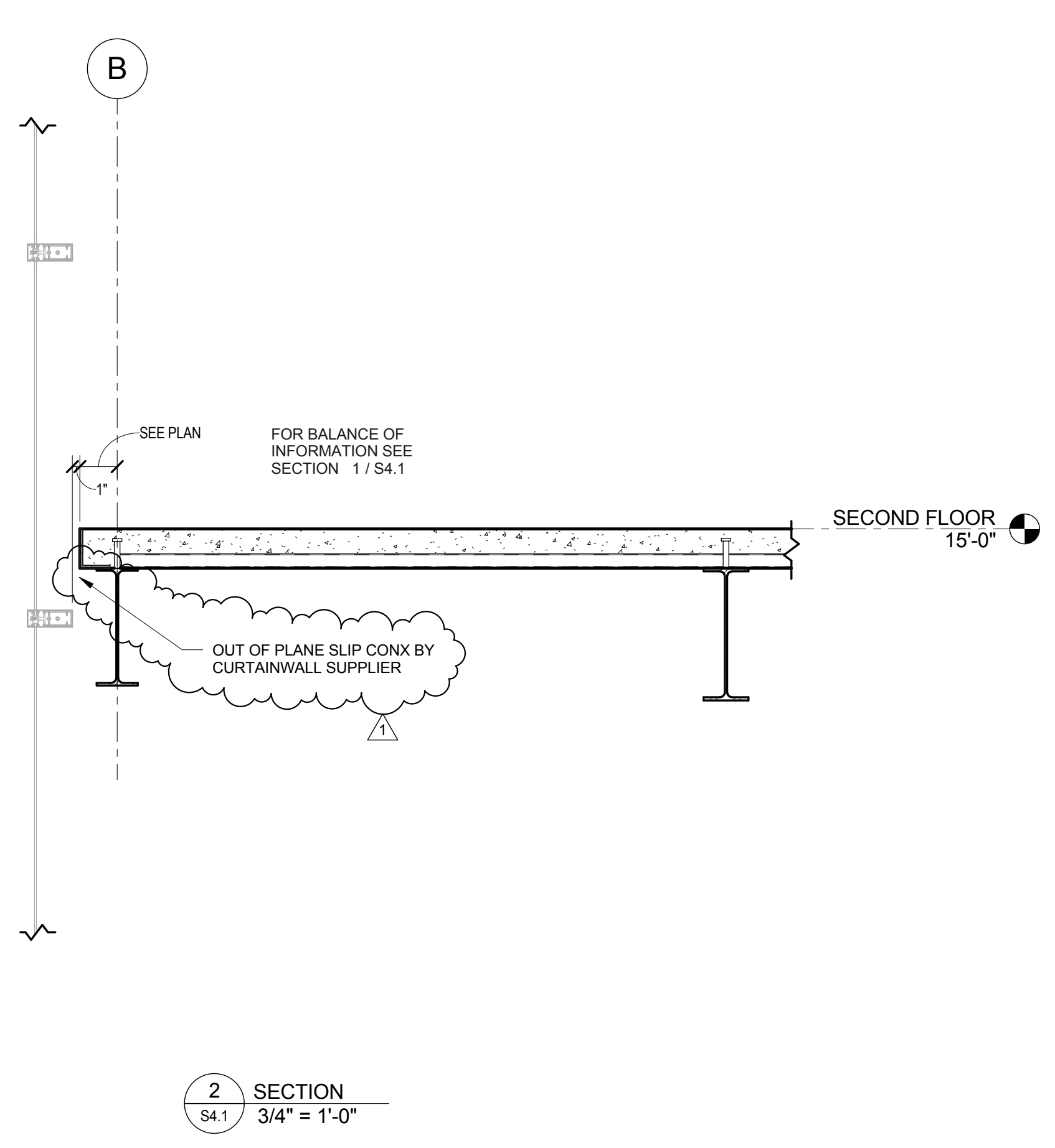
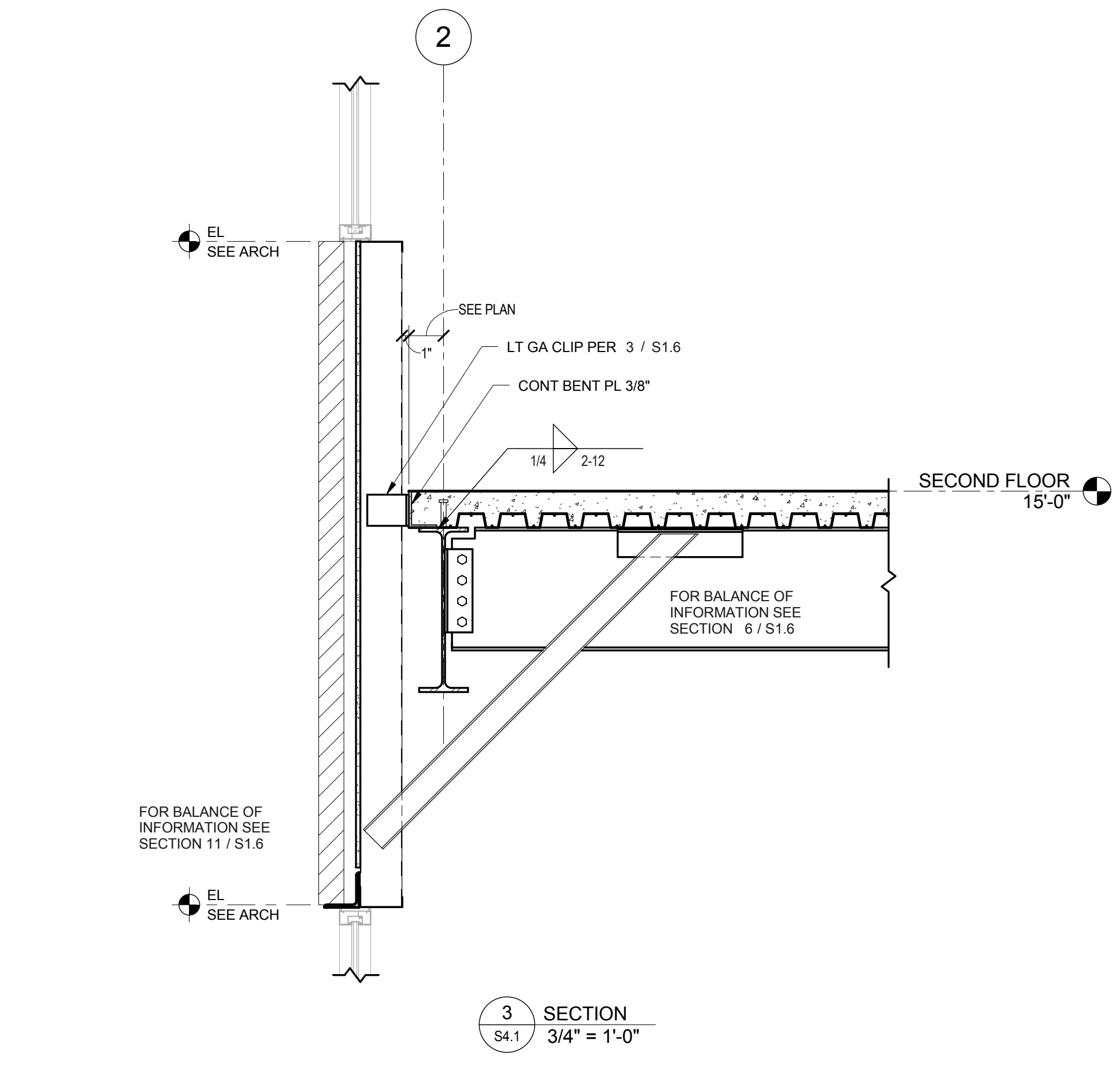
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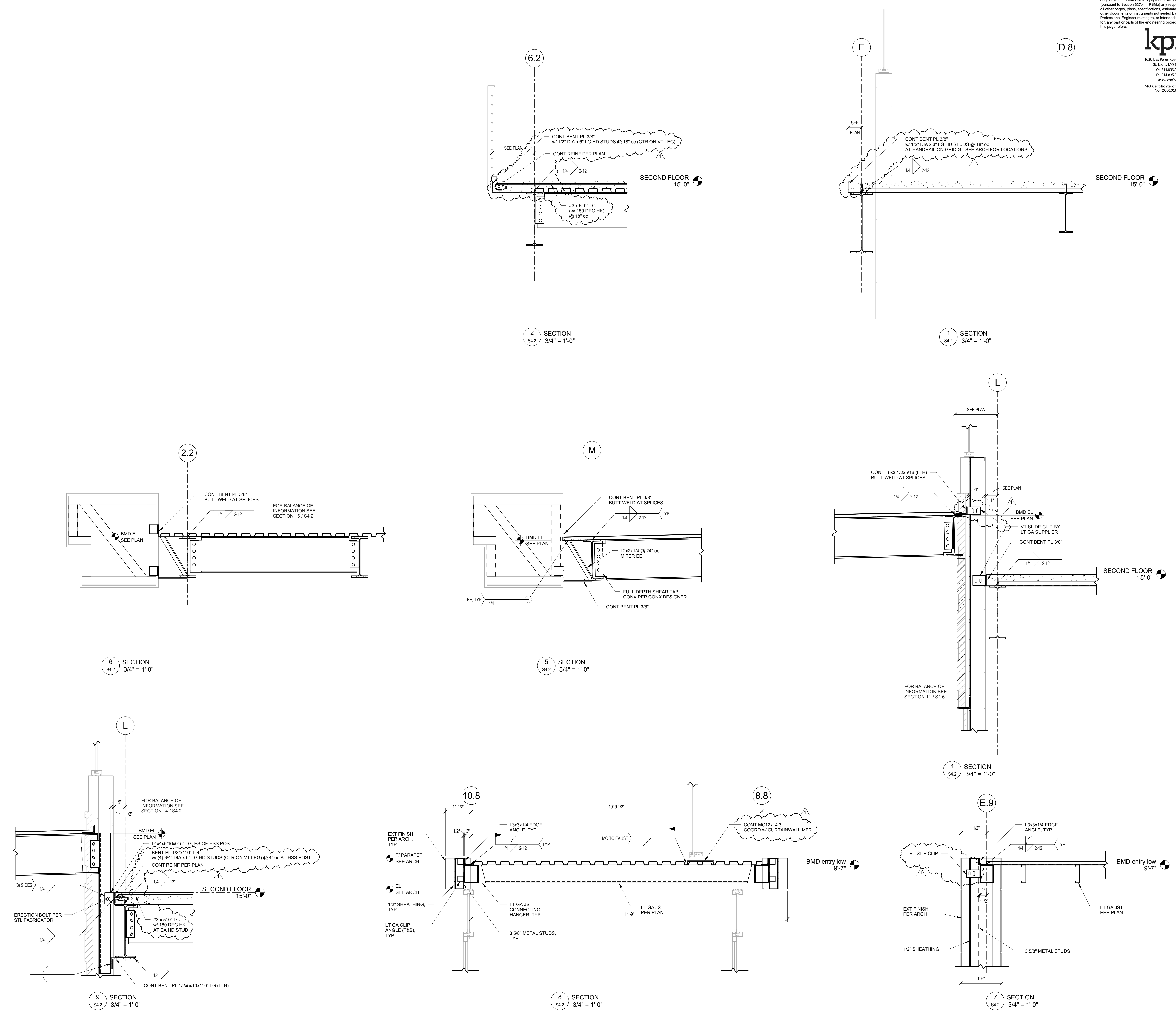
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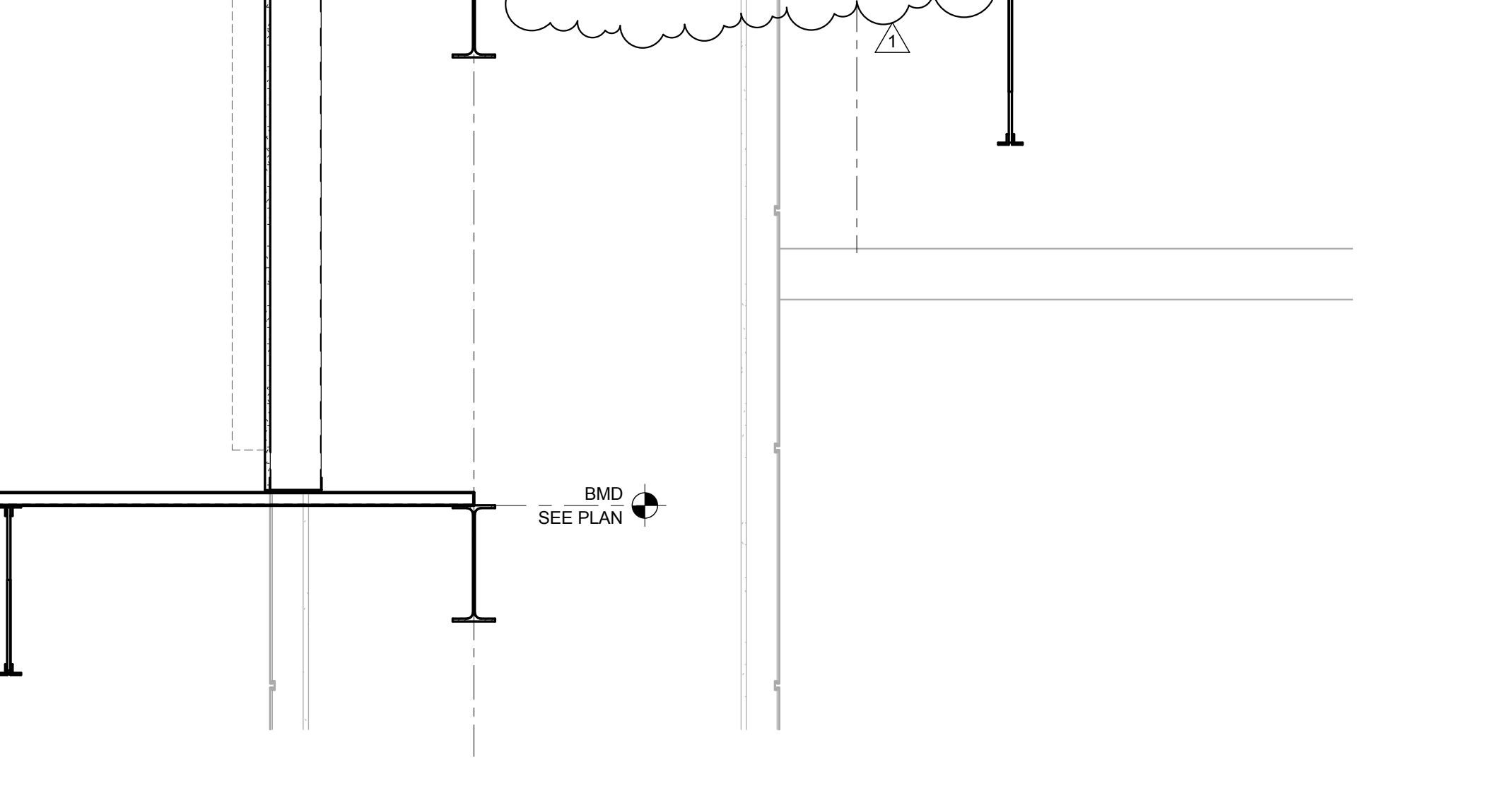
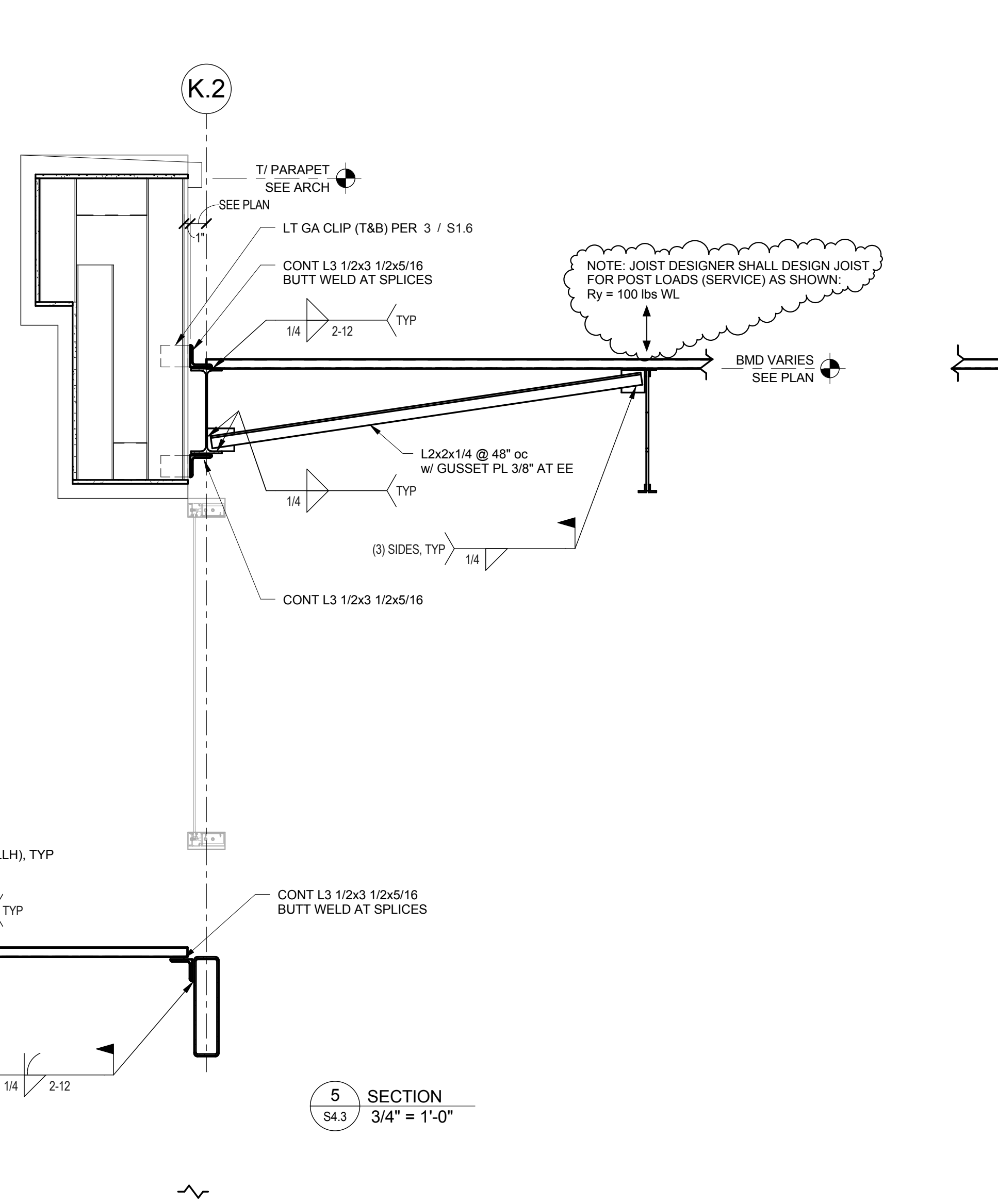
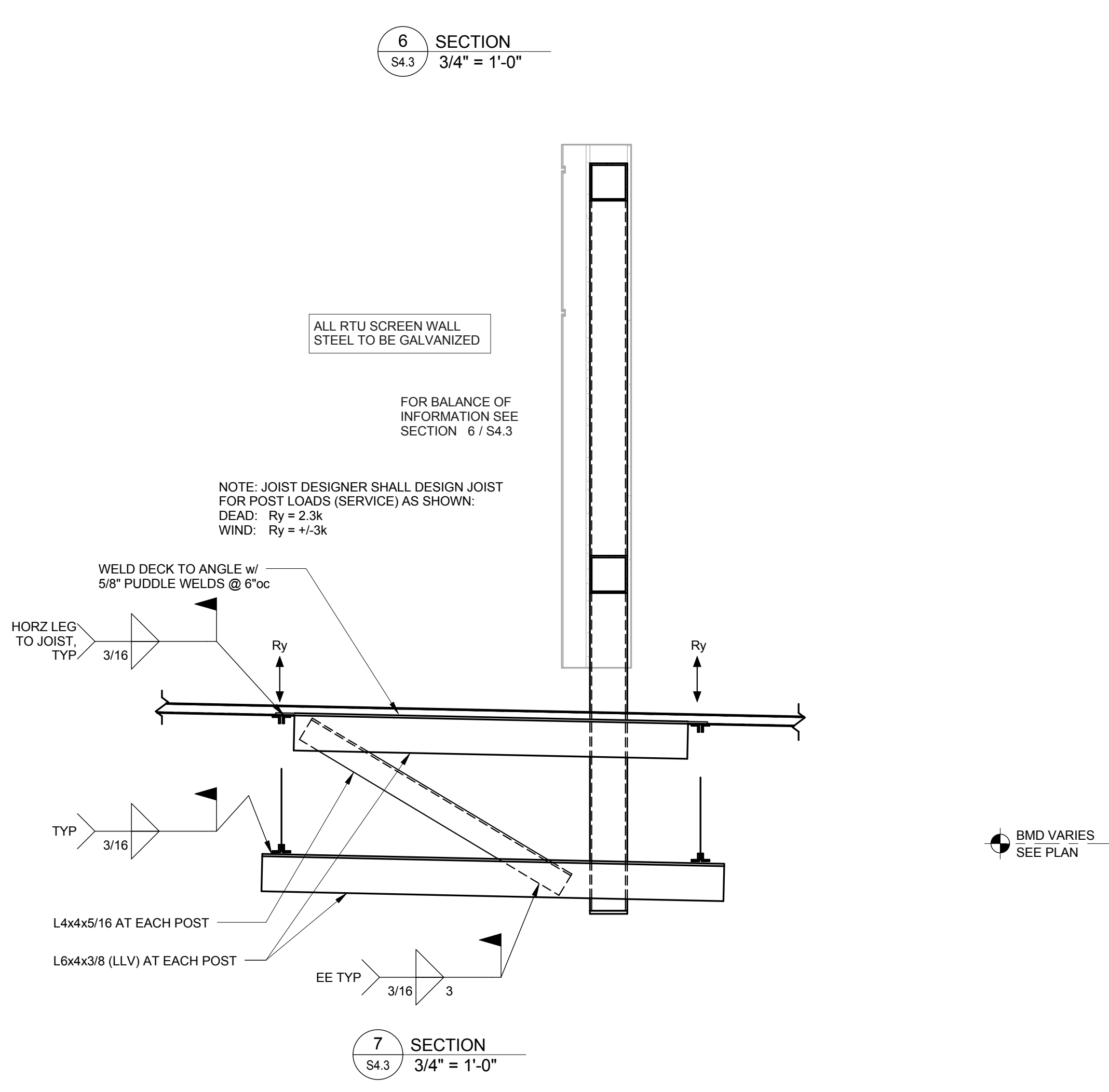
