

EXISTING SITE PLAN
1"= 20'-0" SCALE

LEGEND

- BAR FOUND AS DESCRIBED, ORIGIN UNKNOWN UNLESS NOTED
- AIR CONDITIONER
- WATER METER
- ⊕ POWER POLE
- ⊕ SANITARY SEWER MANHOLE
- OHP — OVERHEAD POWER LINE
- SAN — SANITARY SEWER LINE
- X — CHAIN LINK FENCE
- X — WOOD FENCE
- 850 — EXISTING GRADE CONTOUR
- R/W RIGHT-OF-WAY
- B/L BUILDING LINE
- U/E UTILITY EASEMENT
- (P) PLATTED DISTANCE
- (M) MEASURED DISTANCE

DATE: _____ DATE
JOB NUMBER: _____ JOB NUMBER
PREPARED FOR: _____ PREP. FOR

SECTION _____ SECTION TWP _____ TOWNSHIP RD. _____ RANGE

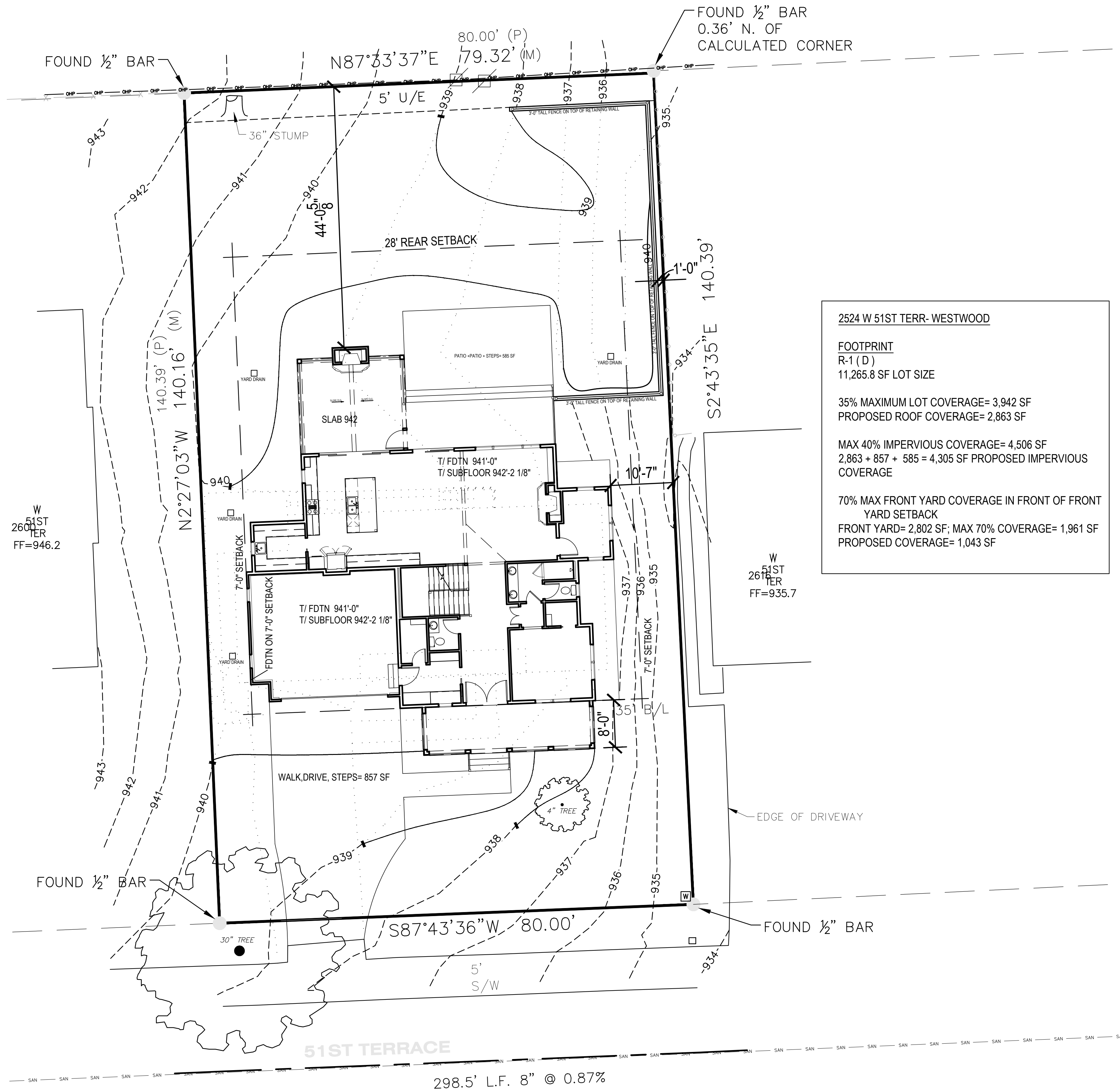
CO. _____ COUNTY STATE _____ STATE

LEGAL DESCRIPTION
(Per deed recorded in Book 202209, Page 000665):

The East 50 Feet of Lot 4 and the West 30 Feet of Lot 5, Block 1, KLASSEN PLACE, a subdivision in the City of Westwood, Johnson County, Kansas, according to the recorded plat thereof.

Notes:

1. Basis of bearings: Kansas State Plane, North Zone.
2. All distances are platted and measured values unless otherwise noted.
3. No title information was provided as a part of this survey.



2524 W 51ST TERR- WESTWOOD

FOOTPRINT
R-1 (D)
11,265.8 SF LOT SIZE

35% MAXIMUM LOT COVERAGE= 3,942 SF
PROPOSED ROOF COVERAGE= 2,863 SF

MAX 40% IMPERVIOUS COVERAGE= 4,506 SF
2,863 + 857 + 585 = 4,305 SF PROPOSED IMPERVIOUS COVERAGE

70% MAX FRONT YARD COVERAGE IN FRONT OF FRONT YARD SETBACK
FRONT YARD= 2,802 SF; MAX 70% COVERAGE= 1,961 SF
PROPOSED COVERAGE= 1,043 SF

ARCHITECTURAL SITE PLAN
1"= 10'-0" SCALE



WULF
FINE CUSTOM HOMES

913-226-0595 kirk@wulffbuilding.com

NOTICE DUTY OF COOPERATION
Release of these plans requires further cooperation among the owner, the contractor, and the designer. Design and construction are complex. Although the designer and their consultants have performed their services with due care and diligence, they can not guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the designer. A failure to cooperate by a simple notice to the designer shall relieve the designer from responsibility for all consequences. Changes made from the plan without the consent of the designer are unauthorized, and shall relieve the designer of responsibility for all consequences arising out of such changes. Contractor shall check and verify all dimensions.

NEW HOME- PRATT
2524 W 51ST TERR
WESTWOOD, KANSAS

REVISIONS		
DATE	Δ	DESCRIPTION

DATE: April 8, 2024

ARCHITECTURAL SITE PLAN

General Notes- as applicable:

All local, state and federal codes and bylaws shall be followed. Refer to code books for more information, general notes below are not all inclusive.
This drawing set is considered to be "builders plans" whereby some aspects of the project's requirements are left to the contractor to understand and implement. As such, it is a requirement that the contractor (builder) be competent in residential construction and have a thorough understanding of the applicable international residential codes (IRC).
The contractor is responsible for meeting the requirements of the building code whether explicitly stated or not. If additional detail or guidance is needed by the contractor or homeowner, a written request for such guidance may be submitted to the engineer.
Refer to the IRC for all requirements not specifically stated in the plans. This includes but is not limited to fire ratings, lighting and ventilation, sanitation, glazing, garages, smoke alarms and carbon monoxide alarms, means of egress, and protection against decay and termites.

Contractor shall:

- Use good quality materials/ equipment per drawings and/ or owner's selection and approval.
- Clarify with Architect and/ or owner any unclear statements or omissions from the drawings prior to construction.
- Contractor to notify Architect and/ or owner if drawings vary from existing conditions.
- Contractor to verify existing conditions in order to align new wall, floor, ceiling and roof planes with existing as indicated on the plans. Verify wall height to provide full bearing for all joists and rafters.
- Be responsible for all work by subcontractors (all references to Contractor are also applicable to all subcontractors working and or providing services or materials for all scopes of construction).
- Be responsible for verifying all subcontractors have proper insurance/ bonds/ licenses.
- Provide and pay for (unless contractor has written agreement otherwise) all materials, labor, equipment, tools, temporary utilities, shipping/ storage, permits, fees, insurance, taxes, demolition, refuse, certificate of occupancy per contractor/ owner written agreement.
- Be compensated by the owner for any changes by the owner (if the change impacts any completed work) and be compensated for added or upgraded items.
- NOT install any material or equipment not approved by owner.
- Refer only to written dimensions; do not scale drawings.
- Call all city utilities to verify placement of their utilities prior to construction.
- Guarantee all work/ material/ equipment free of defects for one year (unless written agreement with owner states otherwise).
- Contractor shall provide and install materials to conform to the IRC.
- The structure is designed to be self-supporting and stable after the building is fully completed. It is solely the contractor's responsibility to execute and determine final erection procedures, sequencing and to insure the safety of the building and its component parts during erection.
- Fabricators and suppliers shall clearly note and highlight changes made in shop drawings, which do not comply with the contract documents.
- Beams, columns, walls and footing centers shall be centered under supporting members (typical unless noted)
- Fabricators and suppliers shall clearly note and highlight changes made in shop drawings, which do not comply with the contract documents.
- Contractor shall ensure that all mechanical, electrical, and plumbing is designed and installed to meet the requirements of the applicable IRC.

Site-work:

Contractor shall be responsible for:

- Presumptive allowable bearing pressure = 1500 psf (per the IRC). All footings and foundations shall bear on native undisturbed soil. Notify engineer if fill or rock (partial or complete) is encountered below any footing bearing locations.
- Erosion control at construction site for duration of construction. Stockpile and protect topsoil from erosion, which shall be used in final grading.
- Removing all vegetation (including large roots/ trunks) from construction area. Protect all vegetation to remain.
- Removing excess excavation materials and obtaining/ placing clean fill material if necessary.
- All fill material to be compacted in 8" layers to a maximum density of 95%. Excavated material free of refuse, organic material or rock shall be suitable for fill under interior and exterior slab and drives
- Excavation and fill to achieve required elevations per drawings.
- Final grading shall be minimum 8" below bottom of siding or stucco and finished grade to slope away from all foundations and shall be sloped away at 5% or 6" min for the first ten feet.
- Installing good sod per owner's choice of grass.
- Initial termite protection at all exterior foundation walls.
- Maximum depth of unbalanced fill is 7'-0" for 8" walls. Do not backfill until first floor framing and flooring installation is complete.
- Surface water shall not be allowed to stand adjacent to or drain towards the foundation under any circumstances. Pavements or graded soils at the perimeter of the building, except as required at exits or as noted, shall be sloped away at 5% or 6" min for the first ten feet.

Thermal and Moisture:

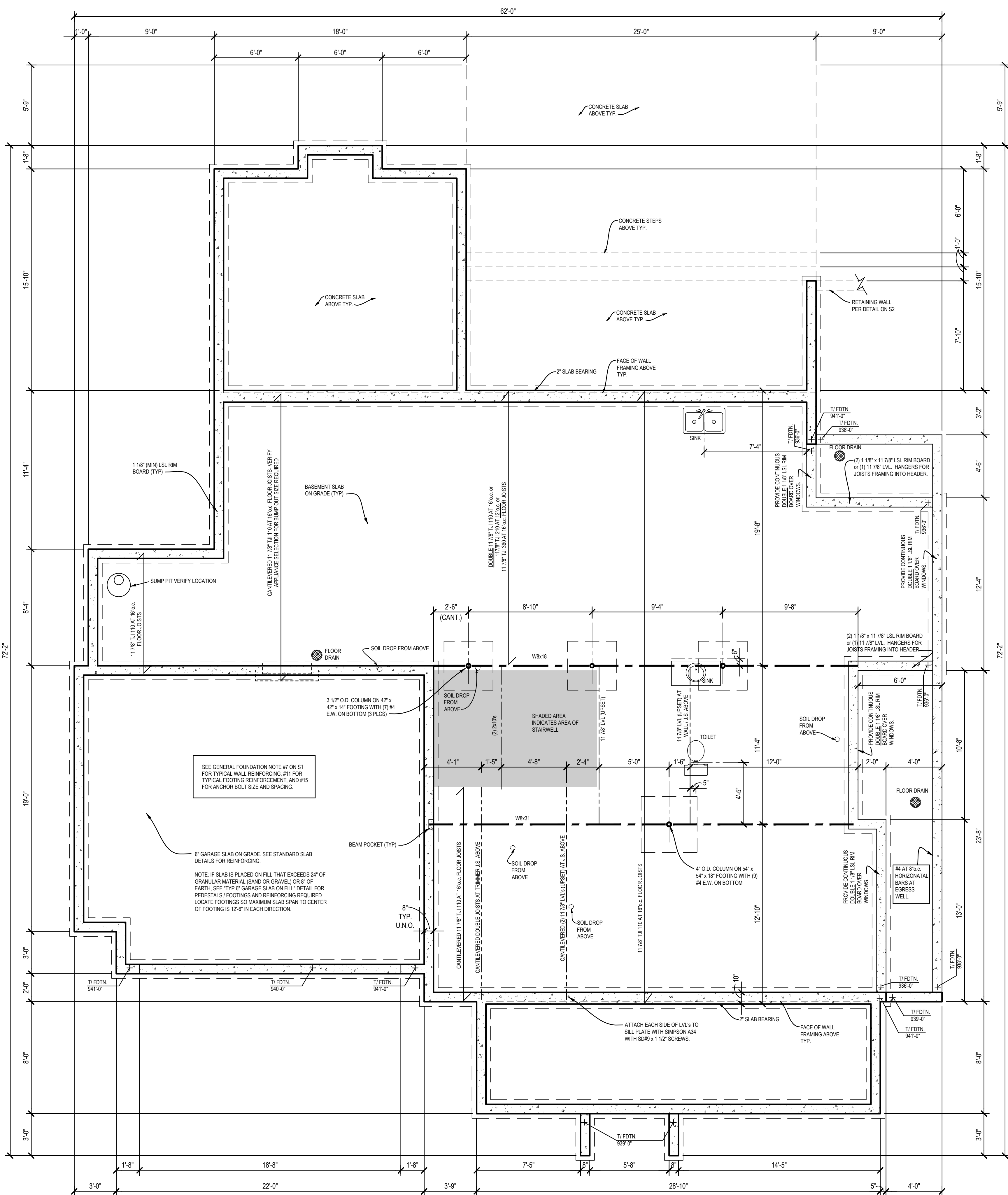
Contractor shall provide and install insulation as follows:

- Vapor retarder on inside face of exterior wall framing, rafters, or ceiling with unconditioned attic above.
- Composition roof shingles per owner's selection.
- Sheet metal flashing (and counter flashing as required) at all roof penetrations, abutting roofs and walls, windows (non-clad), doors (non-clad), fascia board at eaves, rake trim, column caps, trim, transition from lap siding to stone or trim, and roof crickets.
- Standing seam metal roof per owner's selection.
- Continuous soffit vent at eaves and continuous balanced baffled vent at ridge.
- Exhaust fans capable of direct vent to exterior with 5 air changes minimum per hour for each bathroom.
- Fire-damper at fire-resistive walls as required per codes.
- Fire-stop all joints and penetrations per codes.
- Weather- stripping as required at exterior doors.
- Sheet metal cap at dryer exhaust location.
- Approved water-resistive barrier shall be applied over studs or sheathing of all exterior walls per code.
- The building thermal envelope shall be sealed with an air barrier per IRC.
- The building shall be in compliance for water-resistive exterior wall coverings per IRC.

Doors and Windows:

Contractor shall provide/ install:

- Light/ ventilation per IRC.
- Safety glazing per IRC.
- Doors between the garage and living spaces shall be a minimum 1 3/8" solid core or honey combed steel door or a 20 minute fire rated door with self closing hardware and assembly per code.
- Doors, windows and hardware style, option and manufacturer per owner's selection and installed per manufacturer's installation instructions.
- Windows shall have a U factor of .35 or better.
- Garage doors meet Dasma 115 MPH rating.
- All egress windows shall comply with IRC.
- Window sill height for operable windows- minimum 24" where over 6'-0" above grade.
- Window wells comply with IRC.
- Window fall protection requirement per IRC.
- All exterior doors including the door leading from the garage to the dwelling unit shall incorporate the physical security requirements of the local jurisdiction as required.



FOUNDATION PLAN
1/4\"



THIS SEAL APPLIES TO
STRUCTURAL ITEMS ONLY.



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REVISIONS	
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FOUNDATION
PLAN

A2

- Finishes:
Contractor shall provide/install:
- Finish material samples for owner's approval per owners request (contractor and owner to agree on prudent amount of samples to be provided, or contractor to be compensated for more samples).
 - Smooth finish ceilings.
 - 1/2" gypsum board on all interior faces of exterior walls; both faces of interior wall framing and ceilings. Gypsum shall be orientated perpendicular to ceiling joists, rafters and studs over vapor retarder fastened with 6d cooler nail at 7" O.C. maximum at field and 5" O.C. maximum at edge of panel.
 - 1/2" gypsum board on underside of I-joists.
 - 5/8" fire rated gypsum board between garage and any living spaces shall be installed per code.
 - The garage shall be separated from the dwelling and its unfinished attic areas by a minimum 1/2" gypsum board applied to garage side. Where unfinished attic areas are provide above the garage, the supporting columns and beams shall also be protected with 1/2 inch gypsum board or equivalent.
 - Exterior lap siding shall be installed per manufacturer's instructions.
 - All exterior trim shall be primed and painted (or stained) per owners selection with continuous metal flashing on all horizontal edges.
 - Floor assemblies (manufactured floor joists or trusses) shall have 1/2" gypsum board, 5/8" wood structural panel membrane or equivalent on the underside of the floor framing membrane; taped and mudded. This is not required of crawl spaces with no mechanical appliances or storage.
 - Wall coverings shall be water-resistant and comply with IRC.

- Equipment:
Contractor shall provide/ install:
- All appliances as selected by owner (unless contractor has written agreement which states otherwise).
 - All operating and maintenance (O&M) instructions and warranties of appliances/ fixtures (which the contractor was responsible for providing or installing) to the owner at certificate of occupancy time.
 - Smoke alarms per code IRC.
 - Sump pit and pump- provide electrical receptacle with GFCI protection. Drain lowest footing to be site located.
 - All bathroom to receive exhaust fans- 50 cfm directly to outside. Point of discharge minimum 3'-0" from any openings.
 - Carbon monoxide alarms shall be provided in dwelling units where fuel fired appliances are installed or which have attached garages. Alarms shall be provided outside each separate sleeping area in the immediate vicinity of the bedrooms. Alarms shall comply with the UL2034. Install per manufacturer's instructions and shall be in accordance with IRC.
 - Whole house ventilation required where under 3 ACH- R303.
 - Refrigerant access ports on AC units require locking caps.
 - Kitchen exhaust hoods over 400 CFM will require make-up air.

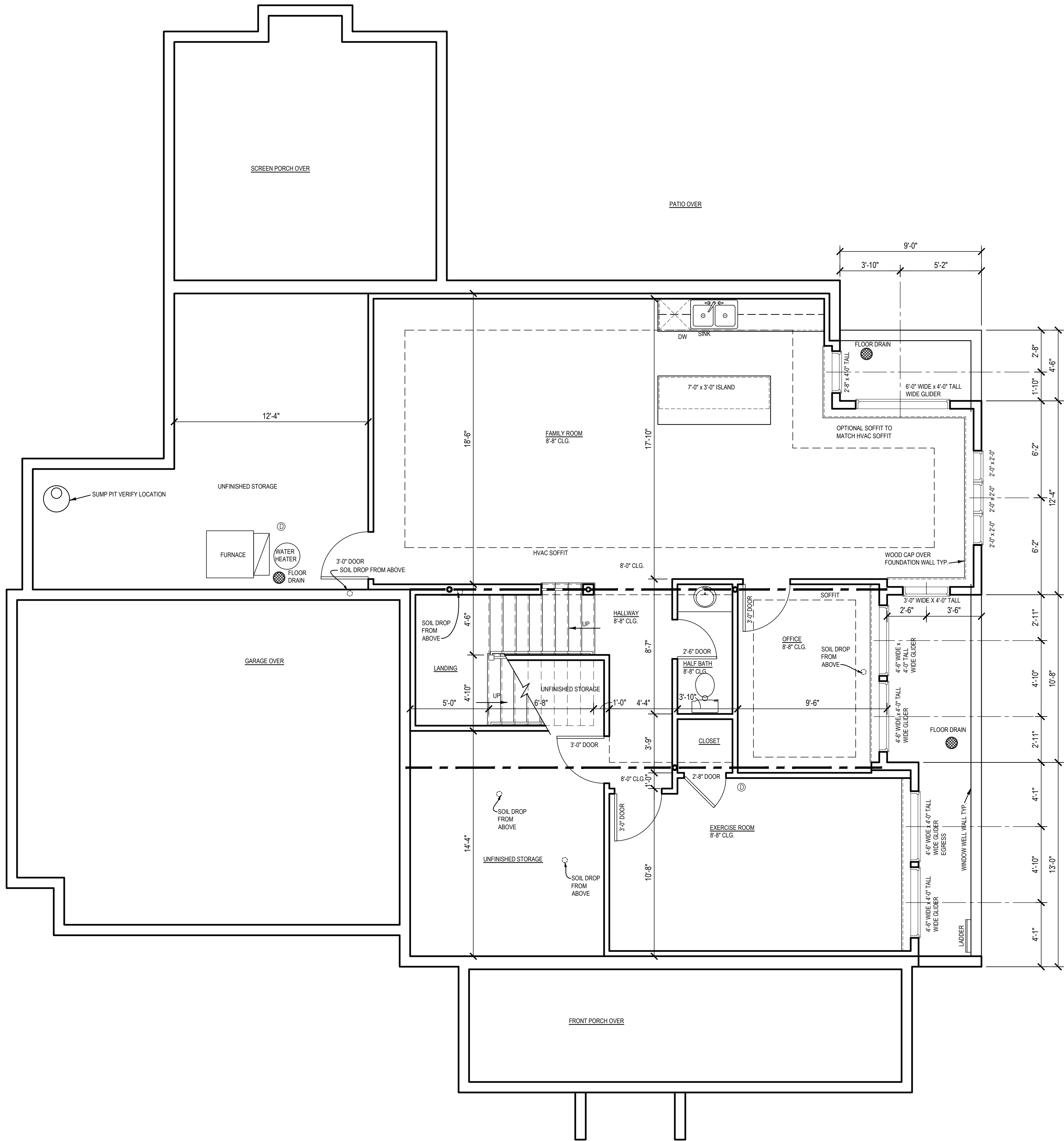
- Mechanical:
Contractor to provide/ install:
- Cleanouts as required per code.
 - Water supply system of copper type "M" hot and cold trunk lines (unless contractor has written approval from owner to use other type of piping), 1/2" branch lines with hammer heads and shut-off valves at each fixture (hot and cold each to have shut-off valve).
 - Soil waste lines shall be cast iron , PVC lines below concrete slab (unless contractor has written approval from owner to use other type of piping).
 - Vent lines may be of PVC with weather caps per code.
 - All fixtures/ appliances/ equipment per manufacturer's installation instructions and codes.
 - Frost-proof hose bibs per owners selected locations and codes.
 - Pressure reducing valve and thermal expansion tank as required by code.
 - Anti-scald on shower/ tubs.
 - Backwater valves as required per code and access shall be provided.
 - Balance and complete air flow and return systems per code.
 - All equipment/ appliances to be tested before certificate of occupancy.
 - Gas at range, clothes dryer, and other gas fixtures per code (unless contractor has written approval from owner to omit these lines).
 - Ductwork shall have an R-8 minimum.
 - Bathroom, kitchen, and dryer exhausts terminations- minimum 3'-0" from all windows and 10'-0" from air intakes.
 - Maximum dryer duct length 35'-0".
 - Radon mitigation as required.
 - A whole house mechanical ventilation system is required if the residence is tested with a blower door test and determined to have an air-infiltration rate of less than 5 air changes per hour.
 - A galvanized steel pan for approved use shall be installed where damage would occur from a leak from a storage tank type water heater with discharge to an approved location.
 - All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed per IRC.
 - Minimum mechanical efficiency rating for ac equipment is 13 seer as required per IRC.
 - Minimum mechanical efficiency rating for forced air furnace is 78% as required per IRC.

