

ONE-TIME-BUILD LICENSE AGREEMENT

NOTE: GOVERNING CODES &
GENERAL CONTRACTOR'S WRITTEN SPECIFICATIONS
TAKE PRECEDENCE OVER THESE PLANS.

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"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).

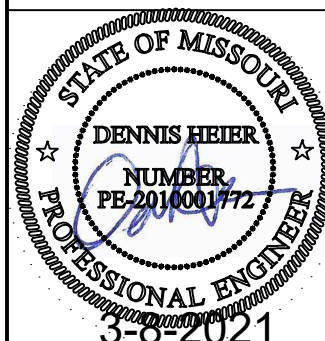


RESIDENTIAL DESIGN LLC

Site Description:
**Lot 308,
Park Ridge - 6th
Street Address:
1917 Catalina A
Lee's Summit Mi.**

Drawing Title:
PKR308 Spec

General Contractor:
Walker Custom Homes, LLC



Date: 2 - 25 - AD 2021
Rev. 1:
Rev. 2:
Rev. 3:

Sheet Title:
ELEVATIONS

Sheet No.:
A-1 of 5

**RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

04/02/2021



*ALL RAFTERS SHALL BE 2" X 6" #2 @ 16" O.C., UNLESS NOTED OTHERWISE

FLASHING NOTE:
DIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD

ROOF NOTES:
ROOF DESIGNED FOR LIGHT ROOF COVERING
30psf TOTAL LOAD (10psf DL, 20psf LL (SL))

* RAFTERS GEM-FIR, DOUG-FIR, OR EQUAL.
SEE SPAN CHARTS BELOW

CODE MINIMUM		
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24" O.C.	11'-7"
#2-2x6	@16" O.C.	14'-2"
#2-2x8	@24" O.C.	14'-8"
#2-2x8	@16" O.C.	17'-11"
#2-2x10	@24" O.C.	17'-10"
#2-2x10	@16" O.C.	21'-11"

NOTE: CODE MINIMUM ALLOWS FOR A RAFTER DEFLECTION OF $L/180$ TOTAL LOAD

HIGHER PERFORMANCE (RECOMMENDED)		
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24" O.C.	8'-6"
#2-2x6	@16" O.C.	9'-9"
#2-2x8	@24" O.C.	11'-3"
#2-2x8	@16" O.C.	12'-9"
#2-2x10	@24" O.C.	14'-3"
#2-2x10	@16" O.C.	16'-3"

DEFLECTION = $L/360$ LIVE LOAD, $L/240$ TOTAL LOAD

- ✱ VALUITS TO BE 2X10 DEPTH
- ✱ RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)
 - R2- 2X8 UP TO 10/12 PITCH
 - R2- 2X10 OVER 10/12 PITCH
- ✱ ALL HIPPS & VALLEYS ARE: (UNLESS OTHERWISE NOTED)
 - R2- 2X8 UP TO 10/12 PITCH
 - R2- 2X10 OVER 10/12 PITCH
- ✱ PURLINS ARE 2X6 MIN.
 - PURLIN STRUTS ARE AT 4'-0" O.C.
 - PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL
 - ALL PURLIN STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0"
 - PURLIN STRUTS SHALL BE CONSTRUCTED IN THE FOLLOWING CONFIGURATION AND PER THE FOLLOWING CHART:

PURLIN STRUT	MAX PURLIN STRUT LENGTH
(2) 2x4	8'-0"
(1) 2x4 & (1) 2x6	12'-0"
(1) 2x6 & (1) 2x8	20'-0"
(2) 2x6 & (1) 2x8	30'-0"
CONSULT ARCH/ENGR. >	30'-0"

- * RIDGE BRACES ARE SAME AS PURLIN BRACES-
SPACING, SIZE, CONFIGURATION, & INSTALLATION
(SEE PURLIN BRACE NOTES ABOVE)
- * HIP & VALLEY BRACES ARE SAME AS PURLIN
SIZE, CONFIGURATION, & INSTALLATION
(SEE PURLIN BRACE NOTES ABOVE)

- X VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY
- X SLASH IS TOP END OF BRACE (/),
DOT IS BOTTOM OF BRACE (o).
- X DENOTES BEARING WALL.
- X ——— DENOTES ROOF BRACE
- X ——— DENOTES PURLIN
- X ——— DENOTES BEARING STRUCTURE

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RESIDENTIAL DESIGN LLC

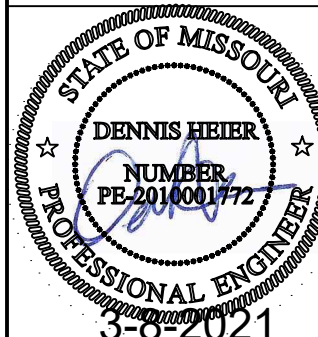
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M/T: (816) 547-4437

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Drawing Title:
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General Contractor:
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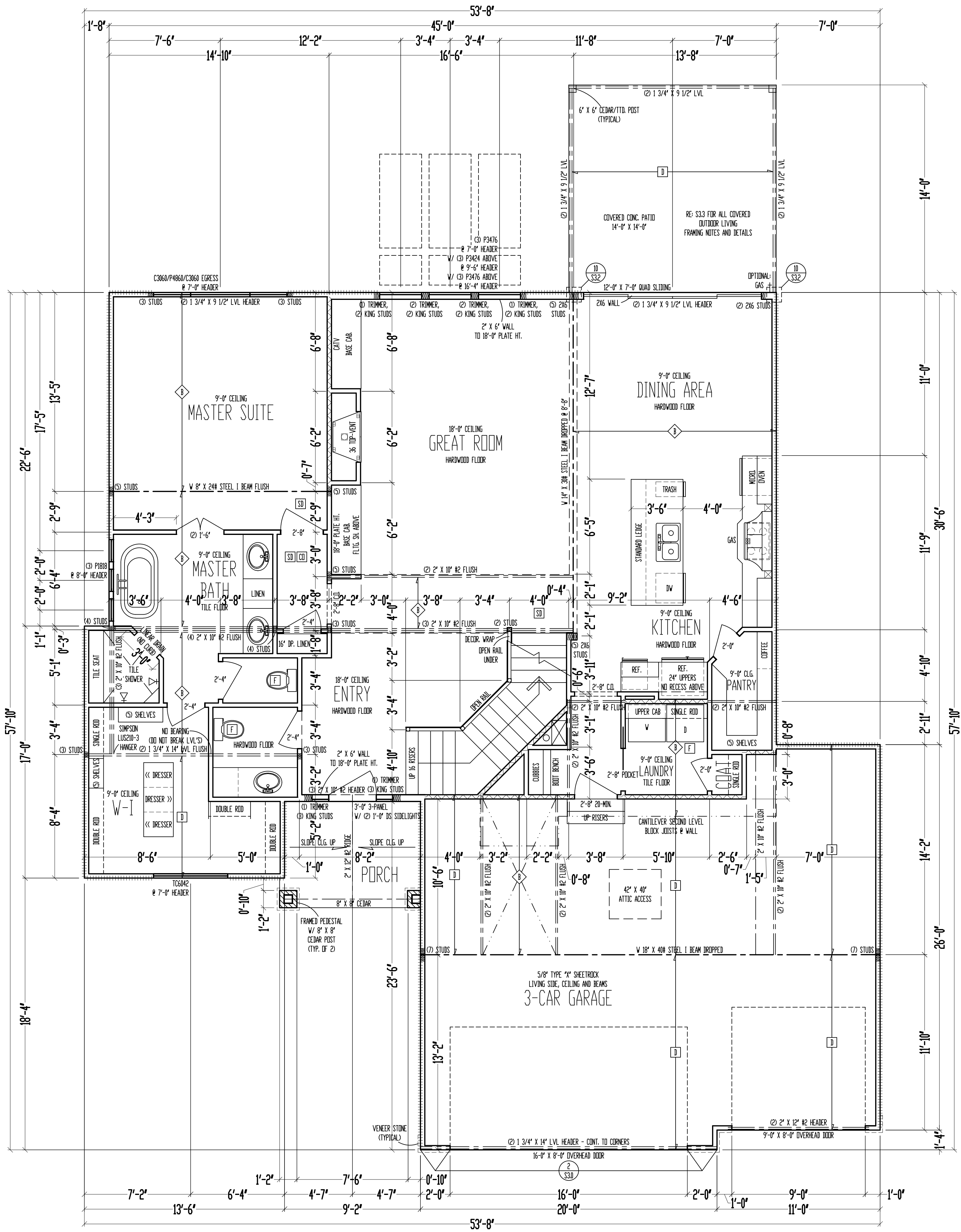


Date: 2 - 25 - AD 2021

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Sheet Title:
ROOF PLAN

Sheet No.:
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9'-0" CEILING
2" X 10" FLOOR SYSTEM
MAIN LEVEL
SCALE: 1/4" = 1'-0"

MAIN LEVEL: 1701 SQ. FT.
SECOND LEVEL: 1063 SQ. FT.
TOTAL: 2764 SQ. FT.

GARAGE: 751 SQ. FT.
COV. OUT/LIV: 196 SQ. FT.
UNFIN. BASEMENT: 1446 SQ. FT.

- ***** = WALL BRACING PER FRAMING NOTE H1 AND PER CALCULATIONS ON SHEET S31.
- FRAMING NOTES:
1. MAIN LEVEL EXTERIOR WALLS SHALL BE SHEATHED W/ 7/16" OSB. APA PANELS W/ 8d COMMON NAILS @ 3" O.C. AT EDGES & @ 12" O.C. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. ===== = G-0. 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ NO. 6 - 1 1/4" TYPE W OR S DRYWALL SCREWS @ 7" O.C. EDGES & FIELD. MIN. 8'-0" SECTIONS ONE SIDE OF WALL. (DO NOT MIN. 4'-0" SECTION FOR BOTH SIDES)
3. ^^^^^^^^^ = LOAD BEARING INTERIOR WALL.
4. @ 2" X 10" #2 HEADER = ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
5. LOW TIES @ 4'-0" O.C. (TYPICAL)
6. ROW STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS)
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.
10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4'S @ 16" O.C., UNLESS NOTED OTHERWISE.
12. EXTERIOR WALL BOTTOM PLATES SHALL BE Nailed TO FRAMING BELOW WITH 16d COMMON NAILS @ 8" O.C. MAX. (WHERE APPLICABLE)
13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

JOIST SCHEDULE	
◊	2" X 10" #2 TTD. FLOOR JOIST @ 16" O.C.
◇	2" X 10" #2 FLOOR JOIST @ 16" O.C.
◊	2" X 10" #2 FLOOR JOIST @ 16" O.C. - DOUBLE EVERY OTHER
□	2" X 6" #2 CEILING JOIST @ 16" O.C.

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**VIEWPOINT**
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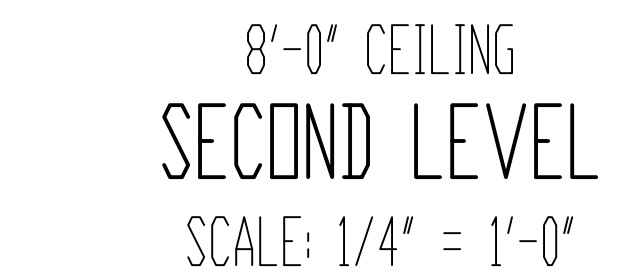
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Rev. 1:
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Sheet Title:
**MAIN LEVEL
PLAN**

Sheet No.:
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+++++ = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS
ON SHEET S1J.

FRAMING NOTES

1. EXTERIOR LEVEL EXTERIOR PLATE SHALL BE SHEATHED W/ 7/16" OSB OR PLY PANELS W/ OR EQUAL FASTENED @ 6" O.C. AT EDGES & 12" O.C. IN THE FIELD. SMART PANEL, OR EQUIV., INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. 2×4 @ 16" O.C. = 6x8-12" MIN. OPSION BOARD OVER STUDS SPACED 24" MAX. FASTENED W/ 1/2" O.D. 1/4" TYPE OR B. SPOONAL SCREWS @ 6" O.C. EDGES & 12" O.C. IN THE FIELD. OR 1/4" TYPE OR B. SPOONAL SCREWS @ 6" O.C. SECTION FOR BOTH SIDES
3. 2×4 @ 16" O.C. = LOAD BEARING INTERIOR WALL
4. 2×2 @ 12" O.C. @ 12" HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
5. LOW TIES @ 4" @ 8" (TYPICAL)
6. MIN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
7. BRIDGE JOISTS ABOVE BEAMS, CHANGELERS AND LOAD BEARING WALLS WITH JOISTS WITH MATERIAL AND JOISTS WITH MATERIAL
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BEARING ALL BEAMS.
9. ALL DISCREETED 2" X 6" WALLS SHALL HAVE DOUBLE KONG STUDS AT DOOR AND WINDOW OPENINGS.
10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
11. ALL WALLS TO BE FRAMED W/ MIN STUD GAUGE @ 2" X 4'S @ 16" O.C., UNLESS NOTED OTHERWISE.
12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAIL TO FRAMING BEARING WITH 16d COMMON NAILS @ 16" O.C. MIN. WHERE APPLICABLE.
13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

JOIST SCHEDULE	
D	2" X 6" #2 CEILING JOIST @ 16" O.C.
E	2" X 8" #2 CEILING JOIST @ 16" O.C.

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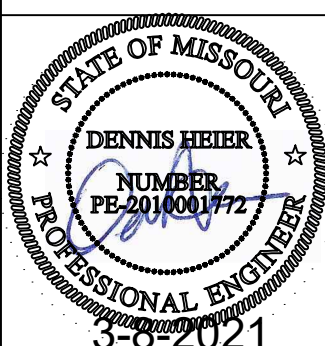
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Sheet Title:
**SECOND LEVEL
PLAN**

Sheet No.:

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**RELEASE FOR
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

04/02/2021



DETERMINE WEIGHT OF HOUSE:			CALCULATED VALUE	
LOCATION		DEAD LOAD (psf)	AREA (ft²)	WEIGHT (lbs.)
ROOF		10	2648	26480
CEILING		10	2648	26480
SECOND FLOOR		10	1035	10350
FIRST FLOOR		10	2648	26480
	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
SECOND FLOOR EXT. WALL DL	168	9	9	13608
FIRST FLOOR EXT. WALL DL	223	10	10	22300
		DEAD LOAD (psf)	AREA (ft²)	WEIGHT (lbs)
SECOND FLOOR INT. PARTITION WALL DL		6	1035	6210
FIRST FLOOR INT. PARTITION WALL DL		6	2648	15888

PROJECTED AREAS (WIND DESIGN PER 115 MPH 3-SECOND GUST, EXPOSURE C AND MEAN ROOF HEIGHT <= 30 FT ASSUMED)									
FRONT-TO-BACK				SIDE-TO-SIDE					
	AREA	LOAD			AREA	LOAD			
SLOPED ROOF	408	3471		SLOPED ROOF	397	3019			
VERT. ROOF	82	1019	CUMULATIVE	VERT. ROOF	189	2334	CUMULATIVE		
2ND	598.37	5883	10373	2ND	373.3	4829	10181		
1ST	460.7	7339	17713	1ST	636.13	7856	19039		
PRESSURE (PSF) - PER ASCE CH. 6									
SLOPED ROOF	ZONE B	9.7		ZONE C	11.3		2a (Fig. 28.6-1, ASCE7)		
WALL/VERT. ROOF	ZONE A	14.2		ZONE D	7.7				
MEAN ROOF HT., h	24								10.734

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.
 $q_{z10}=0.00256 K_z K_{zt} K_d V^2$ (ASCE7-10 Velocity Pressure) $q_{z10 \text{ ASD}}=0.6 q_{z10}$ (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

2ND FLOOR TRIBUTARY WEIGHT
1ST FLOOR TRIBUTARY WEIGHT
 S_s (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP
 F_a (from ASCE7 Table 11.4-1)
 $S_{DS} (= 2/3 * S_s * F_a)$
R (from ASCE7 Table 12.2-1)

59764
94278
12.0%
1.6
0.128
6.5

SEISMIC SHEAR		
LOCATION	From ASCE7 (Eq. 12.8-1):	V (= 1.2 * S _{DS} * W / R) (lbs.)
2ND FLOOR		1412
1ST FLOOR		2228

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (R/F)	Code Reference
Exterior (Option #5)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" on-orientation @ 6" O.C. Edges, 6" O.C. Field for 24" stud spacing, 12" O.C. Field for 16" stud spacing	155	per IBC, Table 2305.3.1(1)
Exterior (Option #5)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" on-orientation @ 4" O.C. Edges, 6" O.C. Field for 24" stud spacing, 12" O.C. Field for 16" stud spacing	230	per IBC, Table 2305.3.1(1)
Exterior (Option #5)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" on-orientation @ 3" O.C. Edges, 6" O.C. Field for 24" stud spacing, 12" O.C. Field for 16" stud spacing	310	per IBC, Table 2305.3.1(1)
Exterior (Option #4)	7/16" APA Rated Plywood/OSB or ship lap panel sheathing, or 3/8" ship lap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or ship lap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" ship lap panel sheathing	220	AF&PA SDPWS Table 4.3A
Exterior (Option #5)	7/16" APA Rated Plywood/OSB or ship lap panel sheathing, or 3/8" ship lap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or ship lap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" ship lap panel sheathing	320	AF&PA SDPWS Table 4.3A
Exterior (Option #6)	7/16" APA Rated Plywood/OSB or ship lap panel sheathing, or 3/8" ship lap panel sheathing with tighter nail spacing and double studs at each panel edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. Field	410	AF&PA SDPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 1/4" Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	60	per IBC, Table 2306.4.4
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)	(3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3)	325	

EXTERIOR SHEATHING OPTION FOR SECOND FLOOR	4
EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	6

EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS

WIDTH OF 1ST STORY (FT.)	53.67	WIDTH OF 2ND STORY (FT.)	46.67
DEPTH OF 1ST STORY (FT.)	57.83	DEPTH OF 2ND STORY (FT.)	37.33
BACK WALL OF GARAGE (FT.)	0		
GAR. WALL: 1=F-B, 2=S-S	2		

EXTERIOR STRUCTURAL WALL LENGTHS (ft.) & RESISTANCES								
	SEISMIC				WIND			
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
2ND FLOOR	57	15960	51	14280	57	22344	51	19992
1ST FLOOR	90	42300	32.5	15275	90	59220	32.5	21385

ADDITIONAL RESISTANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)	
	SEISMIC	WIND	0.5	2nd Floor F-B	30
2ND FLOOR FRONT-TO-BACK	0	0	944	2nd Floor S-S	29
2ND FLOOR SIDE-TO-SIDE	0	0	118.4	1st Floor F-B	25
1ST FLOOR FRONT-TO-BACK	0	0	107.9	1st Floor S-S	16
1ST FLOOR SIDE-TO-SIDE	0	0			

RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**							
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (325#/BRACE)	INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TALL (FT.)	INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.)	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?
2ND FLOOR FRONT-TO-BACK	0					0	YES
2ND FLOOR SIDE-TO-SIDE	0					0	YES
1ST FLOOR FRONT-TO-BACK	0					0	YES
1ST FLOOR SIDE-TO-SIDE	0					0	YES

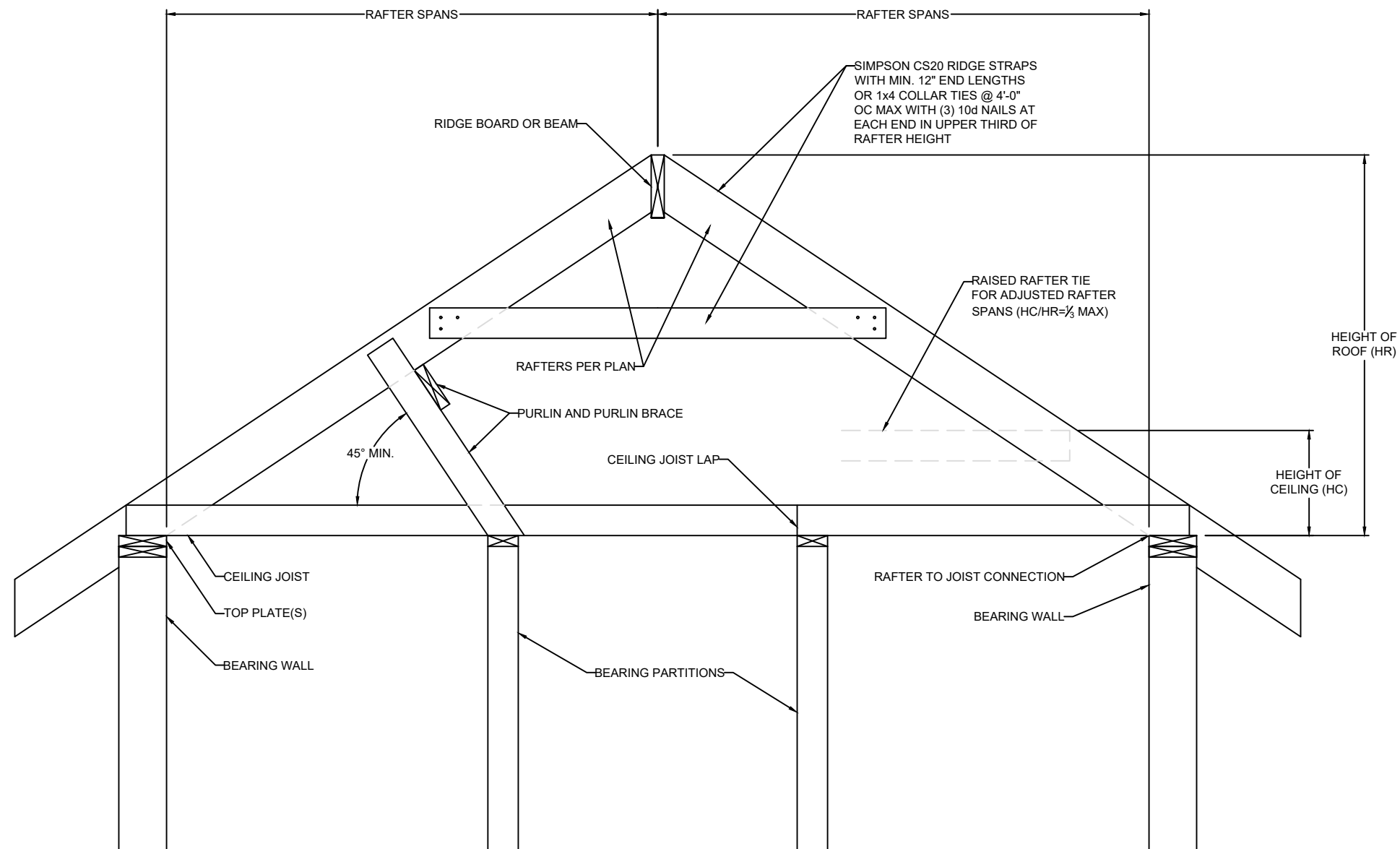
**NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE).
 2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING
 PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER
 ** LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED

WIND UPLIFT ANALYSIS									
ROOF PITCH (MAX)	X12 10	DEGREES	39.8 PITCH OF 6 OR LESS: EOH -13.3, E-7.2, G-5.2						
OVERHANG	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIIFT PER FT* (LBS)					
		ASCE 7	225	-1.08					
	TOTAL AREA (FT²)	ZONE E AREA (FT²)	ZONE G AREA (FT²)	PRESSURE ZN E (PSF)	PRESSURE ZN G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)		
MAIN ROOF**	3103.7361	1342.436976	1761.299124	-1.08	-0.36	-2084	-9.3		
*TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)				-10.4		UPLIFT OK			
**INSIDE EXTERIOR WALLS				RESISTANCE DUE TO DEAD WEIGHT & (3) 10d TOENAILS		251.6			

NOTE FOR CONSTRUCTION:
THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX. UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

NOTE FOR DESIGN:
ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&A SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" x 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION



1 BRACED RAFTER CONSTRUCTION
S1.1 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)

CLIENT: WALKER CUSTOM HOMES, LLC
JOB TITLE: PKR308 SPEC
LOT 308, PARK RIDGE - 6TH
LOCATION: LEE'S SUMMIT, MISSOURI

[illegible]

DRAWING TITLE

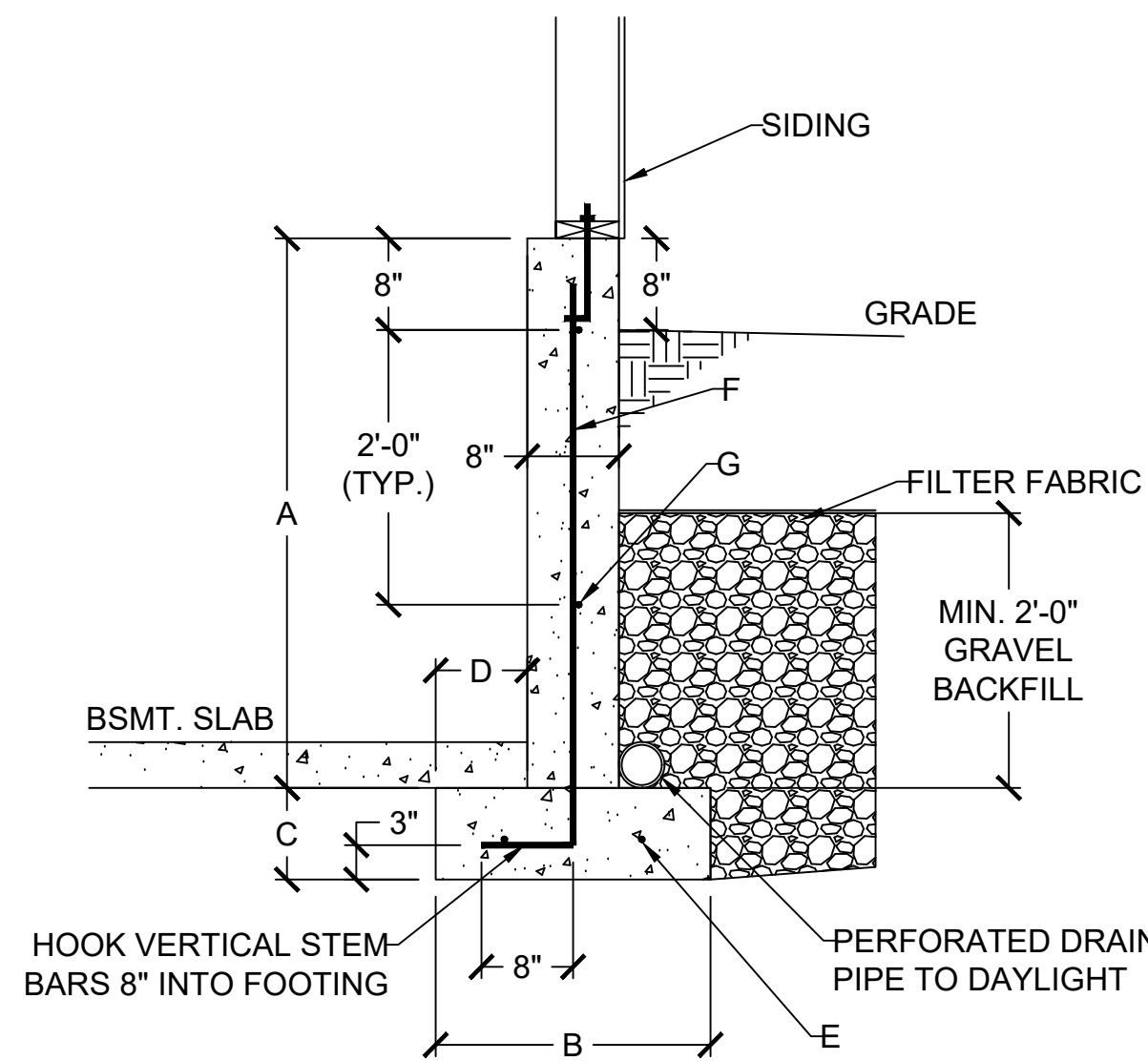
STRUCTURAL CALCULATIONS

ENGINEER: DMH	CHECKED BY: DMH
JOB NO. 3208	DRAWN BY: DMH
DATE: 03-08-21	
SHEET NUMBER	

S1

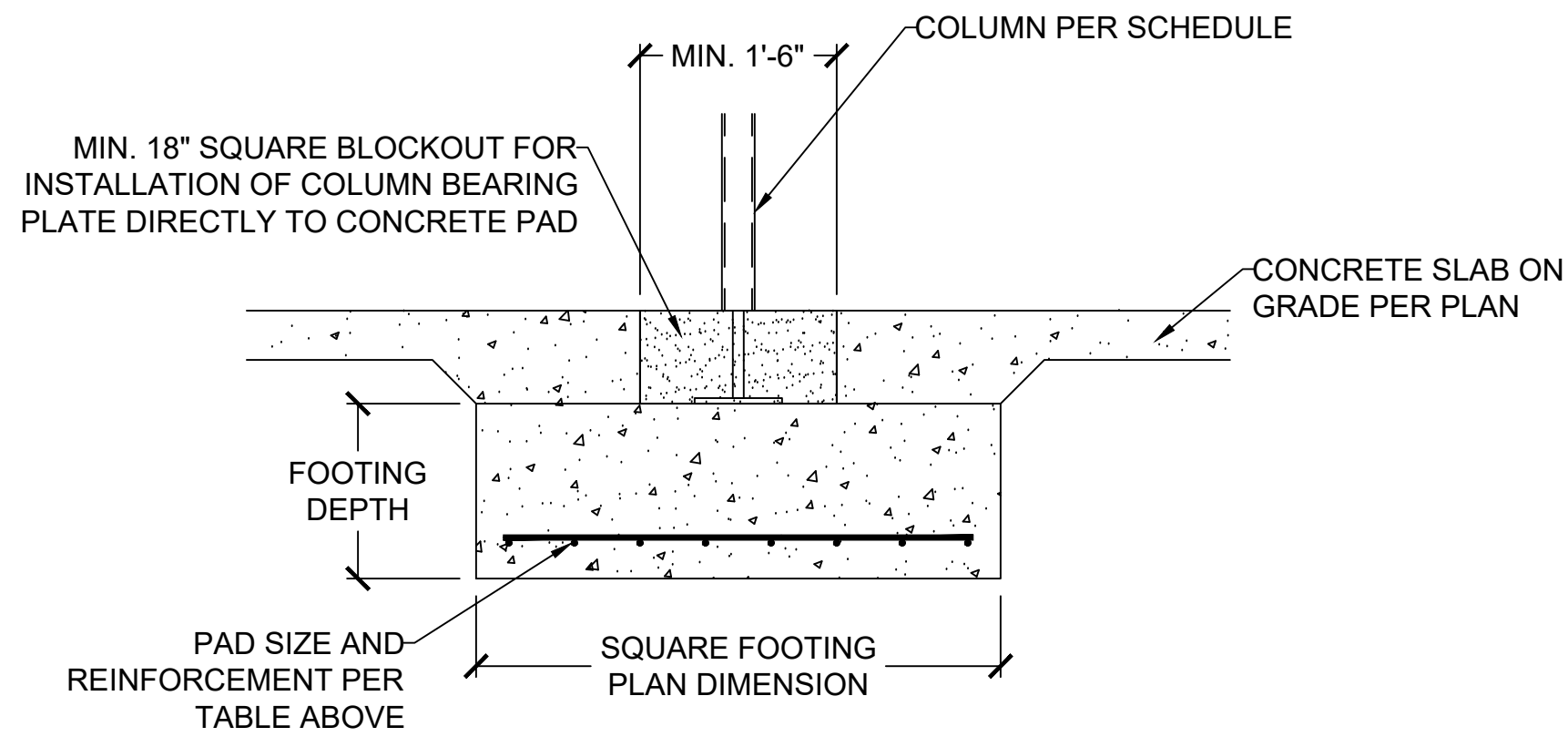
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04/02/202

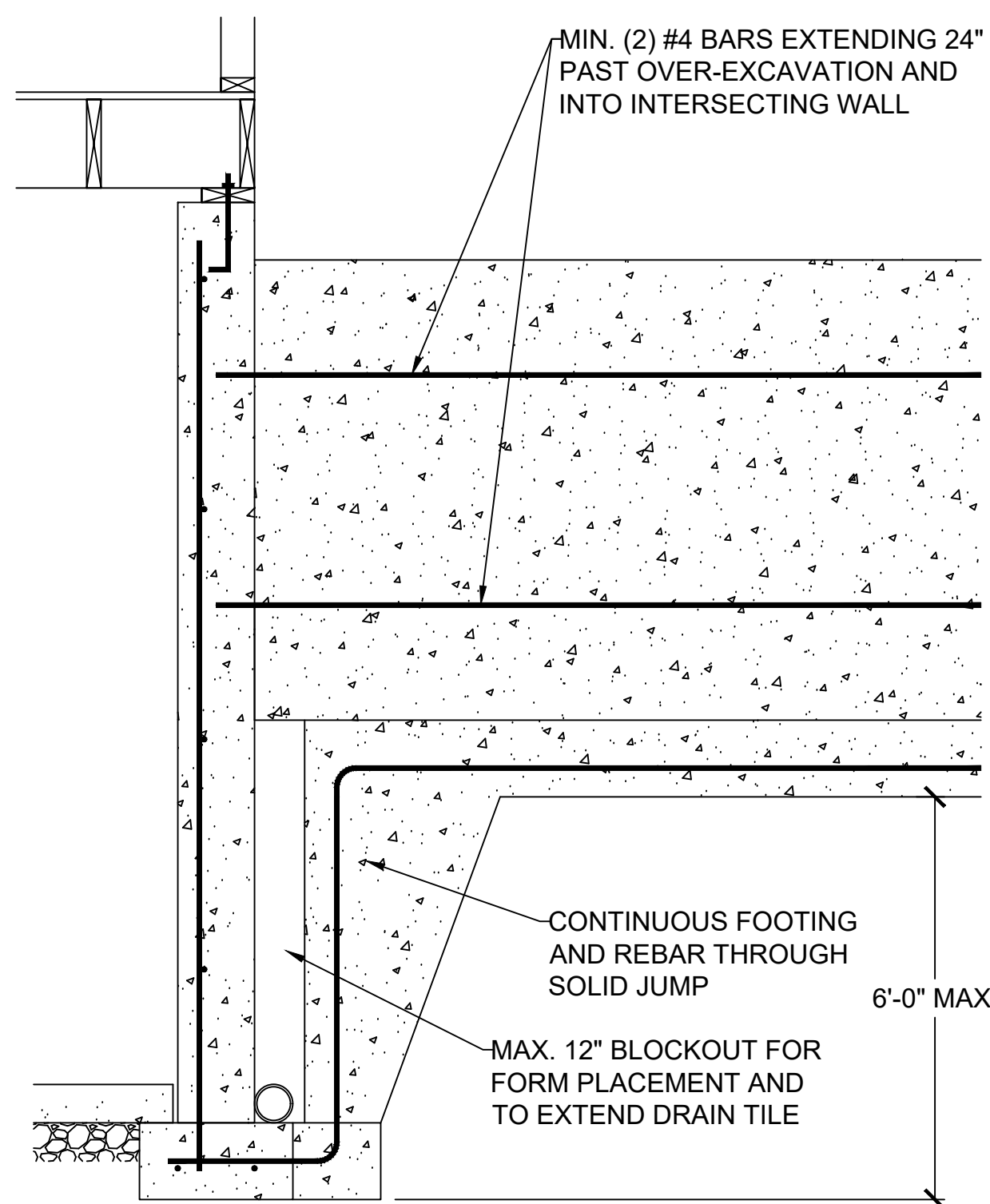


DAYLIGHT BASEMENT WALL SCHEDULE						
A	B	C	D	E	F	G
4'-0"	1'-6"	0'-8"	0'-5"	(2) #4	#4 VERT. @ 12" O.C.	(2) #4 HORIZ.
5'-0"	2'-0"	0'-8"	0'-7"	(2) #4	#4 VERT. @ 12" O.C.	(3) #4 HORIZ.
6'-0"	2'-6"	0'-8"	0'-10"	(3) #4	#4 VERT. @ 12" O.C.	(3) #4 HORIZ.

