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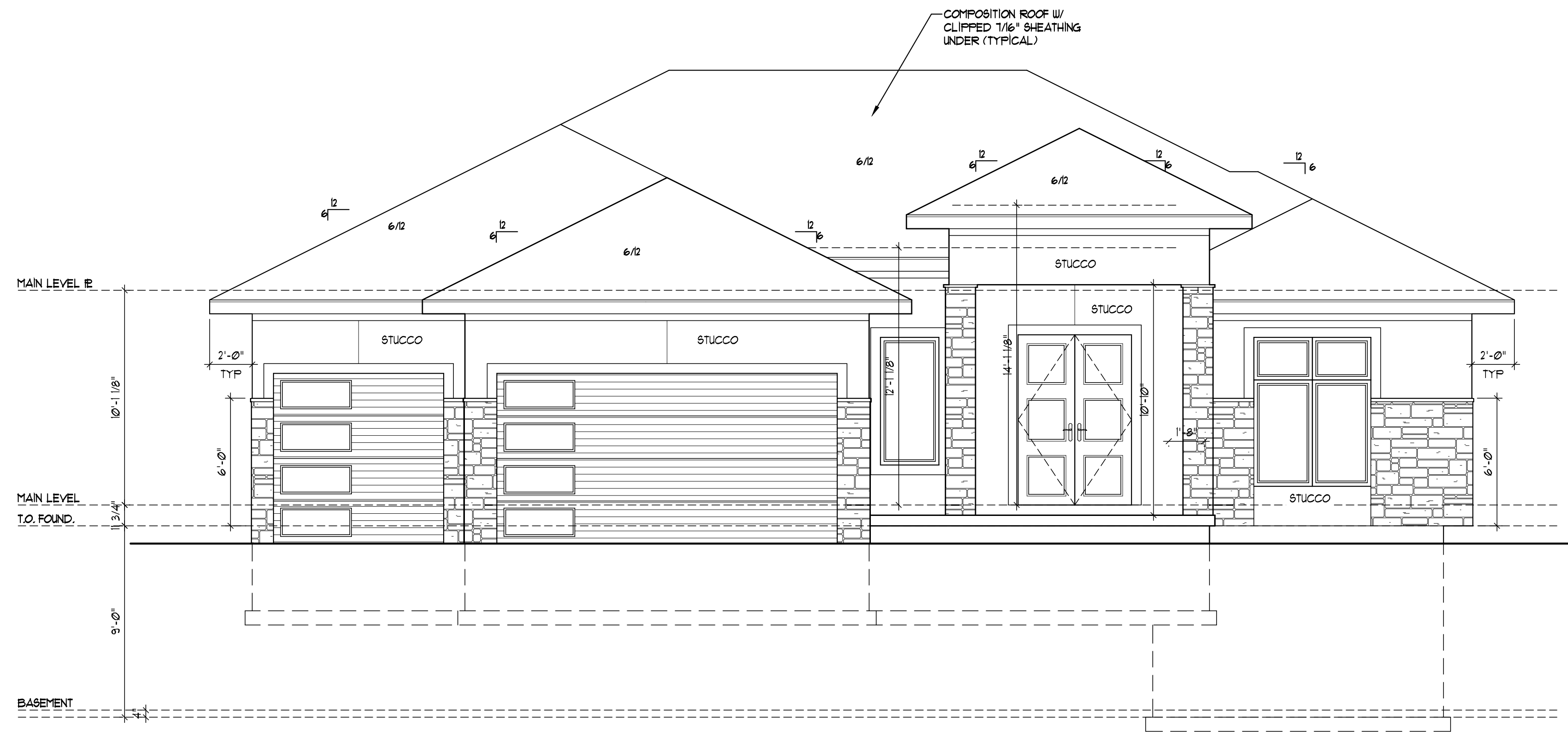
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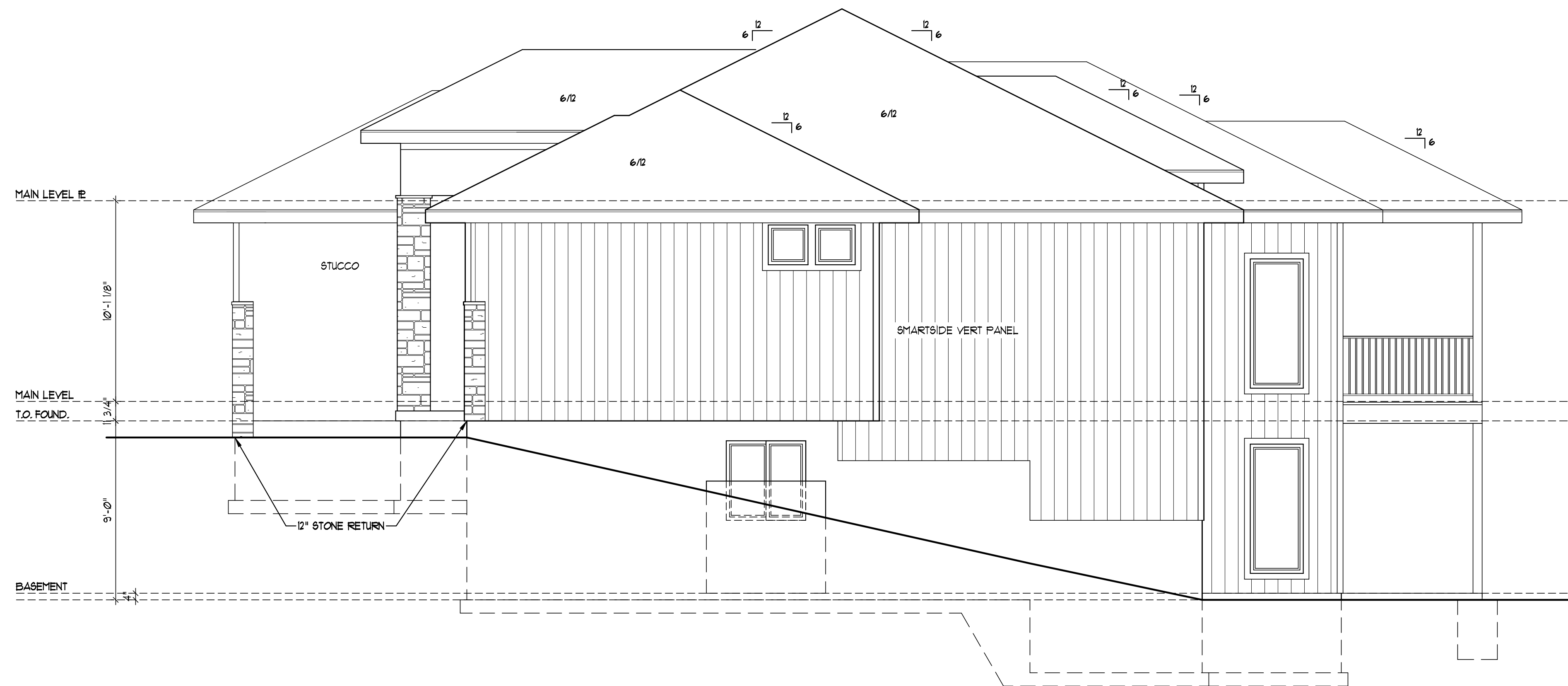
Project #: 8083-XXXX

DATE:

Permit: 8/8/2024



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



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

**RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
08/15/2024 10:06:42**

ELEVATIONS FOR:  
**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

GA1



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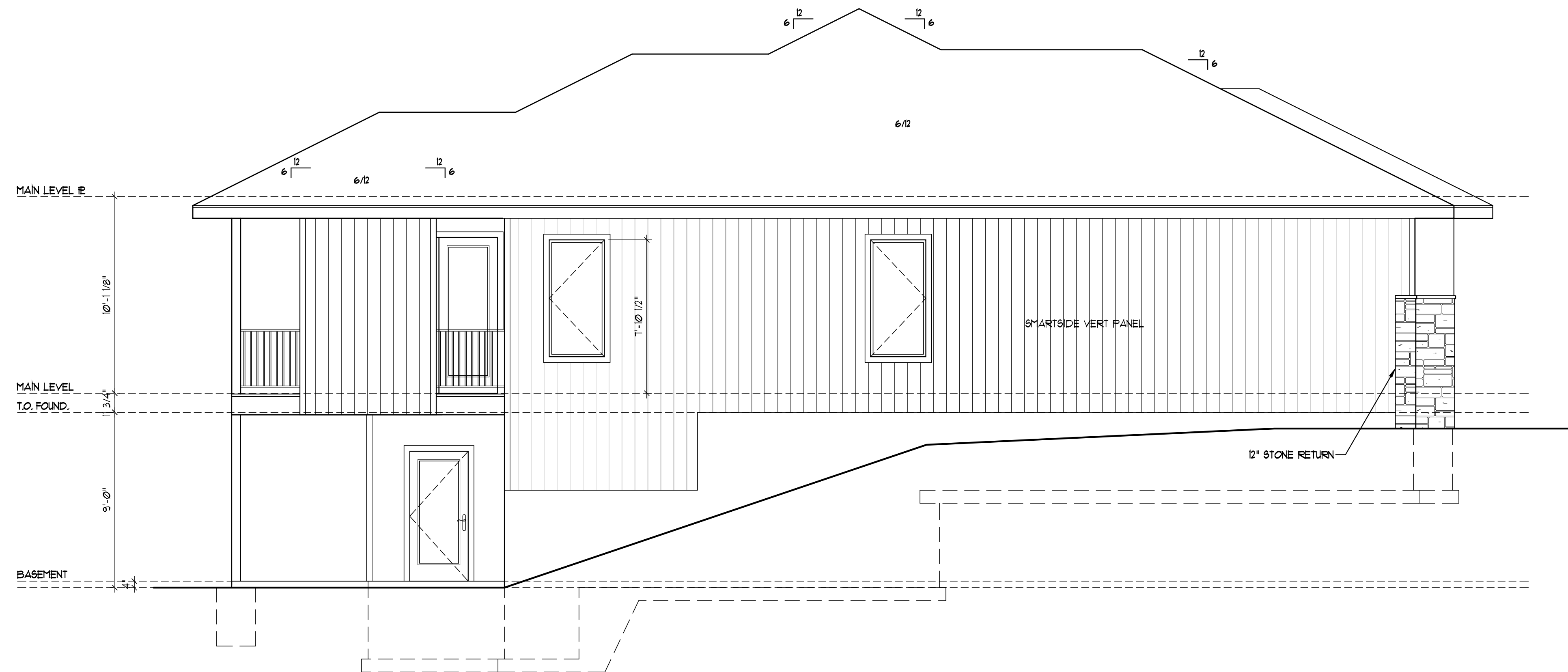
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REAR ELEVATION  
SCALE: 1/4" = 1'-0"

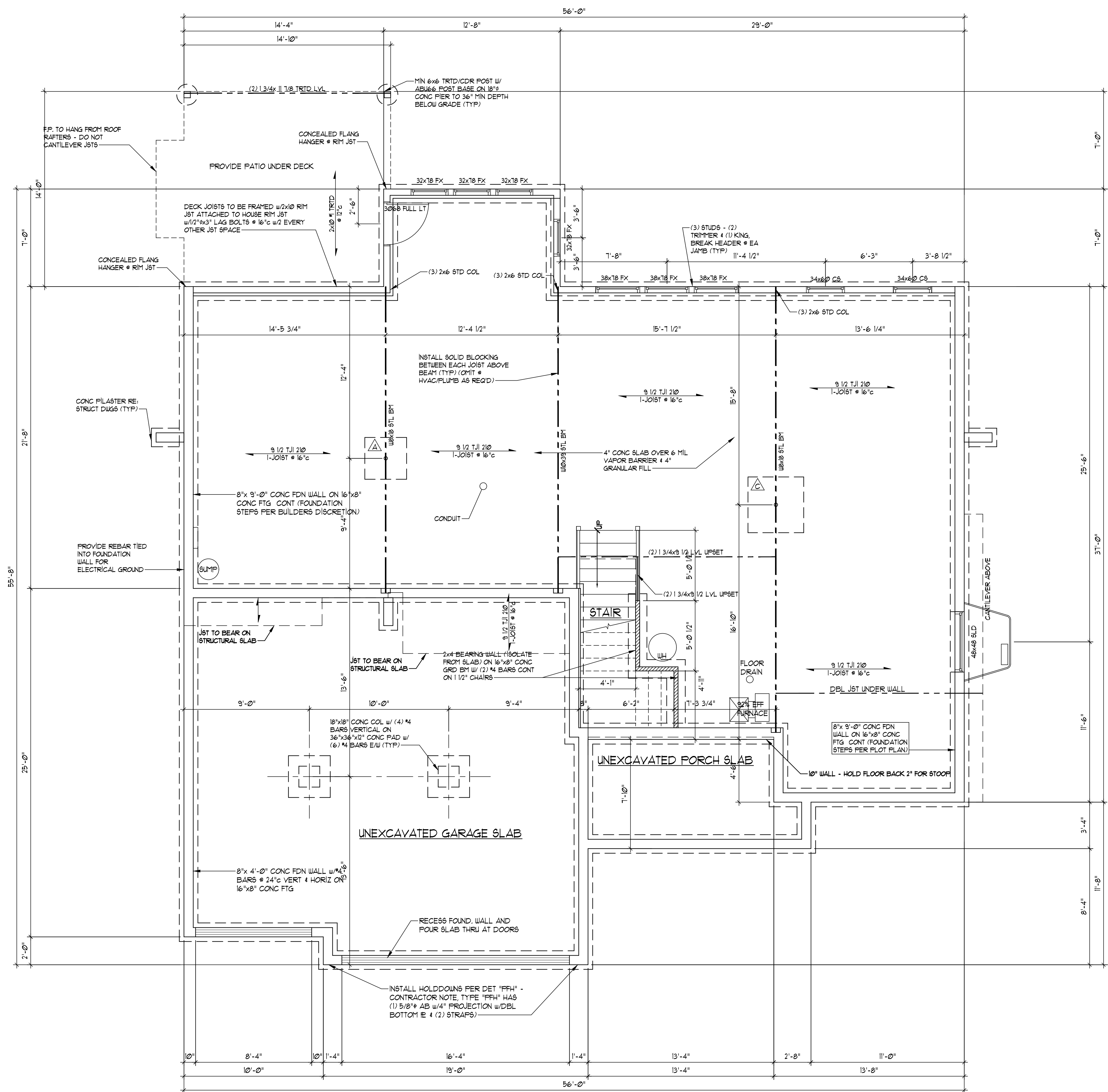


LEFT ELEVATION  
SCALE: 1/4" = 1'-0"

ELEVATIONS FOR:  
**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

GA2





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

GENERAL NOTES

- BUILDING PERMIT WILL BE REQUIRED FOR THE PROJECT. THIS SET OF DOCUMENTS TO BE SUBMITTED AS A PERMIT SET OF DRAWINGS.
- ALL CONTRACTORS SHALL VISIT THE JOB SITE AND SHALL REVIEW THE PERMIT DRAWINGS TO FAMILIARIZE HIMSELF WITH THE REQUIREMENTS AND INTENT OF THE SCOPE OF WORK. ANY DEFICIENCIES OR DISCREPANCIES DISCOVERED SHALL BE REPORTED FOR REVIEW AND CLARIFICATION PRIOR TO COMMENCING ANY WORK.
- ALL NEW CONSTRUCTION SHALL MEET LATEST EDITIONS OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES - INTERNATIONAL RESIDENTIAL CODE.
- WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY. QUALITY MATERIALS SHALL BE USED THROUGHOUT. ALL WORK SHALL BE DONE IN A MANNER SO AS TO MATCH ADJACENT WORK AND FINISHES AND APPROVED BY OWNER.
- CONTRACTORS SHALL REMOVE ALL CONSTRUCTION DEBRIS. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED PER CITY REQUIREMENTS. AREAS FOR MATERIAL STORAGE, TRASH DISPOSAL, WORKMEN'S PARKING, ETC. SHALL BE COORDINATED WITH THE CITY.
- ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO COORDINATE WITH THE OWNER THE QUANTITY AND LOCATION FOR ALL LIGHTING, ELECTRICAL OUTLETS, TELEPHONE OUTLETS, AND MECHANICAL AND PLUMBING SYSTEMS AS REQUIRED.
- THE CONTRACTORS SHALL ADHERE TO THE STATE OF KANSAS ONE CALL SYSTEM, 1-800-344-1233 (MISSOURI ONE CALL SYSTEM, 1-800-344-1483). THE PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY MUST GIVE NOTICE TO, AND OBTAIN INFORMATION FROM, UTILITY COMPANIES. THE CONTRACTORS SHALL NOTIFY THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED WHEN WORK COMMENCES.