- Electrical:
Contractor shall:
- Provide GFCI temporary construction service.
 - Provide and install GFCI outlets per codes.
 - Provide 4-wire conductors at range and clothes dryer.
 - Bury exterior power lines per owner's approval.
 - Install/ provide all electrical work/ material per codes.
 - Provide/ install smoke alarms per code.
 - Multi- wire branch circuits must be separate phases, grouped in panel, and be provided with a means for simultaneous disconnect.
 - Outdoor receptacle required at any size deck.
 - If foyer is more than 60 sq. ft. an outlets is required for each wall space over 3'-0" in width.
 - Tamper resistant receptacles required for all outlets less that 5'-6" above floor.
 - Recessed lighting shall be sealed to prevent leakage between conditioned and unconditioned space.

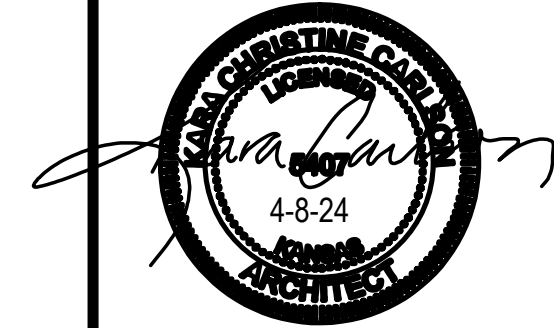
TABLE N1102.1.2 (R402.1.2) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT									
CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC b	CEILING R-VALUE	WOOD FRAMED WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE c	SLAB R-VALUE & DEPTH d	CRAWL SPACE WALL R-VALUE c
4 EXCEPT MARINE	0.32	0.55	0.40	49	20 OR 13+5 h	19	10/13	10, 2 FT	10/13

b. The fenestration U-factor column excludes skylights.
c. 10/13 means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation on the interior of the basement wall.
15/19 means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation on the interior of the basement wall.
Alternatively, compliance with 15/19 shall be R-13 cavity insulation on the interior of the basement wall plus rR5 continuous insulation on the interior or exterior of the home.
d. R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs, as indicated in the table. The slab edge insulation for heated slabs shall not be required to extend below the slab.

PLANS PER IRC 2018



LOWER FLOOR PLAN
1/4" SCALE
1,083 FINISHED SF



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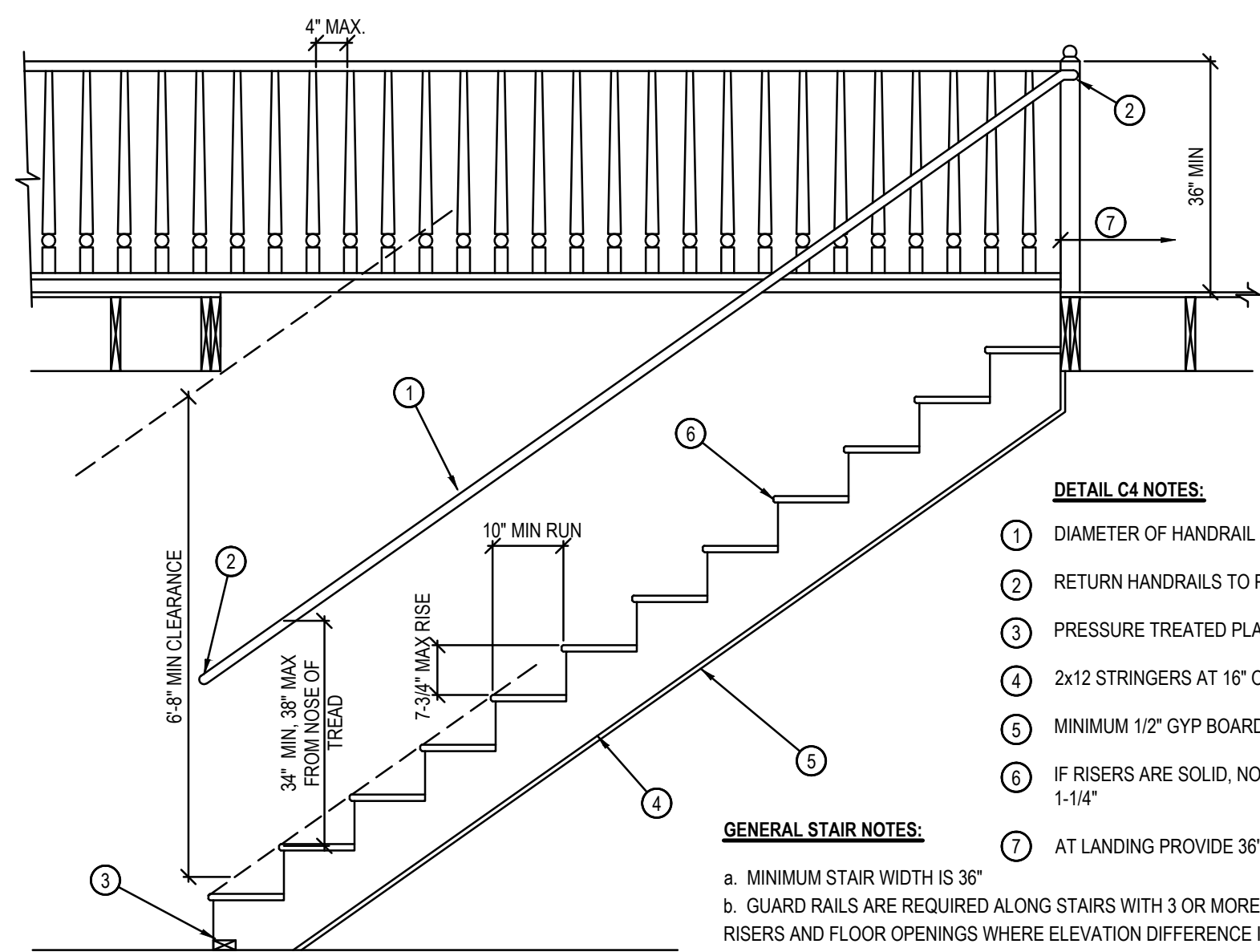
NEW HOME- PRATT
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LOWER LEVEL
PLAN

A3



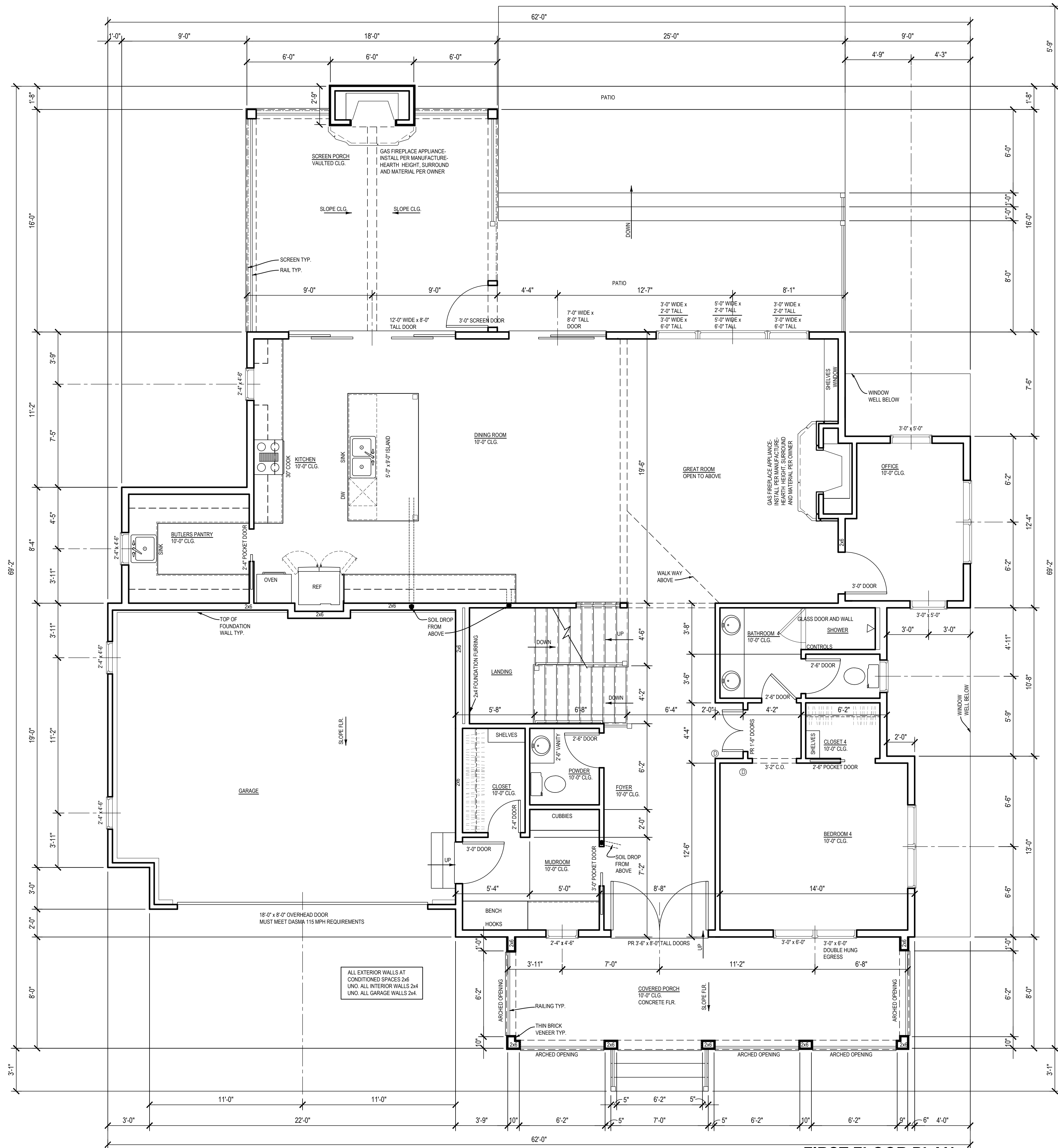
STAIR DETAIL
1/2" SCALE

DETAIL C4 NOTES:

- 1 DIAMETER OF HANDRAIL FROM 1-1/4" TO 2"
- 2 RETURN HANDRAILS TO POST OR WALL
- 3 PRESSURE TREATED PLATE
- 4 2x12 STRINGERS AT 16" O.C. MAX.
- 5 MINIMUM 1/2" GYP BOARD UNDER STAIRS
- 6 IF RISERS ARE SOLID, NOSING IS REQUIRED: 3/4" TO 1-1/4"
- 7 AT LANDING PROVIDE 36" MINIMUM OF CLEARANCE.

GENERAL STAIR NOTES:

- a. MINIMUM STAIR WIDTH IS 36"
- b. GUARD RAILS ARE REQUIRED ALONG STAIRS WITH 3 OR MORE RISERS AND FLOOR OPENINGS WHERE ELEVATION DIFFERENCE IS GREATER THAN 30".
- c. ALL STAIR CONSTRUCTION SHALL SATISFY IRC REQUIREMENTS.



FIRST FLOOR PLAN
1/4" SCALE
1,805 INTERIOR SF



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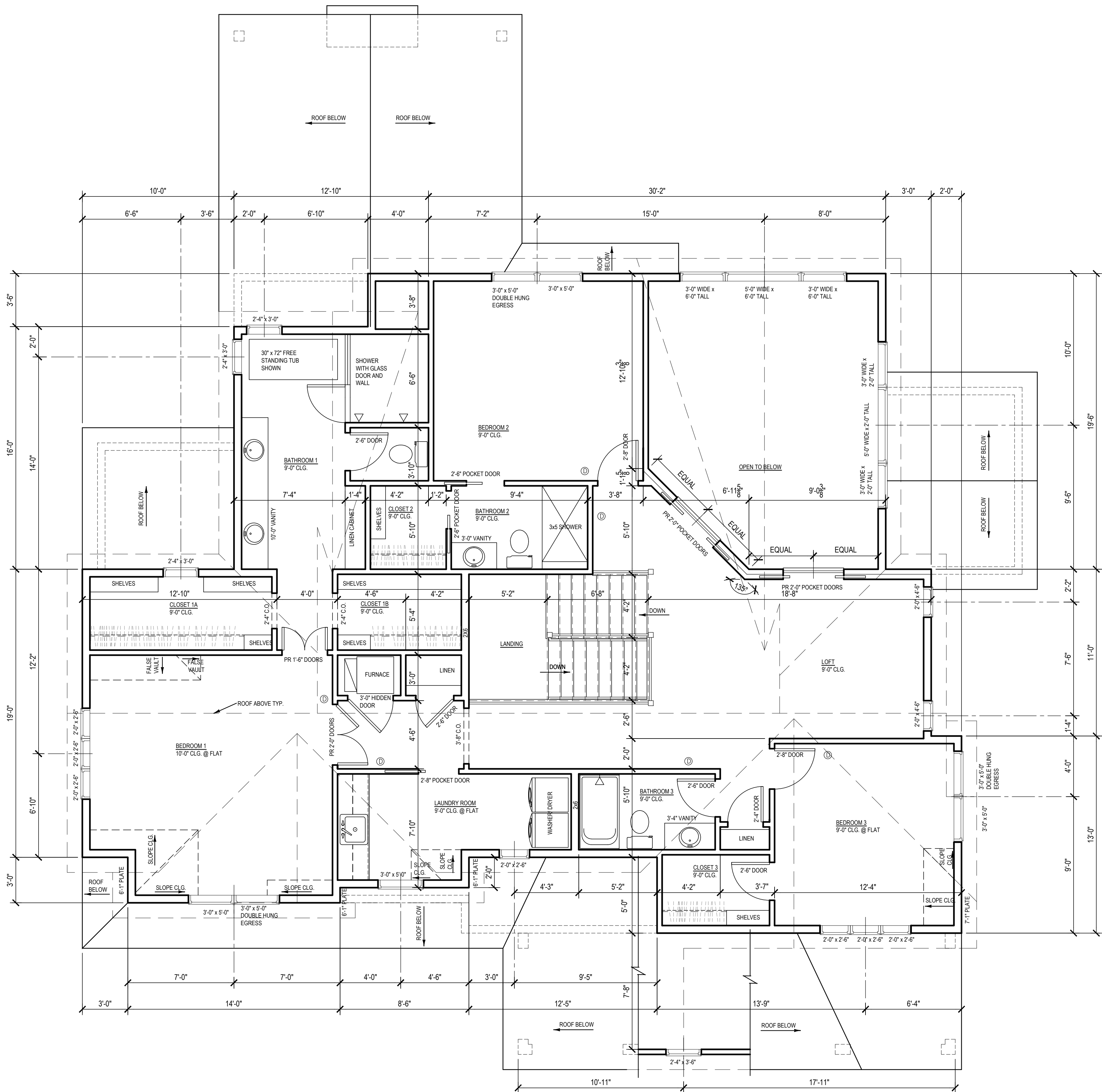
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FIRST FLOOR
PLAN

A4



SECOND FLOOR PLAN
1/4" SCALE
1,651 SF



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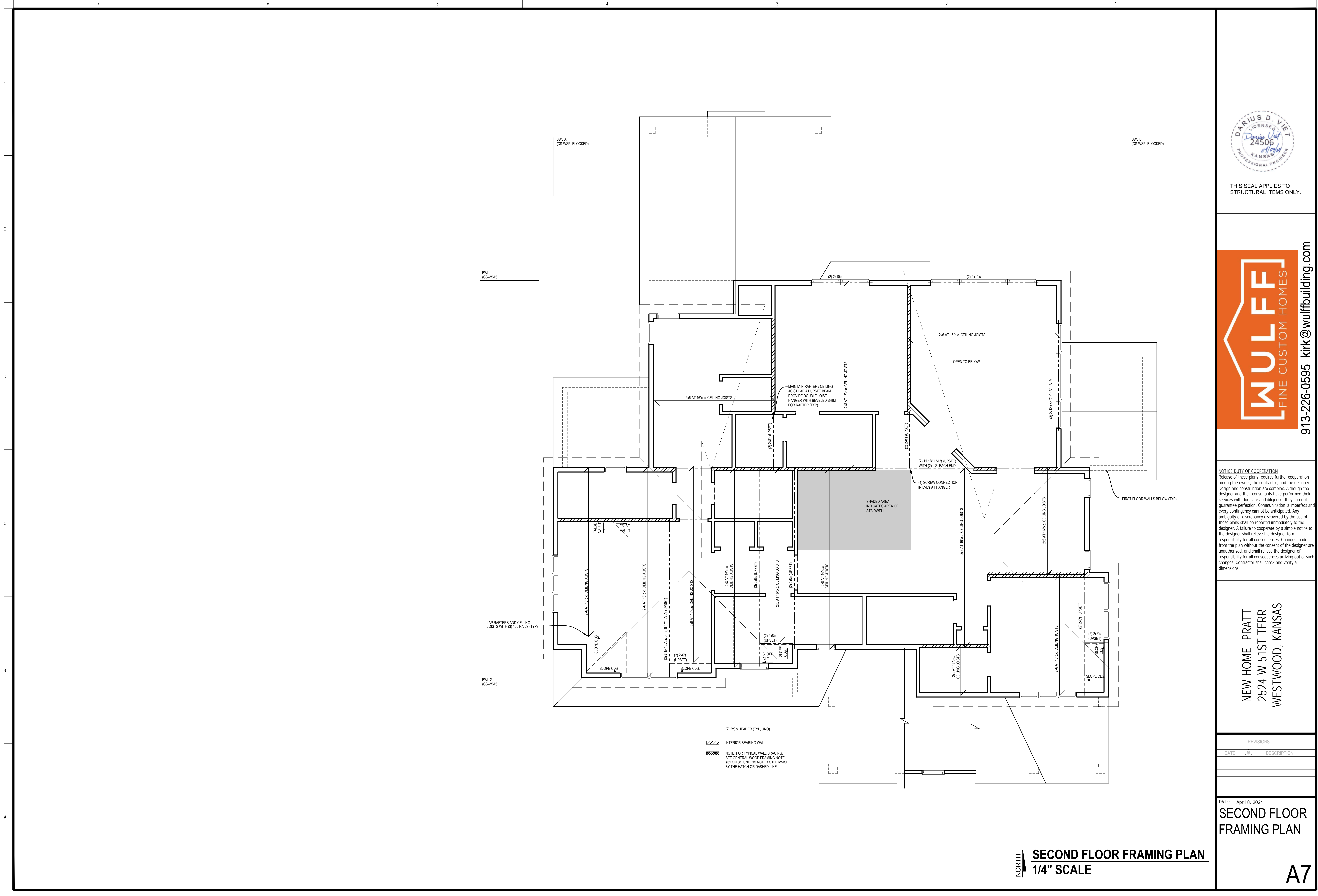
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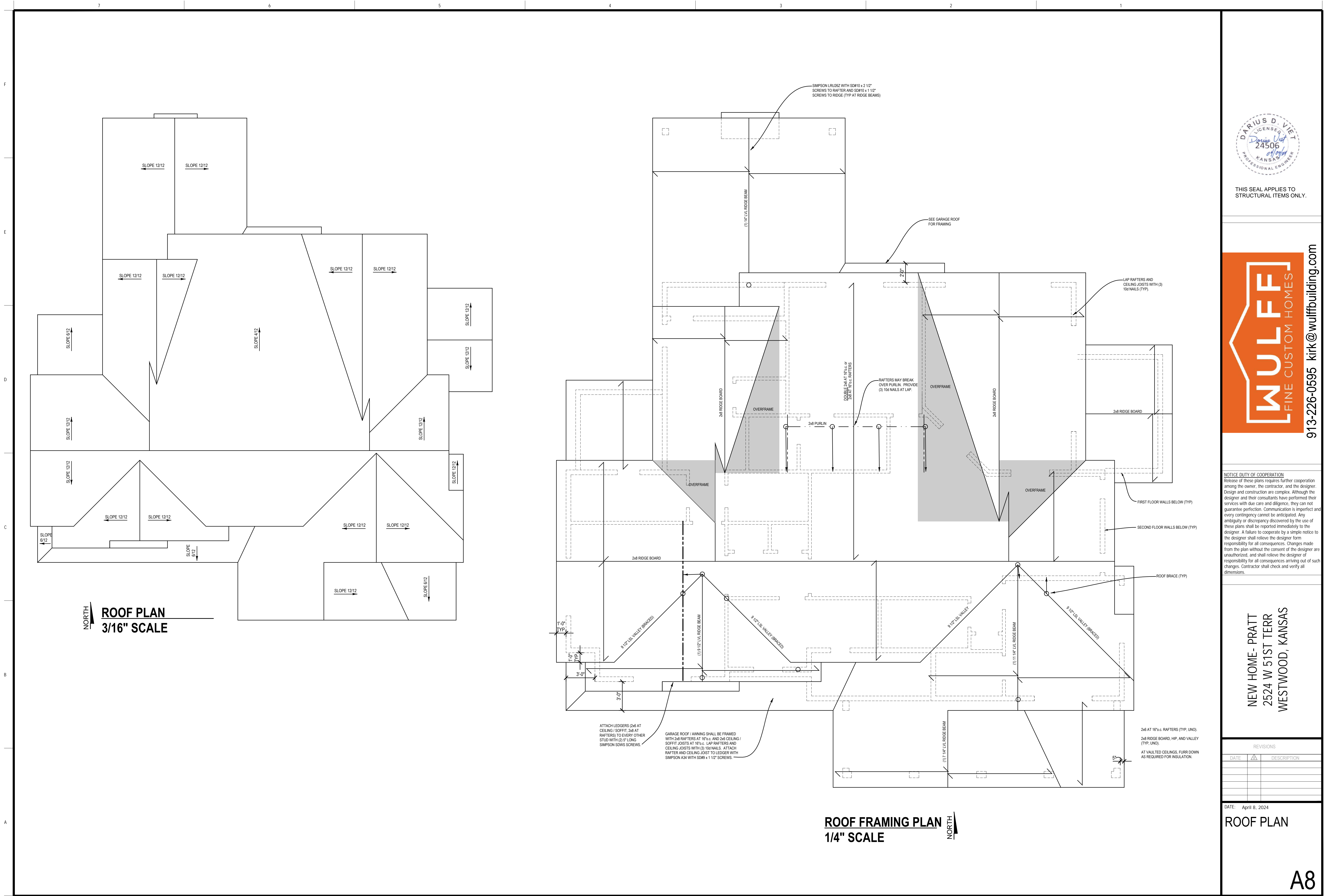
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DATE	DESCRIPTION	

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SECOND FLOOR PLAN

A6







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REVISIONS	
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ELEVATIONS



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REVISIONS		
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DATE: April 8, 2024
ELEVATIONS

STRUCTURAL NOTES

Building Code

All construction shall comply with the 2018 International Residential Code (IRC) and its appropriate supplements.