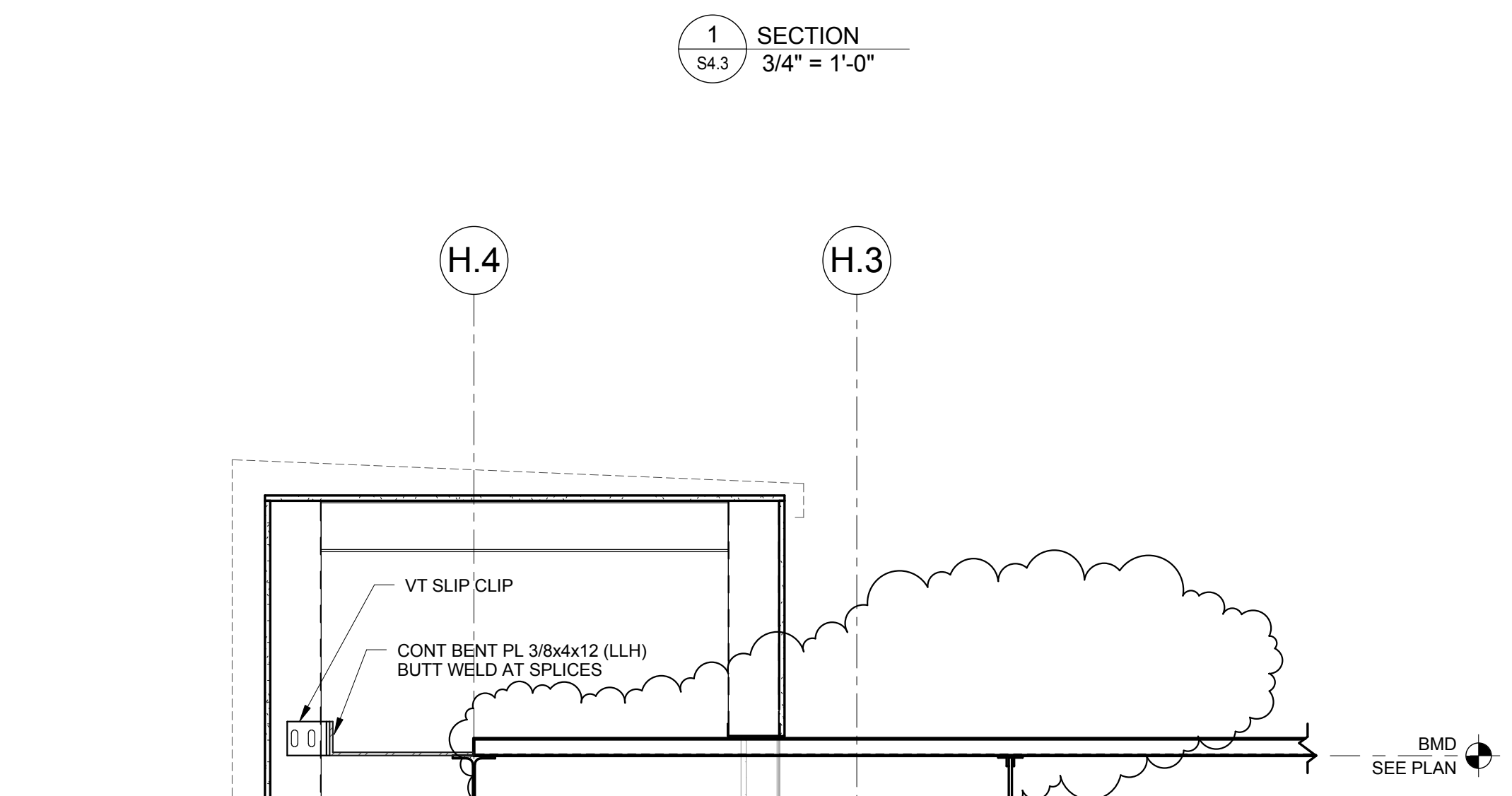
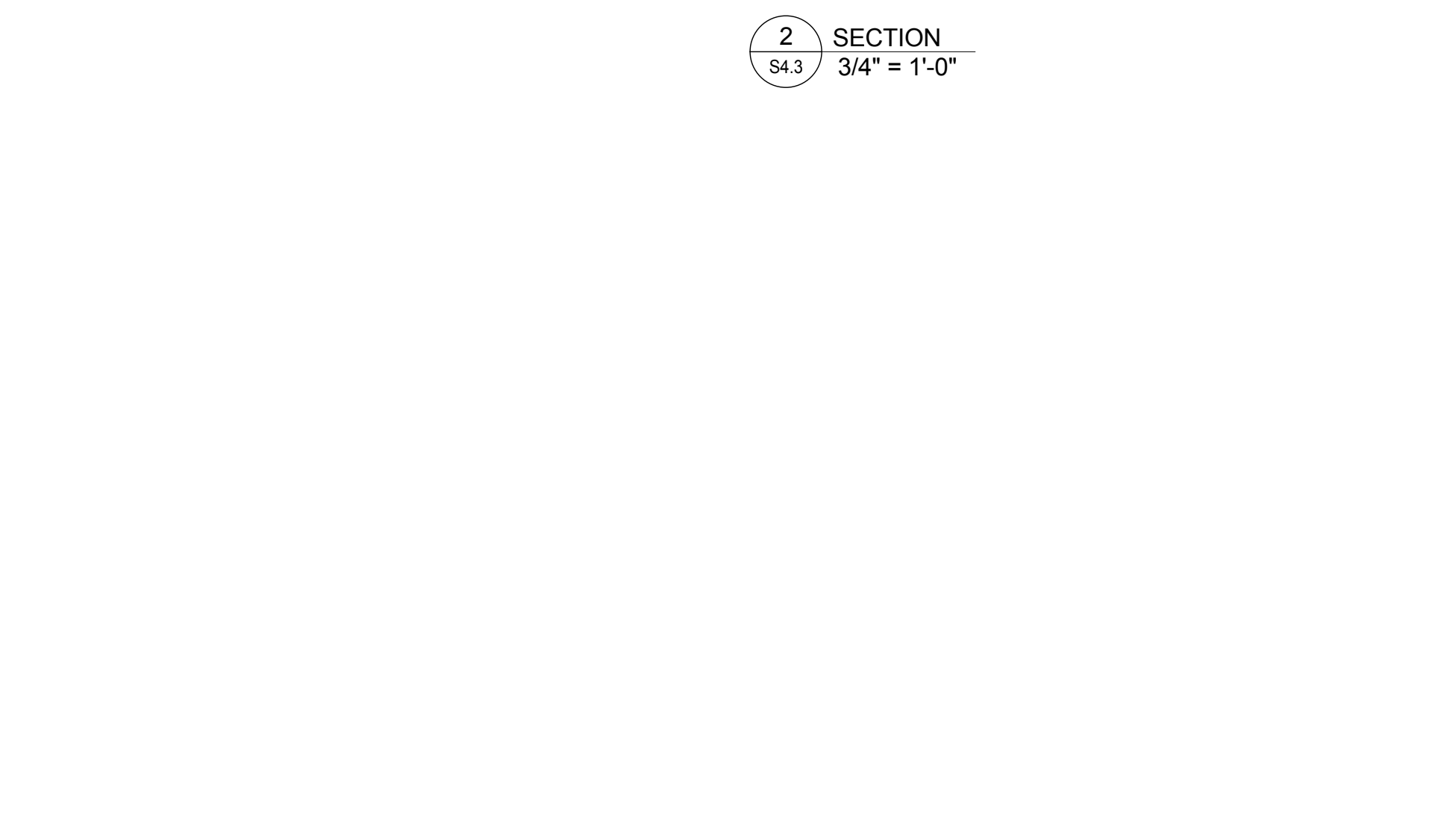
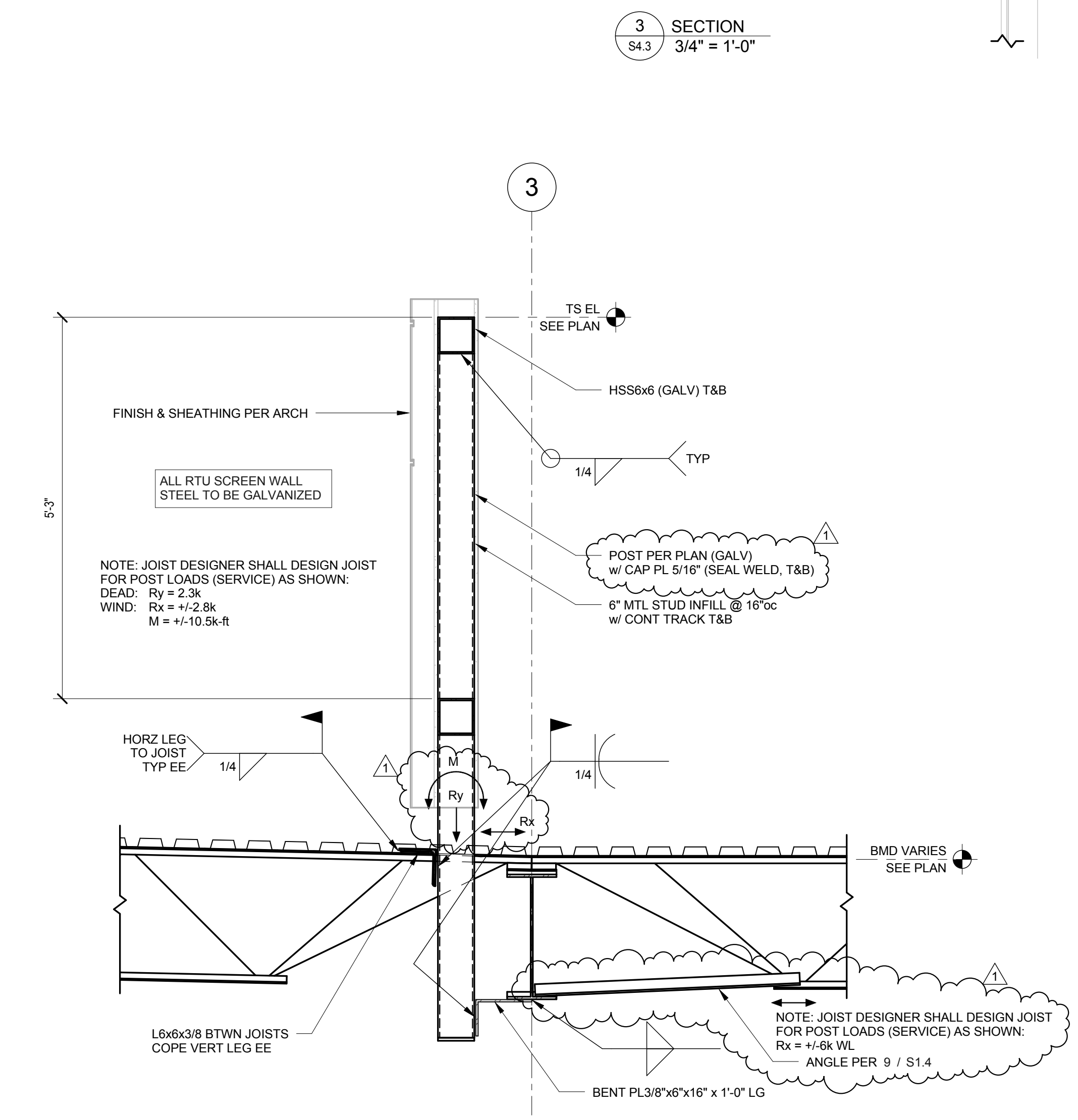
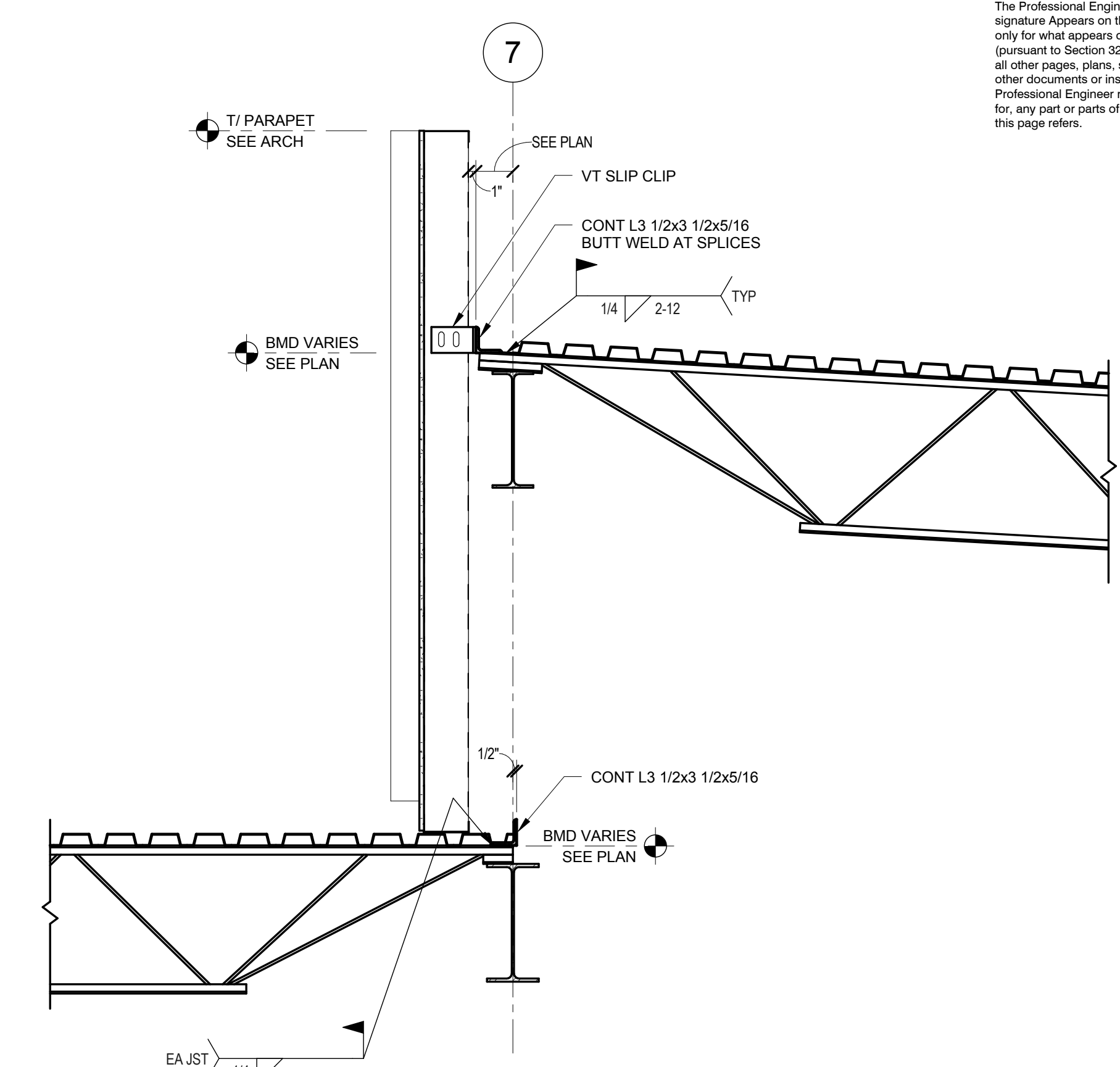
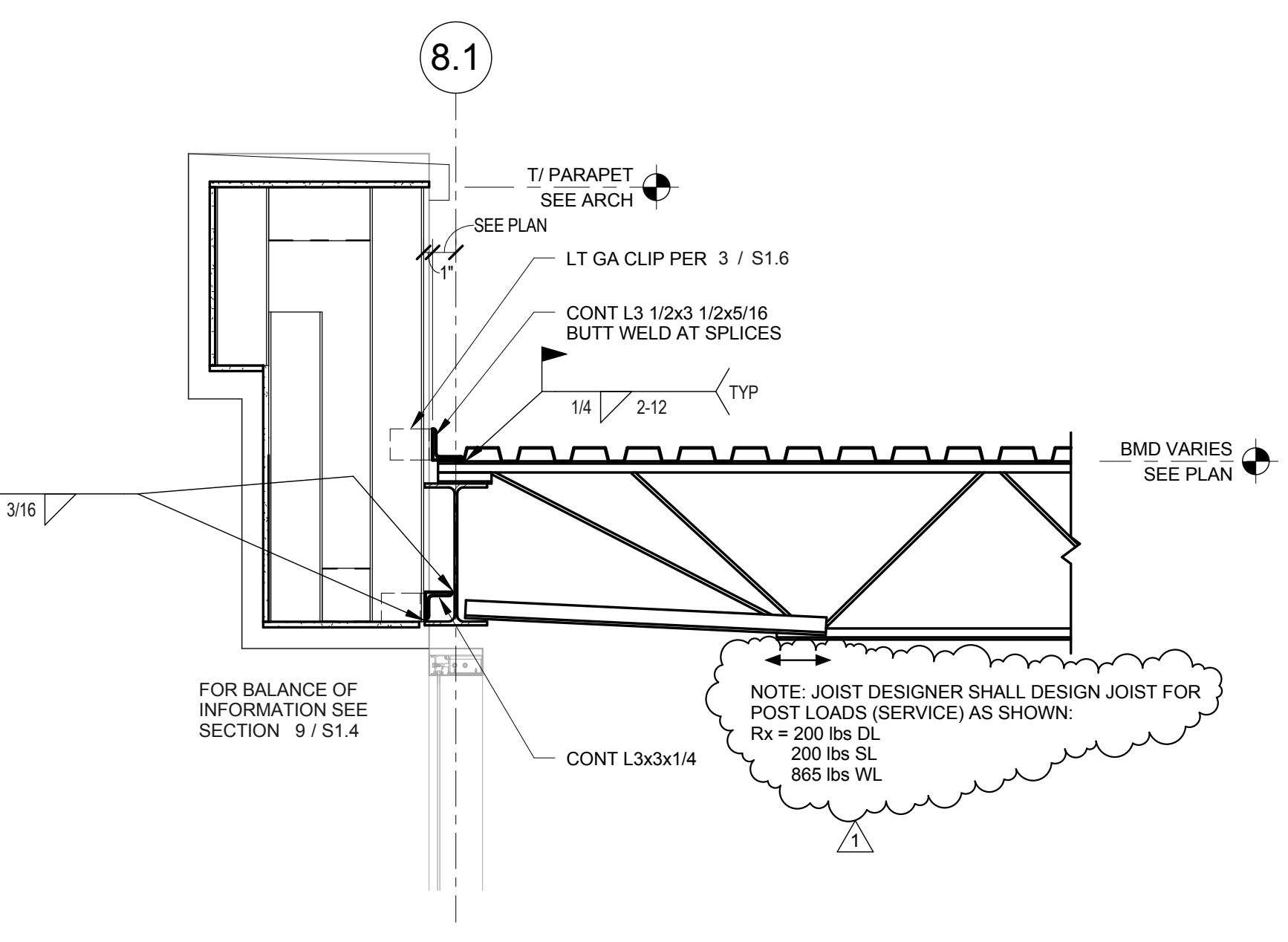
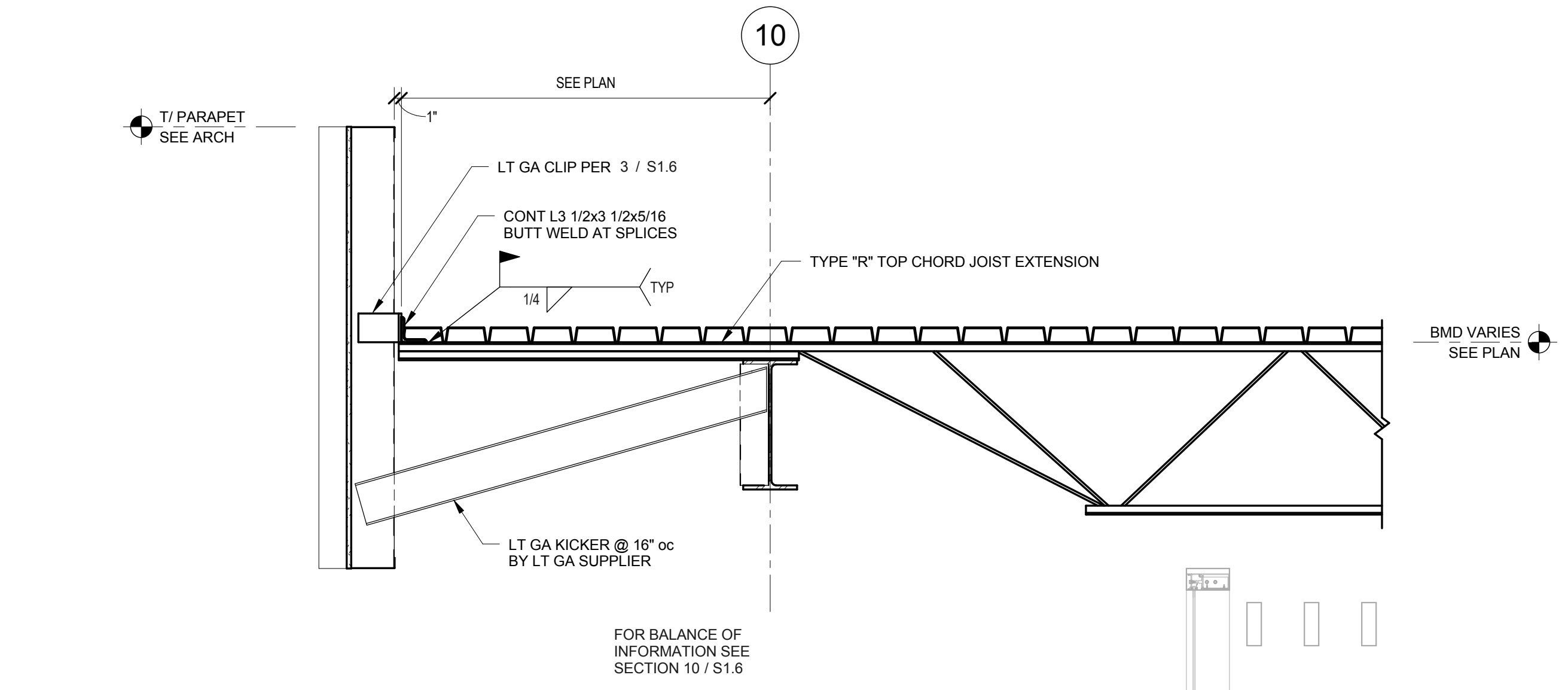
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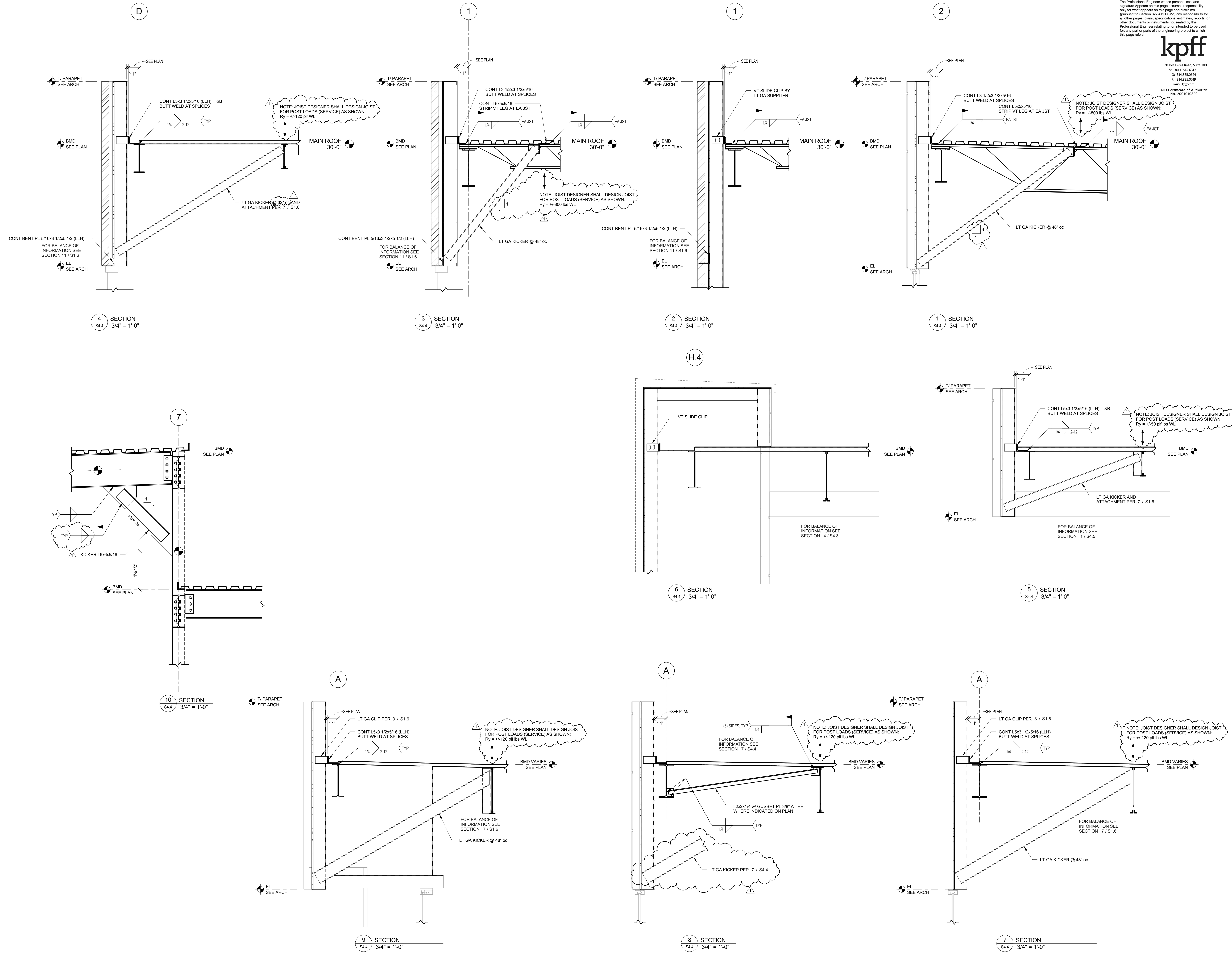