GENERAL FOUNDATION REQUIREMENTS

- ALL FOOTINGS ARE TO BE EXTENDED TO MIN 36" BELOW FINISHED GRADE.
- ALL INTERIOR LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
- FOR ALL CONC WALL OPENINGS, FOOTING 4 WALL STEPS, PROVIDE ONE #4 BAR, 48" LONG DIAGONALLY AS CLOSE AS PRACTICAL TO CORNER.
- ALL REINFORCEMENT SHALL BE LAPPED A MIN OF 24" AT ENDS SPLICES AND AROUND CORNERS.
- ANCHOR BOLTS ARE TO BE SPACED @ 36" WITH 1" MIN EMBED. A BOLT SHALL BE PLACED WITHIN 12" OF THE END OF EACH PLATE SECTION.
- FASTEN JOISTS TO SILL PLATES WITH (3) 8d CORN NAILS.
- WHERE JOIST IS PARALLEL TO FOUNDATION, PROVIDE SOLID BLOCKING @ 32" c FOR (3) JST SPACES. FASTEN TO SILL PLATE PER NOTE 6.
- VAPOR BARRIER: 6 MIL PE VAPOR RETARDER WITH JOINTS LAPPED A MIN OF 6" BETWEEN SLAB & BASE.
- DAMP PROOFING: ONE COAT (MIN) OF DAMP PROOFING OR EQUIVALENT FOUNDATION MEMBRANE SHALL BE APPLIED TO EXTERIOR WALL SURFACES BELOW GRADE. SEAL TIE HOLES, VOIDS BEFORE APPLICATION.
- FOUNDATION DRAIN: INSTALL CONT 4" PERFORATED PVC DRAIN TILE. DRAIN TILE TO BE EXTENDED TO SQUARE SUMP PIT WHICH EXTENDS A MIN 24" BELOW BASEMENT FLOOR.
- ALL FRAMING MEMBERS IN CONTACT WITH CONCRETE SHALL BE ACQ TREATED LUMBER.
- ALL STEEL FASTENERS (INCLUDING FOUND. ANCHOR BOLTS) ON ACQ TO BE (DOUBLE HOT-DIPPED) GALVANIZED.
- PROVIDE A "UPPER" GROUND PER IRC 3608.1
- EGRESS WELL REQUIREMENTS:
  - IF THE VERTICAL DISTANCE FROM THE WINDOW SILL TO ADJACENT GRADE IS GREATER THAN 44", PROVIDE A LADDER.
  - ADD DRAIN TO DAYLIGHT OR SUMP PUMP.
- RECESS FOUNDATION WALLS AND FOUR SLAB THRU AT ALL GARAGE DOORS TO MEET IS MPH REQUIREMENTS (MIN 8" STEM WALL)

COLUMN MARK	PAD SIZE	REINFORCEMENT	COLUMN SIZE
⊠	36" x 36" x 12"	(6) #4 BAR EWJ	3" x SCHED 40
⊠	42" x 42" x 14"	(7) #4 BAR EWJ	3" x SCHED 40
⊠	48" x 48" x 16"	(8) #4 BAR EWJ	3" x SCHED 40
⊠	54" x 54" x 16"	(9) #4 BAR EWJ	3 1/2" x SCHED 40
⊠	60" x 60" x 18"	(10) #4 BAR EWJ	3 1/2" x SCHED 40

- COLUMN & PIER PAD SIZES SHOWN ARE BASED ON AN ASSUMED MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 15000 psf.
- COLUMNS TO BE ISOLATED FROM SLAB THROUGH SAW-CUTS OR ISOPYERS

I-JOIST AND TRUSS NOTES

- FLOOR TRUSS OR I-JOIST LOADING SHALL BE PER THE GENERAL NOTES
- I JOISTS MAY BE SHOWN AS SIMPLE SPAN TO DEFINE SPANS AND BEARING POINTS. TRUSS MFG TO RUN CONTINUOUS WHERE POSSIBLE.
- COORDINATE I-JOISTS LOCATIONS WITH PLUMBING DRAIN LINES AT ALL TOILET LOCATIONS.
- EXACT I-JOIST OR FLOOR TRUSS LAYOUT TO BE PROVIDED BY TRUSS MANUFACTURER. DESIGN AND LAYOUT TO BE SUBMITTED TO VAN DEURZEN AND ASSOCIATES TO REVIEW FOR GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING PRIOR TO SUBMITTAL TO THE CODES ADMINISTRATION FOR PERMITTING.
- IF A CONFLICT EXISTS BETWEEN SHOP DRAWINGS AND CONTRACT SET, THE CONTRACT SET SUPERCEDES THE JOIST/TRUSS LAYOUT.
- IF BUILDING CODE HAS NOT BEEN AMENDED BY LOCAL JURISDICTION, ALL I-JOIST AND OPEN WEB TRUSSES OVER UNFINISHED SPACE EXCEEDING 80 SQUARE FEET IN AGGREGATE AREA TO BE PROTECTED BY ONE OF THE FOLLOWING METHODS:
  - 1 LAYER 1/2" GYP SHEETROCK - NO NUD AND TAPE REQ'D.
  - PLUMBER INSTALLED RESIDENTIAL SPRINKLER SYSTEM
  - FACTORY APPLIED, FIRE-PROTECTIVE COATING BY I-JOIST MANUFACTURER.
  - 3" MINERAL/ROCK WOOL COVERING BTM CHORD AND NETTING PER AFA FORM R425 METHOD 4



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FOUNDATION PLAN FOR:  
**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

GA3

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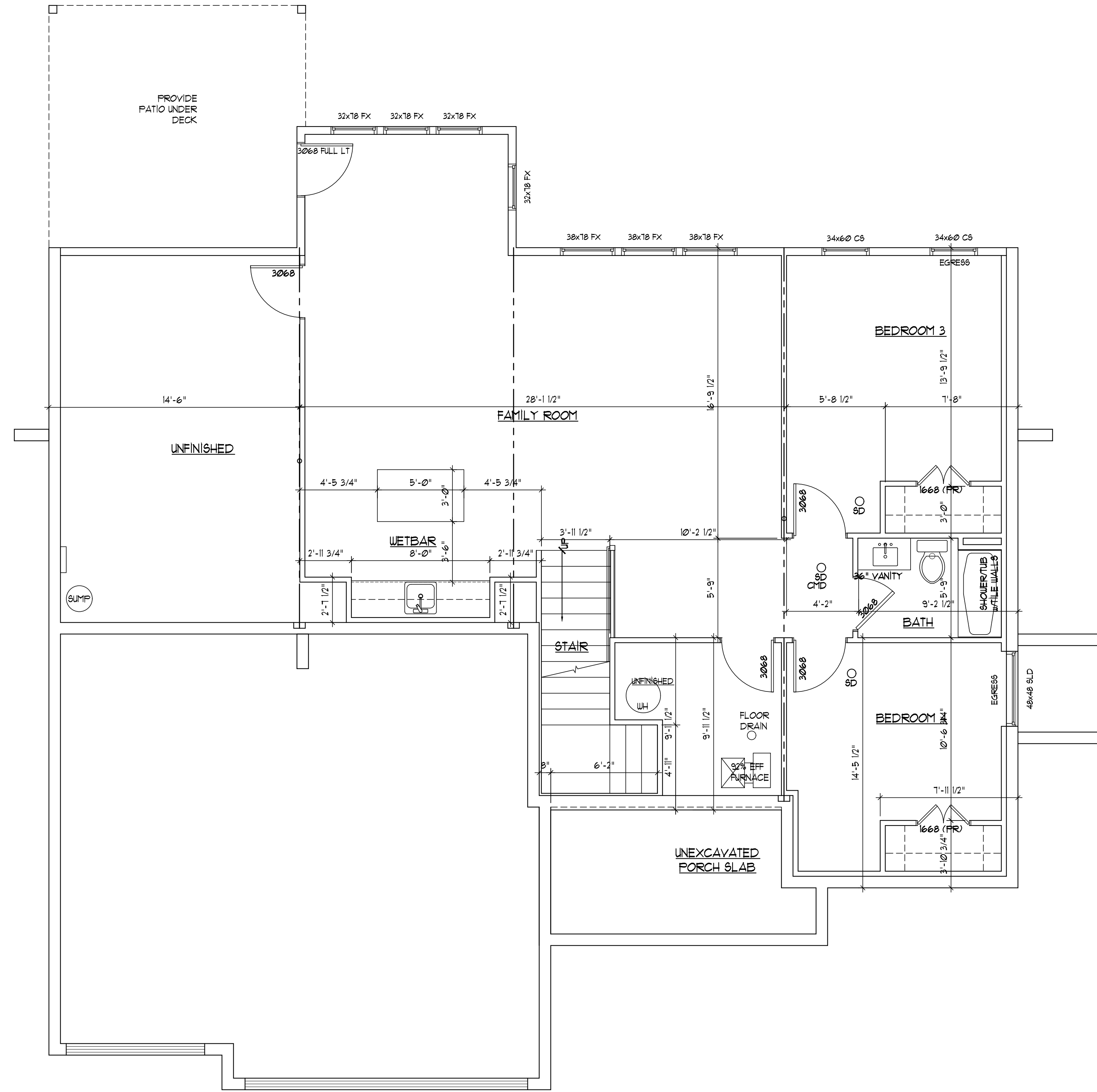
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Project #: 8083-XXXX

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**BASEMENT FINISH PLAN**  
SCALE: 1/4" = 1'-0"

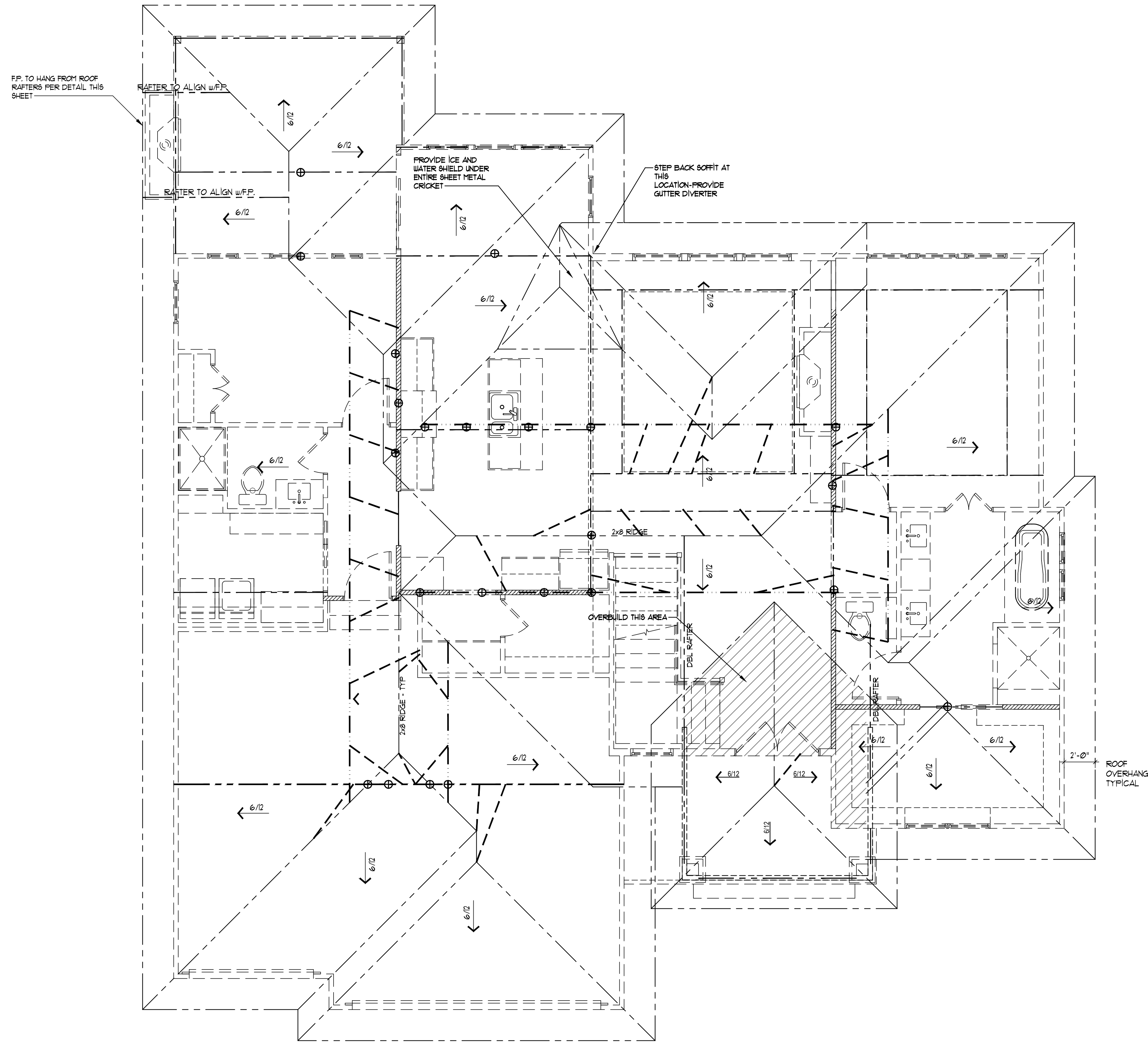
LOWER LEVEL FINISH: 126 SF  
UNFINISHED: 450 SF

BASEMENT FINISH PLAN FOR:  
**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

**GA5**

RELEASE FOR CONSTRUCTION  
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DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
08/15/2024 10:06:43





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"x0.162") NAILS AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8d COM (2 1/2"x0.131") NAILS. CEILING JOISTS SHALL BE CONTINUOUS OR SECURELY JOINED WITH (3) 16d COM (3 1/2"x0.162") 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"x0.162") NAILS EA END.
- ADDITIONAL NOTE: ROOFS WITH SLOPE OF 4/12 OR SHALL OVER 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 20ga RIDGE STRAP (SIMPSON LSTA12 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 PURLINS AT THE ENDS 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 PURLINS TO BE PLACED APPROXIMATELY WHERE SHOWN ON PLANS, USE 2x6 STUD GRADE PURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS)
- RIDGE, HIP, VALLEY, AND PURLIN 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 PURLINS (UNLESS NOTED OTHERWISE ON PLANS)
- 2x4 PURLIN/RIDGE BRACING @ 4'-0" c (STRONG BACK IF OVER 8'-0" LONG)
- ⊕ 2x4 STRONGBACK HIP VALLEY, OR RIDGE RAFTER SUPPORT
- /// LOAD BEARING STUD WALLS

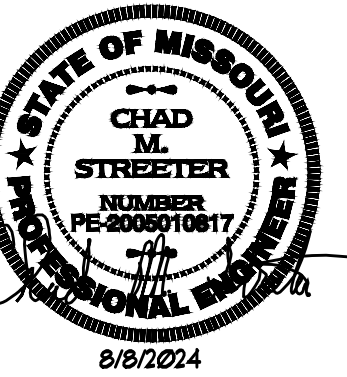


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ROOF PLAN FOR:  
**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

GA5



**STRUCTURAL GENERAL NOTES**

- DIVISION 1 - GENERAL REQUIREMENTS**
- 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.
  - Furnish all labor, materials and equipment necessary to complete the work as shown or inferred by the drawings.
  - Design Loads:
    - Residential (Live Loads) 40 PSF
    - Sleeping rooms (Live Loads) 30 PSF
    - Floor Dead Load 10 PSF
    - Floor Joist Deflection (Total) L/360
    - Floor Joist Deflection (Live) L/900
    - Attic Storage (Live Loads) 10 PSF
    - Ceiling Dead Load 5 PSF
    - Ceiling Joist Deflection L/240
    - Roof Live Load 20 PSF
    - 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
  - Wind Load:
    - Basic Wind Speed (Vult) 115 MPH
    - Risk Category II
    - Exposure B
    - Internal Pressure Coefficient ±0.18

- 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.
  - 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.
- DIVISION 2 - EARTHWORK**
- It is recommended that the contractor employ the services of a geotechnical engineer to observe, test and approve all excavation, fill and backfill work, and to determine that subsurface conditions are compatible with those used in the design.
  - The minimum soil bearing capacity is 1500 PSF in accordance with Table 1904.2 of the International Building Code. All footings are designed to bear on natural undisturbed soil or controlled 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 exposed, organic material and existing structures shall be removed from building area and from areas to be paved. Stockpile all topsoil for reuse.
  - Controlled Fill Materials:
    - A. Granular Fill - Granular fill shall consist of washed, evenly graded mixture of crushed stone, or crushed or uncured gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.
    - B. Shrinkage-Swell Control Fill - Shrinkage-swell controlled 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.
    - C. Controlled Fill - Controlled fill shall be either granular or shrinkage-swell controlled fill as specified above and as approved by the geotechnical engineer.
    - D. Controlled 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:
    - A. Profile site to identify soft or disturbed areas. If areas are found to be unsuitable for support of footings and/or slab-on-grade please contact the Engineer of Record.
    - B. Backfill directly under slab-on-grade with minimum of 4 inches of granular fill consisting of washed, evenly graded mixture of crushed stone, or crushed or uncured gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.