Design Loads

Roof: 10 psf dead load; 20 psf live load
Ceiling: 5 psf dead load; 10 psf live load (non-storage attic)
Floor: 12 psf dead load; 40 psf live load
Wind: 115 mph, Exposure B

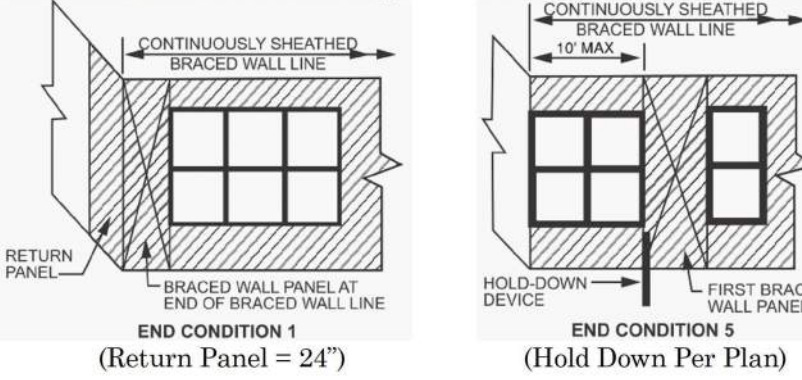
Foundation Notes

- Foundations shall bear on undisturbed soil capable of supporting 1,500 psf without undue settlement or heaving. The soil bearing capacity shall be field-verified by the contractor by means of a qualified testing lab (approved by the owner).
- If the existing site topography or soil conditions vary from the conditions shown on the drawings, it is the responsibility of the contractor to notify the Engineer so that appropriate modifications can be made to the design.
- Concrete for foundation walls, porches, steps, and garage floor or exterior slabs shall be air-entrained at 5% to 7% and have a minimum 28-day compressive strength of 3,500 psi. Concrete for footings shall be minimum 3,000 psi, and concrete for basement or interior slabs shall be minimum 2,500 psi.
- Reinforcing steel shall be ASTM A615, Grade 40 unless noted otherwise on the drawings. Corner bars shall be provided at all footing and wall corners and footing steps. All bars shall be lapped a minimum of 24".
- Welded wire mesh reinforcing shall be ASTM A1064 cold drawn wire.
- Standard concrete cover of bars, unless noted otherwise, shall be:
 - Where earth-formed: 3"
 - Walls and slabs (not exposed to earth or weather): 3/4"
 - Walls and slabs (exposed to earth or weather):
 - #5 and smaller: 1 1/2"
 - #6 and larger: 2"
 - Other: 2"
 - Minimum coverage for all bars shall be the nominal bar diameter.
- Concrete foundation walls shall be 8" thick (unless shown otherwise on the drawings) with a maximum height of 9', full height from foundation to floor framing, and reinforced per Johnson County requirements as follows:
 - #4 at 12" o.c. vertically. Place reinforcement 2" from the inside face of the wall.
 - #4 at 24" o.c. horizontally, with (1) #4 located within 12" of the top and bottom of the wall.
 - Walls retaining 6" or less of soil (e.g. garage or walk-out basement) may have #4 at 36" o.c. vertically and horizontally.
 - Vertical dowels shall be the same size and spacing as the vertical wall reinforcement. Dowels shall extend 6" minimum into the footing and 18" minimum into the wall.
- Provide no less than (2) #4 bars around all window and door openings. Such bars shall extend at least 24" beyond the corners of openings.
- All foundation walls shall be placed continuous unless vertical construction joints are provided between separate placements of concrete.
- Foundation walls should not be backfilled unless the top of the foundation wall is fully supported by the floor framing or other bracing system.
- Foundation walls shall bear on a 16" wide x 8" thick continuous footing with (2) #4 continuous at 3" clear from bottom.
- Footings shall be stepped as required to provide minimum 36" frost depth with lapped reinforcement across steps.
- Foundation drainage shall comply with IRC Section 405.
- Foundation walls that retain earth and enclose interior spaces and floors below grade shall be damp proofed from the top of the footing to finished grade with a bituminous coating in accordance with R406.1.
- Unless noted otherwise, all framed walls shall be attached to the foundation with 1/2" diameter, F1554 Grade 55 anchor bolts with a maximum spacing of 36" and minimum embedment of 7" into concrete. The bolts shall be placed within the middle third of the plate, and located no more than 3 1/2" nor more than 12" from the end of each plate member, with a minimum of 2 anchor bolts per plate member. A nut and washer shall be tightened on each anchor bolt. Provide foam barrier between top of concrete wall and sill plate.
- Connect all horizontal concrete reinforcing bars to existing concrete footings and foundation walls with #4 dowels. Dowels into concrete shall be attached with Simpson SET-3G adhesive. Installation shall be in strict accordance with manufacturer's instructions. Minimum embedment shall be 5".
- Any fill material installed under the basement or garage floor slabs shall be properly compacted to prevent settlement. At the contractor's option, a properly designed structural slab may be installed over any fill that has not been compacted.
- Reinforce concrete slabs on grade per Typical Slab Detail.
- At all interior slab corners, unless such corner is relieved by a construction joint, one #4 bar x 3'-0" long shall be placed diagonally at the mid-depth of the slab.
- Control joints shall be located in the interior slabs on grade to minimize random cracking. Controlled areas should be approximately square and no greater than 12 long on any side. These joints shall be tooled into the slab or sawcut within 8 hours of placing the slab. Coordinate location of control joints with architect for joints in floor tile or other floor finishes as required.
- Place slabs on grade on 4" of compacted 1/2" to 3/4" clean graded gravel. Provide a 6 mil polyethylene vapor retarder between slab and compacted gravel (not required at garage slabs).
- Use 4"x4" steel shims in beam pockets.
- Provide 30# felt bond break around all steel columns where in contact with the slab on grade.
- The contractor is responsible for taking the appropriate steps to minimize the effects of expansive soil on the foundation, slabs, and wood framed portions of the house. This includes isolating the floor slab at columns and at the foundation walls. Also, partition walls in the basement should not be constructed tight against the framing above.
- Surface water should drain away from the foundation walls, and the grade shall fall a minimum of 6" in the first 10 feet. If this requirement cannot be obtained due to lot lines, walls, etc., drains or swales shall be constructed to ensure drainage away from the structure. Note that any impervious surfaces within 10 feet of the foundation shall have a minimum 2% slope away from the house.

Wood Framing Notes

- Structural steel beams shall be ASTM A992, Grade 50. Miscellaneous structural steel shall be ASTM A36 (Grade 36). Hollow structural steel (HSS) members shall be ASTM A500 (Grade 46). Steel pipe columns shall be ASTM A501 (Grade 36) or ASTM A53, Type E or S, Grade B (Grade 35).
- All dimensional lumber shall be Douglas Fir Larch #2 or better, unless otherwise noted on the drawings.
- All wall studs shall be continuous between floor and ceiling/roof diaphragm. Exterior wall studs shall be 2x6 at 16" o.c., and interior wall studs shall be 2x4 at 16" o.c., unless noted otherwise on the drawings. Studs that exceed 10'-0" shall be 2x6 at 16" o.c., unless noted otherwise.
- All I-joint framing members shall be verified by the manufacturer for the spans, loads, and spacings shown. I-joists shall bear the trademark of the American Plywood Association (APA) and shall be designed and fabricated in accordance with the referenced standards. Minimum 1 1/2" LSL rim board at deck ledgers; minimum 1 1/8" LSL rim board otherwise. Follow manufacturer's recommendations for connections, web stiffeners, backer blocks, etc.
- Per IRC Section R302.13: the underside of the floor framing members shall be provided with a 1/2" gypsum board membrane or 5/8" wood structural panel membrane, unless the floor framing is constructed of dimensional lumber or structural composite lumber equal to or greater than nominal 2x10 dimension or the framing is located over a crawlspace not intended for storage or for the installation of fuel-fired or electric-powered heating appliances. Fireblocking shall be installed per IRC R302.11 and draftstopping per IRC R302.12. Unless noted otherwise, common nails shall be used:
 - 8d = 0.131" x 2 1/2"
 - 10d = 0.148" x 3"
 - 16d = 0.162" x 3 1/2"
- Provide jack studs under beams to match (or exceed) width of beam being supported, (2) jack studs minimum, unless otherwise noted on plans. For headers, provide (1) jack stud and (1) king stud minimum, unless otherwise noted on plans (J.S. = jack stud(s); K.S. = king stud(s)).
- Provide solid blocking ("squash blocking") under all columns and jack and king studs with solid bearing on a foundation wall, sill plate, or beam.
- Provide rim joist or solid blocking between floor joists at all joist bearing locations. All solid blocking and rim joist material shall be the same size and grade as the joists. Attach rim joist to exterior wall top plates at braced wall panels with 8d toenails at 6" o.c.
- Floor joists below partition walls running parallel to the joist span, kitchen islands, or bathtubs shall be doubled and nailed together with 10d nails at 12" on center in two rows staggered or per manufacturer's specs.
- Where joists lay over partition walls and beams face nail with (3) 10d nails. Unless noted otherwise, align parallel roof rafters with ceiling joists and face nail with (3) 10d nails.
- Sole plate at braced wall panels shall be nailed to joist or blocking with (3) 16d nails at 16" o.c.
- Toenail all floor joists to sill plate or beam with (3) 10d nails (unless noted otherwise by I-joint manufacturer), staggered to minimize splitting. Toenail all rafters to top plate or beam with (3) 10d nails, staggered to minimize splitting. Additionally, fasten at least one rafter at 4'-0" on center to the top plate or beam with a Simpson H2.5A or 6" Simpson SDWC screw, with a minimum of (2) attachments per sheet of roof sheathing. For the first 4'-0" at a roof edge, fasten each rafter with a Simpson H2.5A or 6" SDWC.
- Rafter birdsmouth cut shall be limited to 1/4 of the rafter depth with a maximum cantilever up to 24", unless noted otherwise.
- All nailing not indicated on the drawings shall conform to the nailing schedule of the governing building code. Spacing, end distances, and edge distances of nails and spikes shall be as shown as to avoid the unsound splitting of the wood.
- All non-loadbearing stud walls in the basement shall be provided with a 1" minimum vertical expansion joint to allow for heave in the floor slab. Walls shall not be tight between the slab and the framing above.
- All wood framing members exposed to weather or in contact with concrete or masonry and less than 8" from the exposed ground shall be preservative treated (Southern Yellow Pine #2 or better, unless noted otherwise). Floor beams within 12" or floor joists or floor sheathing within 18" of the exposed ground in crawlspaces shall be preservative treated. Wood beams in concrete or masonry beam pockets shall be preservative treated or be provided with a minimum 1/2" air gap on top, sides, and ends. Attachments to treated lumber shall be with galvanized fasteners and/or connectors. Field-cut ends, notches, and drilled holes shall have an AWPMA F4 approved preservative (e.g. copper naphthenate) field-applied until the wood no longer absorbs the preservative.
- Sliding shall have a 6" minimum clearance from finished grade.
- All floor & ceiling joists or rafters that butt into the side of a header, beam, or ledger shall be attached with standard joint hangers, unless noted otherwise.
- All ridge, hip, and valley members shall be 2x members with a depth not less than the cut end of the rafter, unless noted otherwise. Hip and valley rafters shall be supported at the ridge by a 2x6 "tee" brace to a bearing partition.
- To resist wind uplift, minimum 1x4 collar ties at maximum 48" or ridge straps (e.g. Simpson CS20 with 12" minimum end lengths) shall be installed in the upper 1/3 of the attic. Rafter and ceiling framing shall comply with sections R02.4 and R02.5 of the IRC.
- Where ceiling joists are not parallel to rafters, minimum 2x4 rafter ties shall be installed in accordance with the applicable building code, unless a structural ridge is indicated on the drawings.
- Roof purlins shall be 2x8, continuous, and braced at 4'-0" o.c. installed to bearing partitions or beams (as indicated on the plans) at a slope not less than 45 degrees from the horizontal. Maximum length of braces shall be 4'-0" for single 2x4, 5'-0" for single 2x6, 8'-0" for double 2x4 "tees", and 13'-6" for double 2x6 "tees". Brace lengths also apply to hip / valley or ridge braces, where required. Tees shall be fastened together with 10d nails at 6" o.c.
- All exterior wall headers supporting roof load are double 2x10's unless noted otherwise. All exterior headers supporting floor load are double 2x10's unless noted otherwise.
- Parallel strand lumber (PSL) members shall have a minimum allowable bending stress of 2,900 psi, a minimum allowable shear stress of 290 psi, and a minimum modulus of elasticity of 2,000 ksi (PSL columns shall have 2,400 psi, 190 psi, and 1,800 ksi, respectively). Laminated strand lumber (LSL) members (1 3/4" ply widths, unless noted otherwise) shall have a minimum allowable bending stress of 2,325 psi, a minimum allowable shear stress of 310 psi, and a minimum modulus of elasticity of 1,550 ksi. Laminated veneer lumber (LVL) members (1 3/4" ply widths, unless noted otherwise) shall have a minimum allowable bending stress of 2,600 psi, a minimum allowable shear stress of 285 psi, and a minimum modulus of elasticity of 2,000 ksi.
- Gulam shall be DF 24F-V4, unless noted otherwise, shall bear the trademark of the American Plywood Association (APA), and shall be designed and fabricated in accordance with the referenced standards. If unbalanced layup is used, strong laminations shall be installed on the bottom.
- All wood structural panels shall be identified with the appropriate grade trademark of the American Plywood Association (APA), shall be designed and fabricated in accordance with the referenced standards, and shall meet the requirements of product standard PS-1.
- Wood structural panels shall be set with face grain perpendicular to supporting members and stagger end joints 4'-0".

- Floor sheathing shall be minimum 3/4" tongue-and-groove wood structural panel. Glue and nail to floor joists with 8d common nails at 6" o.c. at all panel edges and 12" o.c. at all intermediate framing members (not panel edges).
- Roof sheathing shall be minimum 7/16" APA rated sheathing with 8d common nails at 6" o.c. at all panel edges and 12" o.c. at all intermediate framing members (not panel edges).
- The building shall be braced in accordance with IRC section R602.10. Braced wall panels shall be wood structural panel (WSP), continuous structural panel sheathing (CS-WSP), let-in-bracing (LIB), or gypsum board (GB) type as indicated on the plans. All sheathable areas of exterior walls (and interior walls as indicated on plan), including areas above and below openings, shall be sheathed with minimum 7/16" APA rated sheathing with 8d common nails at 6" o.c. at all panel edges and 12" o.c. at all framing members not panel edges. Horizontal joints shall occur over, and be fastened to, common 2x blocking where indicated on the plans. End Condition 1 for CS-WSP, unless otherwise indicated on the plans. LIB shall have Simpson WB installed in an X-brace at each panel location on plan; follow manufacturer's installation instructions. LIB shall also have gypsum board fastened to at least one face with a maximum of 8" o.c. fastener spacing. Sheathing of each GB shall be minimum 1/2" gypsum wall board on both faces of the wall with #6 x 1 1/4" Type W or S screws or 6d cooler (0.086" x 1 5/8", 15/64" head) or wallboard (0.086" x 1 5/8" x 9/32" head) nails at 7" o.c. at edge and field. When Method GB panels are installed horizontally, blocking of horizontal joints is not required, unless noted otherwise. Wall sheathing shall be directly attached to the studs.



Stair Framing Notes

- Per IRC Section R311: maximum riser height is 7 3/4", minimum tread depth is 10", minimum stair width above handrail is 36", minimum stair width below handrail is 31 1/2" (handrail on one side) or 27" (handrail on both sides), minimum headroom is 6'-8", minimum landing width in the direction of travel is 36", and minimum hallway width is 3'-0".
- For flights with four or more risers, provide a continuous handrail on at least one side, with the handrail placed 34" to 38" above the stair nosing per IRC Section R311.7.8. Handrail shall be graspable and the size / shape shall comply with IRC Section R311.7.8.5.
- Nosings shall be between 3/4" and 1 1/4" for stairways with solid risers per IRC Section R311.7.5.3. Open risers shall not permit the passage of a 4" diameter sphere per IRC R311.7.5.1.
- Provide guardrail along open-sided walking surfaces 30" or more above the adjacent surface. Guardrail shall be 36" high and have intermediate rails that do not allow the passage of a 4" diameter sphere per IRC Section R312. Guardrails shall meet the live load requirements of IRC Section R301.5.
- For stair widths up to 4'-0" wide, provide (3) 2x12 stringers with maximum stringer span of 9'-0". If required, provide 2x6 column to limit stringer span to 9'-0" maximum. Simpson L5C or L570 to attach stringer to beam / ledger.
- Treads shall be (1) 2x12 or (2) 2x6's.
- Enclosed accessible space under stairs shall have walls, under-stair surface, and any soffits protected on the enclosed side with 1/2" gypsum board per IRC 302.7.

Miscellaneous Notes

- Construction shall comply with IRC 310 for emergency egress windows.
- Windows shall have a minimum U factor of 0.32 and shall have fall protection in accordance with IRC 312.2. Glazing shall comply with IRC 308 for safety glazing in hazardous locations.
- The building shall meet or exceed the minimum requirements of IRC Table N1102.1.2. The building thermal envelope shall be sealed in accordance with IRC N1102.4.1. Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed in accordance with IRC N1103.2.2.
- Smoke alarms and carbon monoxide detectors shall be provided in accordance with IRC R314 and R315, respectively.
- Garage doors and frames shall be designed and installed to meet the 115mph wind load resistance requirements of DASMA 108 and ASTM E 330 in accordance with IRC R609.4.
- Project shall comply with IRC R703.2 for water resistive exterior wall covering.
- Door(s) from the garage to the house shall be 1 3/8" minimum thickness solid wood or solid / honeycomb core steel or 20-minute fire-rated, self-closing doors per IRC 302.5.
- Garage / house fire separation shall be one layer of 5/8" minimum Type X gypsum board installed per IRC R302.6.
- The contractor shall verify all dimensions and elevations shown on the plans and coordinate them with existing conditions. If errors or discrepancies are found it is the contractor's responsibility to notify the Engineer before proceeding with the work.
- The contractor shall provide all temporary bracing and shoring required during construction to ensure the safety of all persons involved.
- The contractor shall follow manufacturer's printed instructions for connection hardware, fasteners, adhesives, pre-fabricated shear walls (e.g. Simpson WSWH), etc.
- Substitutions of specified connectors / fasteners are not permitted unless the Engineer provides written approval. If a substitution is requested, the contractor shall provide published load data from the manufacturer for the Engineer to review.
- Viet Engineering, LLC is not liable nor responsible for construction means and methods.
- Viet Engineering, LLC has designed the structural portion of these plans for the construction of a residence at the address referenced in the plans. Viet Engineering, LLC will not take responsibility for any re-use of any portion of the design, plans or specifications at any other property or address without prior written consent.
- By my seal I certify that the structural engineering related to the new construction shown on these documents has been designed by me, and I disclaim responsibility for architectural, mechanical, electrical, civil, and all other design aspects of this project.

