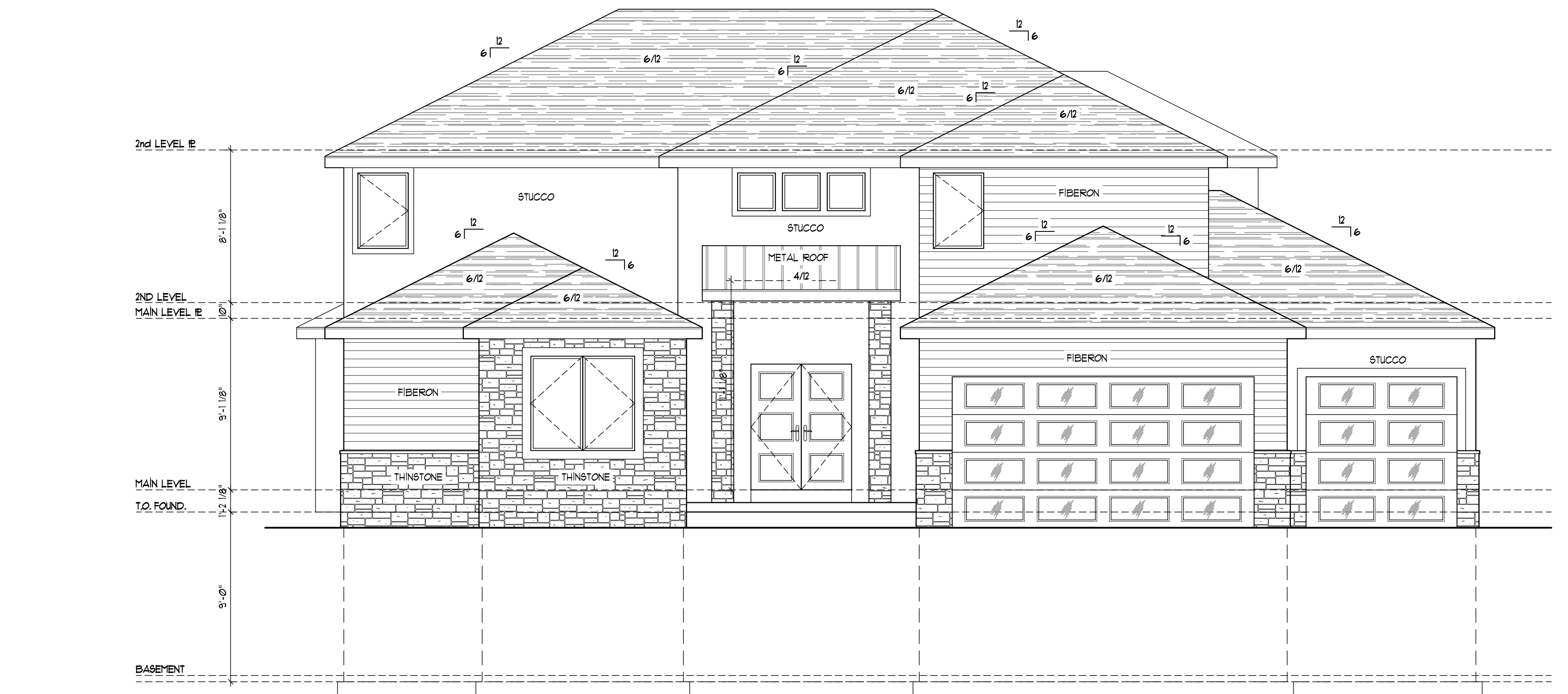
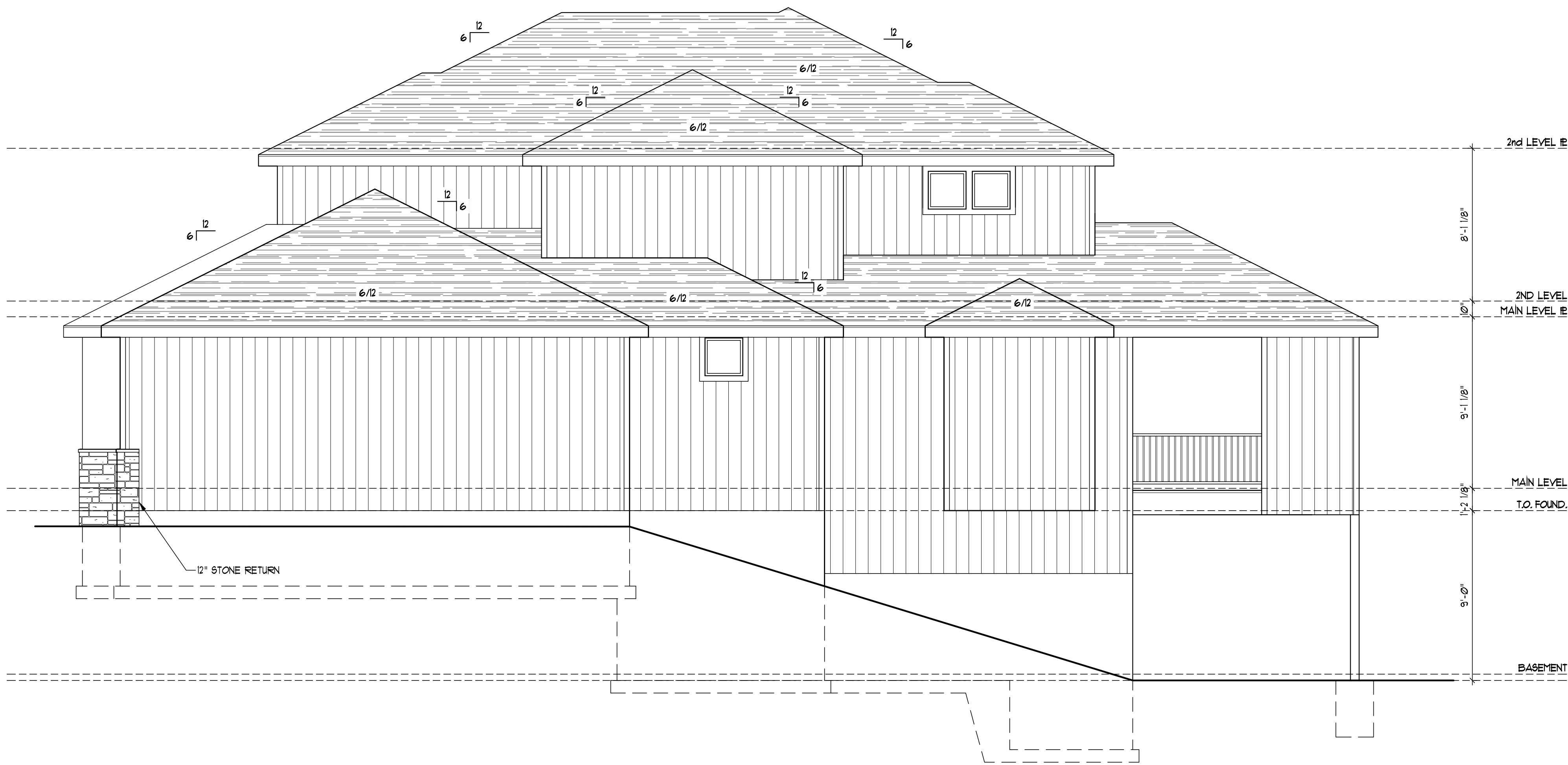


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FRONT ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



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DATE:

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ELEVATIONS FOR:

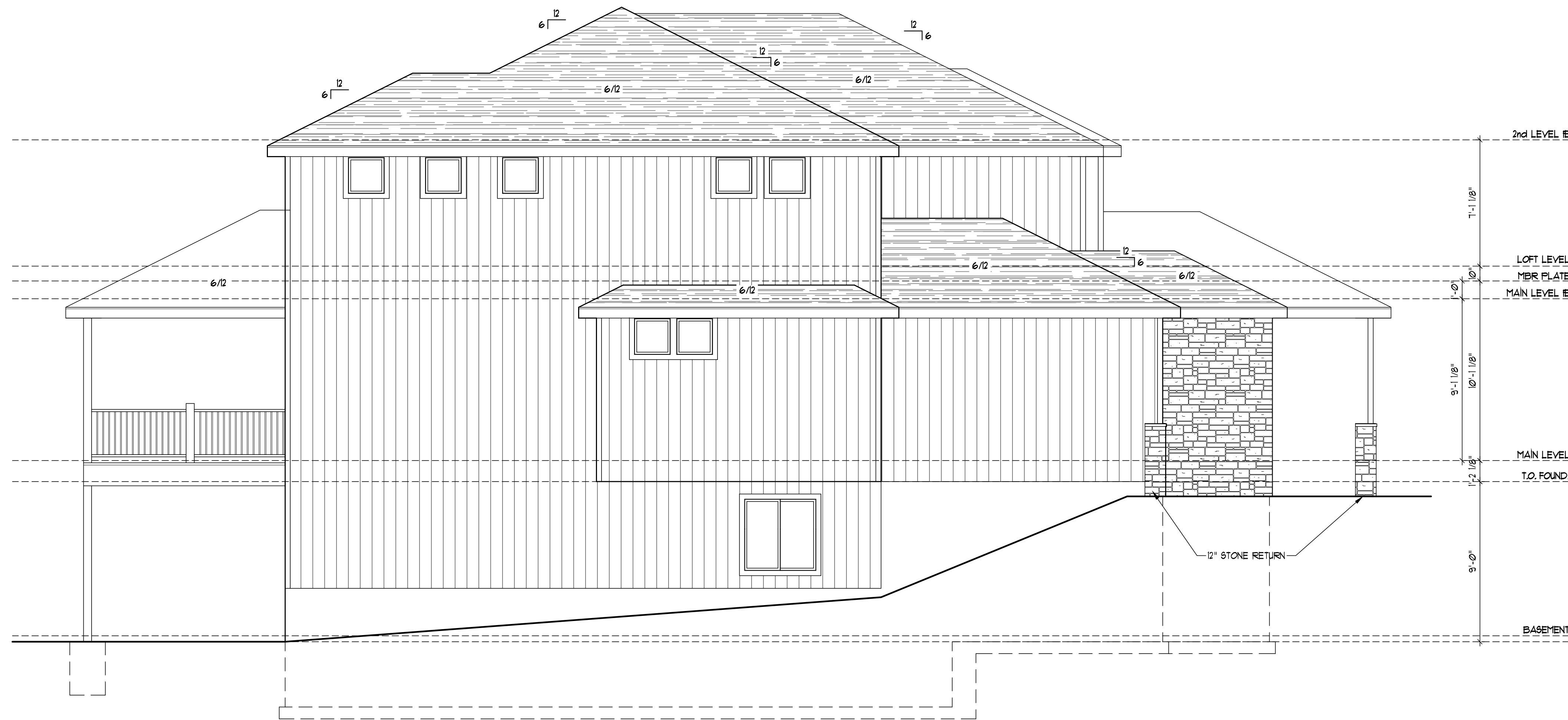
THE MAPLEWOOD III - MODERN

369 NW Patch Ct
Lee's Summit, MO 64081
Woodside Ridge Lot 157

GA1



REAR ELEVATION
SCALE: 1/4" = 1'-0"



LEFT ELEVATION
SCALE: 1/4" = 1'-0"



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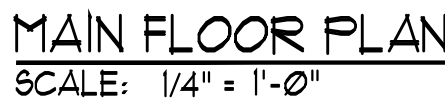
ELEVATIONS FOR:

THE MAPLEWOOD III - MODERN

369 NW Patch Ct
Lee's Summit, MO 64081
Woodside Ridge Lot 157

GA2

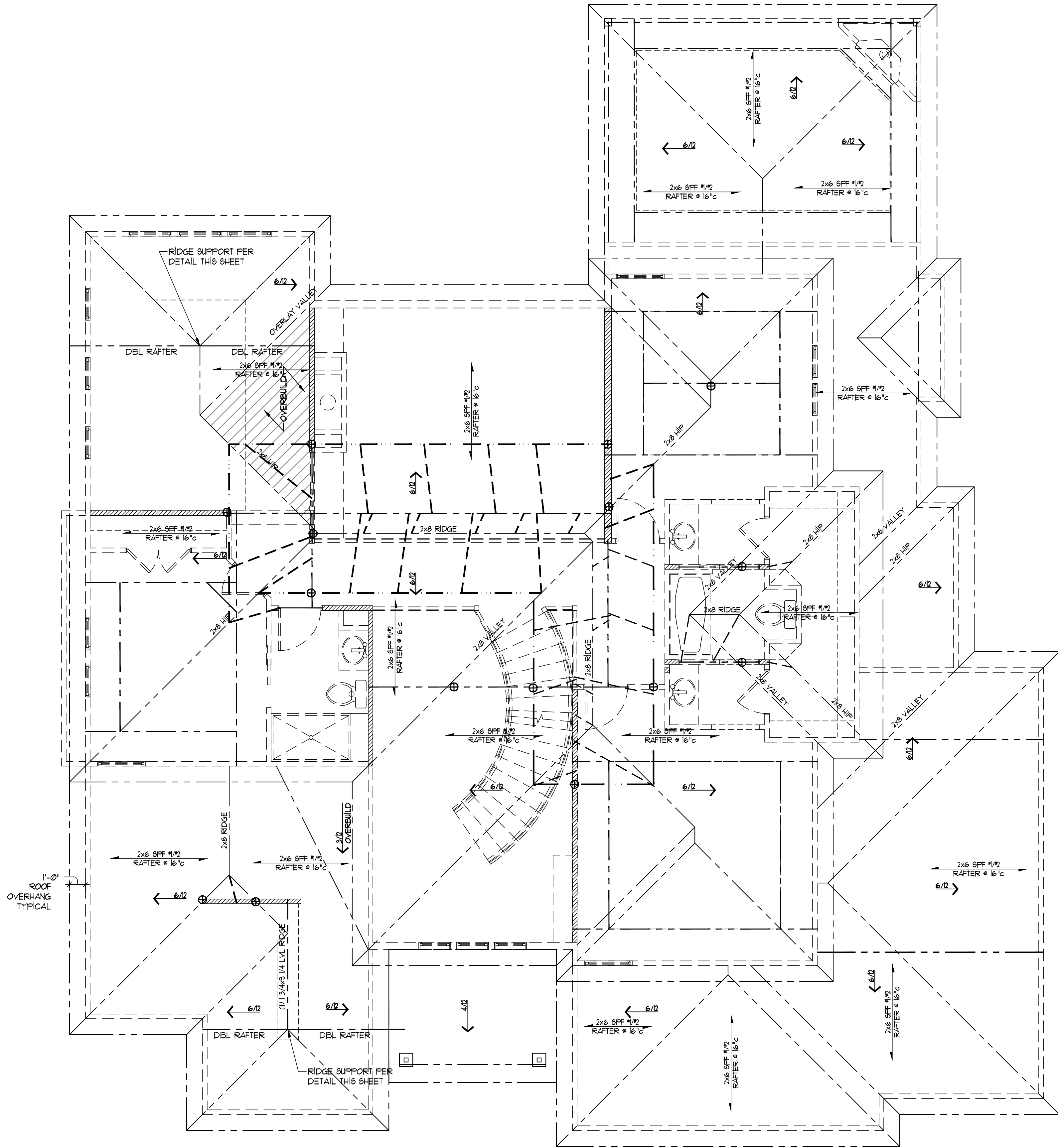
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ROOF PLAN
SCALE: 1/4" = 1'-0"