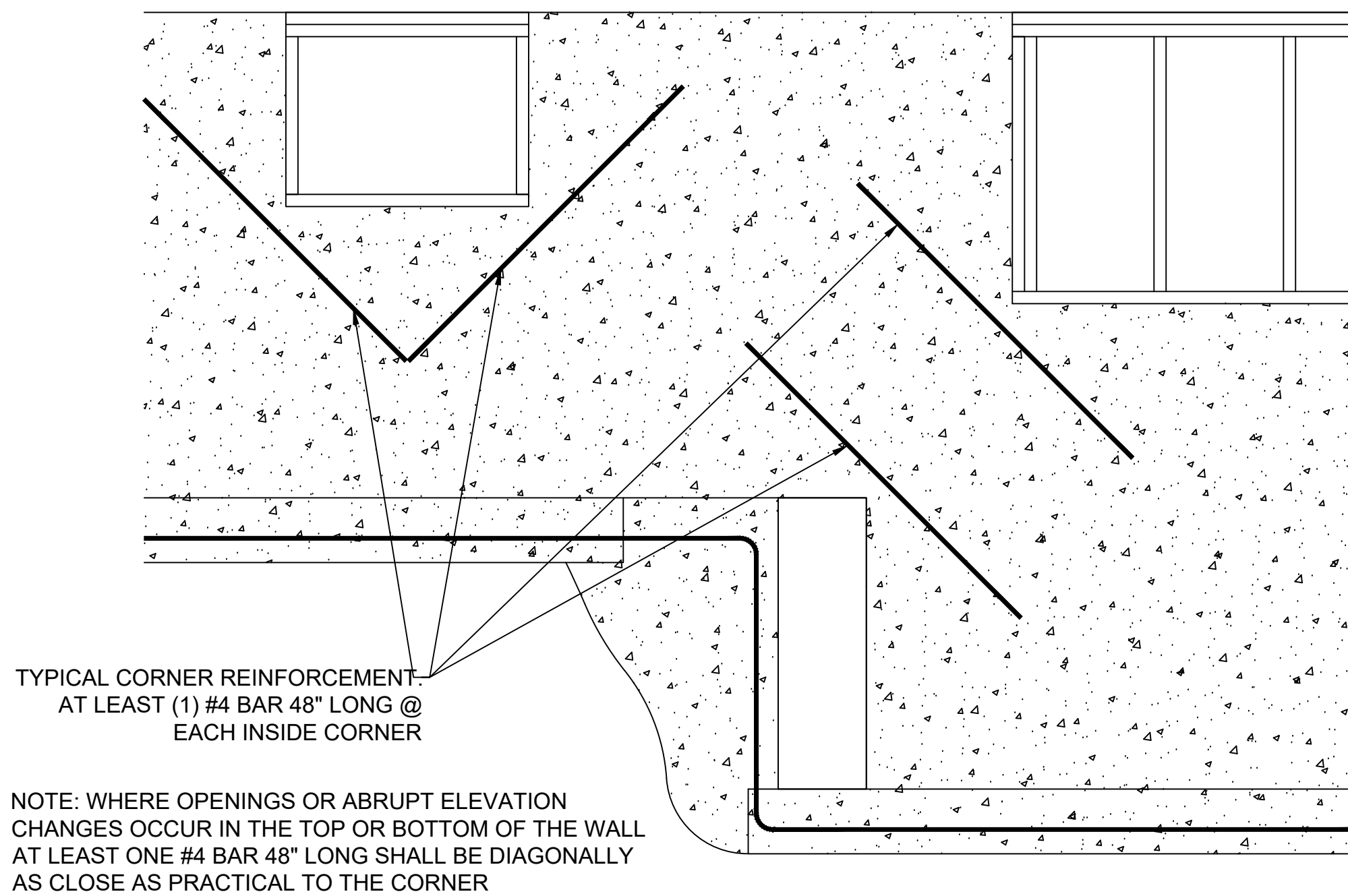
1 DAYLIGHT WALL CONSTRUCTION
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



2 COLUMN AND BEARING PAD SCHEDULE
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



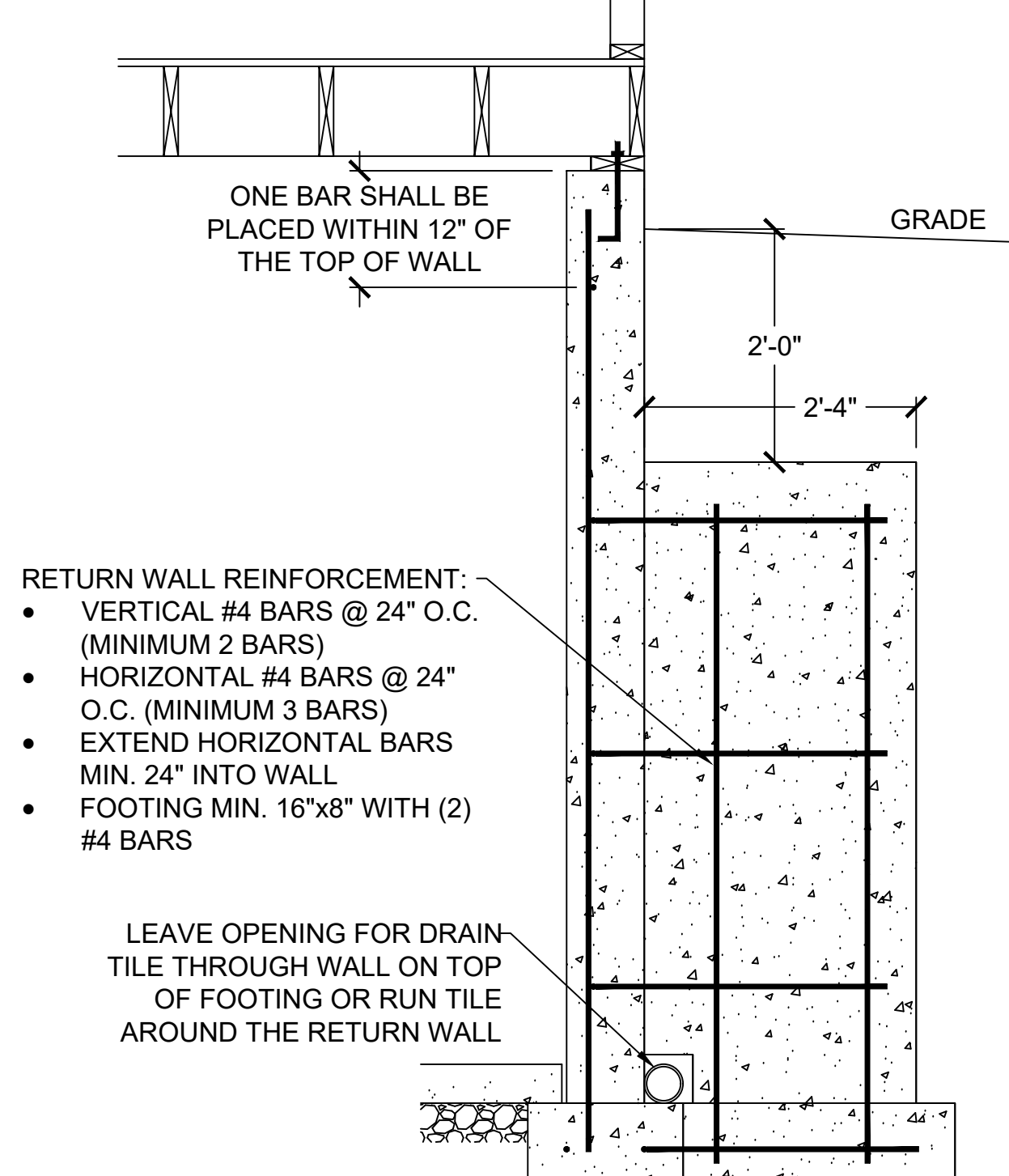
5 SOLID JUMP
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



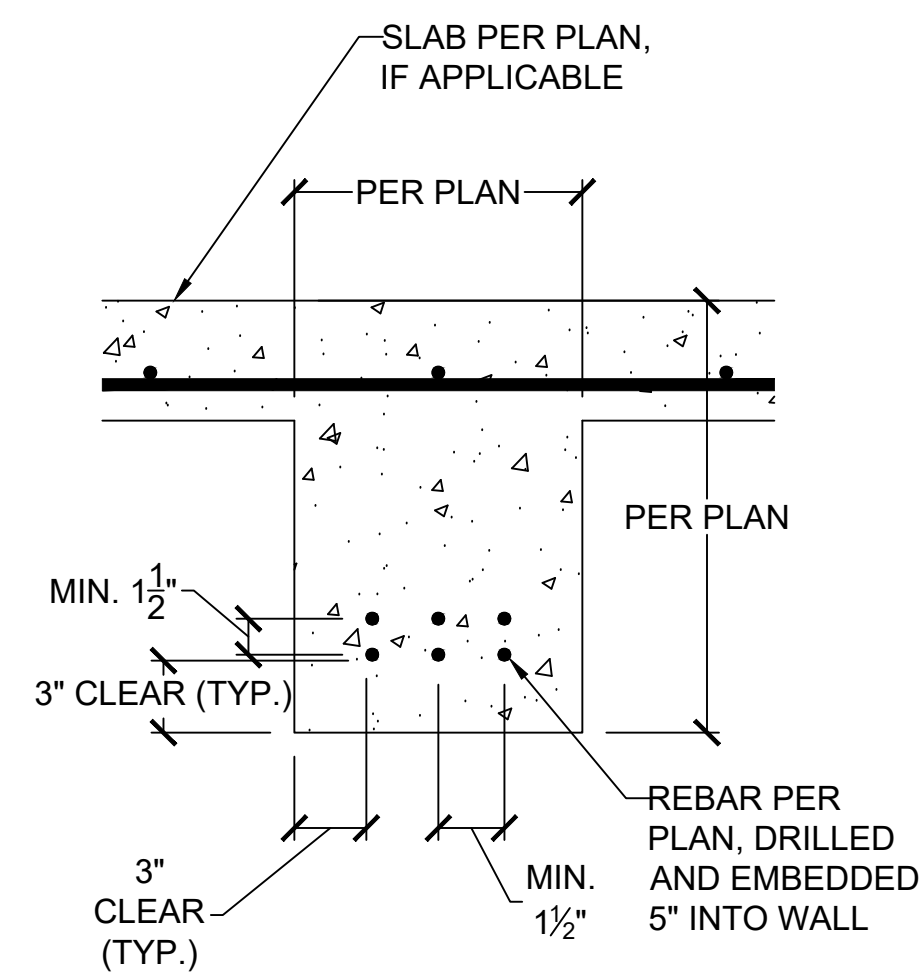
3 CONCRETE WALL SECTION
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

4 FOUNDATION WALL REINFORCEMENT TABLE
S2.0 NO SCALE

NOTE: WHERE FLOOR JOIST RUNS PARALLEL TO FDN WALL, SOLID BLOCK OUTSIDE 3 JOIST SPACES @ 36" OC ALIGNING BLOCKING WITH THE ANCHOR BOLT



7 RETURN WALL DETAIL
S2.0 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



8 CONCRETE GRADE BEAM
S2.0 SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)

VERTICAL REINFORCEMENT SPACING						
CONCRETE STRENGTH/GRADE REINFORCEMENT (#4 BARS)	8" THICK WALL			10" THICK WALL		
	8'	9'	10'	8'	9'	10'
3,000 PSI/ GRADE 40	24	24	16	24	24	18
3,500 PSI/ GRADE 40	24	24	16	24	24	18
3,000 PSI/ GRADE 60	24	24	16	24	24	18
3,500 PSI/ GRADE 60	24	24	16	24	24	18
HORIZONTAL REINFORCEMENT - MINIMUM GRADE 40 STEEL						
ONE BAR 12" FROM TOP OF WALL; MAX. SPACING 24" OC	6-#4	7-#4	7-#4	6-#4	7-#4	7-#4