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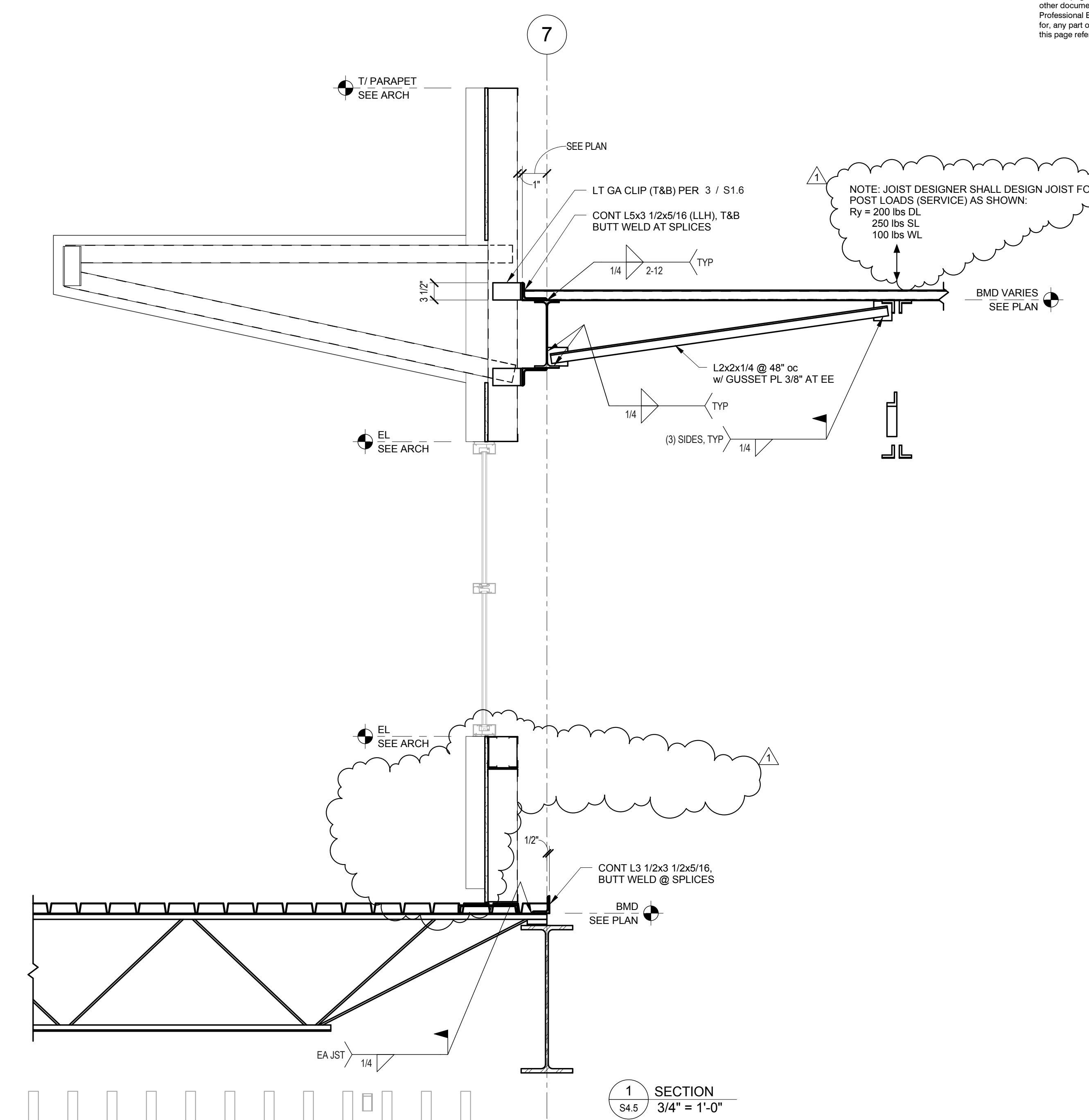
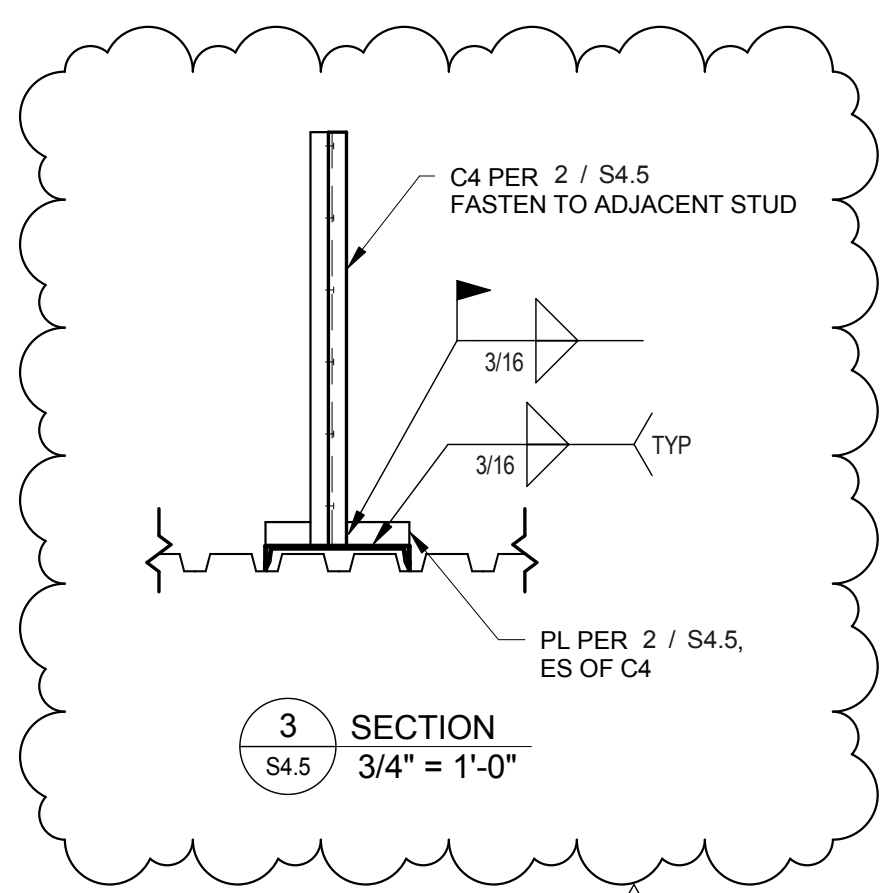
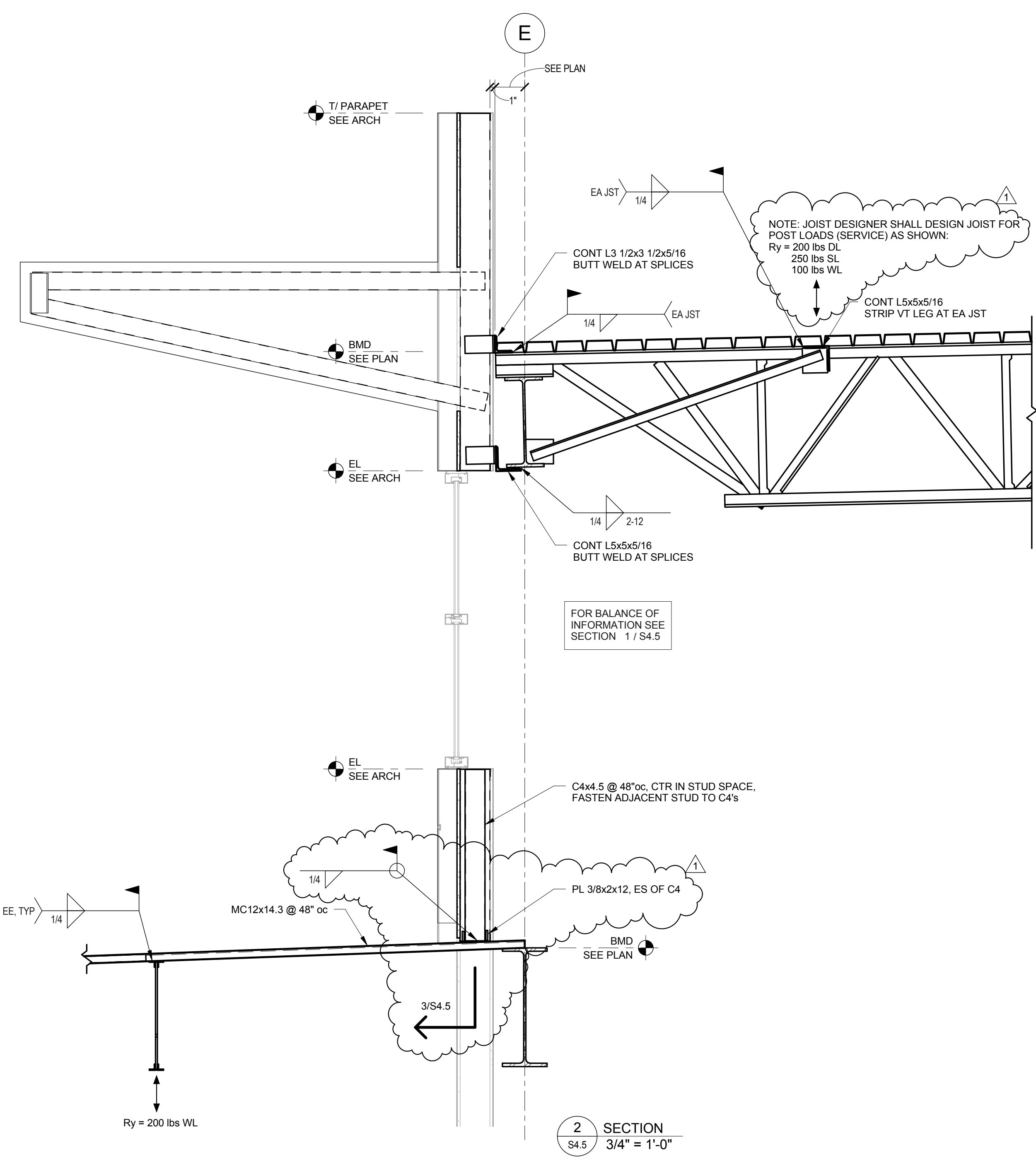