ROOF PLAN NOTES

- ALL ROOF RAFTERS NOT CALLED OUT ARE TO BE 2x6 SFF #1/2 @ 16" c
- ALL CEILING JOISTS NOT CALLED OUT ARE TO BE 2x6 SFF #1/2 @ 16" c
- ALL VAULTS TO BE FURRED DOWN w/2x MATERIAL TO PROVIDE FOR R-38 INSULATION
- ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 D.FIR #2 UNLESS NOTED OTHERWISE ON PLANS
- ALL RIDGES, HIPs, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS
- CEILING JOISTS AND RAFTERS SHALL BE NAILED TO EACH OTHER WITH (3) 16d COM (3 1/2"x0.62") NAILS AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8d COM (2 1/2"x0.31") NAILS. CEILING JOISTS SHALL BE CONTINUOUS OR SECURELY JOINED WITH (3) 16d COM (3 1/2"x0.62") NAILS WHERE THEY MEET OVER INTERIOR PARTITIONS AND ARE NAILED TO ADJACENT RAFTERS TO PROVIDE A CONTINUOUS TIE ACROSS THE BUILDING WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS
- WHERE CEILING JOISTS ARE NOT CONNECTED TO THE RAFTERS AT THE TOP WALL PLATE (or AT LOCATIONS WHERE C.J. ARE PERPENDICULAR TO RAFTERS), INSTALL 2x4 RAFTER TIES @ 16" c WITH (3) 16d COM (3 1/2"x0.62") NAILS EA END.
- ADDITIONAL NOTE: ROOFS WITH SLOPE OF 4:12 OR SHALLOWER SHALL HAVE (5) 16d COM NAILS AT THE CONNECTIONS LISTED IN NOTE #6 AND #7.
- RAFTER CONNECTIONS DESIGNED TO RESIST UPLIFT FORCES PER IRC TABLE 802.11. ROOF HEADERS DO NOT HAVE NOTABLE UPLIFT TO REQUIRE HOLD DOWNS, REFER TO STRUCTURAL DETAIL SHEET S1 CONNECTION TABLE FOR FASTENERS
- INSTALL 2x4 COLLAR TIES @ 48" c IN UPPER 1/3rd OF ROOF RAFTER
- IF COLLAR TIES CAN NOT BE INSTALLED (AND FOR VAULTED/ CATHEDRAL ROOFS) INSTALL 1 1/4" x .02ga RIDGE STRAP (SIMPSON 15TA12 or EQUIV.) PER FASTENER SCHEDULE.
- PROVIDE METAL FLASHING OR CLOSED CUT CORNER VALLEY w/ICE & WATER SHIELD AT ALL ROOF VALLEYS.
- ROOF AND SOFFIT VENTS PER LOCAL CODES. WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF. BATH VENTS TO VENT DIRECTLY TO THE OUTSIDE.
- PER IRC SECTION R802.3 - FOR ROOF PITCHES 3/12 OR GREATER, STRUCTURAL MEMBERS THAT SUPPORT RAFTERS AND CEILING JOISTS SUCH AS RIDGE BEAMS, HIPs AND VALLEYS THAT ARE SUPPORTED BY BRACES AND/OR FURLINS AT THE ENDS ARE ARE NOT REQUIRED TO BE DESIGNED AS BEAMS AND ARE TO BE FRAMED USING LUMBER THAT IS NOMINALLY 2" WIDE BY ONE SIZE GREATER THAN ATTACHING FRAMING MEMBER (NOTE #5). THERE IS NO STRUCTURAL LINE LOADING ON THE MEMBER.
- ALL HIPs AND HIP TO RIDGE CONNECTIONS SHOULD BE INSTALLED AND TIED PER THE ATTACHED DETAILS ON SHEET S2. THIS INCLUDES ADDITIONAL 2x8 CEILING JOISTS AND COLLAR TIES.
- EXACT GUTTER AND DOWNSPOUT LOCATION BY GUTTER INSTALLER.

ROOF BRACING

- ROOF FURLINS TO BE PLACED APPROXIMATELY WHERE SHOWN ON PLANS, USE 2x6 STUD GRADE FURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS)
- RIDGE, HIP, VALLEY, AND FURLIN BRACE STRUTS TO BE PLACED AS SHOWN ON PLANS. STRUTS TO BE 2x4 STUD GRADE w/ MAXIMUM UNBRACED LENGTH OF 8'-0" AND AT A 45° ANGLE w/ HORIZONTAL OR GREATER (VERTICAL WHERE POSSIBLE)
- BRACES LONGER THAN 8'-0" SHALL BE 2x4 STRONG BACK BRACES

NOMENCLATURE

- CEILING HEADERS AND BEAMS
- - - 2x6 ROOF FURLIN (UNLESS NOTED OTHERWISE ON PLANS)
- - - 2x4 FURLIN/RIDGE BRACING @ 4'-0" c (STRONG BACK IF OVER 8'-0" LONG)
- ⊕ 2x4 STRONGBACK HIP VALLEY, OR RIDGE RAFTER SUPPORT
- /// LOAD BEARING STUD WALLS



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Project #: 8083-XXXX

DATE:

Permit: 5/6/2024

ROOF PLAN FOR:

THE MAPLEWOOD III - MODERN

369 NW Patch Ct

Lee's Summit, MO 64081

Woodside Ridge Lot 157

GA6

RELEASE FOR CONSTRUCTION
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1. Design and construction work for this project shall conform to the requirements of the 2018 International Residential Code as amended by the City of Lee's Summit, MO
2. Furnish all labor, materials and equipment necessary to complete the work as shown or indicated on the drawings.
3. Design Loads:
 - A. Elevated Floor:

A	Residential (Live Loads)	40 PSF
	Sleeping rooms (Live Loads)	30 PSF
	Floor Dead Load	10 PSF
	Floor Joist Deflection (Total)	L/240
	Floor Joint Deflection (Live)	L/360
	Attic Storage (Live Loads)	10 PSF
	Ceiling Dead Load	5 PSF
	Ceiling Joist Deflection	L/240
B	Roof Live Load	20 PSF
C	Roof Snow Load	
	Ground Snow Load, pg	20 PSF
	Flat Roof Snow Load, pf	20 PSF
	Snow Exposure Factor, Ce	1.0
	Snow Load Importance Factor, Is	1.0
	Thermal Factor, Ct	1.0
D	Wind Load	
	Basic Wind Speed (Vt)	115 MPH
	R Category	II
	Exposure	B
	Internal Pressure Coefficient	±0.18

4. The contractor shall examine actual job conditions and be responsible for verifying all dimensions and elevations shown on structural plans with those shown on architectural and mechanical drawings. If errors, omissions or discrepancies are found they shall be reported to the engineer before proceeding with the work.
5. Plans indicate size, location and general arrangement of construction. Dimensions lacking or not drawn to scale shall not be scaled but referred to the designer for interpretation.

- It is recommended that the contractor employ the services of a geotechnical engineer to observe, test and approve all excavations, fill and backfill work, and to determine that subgrade conditions are compatible with those used in the design.
- **Shrinkage-grown gneiss control fill.** Shrinkage-grown gneiss control fill shall conform to Table 189-2 of the International Building Code. All footings are designed to be placed on natural undisturbed soil or control fill capable of adequately sustaining a maximum bearing pressure of 1500 PSF. If suitable bearing capacity is not encountered at the elevation indicated on the drawing, contractor shall notify the architect immediately.
- All topsoil, organic material and existing structures shall be removed from building area and from all areas to be paved. Stockpile all topsoil for reuse.
- **Control Fill - Materials:**
 - Granular Fill - Granular fill shall consist of washed, evenly graded mixture of crushed stone, crushed or uncured gravel, with 100 percent passing a 1/2 inch sieve and not more than 5 percent passing a No. 4 sieve.
 - Shrinkage-gneiss-control control fill shall consist of material having a relatively low plasticity with a liquid limit of less than 45 percent and a plasticity index of less than 21 percent.
 - Control Fill - Control fill shall be either granular or shrinkage-gneiss control fill as specified above and as approved by the geotechnical engineer.
 - Control fill shall consist of material having a relatively low plasticity with a liquid limit of less than 45 percent and a plasticity index of less than 21 percent.
- **Foundation Preparation**
 - Footings and/or slab-on-grade placed areas. If areas found to be unsuitable for support of footings and/or slab-on-grade disturbed contact the Engineer's Record.
 - Backfill directly under slabs-on-grade with minimum of 4 inches of granular fill consisting of 100 percent material passing a 1/2 inch sieve and not more than 5 percent passing a No. 4 sieve.
 - Backfill directly under slabs-on-grade with minimum of 4 inches of granular fill consisting of 100 percent material passing a 1/2 inch sieve and not more than 5 percent passing a No. 4 sieve.

7. **Controlled Fill and Backfill Compaction:**
 - A. All filled fill and backfill shall be placed in lifts having maximum loose lift thickness of 9 inches.
 - B. Control Fill - Compact granular fill below footing bearing elevation to a minimum of 98 percent of material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent for material founded above footing bearing elevation.
 - C. Shrinkage-swell controlled fill - Compact shrinkage-swell controlled fill below footing bearing elevation to a minimum of 98/95 percent for material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent for material founded above footing bearing elevation.
 - D. Controlled Fill - Compact controlled fill at a moisture content within a range of 0 to 4 percent above optimum moisture content.

1. All concrete work shall conform to the requirements of ACI 318 "Building Code Requirements for Reinforced Concrete" and ACI 308.1 "Specification for Structural Concrete Buildings."
2. Concrete materials shall comply with:
 - A. Cement—ASTM C 150 Type I
 - B. Aggregate—ASTM C 33, maximum aggregate size 3/4 inch
 - C. Water—Potable
 - D. Air-entraining admixture—ASTM C 260
 - E. Water-reducing admixture—ASTM C 494, including superplasticizers.
 - F. Fly ash—ASTM C 188, Class C
3. Concrete shall develop the following minimum 28 day design compressive strength (f'c):

Concrete Strength (f'c)
A. Footings, walls and basement slab
Type I/normal concrete
3000 PSI
B. Garage Slab
3000 PSI
C. Exterior stairs, steps, and curbs
(a) entrained concrete
4000 PSI
4. Concrete proportions shall be established on the basis of field experience and trial mixtures in accordance with ACI 318-89 Sections 5.2 and 5.3. When fly ash is utilized in the mix, the total water-cement ratio shall be added at the rate of not more than 15 pounds per cubic yard. The water-cement ratio shall be reduced by not more than 15 percent by weight.
5. Proportion and design mixtures to result in concrete slump at point of placement of not more than 4 inches, except good for mixtures of not more than 6 inches.
6. The use of air-entrained concrete in exterior exposed concrete to result in concrete at placement having air content of 5 to 7% ASTM C 615, grade 4.
7. Reinforcing Steel:
 - A. Reinforcing bars—ASTM A 615, grade 40, deformed.
 - B. Welded wire fabric—ASTM A 108, up to and just one full mesh and face lapses will be permitted.
 - C. Supports for reinforcement—comp with CRSI requirements.
8. Concrete Work Execution:
 - A. Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:
 - 1. Cast against and exposed to earth—3 inches
 - 2. Exposed to earth or weather—2 inches
 - 3. Not exposed to earth or weather—1 1/2 inches
 - B. All concrete is reinforced, reinforcement concrete to be reinforced identical with same reinforcement as similar sections.
 - C. Protect concrete work from physical damage or reduced strength due to weather extremes:
 - 1. In cold weather work with ACI 308
 - 2. In hot weather comply with ACI 308
 - D. In corners of grade beams and walls provide corner reinforcement. Place two feet each direction in outside face, matching size and spacing of horizontal reinforcement.
 - E. Openings in walls, add one #4 bar (opening dimension plus 60 x diameter) each face, each corner of opening.
 - F. Provide one #4 bar diagonally at each face of all steps in grade beams and foundation walls.
 - G. Provide construction joints in footings, grade beams and walls of not greater than 80 feet in any direction. Avoid construction joints in walls.
 - H. Provide control joints in slabs-on-grade at not greater than 20 feet or center in each direction. Save cut control joints minimum 1/4" of slab depth, as soon after slab finishing as possible without disturbing aggregate.
9. Coordinate concrete finish with architectural and mechanical drawings for concrete finishes, recessed areas, embedded items and other conditions.

1. All miscellaneous structural steel work shall conform to the requirements of AISC "Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings".
2. Miscellaneous structural steel material shall comply with:
 - A. Structural Steel - ASTM A 36
 - B. Cold-formed Steel Tubing - ASTM A 500 Grade B.
 - C. Anchor Rods - ASTM F-1554, non-headed type unless otherwise noted.