Darius Viet, P.E.
Viet Engineering, LLC
KS License Number: PE24506
KS Certificate of Authority: E-2801

NAILING SCHEDULE IRC 2018 TABLE R602.3(1)

Item	Description of Building Elements	Number & Type of Fastener ^{a, b, c, e}	Spacing of Fasteners
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3 – 8d (2½" x 0.113")	
2	Ceiling joists to plate, toe nail	3 – 8d (2½" x 0.113")	
3	Ceiling joist not attached to parallel rafter, laps over partitions, face nail	3 – 10d (3" x 0.128")	
4	Collar tie to rafter, face nail, or 1½" x 20 gage ridge strap	3 – 10d (3" x 0.128")	
5	Rafter or roof truss to plate, toe nail	3 – 16d box nails (¾" x 0.135") or 3 – 10d common nails (3" x 0.148")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss ⁱ
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4 – 16d (¾" x 0.135") 3 – 16d (¾" x 0.135")	
Wall			
7	Built-up studs	10d (3" x 0.128")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	16d (3 1/2" x 0.135")	12" o.c.
9	Built up header, two pieces with ½" spacer	16d (¾" x 0.135")	16" o.c. along ea. edge
10	Continued header, two pieces	16d (¾" x 0.135")	16" o.c. along ea. edge
11	Continuous header to stud, toe nail	4 – 8d (2½" x 0.113")	
12	Double studs, face nail	10d (3" x 0.128")	24" o.c.
13	Double top plates, face nail	10d (3" x 0.128")	24" o.c.
14	Double top plates, minimum 24" offset of end joints, face nail in lapped area	8 – 16d (¾" x 0.135")	
15	Sole plate to joist or blocking, face nail	16d (¾" x 0.135")	
16	Sole plate to joist or blocking at braced wall panels	3 – 16d (¾" x 0.135")	16" o.c.
17	Stud to sole plate, toe nail	3 – 8d (2½" x 0.113") or 2 – 16d (¾" x 0.135")	
18	Top or sole plate to stud, end nail	2 – 16d (¾" x 0.135")	
19	All wood joints, laps at corners and intersections, face nail	2 – 10d (3" x 0.128")	
Floor			
20	1" brace to each stud and plate, face nail	2 – 8d (2½" x 0.113") 2 staples, 1¼"	
21	1" x 6" sheathing to each bearing, face nail	2 – 8d (2½" x 0.113") 2 staples, 1¼"	
22	1" x 8" sheathing to each bearing, face nail	2 – 8d (2½" x 0.113") 3 staples, 1¼"	
23	Wider than 1" x 8" sheathing to each bearing, face nail	3 – 8d (2½" x 0.113") 4 staples, 1¼"	
Floor			
24	Joist to sill or girder, toe nail	3 – 8d (2½" x 0.113")	
25	Rim joist to top plate, toe nail (roof applications only)	8d (2½" x 0.113")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d (2½" x 0.113")	6" o.c.
27	1" x 6" subfloor or less to each joist, face nail	2 – 8d (2½" x 0.113") 2 staples, 1¼"	
28	2" subfloor to joist or girder, blind & face nail	2 – 16d (¾" x 0.135")	
29	2" planks (plank & beam – floor & roof)	2 – 16d (¾" x 0.135")	At each bearing
(Continued)			

INSULATION AND FENESTRATION REQUIREMENTS – IRC TABLE N1102.1.2	
COMPONENT	VALUE (ZONE 4A)
Fenestration ^b / Glazed Fenestration ^{b, c}	U-0.32 / SHGC-0.40
Skylight ^b	U-0.55
Ceiling – Flat	R-49
Ceiling – Vaulted ⁱ	R-38
Wood framed wall	R-20 / R-13 + 5
Mass wall ⁱ	R-8 / R-13
Floor over unheated space	R-19
Floor over outside air	R-30
Ducts outside of	R-8
the conditioned space	In floor and ceiling assembly
Basement wall ^a	R-10 / R-13
Slab (R-value / depth) ^d	R-10 / 2 FT
Crawlspace wall with floor insulation ^e	R-10 / R-13
Crawlspace wall without floor insulation	R-19

- R-values are minimum. U-factors and SHGC are maximum. When insulation is installed in a cavity which is less than the label or section thickness of the insulation, the insulated R-value of the insulation shall not be less than the R-value specified in the table.
- The fenestration U-factor excludes airleaks.
- The first R-value applies to continuous insulation, the second to framing cavity insulation either insulation meets the requirement.
- The first R-value applies to the required side edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.
- Where R-5 is required, R-5 is not required in warm-climate locations as defined by Figure N1101.0 and Table N1101.0.
- First value is cavity insulation, second is continuous insulation or insulated siding, so "R-50" means R-10 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing is 40 percent or less of the exterior, continuous insulation R-value shall be permitted to be reduced by no more than R-5 in the locations where structural sheathing is used - to maintain a consistent total sheathing thickness.
- The second R-value applies when more than half of the insulation is on the interior of the mass wall.
- May be reduced to R-50 for vaulted ceilings less than 500 square feet or 20 percent of the total insulated ceiling area, whichever is less (per N1022.2).

NAILING SCHEDULE IRC 2018 TABLE R602.3(1)

Item	Description of Building Elements	Number & Type of Fastener ^{a, b, c, e}	Spacing of Fasteners
Floor (Continued)			
30	Built-up girders and beams, 2-inch lumber	10d (3" x 0.128")	Nail ea. layer as follows: 32" o.c. at top & bott. & staggered. Two nails at ends and at ea. splice
31	Ledger strip supporting joists or rafters	3 – 16d (¾" x 0.135")	At each joist or rafter
Wood structural panels, subfloor, roof and wall sheathing to framing, and particleboard wall sheathing to framing			
32	¾" – ½"	6d common (2"x0.113") nail (subfloor, wall) ⁱ 8d common (2½" x 0.131") nail (roof)	6" 12" ^g
33	1½" – 1"	8d common (2½" x 0.131") nail ⁱ	6" 12" ^g
34	1½" – 1¼"	10d common (3" x 0.148") nail or 8d (2½" x 0.131") deformed nail	6" 12"
Other wall sheathing ^h			
35	½" structural cellululosic fiberboard sheathing	1½" galvanized roofing nail; 8d common (2½" x 0.131") nail; ¾16" or 1" crown staple, 16 ga., 1¼" long	3" 6"
36	¾" structural cellululosic fiberboard sheathing	1½" galvanized roofing nail; 8d common (2½" x 0.131") nail; ¾16" or 1" crown staple, 16 ga., 1¼" long	3" 6"
37	½" gypsum sheathing ^g	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7" 7"
38	¾" gypsum sheathing ^g	1½" galvanized roofing nail; staple galvanized, 1½" long; 1½" screws, Type W or S	7" 7"
Wood structural panels, combination subfloor underlayment to framing			
39	¾" or less	6d deformed (2" x 0.120") nail or 8d common (2½" x 0.131") nail	6" 12"
40	¾" – 1"	8d common (2½" x 0.131") nail or 8d deformed (2½" x 0.120") nail	6" 12"
41	1½" – 1¼"	10d common (3" x 0.148") nail or 8d deformed (2½" x 0.120") nail	6" 12"
a. All nails are smooth--common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less. b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width. c. Nails shall be spaced at not more than 6" on center at all supports where spans are 48 inches or greater. d. Four-foot-by-8-foot or 4-foot-by-9-foot panels shall be applied vertically. e. Spacing of fasteners not included in this table shall be based on Table R602.3(2). f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2½" x 0.120) nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum. g. For regions having a basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing. h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208. i. Spacing of fasteners on sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters 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 this code. Floor perimeter shall be supported by framing members or solid blocking. j. 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 toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.			

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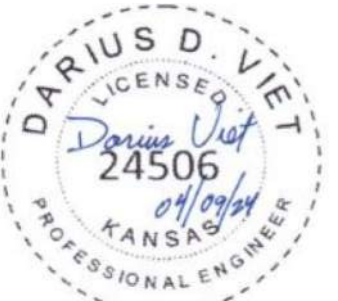
KS CERTIFICATE # E-2801

PROJECT:

#	DESCRIPTION	DATE

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DARIUS VIET
PROFESSIONAL ENGINEER
KS # PE24506

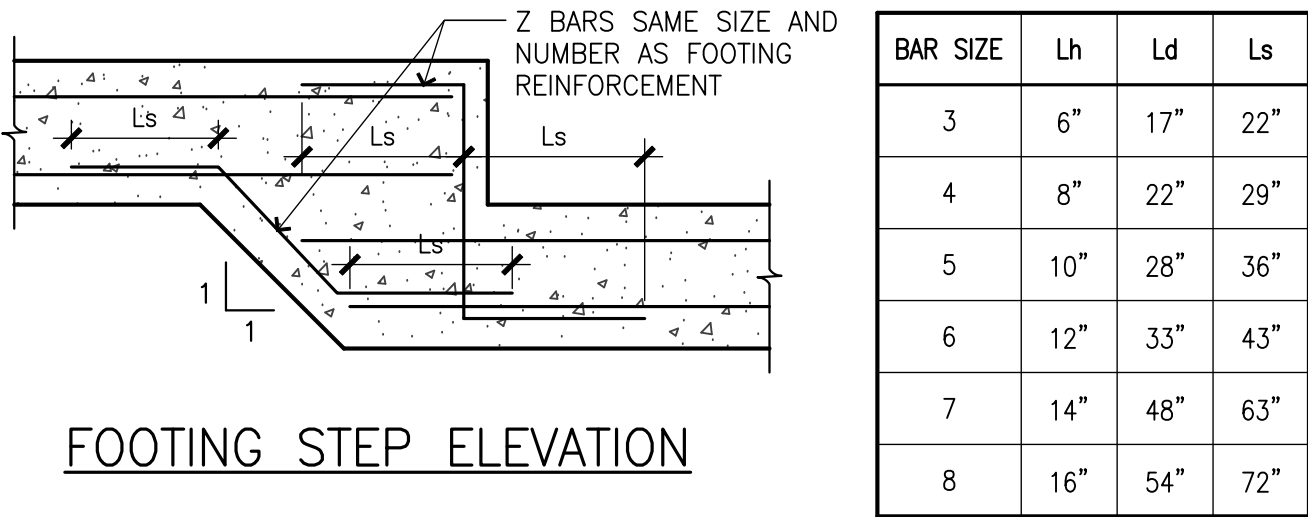
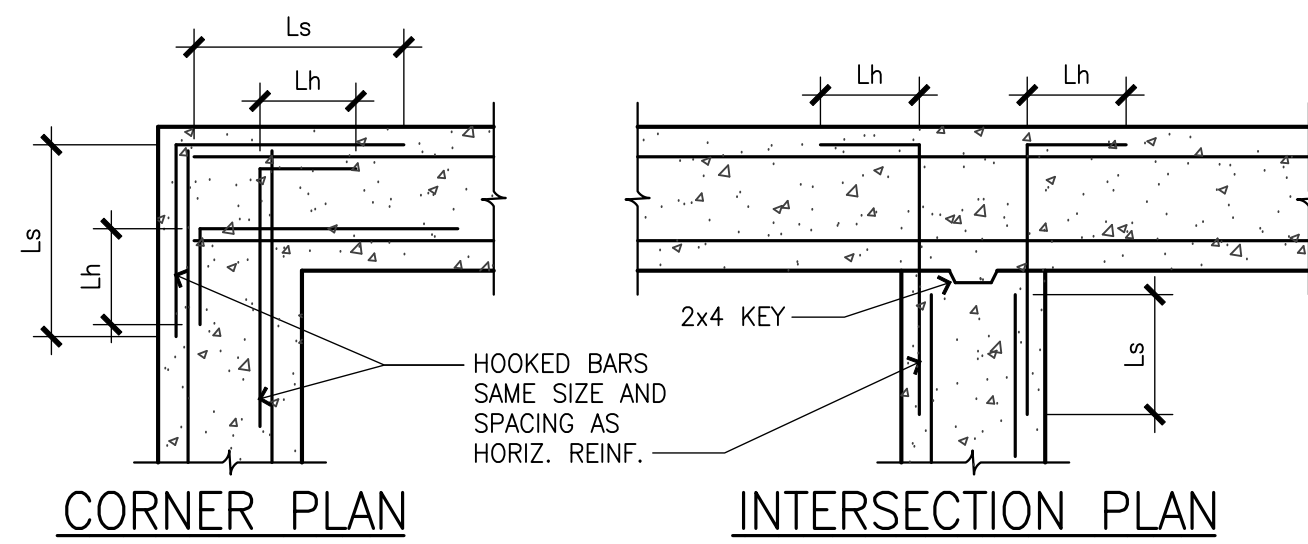


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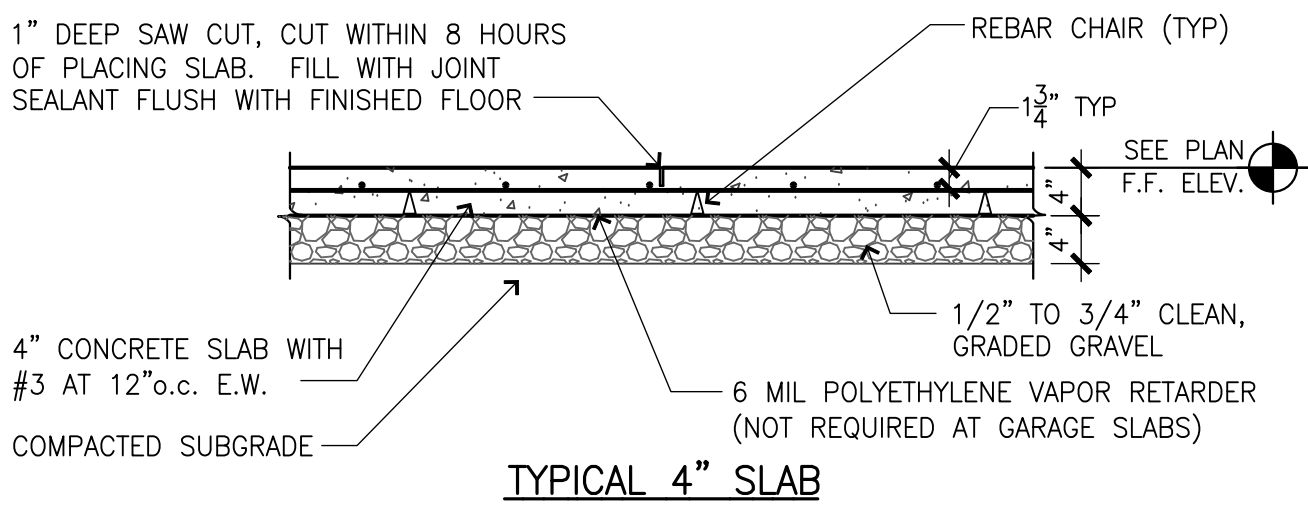
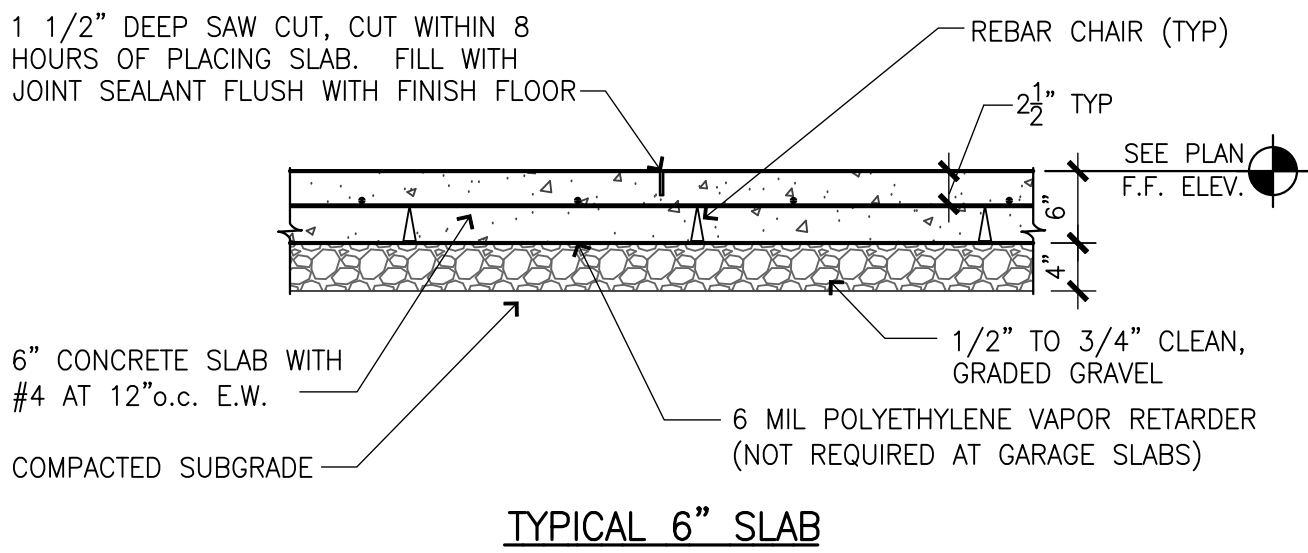
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NOTES & SCHEDULES

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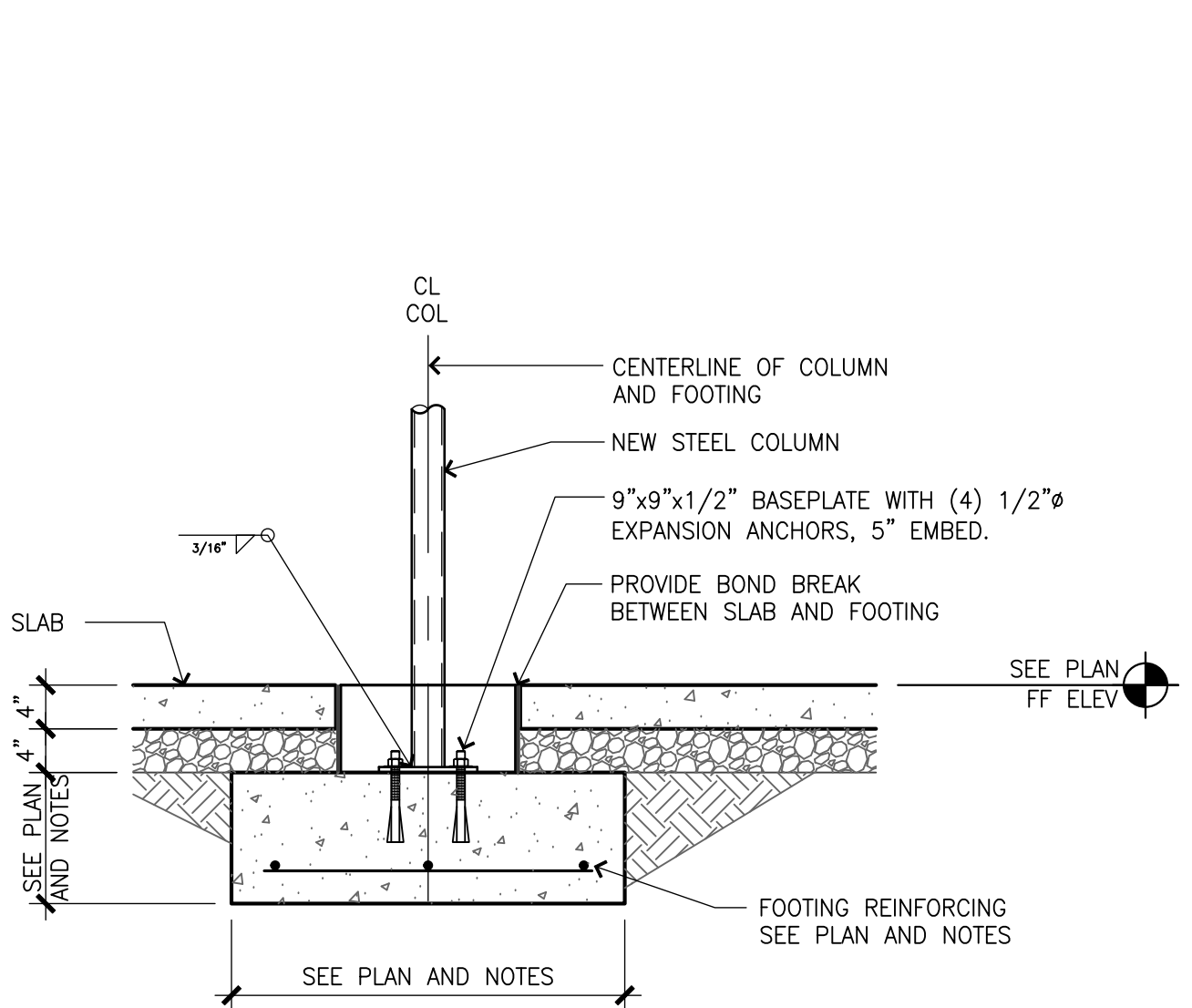
1 TYP WALL AND FOOTING DETAILS