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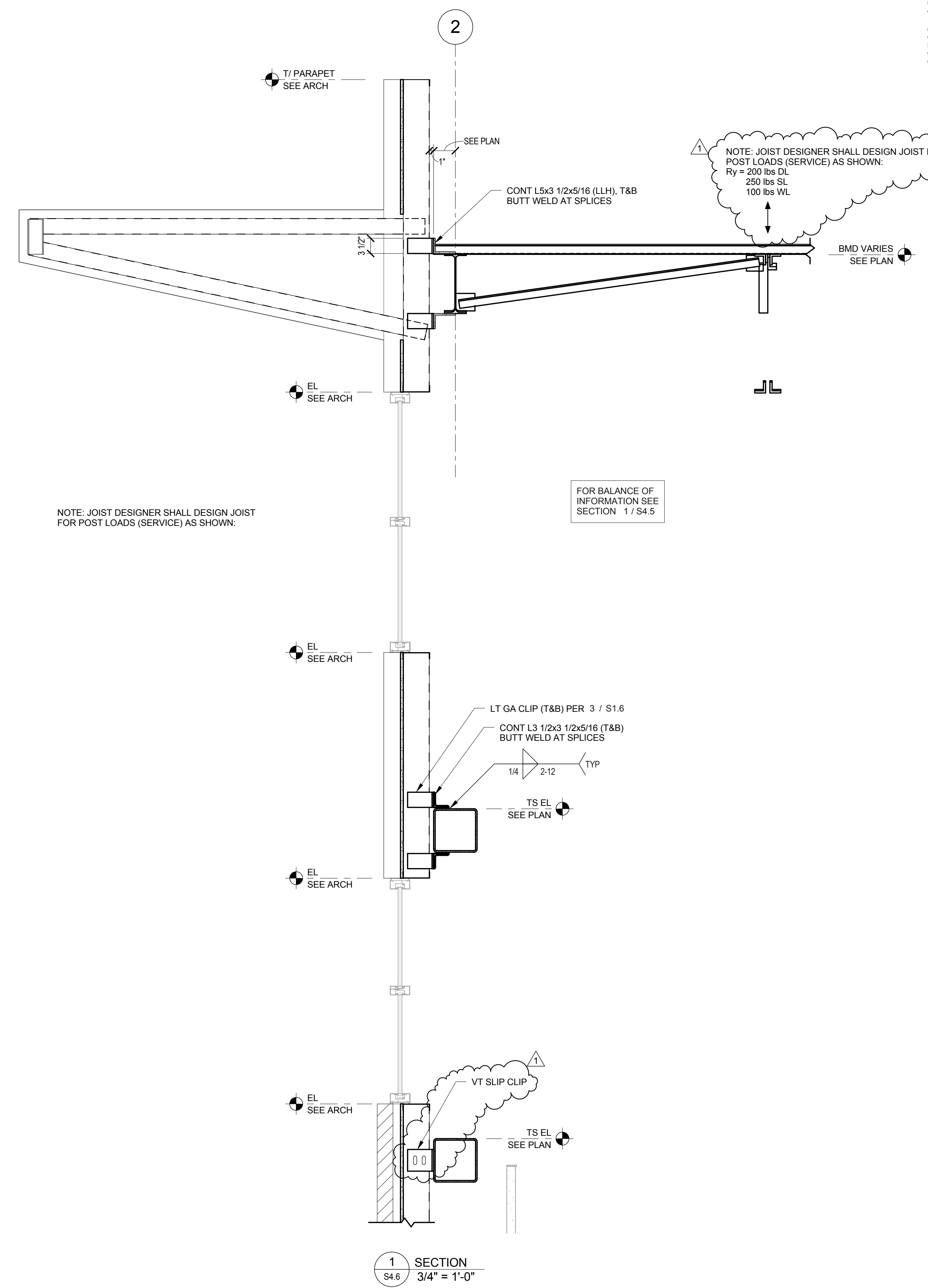
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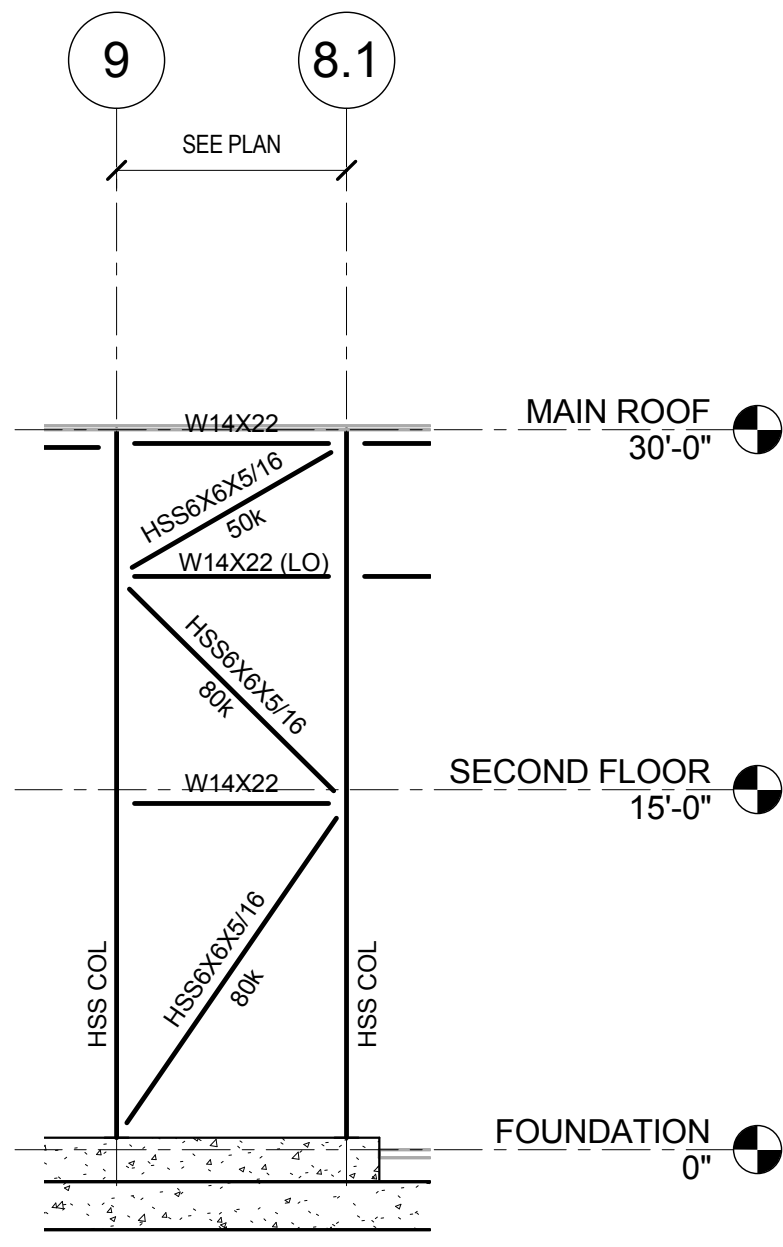
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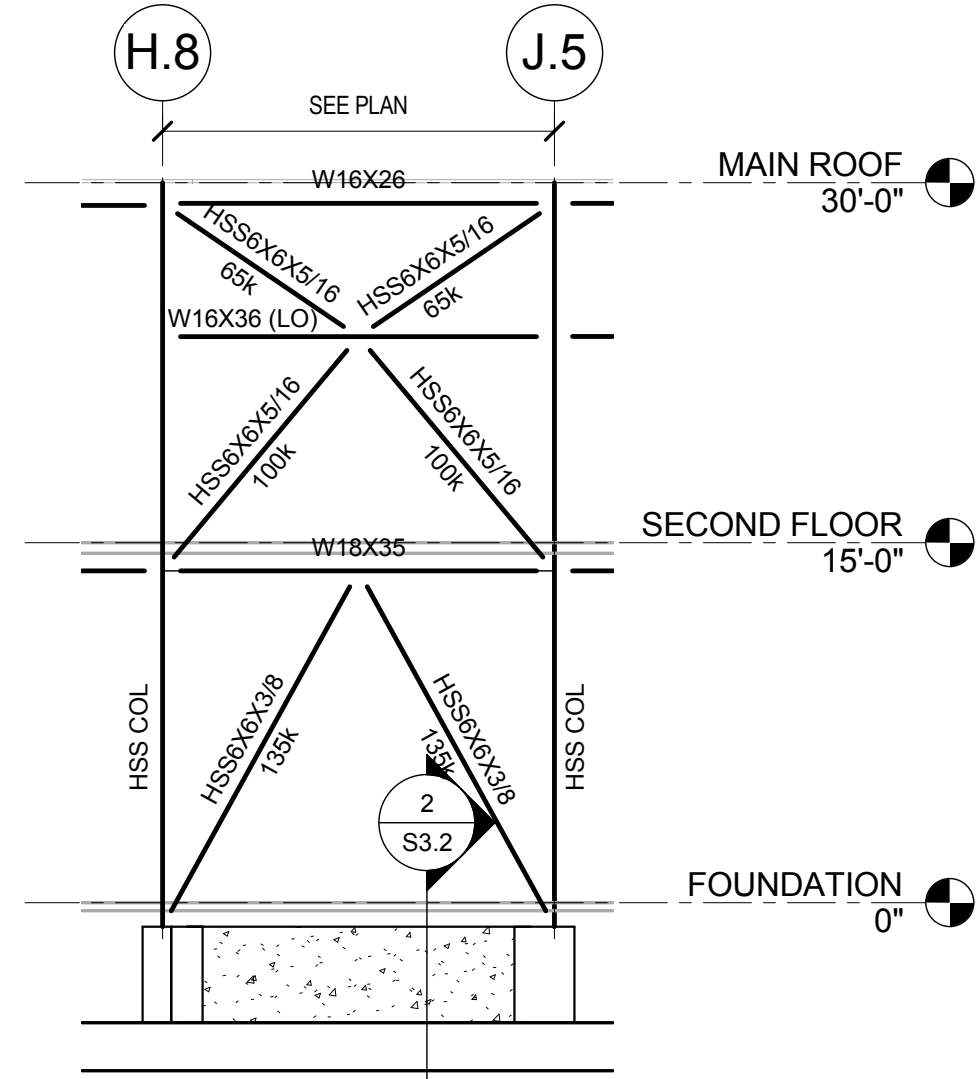
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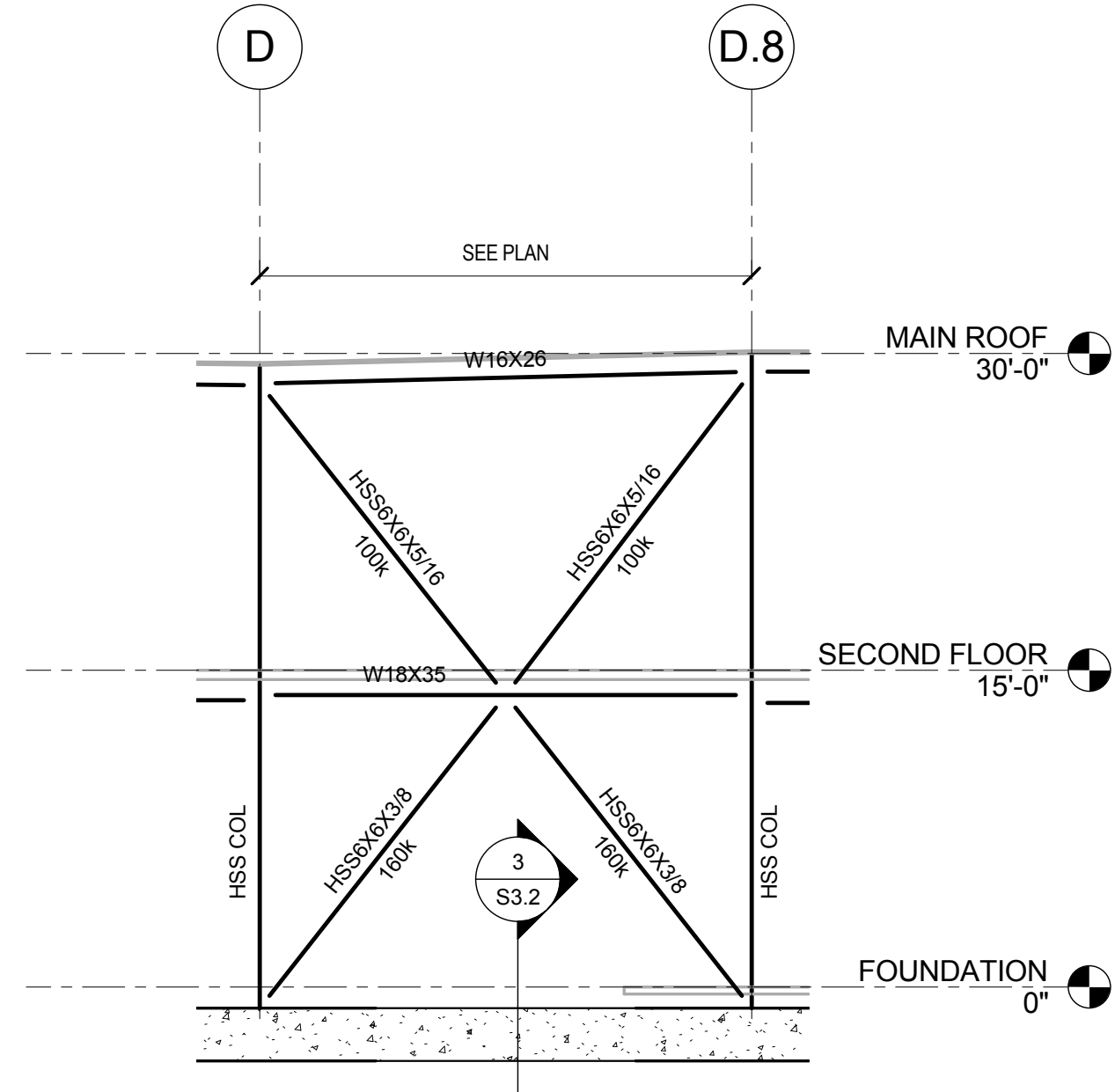
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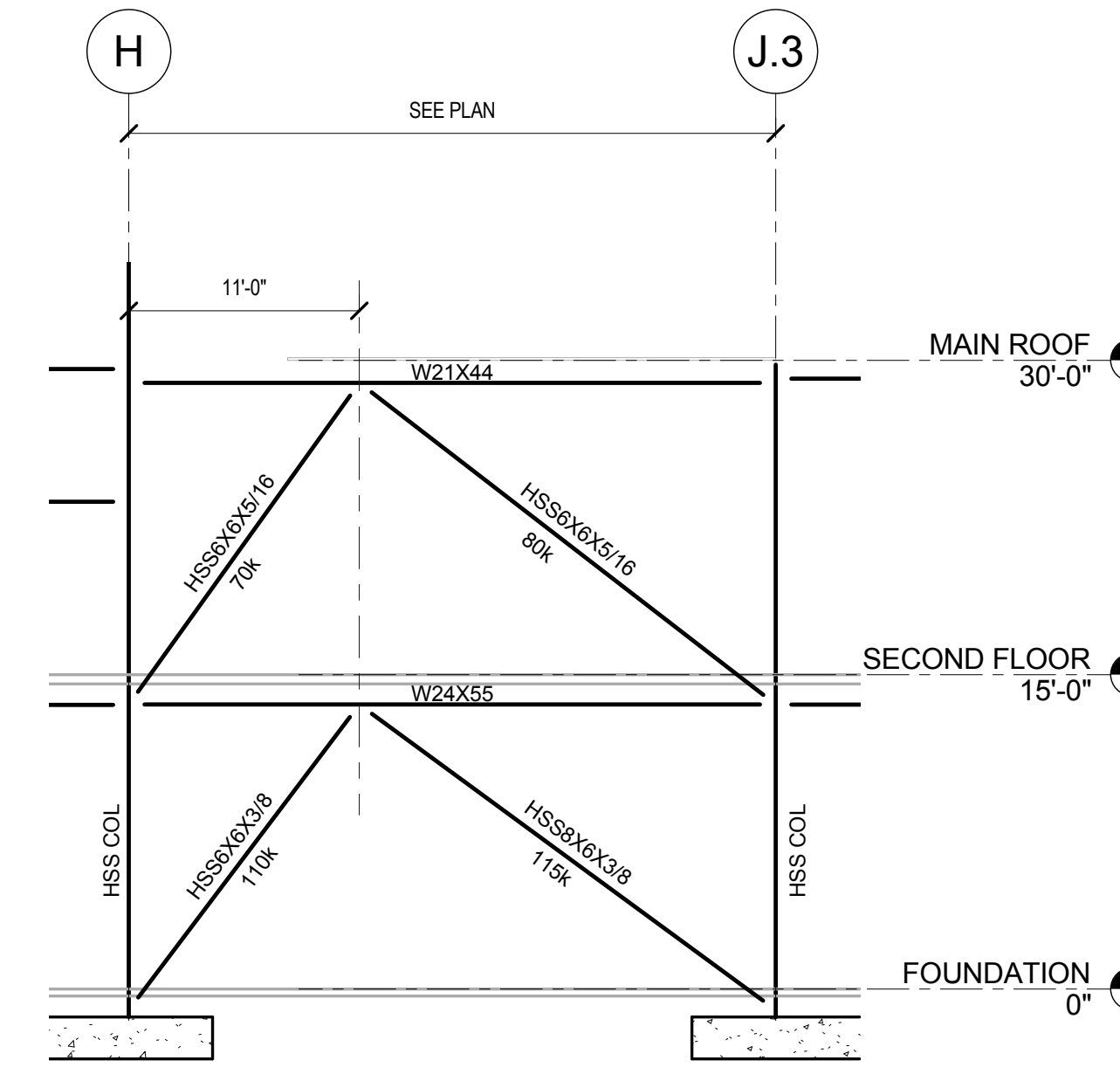
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S5.1 1/8" = 1'-0"