- All rough carpentry work shall conform to the requirements of NFPA - National Design Specification of Wood Construction; TPI Design Specifications for Light Metal Plate Connected Wood Trusses; APA Plywood Design Specifications; DDC PS-1 "Product Standard for Construction and Industrial Plywood"; DDC PS-8 "Structural Grade Laminated Timber" and Chapter 23 of the International Building Code.
2. Rough interior materials shall comply with:
 - A. Lumber - S4S, surface, grade marked, complying with PS-20; graded under WHPA or SPIB rules.
 - B. Stud: Stud Grade - Spruce-Pine-Fir
 - C. Stud: No. 2 Douglas Fir No. 2 Hem Fir
 - D. Header: No. 3 Douglas Fir
 - E. Rafter: No. 3 Douglas Fir No. 2 Spruce-Pine-Fir
 - F. Plates: No. 3 Spruce-Pine-Fir
 - G. Blocking: No. 3 Spruce-Pine-Fir
3. Metal fastening fasteners - ASTM A 153 cold dip galvanized fasteners; equal to Simpson strong-tie connectors complying with ICCBO No. 1258.
4. C. Plywood - APA rated sheathing, complying to PS-1.
5. D. LVL - Laminated veneer lumber shall be grade 2000 F-2.0C and shall meet the requirements of NE-442, NE-447 or ER-4231.
6. E. Joist - Joist shall be fabricated from APA rated sheathing board webs, LVL flanges, utilizing wet glue girding and shall meet requirements of NE-450, NE-448, NE-471 or CBO PS-374.
7. F. Gypsum Beams - Combination 20V-3 in accordance with Table No. 25C-1 Part A of Chapter 23 of the International Building Code.
8. G. Fiberglass Sheathing - DDC ASTM PS 57-73.
9. H. Gypsum Sheathing Board - Standard C 36 and UBC Standard No. 47-10.
10. I. Gypsum Wallboard - ASTM C 36 and UBC Standard No. 47-11.
11. 12. Roof sheathing for standard roofing shall be 1/2 inch APA rated sheathing 240 exterior glued and clipped. Roof sheathing for Conc. Tite shall be 5/8 in APA rated 3216 exterior glued and clipped. Lay sheathing with face grain perpendicular to support members and stagger end joints 4'-0". FASTEN PER SCHEDULE BELOW.
13. 13. Floor sheathing shall be 3/4 inch APA rated sheathing 4824 exterior glued. Lay sheathing with face grain perpendicular to support members and stagger end joints 4'-0". FASTEN PER SCHEDULE BELOW.
14. 14. Exterior wall sheathing shall be 1/2 inch APA rated sheathing 240 or 7/16 inch LP Smart Strand exterior glued. Provide solid blocking at all unsupported panel edges FASTEN PER SCHEDULE BELOW.
15. 15. Interior wall sheathing shall be 1/2 inch gypsum wallboard. Provide solid blocking at all unsupported panel edges. Interior shear wall sheathing where noted shall be 1/2 inch gypsum wallboard. FASTEN PER SCHEDULE BELOW.
16. 16. Attach metal framing fasteners to framing members with minimum number and size of nails listed in ICCBO Report No. 1258.
17. 17. Provide full depth solid blocking, 1 x4 cross bracing, or 16 gauge metal cross bracing bridging at ends of members and at 6'-0" intervals along members.

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ¹ & c		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
ROOF				
1	Blocking between ceiling joists or rafters to top plate	(4) 8d box (3) 8d common (3) 10d box	(4) 2" 12" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128" (3) 3" x 0.131"	Toe nail
2	Ceiling joists to top plate	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128" (3) 3" x 0.131"	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions	(4) 10d box (3) 16d common	(4) 3" x 0.128" (3) 3 1/2" x 0.162" (4) 3" x 0.131"	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) Note: Fasteners listed IRC Table R602.5.2 assuming 16° C Rafter Joists & spans less than 12'-0"	(3) 16d common @ slopes greater than 4:12 (3) 16d common @ slopes 4:12 or less	(3) 3 1/2" x 0.162" @ slope + 4:12 (3) 3 1/2" x 0.162" @ slope 4:12 or less	Face nail
5	Collar tie to rafter, face nail or 11/4" x 20ga. ridge strap to rafter	(4) 10d box (3) 16d common	(4) 3" x 0.128" (3) 3" x 0.148" (4) 3" x 0.131"	Face nail each rafter
6	Rafter or roof truss to plate	(3) 16d box (3) 16d common (4) 10d box	(3) 3 1/2" x 0.135" (3) 3" x 0.148" (4) 3" x 0.128" (4) 3" x 0.131"	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
7	Roof rafters to ridge, valley or hip rafters or roof truss to minimum 2" ridge beam	(4) 16d (3) 16d common (4) 10d box	(4) 3 1/2" x 0.135" (3) 3 1/2" x 0.148" (4) 3" x 0.128" (4) 3" x 0.131"	Toe nail
8	Roof rafters to ridge, valley or hip rafters or roof truss to minimum 2" ridge beam	(3) 16d box (2) 16d common (3) 10d box	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162" (3) 3" x 0.128" (3) 3" x 0.131"	End nail
WALL				
8	Stud to stud (not at braced wall panels)	16d common 10d box	3 1/2" x 0.162" 3" x 0.128" 3" x 0.131"	24" c face nail 16" c face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box 16d common	3 1/2" x 0.135" 3" x 0.131"	16" c face nail
10	Build-up header (2" to 2" header with 1/2" spacer)	16d common 16d box	3 1/2" x 0.162" 3 1/2" x 0.135"	16" c each edge face nail
11	Continuous header to stud	(5) 8d box (4) 8d common (4) 10d box	(5) 2 1/2" x 0.113" (4) 2 1/2" x 0.131" (4) 3" x 0.128"	Toe nail
12	Top plate to top plate	16d common 10d box	3 1/2" x 0.162" 3" x 0.128" 3" x 0.131"	16" c face nail 12" c face nail
13	Double top plate splice for SDCs A-D2 with seismic braced wall line spacing < 25'	(8) 16d common (12) 16d common (12) 10d box	(8) 3 1/2" x 0.162" (12) 3 1/2" x 0.135" (12) 3" x 0.128"	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
14	Double top plate splice SDCs D0, D1, or D2; and braced wall line spacing ≥ 25'	(12) 16d	(12) 3 1/2" x 0.135"	
14	Bottom plate to joist, rim joist, band joint or blocking (at braced wall panels)	16d common 16d box	3 1/2" x 0.162" 3 1/2" x 0.135" 3" x 0.131"	16" c face nail 12" c face nail
15	Bottom plate to joist, rim joist, band joint or blocking (at braced wall panels)	(3) 16d box (2) 16d common (1) 16d common	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162" (3) 3" x 0.131"	Each 16" c face nail Each 16" c face nail
16	Top or bottom plate to joist	(4) 8d box (3) 16d box (4) 8d common (4) 10d box	(4) 2 1/2" x 0.113" (3) 2 1/2" x 0.135" (4) 2 1/2" x 0.131" (4) 3" x 0.128"	Toe nail
17	Top plates, laps at corners and intersections	(3) 16d box (2) 16d common (3) 10d box	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162" (3) 3" x 0.131"	End nail
17	Top plates, laps at corners and intersections	(3) 10d box (2) 16d common	(3) 3" x 0.128" (2) 3 1/2" x 0.162" (3) 3" x 0.131"	Face nail
18	1" brace to each stud and plate	(3) 8d box (2) 8d common (2) 10d box (2) Staples ²	(3) 2 1/2" x 0.113" (2) 2 1/2" x 0.131" (2) 3" x 0.128"	Face nail
19	1" x 6" sheathing to each bearing	(3) 8d box (2) 8d common (2) 10d box (2) Staples ²	(3) 2 1/2" x 0.113" (2) 2 1/2" x 0.131" (2) 3" x 0.128"	Face nail
20	1" x 8" and wider sheathing to each bearing	(3) 8d box (3) 8d common (3) 10d box (3) Staples ²	(3) 2 1/2" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128"	Face nail
	Wider than 1" x 8"	(4) 8d box (3) 8d common (3) 10d box (4) Staples ²	(4) 2 1/2" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128"	

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ^{A, B, C}		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
FLOOR				
21	Joist to joist, top plate or girder	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" x 0 11/32" (3) 2 1/2" x 0 131" (3) 3" x 0 128" (3) 3" x 0 131"	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box 8d common 10d box	2 1/2" x 0 11/32" 2 1/2" x 0 131" 3" x 0 131"	4" to toe nail
23	1" x 6" subfloor or less to each joist	(8) 8d box (2) 8d common (3) 10d box (2) Staples ^D	(3) 2 1/2" x 0 11/32" (3) 2 1/2" x 0 131" (3) 3" x 0 128" (3) 3" x 0 131"	Face nail
24	2" subfloor or joist or girder	(3) 16d box (2) 16d common	(3) 3 1/2" x 0 135" (2) 3 1/2" x 0 162"	Blind and face nail
25	2" planks (plank & beam-floor & roof)	(3) 16d box (2) 16d common	(3) 3 1/2" x 0 135" (2) 3 1/2" x 0 162"	At each bearing, face nail
26	Band or rim joist to joist	(3) 16d box (4) 10 box (4) 3" x 14 ga. staples, 7/16" crown	(3) 3 1/2" x 0 162" (4) 3" x 0 128" (4) 3" x 0 131"	End nail
27	Built-up girders and beams, 2" inch lumber layers	20d common 10d box	4" x 0 192" 3" x 0 128" 3" x 0 131"	Nail each layer as follows: 32" at top and bottom and staggered.
		(2) 10d box (2) 20d common (3) 10d box	(2) 4" x 0 192" (3) 3" x 0 128" (3) 3" x 0 131"	2" face nail at top and bottom staggered on opposite sides
28	Ledger strip supporting joists or rafters	(4) 16d box (3) 16d common (4) 10d box	(2) 4" x 0 192" (3) 3" x 0 128" (3) 3" x 0 131"	Face nail at ends and at each splice
29	Bridging to joist	(2) 10d	(4) 3 1/2" x 0 135" (3) 3 1/2" x 0 162" (4) 3" x 0 128" (4) 3" x 0 131"	At each joist or rafter, face nail
		(2) 10d	(2) 3" x 0 128"	Ea end, toe nail
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING				
30	3/8" - 1/2"	8d common 8d common (roof)	2" x 0 113" 2 1/2" x 0 131"	6 12 ^E
31	1/32" - 1"	8d common	2 1/2" x 0 131"	6 12 ^E
32	1 1/8" - 1 1/4"	10d common 8d reformed nail	3" x 0 148" 2 1/2" x 0 131"	6 12
OTHER WALL SHEATHING				
33	1/2" structural cellululosic fiberboard sheathing	1 1/2" gyp. roofing nail, 7/16" gyp. head, or 1" crown staple 16 ga., 1 1/4" long		3 6
34	25/32" structural cellululosic fiberboard sheathing	1 3/4" gyp. roofing nail, 7/16" gyp. head, or 1" crown staple 16 ga., 1 1/4" long		3 6
35	1/2" gypsum sheathing ^F	1 1/2" gyp. roofing nail, staple gyp., 1 1/2" long, 11/14" screws, Type W or S		7 7
36	5/8" gypsum sheathing ^F	1 3/4" gyp. roofing nail, staple gyp., 1 5/8" long, 1 5/8" screws, Type W or S		7 7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING				
37	3/4" and less	8d deformed 8d common	2" x 0 120" 2 1/2" x 0 131"	6 12
38	7/8" - 1"	8d common 8d common	2 1/2" x 0 131" 2 1/2" x 0 120"	6 12
39	1 1/8" - 1 1/4"	10d common 8d deformed	3" x 0 148" 2 1/2" x 0 120"	6 12

A. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending plate strengths as shown: 8d box for shank diameter of 0.165 inch; 10d box for shank diameter greater than 0.165 inch but not larger than 0.177 inch, and 10d box for shank diameters of 0.142 inch or less.

B. Staples are 16 gage wire and have a minimum 750psi on diameter common.

C. Nails shall be spaced at not more than 6 inches on center at all locations where spaces are 45 inches or greater.

D. Four foot by 8 foot or 4 foot by 8 foot panels shall be applied vertically.

E. Spacing of fasteners not included in this table shall be in Table B902.2 (3).

F. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching wood structural panel sheathing to gable end walls shall be spaced 8 inches on center for minimum 84" distance between ridges, eaves and gable ends and 16 inches on center for gable end wall framing.

G. Gypsum sheathing shall conform to ASTM C 976 and shall be installed in accordance with GCS 253. Fiberboard sheathing shall conform to ASTM C 208.

H. Spacing of fasteners on four sheathing panel edges shall be determined by framing and/or sheathing members and four primers only. Spacing of fasteners on framing panel edges applies to panels installed by rigid methods and required blocking. Blocking of roof and four sheathing panel edges perpendicular to the framing, members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or wall blocking.

I. Where a rafter is fastened to an adjacent paneling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate on the opposite side of the rafter. The toe nail on the opposite side of the rafter should not be tapered.

J. Staples to be 1" x 1" crown, 16ga., 1 3/4" long.

[illegible]

Technical drawing of a foundation wall cross-section, showing exterior and interior details. The drawing includes various materials and dimensions for construction.

Exterior Details:

- ROOF: TIMBERLINE 25 YEAR COMPOSITION SHINGLE ON 1/8" OSB SHEATHING OR CONC TILE ON 5/8" OSB SHEATHING.
- RAFTERS: PER PLAN.
- INSULATION: PER PLAN NOTES.
- 5" OGEE GUTTER.
- 1x8 FASCIA.
- SMART SOFFIT.
- 1/8" SMART PANEL SIDING or 1/8" APA RATED OSB 24/0 SHEATHING BRACED WALL PANEL OVER TYVEC (TAPE/SEAL ALL TYVEC LAP JOINTS AND PENETRATIONS) or 1/8" GREENBOARD (NO TYVEC).
- R13 INSULATION (USE R13 IN 2x6 WALLS).
- 2x4 STUDS @ 16" o.c. (USE 2x6 STUDS @ WALLS OVER 10'-0" UNLESS THEY ARE BRACED w/CLG JSTS).
- 2x IE.
- 1" OSB RIM BOARD.
- 2x6 TREATED SILL IE w/1/2" AB @ 3'-0" o.c. (2 1/2" PROJ, 2" HOOK MIN 1" EMBED).
- FINISH GRADE.

Interior Details:

- DBL TOP PLATE.
- 1/2" GYP WALLBOARD.
- 3/4" APA RATED 48/24 SHEATHING.
- JSTS PER PLAN.
- BASEMENT PLATE.
- 2" C.R.
- DAMP PROTECT FND WALL BELOW GRADE.
- #4 @ 24" HORIZ.

Vertical Reinforcement Table:

VERTICAL REINFORCEMENT (#4 BARS - GRADE 40)						
	8" WALL			10" WALL		
WALL HGT	8'	9'	10'	8'	9'	10'
VERTICAL BAR SPACING	16"	12"	8"	24"	16"	12"

Other Details:

- VERTICAL REINF (SEE CHART).
- CONC FND WALL (WIDTH PER PLAN).
- 12" GRANULAR FILL.
- 4" PVC DRAIN TILE SLOPE TO SUMP OR DAYLIGHT.
- 4" CONC SLAB.
- VAPOR BARRIER.
- 4" GRANULAR FILL.
- (or 1'-8" @ 10" WALL)
- (2) #4 CONT

Dimensions:

- VARIES 8'-1 1/8" to 12'-1 1/8"
- PER PLAN
- 1'-3 1/2", 8'-1 1/2", OR 9'-3 1/2"
- or 1'-0" @ 10" WALL
- 4"
- 3"
- 1'-4"
- 3"
- 4"

INSULATION PER PLAN NOTES

CLG JST PER PLAN

FOAM WEATHER STRIP (4 SIDES)

PLYWOOD ACCESS PANEL

1'-10" (x2'-6") MIN

1/2" (or 5/8") PER PLAN) GYP WALLBOARD

TRIM

ATTIC ACCESS HATCH

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

DEB TOP IE

WALL STUDS PER PLAN

HDR PER PLAN

(2) TRIMMER STUDS & (2) KING STUDS (3 TRIMMERS IF USING PLY HEADER)

WOOD HEADER TO WALL CONNECTION

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

WRAP DUCT w/R-8 BATT INSULATION IN ALL UNCONDITIONED LOCATIONS

DUCT SIZE PER HVAC

ALL JOINTS AND CONNECTIONS TO BE SEALED USING 2 1/2" FOIL TAPE UL APPROVED FOR SEALING CLASS 1 RIGID (B1A-P) OR CLASS 1 FLEXIBLE (B1B-FX) DUCT JOINTS AND CONNECTIONS

DUCT INSTALLATION

(4) 8d COMMON (2 1/2"xØ3/16") TOE NAILS

HDR PER PLAN

HDR PER PLAN

BEAM PER PLAN

(4) 10d COM NAILS
(BENT AROUND FLANGE)

DBL TOP IE

WALL STUDS
PER PLAN

STUD PACK
PER PLAN

UPSET STEEL BEAM TO WALL CONN.