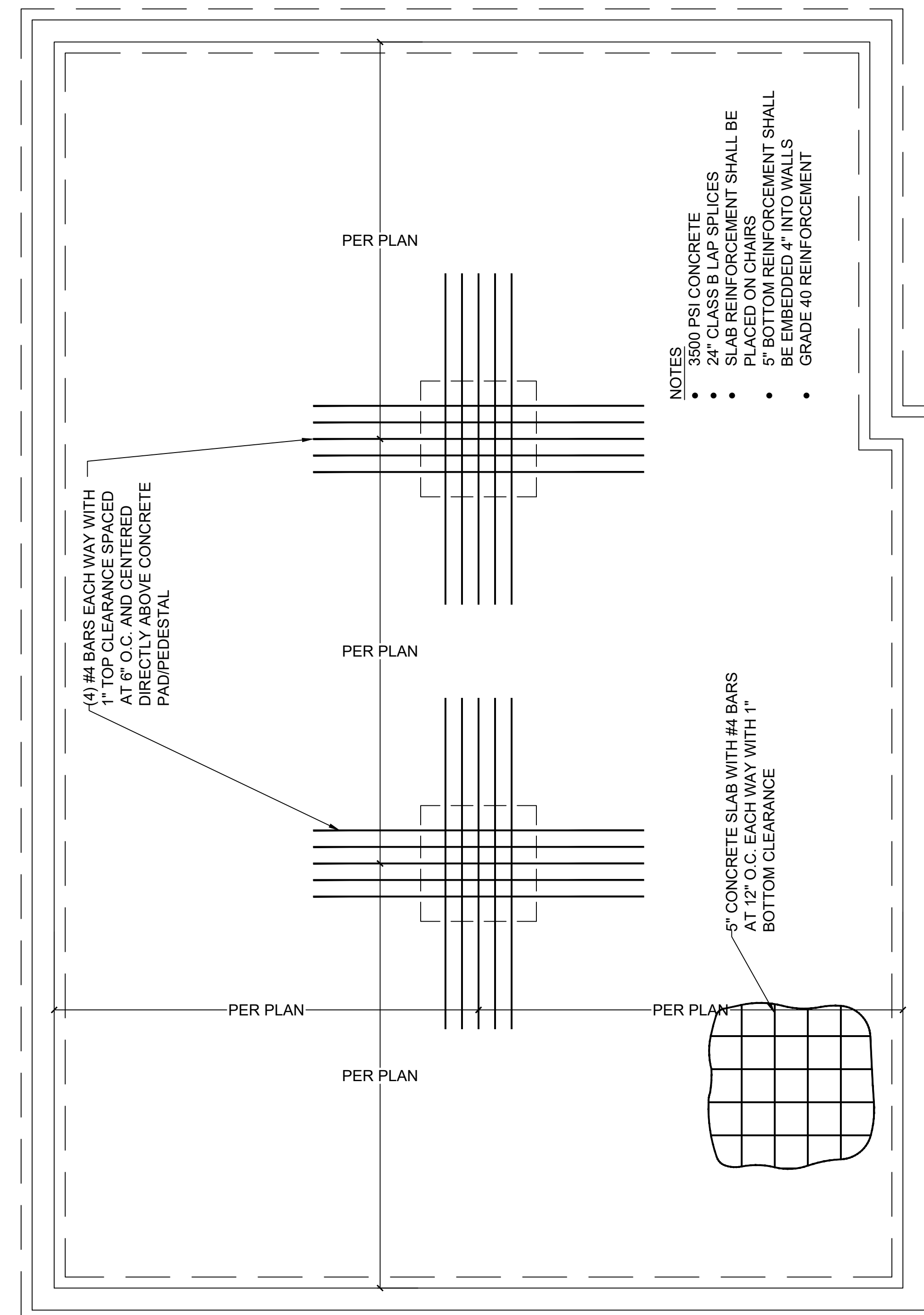
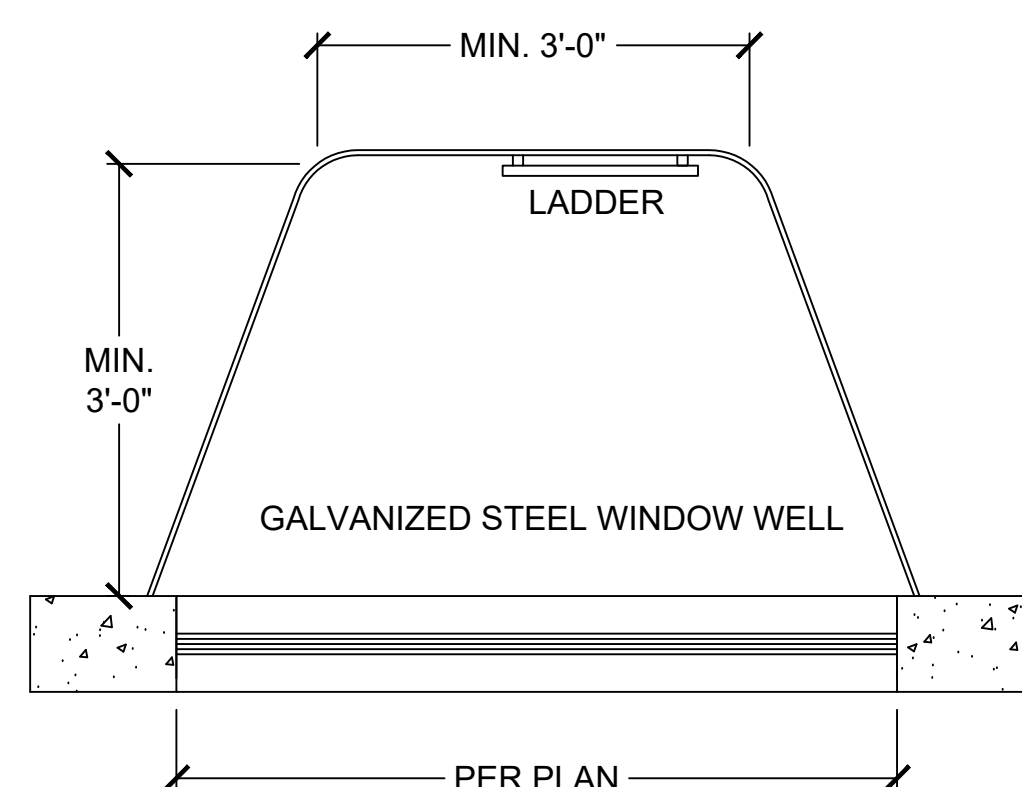
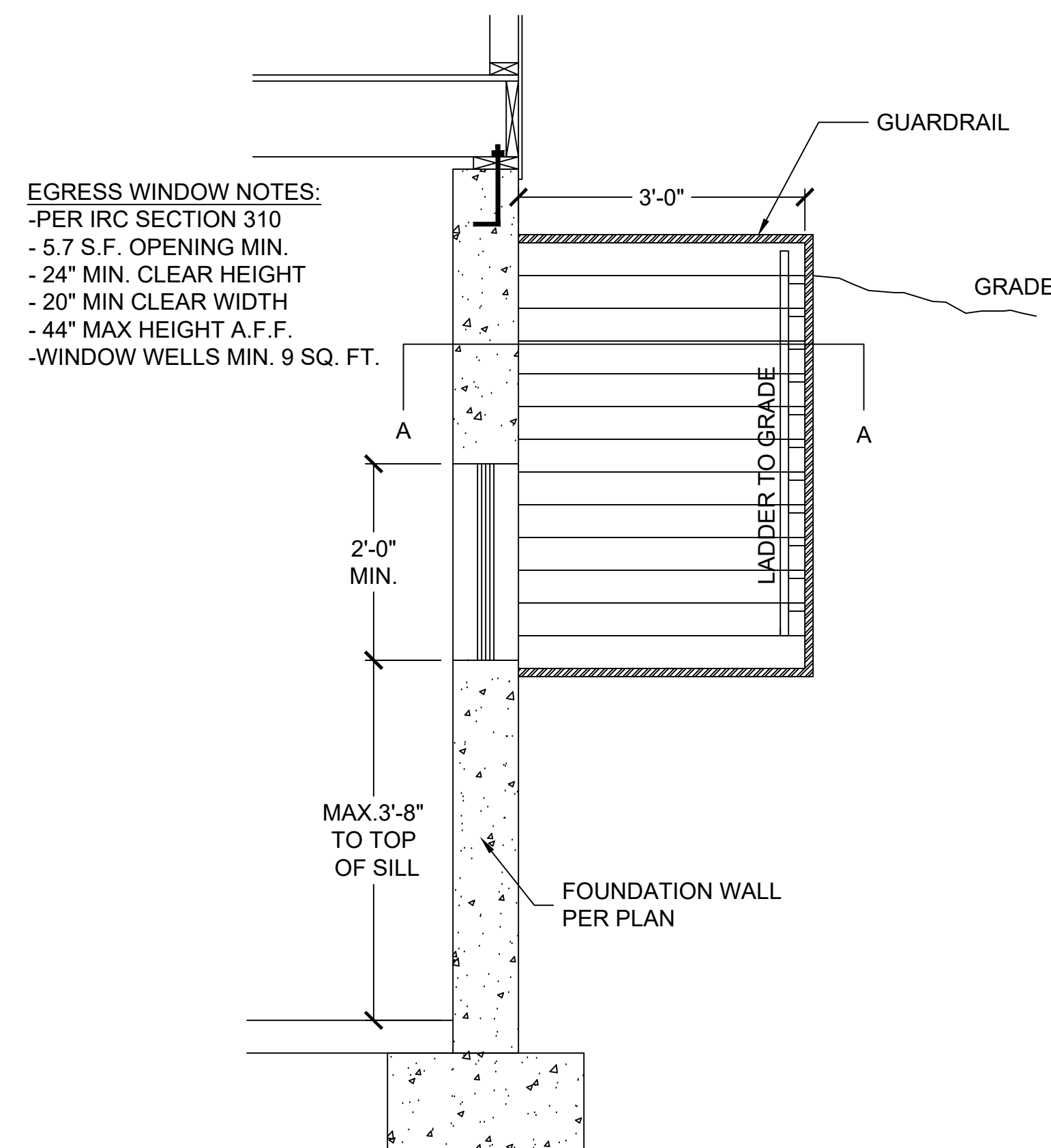
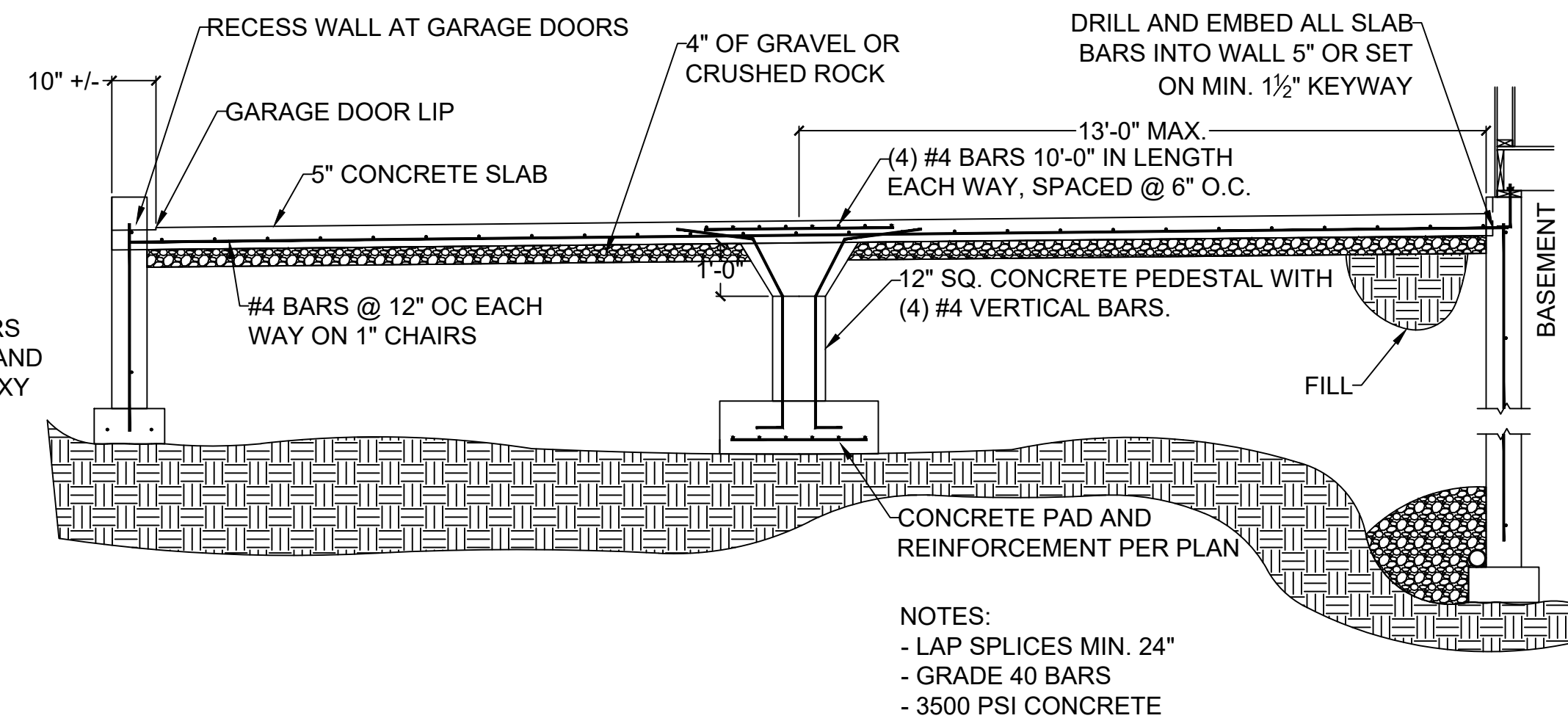
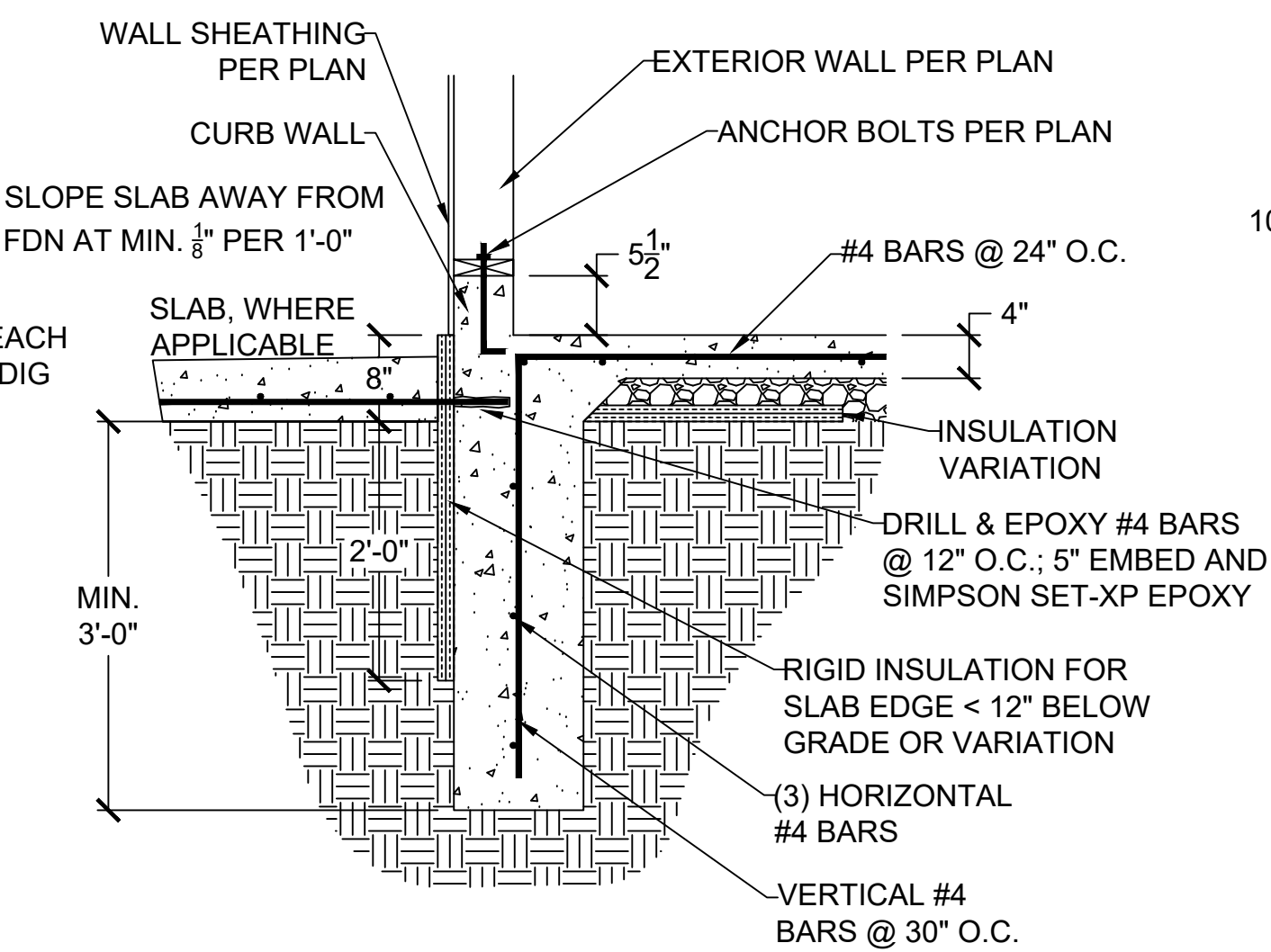
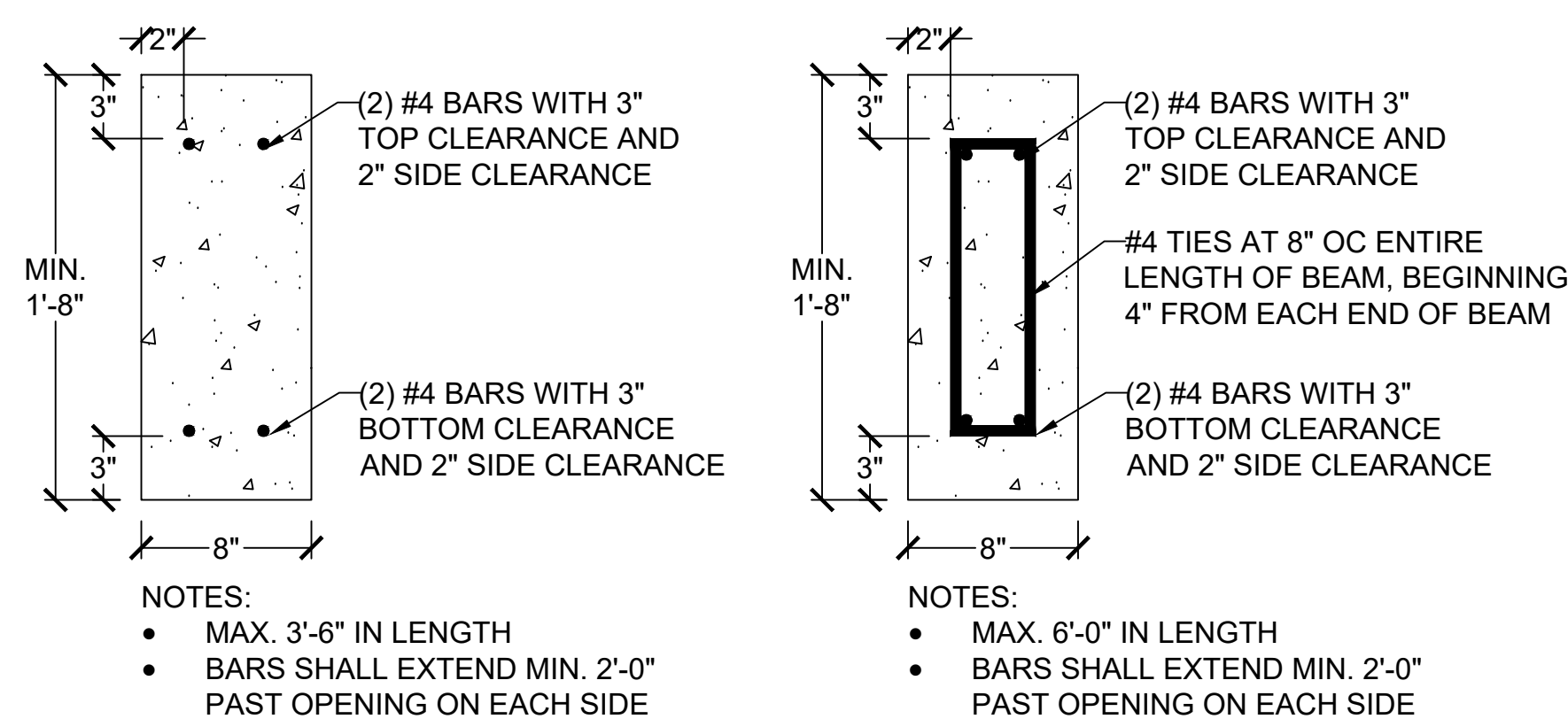
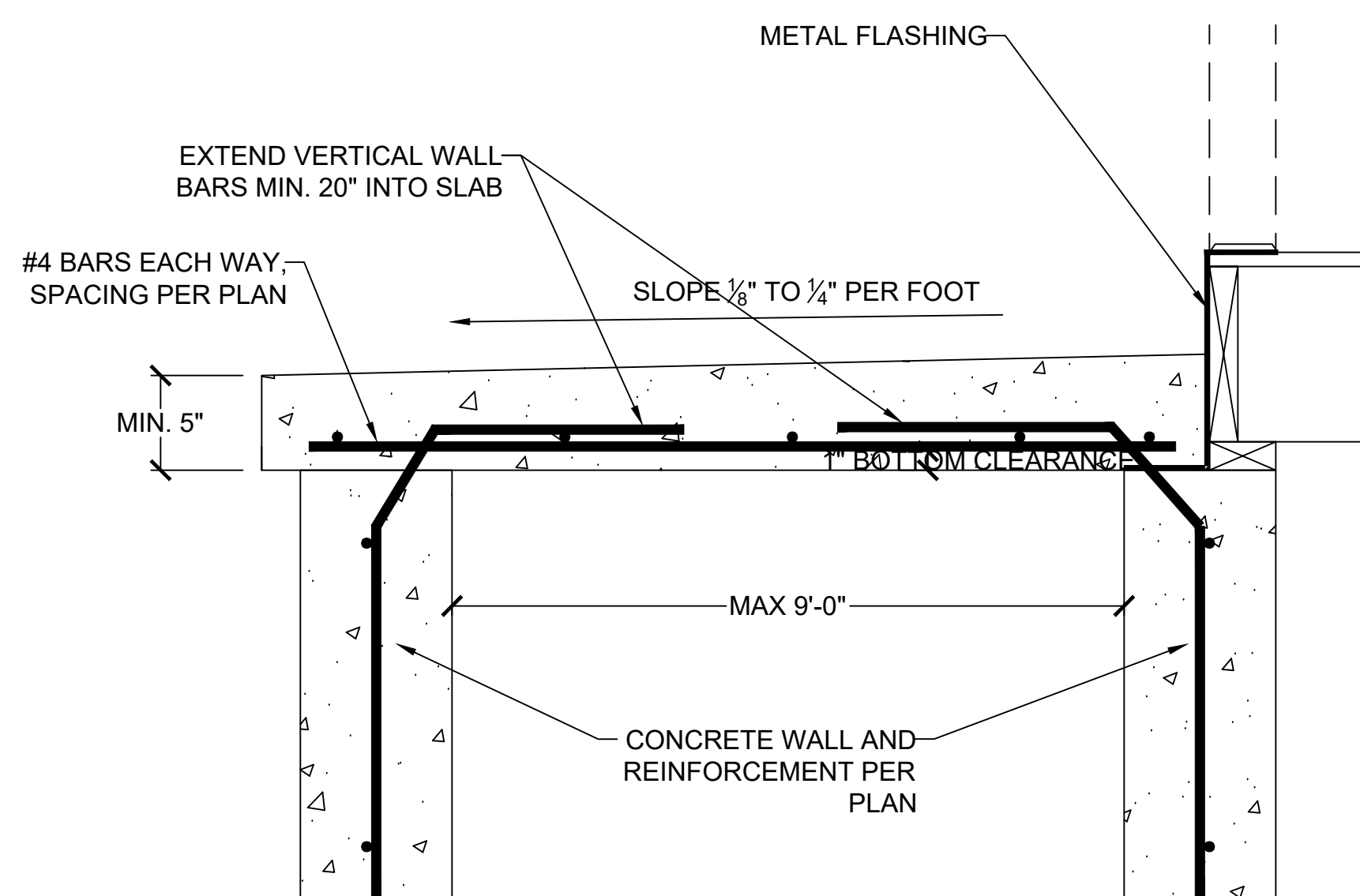
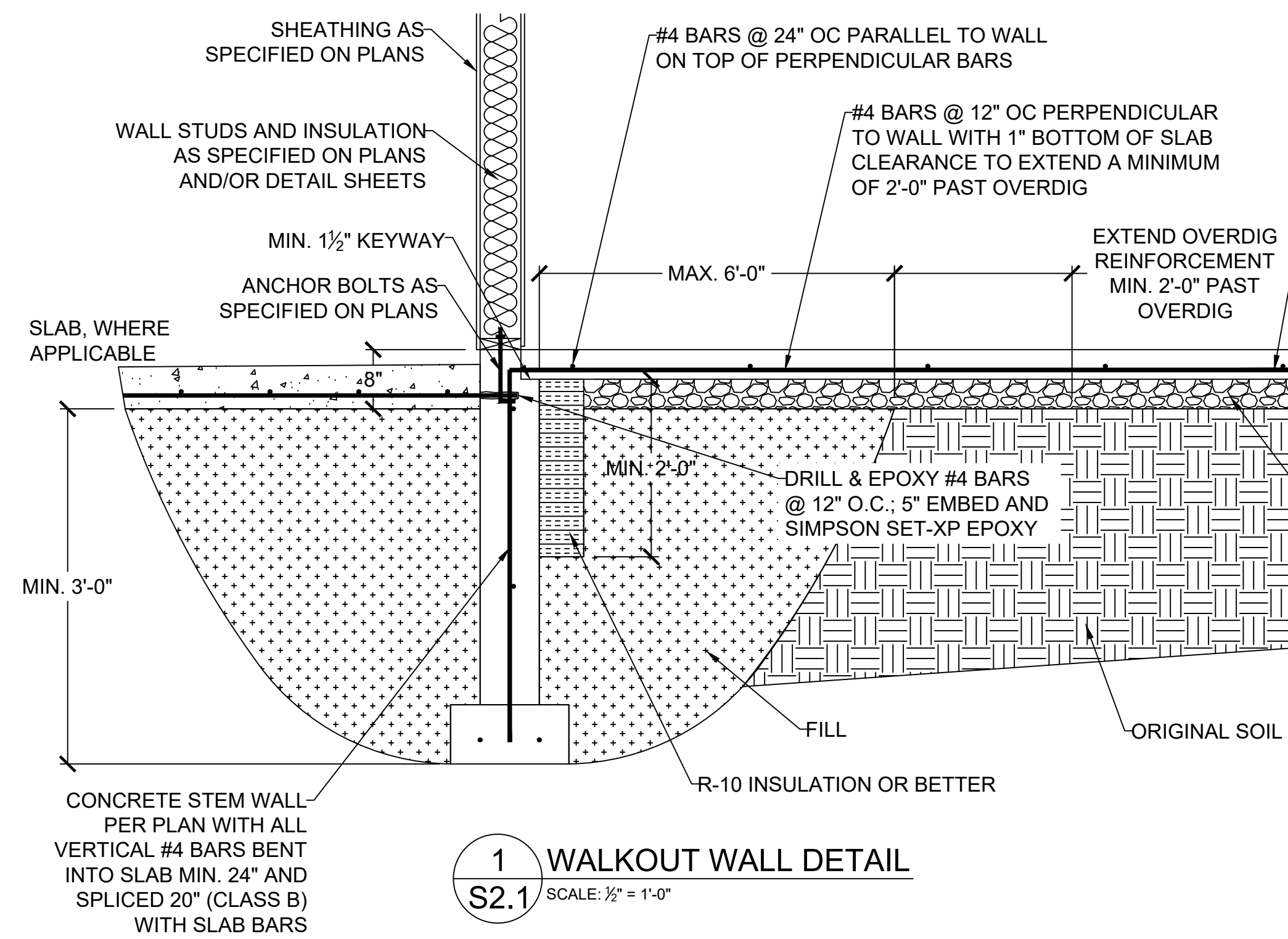
- FOOTNOTES:
- WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB
 - VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:
 - 8" WALL - MINIMUM 5" FROM THE OUTSIDE FACE
 - 10" WALL - MINIMUM 6 1/2" FROM THE OUTSIDE FACE
 - EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL
 - REINFORCEMENT CLEARANCES:
 - CONCRETE EXPOSED TO EARTH - MINIMUM 1 1/2"
 - NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) - 3/4"
 - CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY SLABS) - 1 1/2"
 - HORIZONTAL REINFORCEMENT:
 - ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL
 - OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC
 - HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE INSIDE)
 - SUPPLEMENTAL REINFORCEMENT AT CORNERS - PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.
 - REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.
 - AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 3 1/2". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP OF THE WALL.
 - STRAIGHT WALLS MORE THAN 5' TALL AND MORE THAN 16 FEET LONG SHALL BE PROVIDED WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS
 - WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