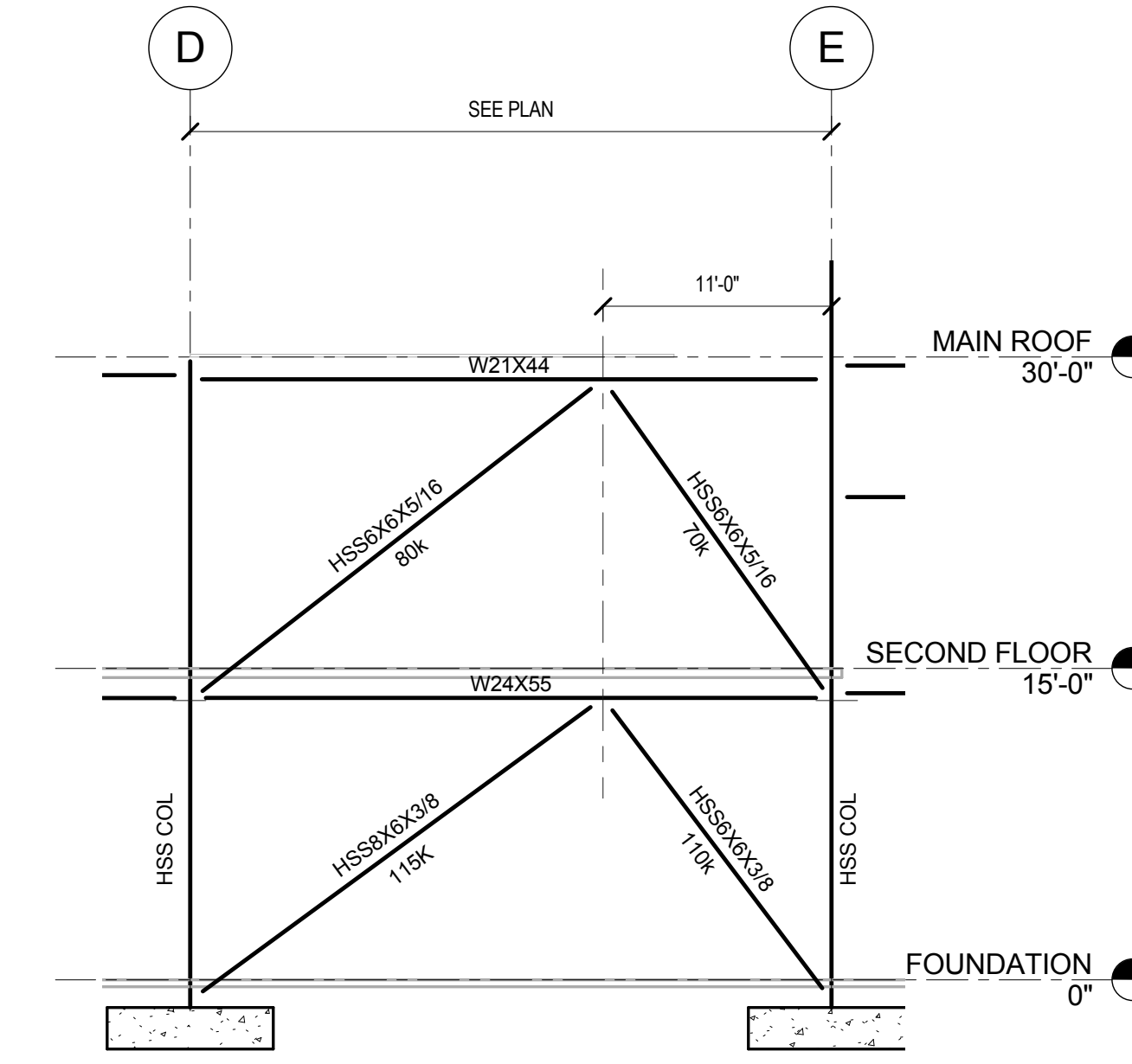
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S5.1 1/8" = 1'-0"