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

HANGER SCHEDULE			
SOLID SAUN LUMBER		ENGINEERED LUMBER	
HDR SIZE	HANGER	HDR SIZE	HANGER
2x6	LUS24	1 3/4x1 1/4	HJ1
2x8	LUS26	1 3/4x9 1/4	HJ9
2x10	LUS28	1 3/4x9 1/2	HJ9
2x12	LUS30	1 3/4x11 7/8	HJ11
(2) 2x6	LUS24-2	(2) 1 3/4x1 1/4	HJ48
(2) 2x8	LUS26-2	(2) 1 3/4x9 1/4	HJ48
(2) 2x10	LUS28-2	(2) 1 3/4x9 1/2	HJ48
(2) 2x12	LUS30-2	(2) 1 3/4x11 7/8	HJ54

(4) 10d COMMON (3"x10 DBL") JOE NAILS (NOTE: NO NAILS REQ'D FOR STEEL BEAM)

WOOD or STEEL BEAM PER PLAN

(4) 10d COMMON (3"x10 DBL") NAILS

STUD POST PER PLAN (IF PLANS SHOW STEEL COL. USE STD ADJ. COL. BASE PER INT. END COL. DETAIL)

PROVIDE DBL JST or SOLID BLOCK w BEARING POINT 2x BEARING PLATE AFFIXED w/CONST. ADHESIVE w/1/2" 10d COM NAILS @ 16" (BENT AROUND FLANGE)

FLR JST PER PLAN

STANDARD 1/4" PLATE COL. CAP, BEND LEGS OVER FLANGE

BEAM PER PLAN

COL. PER PLAN

SECTION

ERECTION NOTE: IF POST DOES NOT BEAR OVER BEAM, ALL DETAILS ARE THE SAME, POST TO BEAR ON DBL JOIST OR UPSET HEADER PER PLANS AND NOTES. (IF HEADER IS NOT CALLED OUT ON PLANS AS BE REQUIRED, SOLID BLOCK UNDER POST BETWEEN JSTS)

UPPER 6x6 POST

DECKING

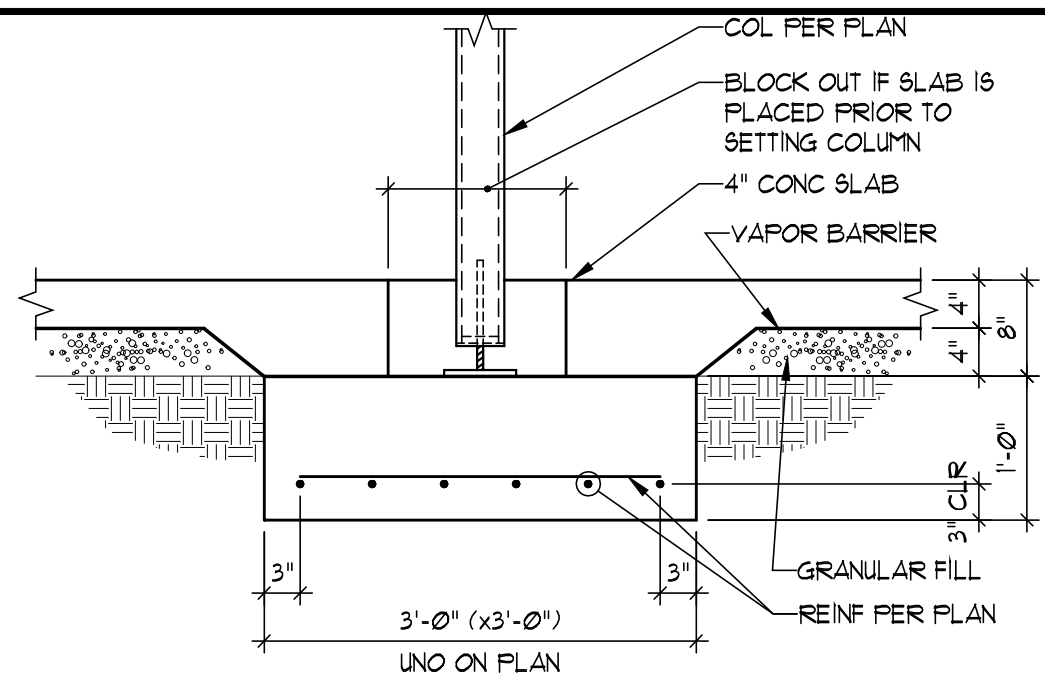
HDR PER PLAN

LOWER 6x6 POST - LET IN HDR ON EA FACE

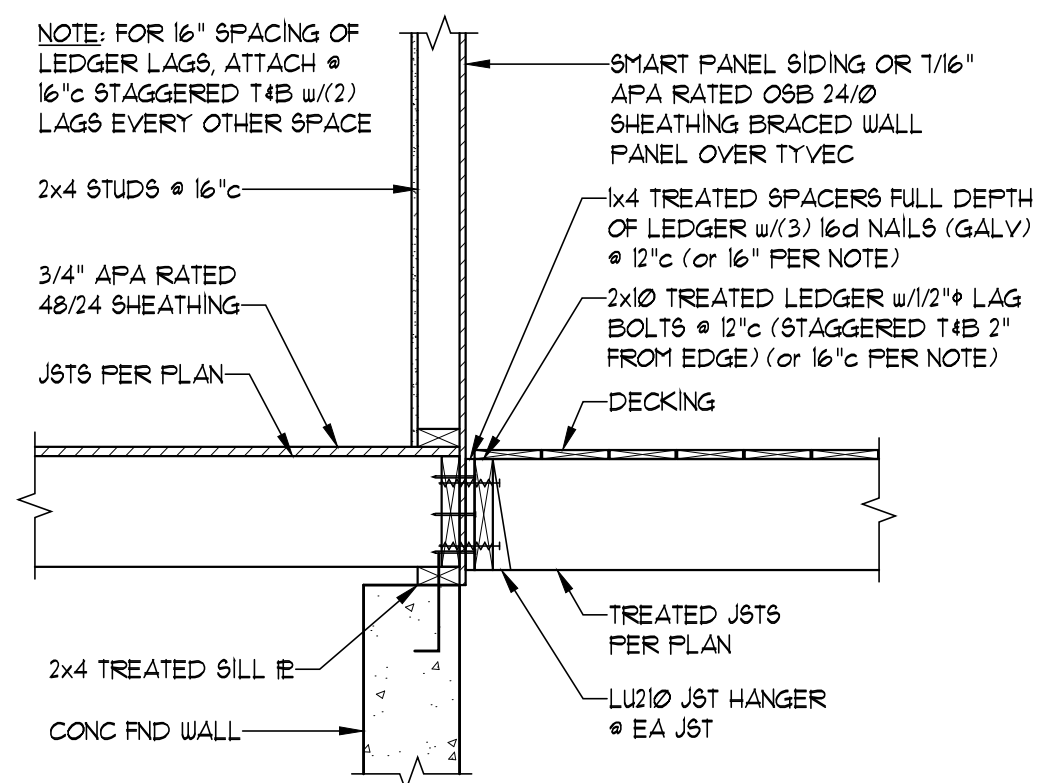
(4) LEDGER LOCK SCREWS EA FC

(4) LEDGER LOCK TOE SCREWS (2) ON OPP FACES

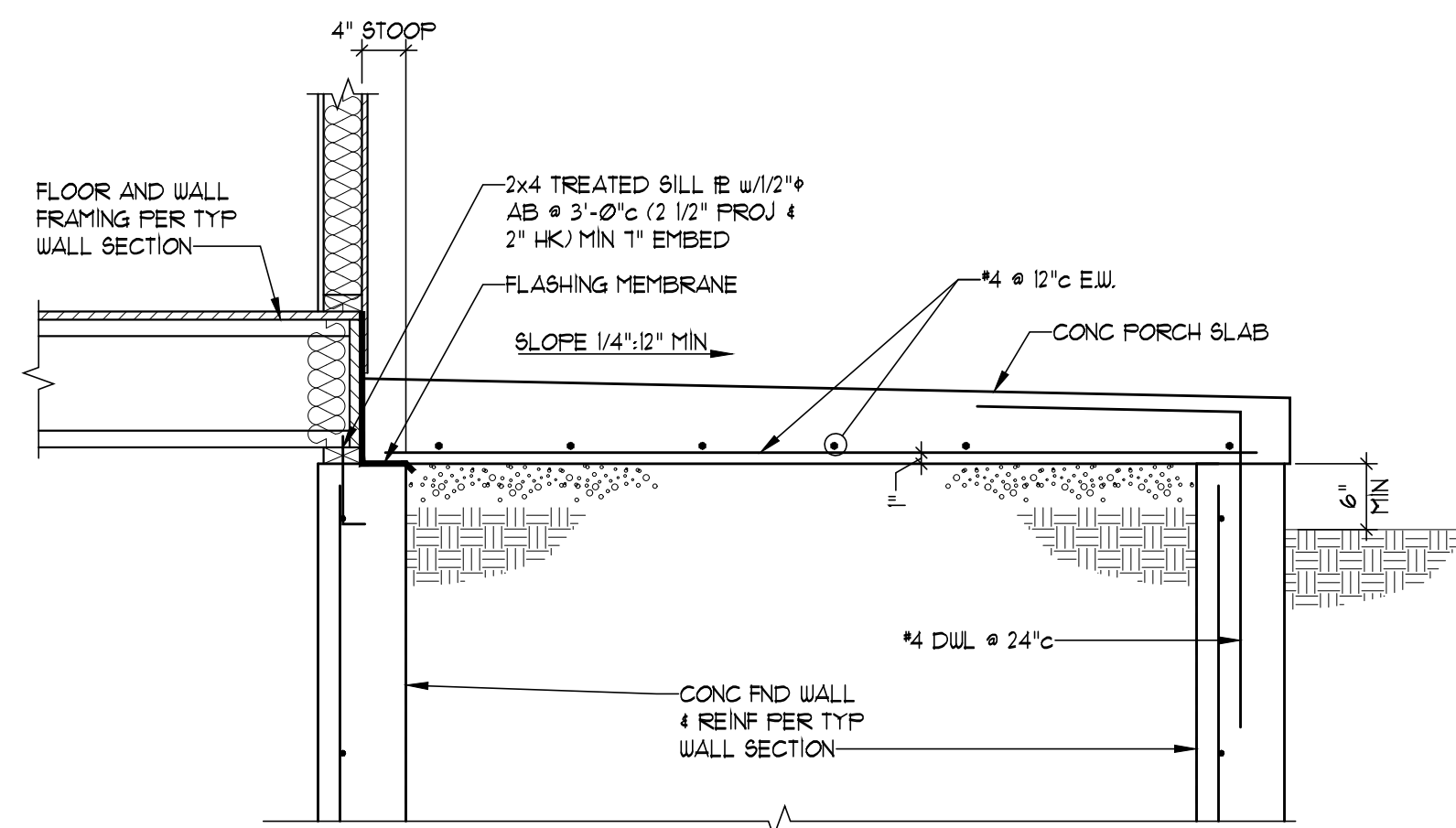
HDR PER PLAN (ATTACH PER OPEN DECK HDR DETAIL ABOVE)



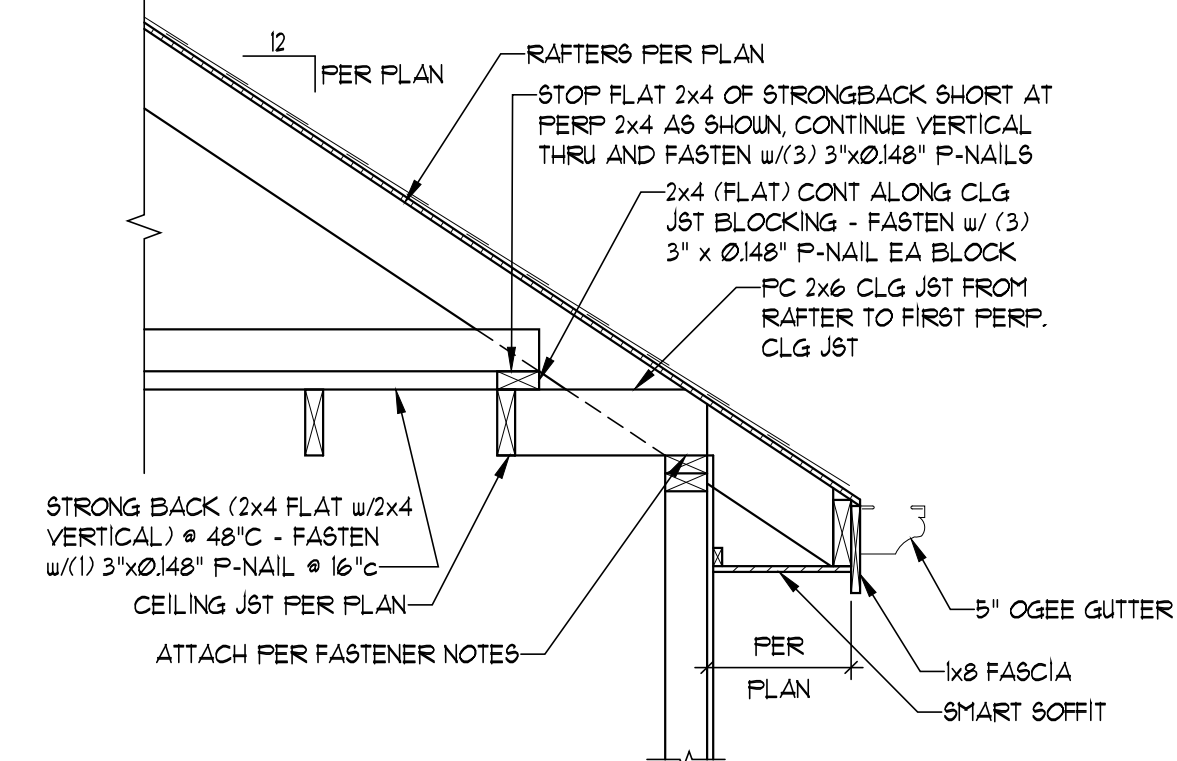
TYPICAL INTERIOR COLUMN
SCALE: 3/4" = 1'-0"