- DIVISION 3 - CONCRETE**
- All concrete work shall conform to the requirements of ACI 318 "Building Code Requirements for Reinforced Concrete" and ACI 301 "Specification for Structural Concrete Buildings".
  - 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 618, Class C
  - Concrete shall develop the following minimum 28 day design compressive strength (f'c):
    - Type of Construction Compressive Strength (f'c)
    - A. Footings, walls and basement slab 3000 PSI
    - B. Garage Slab 3000 PSI
    - C. Exterior slabs, steps, and curbs 4000 PSI (air-entrained concrete)
  - Concrete proportions shall be established on the basis of field experience and/or trial mixtures in accordance with ACI 318-89 Sections 5.2 and 5.3. When fly ash is utilized in the mix, mix shall contain a water-reducer. Fly ash shall be added at the rate of not more than 100 pounds per cubic yard and cement shall be reduced by not more than 15 percent by weight.
  - Proportion and design mixes to result in concrete slump at point of placement of not more than 4 inches, except grout for masonry of not more than 6 inches.
  - Use air-entraining admixture in exterior exposed concrete to result in concrete at point of placement having a minimum air content of 5% (not entrained air).
  - Reinforcing Steel:
    - A. Reinforcing bars - ASTM A 615, grade 60, deformed
    - B. Welded wire fabric - ASTM A 1064, at least one full mesh and lace splices with wire.
    - C. Supports for reinforcement - comply with CRSI recommendations.
  - Concrete Work Execution:
    - A. Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:
      - Cast against and exposed to earth - 3 inches
      - Exposed to earth or weather - 2 inches
      - Not exposed to earth or weather - 1 1/2 inches
    - B. All concrete is reinforced, reinforce concrete not otherwise indicated with same reinforcement as similar sections.
    - C. Protect concrete work from physical damage or reduced strength due to weather extremes:
      - In cold weather comply with ACI 308
      - In hot weather comply with ACI 305
    - D. In corners of grade beams and walls provide corner reinforcement. Lap two feet each direction in outside face, matching size and spacing of horizontal reinforcement.
    - E. At openings in walls, add one #4 bar (opening dimension plus 60 bar diameters) each face, each corner of opening.
    - F. Provide one #4 bar diagonally at each of all steps in grade beams and foundation walls.
    - G. Provide construction joints in footings, grade beams and walls at not greater than 80 feet in any direction, key and dowel construction joints.
    - H. Provide control joints in slabs-on-grade at not greater than 20 feet on center in each direction. Saw cut control joints minimum 1/4 of slab depth, as soon after slab finishing as possible without dislodging aggregate.
    - I. Coordinate concrete work with architectural and mechanical drawings for concrete finishes, recessed areas, embedded items and other conditions.

- DIVISION 5.5 - MISCELLANEOUS STRUCTURAL STEEL**
- All miscellaneous structural steel work shall conform to the requirements of AISC "Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings".
  - Miscellaneous structural steel material shall comply with:
    - A. Structural Steel - ASTM A 36
    - B. Cold-formed Steel Tying - ASTM A 500 Grade C
    - C. Anchor Rods - ASTM F 1554, non-hardened type unless otherwise noted.
- DIVISION 6 - ROUGH CARPENTRY**
- 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", DOC PS 1 "Product Standard for Construction and Industrial Plywood", DOC PS 56 "Structural Grade Laminated Timber" and Chapter 23 of the International Building Code.
  - Rough carpentry materials shall comply with:
    - A. Lumber - S4S, surface dry, grade marked, complying with PS 20; graded under WWPA or SPIB rules.
    - Joist: Stud Grade - Spruce-Pine-Fir
    - Header: No. 2 Douglas Fir
    - Rafter: No. 3 Douglas Fir No. 2 Spruce-Pine-Fir
    - Plates: No. 3 Spruce-Pine-Fir
    - Blocking: No. 3 Spruce-Pine-Fir
    - B. Metal framing fasteners - ASTM A 153, hot-dip galvanized fasteners, equal to Simpson strong-tie connectors complying with ICCB No. 1258.
    - C. Plywood - APA rated sheathing, complying to PS 1
    - D. LVL - Laminated veneer lumber shall be grade 2000 F-2E and shall meet the requirements of NER-442, NER-412 or ER-421.
    - E. Laid - L joist shall be fabricated from APA rated sheathing board webs, LVL flanges, utilizing waterproof type glue and shall meet requirements of NER-450, NER-446, NER-476 or ICCB PFC-3754.
    - F. Gypsum Beams - Combination 20F-1V3 in accordance with Table No. 25-C-1 Part A of Chapter 23 of the International Building Code.
    - G. Fiberboard Sheathing - DOC Standard PS 57-3.
    - H. Gypsum Sheathing Board - ASTM C 79 and UBC Standard No. 47-10.
    - I. Gypsum Wallboard - ASTM C 39 and UBC Standard No. 47-11.
    - J. Roof sheathing for standard asphalt roofing shall be 1/2 inch APA rated sheathing 240 exterior grade and clipped. Roof sheathing for Conc Tile shall be 5/8 inch APA rated 5216 exterior grade and clipped. Lay sheathing with face grain perpendicular to support members and stagger end joints 4'-0". FASTEN PER SCHEDULE BELOW.
    - K. Exterior wall sheathing shall be 1/2 inch APA Rated sheathing 240 or 716 inch LP Smart Siding exterior grade. Provide solid blocking at all unspliced panel edges FASTEN PER SCHEDULE BELOW. For LP Siding, fasten through both panels at edge supports.
    - L. Interior shear wall sheathing where noted shall be 1/2 inch gypsum wallboard. FASTEN PER SCHEDULE BELOW.
    - M. Attach metal framing fasteners to framing members with minimum number and type of nails listed in ICCB Report No. 1258.
    - N. Provide full depth solid blocking, 1 X 4 cross bracing, or 16 gage metal cross bracing bridging at ends of members and at 8'-0" intervals along members.

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
<b>ROOF</b>				
1	Blocking between ceiling joists or rafters to top plate	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" x 0.113" (3) 3" 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) 3" 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 R902.5.2 assuming 16" Rafters / Joists & spans less than 12'-0"	(3) 16d common @ slopes greater than 4:12 (5) 16d common @ slopes 4:12 or less	(3) 3 1/2" x 0.162" @ slope > 4:12 (5) 3 1/2" x 0.162" @ slope 4:12 or less	Face nail
5	Collar tie to rafter, face nail or 1 1/4" x 20ga. ridge strap to rafter	(4) 10d box (3) 10d 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) 10d 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 rafter or roof rafter to minimum 2" ridge beam	(4) 16d (3) 10d common (4) 10d box	(4) 3 1/2" x 0.135" (3) 3 1/2" x 0.148" (4) 3" x 0.131"	Toe nail
		(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
<b>WALL</b>				
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" face nail 16" 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" 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" each edge face nail 16" 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" face nail 12" face nail
13	Double top plate splice for SDCs (D1, D2, and braced wall line spacing <= 25')	(8) 16d common (12) 16d box (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 (D1, D2, and braced wall line spacing > 25')	(12) 16d	(12) 3 1/2" x 0.135"	
15	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	(3) 16d box (2) 16d common	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162" (4) 3" x 0.131"	16" face nail 12" face nail
16	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panels)	(4) 8d box (3) 16d box (4) 8d common (4) 10d box	(4) 2 1/2" x 0.113" (3) 3 1/2" x 0.135" (4) 2 1/2" x 0.131" (4) 3" x 0.128" (4) 3" x 0.131"	Toe nail
17	Top or bottom plate to stud	(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"	End nail
18	Top plates, laps at corners and intersections	(3) 10d box (2) 16d common	(3) 3" x 0.131" (2) 3 1/2" x 0.162"	Face nail
19	1" brace to each stud and plate	(3) 8d box (2) 8d common (3) 10d box	(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" sheathing to each bearing	(3) 8d box (2) 8d common (2) 10d box (2) Staples	(3) 2 1/2" x 0.113" (2) 2 1/2" x 0.131" (2) 3" x 0.128"	Face nail
21	1" x 8" and wider sheathing to each bearing	(3) 8d box (3) 8d common (3) 10d box (3) Staples	(3) 2 1/2" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128"	Face nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a, b, c</sup>		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
<b>FLOOR</b>				
21	Joist to sill, top plate or girder	(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"	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 0.113" 2 1/2" x 0.131" 3" x 0.128"	4" toe nail 6" toe nail
23	1" x 6" subfloor or less to each joist	(3) 8d box (2) 8d common (3) 10d box (2) Staples	(3) 2 1/2" x 0.113" (2) 2 1/2" x 0.131" (3) 3" x 0.128"	Face nail
24	2" subfloor to joist or girder	(3) 16d box (2) 16d common (2) 16d common	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162" (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 common (4) 10d box (4) 1" 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	Build-up girders and beams, (2) inch lumber layers	20d common	4" x 0.192"	Nail each layer as follows: 32" at top and bottom and staggered.
		10d box	3" x 0.128" 3" x 0.131"	24" 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	(4) 3" x 0.192" (3) 3" x 0.128" (4) 3" x 0.131"	Face nail at ends and at each splice
29	Bridging to joist	(4) 16d box (3) 16d common (4) 10d box	(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"	End edge, toe nail
<b>WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING</b>				
30	3/8" - 1/2"	6d common 8d common (roof)	2" x 0.113" 2 1/2" x 0.131"	6 12"
31	1/2" - 1"	8d common	2 1/2" x 0.131"	6 12"
32	1 1/8" - 1 1/4"	10d common 8d deformed nail	3" x 0.148" 2 1/2" x 0.131"	6 12"
<b>OTHER WALL SHEATHING</b>				
33	1/2" structural cellulose fiberboard sheathing	1 1/2" galv. roofing nail, 7/16" head, or 1" crown staple 16 ga., 1 1/4" long		3 6
34	25/32" structural cellulose fiberboard sheathing	1 3/4" galv. roofing nail, 7/16" head, or 1" crown staple 16 ga., 1 1/4" long		3 6
35	1/2" gypsum sheathing <sup>d</sup>	1 1/2" galv. roofing nail, staple galv., 1 1/2" long, 1 1/4" screws, Type W or S		7 7
36	5/8" gypsum sheathing <sup>d</sup>	1 3/4" galv. roofing nail, staple galv., 1 5/8" long, 1 5/8" screws, Type W or S		7 7
<b>WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING</b>				
37	3/4" and less	6d deformed 8d common	2" x 0.120" 2 1/2" x 0.131"	6 12"
38	7/8" - 1"	8d common 8d deformed	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"

<sup>a</sup> Nails are smooth-crown, box or deformed sheiks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bearing yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (200 common nail), 90 ksi for shank diameters larger than 0.192 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.162 inch or less.

<sup>b</sup> Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.

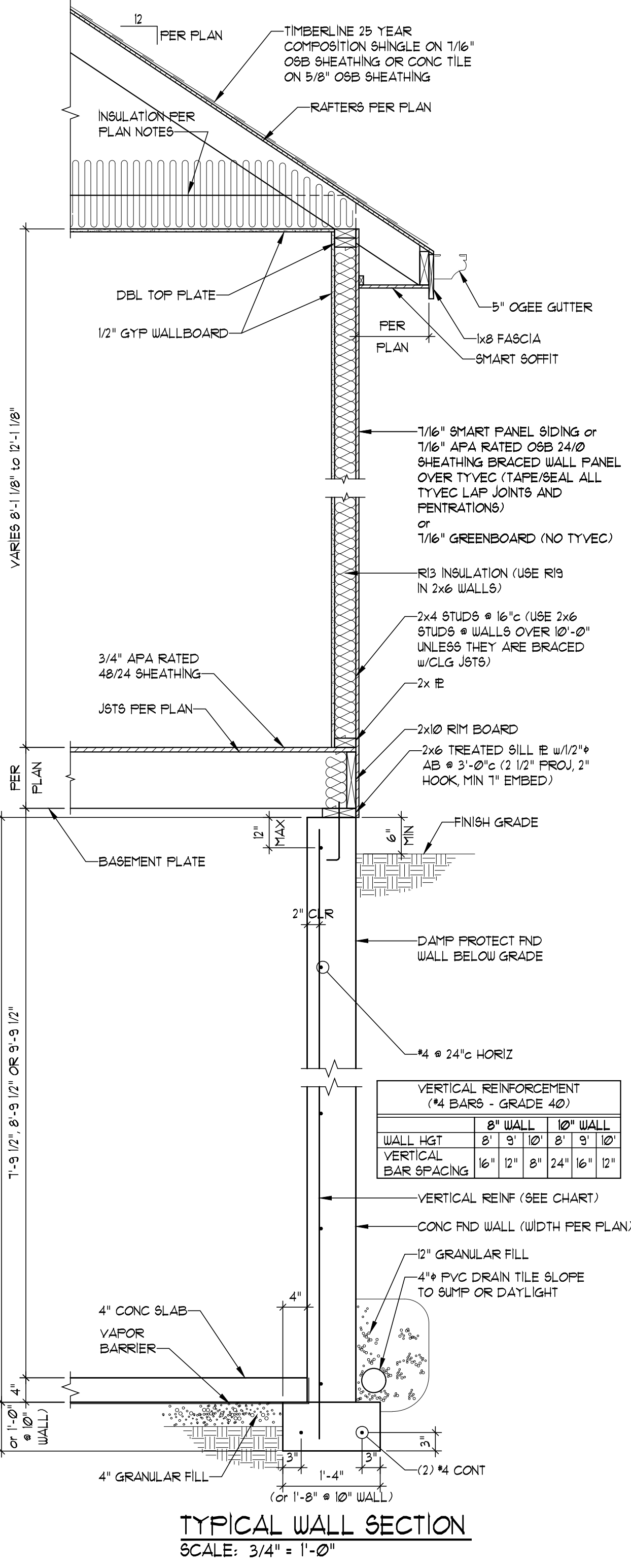
<sup>c</sup> Nails shall be hot-dip galvanized in accordance with ASTM A 641, with a minimum zinc coating of 0.015 oz/ft<sup>2</sup> (0.55 mil) for shank diameters of 0.192 inch or greater.

<sup>d</sup> Four-foot by 8-foot or 4-foot by 8-foot panels shall be applied vertically.

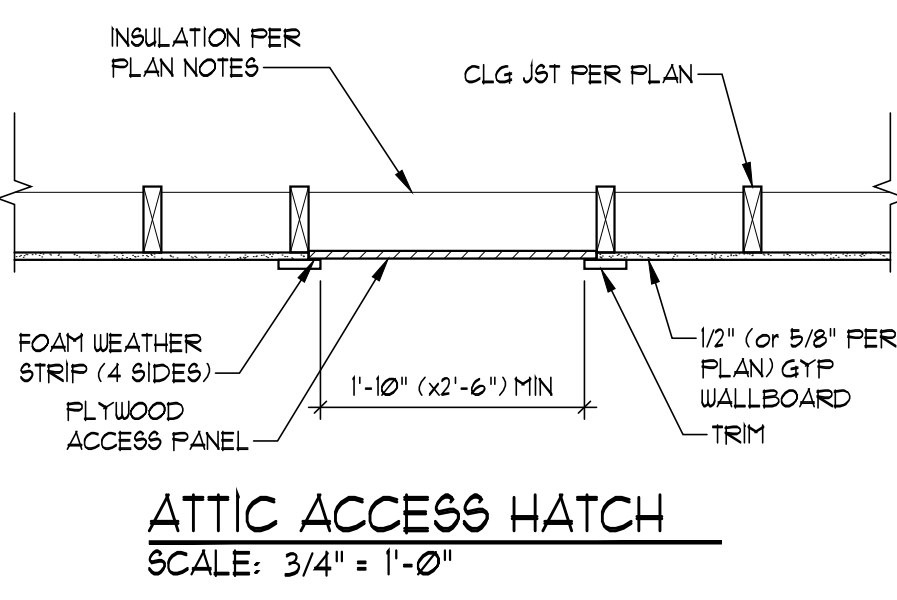
<sup>e</sup> Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and of floor sheathing only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of the code. Floor paneling shall be supported by framing members of solid blocking.

<sup>f</sup> Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and two toe nails on the ceiling joist to top plate in accordance with the schedule. The toe nail on the opposite side of the rafter shall be required.

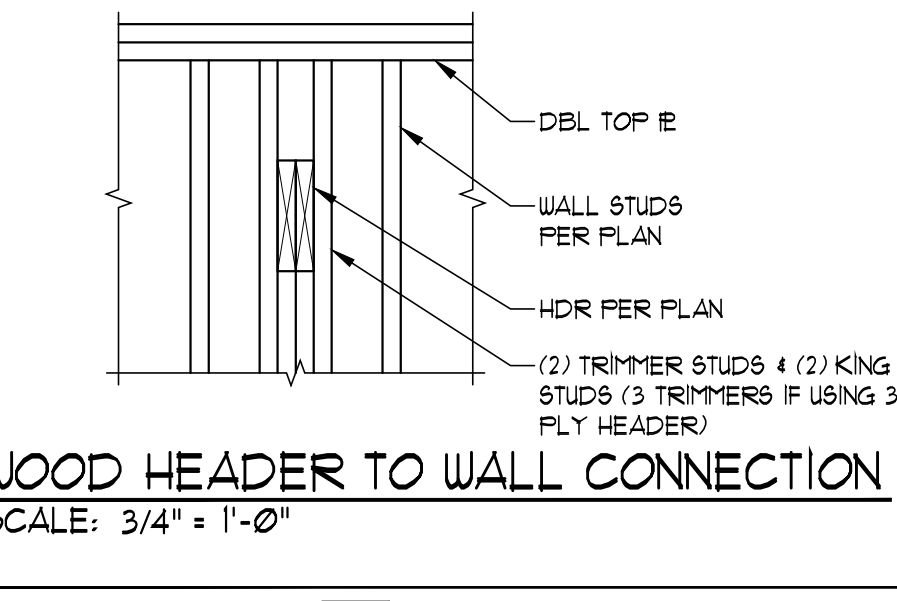
<sup>g</sup> Staples to be 1" crown, 16ga., 1 3/4" long.