3 VB-3
S5.1 1/8" = 1'-0"



2 VB-2
S5.1 1/8" = 1'-0"



1 VB-1
S5.1 1/8" = 1'-0"

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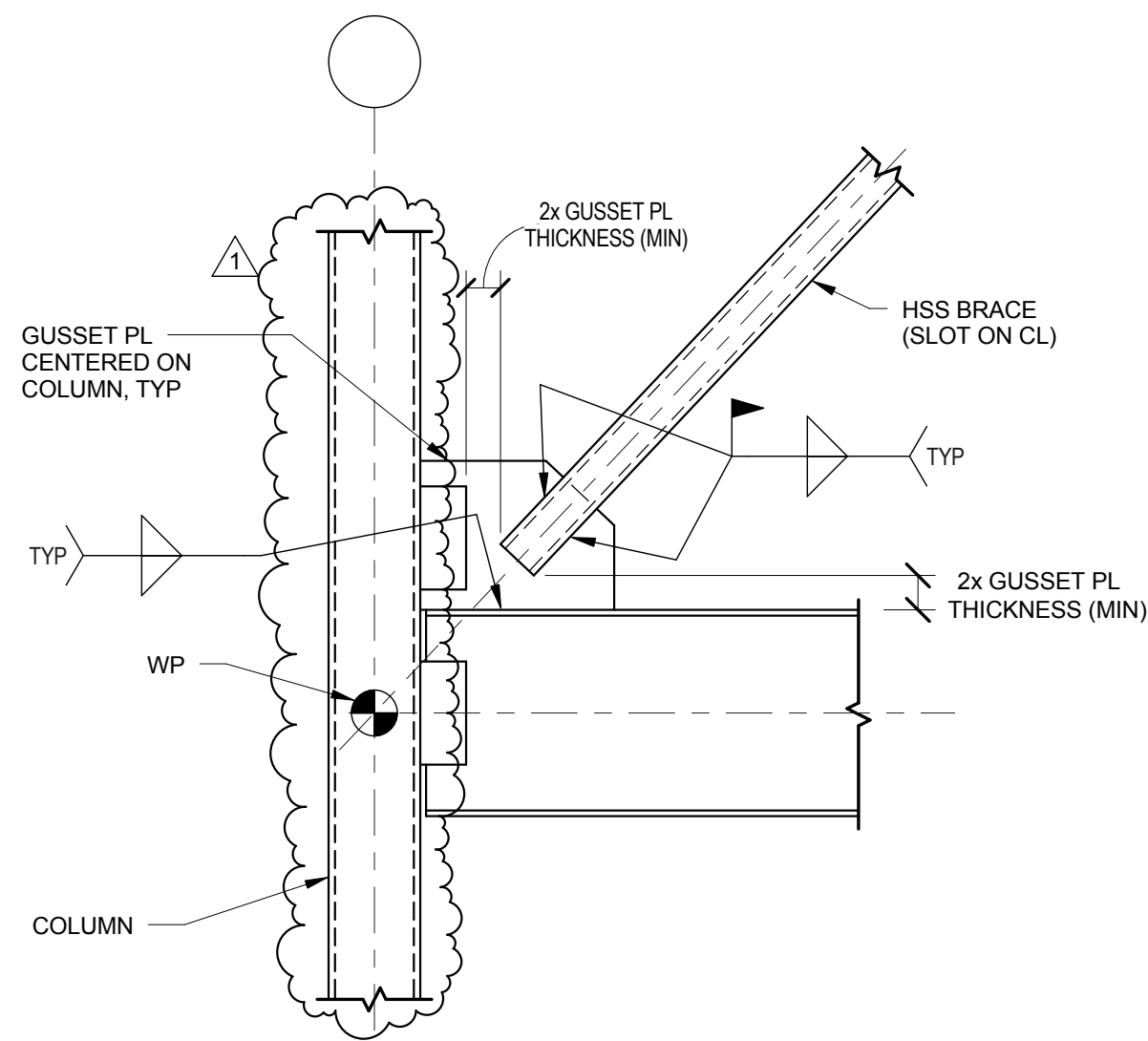


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Licensee's Certificate of Authority # 000958
Expires 12-31-2019

CIVIL CONSULTANT
Shafer, Kline & Warren, Inc.
11250 Corporate Avenue
Lenexa, Kansas 66219
913.886.7800
Licensee's Certificate of Authority Number:
#000143