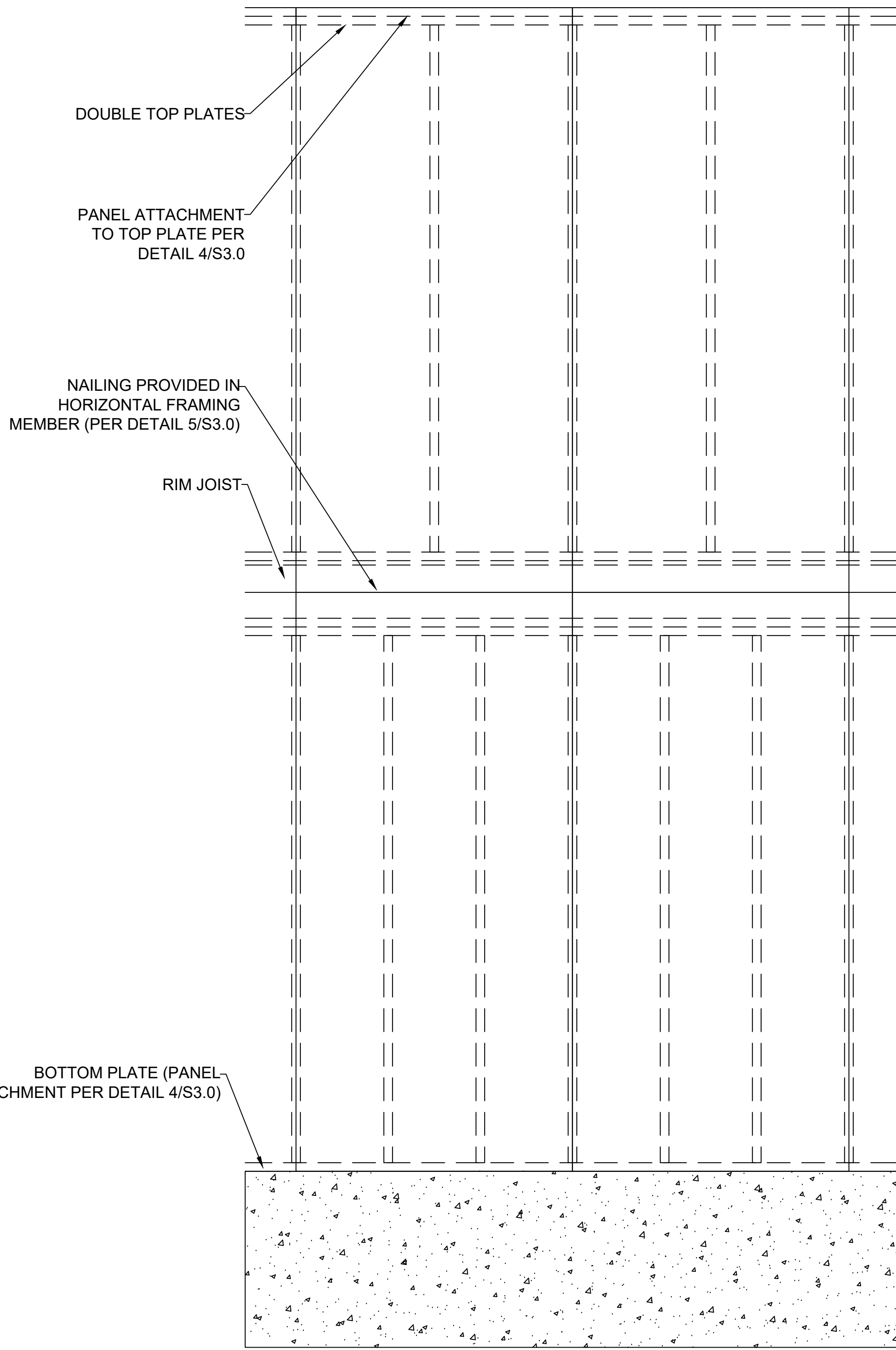
CLIENT: WALKER CUSTOM HOMES, LLC
JOB TITLE: PKR308 SPEC
LOT 308, PARK RIDGE - 6TH PLAT
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY
DRAWING TITLE			
FOUNDATION DETAILS			
ENGINEER: DMH		CHECKED BY: DMH	
JOB NO. 3208		DRAWN BY: DMH	
DATE: 03-08-21			
SHEET NUMBER			

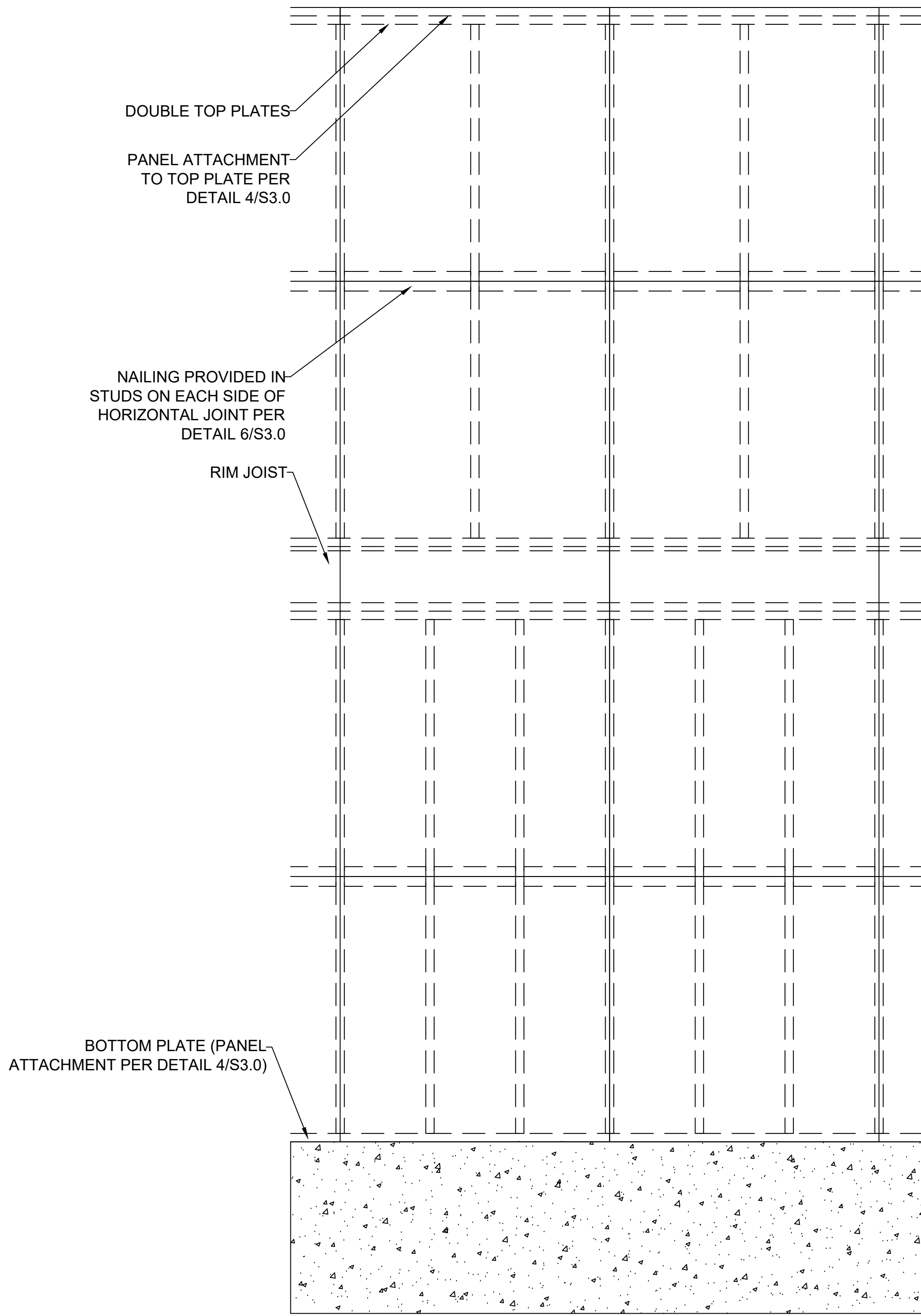
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/02/2021





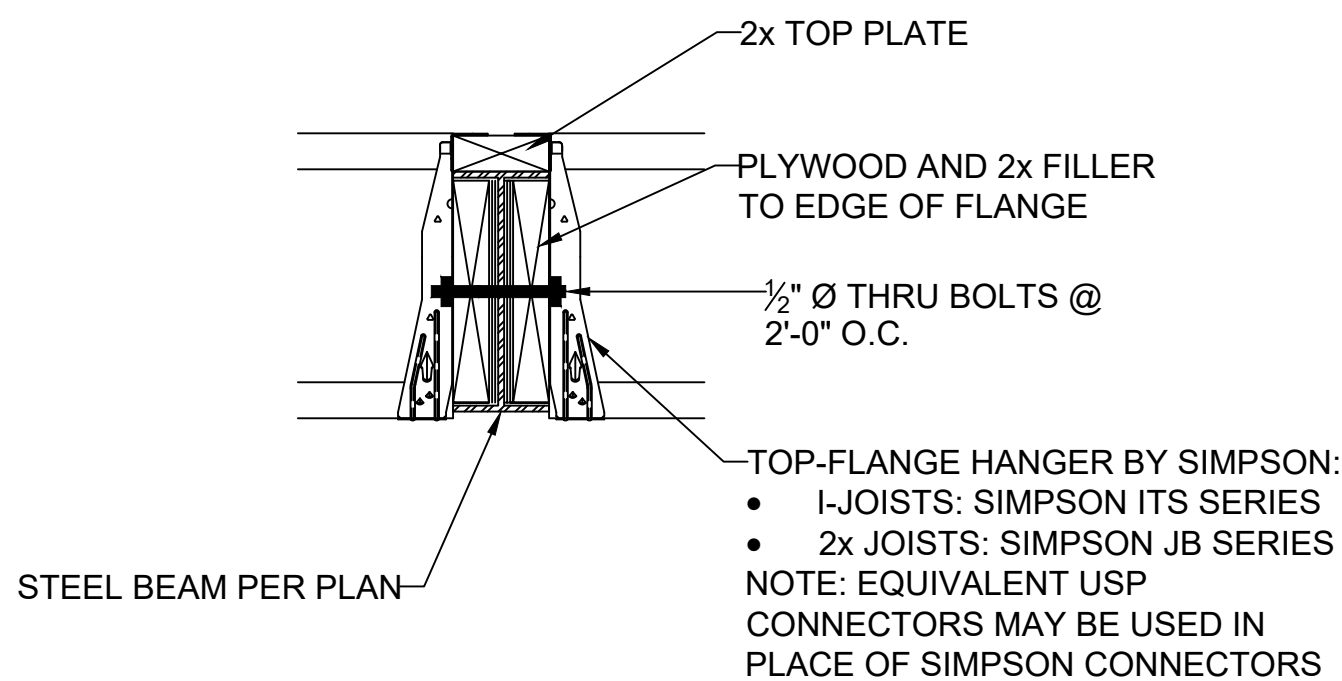
1 EXTERIOR WALL SHEATHING PANEL ATTACHMENT
S3.1 PANEL SPLICE OVER HORIZONTAL FRAMING MEMBER

SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{4}" = 1'-0"$ (24x36)



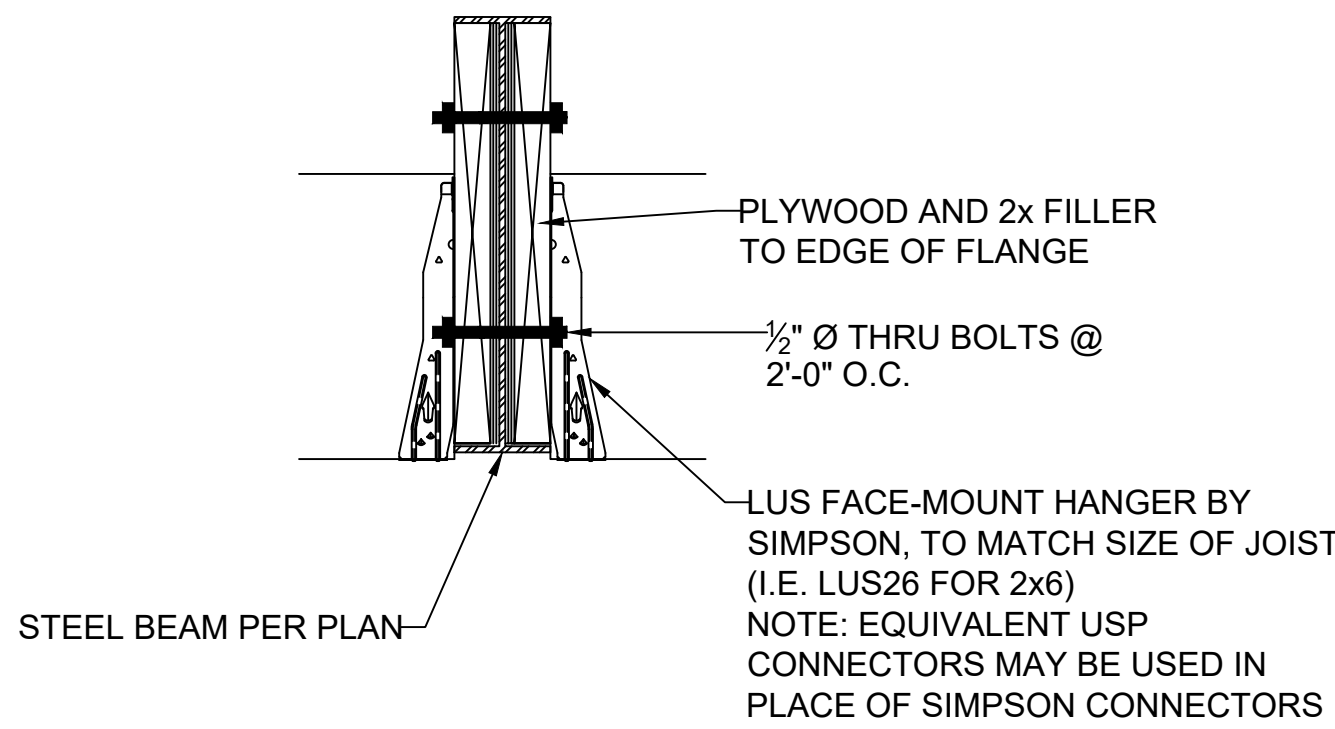
2 EXTERIOR WALL SHEATHING PANEL ATTACHMENT
S3.1 PANEL SPLICE OCCURRING ACROSS STUDS

SCALE: $\frac{1}{2}" = 1'-0"$ (18x24) OR $\frac{3}{4}" = 1'-0"$ (24x36)



4 FLOOR JOIST TO FLUSH STEEL BEAM DETAIL
S3.1

SCALE: $1" = 1'-0"$ (18x24) OR $\frac{1}{2}" = 1'-0"$ (24x36)