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



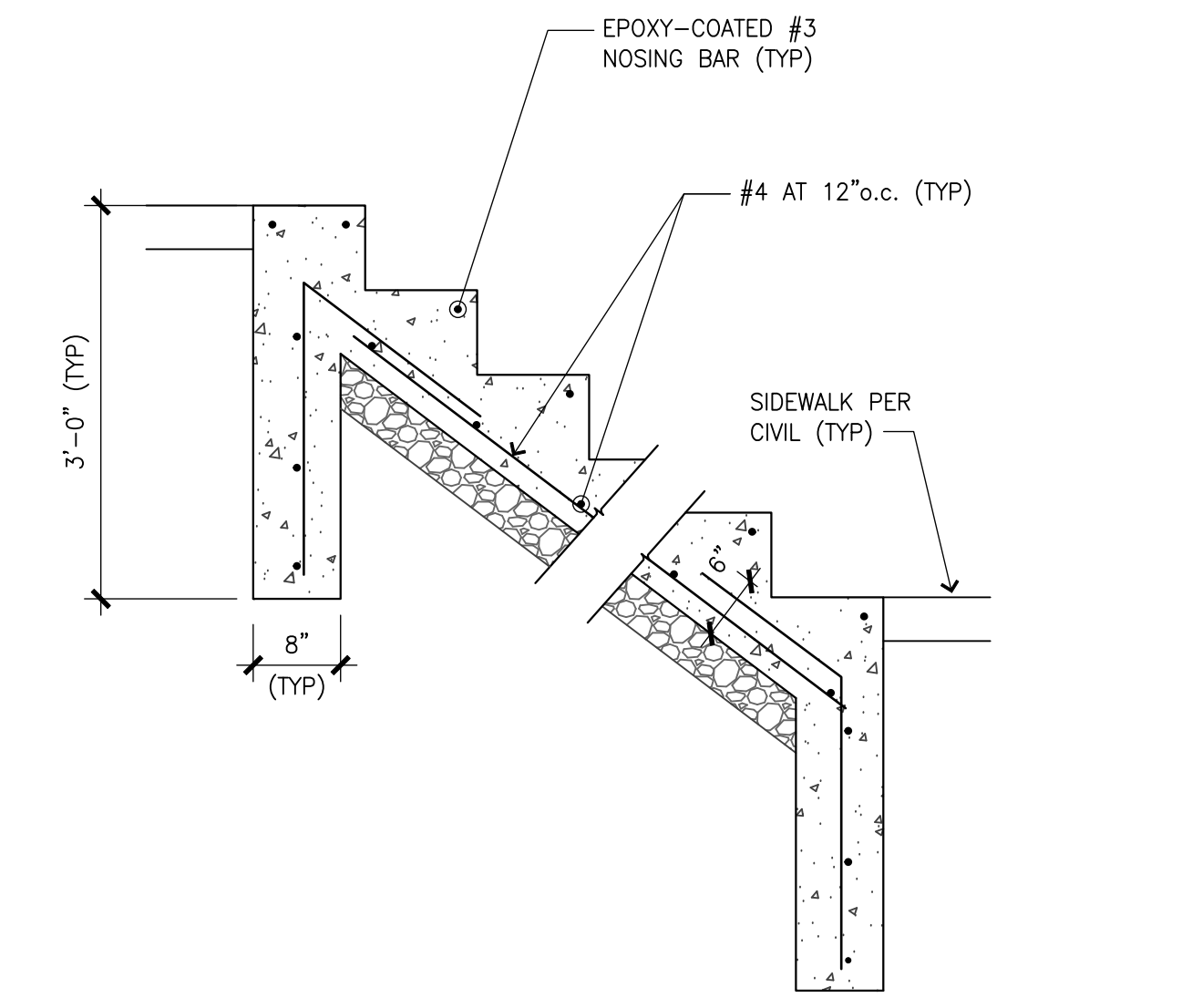
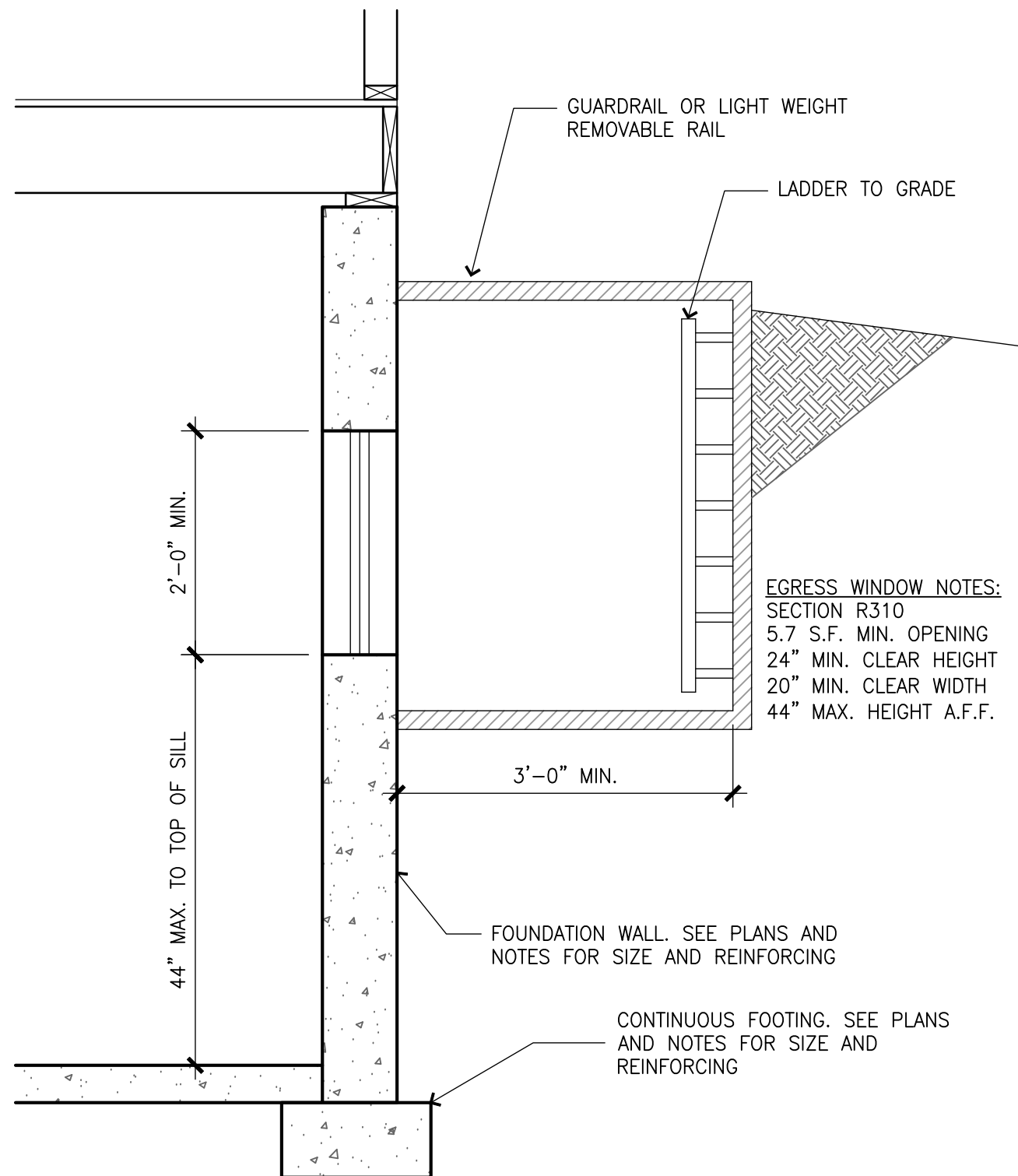
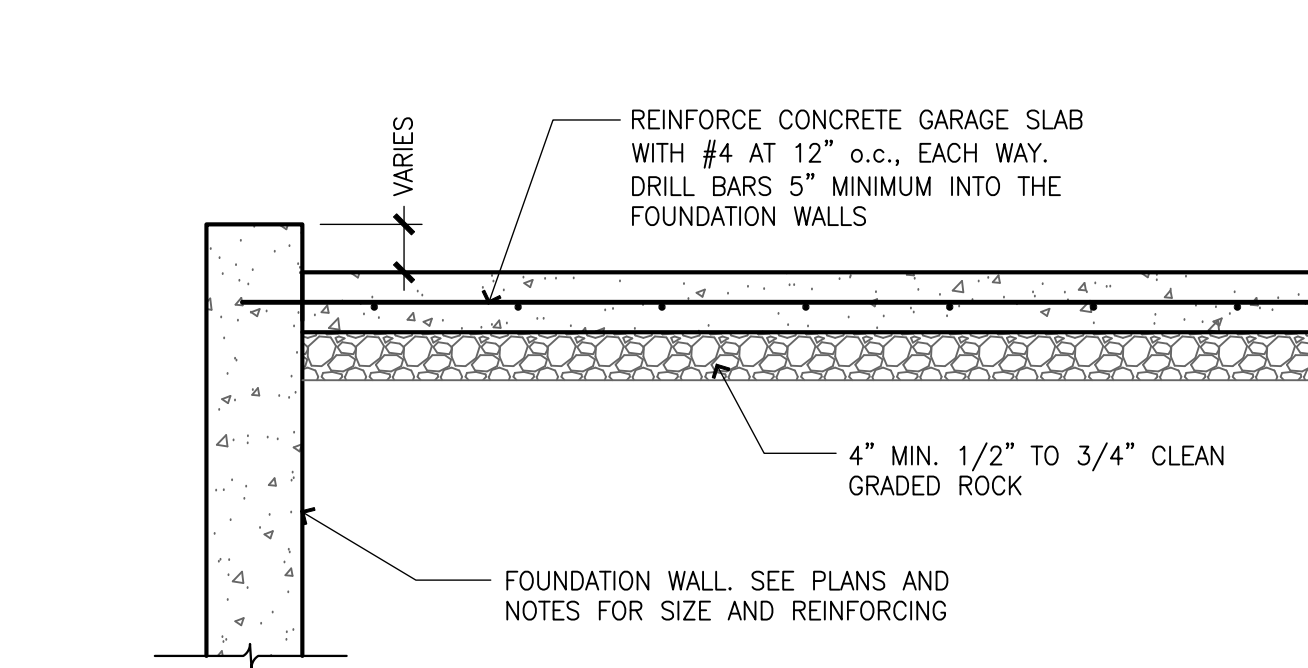
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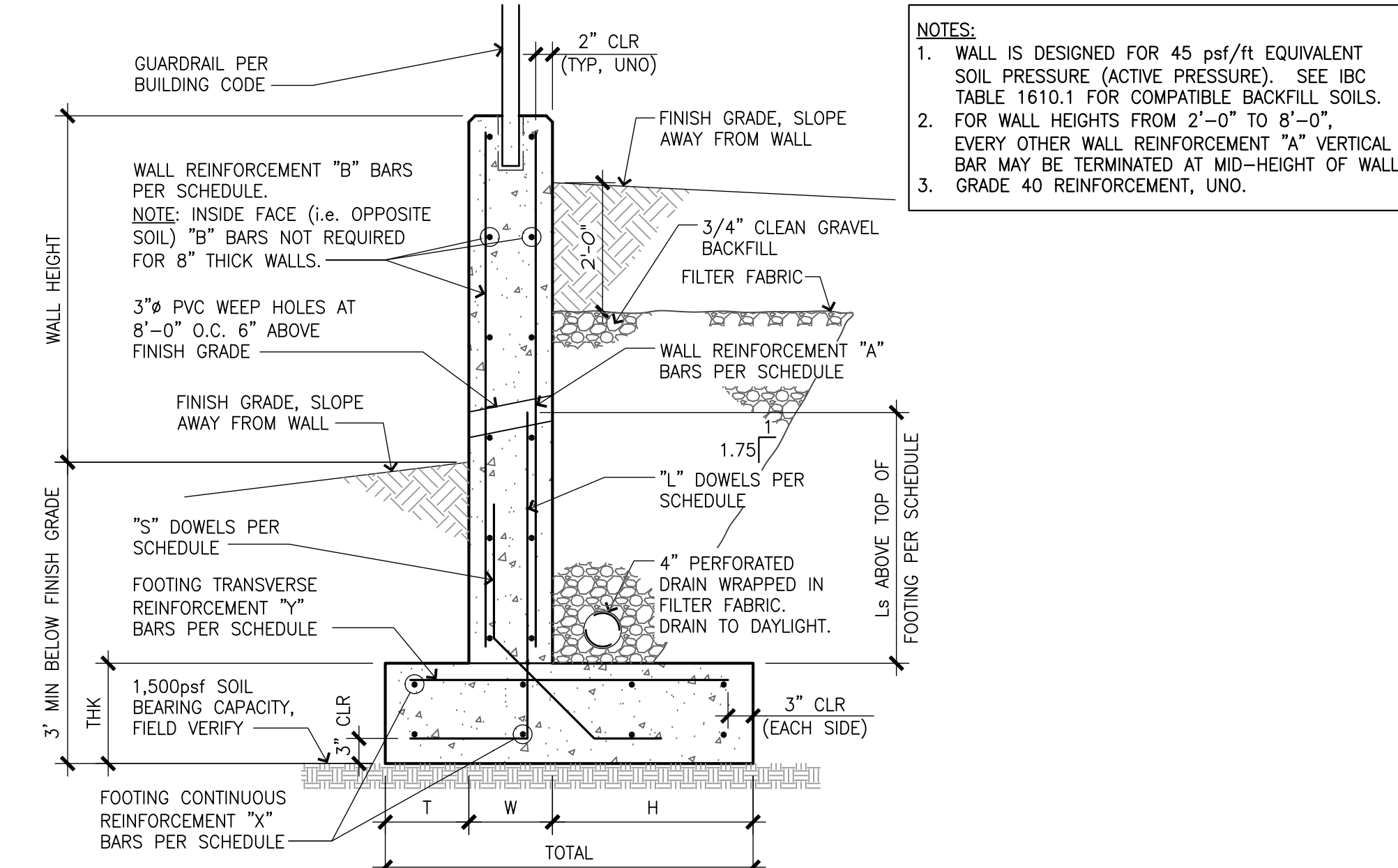
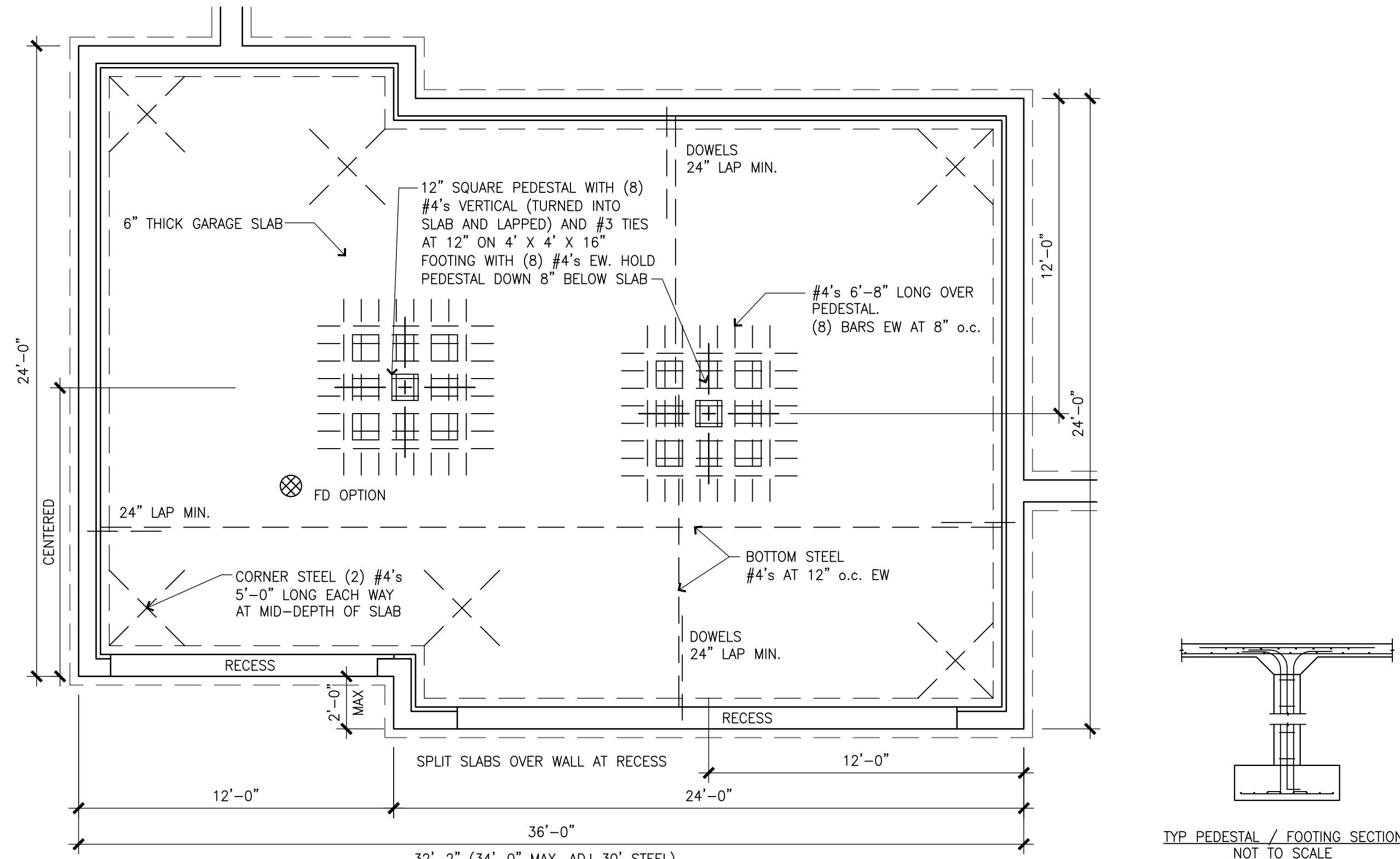
6 TYP COLUMN FOOTING

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



7 TYP CONCRETE STAIRS

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



RETAINING WALL SCHEDULE											
DIMENSIONS						FOOTING REINF		DOWEL REINF		WALL REINF	
WALL HEIGHT	T	W	H	TOTAL	THK	"X" BARS	"Y" BARS	"L" DOWELS	"S" DOWELS	"A" BARS	"B" BARS
2'-0" TO 4'-0"	1'-6"	8"	1'-10"	4'-0"	10"	(4) #4 TOP & BOTTOM	#4 AT 18"o.c.	#4 AT 9"o.c. Ls = 2'-6"	#4x4'-0" AT 18"o.c.	#4 AT 9"o.c. VERTICAL	#4 AT 18"o.c. EA WAY
4'-1" TO 6'-0"	2'-0"	8"	3'-4"	6'-0"	1'-0"	(7) #4 TOP & BOTTOM	#4 AT 12"o.c.	#4 AT 6"o.c. Ls = 2'-6"	#4x4'-0" AT 18"o.c.	#4 AT 6"o.c. VERTICAL	#4 AT 18"o.c. EA WAY

8 TYPICAL RETAINING WALL DETAIL

SCALE: NONE

#	DESCRIPTION	DATE

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KS # PE24506

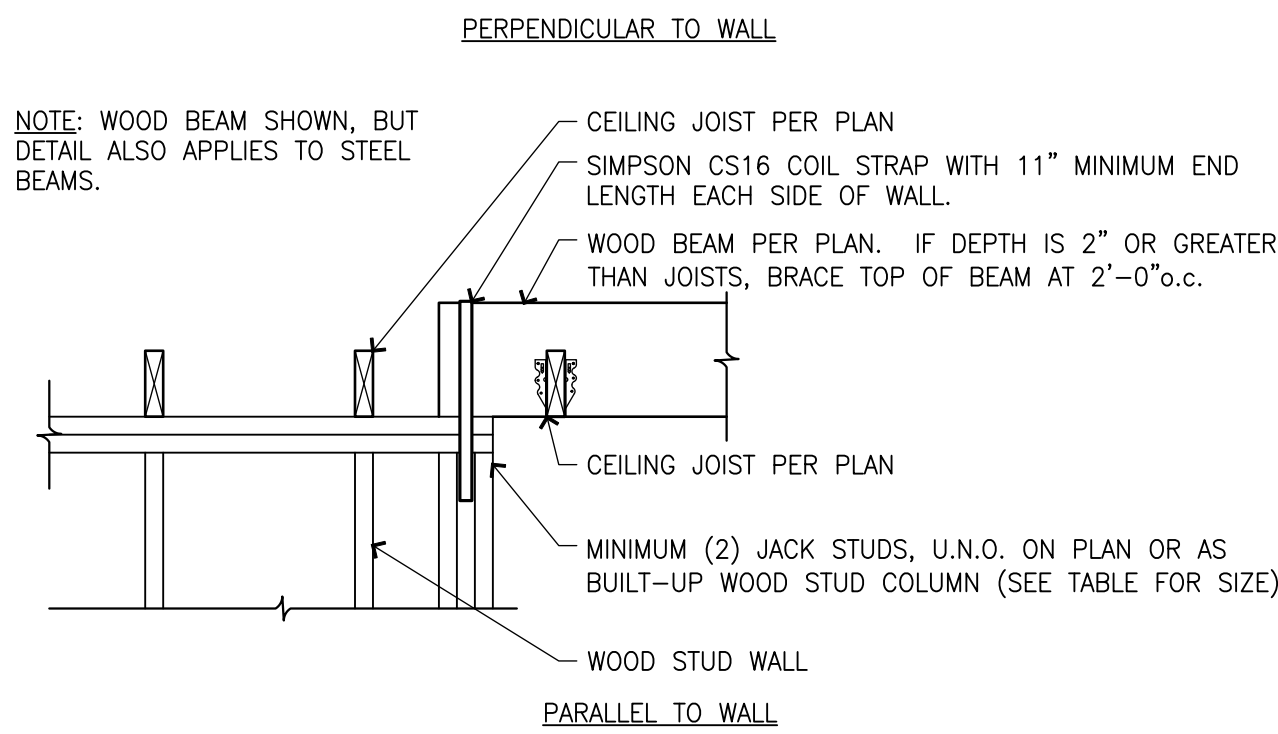
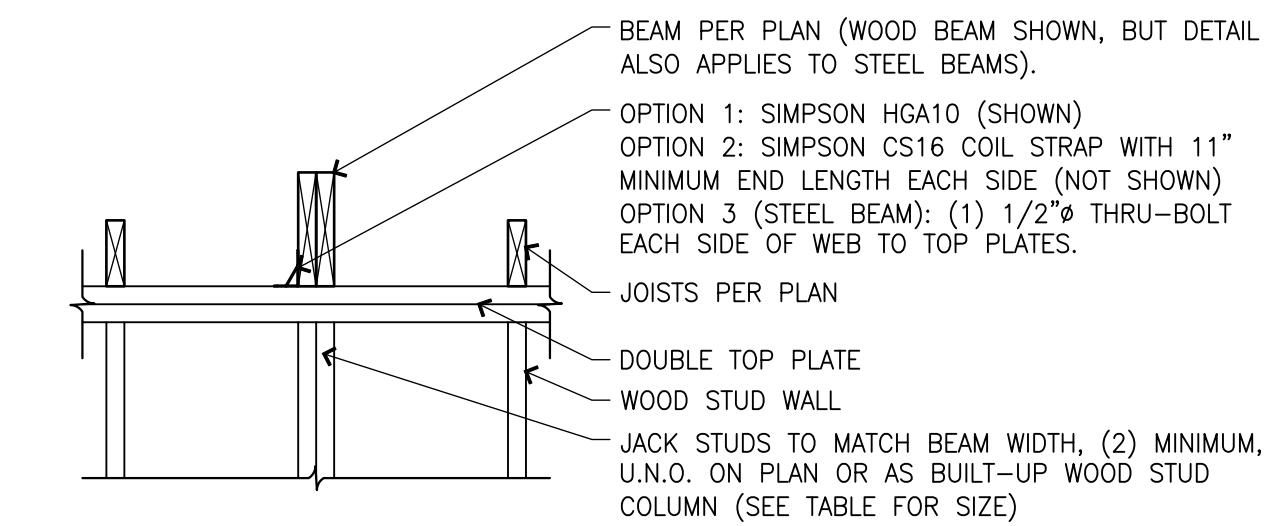