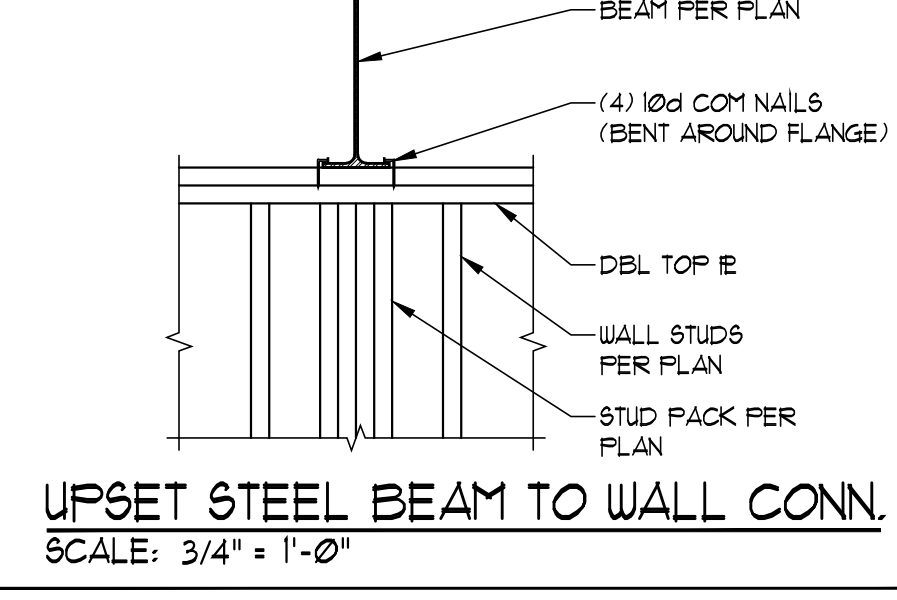
**TYPICAL WALL SECTION**  
SCALE: 3/4" = 1'-0"



**ATTIC ACCESS HATCH**  
SCALE: 3/4" = 1'-0"



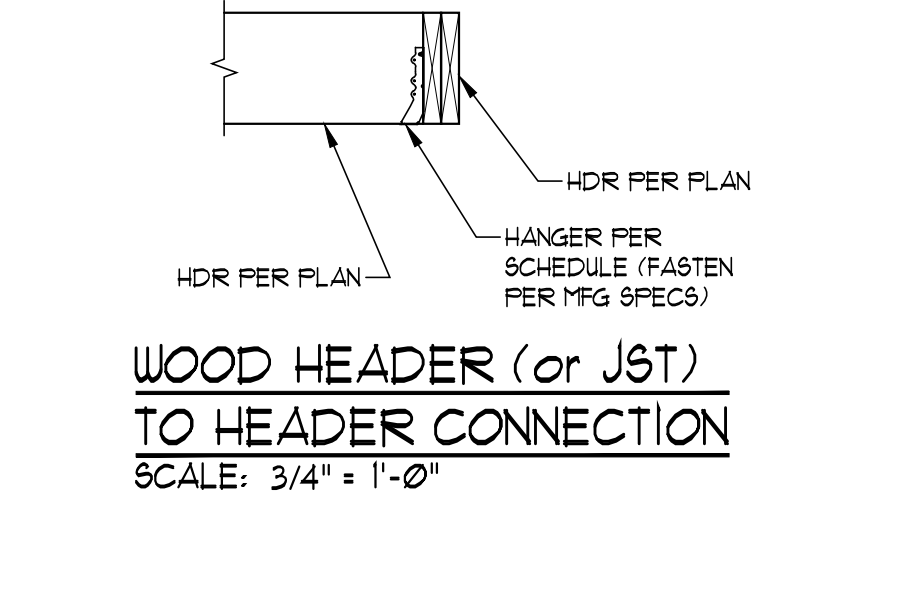
**WOOD HEADER TO WALL CONNECTION**  
SCALE: 3/4" = 1'-0"



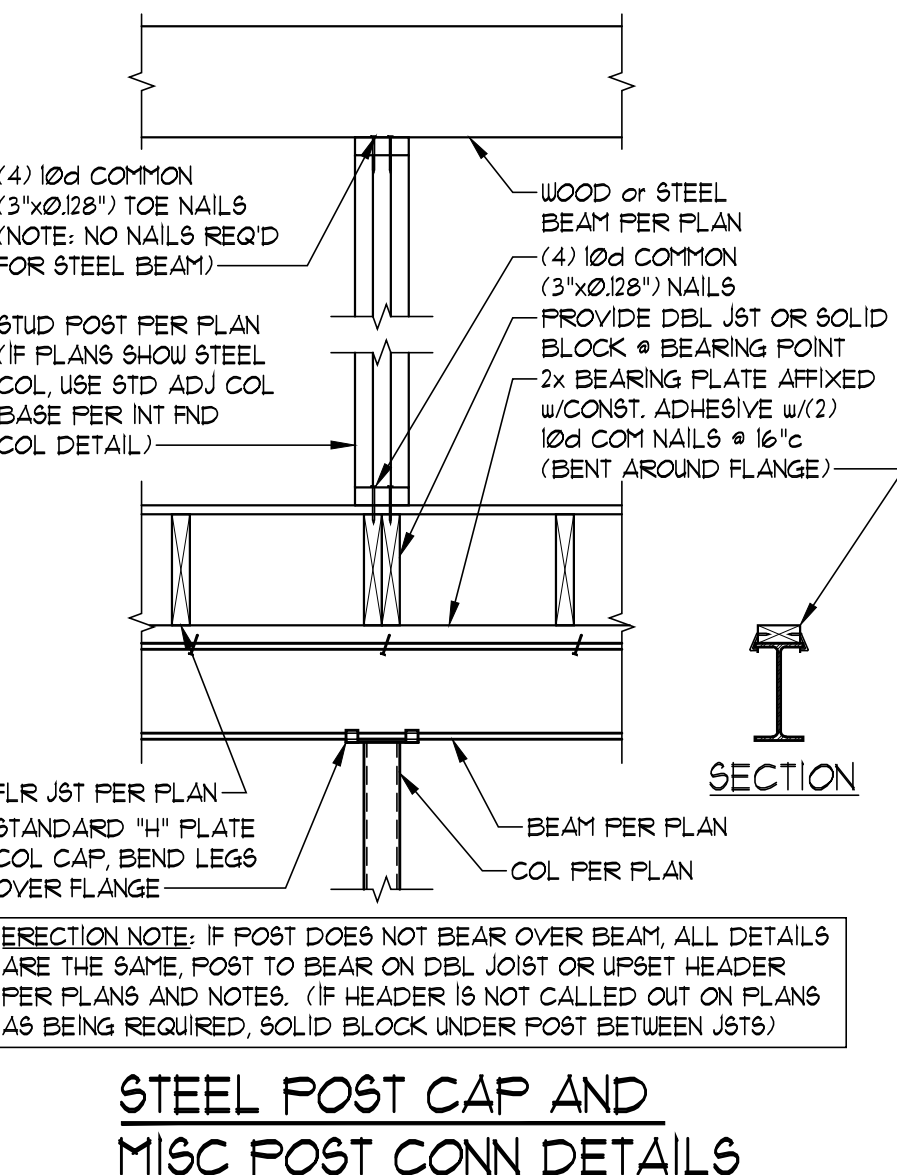
**UPSET STEEL BEAM TO WALL CONNECTION**  
SCALE: 3/4" = 1'-0"

**HANGER SCHEDULE**

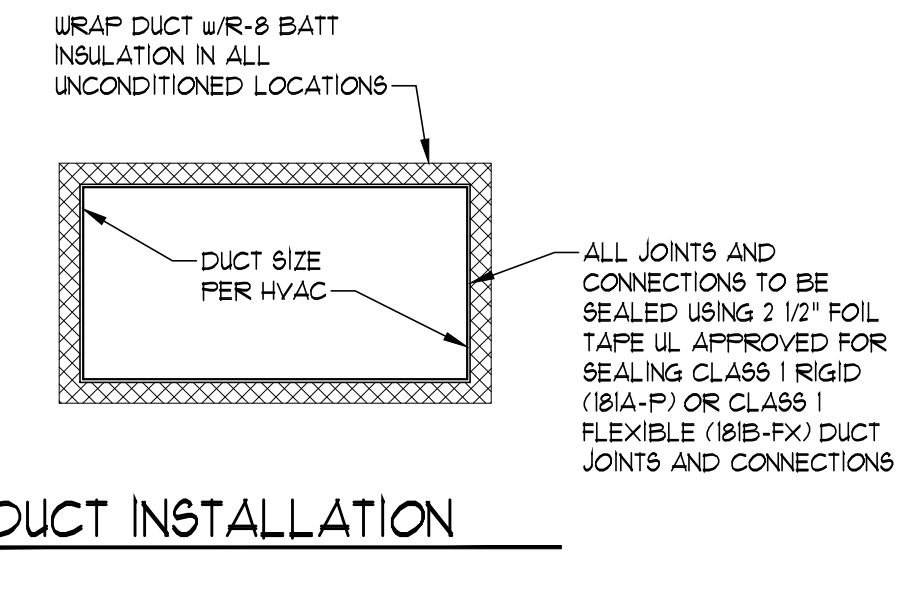
SOLID SAWN LUMBER		ENGINEERED LUMBER	
HDR SIZE	HANGER	HDR SIZE	HANGER
2x6	LU524	1 3/4x1 1/4	HU1
2x8	LU526	1 3/4x3 1/4	HU3
2x10	LU528	1 3/4x3 1/2	HU3
2x12	LU5210	1 3/4x1 7/8	HU11
(2) 2x6	LU524-2	(2) 1 3/4x1 1/4	HU48
(2) 2x8	LU526-2	(2) 1 3/4x3 1/4	HU410
(2) 2x10	LU528-2	(2) 1 3/4x3 1/2	HU410
(2) 2x12	LU5210-2	(2) 1 3/4x1 7/8	HU5412



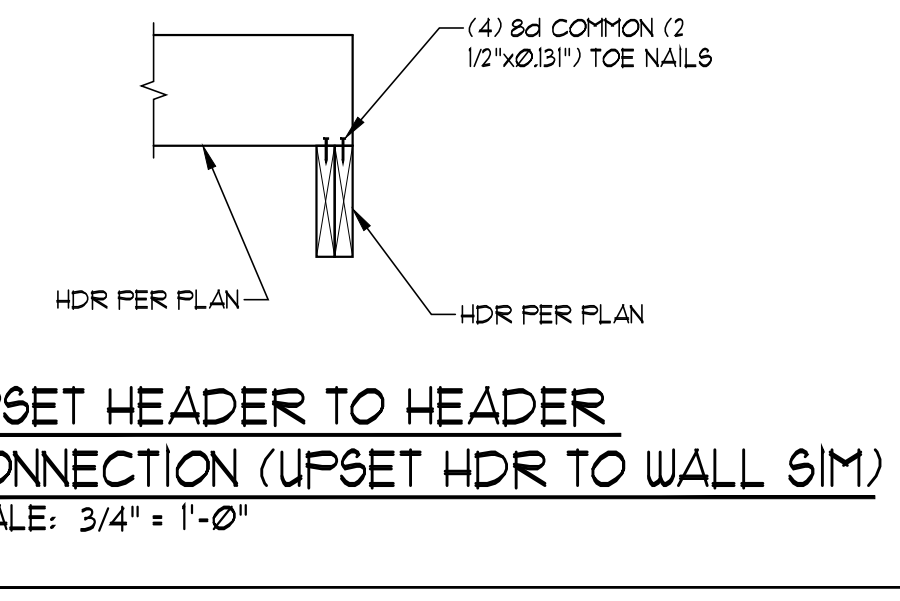
**WOOD HEADER (or JST) TO HEADER CONNECTION**  
SCALE: 3/4" = 1'-0"



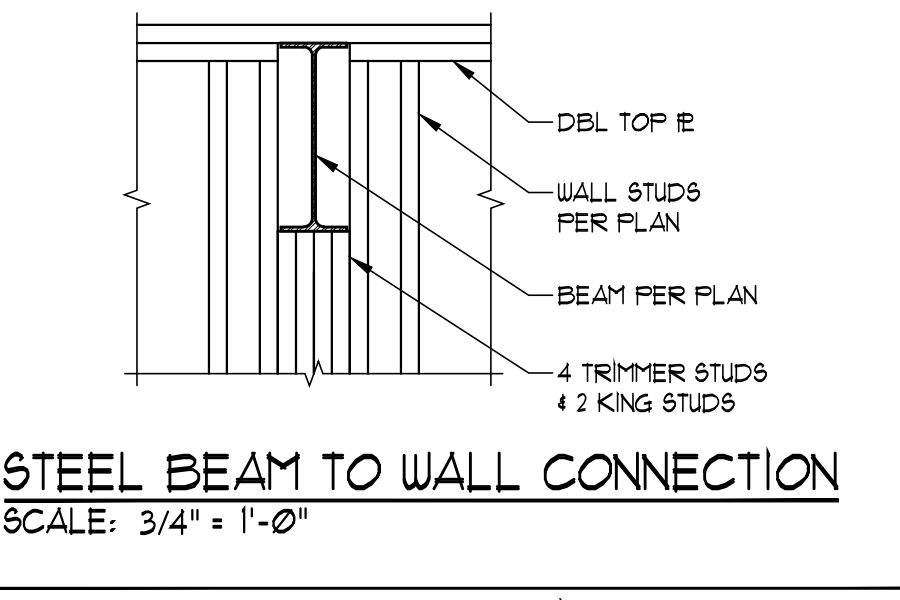
**STEEL POST CAP AND MISC POST CONN DETAILS**  
SCALE: 3/4" = 1'-0"



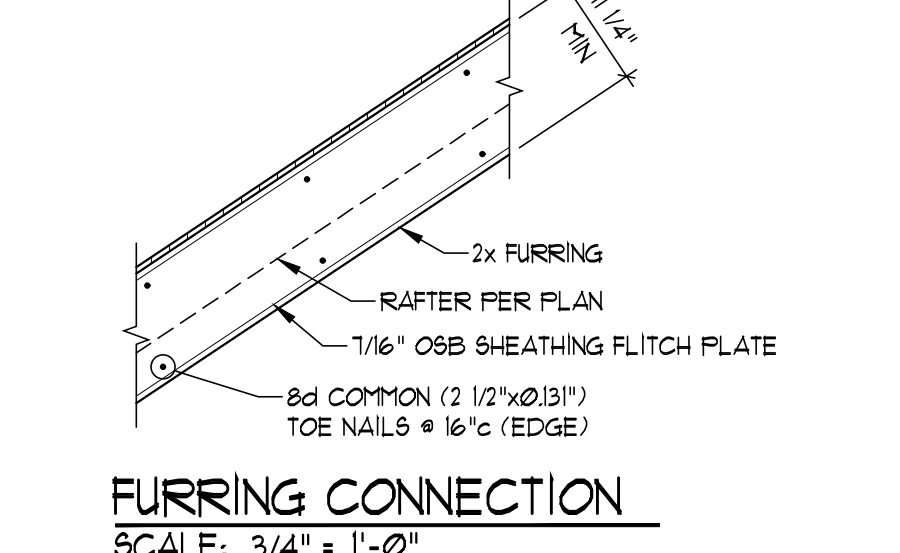
**DUCT INSTALLATION**



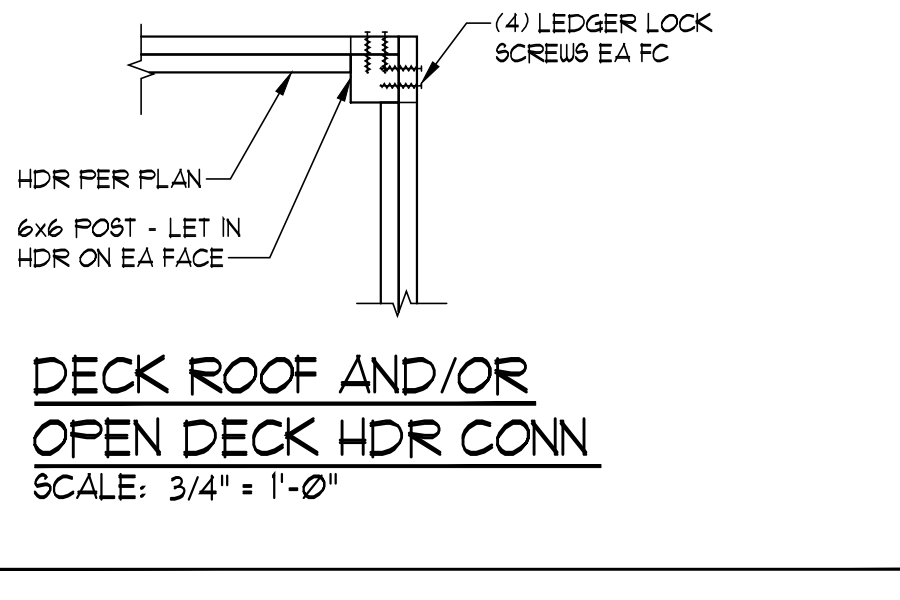
**UPSET HEADER TO HEADER CONNECTION (UPSET HDR TO WALL SIM)**  
SCALE: 3/4" = 1'-0"