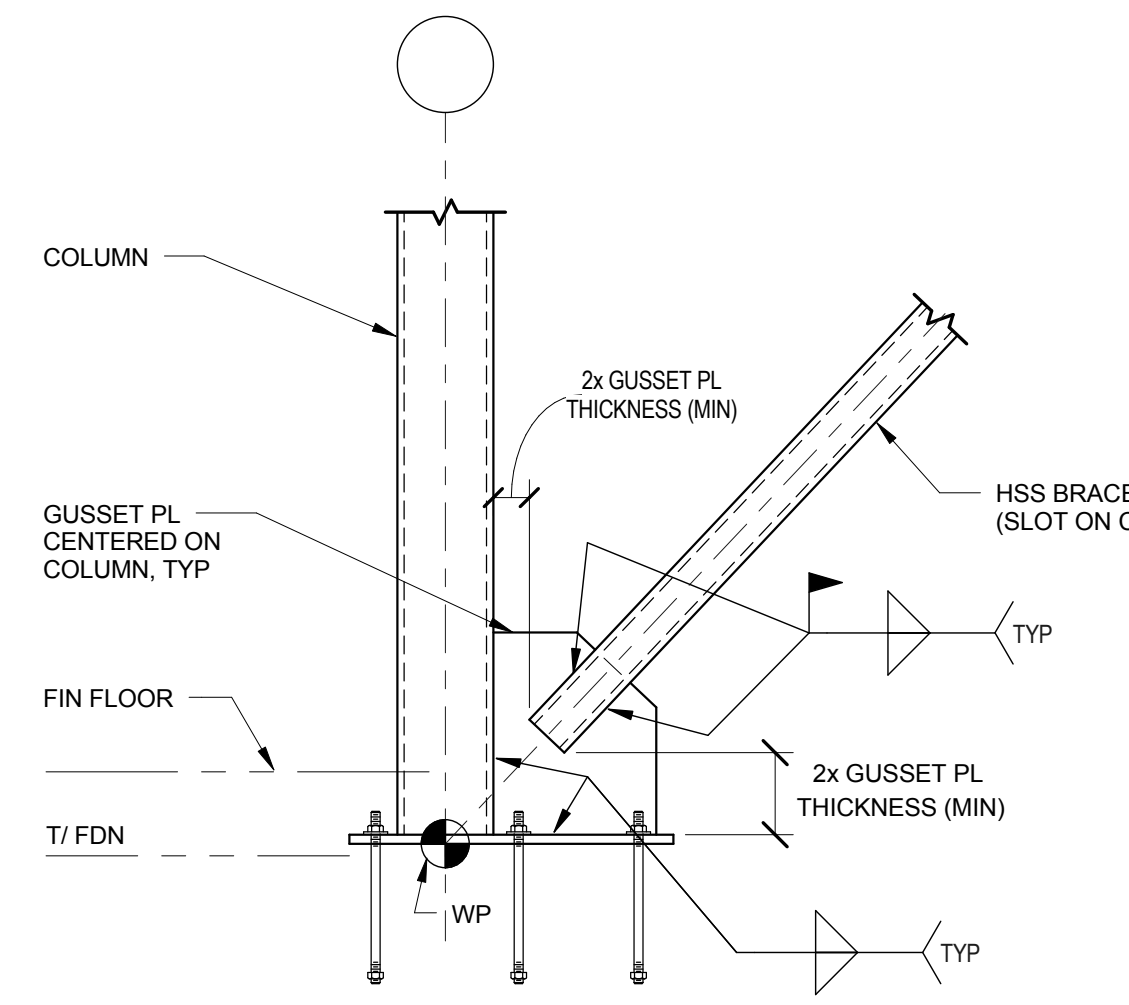
STRUCTURAL CONSULTANT
KPFF Consulting Engineers
1610 Des Peres Road, Suite 100
St. Louis, Missouri 63131
314.835.0524
Licensee's Certificate of Authority Number:
#2001010829

MEP CONSULTANT
G&W Engineering Corporation
138 Weldon Parkway
Maryland Heights, Missouri 63043
314.737.4200
Licensee's Certificate of Authority Number:
#2002018767

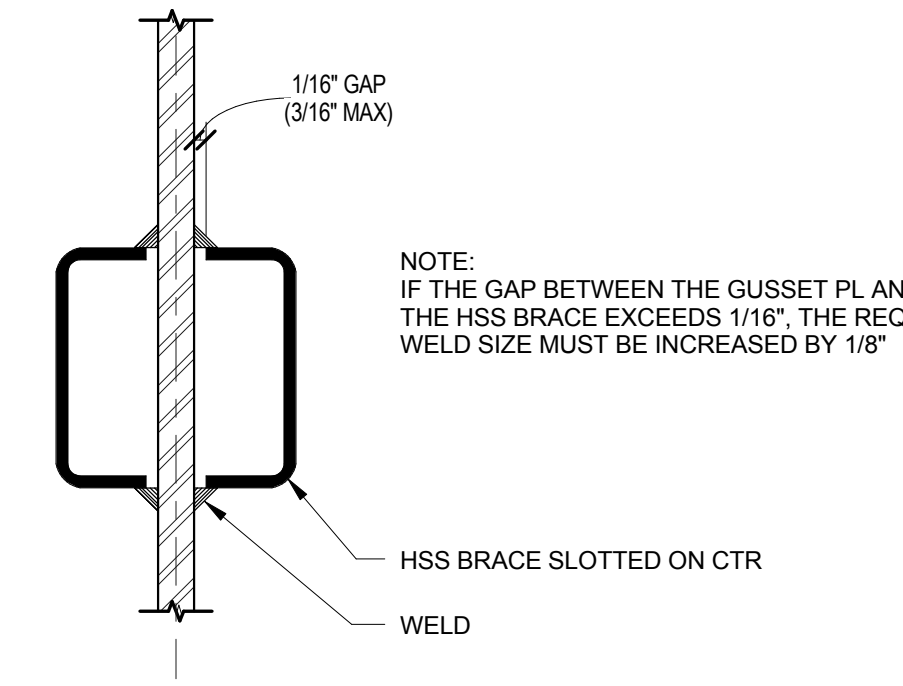


10 VERTICAL BRACE MIDDLE CONNECTION DETAIL
S5.1 3/4" = 1'-0"

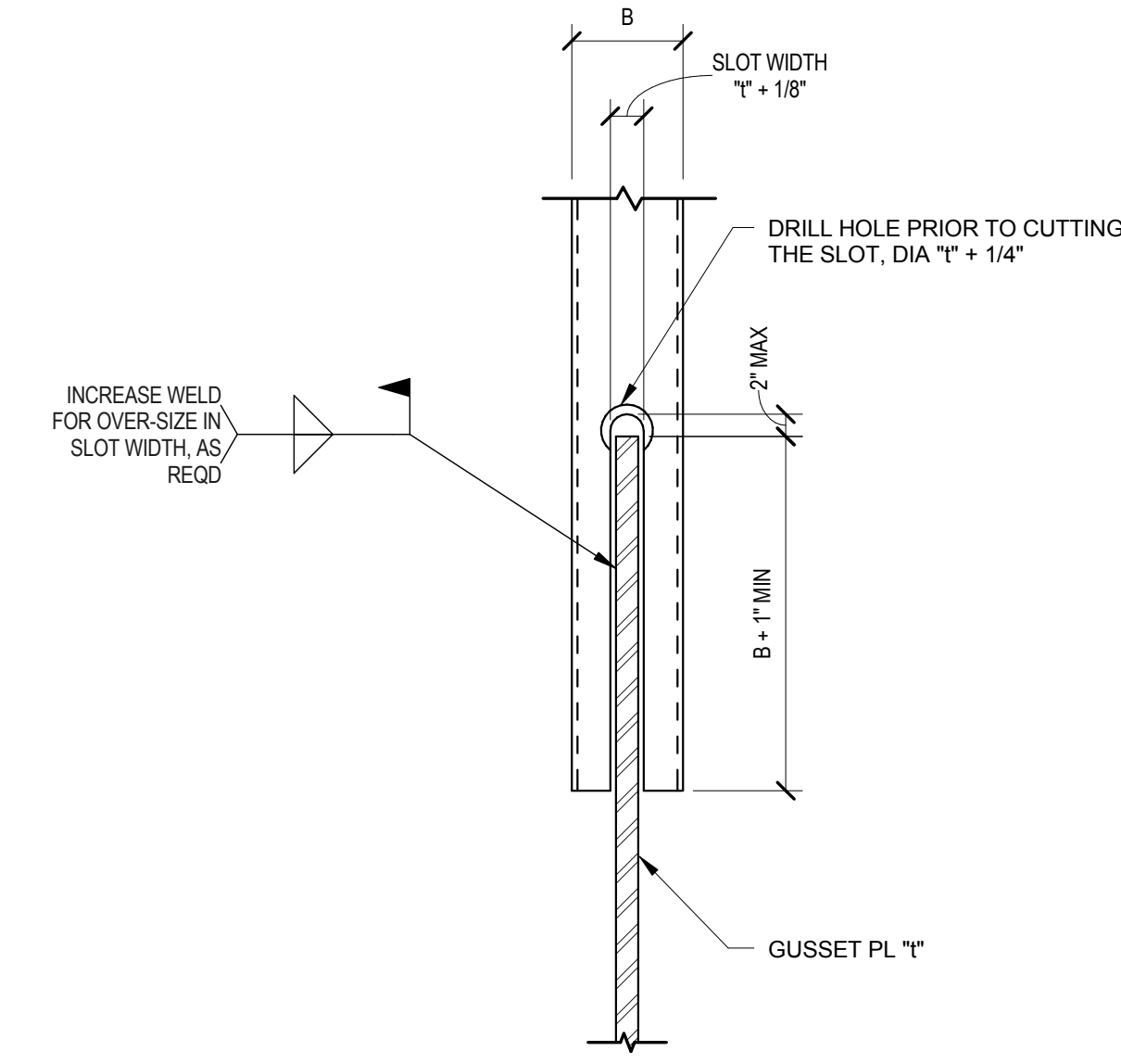
9/S5.1 - NOT USED



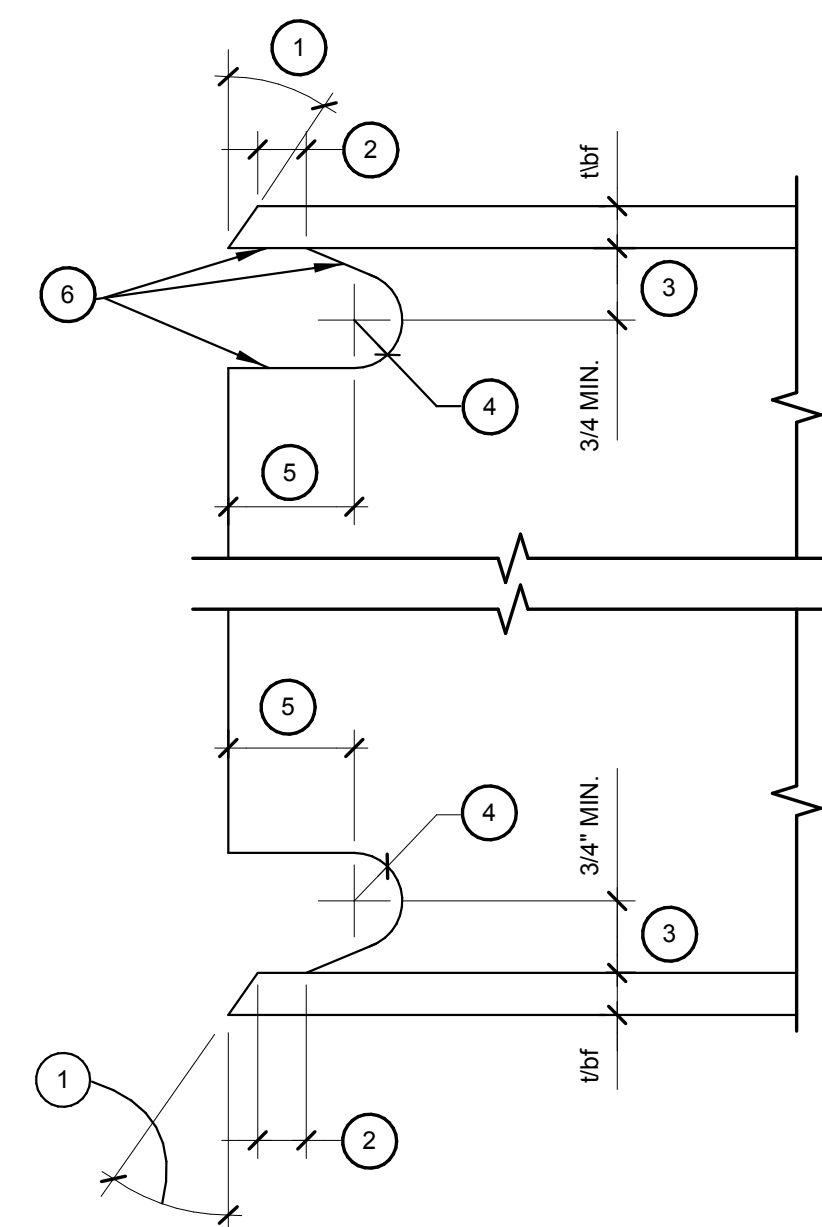
8 VERTICAL BRACE BOTTOM CONNECTION DETAIL AT HSS COLUMN
S5.1 3/4" = 1'-0"