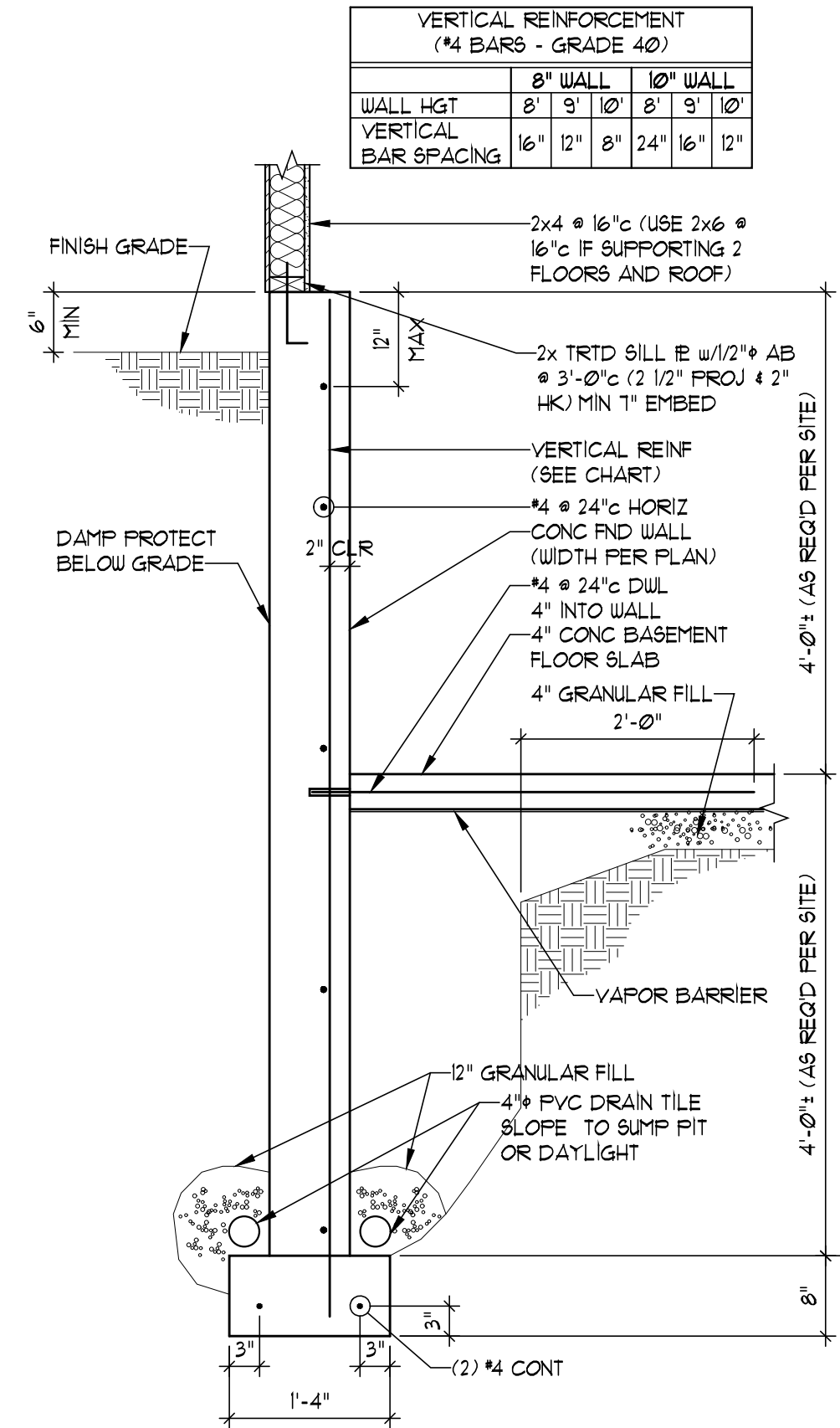
DECK ATTACHMENT
SCALE: 3/4" = 1'-0"



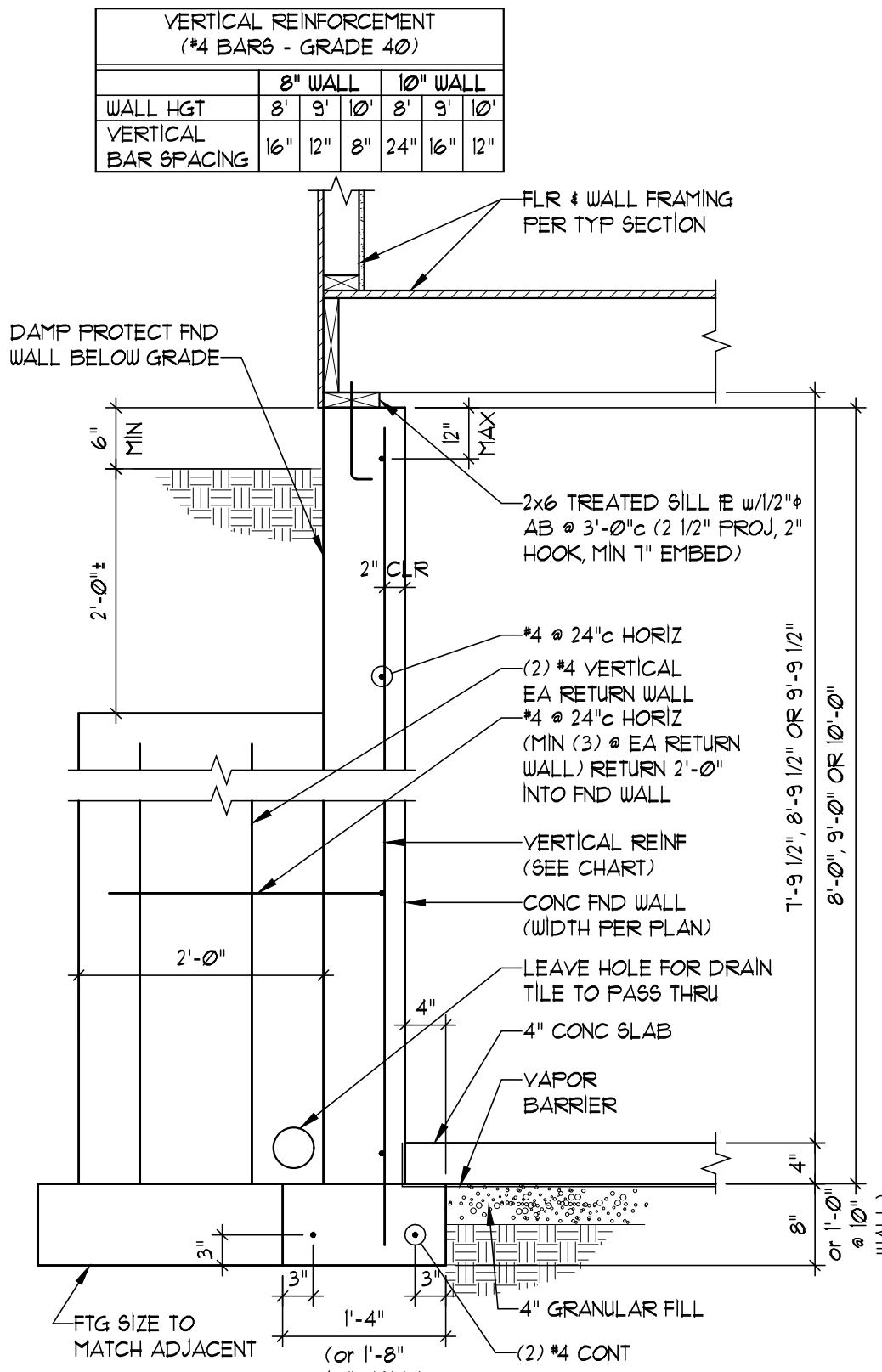
TYPICAL SECTION THRU PORCH
SCALE: 3/4" = 1'-0"



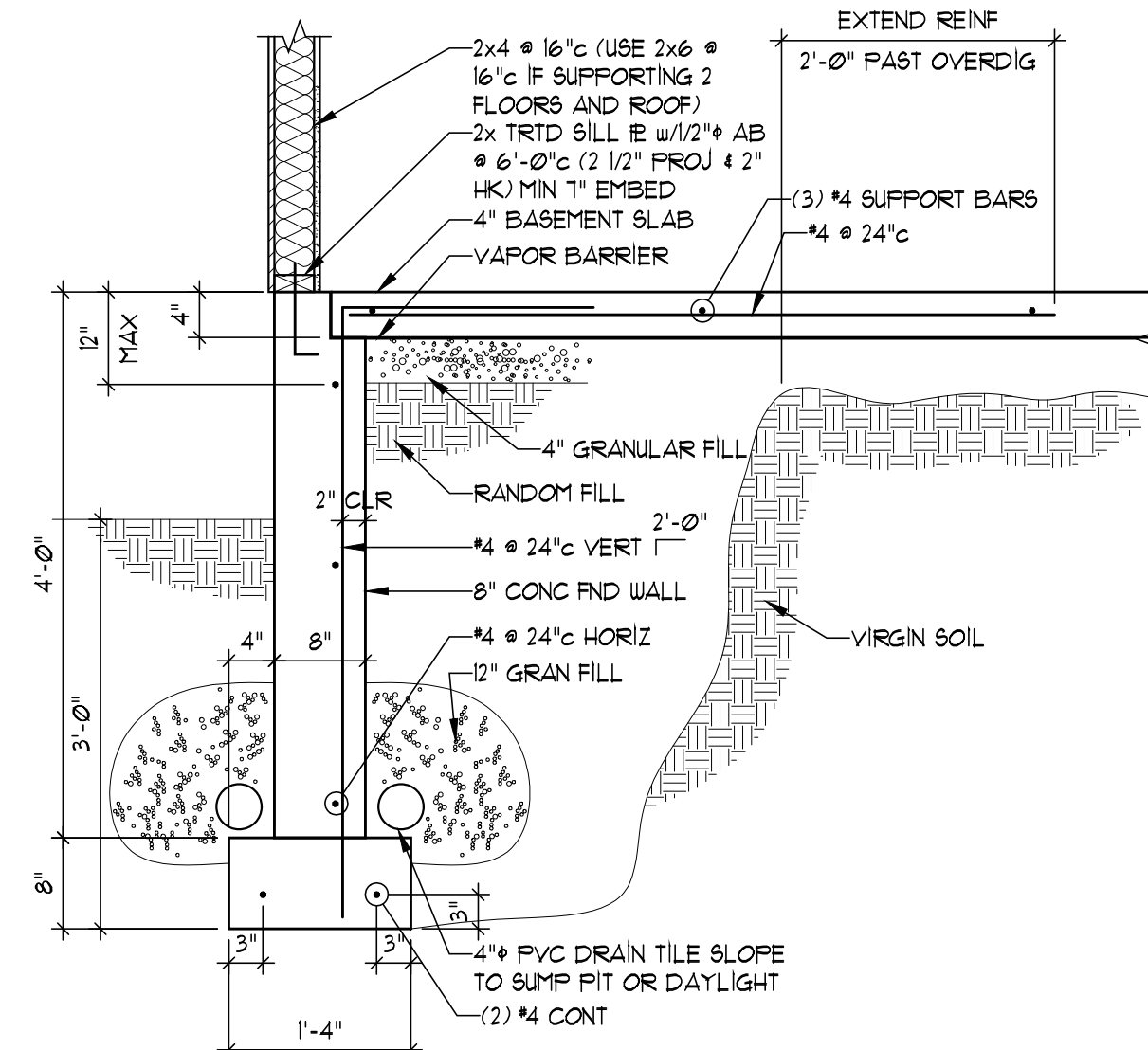
RAFTER ATTACHMENT AT PERPENDICULAR CONDITIONS
SCALE: 3/4" = 1'-0"



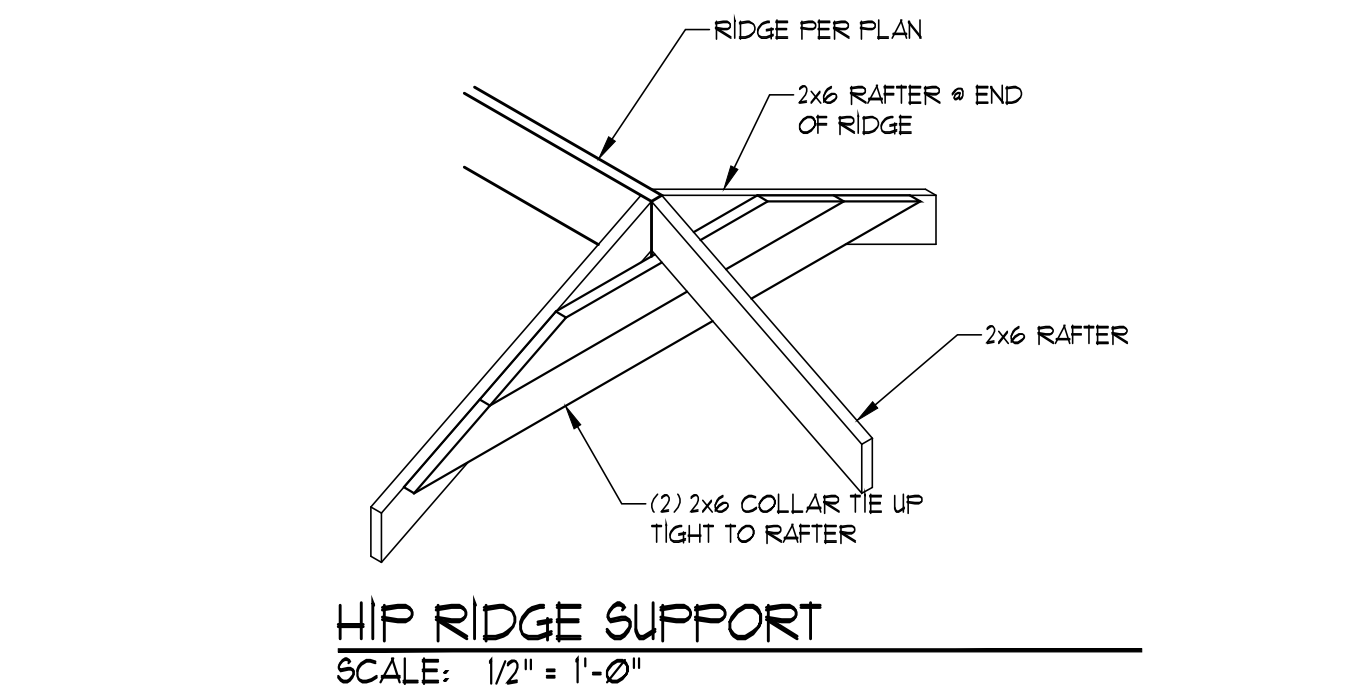
TYPICAL DAYLIGHT SECTION
SCALE: 3/4" = 1'-0"