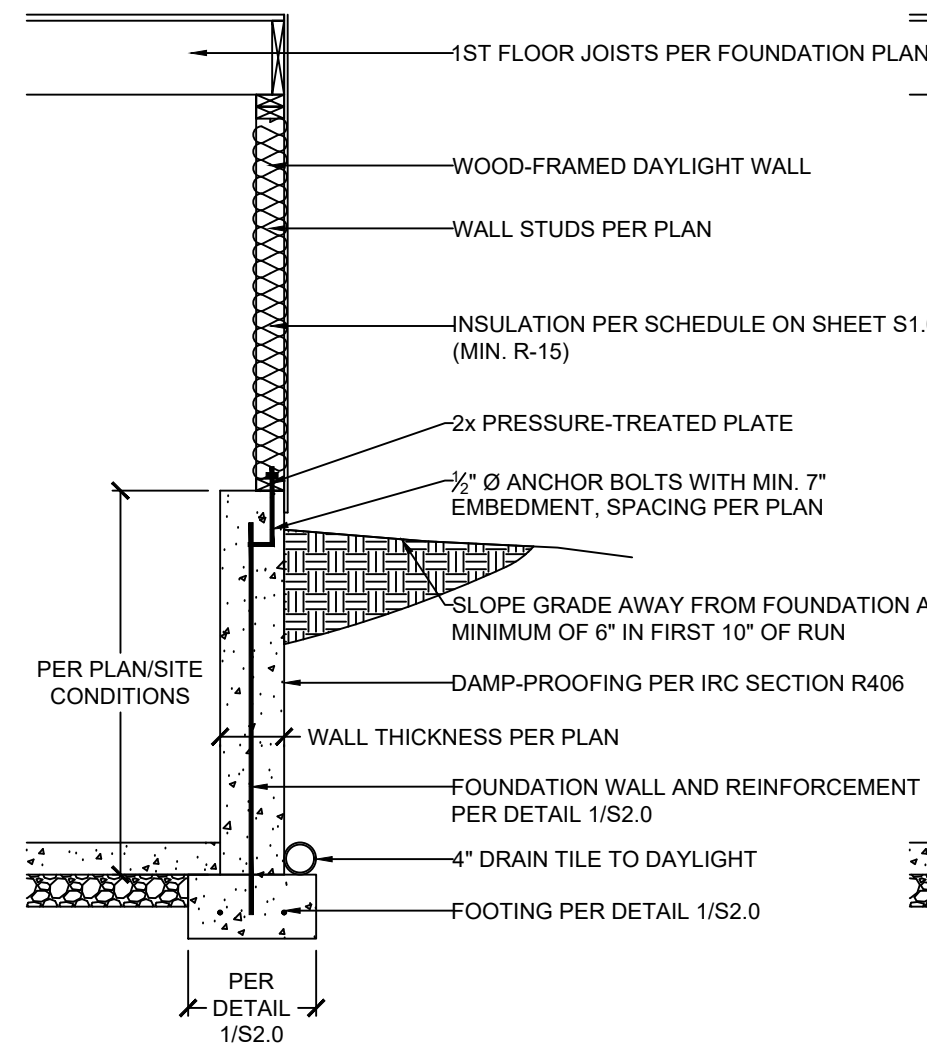


5 CEILING JOIST TO FLUSH STEEL BEAM DETAIL
S3.1

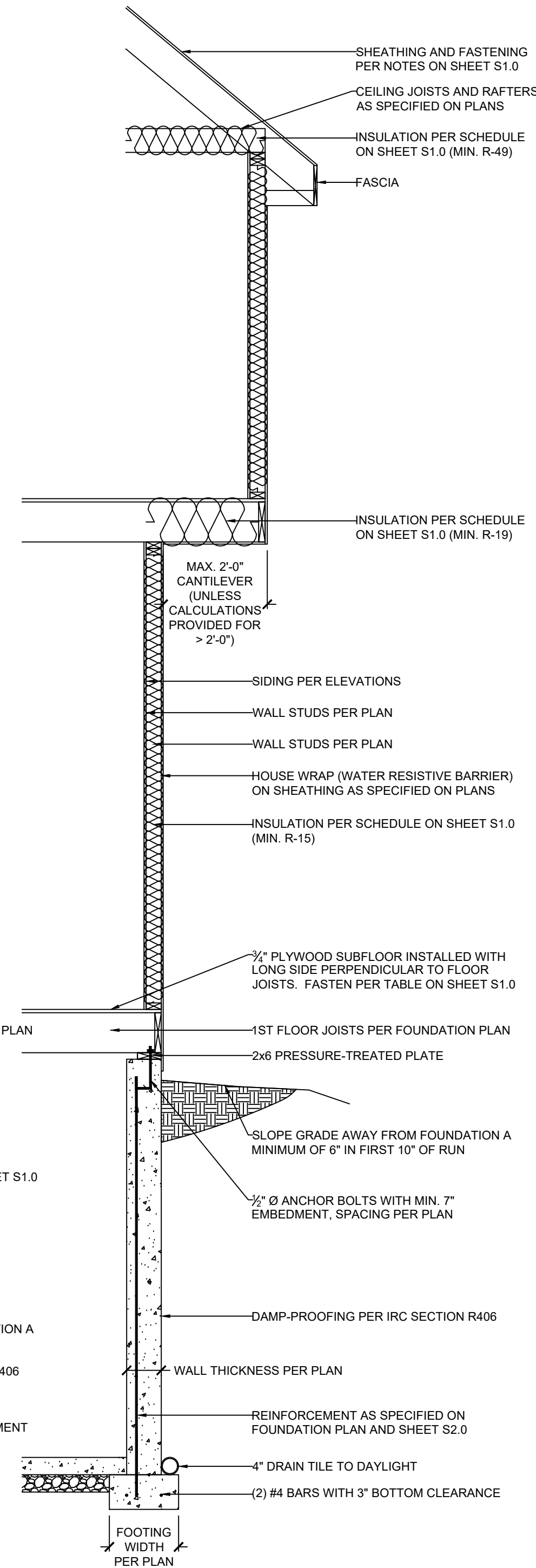
SCALE: $1" = 1'-0"$ (18x24) OR $\frac{1}{2}" = 1'-0"$ (24x36)

3 EXTERIOR WALL SECTION
S3.1

SCALE: $\frac{1}{2}" = 1'-0"$



DAYLIGHT BASEMENT OPTION



FULL-HEIGHT CONCRETE WALL OPTION



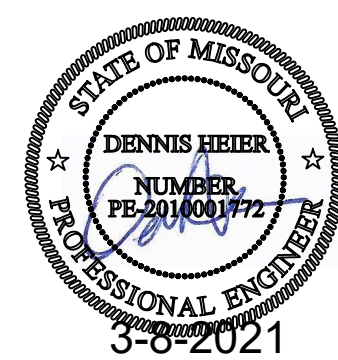
14718 NW DELIA STREET * PORTLAND, OREGON 97229
OFFICE: 971.233.6099 * MOBILE: 971.233.6099 *
* DENNIS@VISTASTRUCTURAL.COM * VISTASTRUCTURAL.COM

CLIENT: WALKER CUSTOM HOMES, LLC

JOB TITLE: PKR308 SPEC

LOT 308, PARK RIDGE - 6TH PLAT

LOCATION: LEE'S SUMMIT, MISSOURI



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JOB NO. 3208		DRAWN BY: DMH	
DATE: 03-08-21			
SHEET NUMBER			

S3.1

PLEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

04/02/2021

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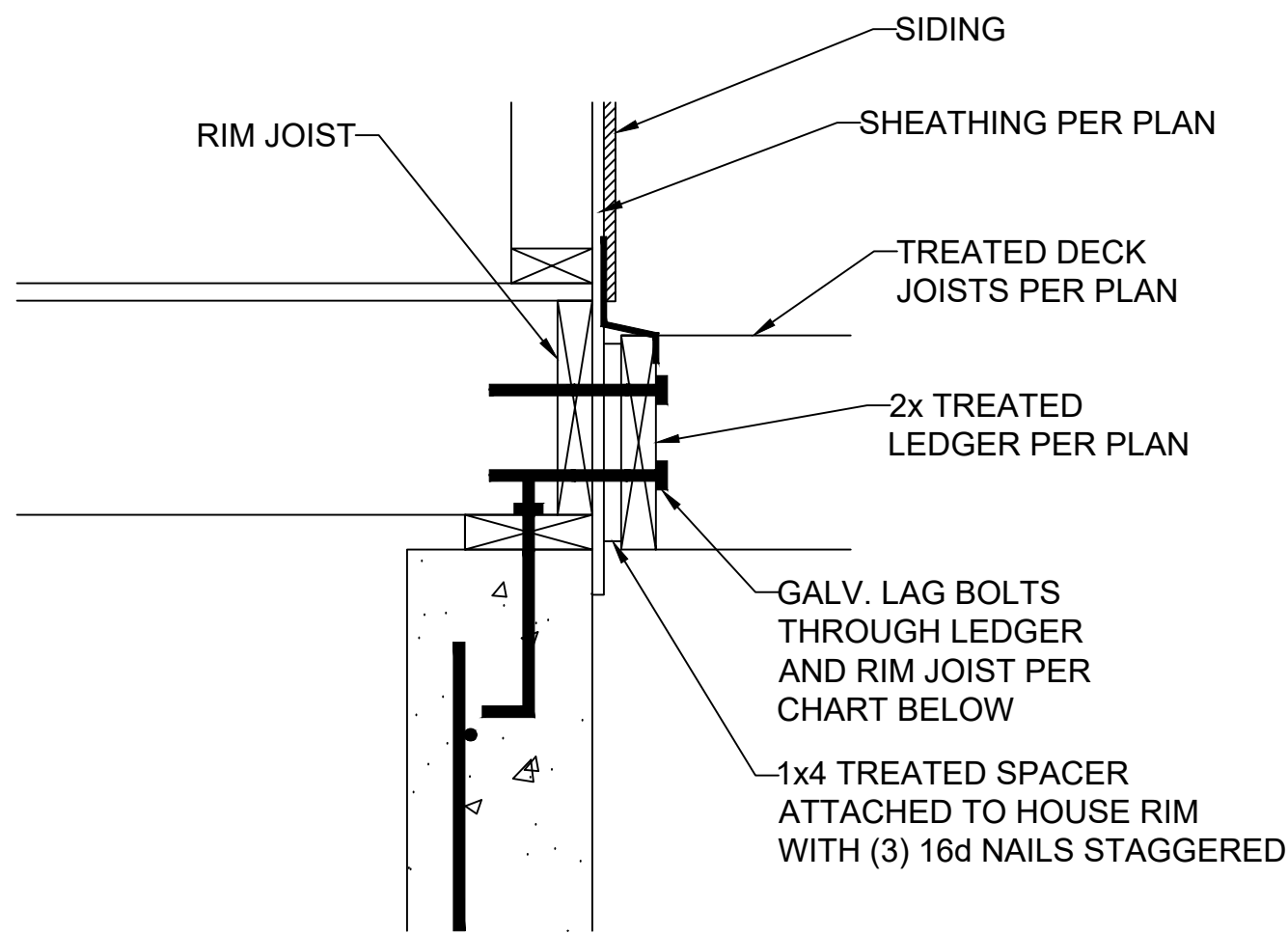
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DATE: 03-08-21

SHEET NUMBER

S3

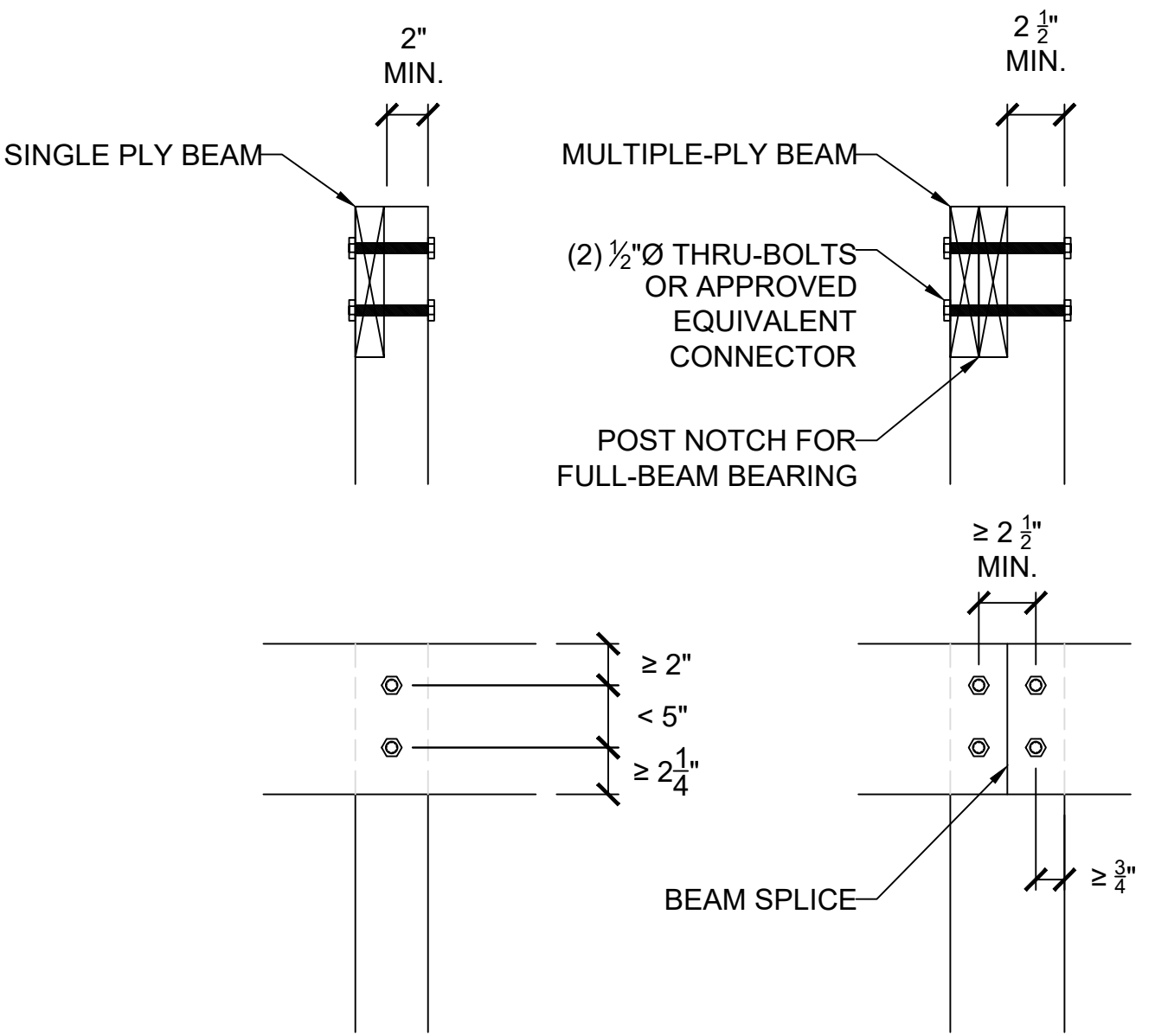
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS RE SUBMITTAL REVIEW LEE'S SUMMIT CORP!



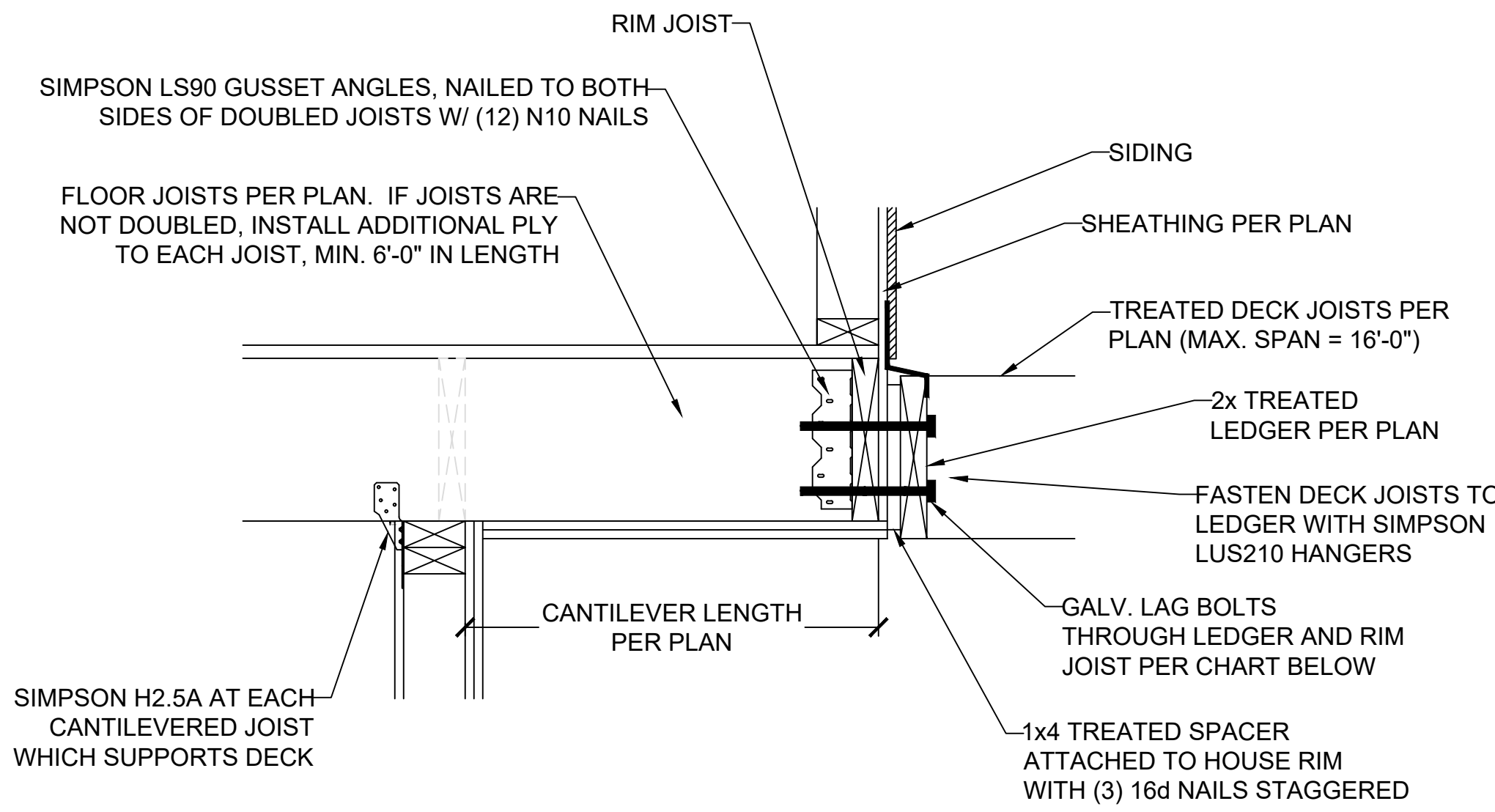
DECK LEDGER ATTACHMENT GUIDE

DECK JOIST SPAN	1/2" Ø GALV. LAG OR 3/8" Ø LEDGER-LOK SPACING
10'-0" OR LESS	16" OC
10'-0" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
14'-0" - 18'-0"	8" OC OR @ 16" OC DOUBLED