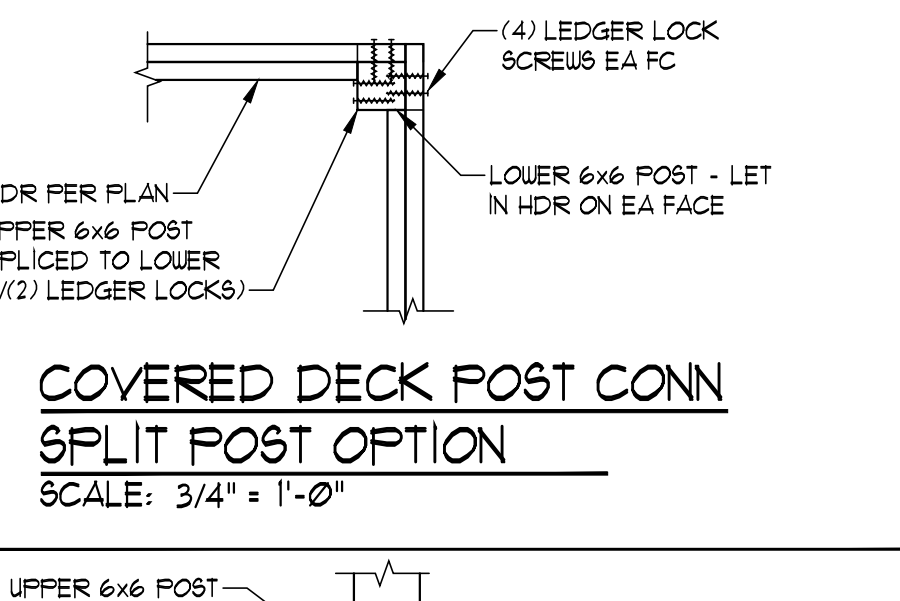
**STEEL BEAM TO WALL CONNECTION**  
SCALE: 3/4" = 1'-0"



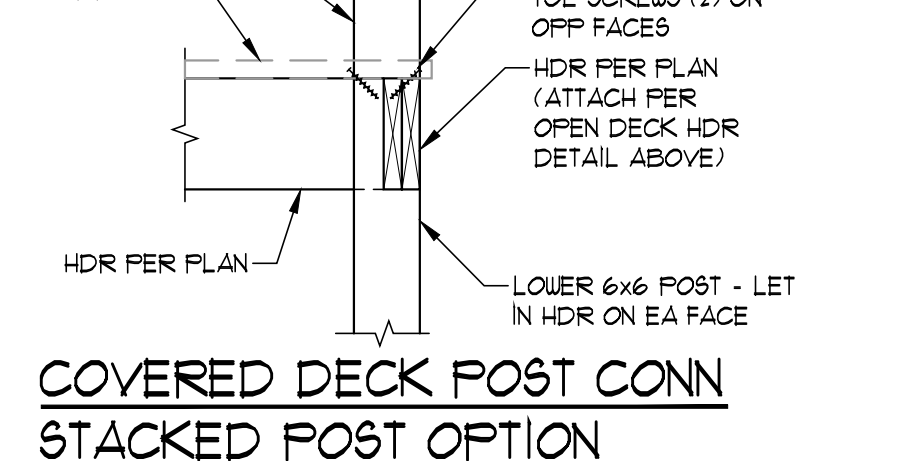
**FURRING CONNECTION**  
SCALE: 3/4" = 1'-0"



**DECK ROOF AND/OR OPEN DECK HDR CONN**  
SCALE: 3/4" = 1'-0"



**COVERED DECK POST CONN SPLIT POST OPTION**  
SCALE: 3/4" = 1'-0"



**COVERED DECK POST CONN STACKED POST OPTION**  
SCALE: 3/4" = 1'-0"

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**STATE OF MISSOURI**

**CHAD M. STREETER**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 000000000  
EXPIRES 8/9/2024

Project #: 8083-XXXX

DATE: 8/8/2024

Permit: \_\_\_\_\_

**STRUCTURAL DETAILS FOR:**

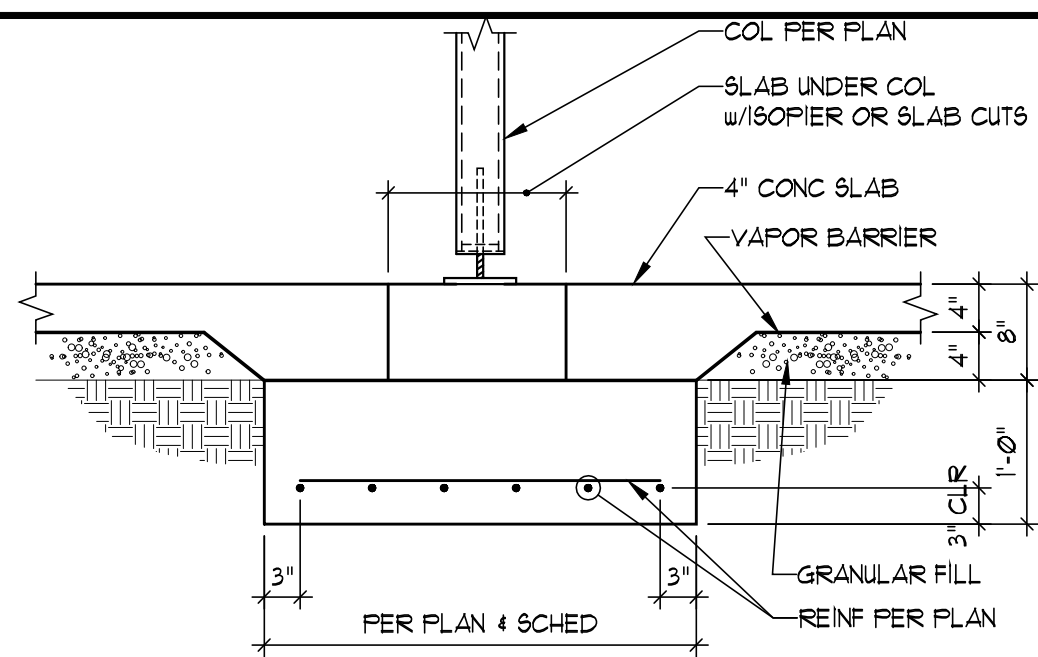
**THE GUNNISON - MODERN**

2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102

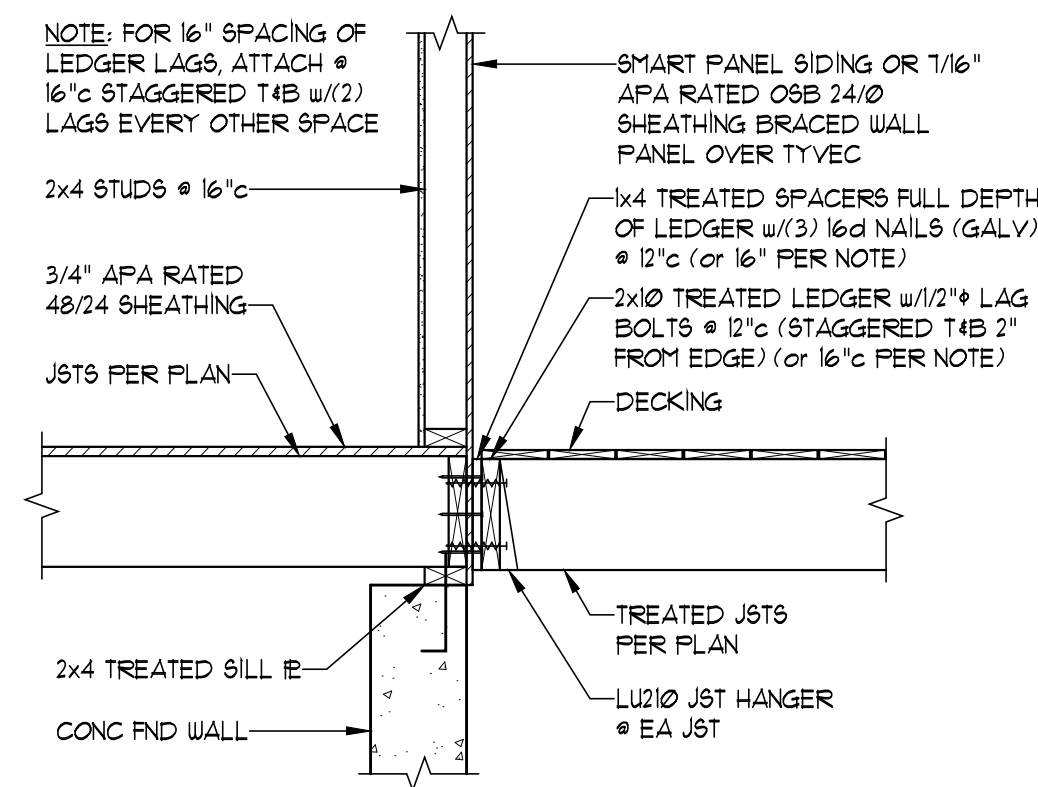
**S1**

RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES

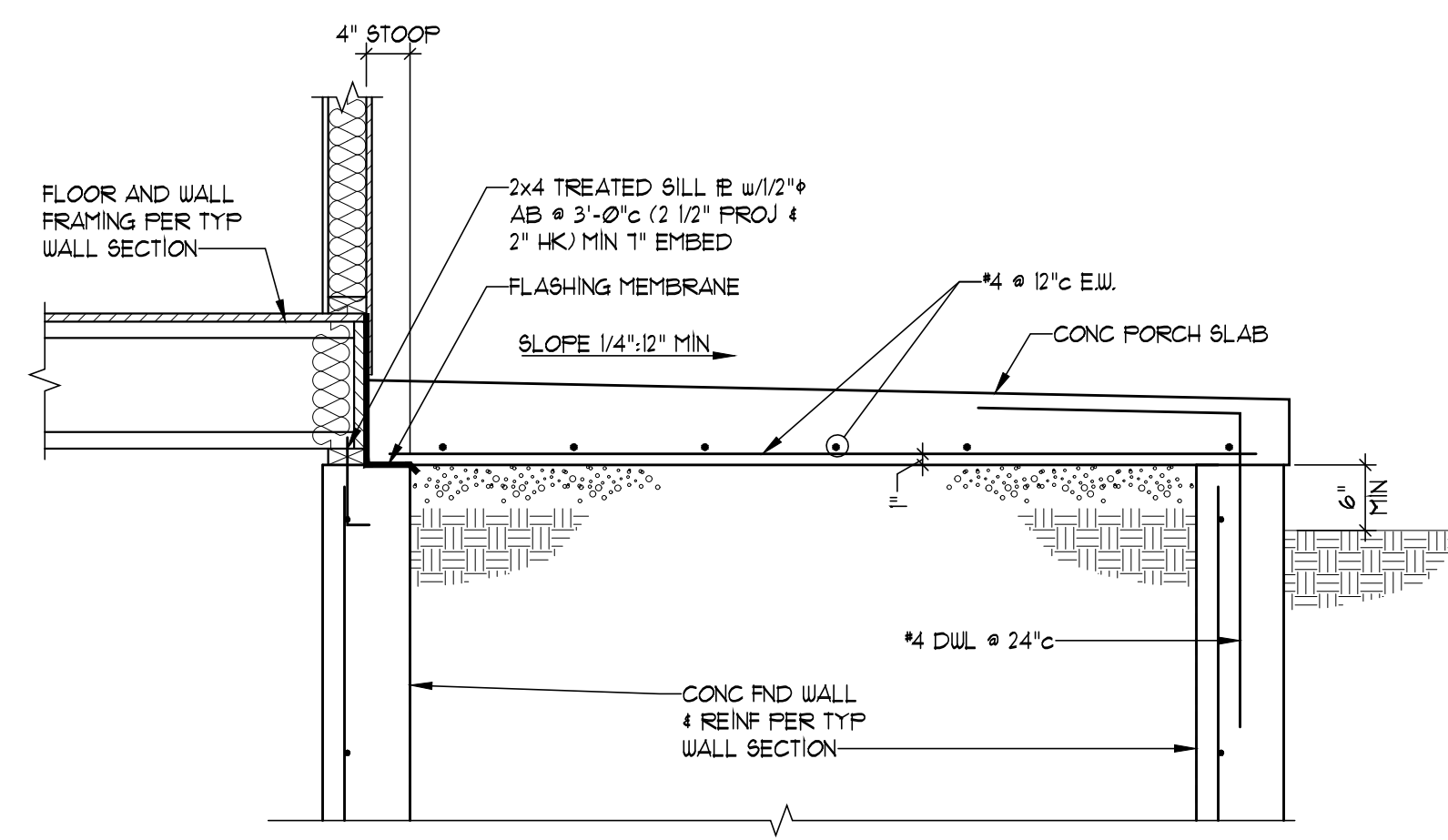




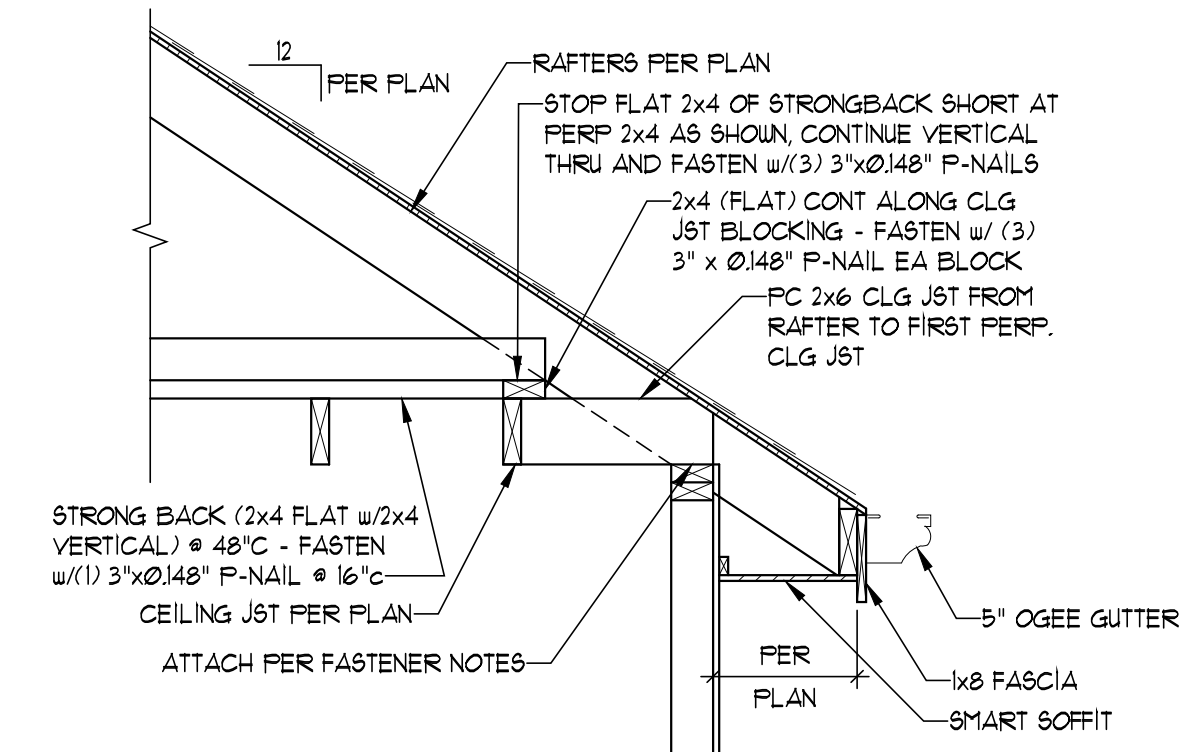
**TYPICAL INTERIOR COLUMN**  
SCALE: 3/4" = 1'-0"



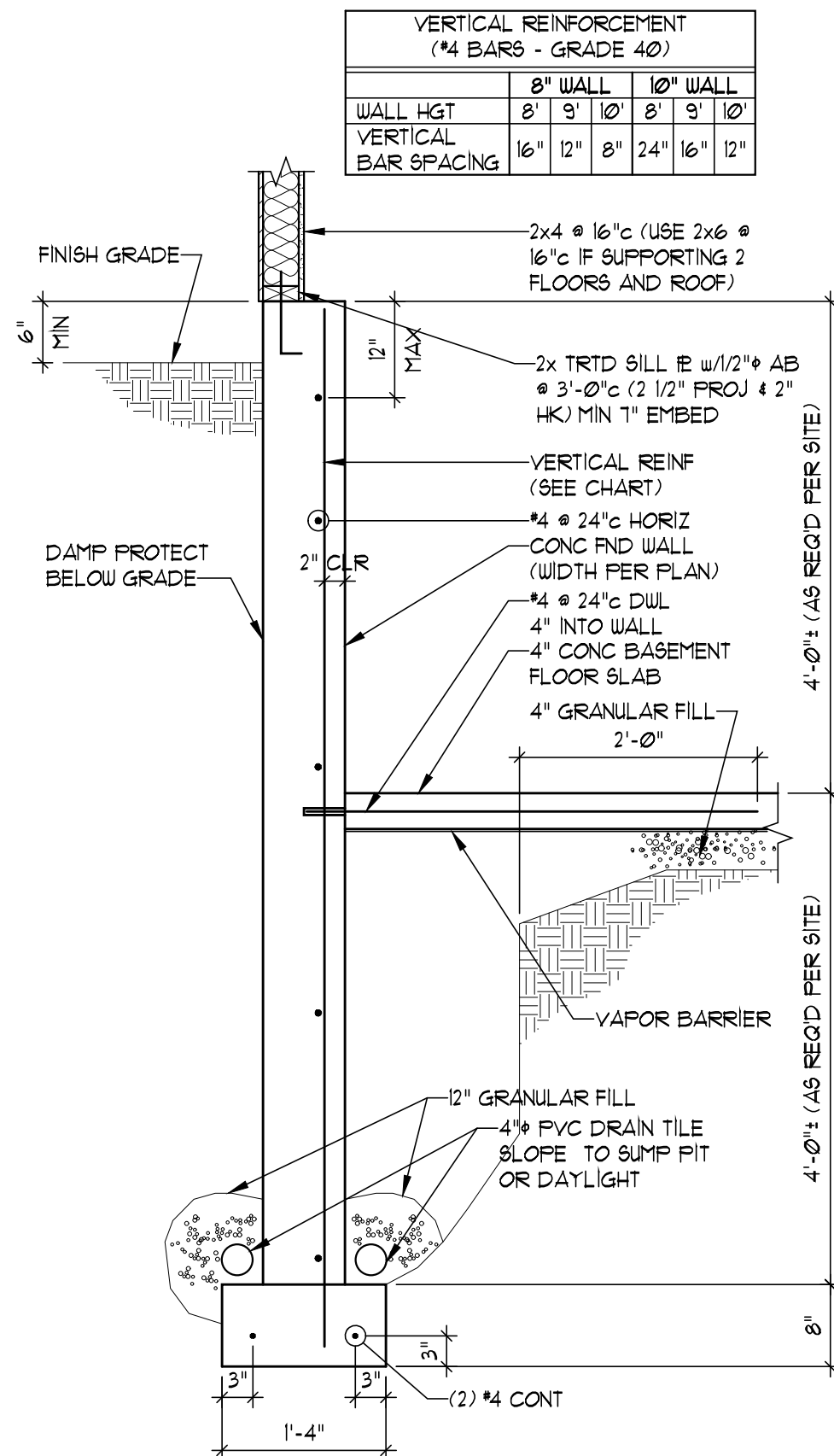
**DECK ATTACHMENT**  
SCALE: 3/4" = 1'-0"