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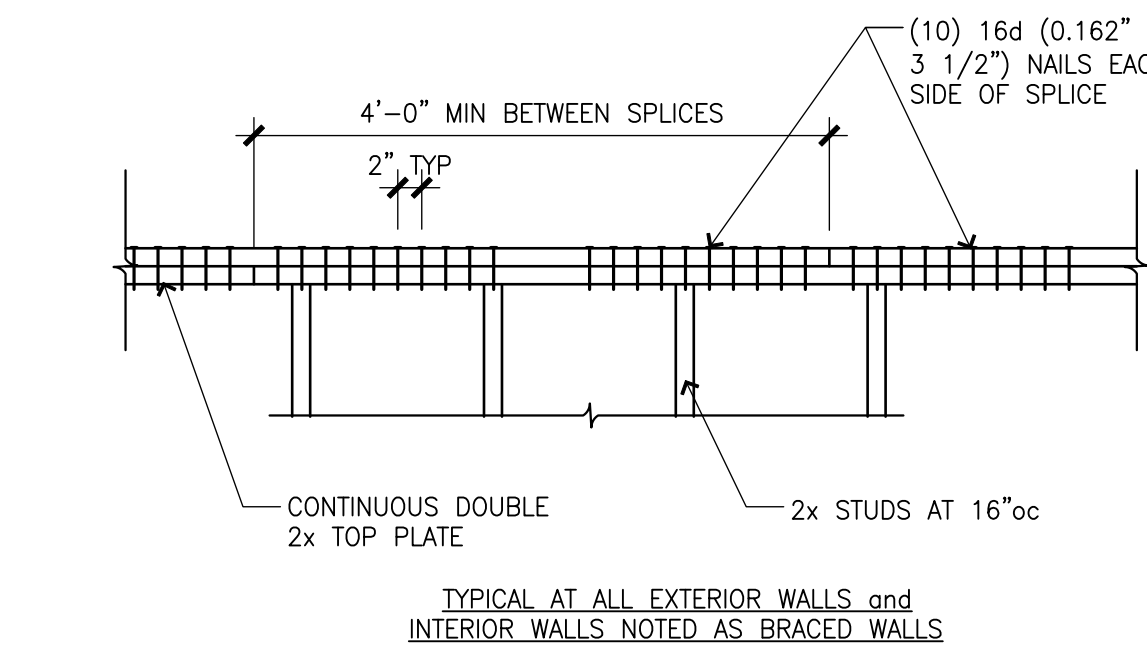
DATE: 03/28/2024

SHEET TITLE:
FOUNDATION DETAILS

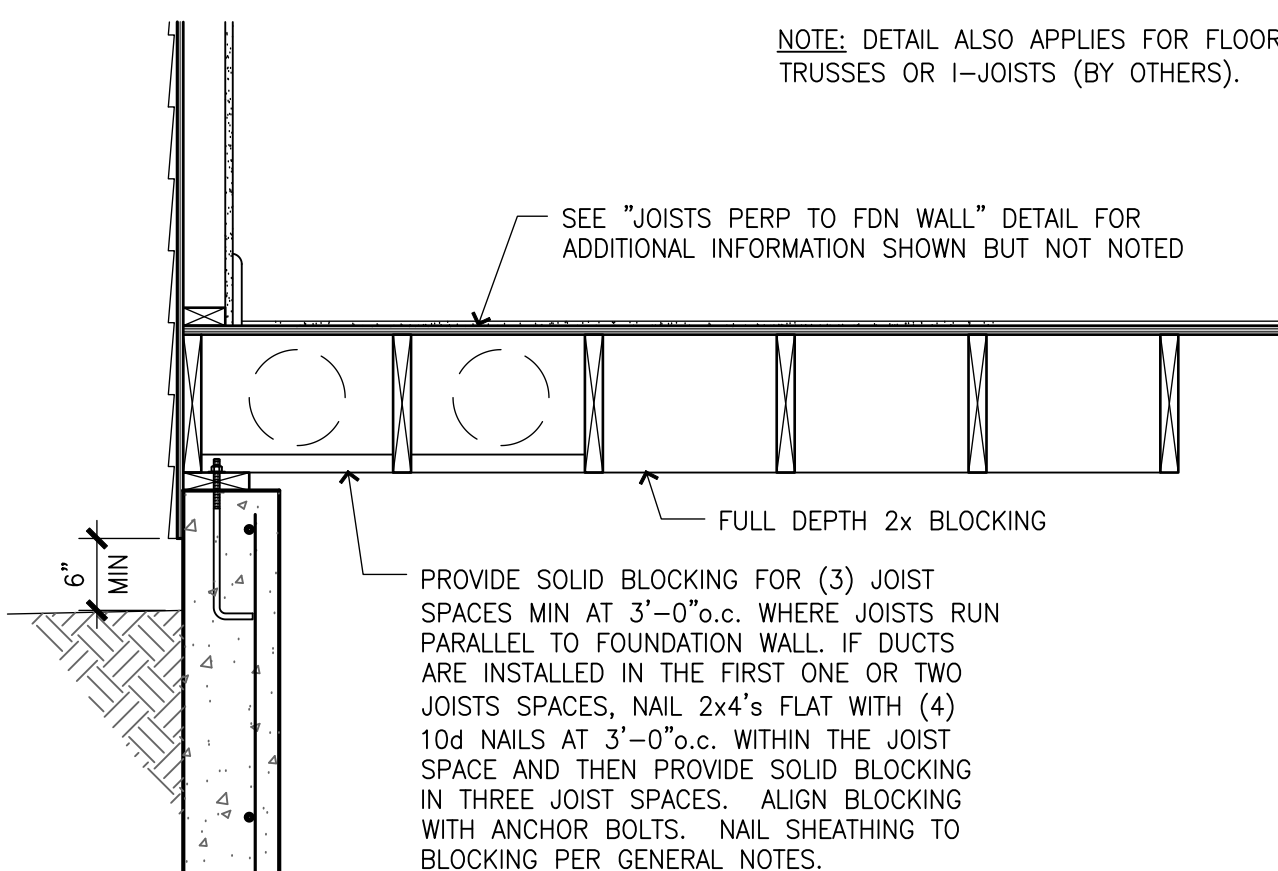
SHEET NUMBER:
S2



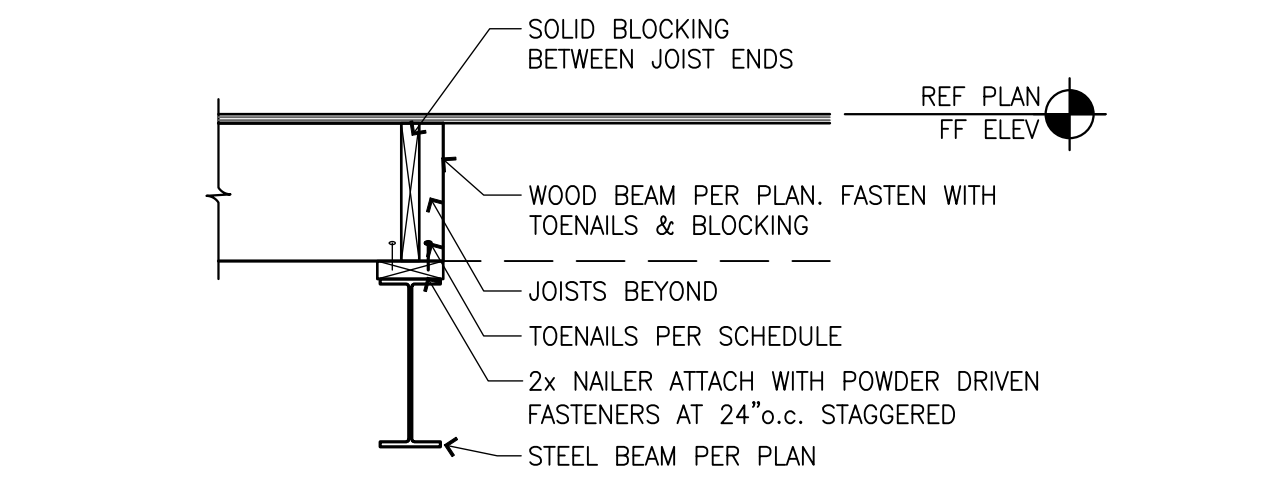
1 BEAM AT WALL
SCALE: 3/4" = 1'-0"



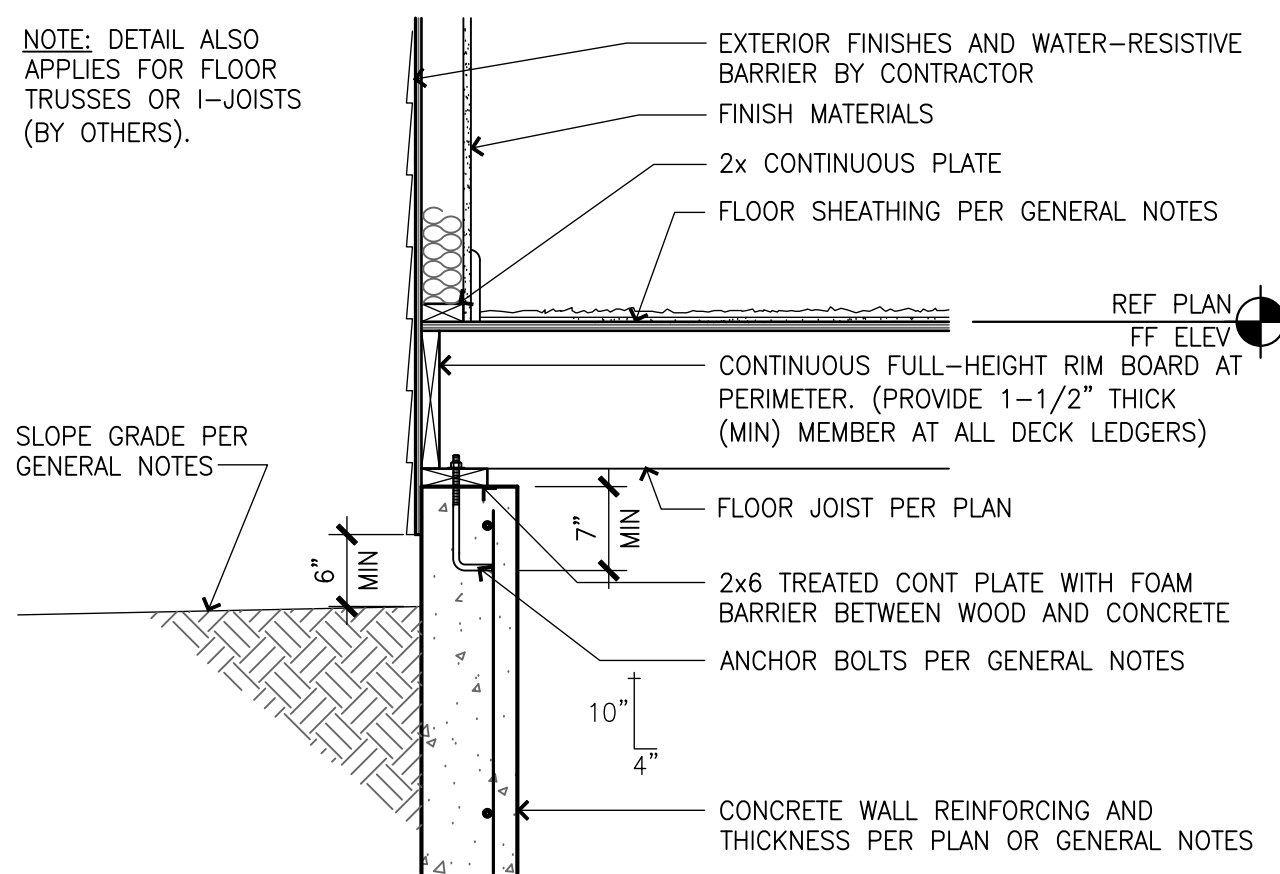
6 TYPICAL TOP PLATE SPLICE
SCALE: 3/4" = 1'-0"



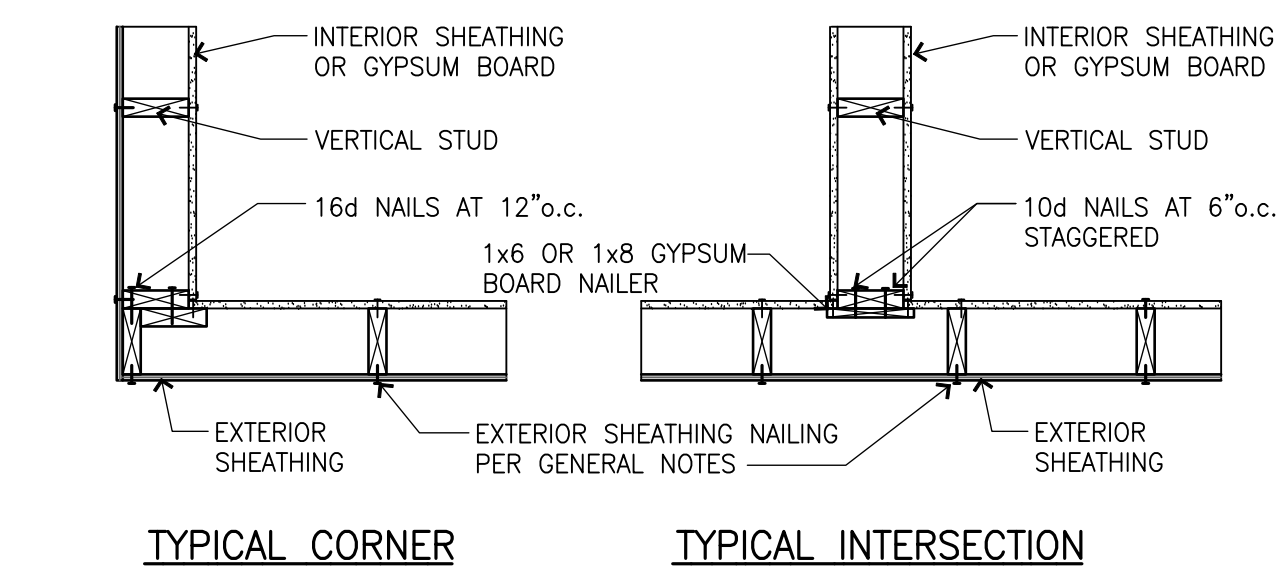
10 JOISTS PARALLEL TO FDN WALL
SCALE: 3/4" = 1'-0"



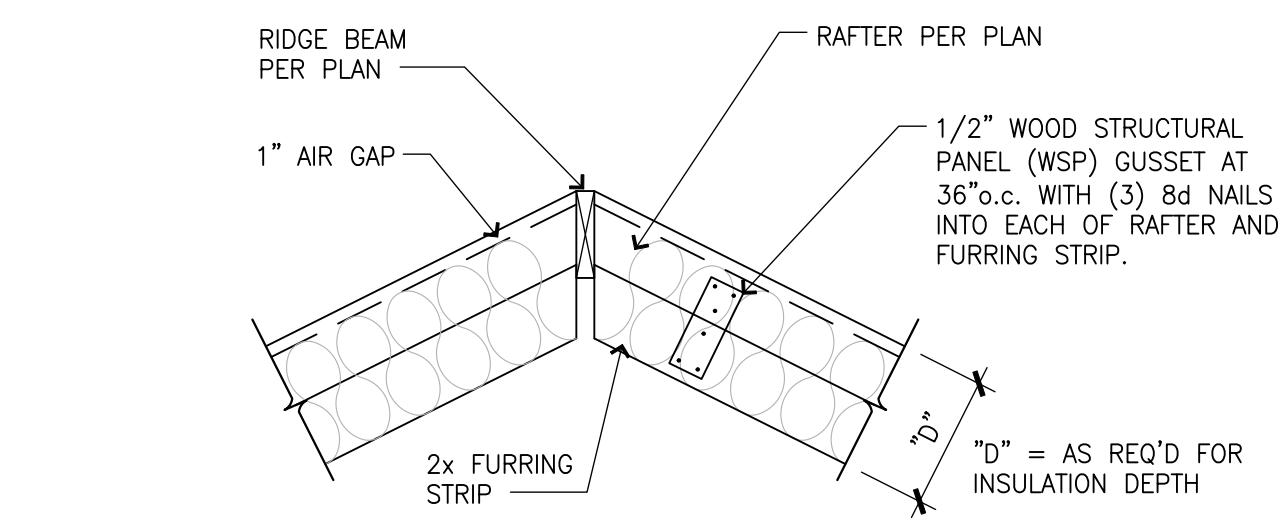
2 WOOD BEAM ON STEEL BEAM
SCALE: 3/4" = 1'-0"



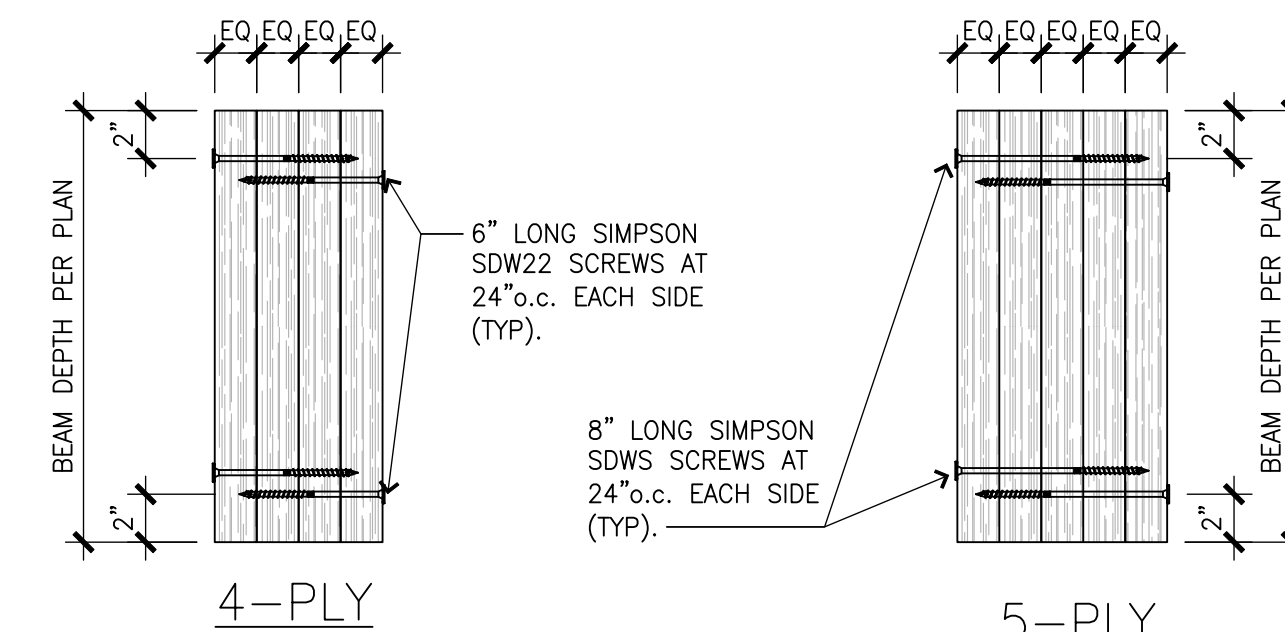
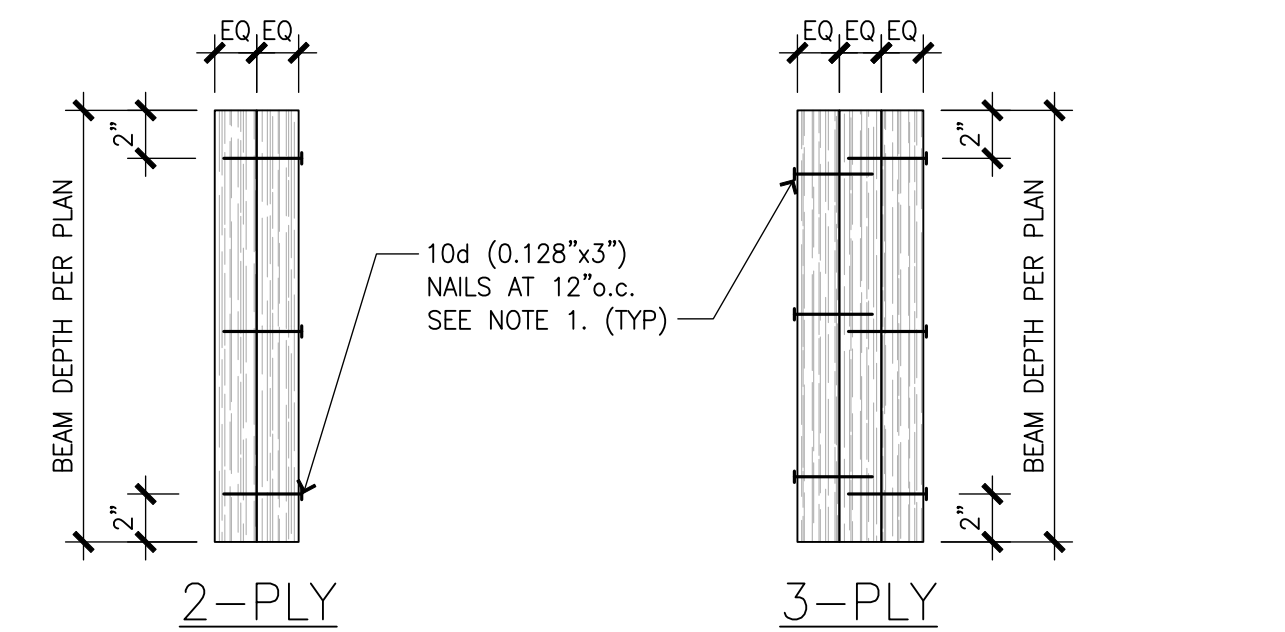
3 JOISTS PERP TO FDN WALL
SCALE: 3/4" = 1'-0"