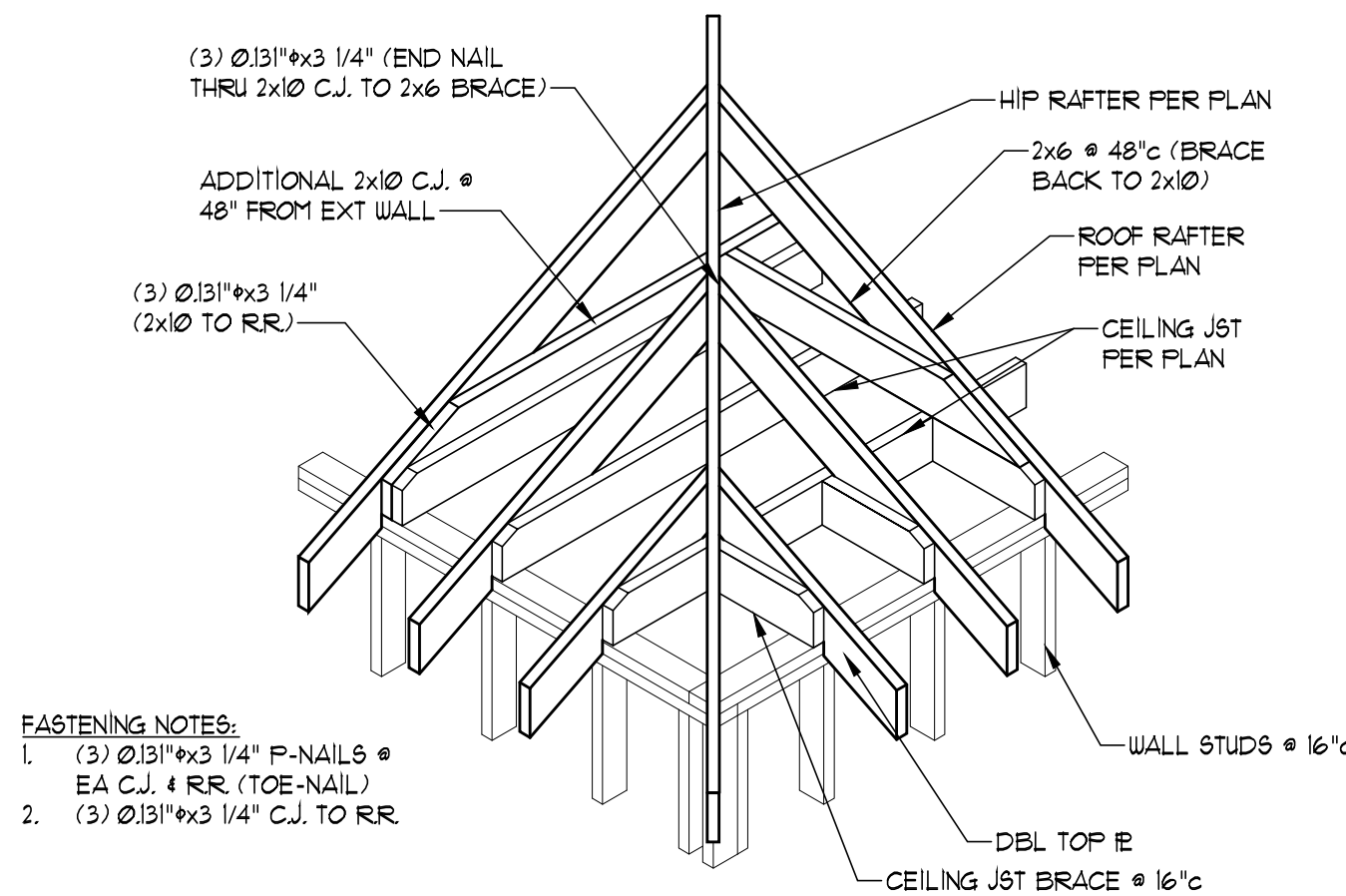
TYPICAL PILASTER SECTION
SCALE: 3/4" = 1'-0"



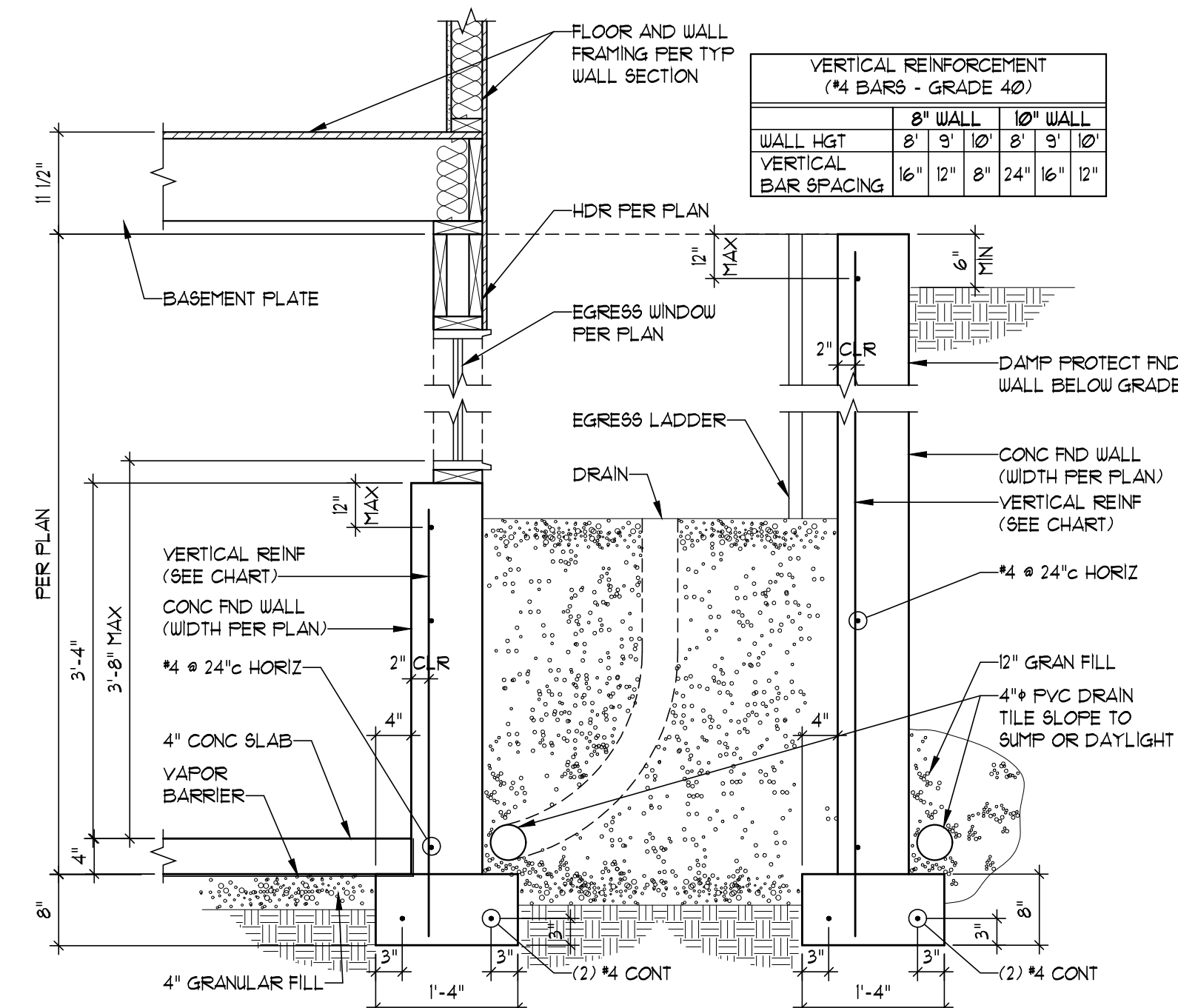
TYPICAL WALKOUT SECTION
SCALE: 3/4" = 1'-0"



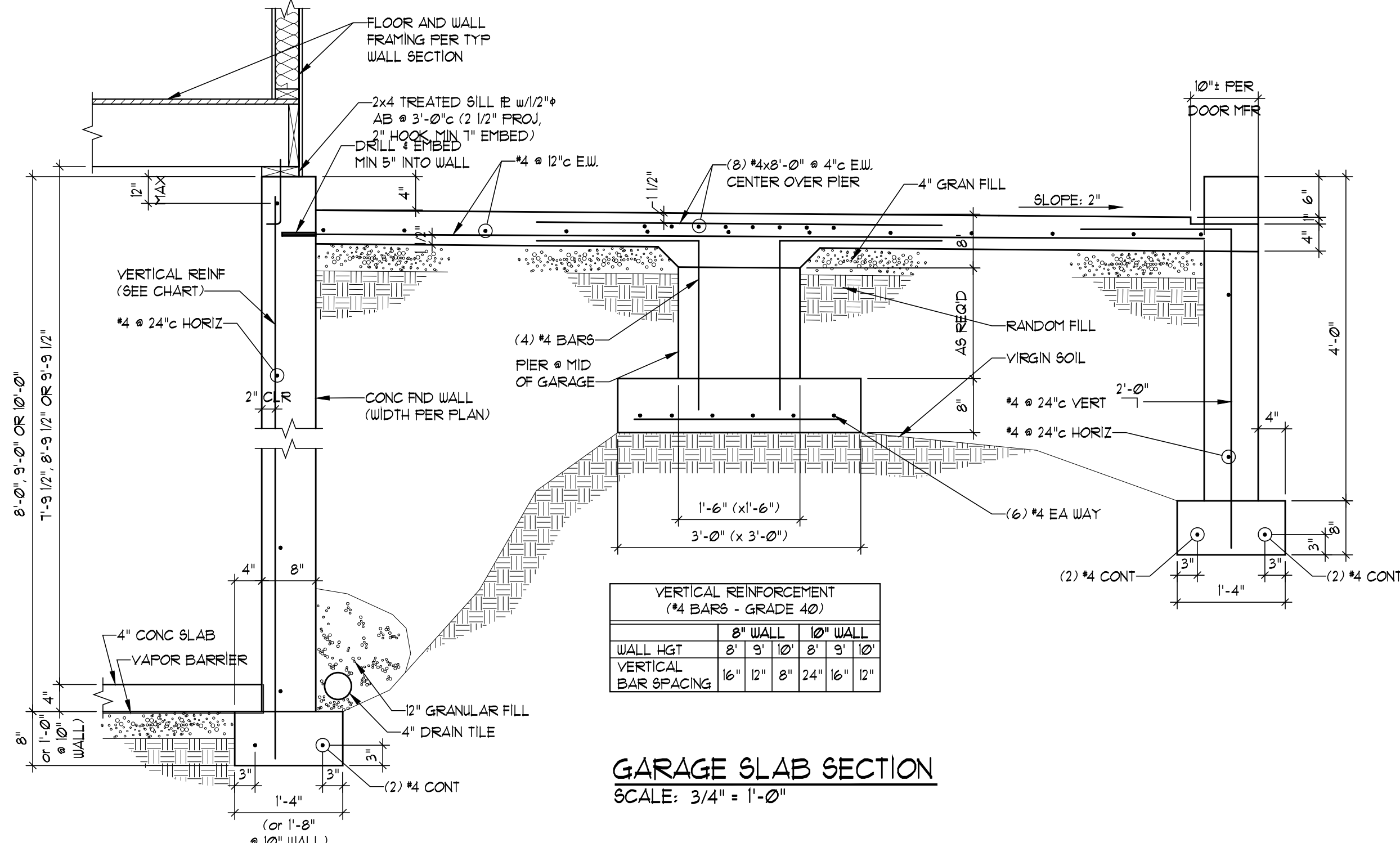
HIP RIDGE SUPPORT
SCALE: 1/2" = 1'-0"



CEILING JOIST AND ROOF RAFTER CONNECTION @ HIP
SCALE: 1/2" = 1'-0"



TYPICAL WINDOW WELL
SCALE: 3/4" = 1'-0"



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

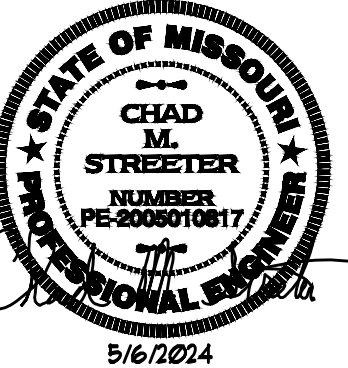


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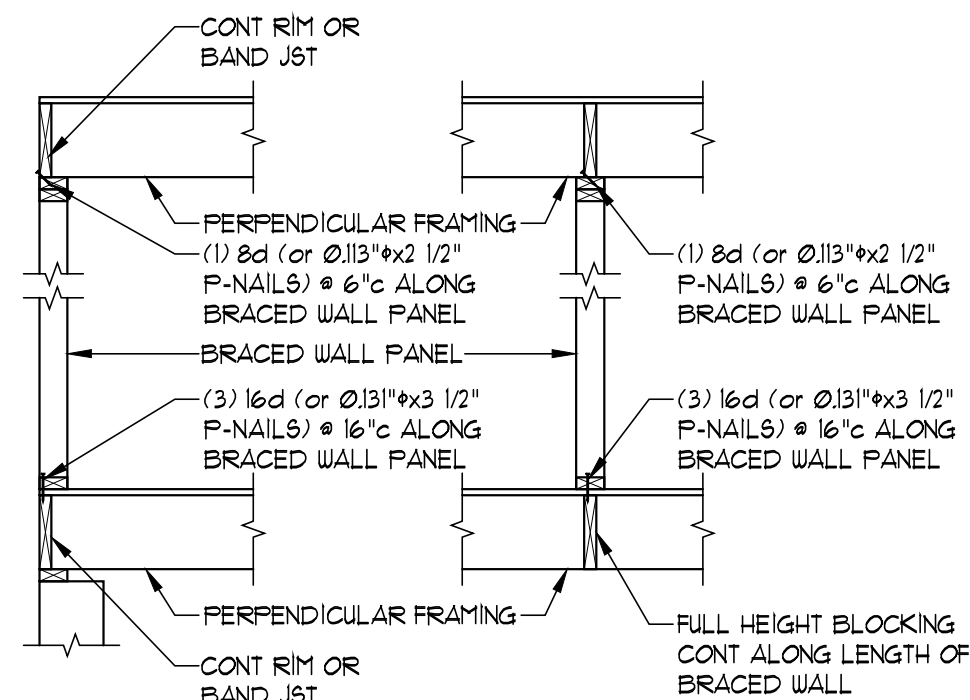
DATE:

Permit: 5/6/2024

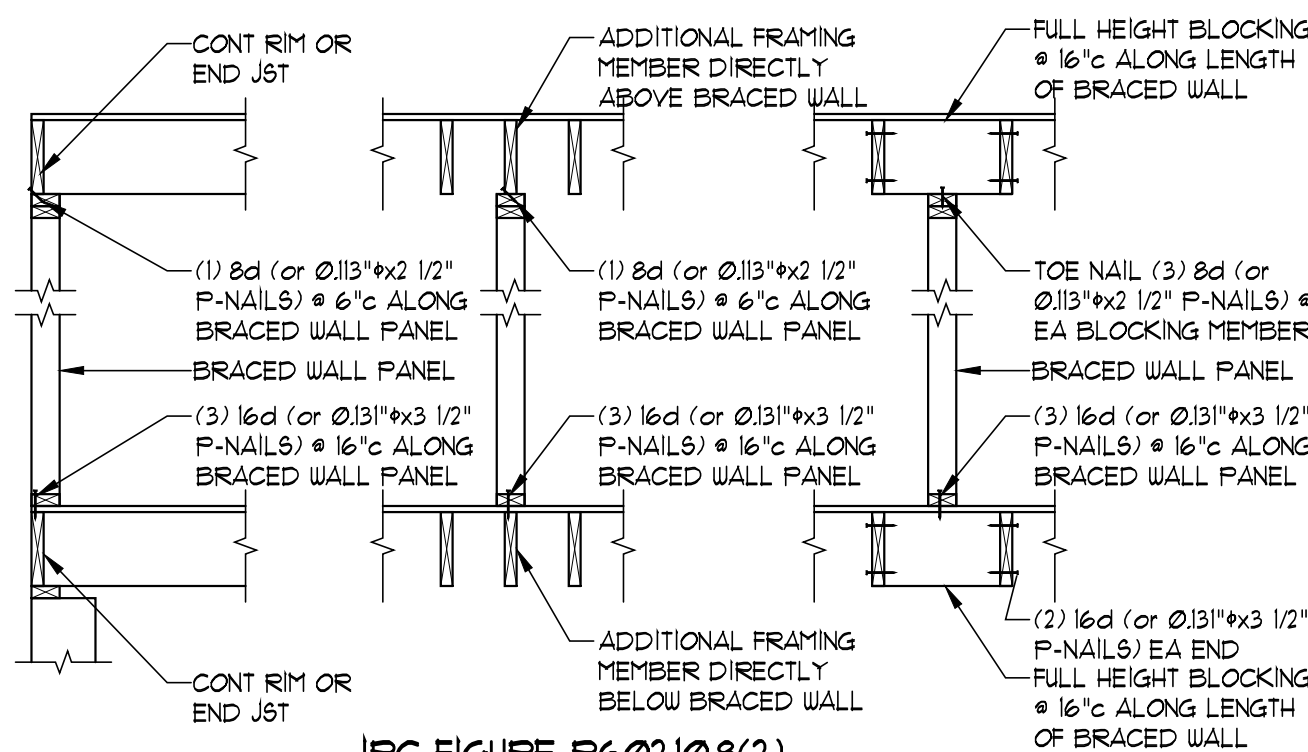
STRUCTURAL DETAILS FOR:
THE MAPLEWOOD III - MODERN
369 NW Patch Ct
Lee's Summit, MO 64081
Woodside Ridge Lot 157

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IRC FIGURE R602.10.8(1)
BRACED WALL PANEL CONNECTION WHEN
PERPENDICULAR TO FLOOR/CEILING FRAMING



IRC FIGURE R602.10.8(2)
BRACED WALL PANEL CONNECTION WHEN
PARALLEL TO FLOOR/CEILING FRAMING

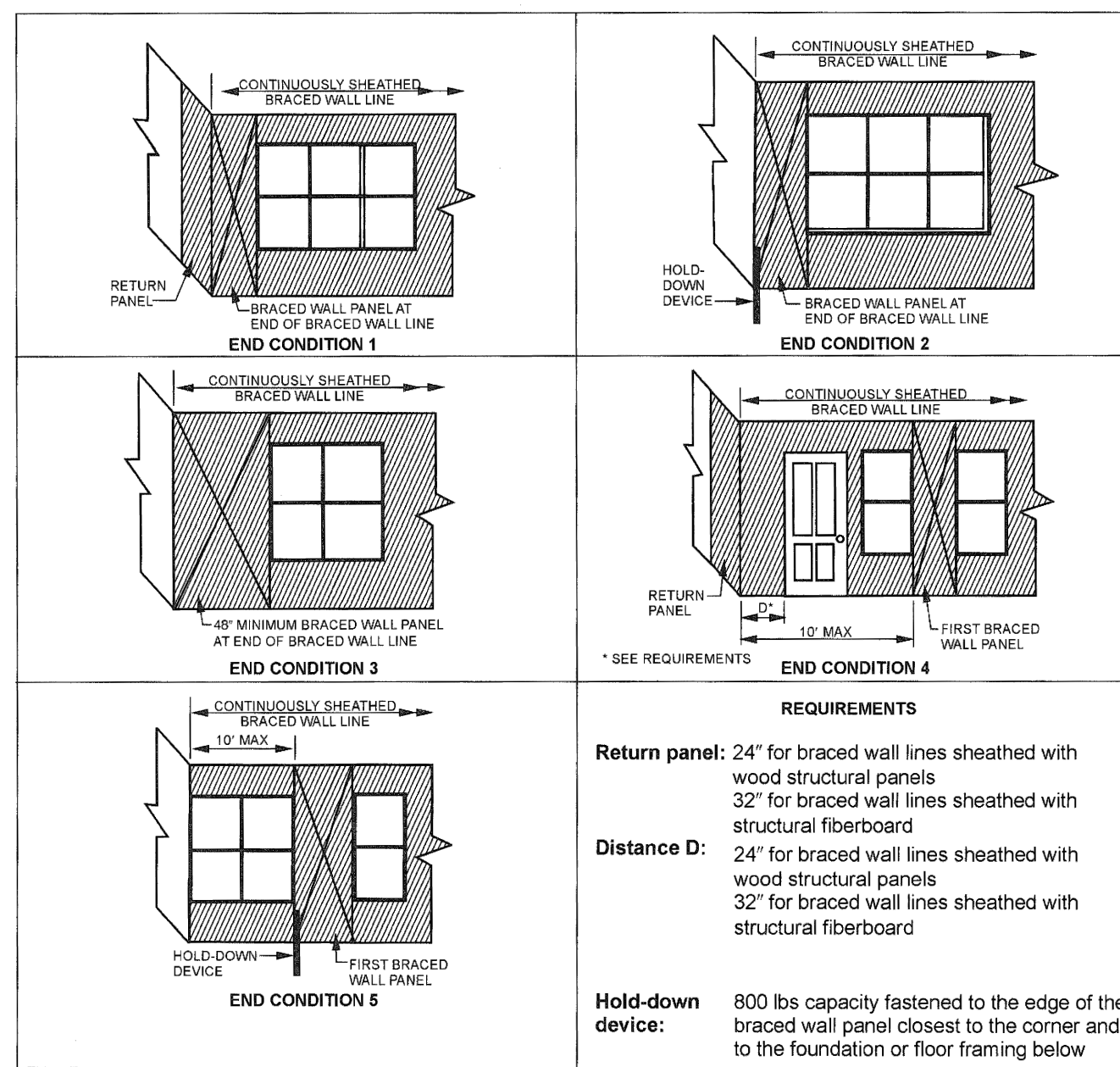
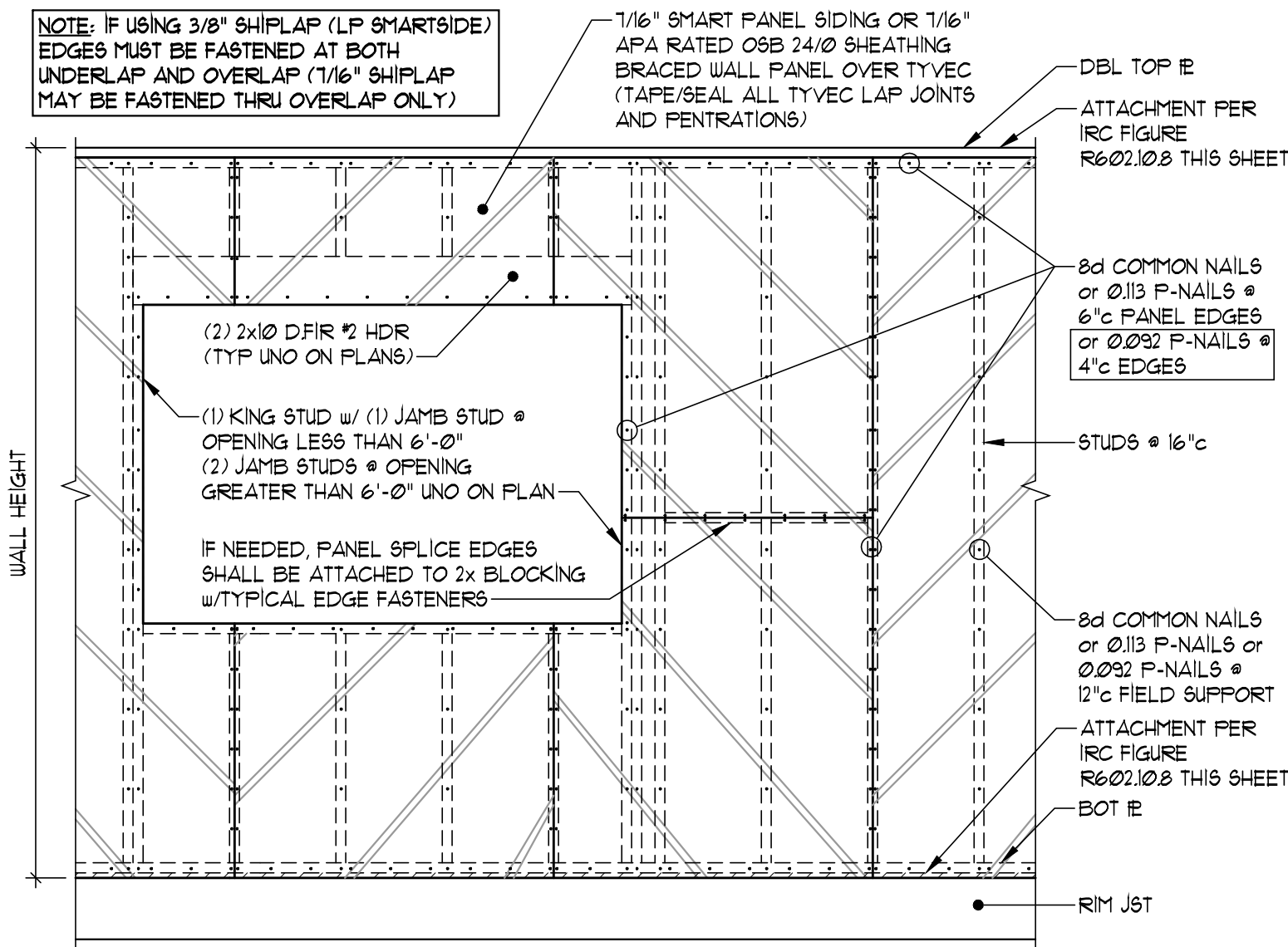
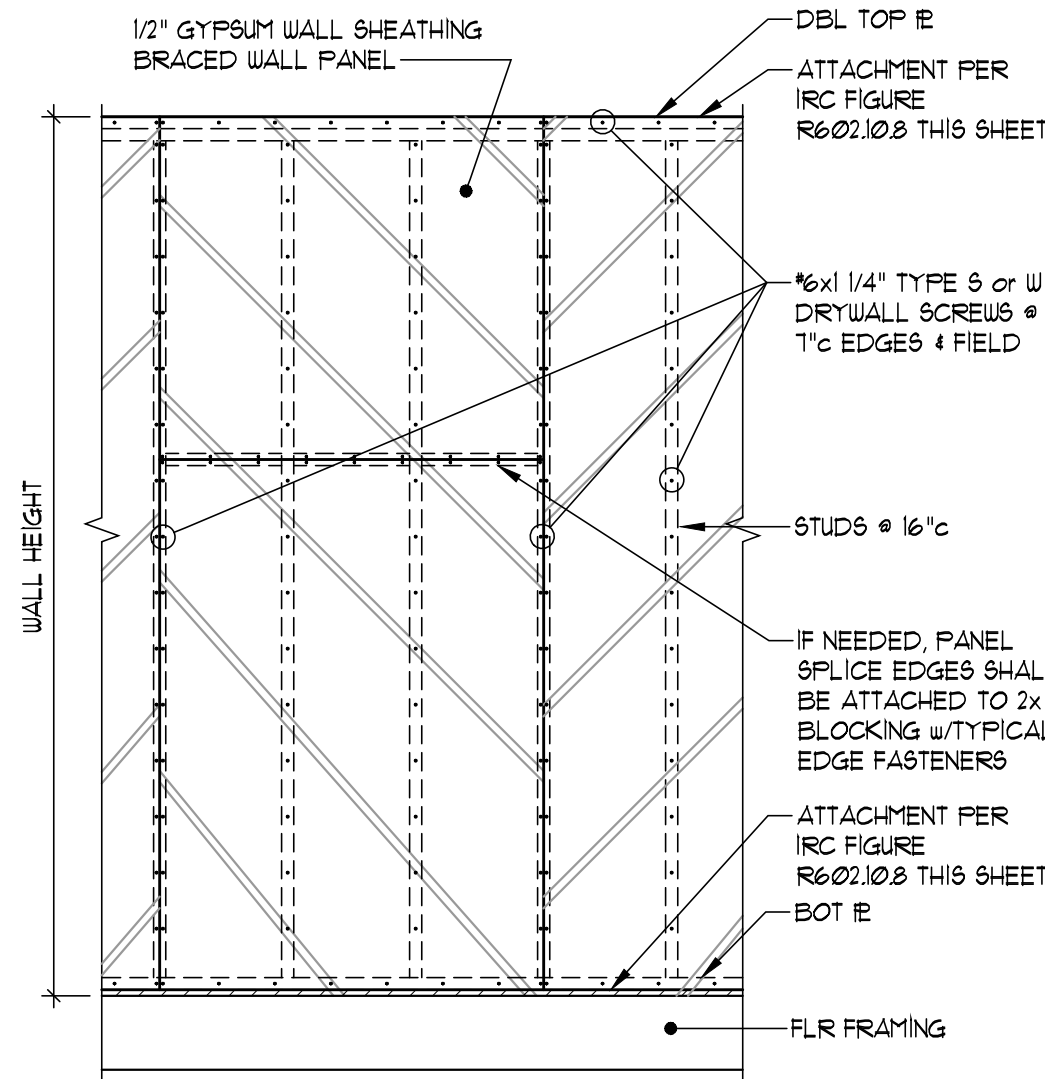


FIGURE R602.10.7
END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING

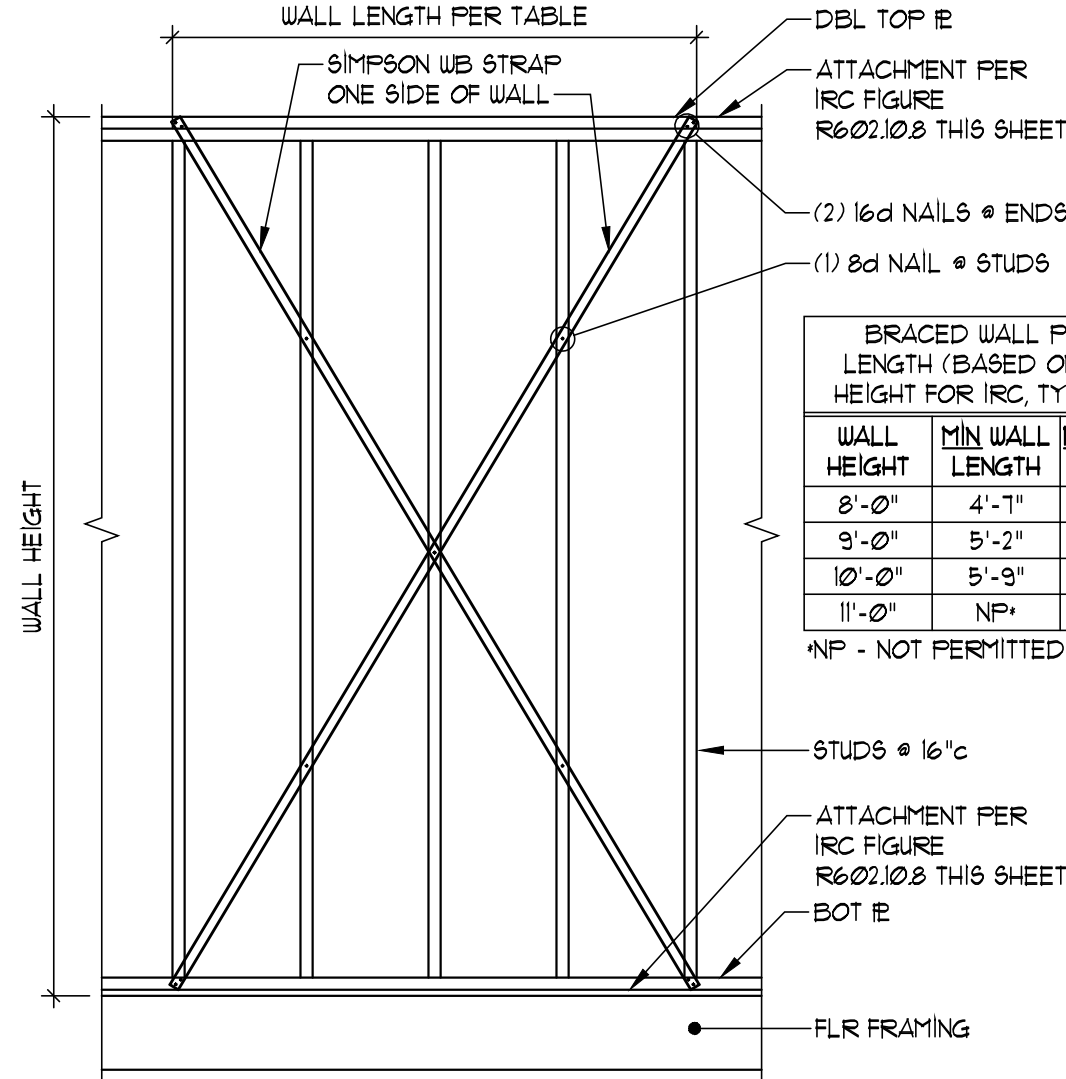
MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GAGE	MAXIMUM FORY WALL HEIGHT (FEET)	MAXIMUM TOTAL WALL HEIGHT (FEET)	MAXIMUM OPENING WIDTH (FEET)	TENSION STRAP CAPACITY REQUIRED (LBS) FOR V _{ult} = 15mph	
				EXPOSURE B	EXPOSURE C
2x4 #2 GRADE	0	10	9	1000	1000
	1	10	9	1000	1000
			10	1075	2500
			10	1215	2850
			9	1000	1875
	2	10	10	2175	4175
			10	2500	DESIGN
			9	1500	3175
	2	12	10	3375	DESIGN
			10	3975	DESIGN
			9	2150	DESIGN
			12	3175	DESIGN
2x6 STUD GRADE	2	12	9	1000	2025
			10	2150	3675
			10	2550	DESIGN
			9	1750	DESIGN
	4	12	9	2400	DESIGN
			10	3800	DESIGN



TYPICAL EXTERIOR SHEATHING
INSTALLATION (METHOD WSP & CS-WSP)
SCALE: 1/2" = 1'-0"



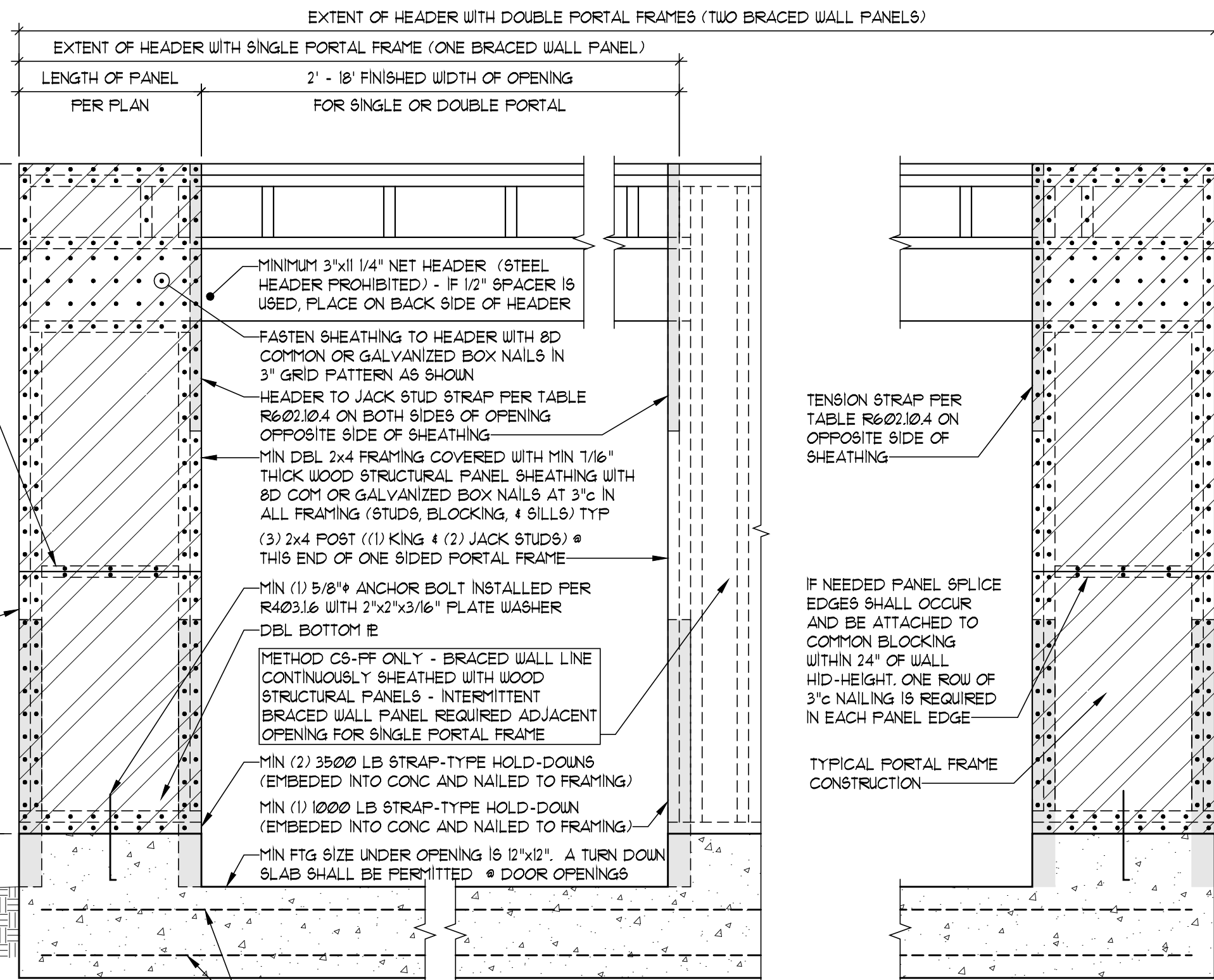
TYPICAL INTERIOR SHEATHING
INSTALLATION (METHOD GB)
SCALE: 1/2" = 1'-0"



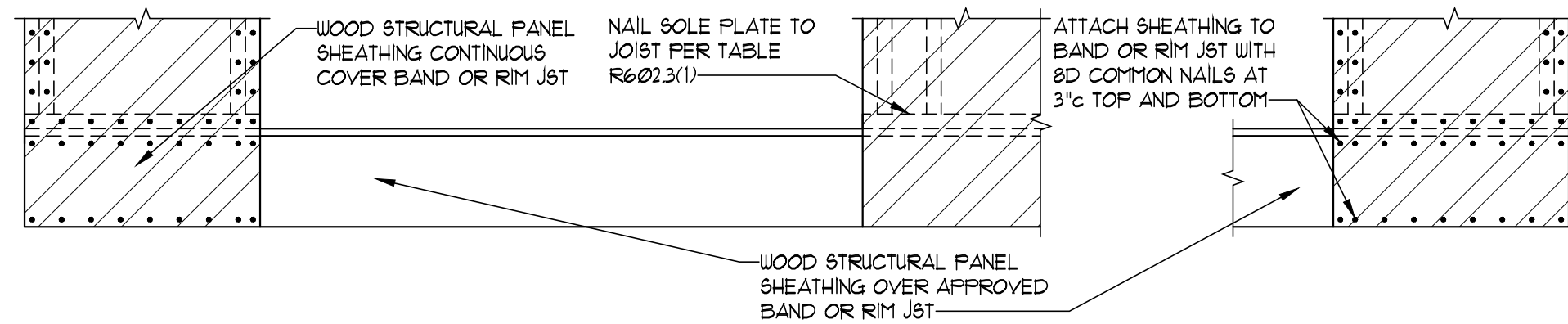
INTERIOR SHEATHING
INSTALLATION (METHOD LIB)
SCALE: 1/2" = 1'-0"

WALL HEIGHT	MIN WALL LENGTH	MAX WALL LENGTH
8'-0"	4'-1"	8'-0"
9'-0"	5'-2"	9'-0"
10'-0"	5'-3"	10'-0"
11'-0"	NF*	NF*

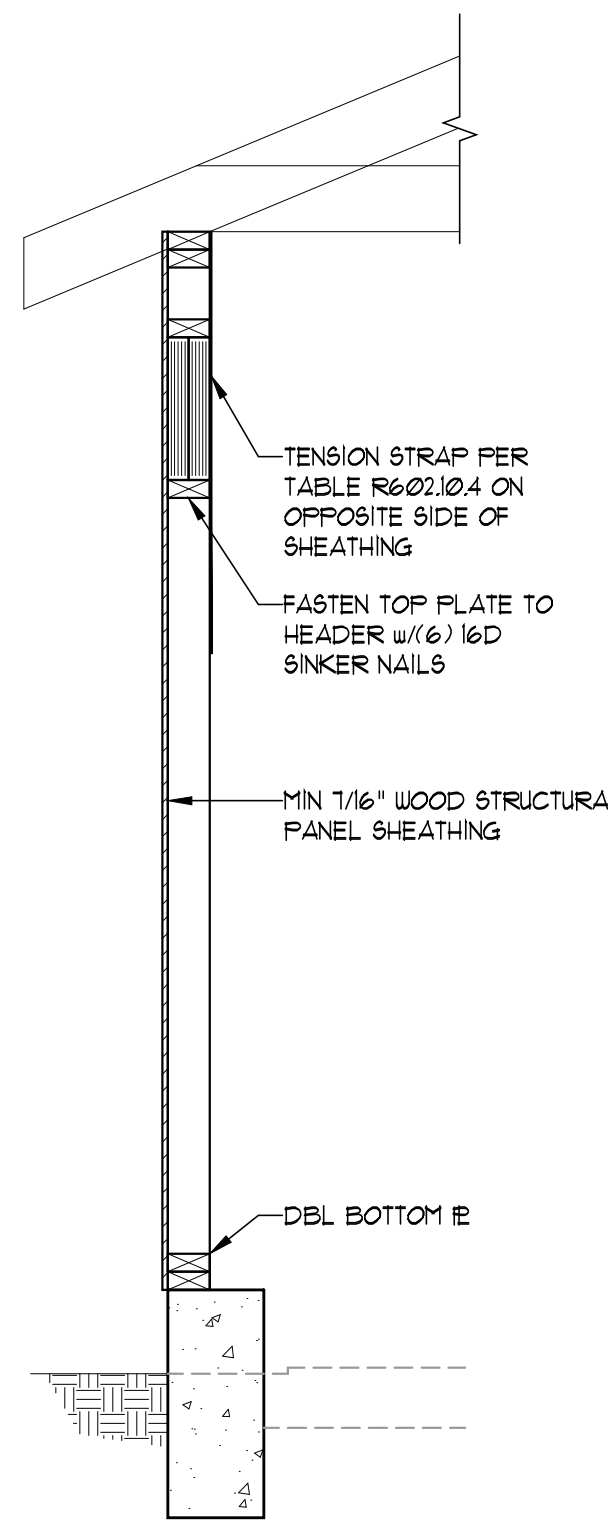
NF* - NOT PERMITTED



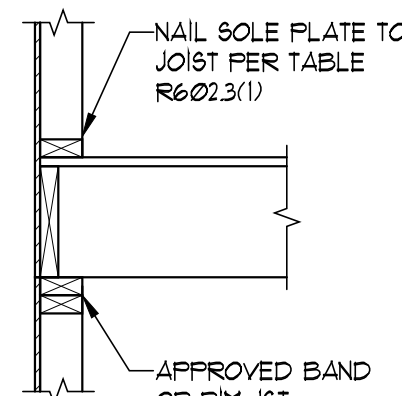
BRACED WALL METHOD "PFH" (also HEADER ATTACHMENT FOR CS-PF)
SCALE: 3/4" = 1'-0"



BRACED WALL METHOD "CS-PF" (ATTACHMENT TO WOOD FLOOR)
(REFER TO BRACED WALL METHOD "PFH" FOR HEADER ATTACH)
SCALE: 3/4" = 1'-0"



SECTION



SECTION



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