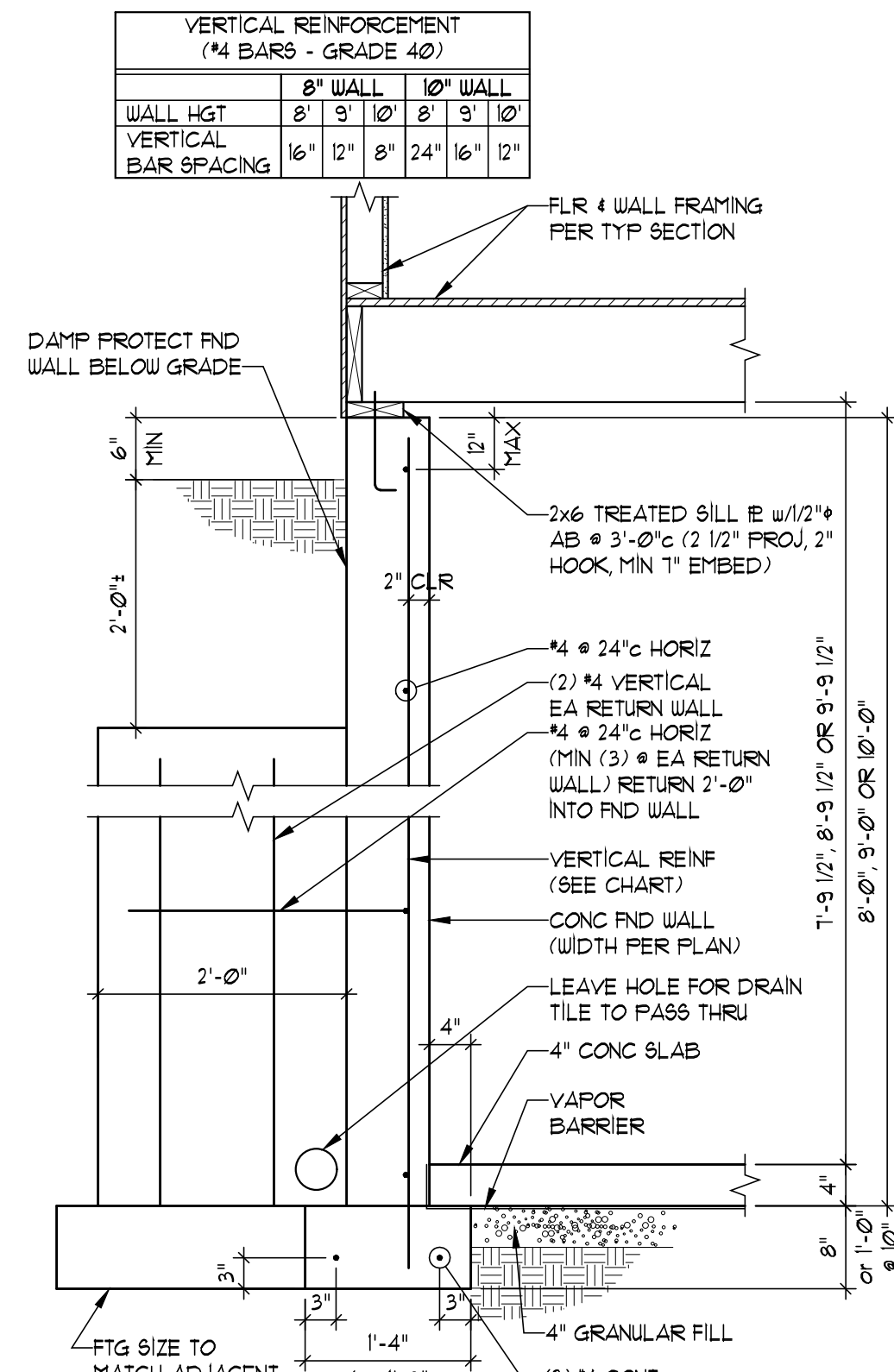
**TYPICAL SECTION THRU PORCH**  
SCALE: 3/4" = 1'-0"



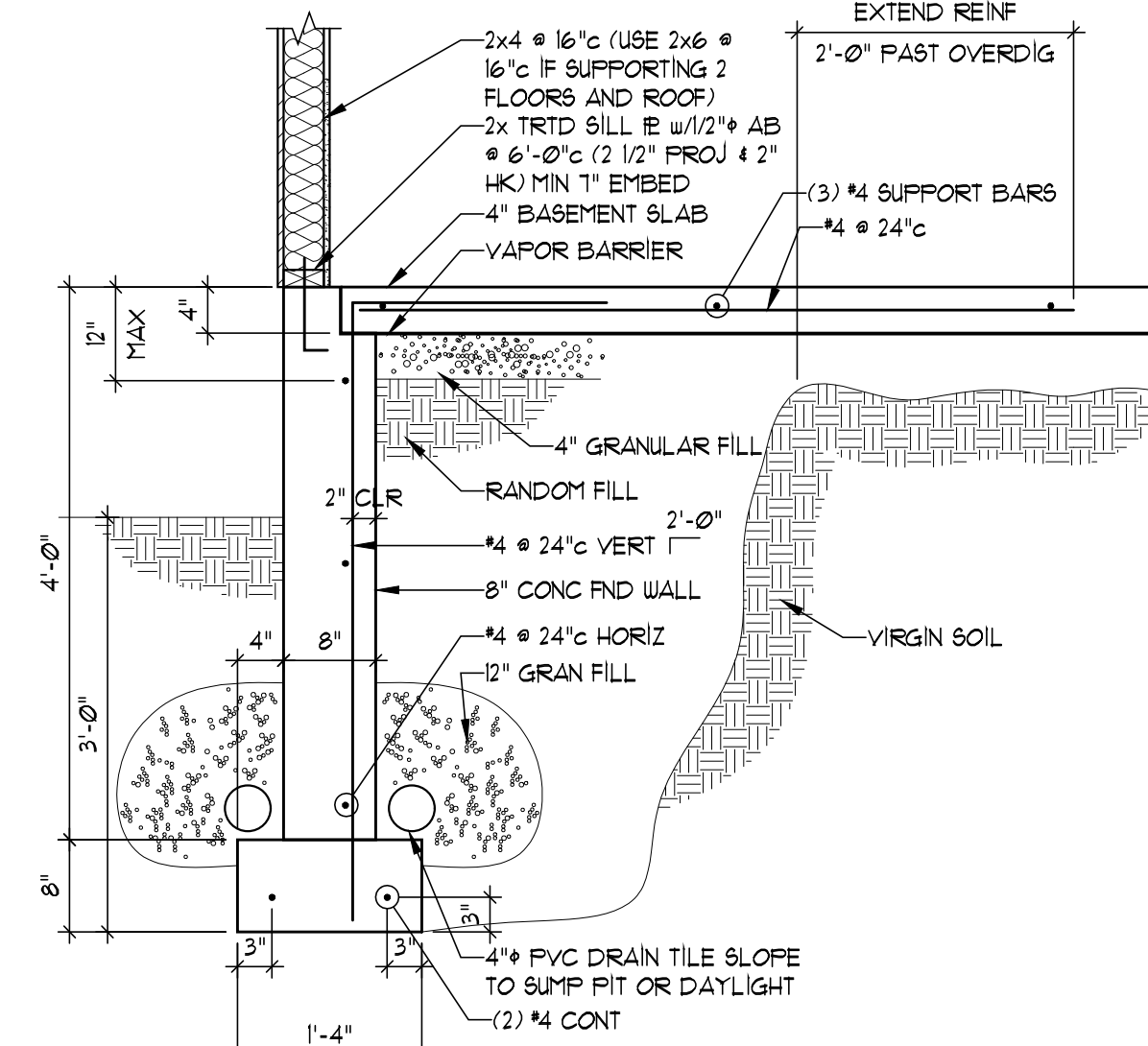
**RAFTER ATTACHMENT AT PERPENDICULAR CONDITIONS**  
SCALE: 3/4" = 1'-0"



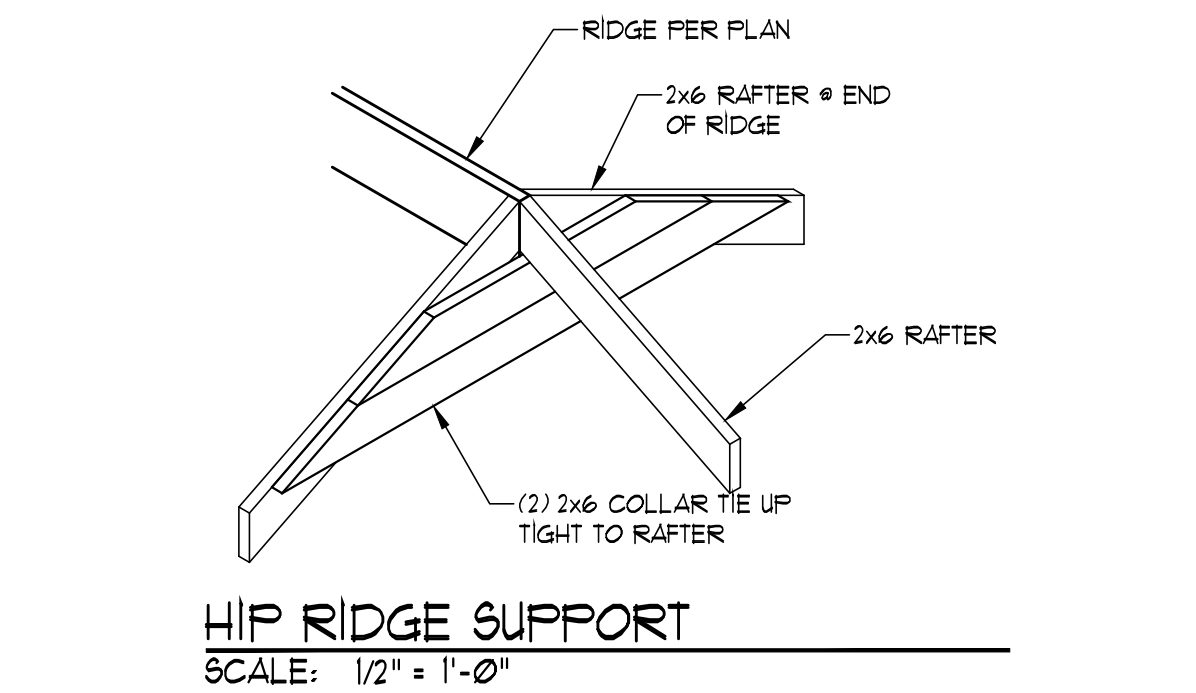
**TYPICAL DAYLIGHT SECTION**  
SCALE: 3/4" = 1'-0"



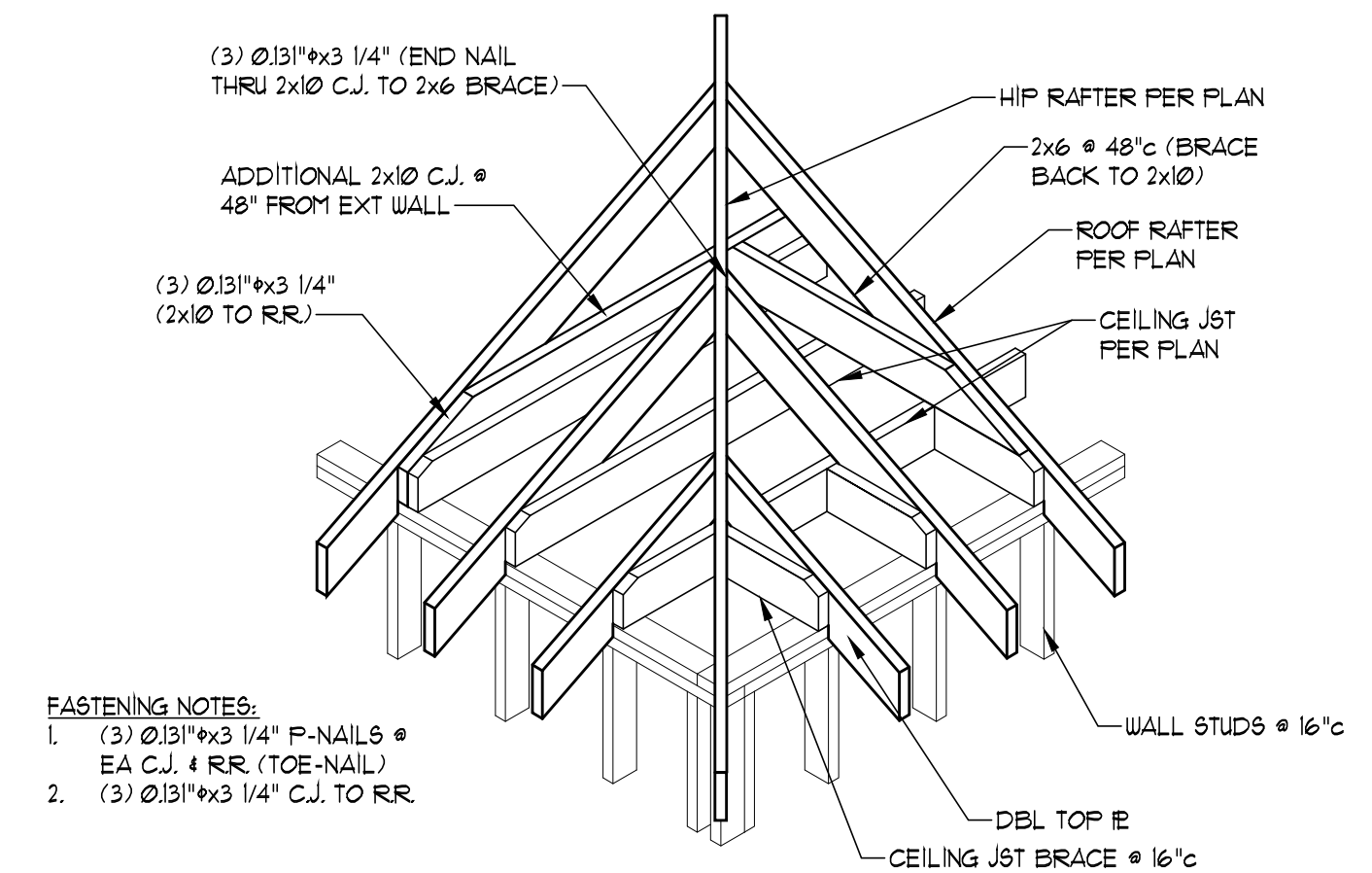
**TYPICAL PILASTER SECTION**  
SCALE: 3/4" = 1'-0"