7 TYP WALL FRAMING DETAILS
SCALE: 3/4" = 1'-0"



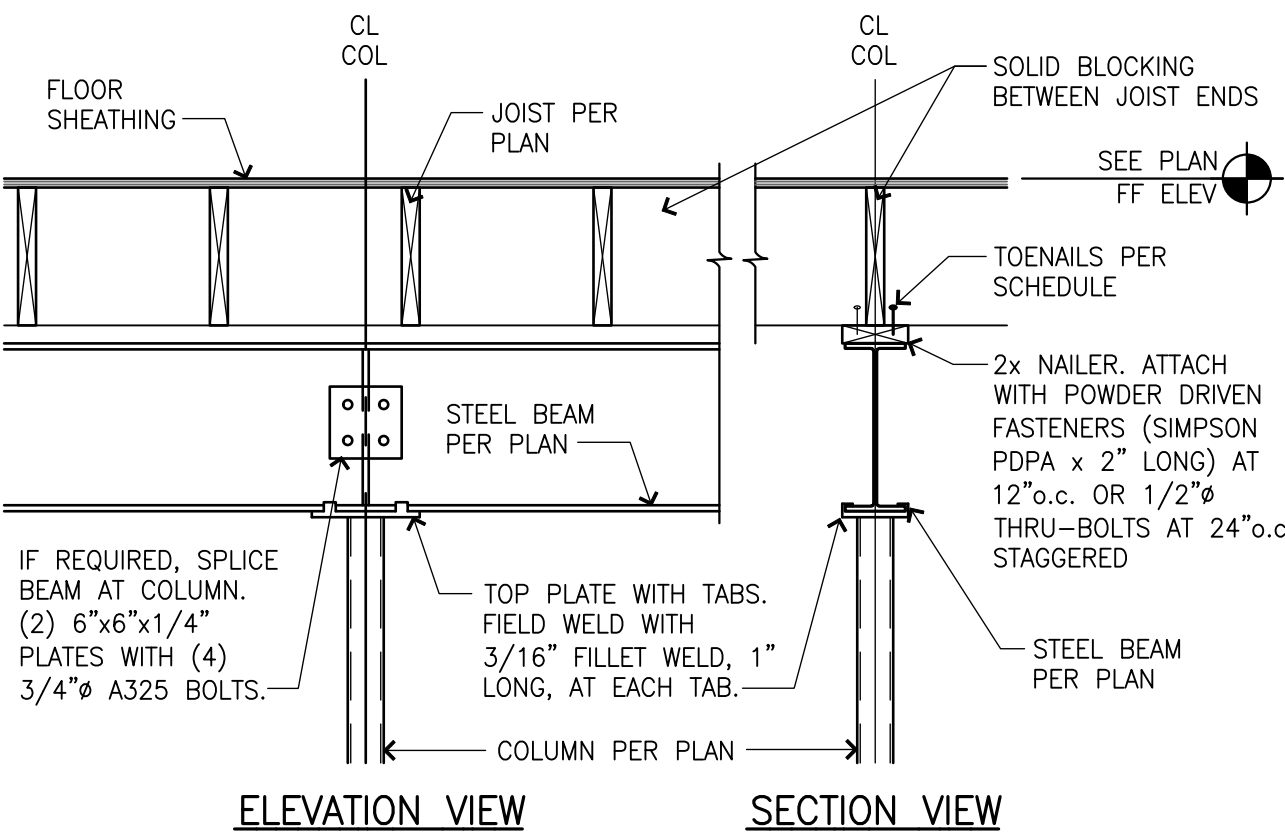
11 VAULTED RAFTER INSULATION
SCALE: 3/4" = 1'-0"



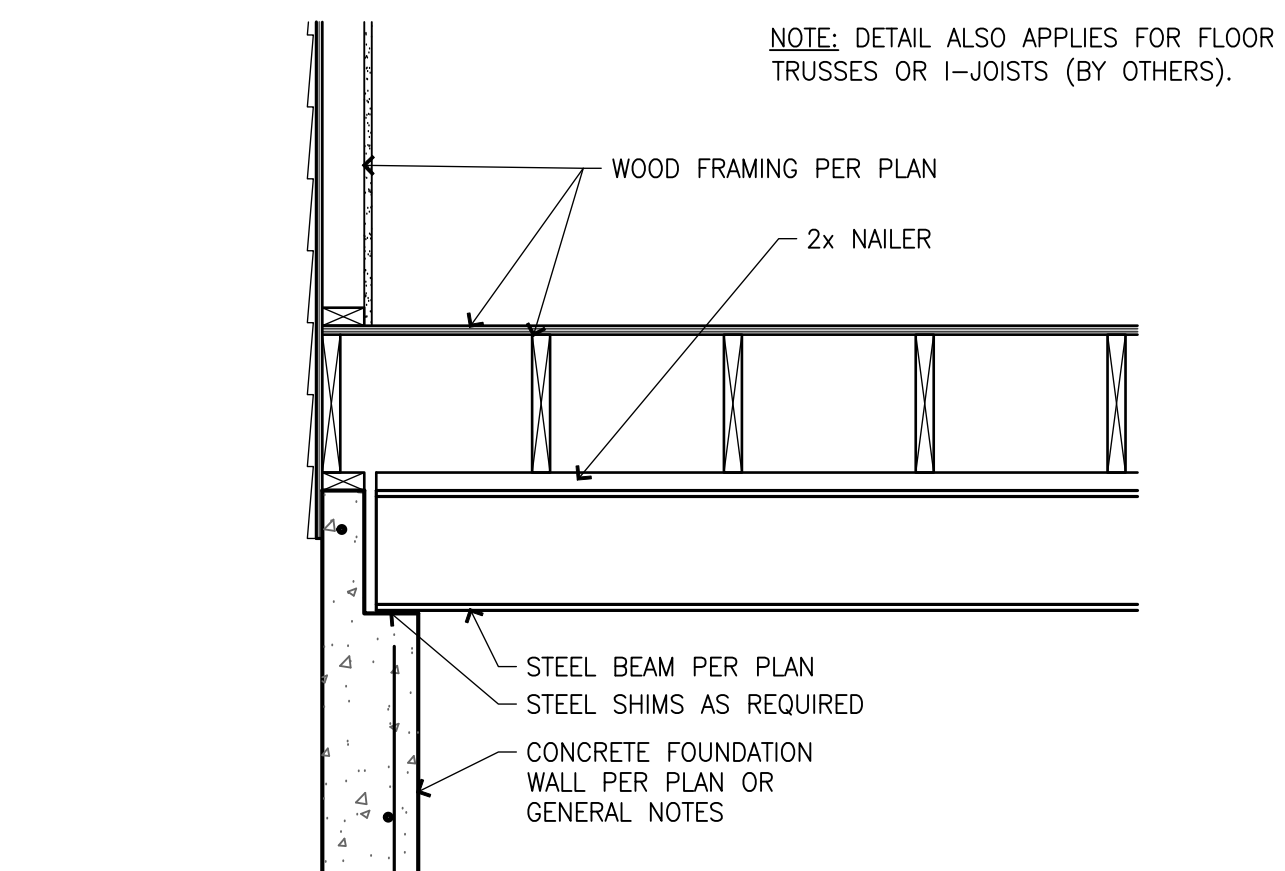
NOTES:
1. ADD AN ADDITIONAL ROW OF NAILS FOR BEAM DEPTHS OF 14" OR GREATER.
2. CONNECTIONS SHOWN FOR LVLs APPLY FOR 2x DIMENSIONAL MEMBERS AS WELL.
3. FOR EXTERIOR APPLICATIONS, USE SIMPSON SDWS22 TIMBER SCREWS (EXTERIOR GRADE).
4. STAGGER FASTENERS ON OPPOSITE FACES SO THEY FALL HALFWAY BETWEEN SPECIFIED SPACING.

4 TYP MULTI-MEMBER CONN.
SCALE: 1 1/2" = 1'-0"

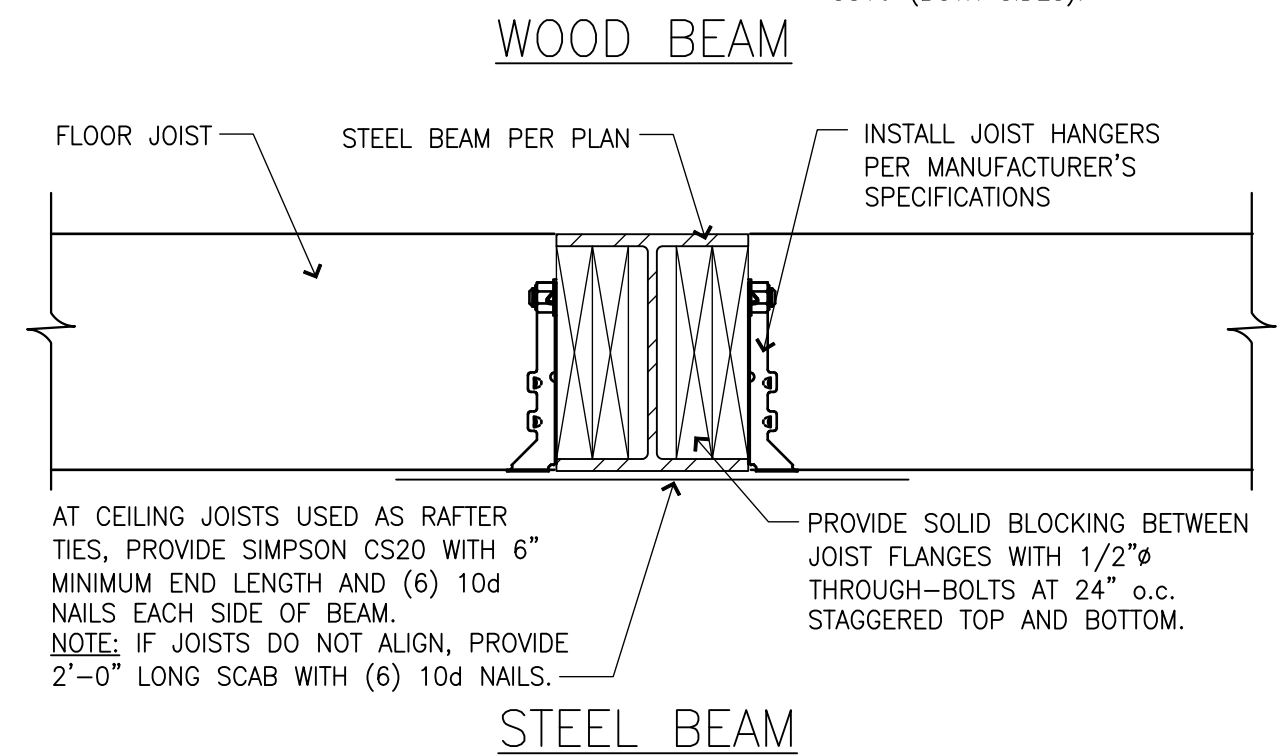
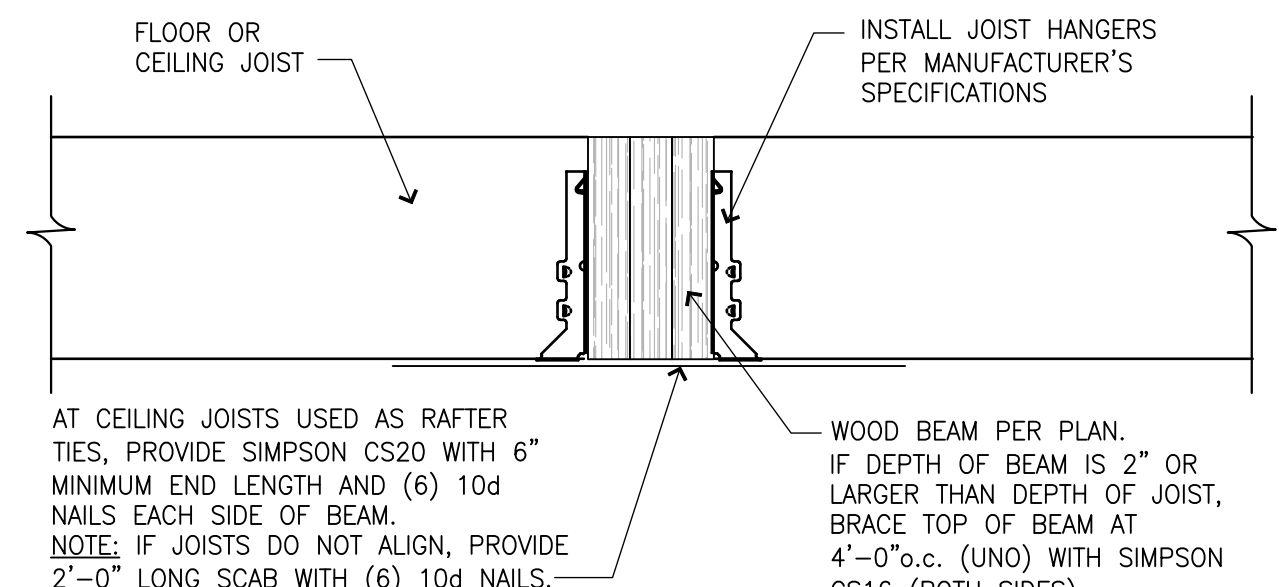
NOTE: DETAIL ALSO APPLIES FOR FLOOR TRUSSES OR I-JOISTS (BY OTHERS).



8 STEEL BEAM AT COLUMN
SCALE: 3/4" = 1'-0"

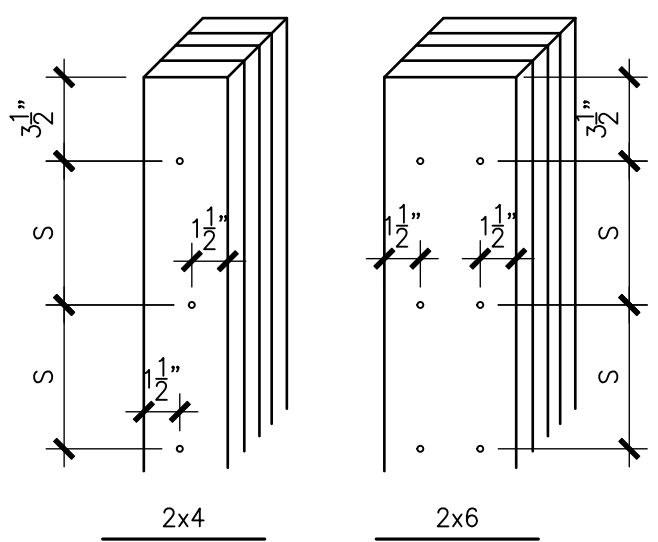


12 STEEL BEAM ON CONCRETE WALL
SCALE: 3/4" = 1'-0"



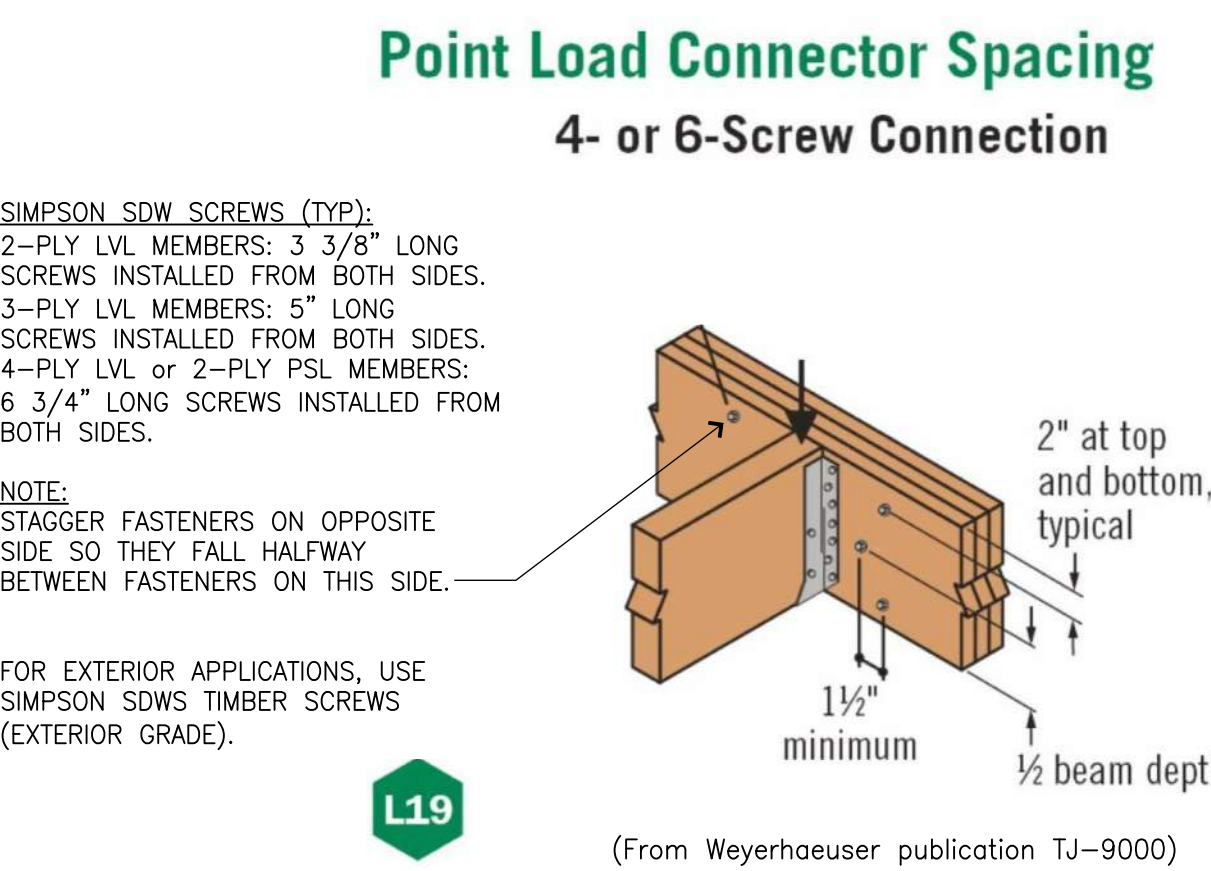
5 TYP UPSET BEAM
SCALE: 1 1/2" = 1'-0"

BUILT-UP COLUMN SCHEDULE		
COLUMN ID	BUILT-UP SECTION	FASTENER SPACING, S
BC1	(2) 2x4	6"
BC2	(3) 2x4	8"
BC3	(4) 2x4	6"
BC4	(2) 2x6	6"
BC5	(3) 2x6	8"
BC6	(4) 2x6	8"



NOTES:
1. FASTENERS SHALL BE SIMPSON SDW22 SCREWS (3" LONG FOR 2-PLY; 4 3/8" LONG FOR 3-PLY; 6" LONG FOR 4-PLY) WITH FASTENERS ALL DRIVEN FROM THE SAME SIDE. FOR EXTERIOR APPLICATIONS, USE SIMPSON SDWS22 TIMBER SCREWS (EXTERIOR GRADE).
2. ALL BUILT-UP COLUMNS SHALL EXTEND TO THE BEAM OR TRUSS ABOVE.
3. ALL LAMINATIONS SHALL BE DF #2 (U.N.O.), FULL LENGTH, AND IN CONTACT WITH ADJACENT LAMINATIONS.