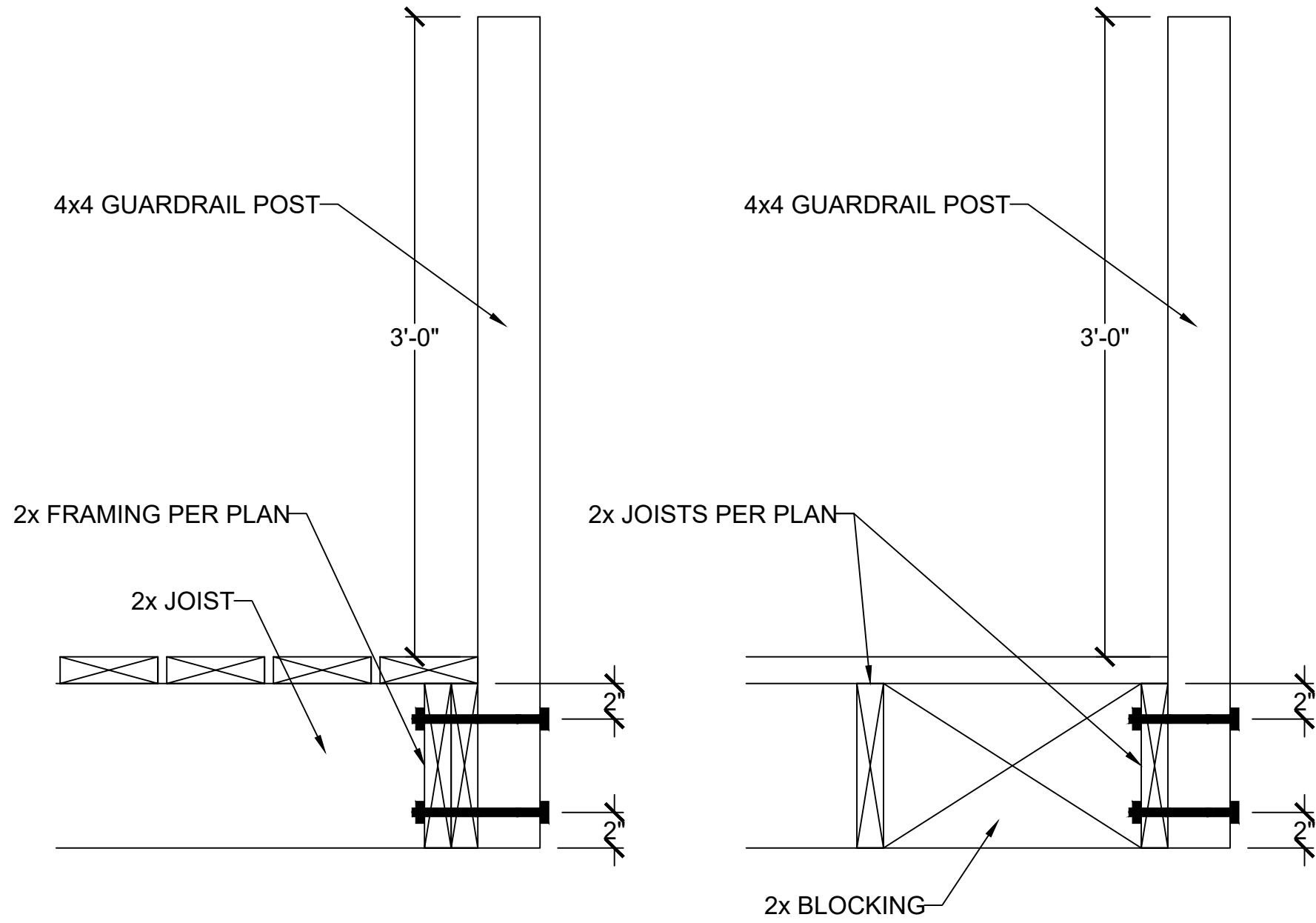
1 LEDGER ATTACHMENT
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



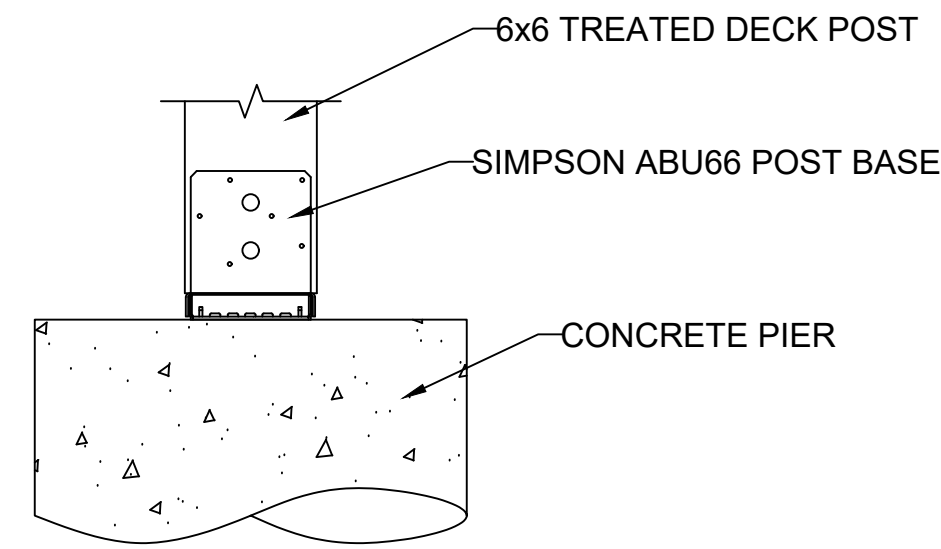
5 LET-IN (COVERED) DECK BEAM CONNECTION
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



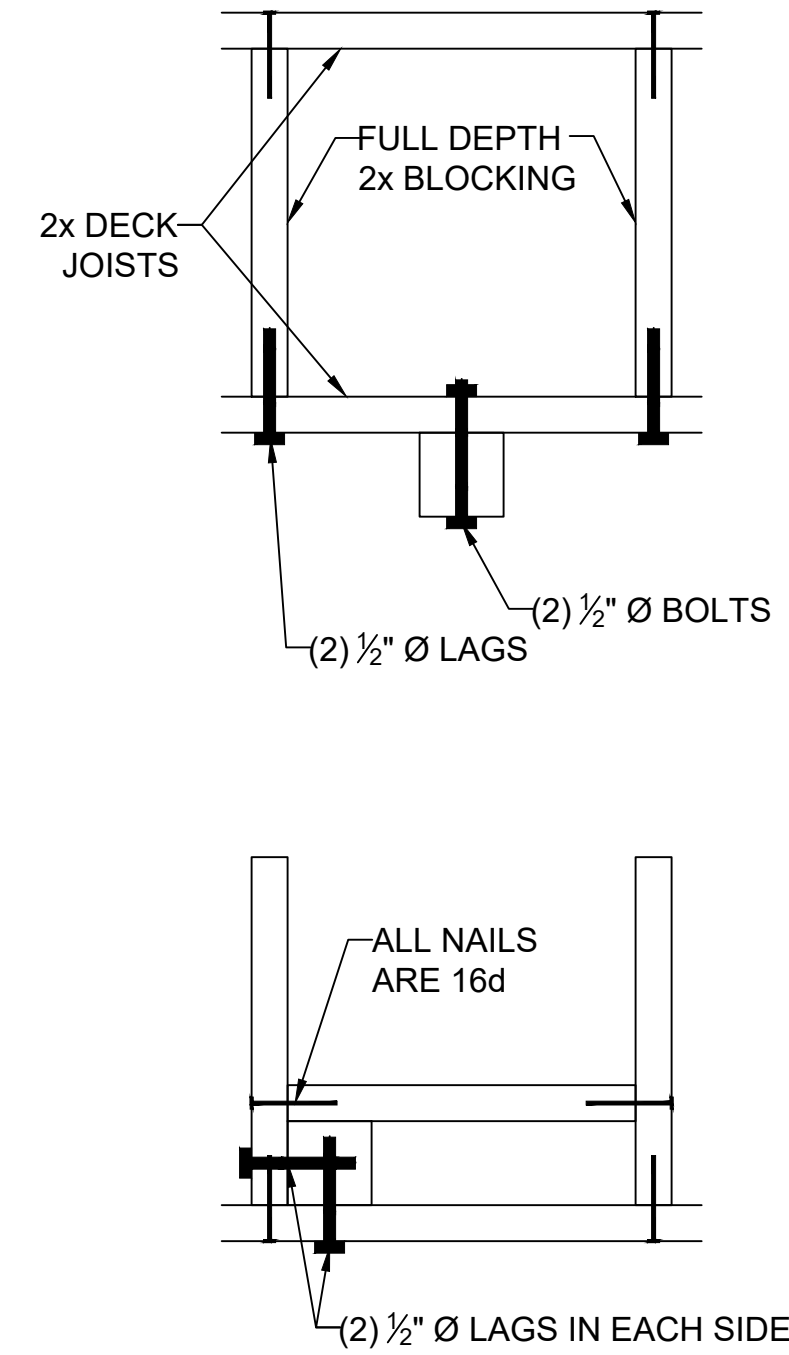
2 CANTILEVER WITH DECK ATTACHMENT
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



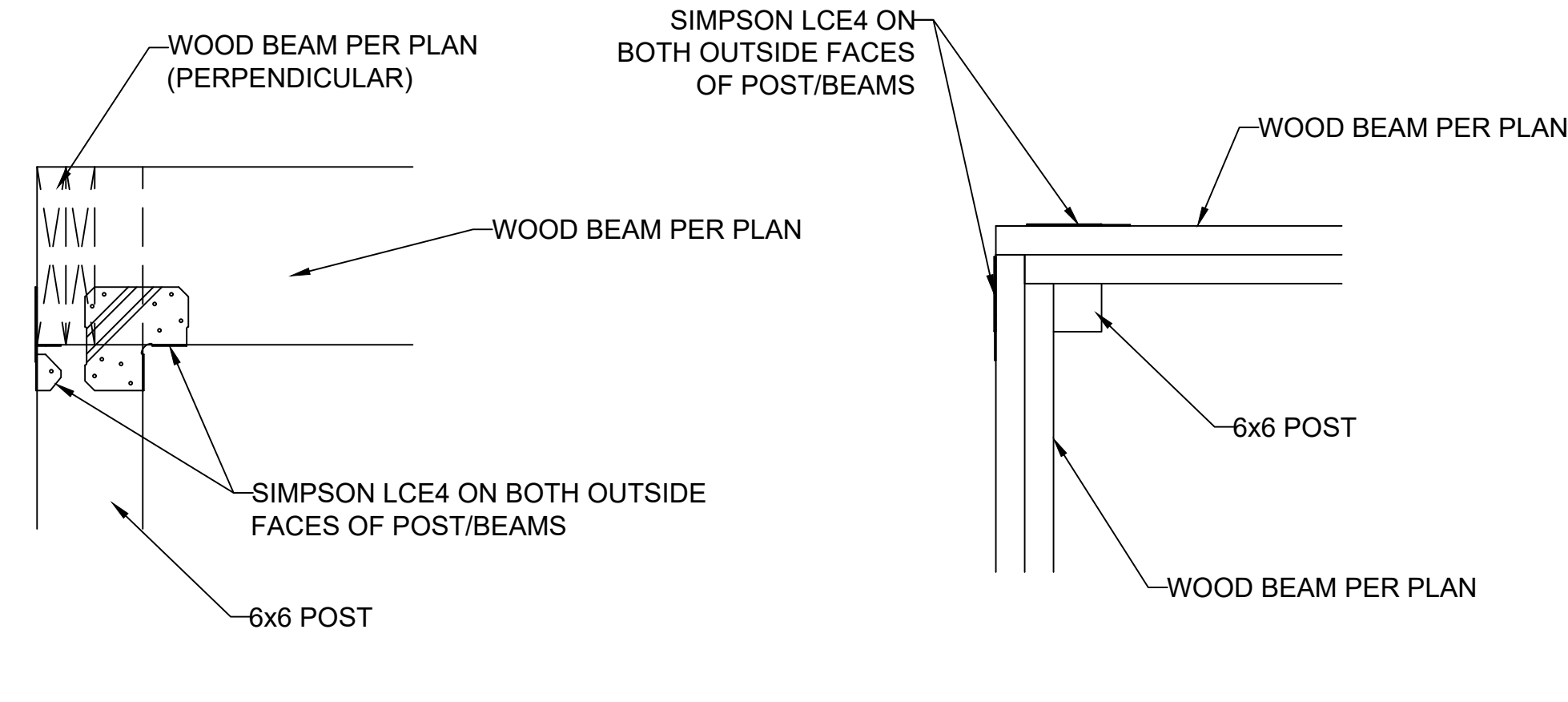
6 GUARDRAIL CONNECTION
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



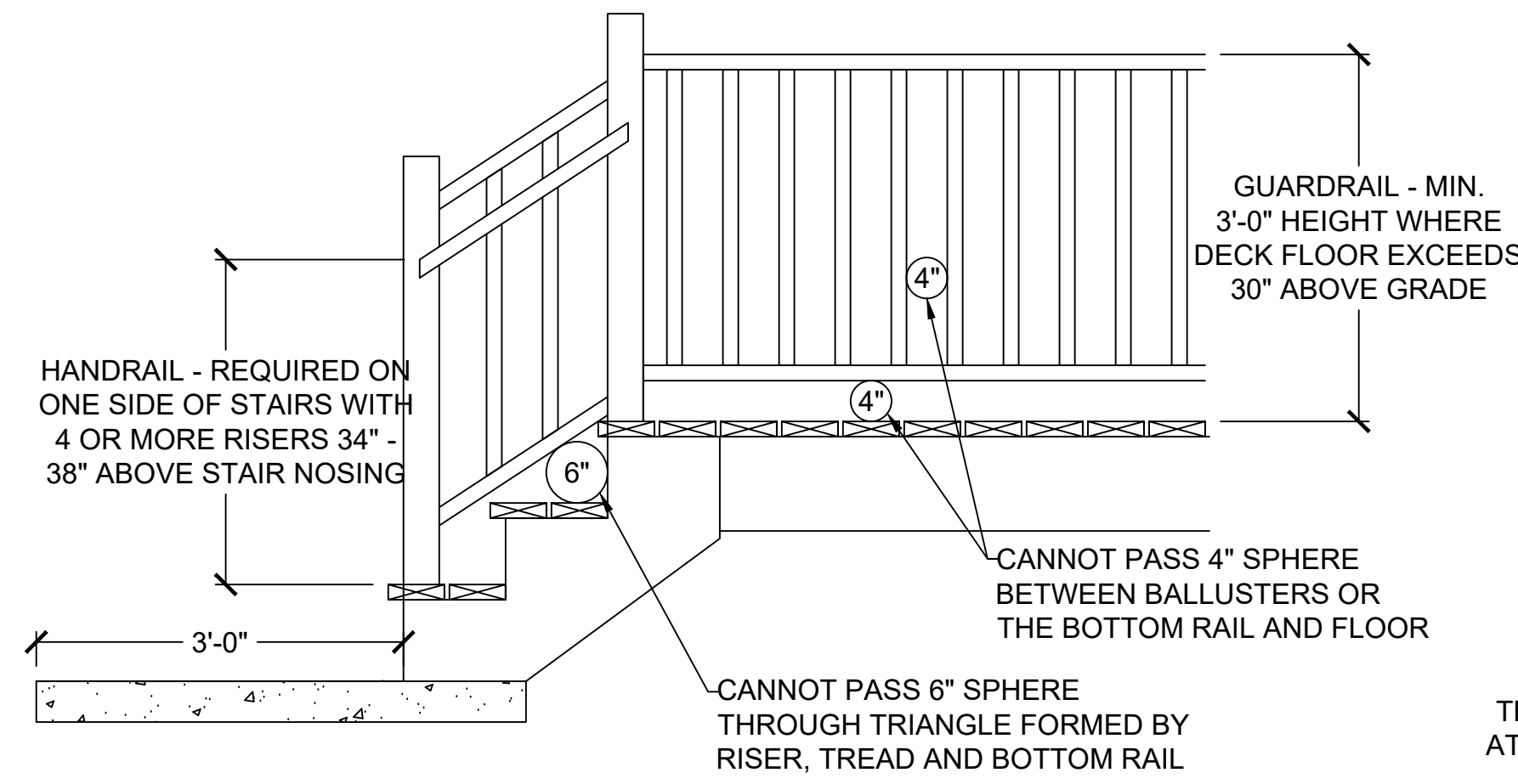
3 DECK POST BASE
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



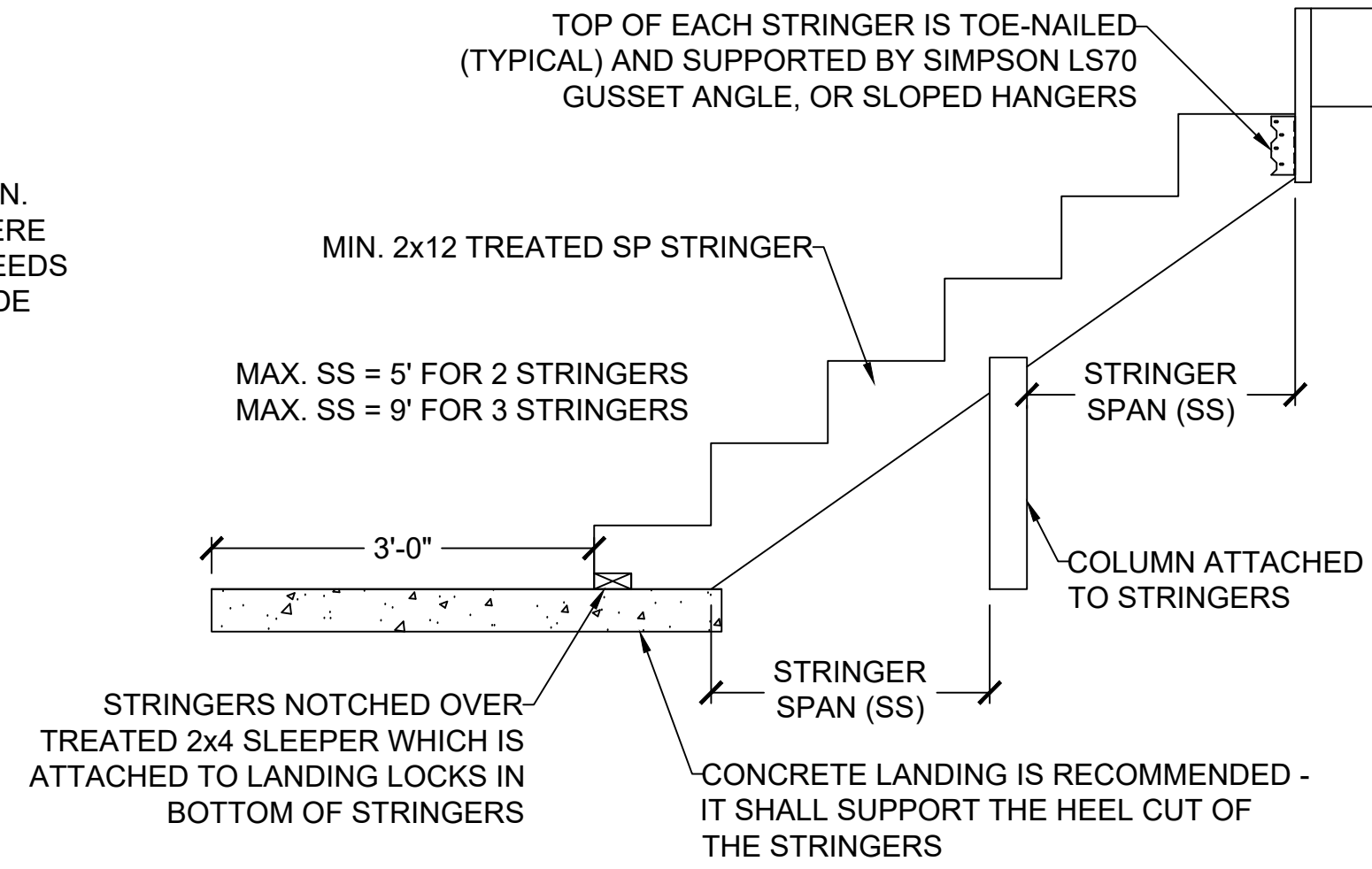
4 REINF. POST CONNECTIONS
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