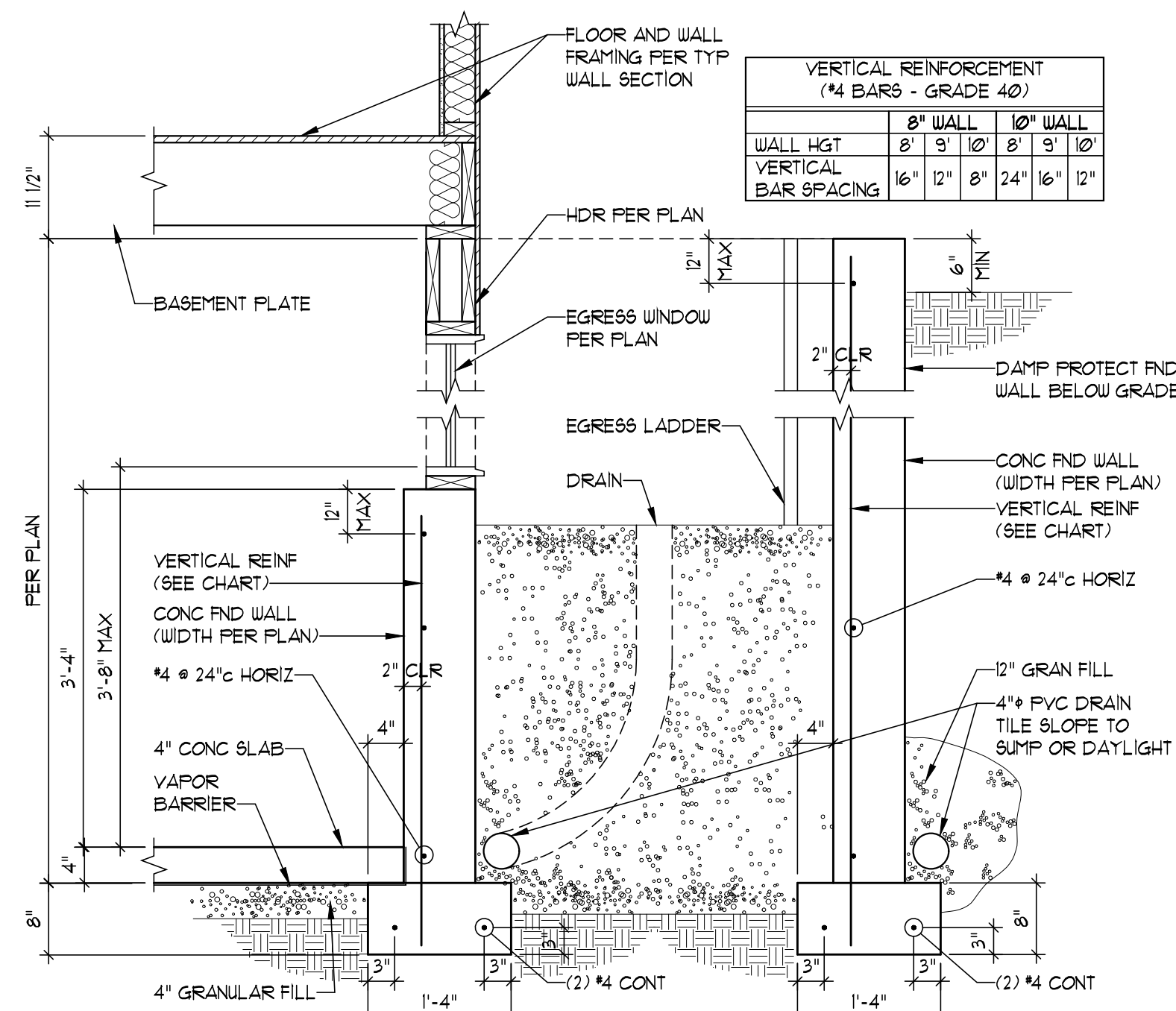
**TYPICAL WALKOUT SECTION**  
SCALE: 3/4" = 1'-0"



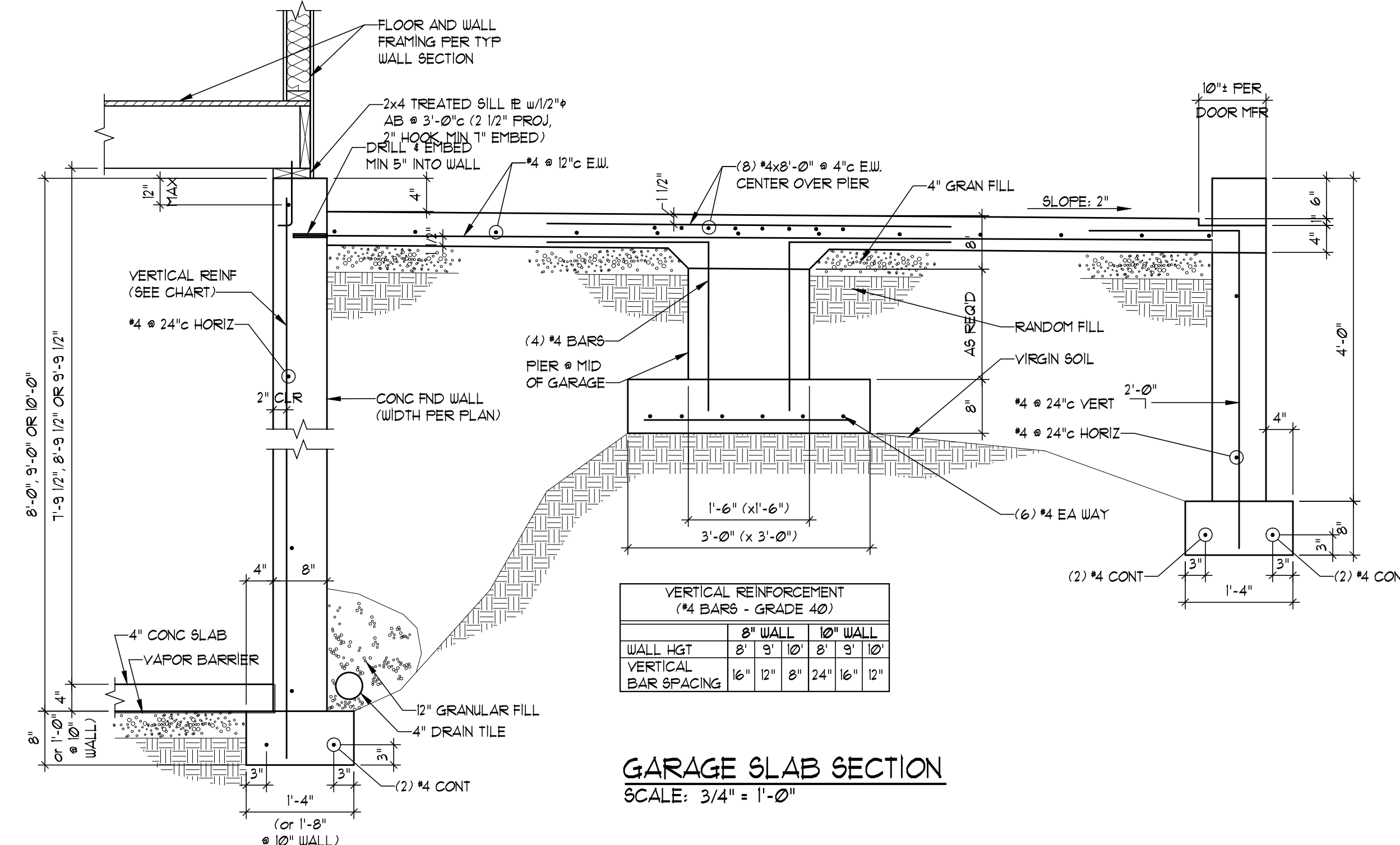
**HIP RIDGE SUPPORT**  
SCALE: 1/2" = 1'-0"



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

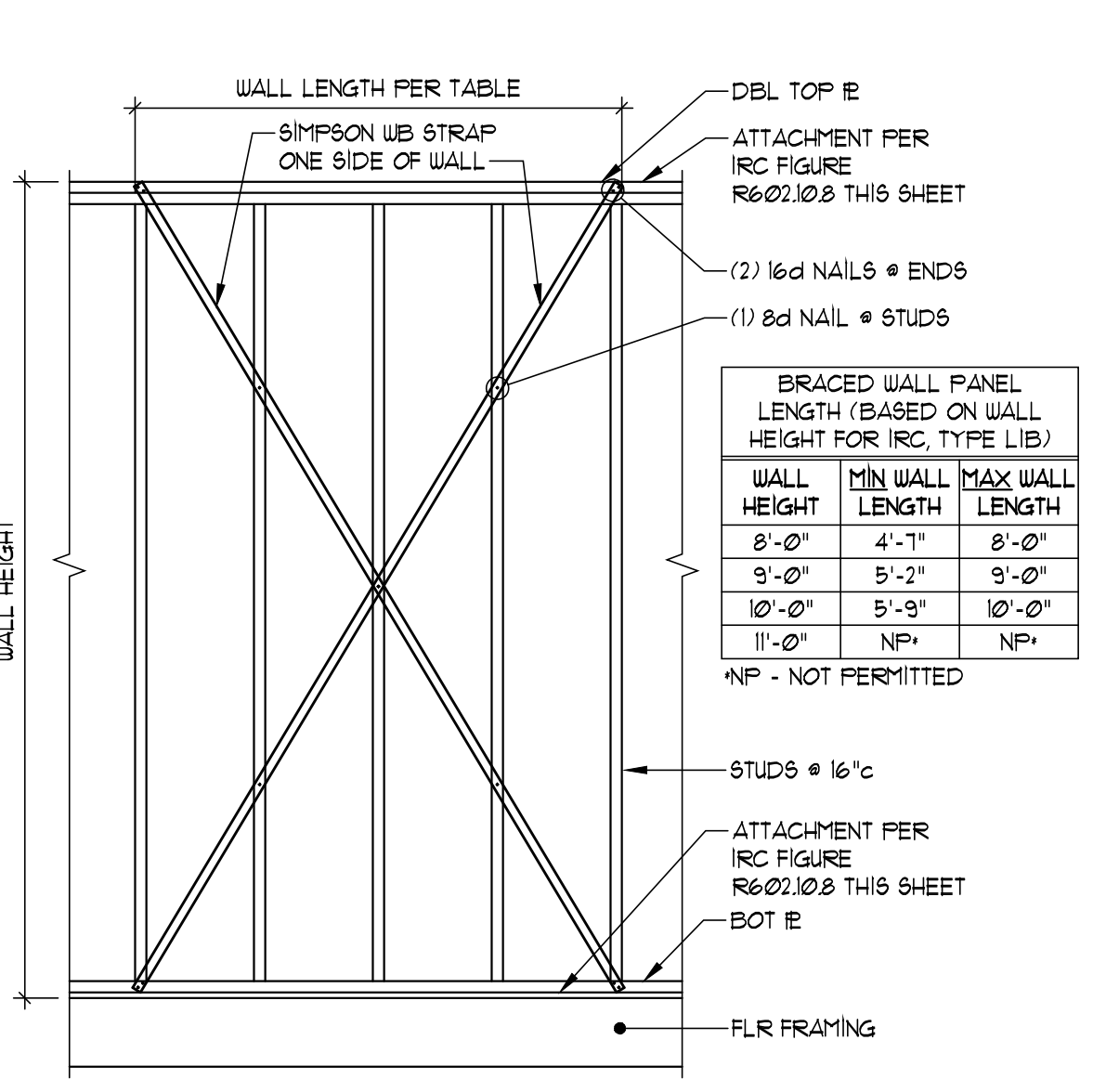
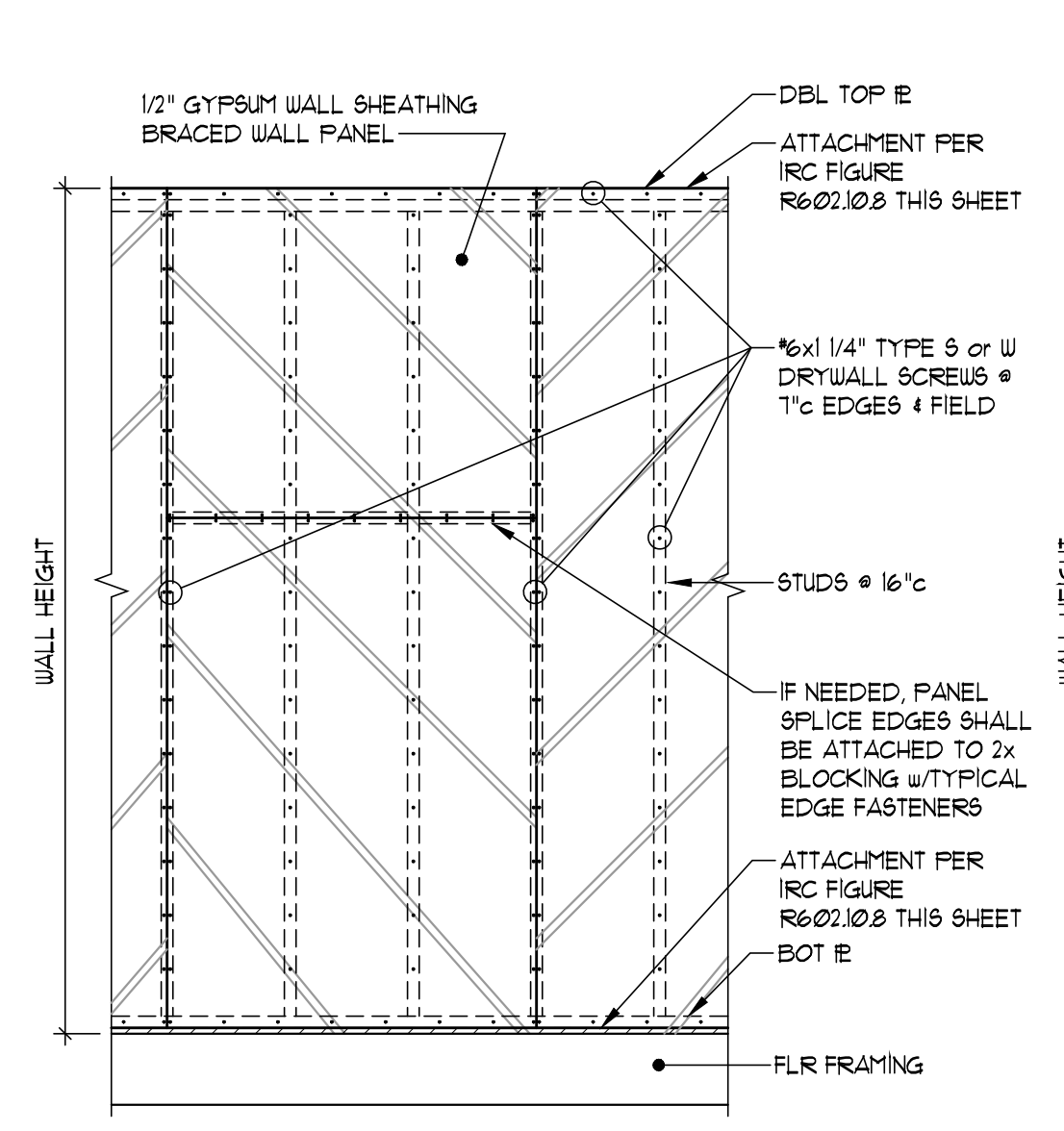
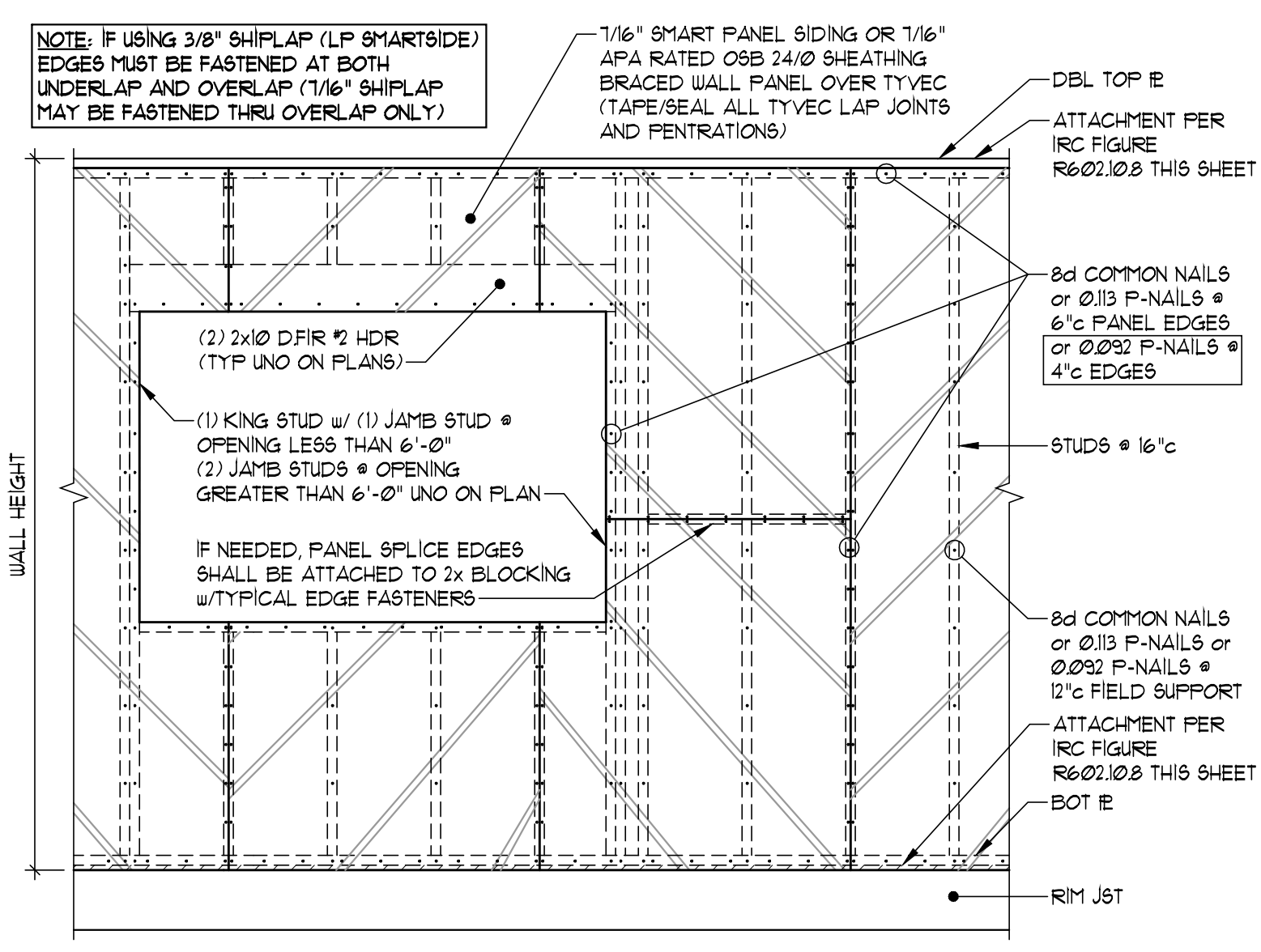


**TYPICAL WINDOW WELL**  
SCALE: 3/4" = 1'-0"



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





BRACED WALL PANEL LENGTH (BASED ON WALL HEIGHT FOR IRC TYPE LIB)		
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"	NP*	NP*

NP - NOT PERMITTED

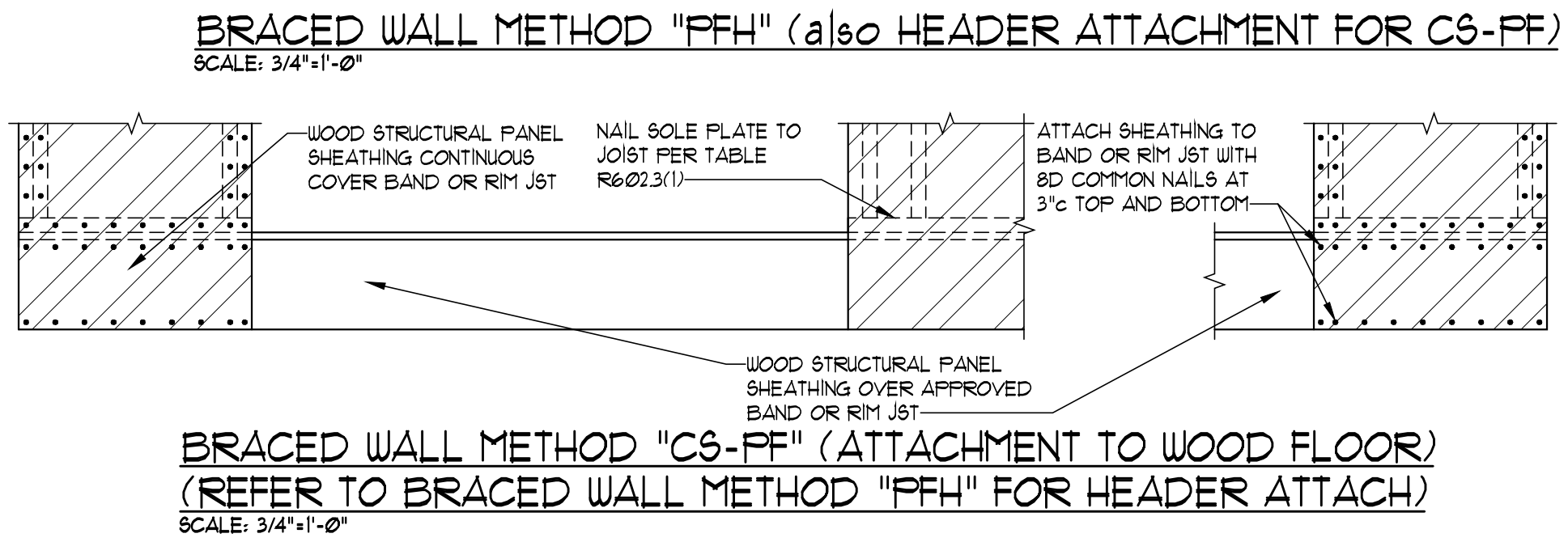
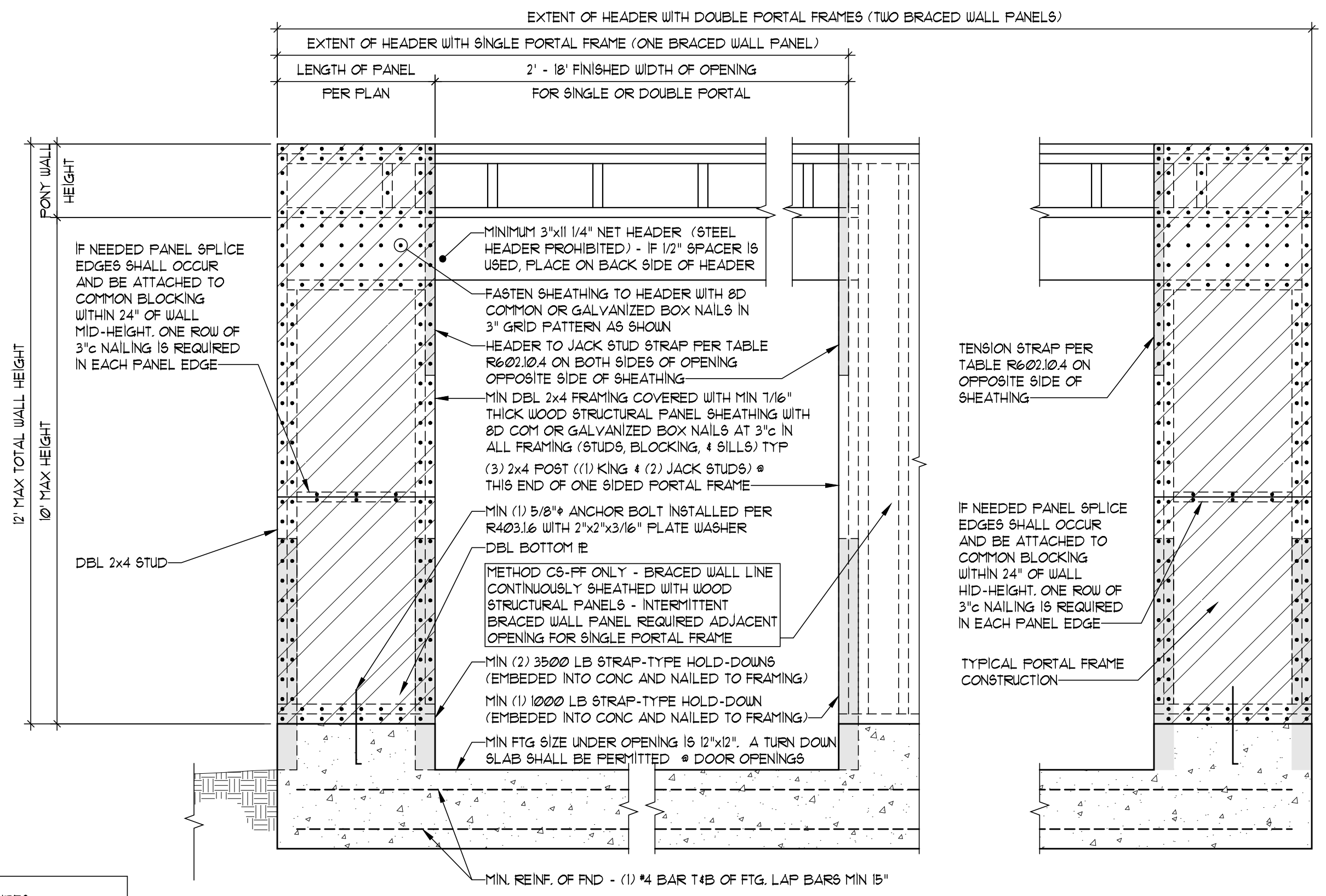
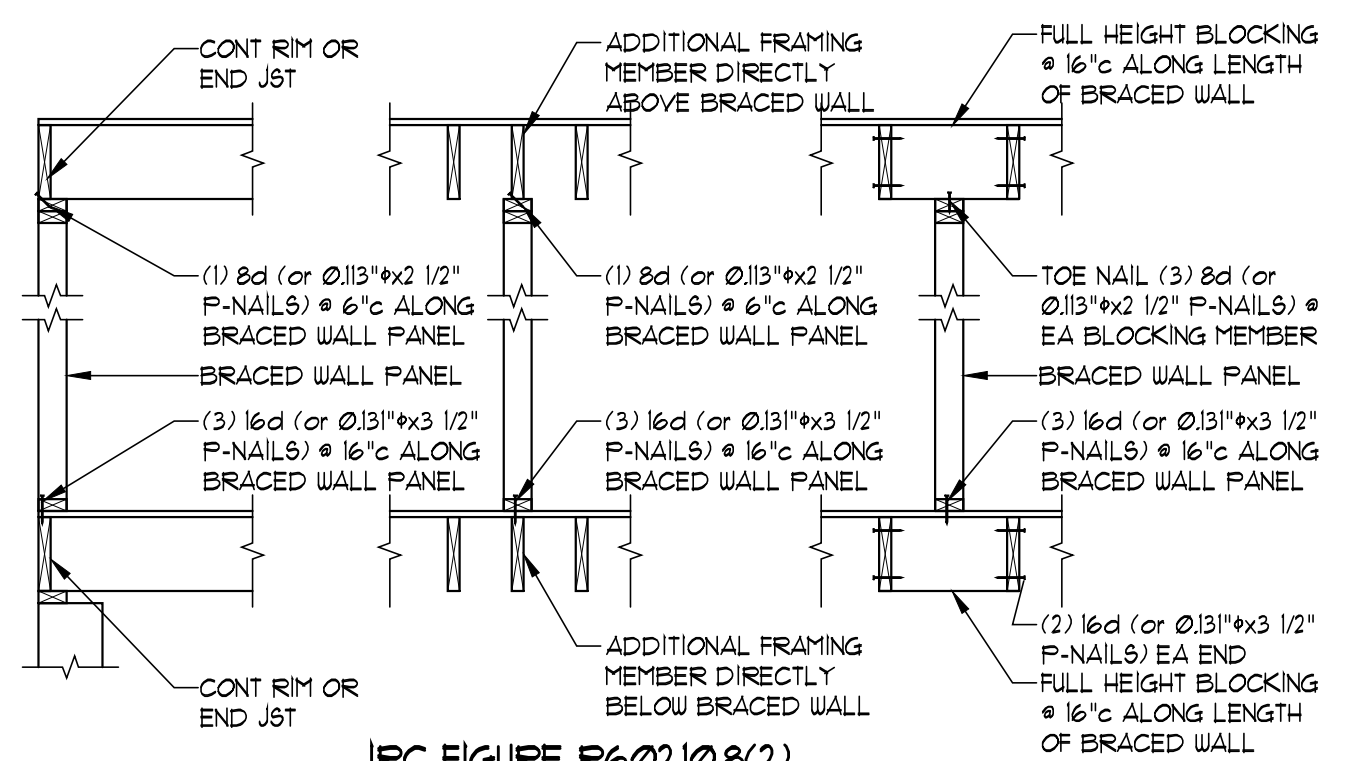
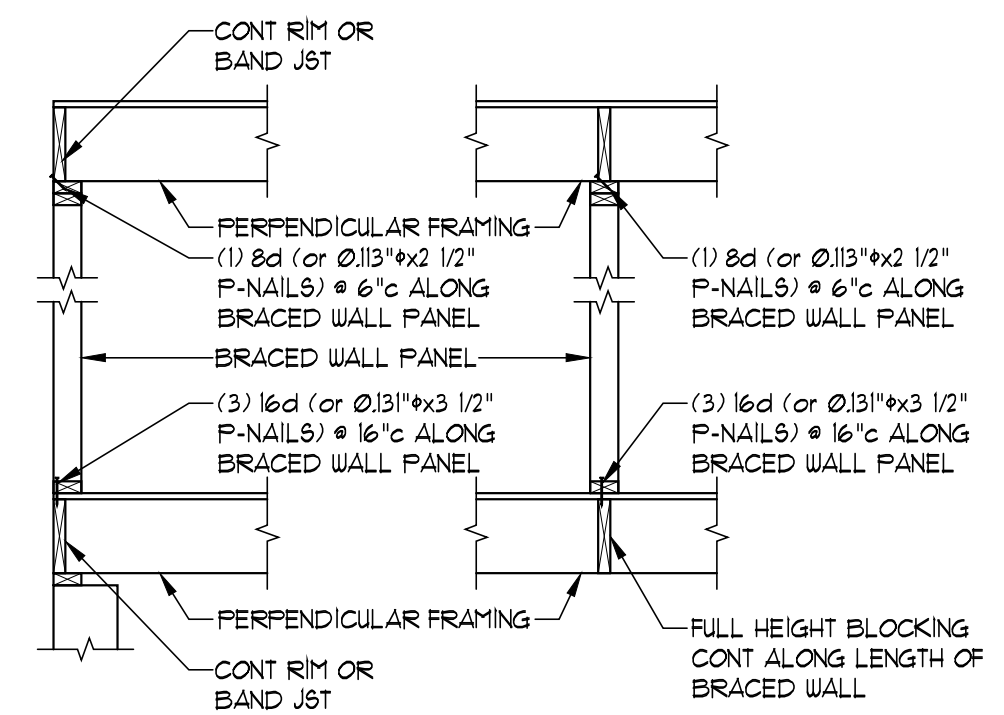
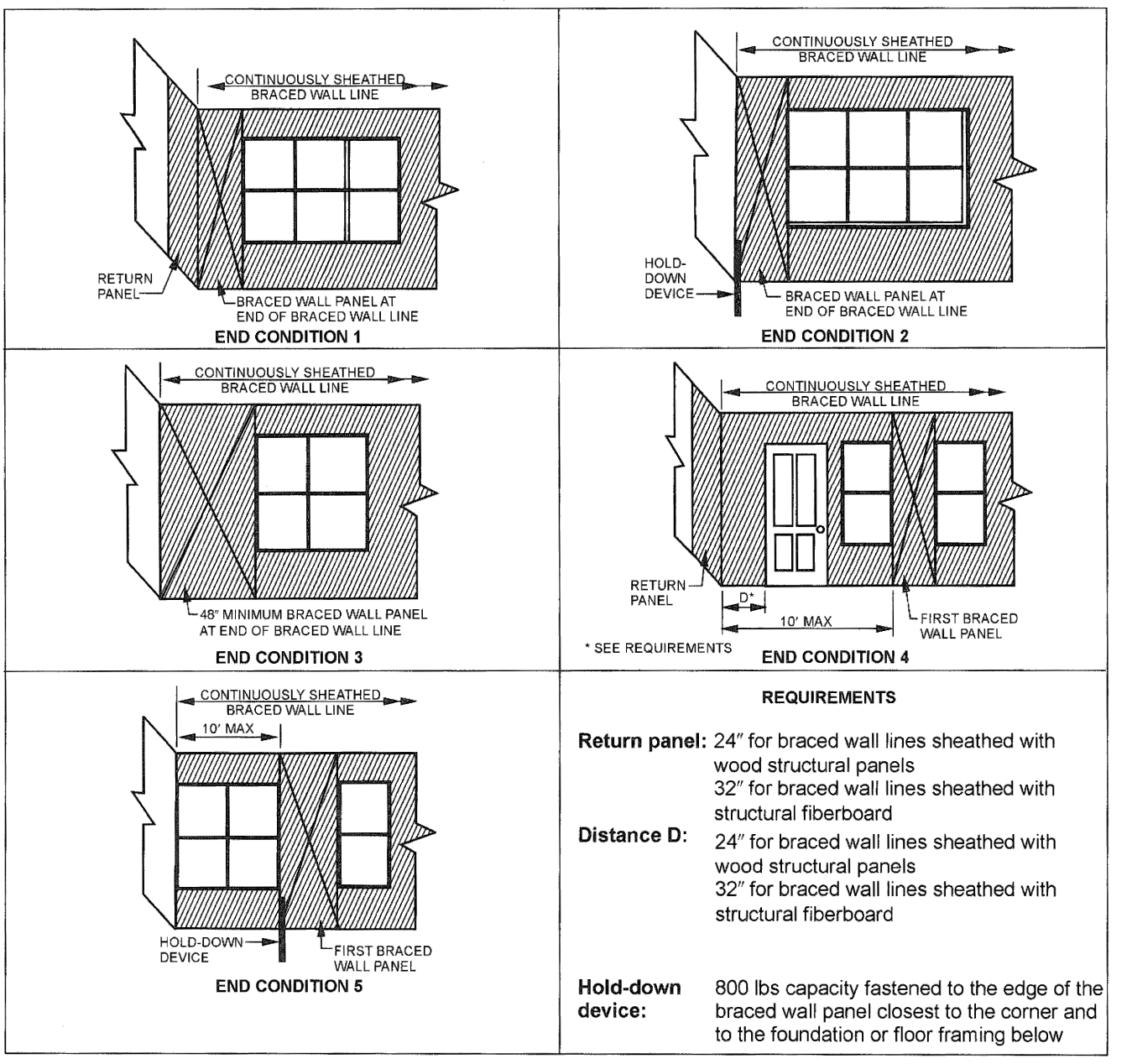


TABLE R602.10.6.4  
TENSION STRAP CAPACITY REQUIRE FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHOD PFH, FIG. AND CS-PF BRACED WALL PANELS

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GAGE	MAXIMUM FONY WALL HEIGHT (FEET)	MAXIMUM TOTAL WALL HEIGHT (FEET)	MAXIMUM OPENING WIDTH (FEET)	TENSION STRAP CAPACITY REQUIRED (LBS) FOR V <sub>w</sub> = 15mph	
				EXPOSURE B	EXPOSURE C
2x4 #2 GRADE	0	10	9	1000	1000
		16	9	1075	2300
		18	9	1215	2850
		9	10	1000	1875
		16	10	2175	4125
		18	10	2500	DESIGN
	2	9	1500	3175	
		16	3375	DESIGN	
		18	3975	DESIGN	
		9	2150	DESIGN	
		12	3175	DESIGN	
		18	3175	DESIGN	
2x6 STUD GRADE	2	12	16	2150	3675
		18	9	2350	DESIGN
		18	9	2400	DESIGN
	4	12	16	2400	DESIGN
		18	9	3600	DESIGN
		18	9	3600	DESIGN



STRUCTURAL DETAILS FOR:

**THE GUNNISON - MODERN**  
2115 SW Hook Farm Dr  
Lee's Summit, MO 64082  
Hook Farms Lot 102