7 TYPICAL HSS BRACE SLOT AT GUSSET PLATE
S5.1 3/4" = 1'-0"



6 TYPICAL BRACE SLOT DETAIL
S5.1 3/4" = 1'-0"



13 TYPICAL WELD ACCESS HOLES FOR MOMENT CONNECTION DETAILS
S5.1 3/4" = 1'-0"

NOTES

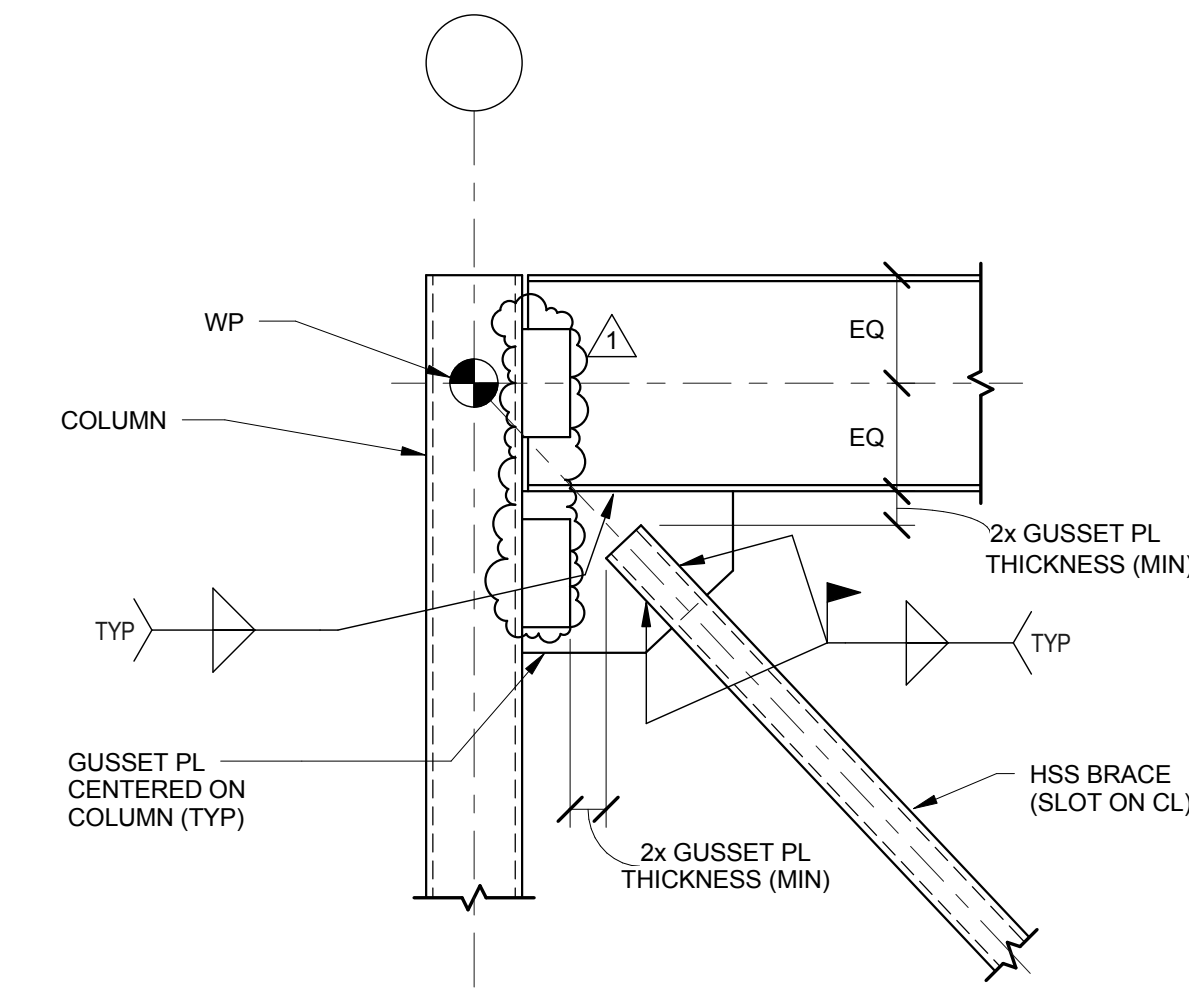
- BEVEL AS REQUIRED BY AWS D1.1 FOR SELECTED GROOVE WELD PROCEDURE.
- LARGER OF 1/8" OR 1/2" (PLUS 1/2 tbf, OR MINUS 1/4 tbf.)
- 3/4" tbf TO tbf, 3/4" MINIMUM (+/- 1/4").
- 3/8" MINIMUM RADIUS (PLUS NOT LIMITED, OR MINUS 0).
- 3 tbf (+/- 1/2").
- SEE FEMA-353, RECOMMENDED SPECIFICATIONS AND QUALITY ASSURANCE GUIDELINES FOR STEEL MOMENT-FRAME CONSTRUCTION FOR SEISMIC APPLICATIONS FOR FABRICATION DETAILS INCLUDING CUTTING METHODS AND SMOOTHNESS REQUIREMENTS.

NOTE: TOLERANCES SHALL NOT ACCUMULATE TO THE EXTENT THAT THE ANGLE OF THE ACCESS HOLE CUT TO THE FLANGE SURFACE EXCEEDS 25 DEG.

SEISMIC FORCE RESISTING SYSTEM GENERAL NOTES:

- ALL BRACING AND DRAG STRUT CONNECTIONS TO BE DESIGNED BY CONTRACTOR FOR ULTIMATE LOAD INDICATED.
- VERTICAL BRACE FRAMES, BEAMS COLUMNS, CONNECTIONS AND FOOTINGS ARE PART OF SEISMIC FORCE RESISTING SYSTEM. SEE PROJECT SPECIFICATIONS FOR SPECIAL INSPECTION AND QUALITY ASSURANCE REQUIREMENTS.
- WELD FILLER METAL SHALL MEET MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT MINUS 20 DEGREES FAHRENHEIT AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.
- BOLT HOLES IN BASE PLATES FOR ALL BRACED FRAME COLUMNS SHALL BE STANDARD SIZE HOLES. OVERSIZED HOLES SHALL HAVE PLATE WASHERS ADDED AND PLATE SHALL BE WELDED ALL AROUND TO BASE PLATE. CONTRACTOR SHALL DESIGN PLATE WASHER.
- SEE COLUMN SCHEDULE FOR COLUMN, BASE PLATE, AND ANCHOR ROD SIZES.

12/S5.1 - NOT USED



11 VERTICAL BRACE TOP CONNECTION DETAIL AT HSS COLUMN
S5.1 3/4" = 1'-0"

Lee's Summit Surgical
2861 NE Independence Avenue
Lee's Summit, Missouri 64064

Date 03.19.2018
Job Number 1700341
Drawn By TEP
Checked By JPM

Revision		
Number	Date	Description
1	03/30/18	STRUCTURAL STEEL PACKAGE REVISION 1

STEEL COLUMN SCHEDULE

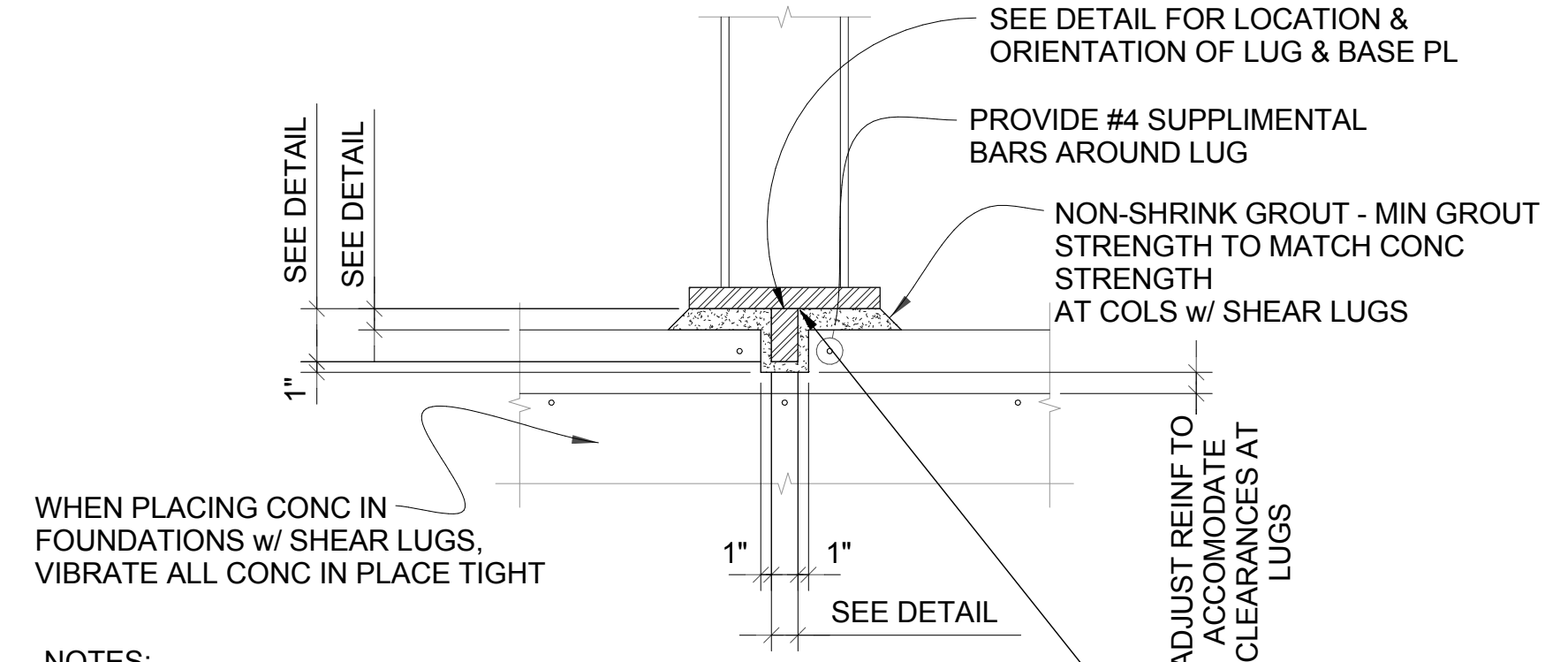
Table with columns for Column Locations (A-2, A-3, A-4, etc.) and rows for levels: HIGH ROOF 41'-0", MAIN ROOF 30'-0", SECOND FLOOR 15'-0", FOUNDATION 0".

kpf logo and address: 1630 Des Peres Road, Suite 100, St. Louis, MO 63131. Phone: 314.835.0524. Website: www.kpf.com. License No. 2001010829.

Professional Engineer seal for John P. Miller, Missouri, License No. E-22365.

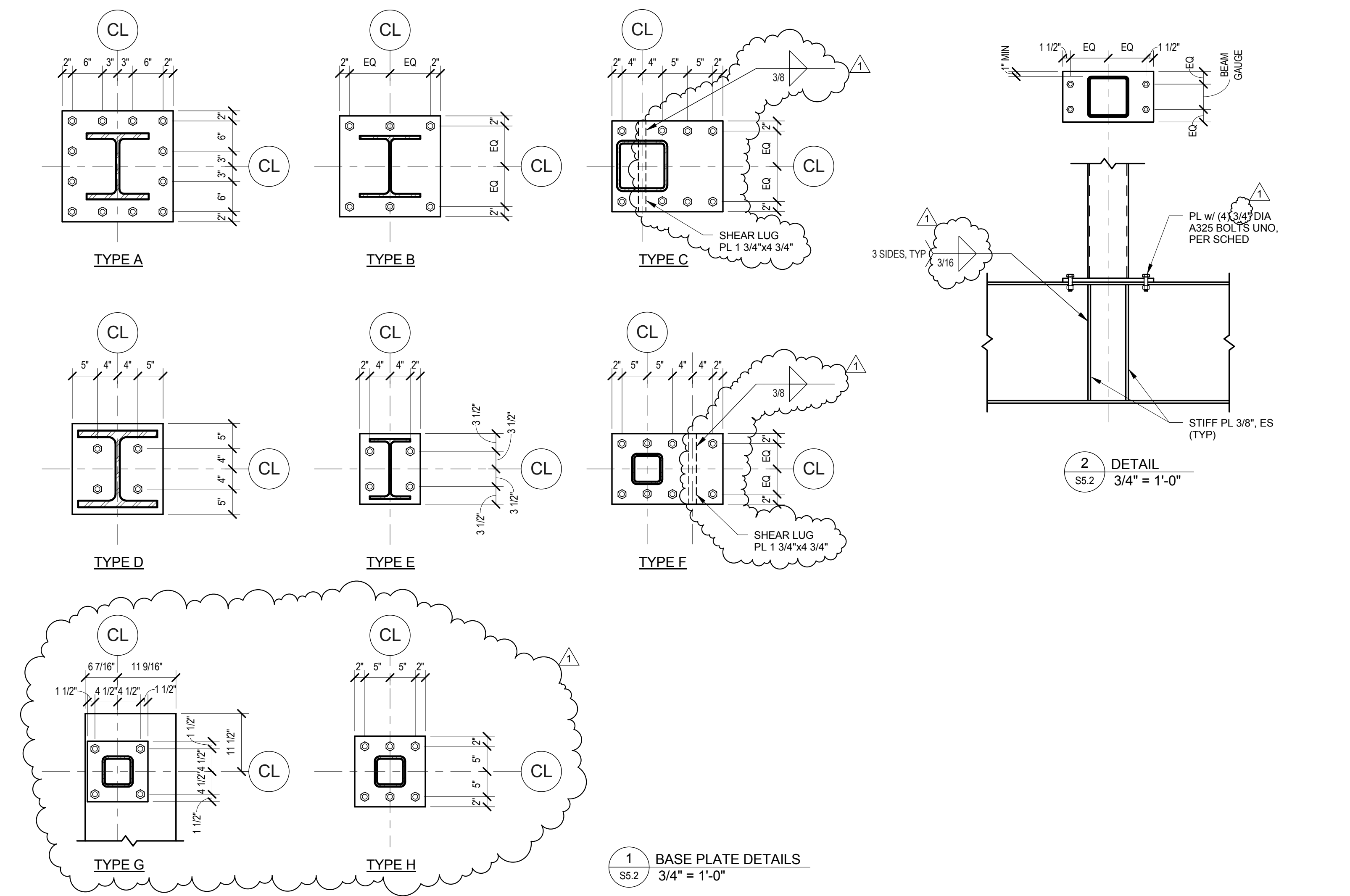
ACI BOLAND ARCHITECTS logo and address: 17107 Chesterfield Airport Rd., Suite 110, Chesterfield, MO 63005. Phone: 314.991.9993. License No. 000958, Expires 12-31-2019.

STEEL COLUMN SCHEDULE table with columns for Column Locations (H-2, H-3, H-4, etc.) and rows for levels: HIGH ROOF 41'-0", MAIN ROOF 30'-0", SECOND FLOOR 15'-0", FOUNDATION 0".



- NOTES: 1. WHEN PLACING CONCRETE IN FOUNDATIONS w/ SHEAR LUGS, VIBRATE ALL CONC IN PLACE TIGHT. 2. WHEN PLACING CONCRETE IN FOOTINGS / PILASTER FOR SHEAR LUG DO NOT SAW CUT CONCRETE FOR SHEAR LUG PLACEMENT. 3. PLACEMENT OF NON-SHRINK GROUT IN COLUMNS w/ SHEAR LUGS SHALL HAVE SPECIAL INSPECTION REPORTS PREPARED ON EACH COLUMN. INSPECTION SHALL BE CONTINUOUS AT EACH SHEAR LUG LOCATION AND THE REPORT SHALL INCLUDE: A. PLACEMENT OF REBAR, B. PROPER CONCRETE MIX, C. PLACEMENT OF NON-SHRINK GROUT, D. WELDING OF COLUMN TO BASE PLATE, E. WELDING OF SHEAR LUG, F. PLACEMENT OF CONCRETE, G. CONDITION OF CONCRETE (HONEYCOMBS, CRACKS, ETC..)

3 TYPICAL SHEAR LUG DETAIL S5.2 3/4" = 1'-0"



STEEL COLUMN BASEPLATE SCHEDULE table with columns: COLUMN LOCATION MARK, TYPE, BASEPLATE, ANCHOR RODS, COMMENTS. Lists details for columns A-2 through H-2-7.

STEEL COLUMN BASEPLATE SCHEDULE table with columns: COLUMN LOCATION MARK, TYPE, BASEPLATE, ANCHOR RODS, COMMENTS. Lists details for columns H-3-1 through H-2-7.

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MEP CONSULTANT

G&W Engineering Corporation 138 Weldon Parkway, Maryland Heights, Missouri 63043. Phone: 314.737.4200. License No. 2002018767.

Lee's Summit Surgical 2861 NE Independence Avenue Lee's Summit, Missouri 64064

Date: 03.19.2018 Job Number: 1700341 Drawn By: TEP Checked By: JPM

Revision table with columns: Number, Date, Description. Shows revision 1 dated 03/30/18 for 'STRUCTURAL STEEL PACKAGE REVISION 1'.