7 ALTERNATE COVERED DECK/PORCH INTERSECTION
S3.3 CORNER BEAM CONNECTION
SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



8 GUARDRAIL DETAIL
S3.3 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



9 STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH)
S3.3 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

VISTA

STRUCTURAL

ENGINEERING, LLC

14718 NW DELIA STREET

PORTLAND, OREGON 97229

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* DENNIS@VISTASTRUCTURAL.COM

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LOT 308, PARK RIDGE - 6TH PLAT

LOCATION: LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI

DENNIS HEIER

NUMBER: FE-201001772

PROFESSIONAL ENGINEER

3-8-2021

NO. DATE REVISION BY

FRAMING DETAILS

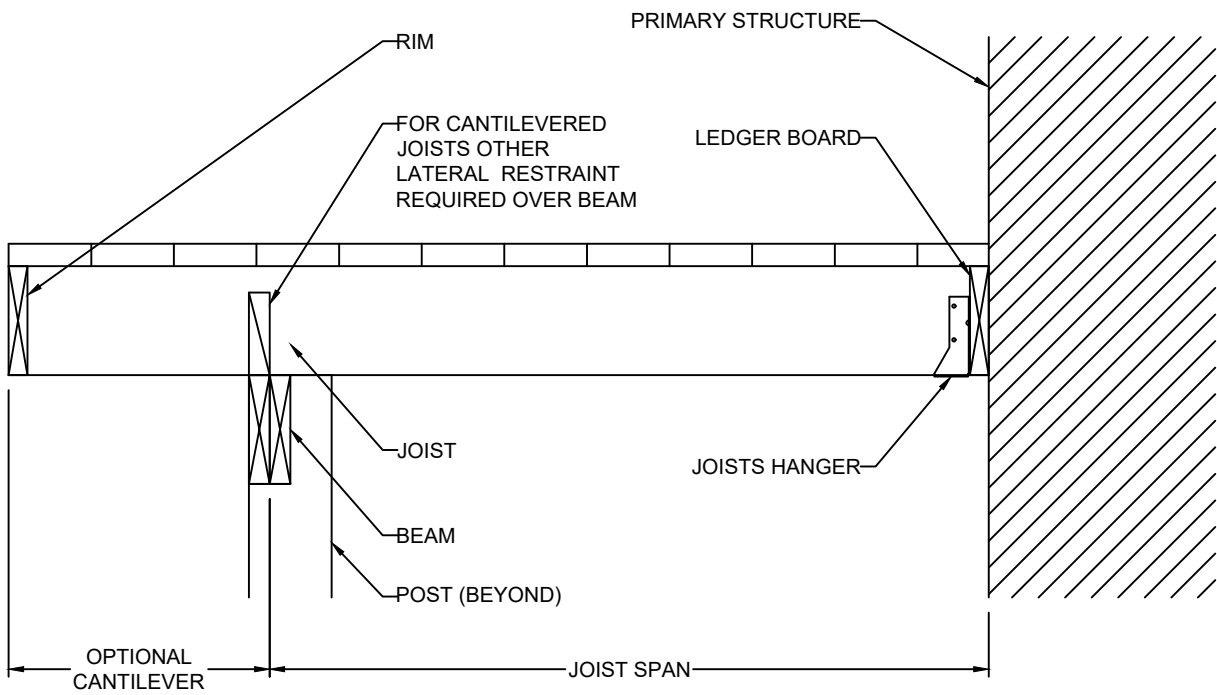
ENGINEER: DMH CHECKED BY: DMH

JOB NO.: 3208 DRAWN BY: DMH

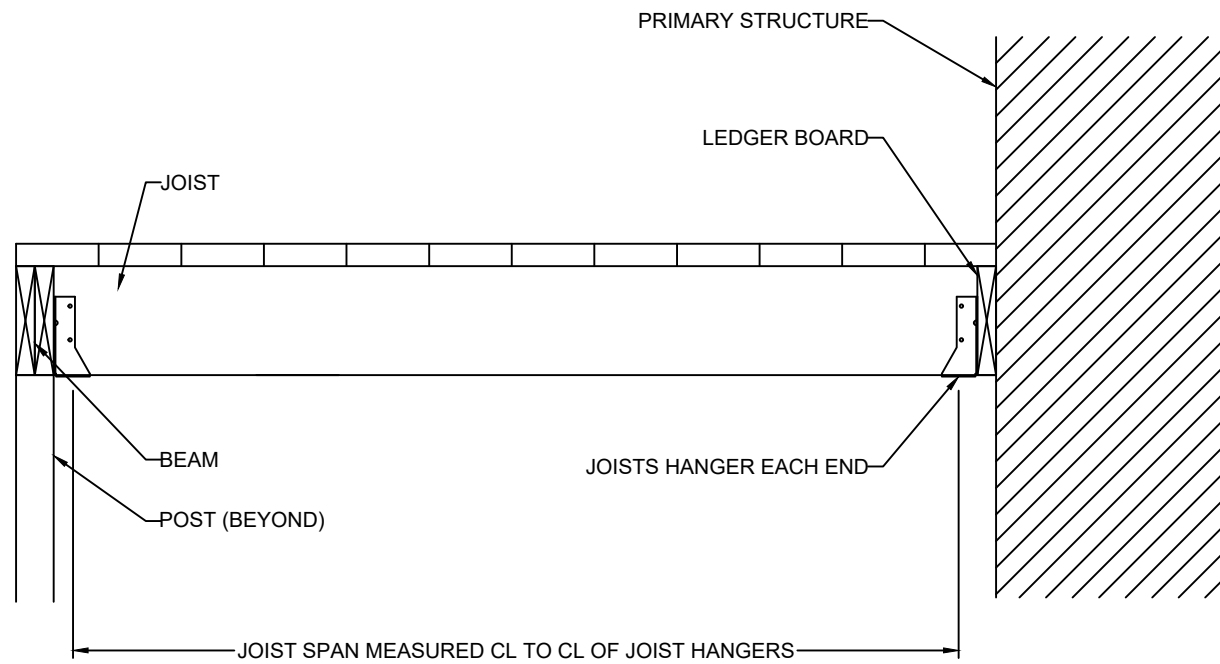
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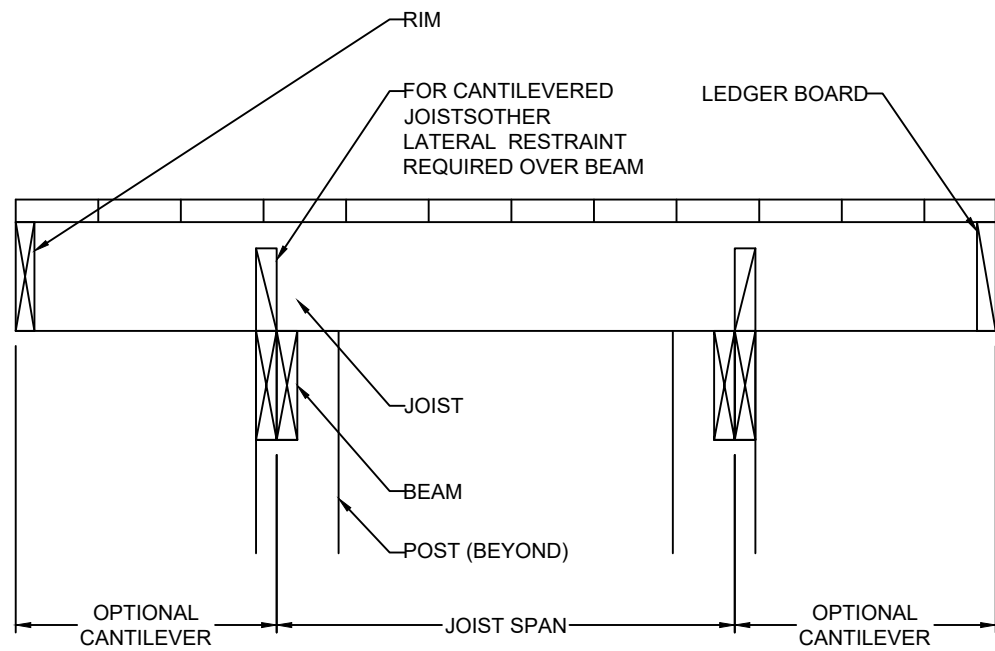
S3.3



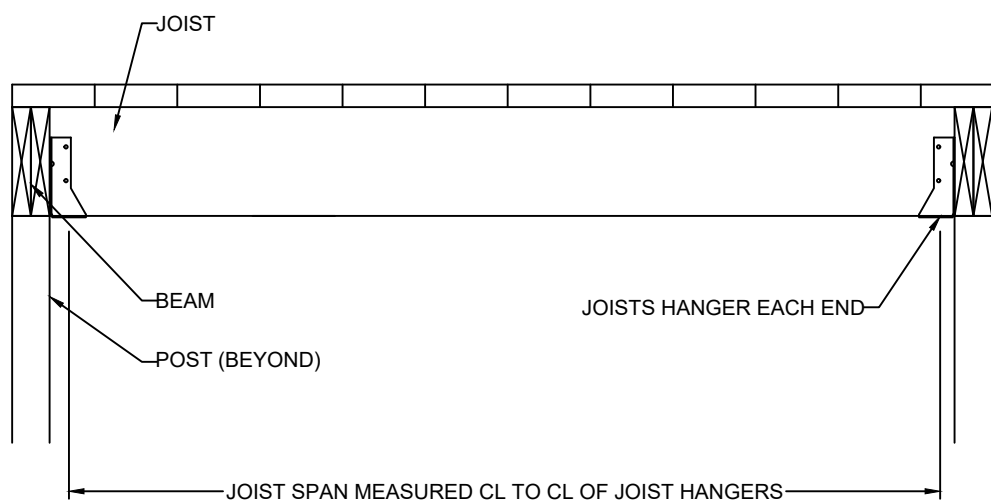
CANTILEVERED JOISTS WITH DROPPED BEAM



JOISTS WITH FLUSH BEAM

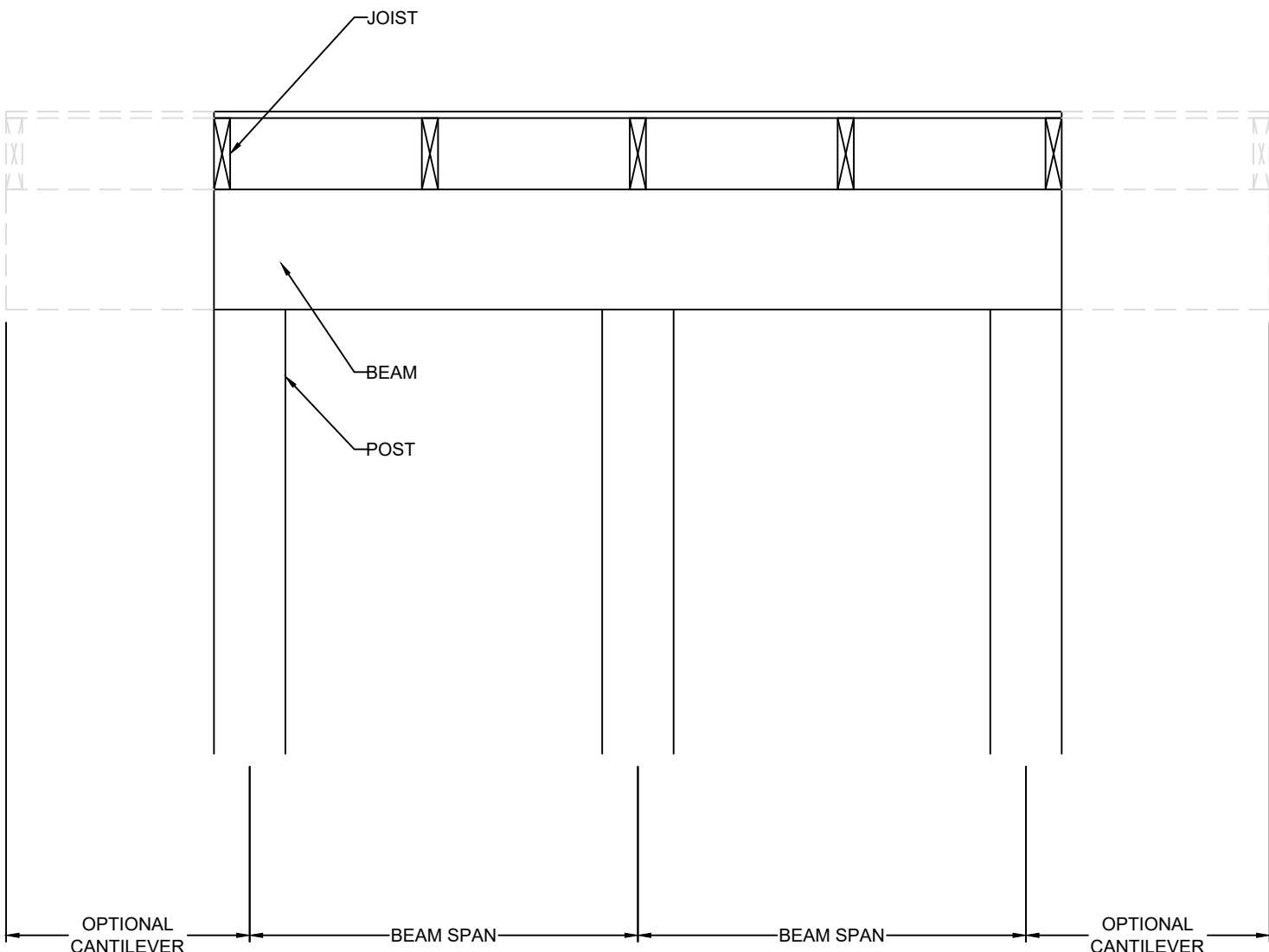


JOISTS ON FREE-STANDING DECK WITH DROPPED BEAM

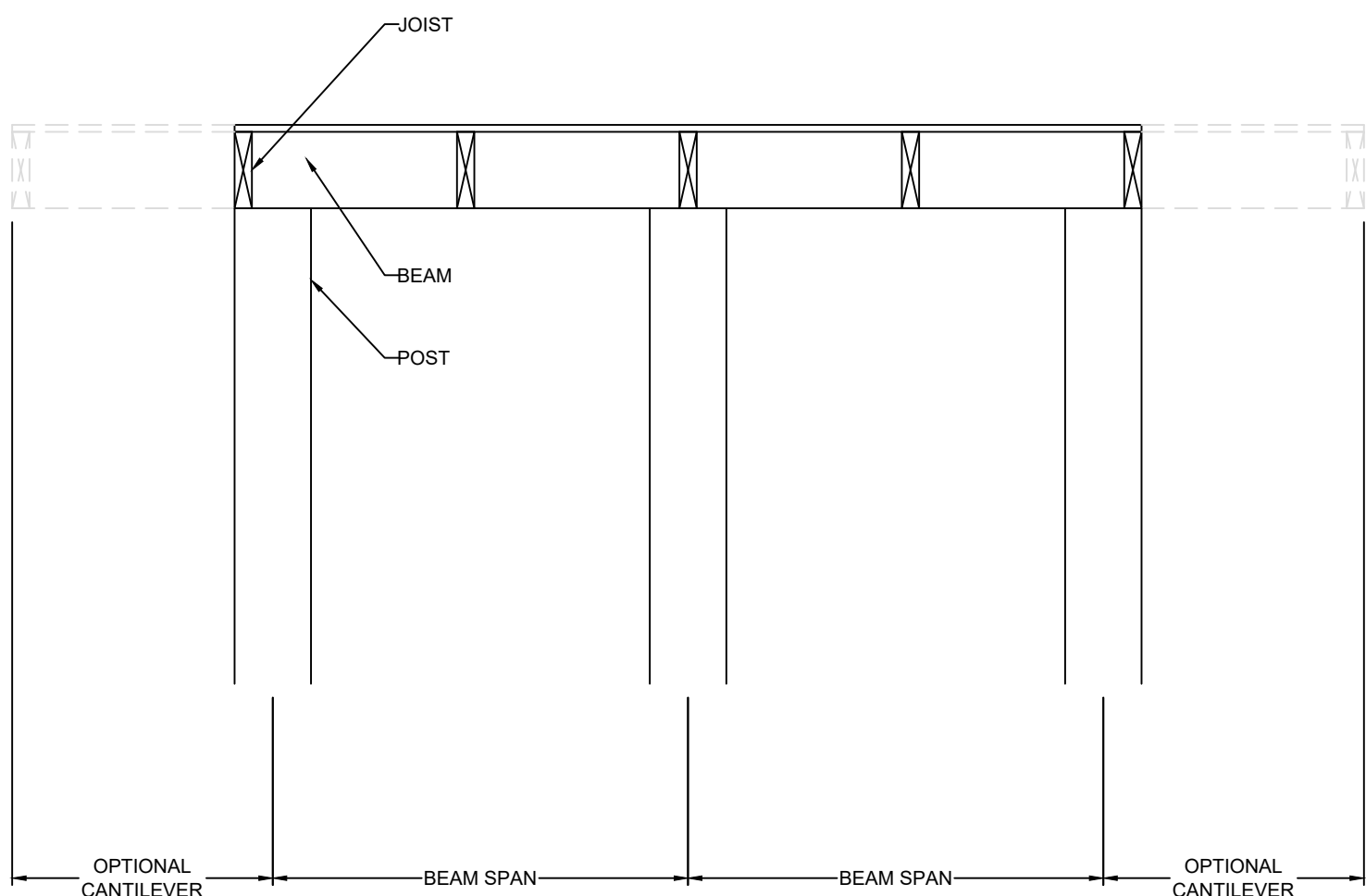


JOISTS WITH FLUSH BEAM

10 TYP. DECK JOIST SPANS
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



DROPPED BEAM



FLUSH BEAM

11 TYP. DECK JOIST SPANS
S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



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S3.3

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LEE'S SUMMIT, MISSOURI

04/02/2021