9 BUILT-UP COLUMN SCHEDULE
SCALE: 3/4" = 1'-0"



13 SCREWS AT BEAM HANGER
SCALE: 3/4" = 1'-0"

#	DESCRIPTION	DATE

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DARIUS VIET
PROFESSIONAL ENGINEER
KS # PE24506



PROJECT NUMBER: 24028

DATE: 03/28/2024

SHEET TITLE:
FRAMING
DETAILS

SHEET NUMBER:
S3

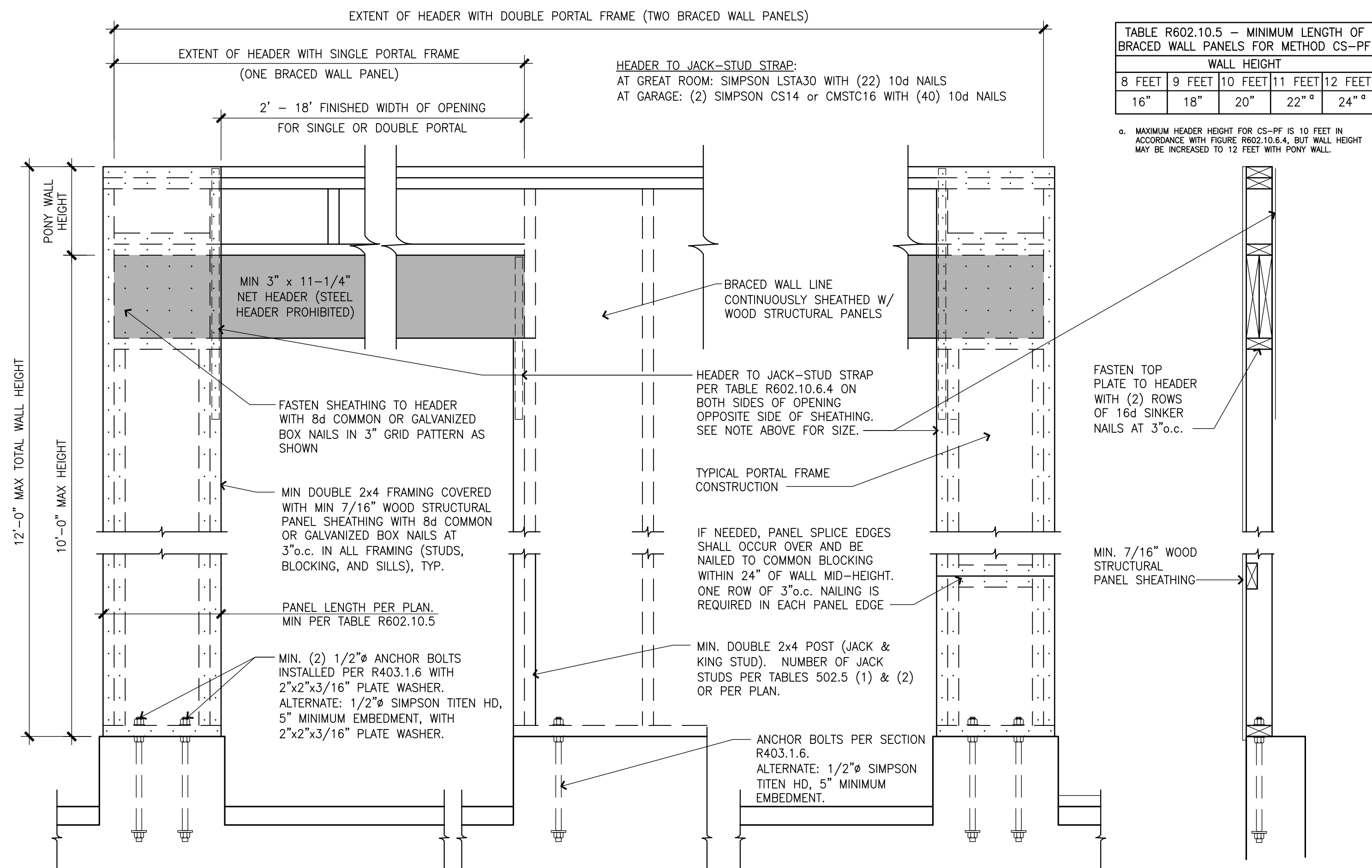
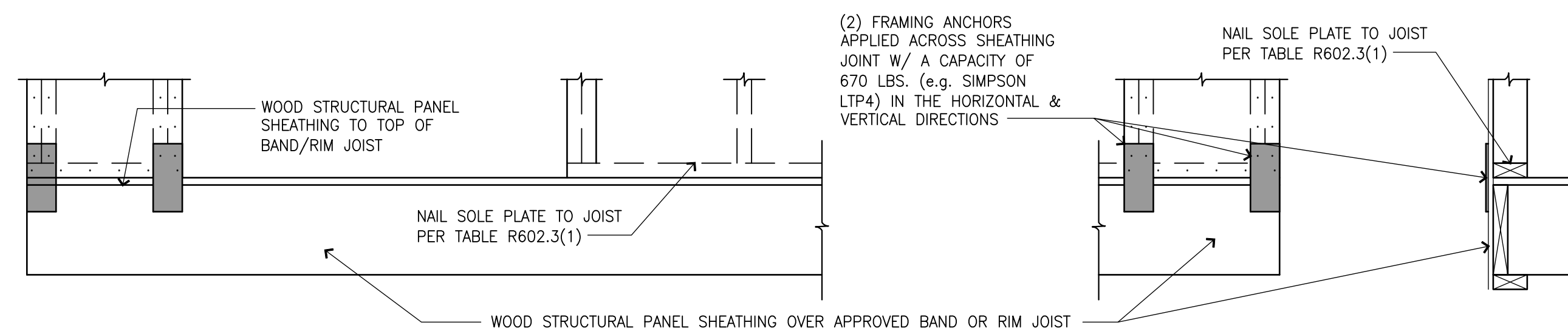


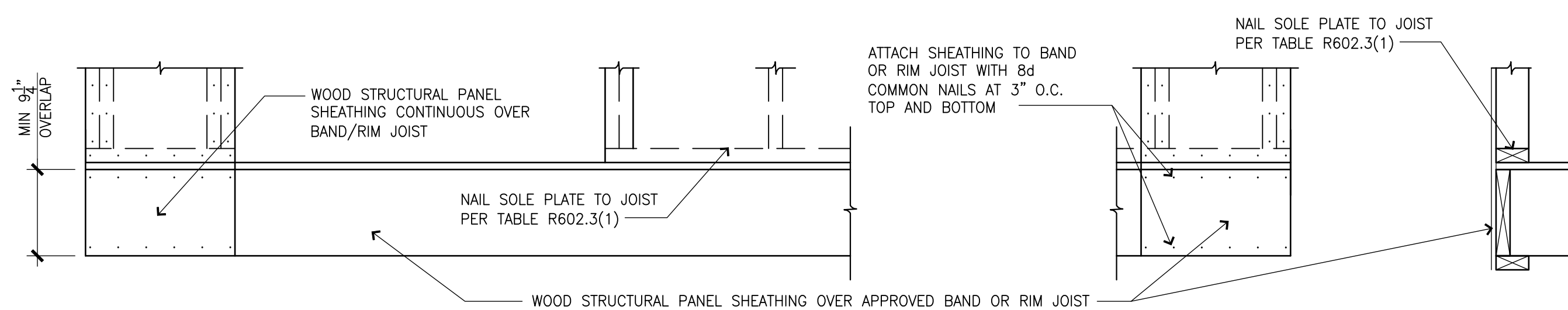
TABLE R602.10.5 - MINIMUM LENGTH OF BRACED WALL PANELS FOR METHOD CS-PF					
WALL HEIGHT					
8 FEET	9 FEET	10 FEET	11 FEET	12 FEET	
16"	18"	20"	22" ^a	24" ^a	

^a MAXIMUM HEADER HEIGHT FOR CS-PF IS 10 FEET IN ACCORDANCE WITH FIGURE R602.10.6.4, BUT WALL HEIGHT MAY BE INCREASED TO 12 FEET WITH PONY WALL.

OVER CONCRETE OR MASONRY BLOCK FOUNDATION



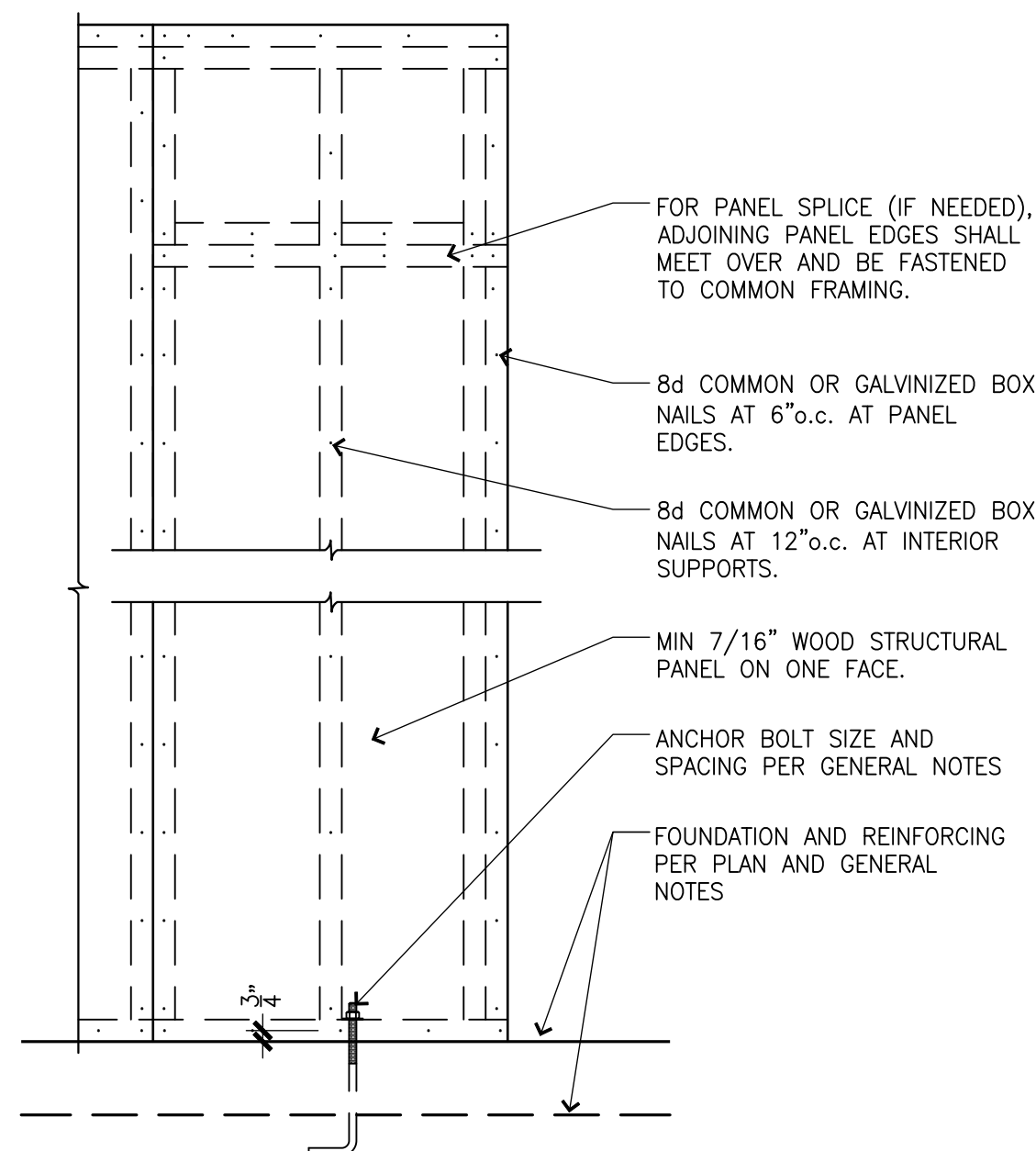
OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION (WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)



OVER RAISED WOOD FLOOR - OVERLAP OPTION (WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

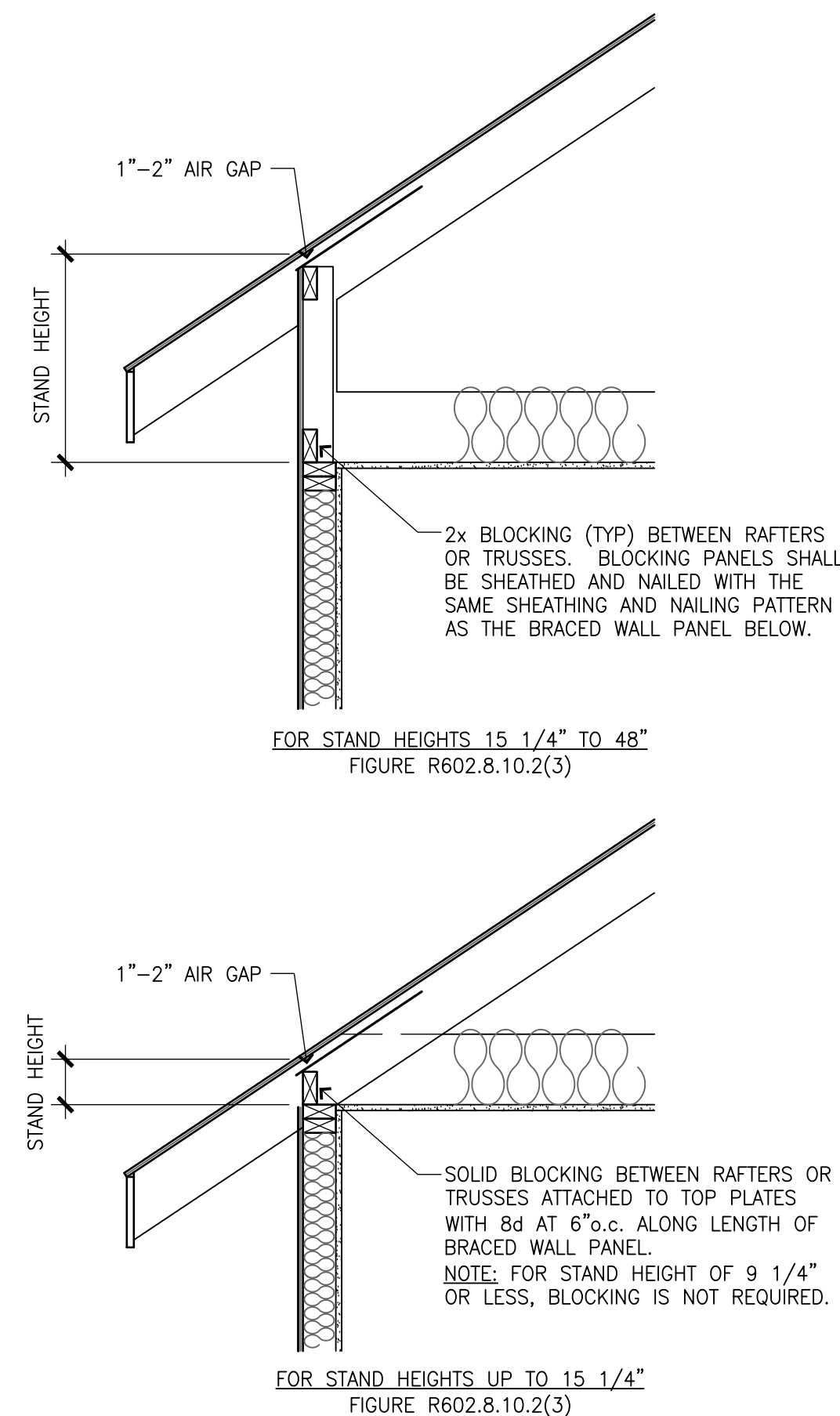
3 CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME (R602.10.6.4)

SCALE: 1" = 1'-0"



1 TYP EXTERIOR WALL NAILING

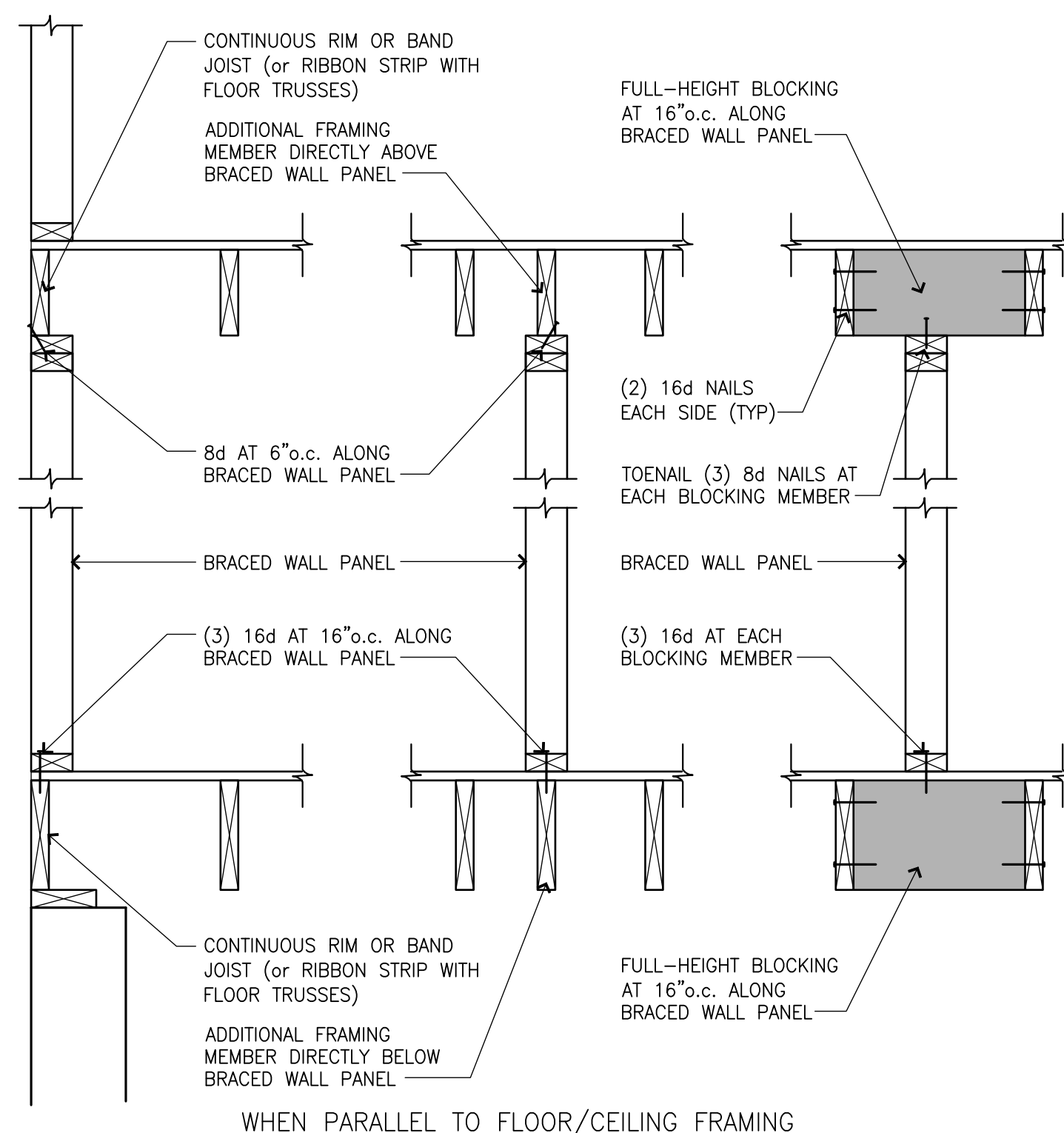
SCALE: 1" = 1'-0"



2 BRACED WALL PANEL CONNECTIONS AT ROOF (R602.10.8.2)

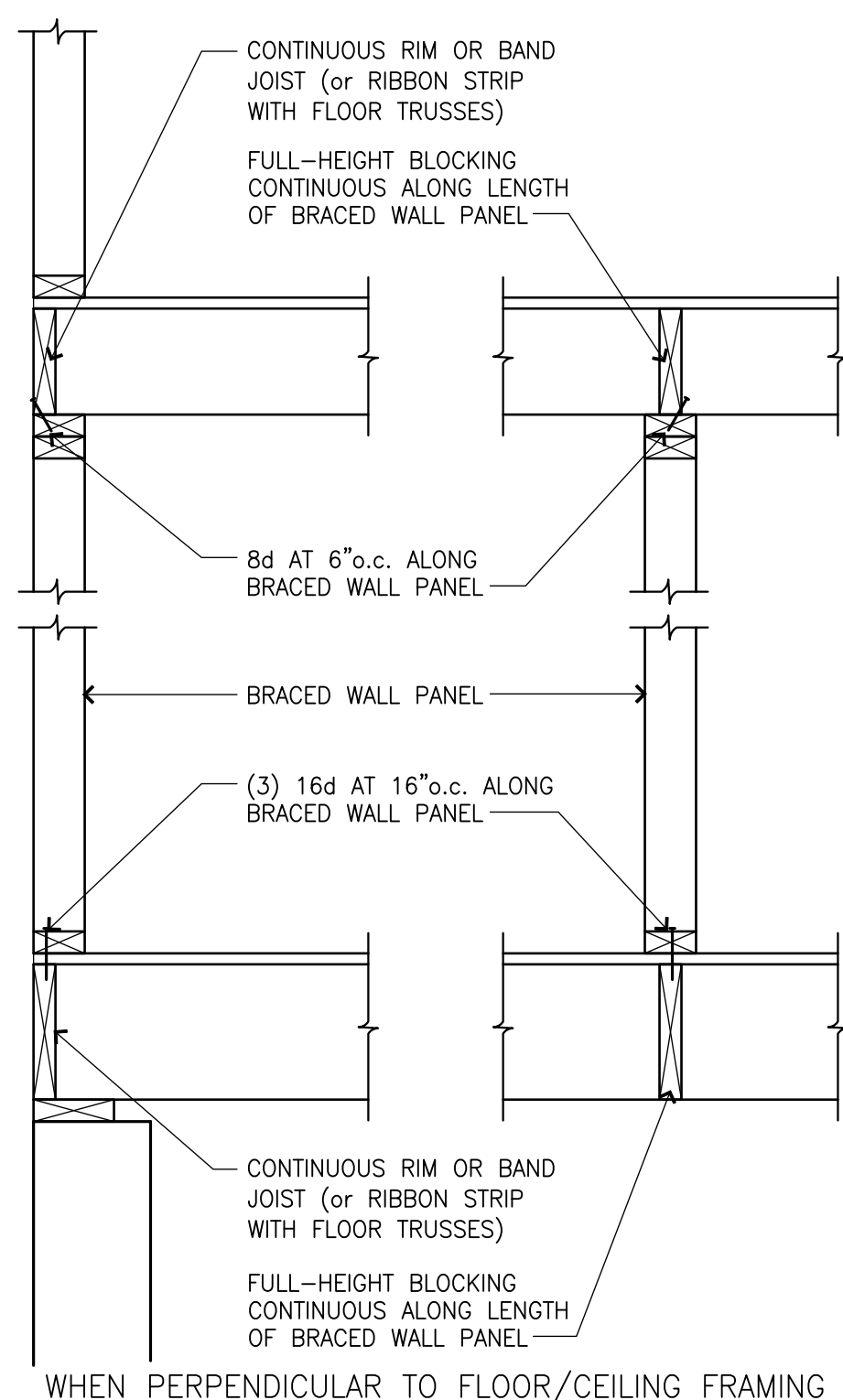
SCALE: 1" = 1'-0"

NOTE: CONNECTIONS APPLY TO SHEAR WALLS, UNO.



4 BRACED WALL PANEL CONNECTIONS (R602.10.8)

SCALE: 1" = 1'-0"



NOTE: CONNECTIONS APPLY TO SHEAR WALLS, UNO.

#	DESCRIPTION	DATE

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PROJECT NUMBER: 24028

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SHEET TITLE:
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SHEET NUMBER: