

GENERAL NOTES – HESTER RESIDENCE – GIG HARBOR, WA

- I. GENERAL REQUIREMENTS
1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB SITE CONDITIONS BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO ECLIPSE ENGINEERING, HENCEFORTH REFERRED TO AS THE ENGINEER
2. USE WRITTEN DIMENSIONS. DO NOT USE SCALED DIMENSIONS. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHITECT OR ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
3. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS AND LAYOUT OF THE EXISTING CONSTRUCTION AS REQUIRED TO COORDINATE THE ERECTION OF THE WORK SPECIFIED IN THESE DRAWINGS. EXISTING BUILDING ELEMENTS ARE IDENTIFIED FOR REFERENCE WITH THE PREFIX (E).
4. DETAILS IN THE DRAWINGS PREFACED WITH THE TITLE "TYPICAL" MAY NOT NECESSARILY BE REFERENCED ON THE PLANS, BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE NO DETAIL IS REFERENCED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE RELEVANT TYPICAL DETAIL FROM THOSE PROVIDED.
5. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, SHORING OF EXISTING BUILDING ELEMENTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE ERECTION OF THE FRAMING AND OF THE LATERAL-LOAD-RESISTING SYSTEM IS COMPLETE.
6. THE ENGINEER ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES TO THE CONSTRUCTION DOCUMENTS MADE BY THE OWNER, CONTRACTOR, BUILDING OFFICIAL, OR OTHER INVOLVED PARTY.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING A SAFE PLACE TO WORK AND FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE JURISDICTIONS, INCLUDING OSHA. THE CONTRACTOR SHALL EXECUTE THEIR WORK TO ENSURE THE SAFETY OF PERSONS AND ADJACENT PROPERTY AGAINST DAMAGE BY FALLING DEBRIS AND OTHER HAZARDS ASSOCIATED WITH THE WORK.
8. THE LATERAL FORCE RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY SIP SHEAR WALLS IN EACH ORTHOGONAL DIRECTION. THE WOOD SHEATHED ROOF FRAMING AND WOOD SHEATHED FLOOR FRAMING SERVE AS HORIZONTAL DIAPHRAGMS TO DISTRIBUTE WIND AND SEISMIC FORCES TO THE SIP SHEAR WALLS.
9. UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, SHOP DRAWINGS AND/OR SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION RELATED TO THE FOLLOWING STRUCTURAL ITEMS:

A. CONCRETE MIX DESIGN

B. STRUCTURAL INSULATED PANELS

C. PRE-FABRICATED ROOF TRUSSES

D. POST-INSTALLED ANCHOR ICC-ES OR IAPMO ES EVALUATION REPORTS
10. DESIGN CRITERIA

A. BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS

B. GEOTECHNICAL AND GRAVITY DESIGN DATA

i. ALLOWABLE SOIL BEARING CAPACITY: 1500 PSF FOR GRAVITY LOADS, 2000 PSF FOR WIND AND SEISMIC LOADS

ii. FLOOR LIVE LOAD: 40 PSF

iii. ROOF LIVE LOAD: 20 PSF

iv. GROUND SNOW LOAD, Pg: 15 PSF

v. FLAT-ROOF SNOW LOAD, Pf: 25 PSF

vi. SNOW EXPOSURE FACTOR, Ce: 1.0

vii. SNOW LOAD IMPORTANCE FACTOR, I: 1.0

viii. CONTROLLING THERMAL FACTOR, Ct: 1.1

C. WIND DESIGN DATA

i. BASIC WIND SPEED: Vult = 110 MPH, Vasd = 85 MPH

ii. RISK CATEGORY: II

iii. WIND EXPOSURE CATEGORY: C

iv. INTERNAL PRESSURE COEFFICIENT, Gcpi: +/- 0.18

D. SEISMIC DESIGN DATA

i. RISK CATEGORY: II

ii. SEISMIC IMPORTANCE FACTOR, Ie: 1.0

iii. MAPPED SPECTRAL ACCELERATION, Ss: 1.55

iv. MAPPED SPECTRAL ACCELERATION, Si: 0.542

v. SITE CLASS: D

vi. DESIGN SPECTRAL ACCELERATION, Sds: 1.240

vii. DESIGN SPECTRAL ACCELERATION, Sd1: 0.632

viii. SEISMIC DESIGN CATEGORY: D

ix. BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS

x. DESIGN BASE SHEAR: 12.83 KIPS, EACH ORTHOGONAL DIRECTION

xi. SEISMIC RESPONSE COEFFICIENT, Cs: 0.191, EACH ORTHOGONAL DIRECTION

xii. RESPONSE MODIFICATION FACTOR, R: 6.5, EACH ORTHOGONAL DIRECTION

xiii. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

II. SHALLOW FOUNDATIONS

1. IF ANY OF THE FOLLOWING CONDITIONS ARE DISCOVERED DURING CONSTRUCTION AT THE BUILDING SITE, A GEOTECHNICAL INVESTIGATION SHALL BE COMMISSIONED IN ACCORDANCE WITH CHAPTER 18 OF THE IBC:

A. QUESTIONABLE SOIL

B. EXPANSIVE SOIL

C. GROUND-WATER TABLE IS ABOVE OR WITHIN 5 FEET BELOW THE ELEVATION OF THE LOWEST FLOOR LEVEL WHERE SUCH FLOOR IS LOCATED BELOW THE FINISHED GROUND LEVEL ADJACENT TO THE FOUNDATION. DEEP FOUNDATIONS

D. E. ROCK STRATA OF VARIABLE OR DOUBTFUL CHARACTERISTICS

F. EXCAVATIONS THAT WILL REMOVE THE LATERAL SUPPORT OF AN ADJACENT, EXISTING FOUNDATION

G. USE OF COMPACTED FILL MATERIAL BELOW SHALLOW FOUNDATIONS IN EXCESS OF 12 INCHES IN DEPTH

H. USE OF CONTROLLED LOW-STRENGTH MASONRY (CLSM)

I. ALTERNATE SETBACK AND CLEARANCE

J. SEISMIC DESIGN CATEGORIES C THROUGH F

2. EXCAVATION FOR ANY PURPOSE SHALL NOT REMOVE LATERAL SUPPORT FROM ANY FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST SETTLEMENT OR LATERAL TRANSLATION.

3. FOUNDATIONS SHALL BE BUILT ON UNDISTURBED SOIL OR COMPACTED FILL MATERIAL 12 INCHES OR LESS IN DEPTH. IF PROVIDED, COMPACTED FILL MATERIAL SHALL HAVE AN IN-PLACE DRY DENSITY NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557. IF THE COMPACTED FILL MATERIAL EXCEEDS 12 INCHES IN DEPTH OR CLSM IS USED, PLACEMENT SHALL COMPLY WITH THE PROVISIONS OF AN APPROVED GEOTECHNICAL INVESTIGATION AND REPORT.

4. THE BOTTOM OF ALL EXTERIOR FOOTINGS AND FOOTINGS SUSCEPTIBLE TO FROST HEAVE SHALL EXTEND A MINIMUM DEPTH BELOW LOWEST ADJACENT FINISHED GRADE OF 1'-0".

5. THE SUBGRADES OF SLABS ON GRADE SHALL BE STRIPPED, TILLED, AND RE-COMPACTED TO PRODUCE A UNIFORM SURFACE. THE SUBGRADE SHALL BE OVERLAIN WITH 6 INCHES, MINIMUM, OF CLEAN, DENSELY-GRADED, CRUSHER-RUN BASE MATERIAL WITH A BALANCED FINE CONTENT THAT SATISFIES THE REQUIREMENTS OF ASTM D1241, TYPE 1 MIXTURE, GRADATION C. THE BASE MATERIAL SHALL BE COMPACTED TO A DRY DENSITY NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557. THE SURFACE OF THE BASE MATERIAL SHALL BE CHOKED OFF WITH SAND OR FINE GRAVEL AND COMPACTED TO PROVIDE A SMOOTH, PLANAR SURFACE FOR THE CONCRETE SLAB ON GRADE.

6. PROVIDE A VAPOR RETARDER DIRECTLY BELOW THE SLAB AND ABOVE THE GRANULAR BASE MATERIAL, UNLESS NOTED OTHERWISE. THE VAPOR RETARDER SHALL COMPLY WITH ASTM E1745 AND SHALL BE 10 MILS THICK, MINIMUM.

7. THE EXCAVATION OUTSIDE THE FOUNDATION SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ORGANIC MATERIAL, CONSTRUCTION DEBRIS, COBBLES AND BOLDERS, OR WITH CLSM. THE BACKFILL SHALL BE PLACED IN LIFTS AND COMPACTED IN A MANNER THAT DOES NOT DAMAGE THE FOUNDATION OR THE WATERPROOFING OR DAMPROOFING MATERIAL, IF PRESENT. CLSM NEED NOT BE COMPACTED.

8. DAMPROOFING AND FOUNDATION DRAINS SHALL BE PROVIDED FOR WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES BELOW GRADE:

A. DAMPROOFING MATERIAL SHALL BE INSTALLED ON THE EXTERIOR SURFACE OF THE WALL, EXTENDING FROM THE TOP OF THE FOOTING TO ABOVE GROUND LEVEL. THE MATERIAL SHALL CONSIST OF A BITUMINOUS MATERIAL, 3 POUNDS PER SQUARE YARD OF ACRYLIC MODIFIED CEMENT, OR 1/8 INCH COAT OF SURFACE-BONDING MORTAR COMPLYING WITH ASTM C887. HOLES AND RECESSES IN CONCRETE WALLS RESULTING FROM THE REMOVAL OF FORM TIES SHALL BE SEALED PRIOR TO APPLYING DAMPROOFING.

B. THE FOUNDATION DRAIN SHALL BE PLACED AROUND THE PERIMETER OF THE FOUNDATION CONSISTING OF CRUSHER-RUN MATERIAL AND EXTENDING A MINIMUM OF 12 INCHES BEYOND THE OUTSIDE EDGE OF THE FOOTING. THE THICKNESS SHALL BE SUCH THAT THE BOTTOM OF THE DRAIN IS NOT HIGHER THAN THE BOTTOM OF THE BASE UNDER THE FLOOR, AND THAT THE TOP OF THE DRAIN IS NOT LESS THAN 8 INCHES ABOVE THE TOP OF THE FOOTING. THE TOP OF THE DRAIN SHALL BE COVERED WITH A FILTER MEMBRANE MATERIAL.

9. WHERE THE GROUND-WATER TABLE IS ABOVE OR WITHIN 5 FEET OF THE BASEMENT FLOOR OR RETAINING WALL FOUNDATION, PROVISIONS FOR WATERPROOFING THE FLOOR AND WALLS SHALL BE COMMISSIONED OR A GROUND-WATER CONTROL SYSTEM SHALL BE PROVIDED, TO BE DESIGNED BY OTHERS.

III. COLD WEATHER CONSTRUCTION

1. CONCRETE:

A. THE CONTRACTOR SHALL PRACTICE STANDARD COLD-WEATHER CONCRETE METHODS AS PER ACI 308.

B. CALCIUM CHLORIDE SHALL NOT BE USED AS AN ACCELERATING ADMIXTURE.

C. CONCRETE DELIVERED TO THE SITE SHALL MEET THE TEMPERATURE REQUIREMENTS OF ASTM C94.

D. CONCRETE SHALL NOT BE PLACED UPON FROZEN SOILS OR SOILS WHICH CONTAIN FROZEN MATERIAL.

E. CONCRETE SHALL BE PROTECTED FROM FREEZING UNTIL THE SPECIFIED STRENGTH IS ATTAINED.

2. SOILS:

- A. ALL SNOW AND ICE SHALL BE REMOVED FROM CUT AND FILL AREAS PRIOR TO ANY SITE WORK.
- B. NO FOUNDATIONS OR FILL MATERIAL SHALL BE PLACED UPON SOILS, WHICH ARE FROZEN OR CONTAIN FROZEN MATERIAL.
- C. FILL THAT HAS BEEN PLACED AND COMPACTED IN AN UNFROZEN STATE, WHICH SUBSEQUENTLY BECOMES FROZEN, SHALL BE RE-COMPACTED AT THE SURFACE (AFTER THAWING), BEFORE PLACING ADDITIONAL LIFTS.
- D. EXPOSED NATIVE SUBGRADE THAT BECOMES FROZEN SHALL BE THAWED AND COMPACTED IN PLACE PRIOR TO FOOTING PLACEMENT.
- E. NO FROZEN SOILS SHOULD BE USED AS FILL.
- F. FOLLOWING PLACEMENT OF FOUNDATIONS, AND BEFORE PLACEMENT OF FILL THAT WILL PROVIDE FROST PROTECTION, FROST SHALL NOT BE PERMITTED TO PENETRATE BELOW FOUNDATIONS.
- IV. CAST-IN-PLACE CONCRETE
1. CONCRETE:

A. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301, UNLESS OTHERWISE NOTED.

B. REQUIRED COMPRESSIVE STRENGTH, f_c:

i. CONCRETE ELEMENTS EXPOSED TO THE EXTERIOR GROUND AND WEATHER OR UNCONDITIONED SPACE OF THE BUILDING: 3000 PSI AT 28 DAYS, NORMAL WEIGHT. MAXIMUM WATER TO CEMENT RATIO = 0.45.

ii. CONCRETE ELEMENTS WITHIN THE CONDITIONED SPACE OF THE BUILDING: 3000 PSI AT 28 DAYS, NORMAL WEIGHT.

iii. IF THE CONTRACTOR ELECTS TO REPLACE THE CEMENT IN THE CONCRETE MIX WITH HIGH-VOLUME FLY ASH, IT IS PERMISSIBLE TO ESTABLISH f_c AT 56 DAYS. THE CONTRACTOR SHALL COORDINATE THE DURATION OF SHORING AND TEMPORARY BRACING ACCORDINGLY.
- C. DURABILITY REQUIREMENTS:

i. CONCRETE ELEMENTS EXPOSED TO THE EXTERIOR GROUND AND WEATHER OR UNCONDITIONED SPACE OF THE BUILDING: PROVIDE TOTAL AIR CONTENT IN ACCORDANCE WITH EXPOSURE CLASS F1 IN ACCORDANCE WITH ACI 318, CHAPTER 4, PER THE FOLLOWING TABLE. TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE +/- 1.5 %:

NOMINAL MAXIMUM AGGREGATE SIZE	TOTAL AIR CONTENT EXPOSURE CLASS F1
1/2"	5.5%
3/4"	5%
1"	4.5%
1 1/2"	4.5%

ii. ALL OTHER CONCRETE: NO REQUIREMENTS.
- D. THE CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS OF CONSTRUCTION OR POUR JOINTS TO THE ARCHITECT AND ENGINEER FOR REVIEW.
- E. ROUGHEN CONCRETE SURFACES OF CONSTRUCTION JOINTS AND AT LOCATIONS WHERE CONCRETE IS CAST AGAINST EXISTING CONCRETE TO 1/4" AMPLITUDE AND CLEAN OF LAITANCE, FOREIGN MATTER, AND LOOSE PARTICLES.
2. REINFORCING:

A. TYPICAL REINFORCING: ASTM A615 GRADE 40 FOR #3 BARS, ASTM A615 GRADE 60 FOR #4 BARS TO #7 BARS, AND ASTM A706 GRADE 60 FOR #8 BARS AND LARGER

B. REINFORCING TO BE WELDED: ASTM A706 GRADE 60

C. DEFORMED BAR ANCHORS: ASTM A1064, Fy = 70 KSI.

D. PROVIDE CLEARANCE AND COVER OF REBAR AS FOLLOWS, UNLESS OTHERWISE NOTED:

i. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES

ii. FORMED SURFACES EXPOSED TO EARTH OR WEATHER, # 5 BARS AND SMALLER: 1 1/2 INCHES

iii. FORMED SURFACES EXPOSED TO EARTH OR WEATHER, #6 BARS AND LARGER: 2 INCHES

iv. INTERIOR SLABS, WALLS, AND JOISTS: 3/4 INCHES

v. BEAMS AND COLUMNS: 1 1/2 INCHES TO TRANSVERSE REINFORCING

E. UNLESS OTHERWISE NOTED, REINFORCING BARS SHALL BE SPLICED WITH 50-BAR-DIAMETER LAPS, MINIMUM.

F. REINFORCING SHALL BE SUPPORTED PRIOR TO CONCRETING IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1.

G. REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI 315.

H. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN IN THE DRAWINGS. WELDING SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE – STEEL.
3. SLAB ON GRADE CONTROL JOINTS:

A. THE CONTRACTOR SHALL INSTALL TOOLED OR SAWCUT CONTROL JOINTS IN THE CONCRETE SLABS ON GRADE. THE JOINTS SHALL BE 1/8" WIDE AND 1/4" DEEP, WHERE l EQUALS THE SLAB THICKNESS.

B. THE JOINTS SHALL SUB-DIVIDE THE SLAB INTO PANELS WITH THE LONGER SIDE NO GREATER THAN 1.5 TIMES THE LENGTH OF THE SHORTER SIDE.

C. JOINTS IN INTERIOR SLABS SHALL BE SPACED AT NO FURTHER THAN 12'-0" APART AND JOINTS IN EXTERIOR SLABS SHALL BE SPACED AT NO FURTHER THAN 6'-0".

D. THE CONTRACTOR SHALL SUBMIT THEIR CONTROL JOINT PLAN TO THE ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO THE FIRST SLAB ON GRADE CONCRETE POUR.
4. WELDED WIRE REINFORCEMENT: ASTM A1064, SHEETS ONLY
5. FIBER-REINFORCED CONCRETE: ASTM C1118 TYPE III 4.1.3, 100% HOMOPOLYMER POLYPROPYLENE MD FIBRILLATED FIBERS, 1.5 POUND PER CUBIC YARD, MINIMUM APPLICATION RATE
6. POST-INSTALLED ANCHORS

A. ADHESIVE ANCHORS AND DOWELS IN CONCRETE: SET-XP (ICC-ES ESR-2508) OR AT-XP (IAPMO UES ER-263) BY SIMPSON STRONG-TIE OR HI-HY 200 (ICC-ES ESR-3187) BY HILTI.

B. ADHESIVE ANCHORS AND DOWELS IN REINFORCED MASONRY: SET-XP (IAPMO UES ER-265) OR AT-XP (IAPMO UES ER-281) BY SIMPSON STRONG-TIE.

C. EXPANSION ANCHORS IN CONCRETE: STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE OR KWIK BOLT TZ (ICC-ES ESR-1917) BY HILTI.

D. EXPANSION ANCHORS IN MASONRY: STRONG-BOLT 2 (IAPMO UES ER-240) BY SIMPSON STRONG-TIE.

E. SCREW ANCHORS IN CONCRETE: TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE OR KWIK HUS-EZ (ICC-ES ESR-3037) BY HILTI.

F. SCREW ANCHORS IN MASONRY: TITEN HD (ICC-ES ESR-1056) BY SIMPSON STRONG-TIE OR KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI.
7. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL POST-INSTALLED ANCHORS, INCLUDING REQUIREMENTS FOR INSTALLING ANCHORS NEAR HEAD OR RED JOINTS IN MASONRY WALLS.
8. PROVIDE STAINLESS STEEL FASTENERS FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER. PROVIDE ELECTRO-PLATED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS NOTED OTHERWISE.
9. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF (2) ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE OR MASONRY BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, SEEK GUIDANCE FROM THE ENGINEER.
10. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH POST-INSTALLED ANCHORS.
11. SUBSTITUTIONS: SUBSTITUTE PRODUCTS SHALL HAVE AN ASSOCIATED ICC-ES OR IAPMO EVALUATION REPORT AND THE CONTRACTOR MUST DEMONSTRATE PERFORMANCE IS EQUIVALENT TO THE SPECIFIED PRODUCTS. SUBSTITUTIONS WILL NOT BE CONSIDERED UNLESS THIS INFORMATION IS SUBMITTED.
- VI. WOOD FRAMING
1. MEMBERS

A. SAWN LUMBER: NO. 2 DOUGLAS FIR/LARCH, WWPA GRADING RULES

i. ALL LUMBER SHALL BE KILN DRIED WITH A MOISTURE CONTENT LESS THAN 19%.

ii. SILLS AND PLATES IN CONTACT WITH MASONRY OR CONCRETE, AND WITHIN 8" OF GRADE, SHALL BE PRESSURE-TREATED DOUGLAS FIR-LARCH. MUD SILL SHALL BE 2x MINIMUM THICKNESS OF THE SAME OR GREATER WIDTH AS THE STUDS ABOVE.

iii. WALL FRAMING SHALL BE 2x6 STUDS @ 16" O.C. UNLESS OTHERWISE NOTED. PROVIDE DOUBLE 2x6 TOP PLATE WITH MINIMUM 48" LAP SPLICE WITH (8) 18d COMMON NAILS MINIMUM, STAGGERED, UNLESS OTHERWISE NOTED.

iv. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITION WALLS, UNLESS OTHERWISE NOTED.

v. JOISTS AND RAFTERS SHALL HAVE A 1 1/2" MINIMUM BEARING OR SHALL BE SEATED IN METAL HANGERS.

vi. BLOCKING SHALL BE SOLID 2x MATERIAL WITH THE SAME DEPTH AS THE JOIST OR RAFTER AND SHALL BE TIGHTLY FITTED BETWEEN JOISTS OR RAFTERS.

vii. FASTEN BEAMS, COLUMNS, TRIMMER STUDS, AND KING STUDS COMPOSED OF MULTIPLE 2x MEMBERS WITH TWO ROWS OF 10d NAILS @ 12" ON CENTER THROUGH LENGTH OR HEIGHT, STAGGERED TO PREVENT SPLITTING BETWEEN EACH PLY.

viii. BUILT-UP 2x LUMBER BEAMS SHALL NOT BE SUBSTITUTED FOR SOLID TIMBER BEAMS.
- B. TIMBERS: NO. 1 DOUGLAS FIR/LARCH, WWPA GRADING RULES
- C. TIMBERS USED IN TRUSS CONSTRUCTION SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 12 PERCENT BEFORE ASSEMBLING THE TRUSS.
- D. GLUED LAMINATED TIMBER:

i. GLUED LAMINATED TIMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AITC A190.1 AND ASTM D3737.

ii. GLUED LAMINATED TIMBER SHALL BE OF THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE:

a. SINGLE SPAN MEMBERS: COMBINATION 24F-V4

- A. MULTI-SPAN 6 CANTILEVERED MEMBERS: COMBINATION 24F-V8
- iii. ALL LAMINATED MEMBERS SHALL BE INDUSTRIAL APPEARANCE GRADE, UNLESS NOTED OTHERWISE.
- ENGINEERED LUMBER:

i. LAMINATED VENEER LUMBER (LVL):

a. MINIMUM DESIGN PROPERTIES FOR 1 3/4"-WIDE MEMBERS: Fb = 2,800 PSI, E = 2,000,000 PSI, Fv = 285 PSI

b. MINIMUM DESIGN PROPERTIES FOR 3 1/2" AND WIDER MEMBERS: Fb = 3100 PSI, E = 2,000,000 PSI, Fv = 310 PSI

c. LVL MEMBERS SHALL NOT BE USED IN EXTERIOR APPLICATIONS OR AGAINST CONCRETE.

d. FASTEN MULTI-PLY LVL BEAMS OR JOISTS TOGETHER WITH TWO ROWS OF 10d NAILS @ 12" ON CENTER THROUGH LENGTH, STAGGERED TO PREVENT SPLITTING, BETWEEN EACH PLY. PROVIDE (8) ADDITIONAL 10d NAILS BETWEEN EACH PLY DISTRIBUTED CLOSELY TO THE VICINITY OF CONCENTRATED LOADS ON MEMBERS FROM FLUSH-SUPPORTED BEAMS OR JOISTS.
- ii. PARALLEL STRAND LUMBER (PSL):

a. MINIMUM DESIGN PROPERTIES: Fb = 2800 PSI, E = 2,000,000 PSI, Fv = 280 PSI

b. PSL MEMBERS USED IN EXTERIOR APPLICATIONS, OR AGAINST CONCRETE, SHALL BE APPROVED BY THE MANUFACTURER FOR USE IN THE EXPOSURE CONDITION TO WHICH THEY ARE SUBJECT.
- iii. LAMINATED STRAND LUMBER (LSL):

a. MINIMUM DESIGN PROPERTIES: Fb = 2325 PSI, E = 1,550,000 PSI, Fv = 310 PSI
- E. PREFABRICATED WOOD I-JOISTS:

i. WOOD I-JOISTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D5055.

ii. JOIST TYPES AND SIZES SHALL BE AS INDICATED ON THE PLANS, OR WRITTEN APPROVED EQUALS.

iii. JOISTS SHALL HAVE LOAD-CARRYING CAPACITY IN ACCORDANCE WITH THE MANUFACTURERS PUBLISHED LOAD TABLES. INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AS DETAILED; USE THE MORE STRINGENT CONDITION.

iv. FLOOR SHEATHING SHALL BE GLUED AND NAILED CONTINUOUSLY TO THE TOP FLANGE OF ALL JOISTS AS SPECIFIED ON THE PLANS AND IN THESE NOTES.

v. SUBMIT SHOP DRAWINGS OF LAYOUT AND REQUIRED CONNECTION DETAILS FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION.
2. PREFABRICATED WOOD TRUSSES:

A. MAXIMUM TRUSS SPACING: 24' O.C.

B. TRUSS LOADING UNLESS NOTED OTHERWISE ON DRAWINGS:

i. TOP CHORD SNOW LOAD = 25 PSF

ii. TOP CHORD DEAD LOAD = 8 PSF

iii. BOTTOM CHORD LIVE LOAD = 0 PSF

iv. BOTTOM CHORD DEAD LOAD = 7 PSF

v. NET WIND UPLIFT (FOR LOAD COMBINATION 0.6 x DEAD - 0.6 x WIND) = 7 PSF AT INTERIOR REGIONS, 18 PSF WITHIN 5.5 FEET OF AND PARALLEL TO ROOF EDGES, AND 18 PSF WITHIN 5.5 FEET IN ANY DIRECTION FROM ROOF CORNERS.

vi. REVIEW THE PLANS AND DETAILS FOR SPECIAL LOADS INCLUDING, BUT NOT LIMITED TO, REACTIONS FROM PARAPET WALLS, MECHANICAL UNITS, AND AXIAL LOADS FROM SEISMIC CROSS-TIES AND DRAG STRUTS.
- C. TRUSSES TO BE FABRICATED BY A CERTIFIED MEMBER OF THE TRUSS PLATE INSTITUTE. DESIGN, FABRICATION, AND ERECTION TO CONFORM TO ANSI/TPI 1.
- D. TRUSS SUBMITTAL PACKAGE: THE TRUSS SUBMITTAL PACKAGE PROVIDED BY THE TRUSS MANUFACTURER SHALL CONSIST OF EACH INDIVIDUAL TRUSS DESIGN DRAWING, THE TRUSS PLACEMENT DIAGRAM, THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING METHOD, AND DETAILS AND ANY OTHER STRUCTURAL DETAILS GERMANE TO THE TRUSSES.
- E. TRUSS DESIGN DRAWINGS: DRAWINGS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. DRAWINGS SHALL INCLUDE THE WRITTEN GRAPHIC AND PICTORIAL DEPICTION OF EACH INDIVIDUAL TRUSS SHALL BE PROVIDED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO INSTALLATION. REFERENCE THE DEFERRED SUBMITTAL SECTION OF THESE NOTES FOR MORE INFORMATION. TRUSS DESIGN DRAWINGS SHALL ALSO BE PROVIDED WITH THE SHIPMENT OF TRUSSES DELIVERED TO THE JOB SITE. TRUSS DESIGN DRAWINGS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

a. SLOPE OR DEPTH, SPAN, AND SPACING

b. LOCATION OF ALL JOINTS AND SUPPORT LOCATIONS

c. NUMBER OF PLIES IF GREATER THAN ONE

d. REQUIRED BEARING WIDTHS

e. DESIGN LOADS AS APPLICABLE, INCLUDING:

(i) TOP CHORD LIVE LOAD

(ii) TOP CHORD DEAD LOAD

(iii) BOTTOM CHORD LIVE LOAD

(iv) BOTTOM CHORD DEAD LOAD

(v) ADDITIONAL LOADS AND LOCATIONS

(vi) ENVIRONMENTAL DESIGN CRITERIA AND LOADS (WIND, RAIN, SNOW, SEISMIC, ETC.)

f. OTHER LATERAL LOADS, INCLUDING DRAG STRUT LOADS

g. ADJUSTMENTS TO WOOD MEMBER AND METAL CONNECTOR PLATE DESIGN VALUE FOR CONDITIONS OF USE

h. METAL-CONNECTOR-PLATE TYPE, SIZE, AND THICKNESS OR GAGE, AND THE DIMENSIONED LOCATION OF EACH METAL CONNECTOR PLATE. CONNECTOR PLATES SHALL HAVE A CURRENT ICC-ES OR IAPMO EVALUATION REPORT.

i. SIZE, SPECIES, AND GRADE FOR EACH WOOD MEMBER

j. TRUSS-TO-TRUSS CONNECTIONS AND TRUSS FIELD ASSEMBLY REQUIREMENTS

k. CALCULATED SPAN-TO-DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL DEFLECTION FOR LIVE AND TOTAL LOAD, AS APPLICABLE

l. MAXIMUM AXIAL TENSION AND COMPRESSION FORCES IN THE TRUSS MEMBERS

m. REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT LOCATION AND THE METHOD AND DETAILS OF RESTRAINT/BRACING TO BE USED
- ii. PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT: CONFORM WITH SECTION 2303.A.1.2 OF THE 2018 IBC. PROJECT-SPECIFIC PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING DESIGN, IF USED, SHALL BE SPECIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED
- F. TEMPORARY INSTALLATION BRACING/RESTRAINT: THE CONTRACTOR IS RESPONSIBLE FOR THE LATERAL AND INSTALLATION BRACING OF THE TRUSSES. TRUSS BRACING SHALL COMPLY WITH THE REQUIREMENTS OF TPI D58-B8. TEMPORARY BRACING INCLUDES TOP CHORD LATERAL BRACING, BOTTOM CHORD LATERAL BRACING, DIAGONAL BRACING, CROSS BRACING, AND GROUND BRACING.
- G. TRUSSES SPANNING 80 FEET OR GREATER: THE OWNER SHALL CONTRACT WITH ANY QUALIFIED REGISTERED PROFESSIONAL ENGINEER FOR THE DESIGN OF THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING FOR ALL TRUSSES WITH CLEAR SPANS 80 FEET OR GREATER.
3. WOOD STRUCTURAL PANELS

A. ROOF: 19/32" THICK, MINIMUM, 32/16 SPAN RATING; PANEL GRADE: APA RATED SHEATHING. NAILING, UNLESS NOTED OTHERWISE:

i. 8d @ 6" O.C. AT PANEL EDGES.

ii. 8d @ 12" O.C. AT INTERMEDIATE RAFTERS.
- B. FLOOR: 23/32" THICK, MINIMUM, 24 O.C. SPAN RATING; PANEL GRADE: APA RATED SHEATHING. GLUE AND NAILING, UNLESS NOTED OTHERWISE:

i. 10d @ 6" O.C. AT PANEL EDGES.

ii. 10d @ 12" O.C. AT INTERMEDIATE JOISTS.
- C. WALLS: 7/16" THICK, 24/0 SPAN RATING; PANEL GRADE: APA RATED SHEATHING. NAILING, UNLESS NOTED OTHERWISE:

i. 8d @ 6" O.C. AT PANEL EDGES.

ii. 8d @ 12" O.C. AT INTERMEDIATE STUDS.
- D. WOOD STRUCTURAL PANELS SHALL CONFORM TO VOLUNTARY PRODUCT STANDARDS PS 1 AND PS 2 AND APA PRP-108 PERFORMANCE STANDARDS.
- E. ALL SHEATHING SHALL BEAR THE APA TRADEMARK AND GRADE STAMP
- F. ALL END JOINTS SHALL BE STAGGERED AND SHALL BUTT ALONG THE CENTER LINES OF FRAMING MEMBERS.
- G. THE LONG DIMENSION OF PANELS SHALL BE INSTALLED PERPENDICULAR TO SUPPORTS WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
- H. PANELS SHALL NOT BE LESS THAN 4' x 8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. THE MINIMUM PANEL DIMENSION FOR FLOOR SHEATHING AT BOUNDARIES SHALL BE 24" UNLESS ALL EDGES OF THE UNDERSIZED PANELS ARE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
- I. NAILS SHALL BE COMMON WIRE NAILS (NOT BOX OR SINKER NAILS) AND BE PLACED 3/8" MINIMUM FROM THE EDGE OF THE PANELS. THE MINIMUM NAIL PENETRATION INTO FRAMING MEMBERS SHALL BE 1 1/2" FOR 8d NAILS AND 1 5/8" FOR 10d NAILS.
- J. WHERE SPECIAL INSPECTIONS ARE REQUIRED, PANEL NAILING SHALL BE INSPECTED PRIOR TO COVERING.
4. WOOD DECKING BOARDS

A. BOARDS SHALL BE LAID AT 90 DEGREES TO SUPPORTING MEMBERS.

B. NAILING TO EACH INTERIOR SUPPORTING MEMBER:

i. 2x6 BOARDS: (2) GALVANIZED 16d NAILS OR #12 WOOD DECK SCREWS.

ii. 2x8 BOARDS: (3) GALVANIZED 16d NAILS OR #12 WOOD DECK SCREWS.
- C. NAILING TO EDGE SUPPORTING MEMBER: GALVANIZED 16d NAILS OR #12 WOOD DECK SCREWS AT 4" O.C.
- D. END JOINTS IN ADJACENT BOARD SECTIONS SHALL BE SEPARATED BY AT LEAST ONE JOIST. THERE SHALL BE AT LEAST TWO BOARDS BETWEEN JOINTS ON THE SAME SUPPORT.
5. FASTENERS AND FRAMING ANCHORS AND CONNECTORS:

- A. NAILS: COMMON WIRE NAILS

i. 8d = 0.131" DIA. x 2 1/2" LONG

ii. 10d = 0.148" DIA. x 3" LONG

iii. 16d = 0.182" DIA. x 3 1/2" LONG.
- B. LAG BOLTS AND THRU-BOLTS: ASTM A307

i. THRU-BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT DIAMETER. PROVIDE STANDARD CUT WASHER UNDER ALL HEAD AND NUTS FOR BOLTS BEARING ON WOOD.

ii. INSTALL LAG BOLTS IN DRILLED PILOT HOLES EQUAL TO 3/4 TIMES THE BOLT SHANK DIAMETER. DO NOT HAMMER OR OVER-DRIVE BOLTS. PROVIDE STANDARD CUT WASHER UNDER ALL LAG BOLT HEADS BEARING ON WOOD.
- C. WOOD SCREWS: AS SPECIFIED ON PLANS
- D. FRAMING ANCHORS AND CONNECTORS: SIMPSON STRONG-TIE, ICC-ES ESR 2523, OR APPROVED EQUAL
- E. METAL CONNECTORS AND TREATED LUMBER:

i. ALL METAL CONNECTORS IN CONTACT WITH TREATED LUMBER SHALL BE STAINLESS STEEL, BATCH/POST HOT-DIP GALVANIZED PER ASTM A123 OR A153, OR PROPRIETARY EQUIVALENT. FASTENERS ARE TO MATCH THE FINISH AND MATERIAL OF THE CONNECTORS.

ii. FASTENERS ARE TO MATCH THE FINISH AND MATERIAL OF THE CONNECTORS.
6. CUTTING, BORING, AND NOTCHING OF WOOD MEMBERS:

A. STUDS:

i. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40 PERCENT OF THE WIDTH OF THE STUD IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITION.

ii. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 80 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLED STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
- B. JOISTS AND RAFTERS:

i. NOTCHES AT THE ENDS OF JOISTS AND RAFTERS SHALL NOT EXCEED ONE FOURTH THE DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS OR RAFTERS SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE ONE THIRD OF THE SPAN, EXCEPT THAT A NOTCH NOT EXCEEDING ONE THIRD OF THE DEPTH IS PERMITTED IN THE TOP OF A RAFTER OR CEILING JOIST NOT FURTHER FROM THE FACE OF THE SUPPORT THAN THE DEPTH OF THE MEMBER.

ii. HOLES BORED IN JOISTS OR RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP AND BOTTOM AND THEIR DIAMETER SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE MEMBER.

C. BEAMS:

i. NOTCHES ARE NOT PERMITTED UNLESS APPROVED OR DETAILED BY THE ENGINEER, SUBJECT TO THE FOLLOWING LIMITATIONS. NOTCHES IN SAWN LUMBER BENDING MEMBERS SHALL NOT EXCEED ONE SIXTH THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. WHERE MEMBERS ARE NOTCHED AT THE ENDS, THE NOTCH DEPTH SHALL NOT EXCEED ONE FOURTH THE BEAM DEPTH. THE TENSION SIDE OF SAWN LUMBER BENDING MEMBERS OF 4 INCHES IN NOMINAL THICKNESS SHALL NOT BE NOTCHED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.

ii. HOLES FOR JOISTS, ETC., SHALL NOT BE BORED IN SAWN LUMBER BENDING MEMBERS OF 4 INCHES OR GREATER WITHOUT SPECIFIC DETAILS FROM THE ENGINEER.

D. ENGINEERED LUMBER AND PREFABRICATED WOOD I-JOISTS: CONFORM TO MANUFACTURER'S RESTRICTIONS FOR CUTTING, BORING, AND NOTCHING.

7. GENERAL:

A. FOR CONNECTIONS FOR WOOD MEMBERS NOT SHOWN ON THESE DRAWINGS OR IN THESE NOTES, USE THE IBC FASTENING SCHEDULE, TABLE 2304.10.1.

B. ALL EXTERIOR WOOD SHALL BE PRESSURE TREATED, PAINTED OR STAINED. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER. FOLLOW THE MANUFACTURERS RECOMMENDATIONS FOR EXTERIOR APPLICATIONS.

C. ALL NON-BEARING WALLS BELOW FLOOR FRAMING AND PREFABRICATED TRUSSES SHALL BE SLIP CONNECTED TO ALLOW FOR POTENTIAL FRAMING DEFLECTION.

8. STRUCTURAL INSULATED PANELS

1. THE PANEL SUPPLIER SHALL PROVIDE SHOP DRAWINGS AND DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE SHOP DRAWINGS SHALL INCLUDE PANEL DIMENSIONS AND CONFIGURATIONS AND DETAILS OF PANEL CONNECTIONS. THE CONNECTIONS SHALL BE COORDINATED WITH SPECIFIC DETAILS SHOWN ON THESE DRAWINGS.

2. THE PANEL SUPPLIER SHALL DESIGN THE WALL PANELS FOR THE FOLLOWING DEMANDS, THE MAGNITUDES OF WHICH ARE SHOWN ON THE DRAWINGS:

A. GRAVITY LOADS: THE SUPPLIER SHALL DEMONSTRATE THAT THE PROVIDED WALL PANELS AND HEADERS ABOVE OPENINGS HAVE ADEQUATE CAPACITY TO RESIST THE GRAVITY LOADS INDICATED. THE GRAVITY LOADS SHALL BE COMBINED WITH THE OUT-OF-PLANE WIND LOADS, IF APPLICABLE, AS DIRECTED BY THE BUILDING CODE.

B. OUT-OF-PLANE WIND LOADS: THE SUPPLIER SHALL DEMONSTRATE THAT THE PROVIDED WALL PANELS HAVE ADEQUATE CAPACITY TO RESIST THE WIND LOADS INDICATED.

C. IN-PLANE SEISMIC OR WIND LOADS: THE SUPPLIER SHALL DEMONSTRATE THAT THE WALL PANELS HAVE ADEQUATE SHEAR AND OVERTURNING CAPACITY TO RESIST THE SEISMIC OR WIND LOADS INDICATED. THE SUPPLIER IS RESPONSIBLE FOR DESIGNING AND PROVIDING HOLD-DOWN HARDWARE AT THE CONNECTION OF THE PANELS TO THE FLOORS AND TO THE FOUNDATION, IF REQUIRED TO RESIST OVERTURNING.

9. DEFERRED SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED FOR THE FOLLOWING DEFERRED DESIGN ITEMS. UPON REVIEW AND ACCEPTANCE OF THE SUBMITTAL, THE ENGINEER AND ARCHITECT WILL FORWARD THE DOCUMENTS TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

A. PREFABRICATED WOOD TRUSSES

B. STRUCTURAL INSULATED PANELS

C. ANCHORAGE OF MECHANICAL, ELECTRICAL, PLUMBING, OR MISCELLANEOUS EQUIPMENT WEIGHING MORE THAN 400 POUNDS

STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTION OF CONCRETE CONSTRUCTION

A. ALL CONCRETE CONSTRUCTION IS MINOR IN NATURE, THEREFORE STRUCTURAL TESTS AND SPECIAL INSPECTIONS ARE NOT REQUIRED.
2. SPECIAL INSPECTION OF WOOD AND SIP CONSTRUCTION

A. ALL WOOD AND SIP CONSTRUCTION IN MINOR IN NATURE, THEREFORE STRUCTURAL TESTS AND SPECIAL INSPECTIONS ARE NOT REQUIRED

SHEET SCHEDULE	
SHEET #	SHEET NAME
S1.1	GENERAL NOTES
S1.2	SYMBOLS AND SCHEDULES
S2.1	FOUNDATION PLAN
S2.2	MAIN FLOOR FRAMING PLAN
S2.1	ROOF FRAMING PLAN
S3.1	DETAILS
S3.2	DETAILS
S3.3	DETAILS
S3.4	DETAILS



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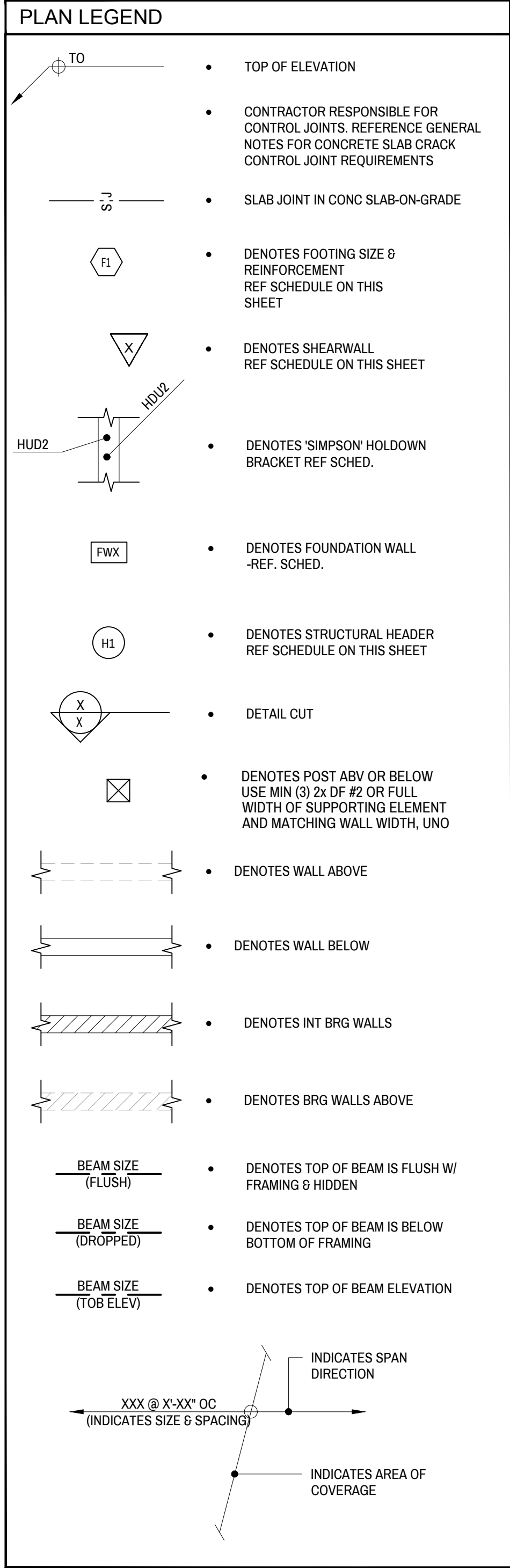
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S1.1



FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
F1S	1'-6" x 10" DEEP STRIP FTG	(2) #4 BAR CONTINUOUS
F2	2'-0" x 10" DEEP STRIP FTG	(3) #4 BAR CONTINUOUS
F2	2'-0" x 10" DEEP SQ FTG	(3) #4 EA. DIR
F3	2'-6" x 10" DEEP SQ FTG	(4) #4 EA. DIR
F3S	3'-6" x 10" DEEP SQ FTG	(4) #4 EA. DIR
F4S	4'-6" x 10" DEEP SQ FTG	(5) #4 EA. DIR

NOTES:
1. CENTER CONTINUOUS FOOTING BELOW FOUNDATION WALL OR PONY WALL, UNLESS DETAILED OTHERWISE.

REBAR LAP SCHEDULE IN CONCRETE	
BAR #	LAP
WWF	8"
#3	18"
#4	30"
#5	36"

NOTES:
1. GRADE 60 REINF. $f_c = 3000$ PSI
2. USE LAP LENGTHS SHOWN IN THIS SCHEDULE, UNLESS NOTED OTHERWISE ON THESE DRAWINGS

SHEARWALL SCHEDULE				
TYPE	MATERIAL	FASTENER SPACING AT PANEL EDGES (EN)	SOLE / SILL PLATE ANCHORS	
			WOOD	CONCRETE
SIP	SIP PANEL WITH 7/16" OSB	PER SIP ENGINEERING	PER SIP ENGINEERING	PER SIP ENGINEERING
6	7/16" OSB - ONE SIDE	8d NAILS @ 6" o.c.	10d NAIL @ 18" o.c. 8d TOE-NAIL @ 6" o.c.	5/8" @ 48" o.c.

CAST-IN-PLACE CONCRETE WALL REINFORCEMENT SIZE AND SPACING								
FOUNDATION WALL LABEL	WALL THICKNESS (INCHES)	VERTICAL REINFORCEMENT	FOOTING DOWELS	HORIZONTAL REINFORCEMENT	HORIZONTAL CORNER REINFORCEMENT	HORIZONTAL CORNER REINFORCEMENT DETAIL	NOTES	
FW6	6	#4 @ 18" o.c.	N/A	#4 @ 18" o.c.	#4 @ 18" o.c.	12/S3.2	TYPICAL	


HEADER SCHEDULE		
MARK	HEADER	TRIMMER STUDS
H0	SIP PANEL HEADER	(2) 2x6
H1	(2) 1 1/2 x 11 1/4" LVL SIP HEADER	(1) 2x6
H2	(2) 2x10	(2) 2x6
H3	(3) 2x12	N/A

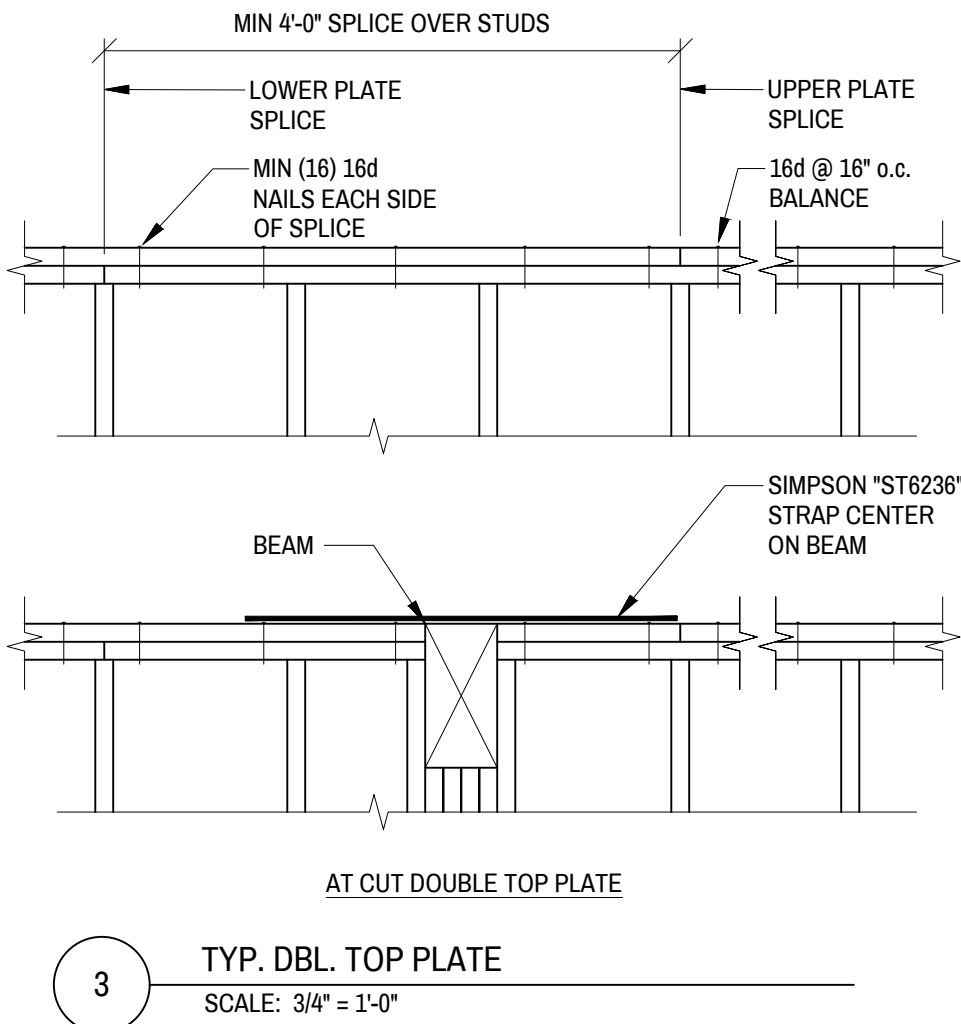
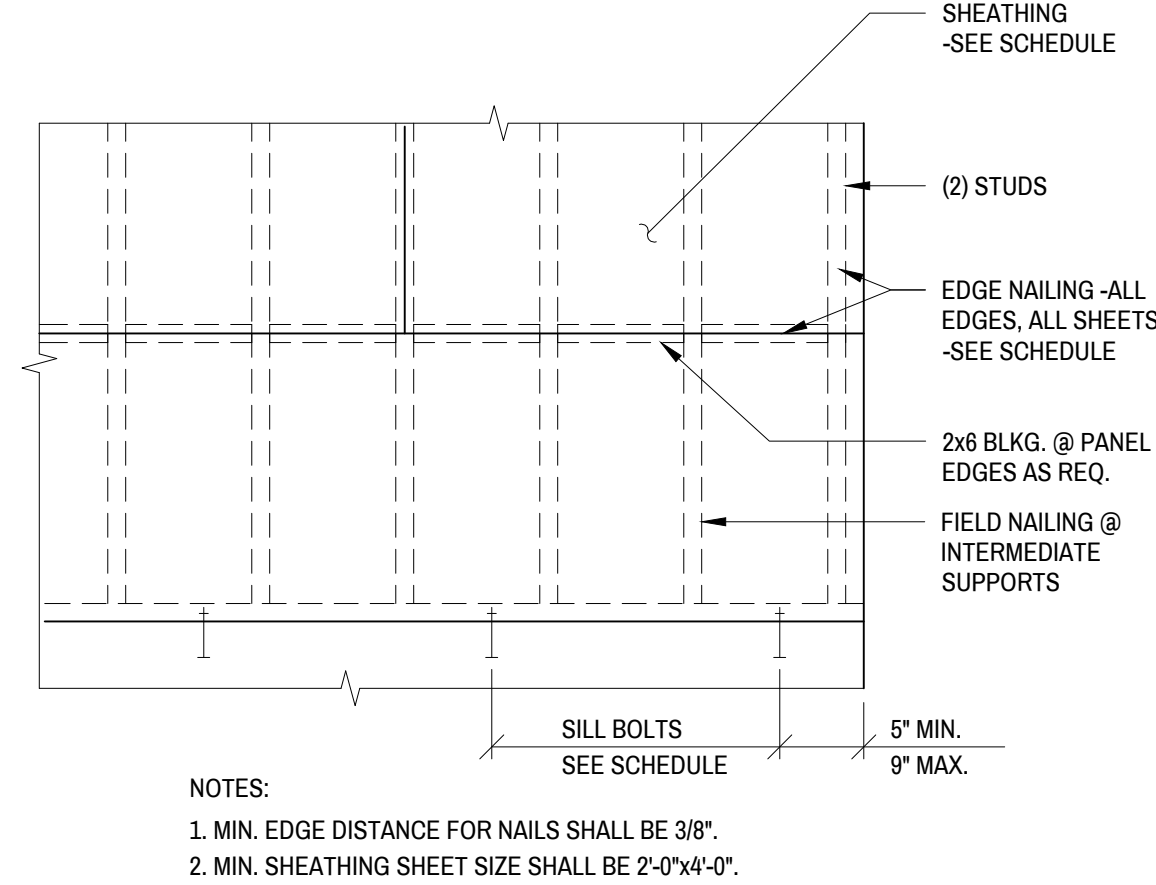
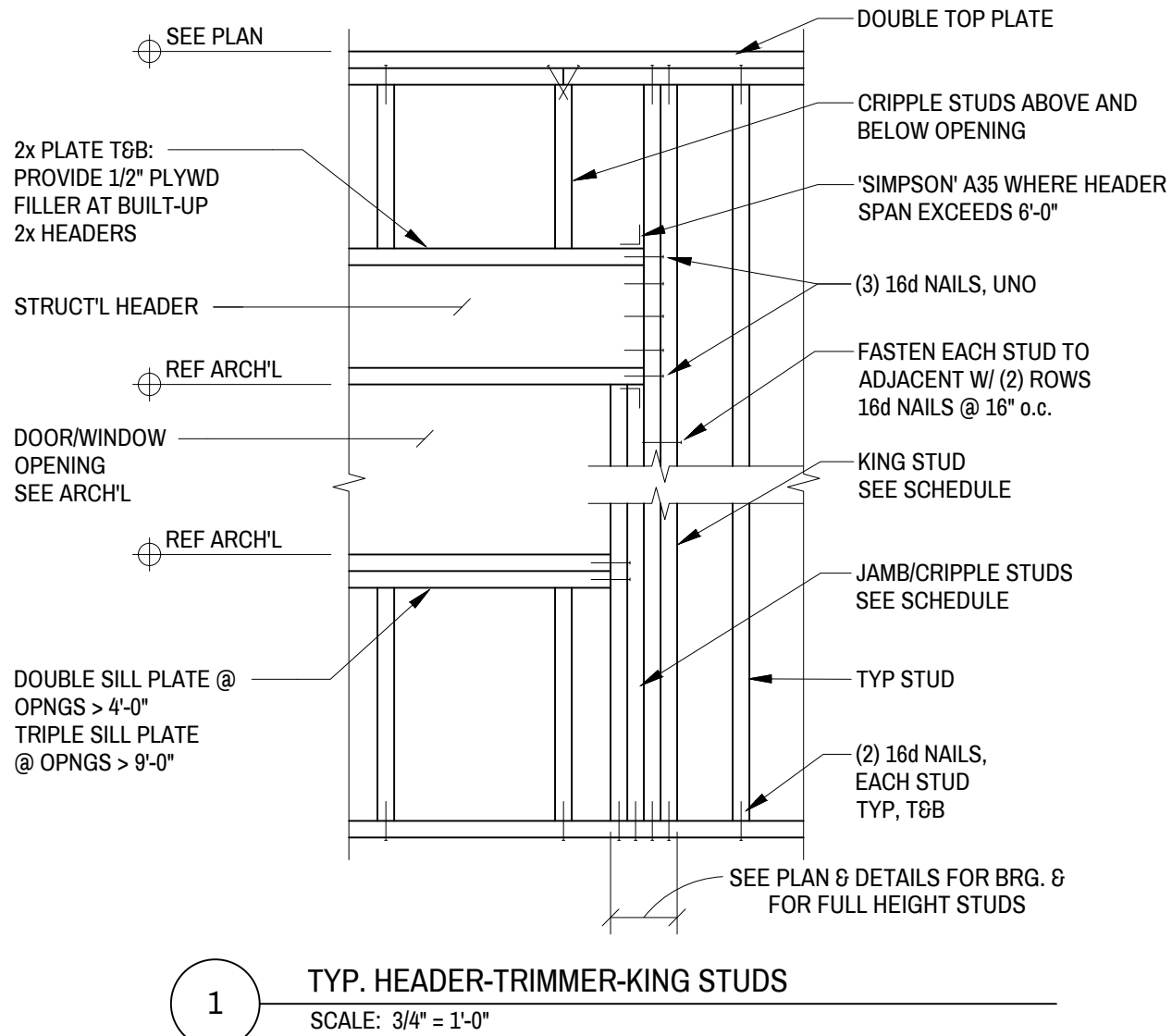
NOTE: ALL INTERIOR STRUCTURAL HEADERS SHALL USE (1) 2x6 KING STUD EA SIDE OF OPENING.
ALL EXTERIAL HEADERS SHALL USE KING STUDS PER SIP ENGINEERING.

* USE MIN. (2) 2x10 HDR. FOR INTERIOR HEADERS U.N.O.

-REF. DETAIL 

KING STUD SCHEDULE	
ROUGH OPENING WIDTH	KING STUDS
LESS THAN 8'-0"	(1) 2x6
8'-0" TO LESS THAN 11'-0"	(2) 2x6
11'-0" TO LESS THAN 16'-0"	(3) 2x6

-REF. DETAIL  USE THIS SCHEDULE UNLESS NOTED OTHERWISE



ABBREVIATION LIST							
AB	ANCHOR BOLT	EA	EACH	LLV	LONG LEG VERTICAL	SIM	SIMILAR
ABV	ABOVE	EW	EACH WAY	MFR	MANUFACTURER	SP	STEP IN PARAPET
ARCH'L	ARCHITECTURAL	ELEV	ELEVATION	MECH'L	MECHANICAL	STD	STANDARD
BLW	BELOW	(E)	EXISTING	NTS	NOT TO SCALE	STRUCT'L	STRUCTURAL
BTWN	BETWEEN	FLR	FLOOR	(N)	NEW	SUBFLR	SUBFLOOR
BD	BOARD	FJ	FLOOR JOIST	OC	ON CENTER	SW	SHEARWALL
BLKG	BLOCKING	FND	FOUNDATION	OSB	ORIENTED STRAND BOARD	TBE	TRUSS BEARING ELEVATION
BTM	BOTTOM	FTG	FOOTING	OPNG	OPENING	TP	TOP OF PARAPET
BN	BOUNDARY NAILING	FW	FOUNDATION WALL	OPP	OPPOSITE	TO	TOP OF
CANT	CANTILEVER	GC	GENERAL CONTRACTOR	PAF	POWDER ACTUATED	TOB	TOP OF BEAM ELEVATION
CMU	CONCRETE MASONRY UNITS	GA	GAUGE		FASTENERS	TOF	TOP OF FOOTING ELEVATION
/ CL	CENTERLINE	GN	GENERAL NOTES	PWFT	PRE-FABRICATED WOOD TRUSSES	TOP	TOP OF PIER ELEVATION
COL	COLUMN	GSN	GENERAL STRUCTURAL NOTES		PLATE	TOS	TOP OF SLAB ELEVATION
CONC	CONCRETE	GT	GIRDER TRUSS	PL	PLYWOOD	TS	TUBE STEEL
CP	CONCRETE PIER	GYP	GYPSON	PWFT	PLYWOOD	TYP	TYPICAL
DJ	DECK JOIST	HAS	HEADED ANCHOR STUD	RAD	RADIUS	UNO	UNLESS NOTED OTHERWISE
DP	DEEP	HAB	HEADED ANCHOR BOLT	REF	REFERENCE	VIF	VERIFY IN FIELD
DBL	DOUBLE	HORIZ	HORIZONTAL	REQ'D	REQUIRED	VERT	VERTICAL
EN	EDGE NAILING	KB	KNEE BRACE	SHTG	SHEATHING	WWF	WELDED WIRE FABRIC



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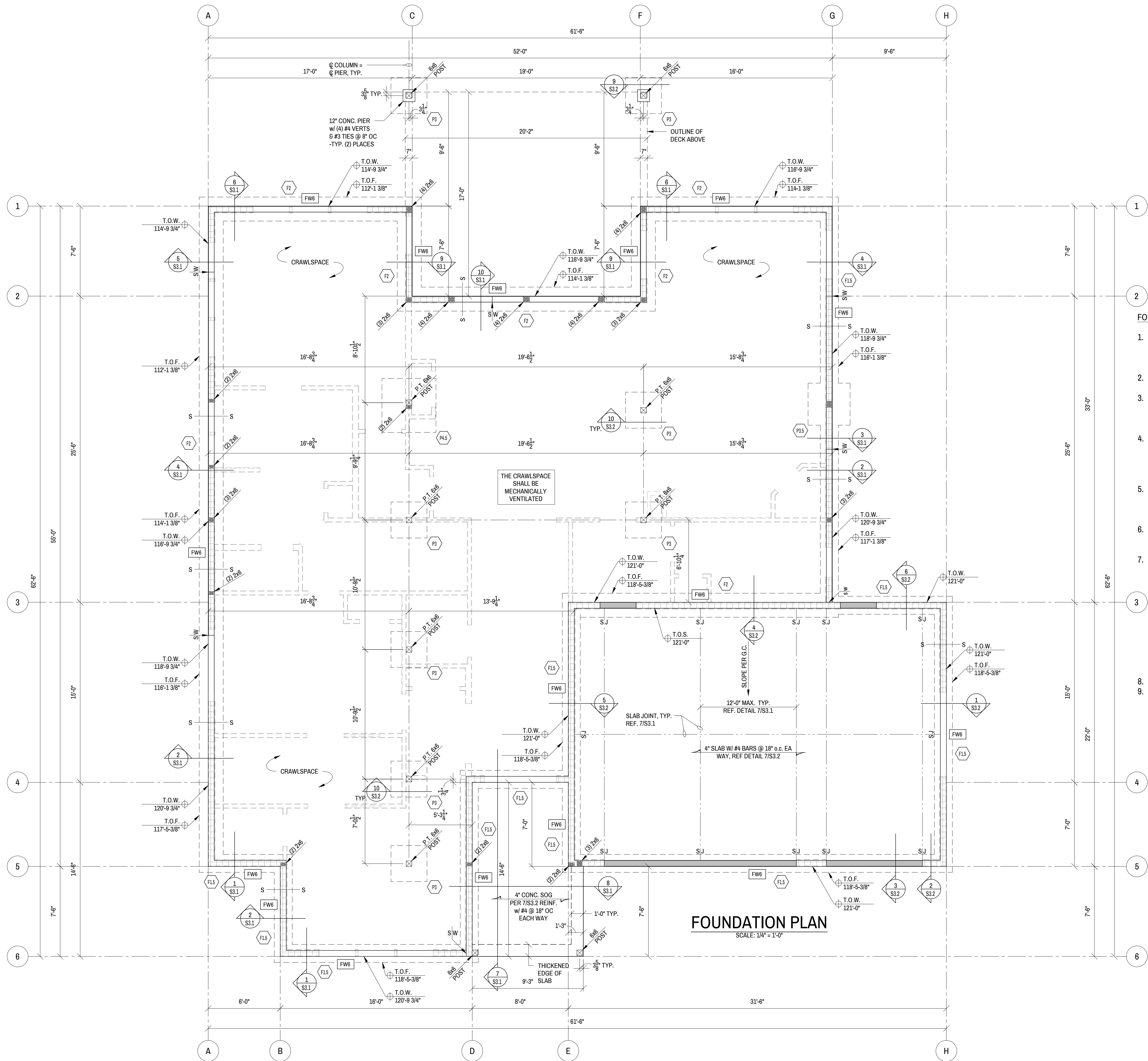
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PLAN NOTES
AND SCHEDULES

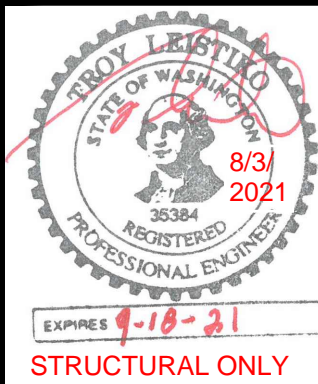
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S1.2



FOUNDATION NOTES

- CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.
- TOP OF MAIN FLOOR PLYWOOD SHEATHING = REFERENCE ELEVATION 121'-0".
- FOUNDATION SHALL BE CONSTRUCTED ON UNDISTURBED NATIVE SOIL OR COMPACTED STRUCTURAL FILL. IF STRUCTURAL FILL IS USED, FILL SHALL BE SPECIFIED BY A GEOTECHNICAL ENGINEER.
- BOTTOM OF ALL EXTERIOR FOOTINGS TO BEAR A MINIMUM OF 1'-0" BELOW LOWEST ADJACENT FINISHED GRADE, UNO. BOTTOM OF ALL INTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 12" BELOW FINISHED GRADE, UNO.
- CONTRACTOR TO FIELD VERIFY FOOTING STEP LOCATIONS WITH FINAL GRADING PLAN. NOTIFY ENGINEER OF ANY DISCREPANCIES IN GRADE ASSUMPTIONS NOTED ON THE PLAN.
- ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 6" OF FINISHED GRADE SHALL BE PRESSURE TREATED.
- UNO., SILL PLATES AT ALL EXTERIOR WALLS, AND INTERIOR BEARING WALLS, SHALL BE ATTACHED WITH 5/8-INCH DIAMETER X 12-INCH LONG, WITH MINIMUM TWO BOLTS PER SILL LOCATED NOT MORE THAN 12-INCHES AND NOT LESS THAN 5-INCHES FROM EACH END. ALL ANCHOR BOLTS SHALL BE EMBEDDED A MINIMUM OF 7-INCHES. ALL SILL ANCHOR BOLTS, HOLDOWN ANCHOR BOLTS, AND EMBEDDED HOLDOWNS SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE. REFERENCE PLAN FOR ADDITIONAL ANCHOR BOLT AND HOLDOWN INFORMATION.
- REFERENCE SHEET S1.1 FOR ADDITIONAL NOTES.
- REFERENCE SHEET S3.1 & S3.2 FOR TYPICAL FOUNDATION DETAILS NOT IDENTIFIED ON THE PLAN.



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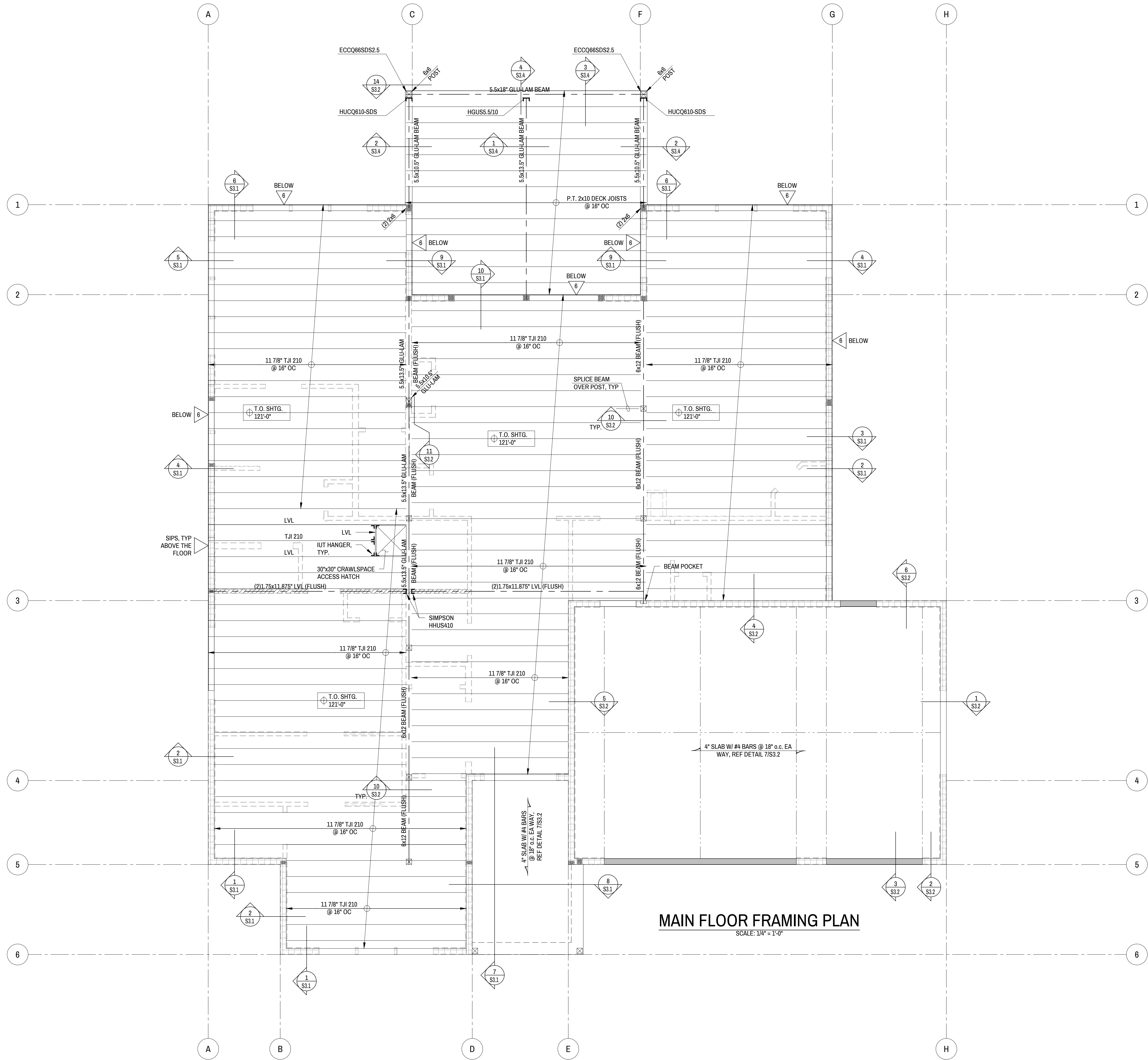
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FOUNDATION & MAIN
FLOOR FRAMING PLAN

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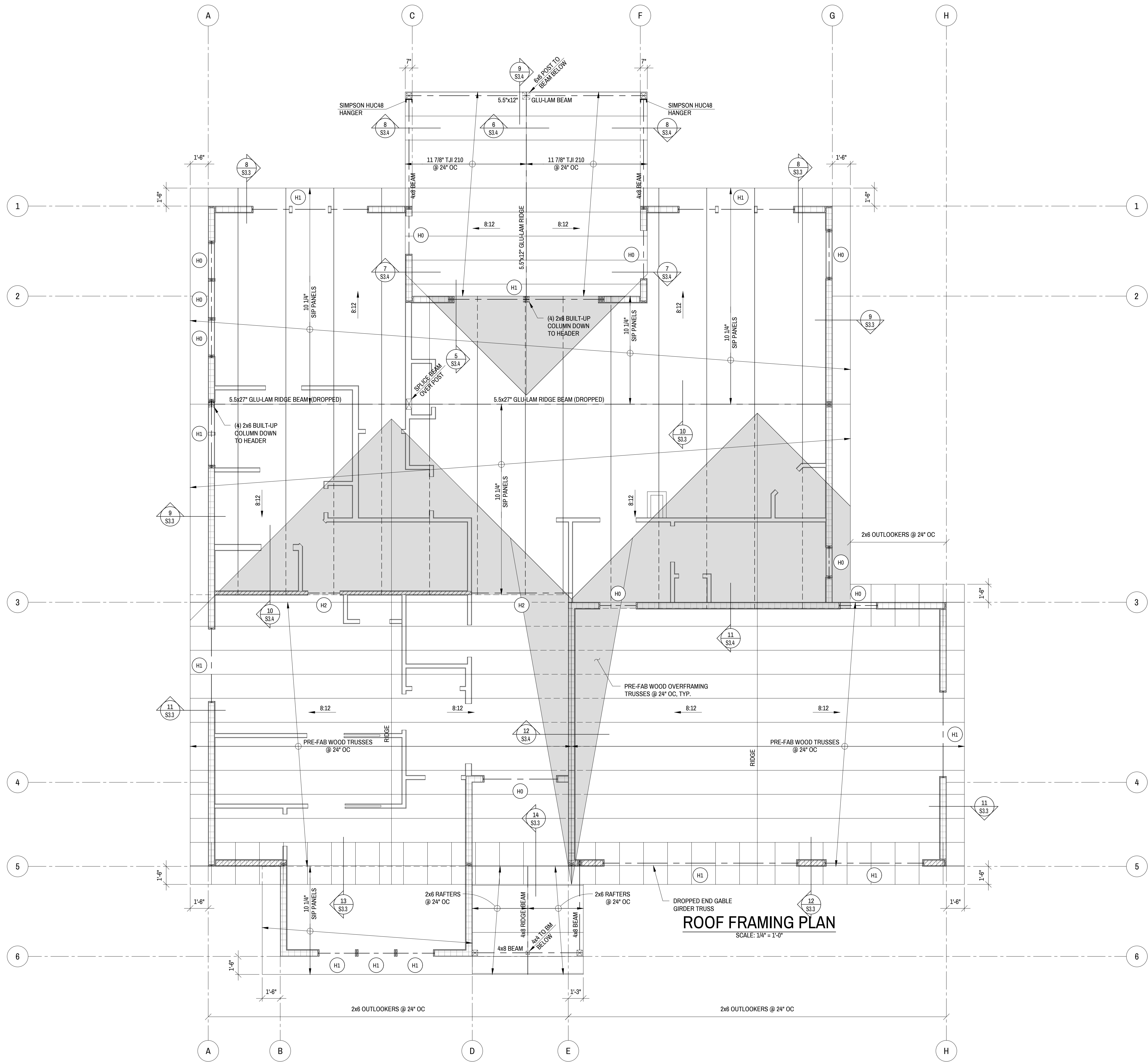
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MAIN FLOOR
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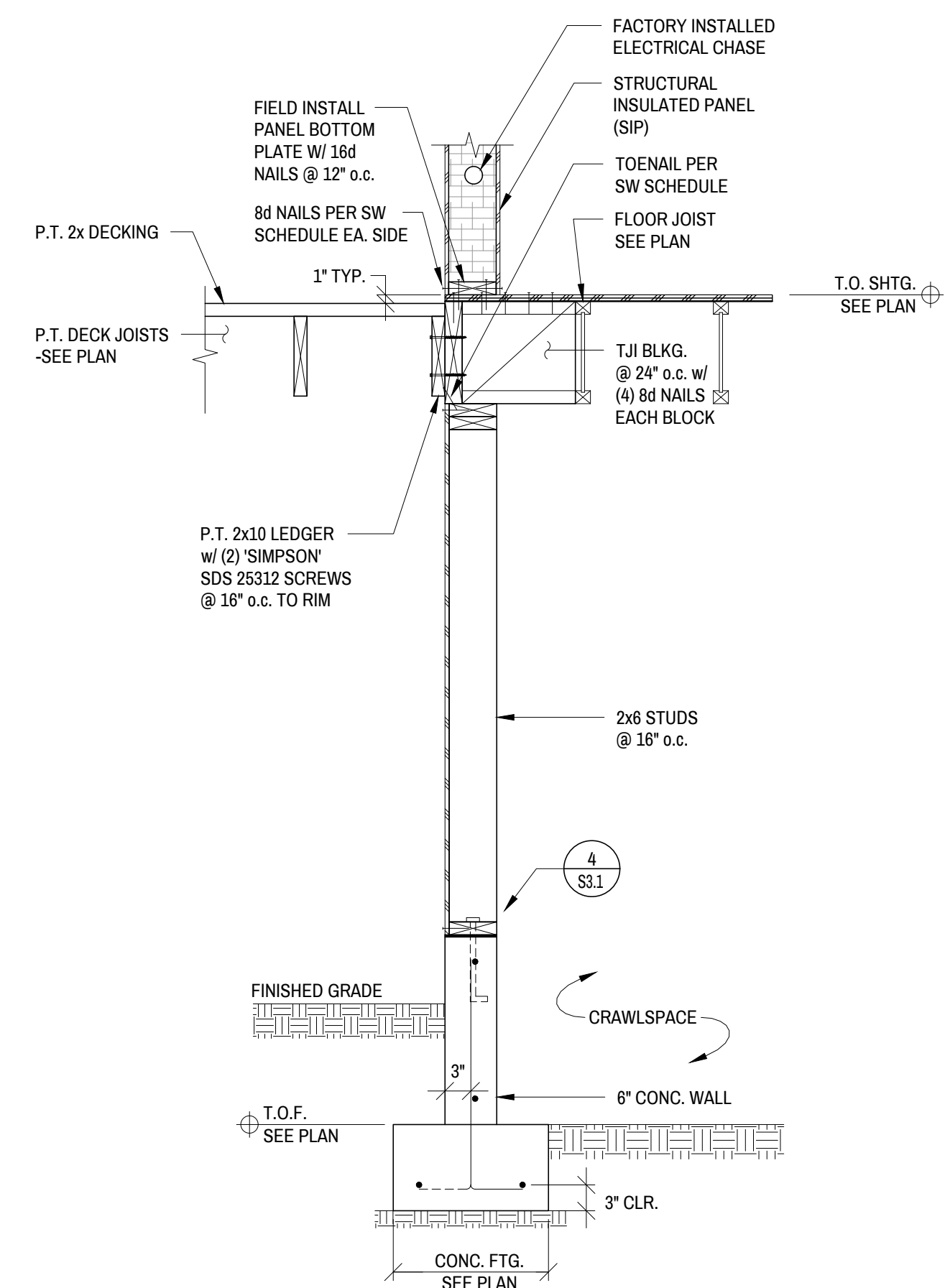
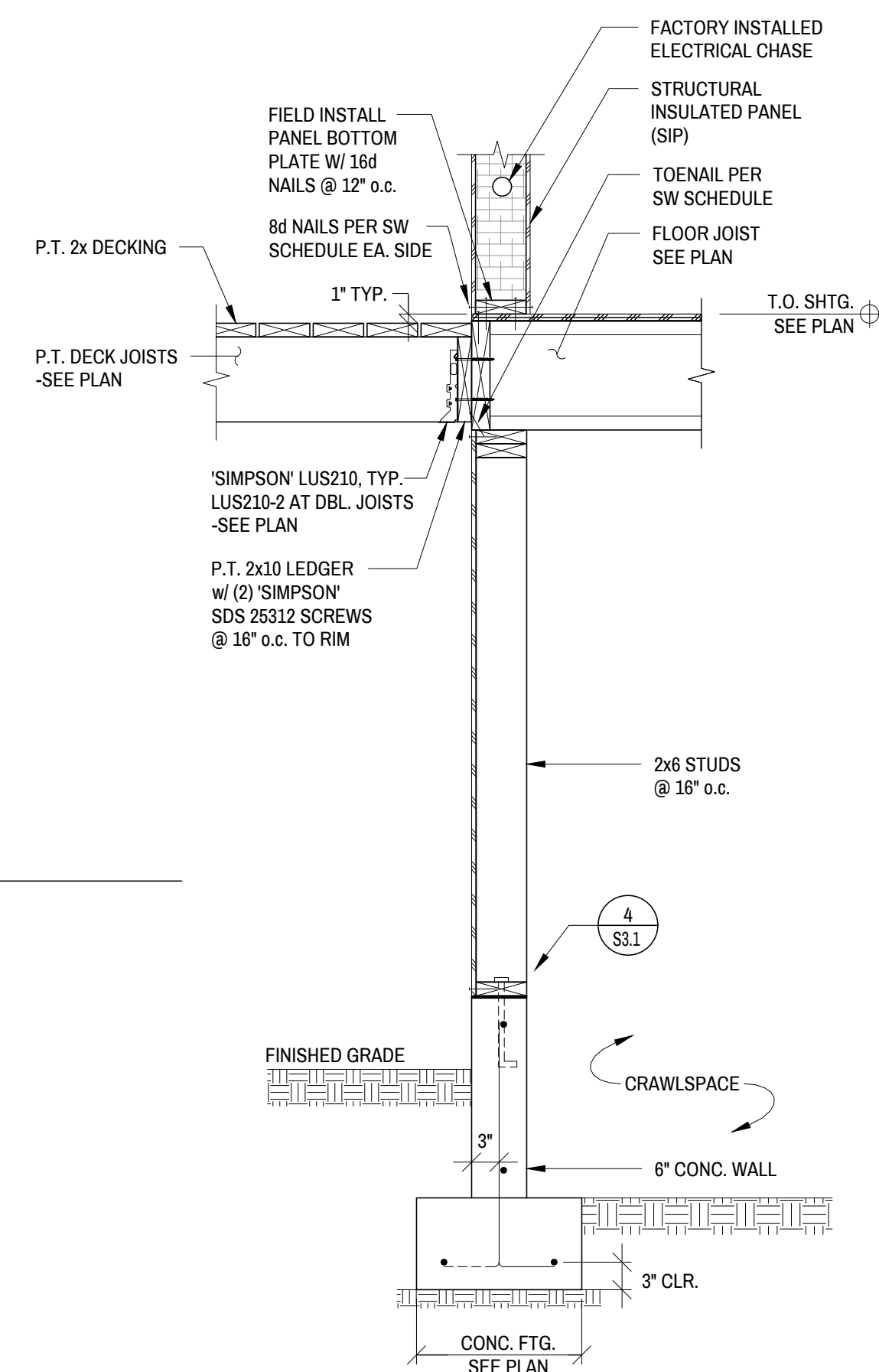
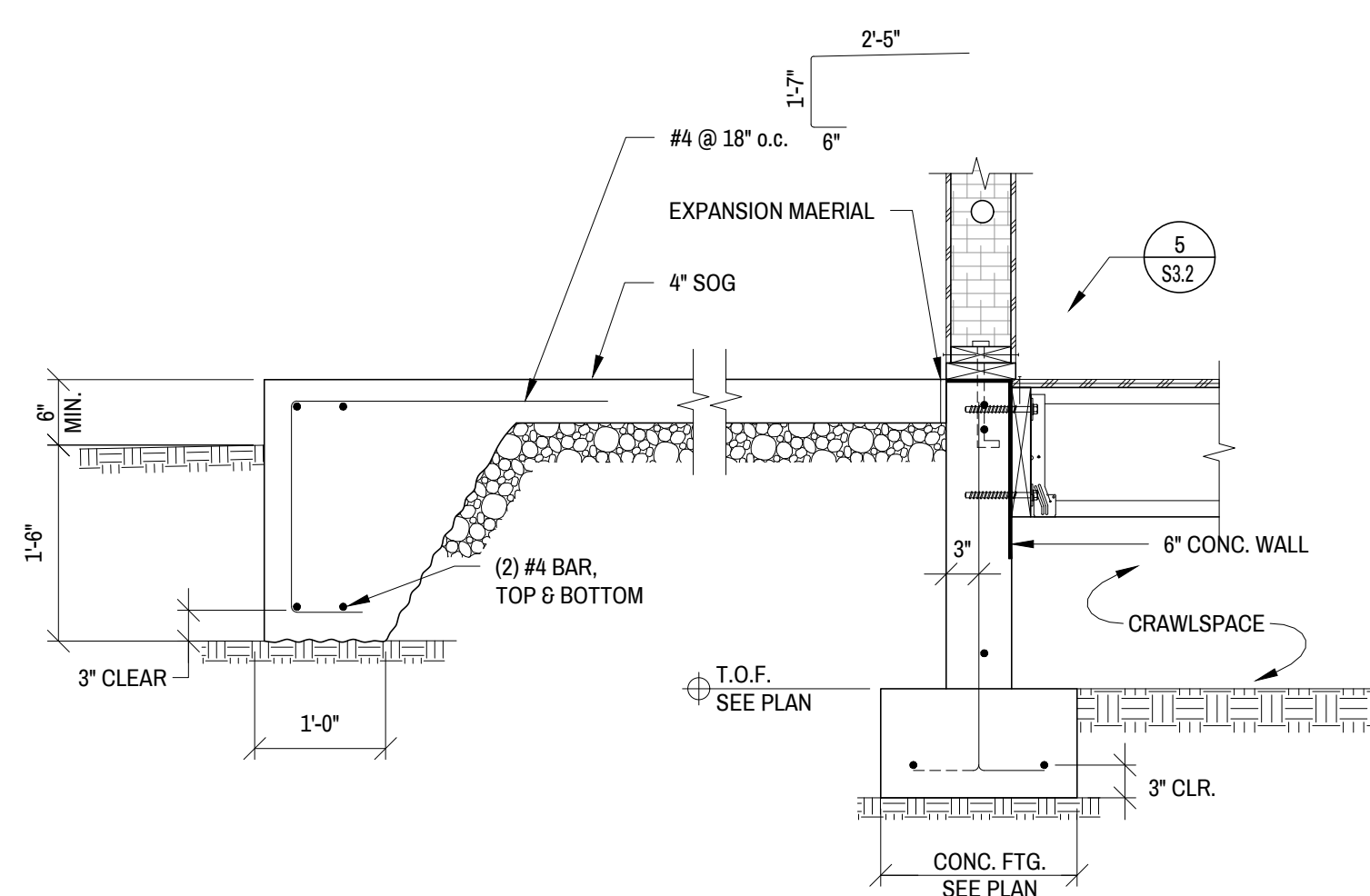
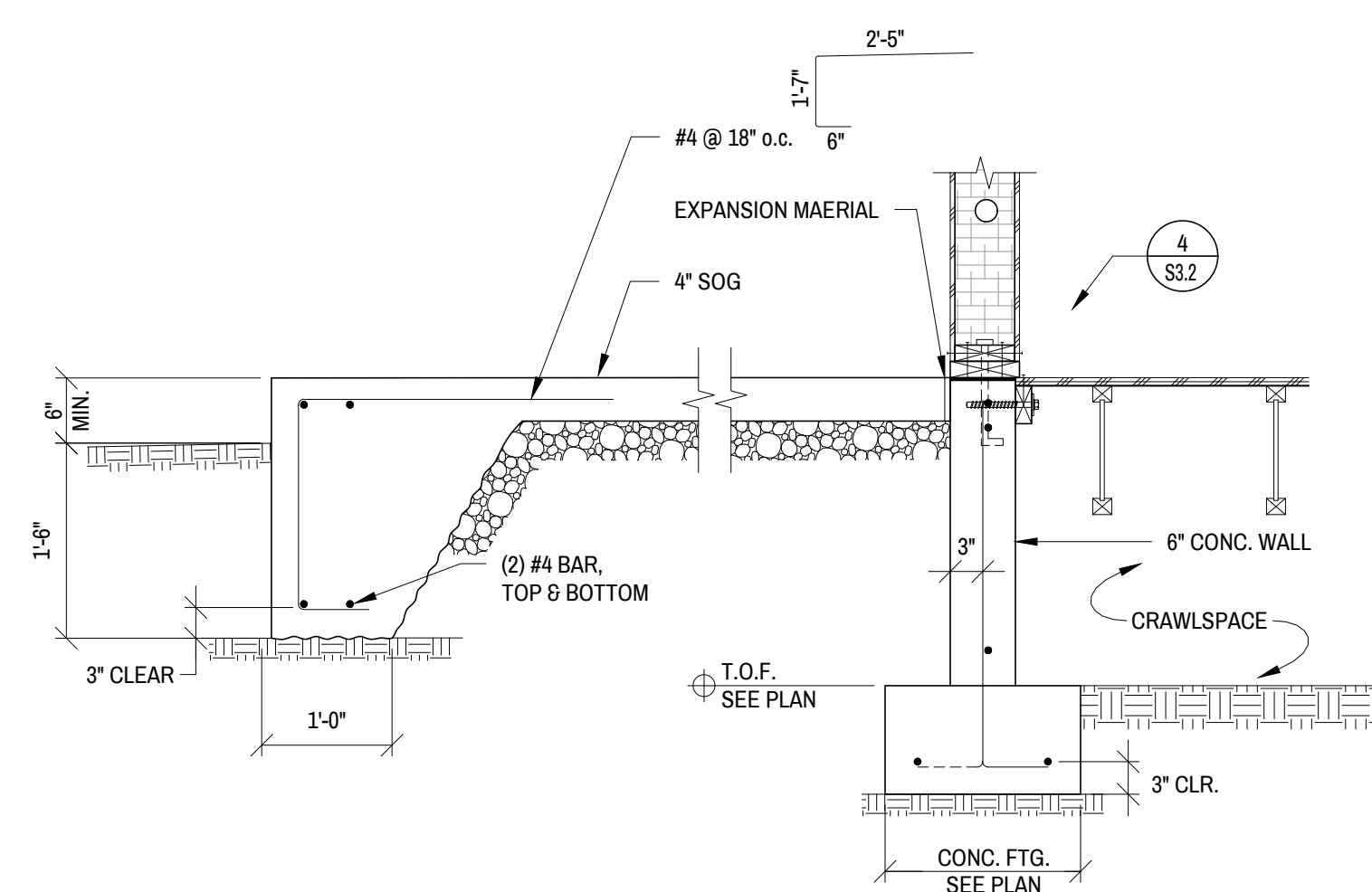
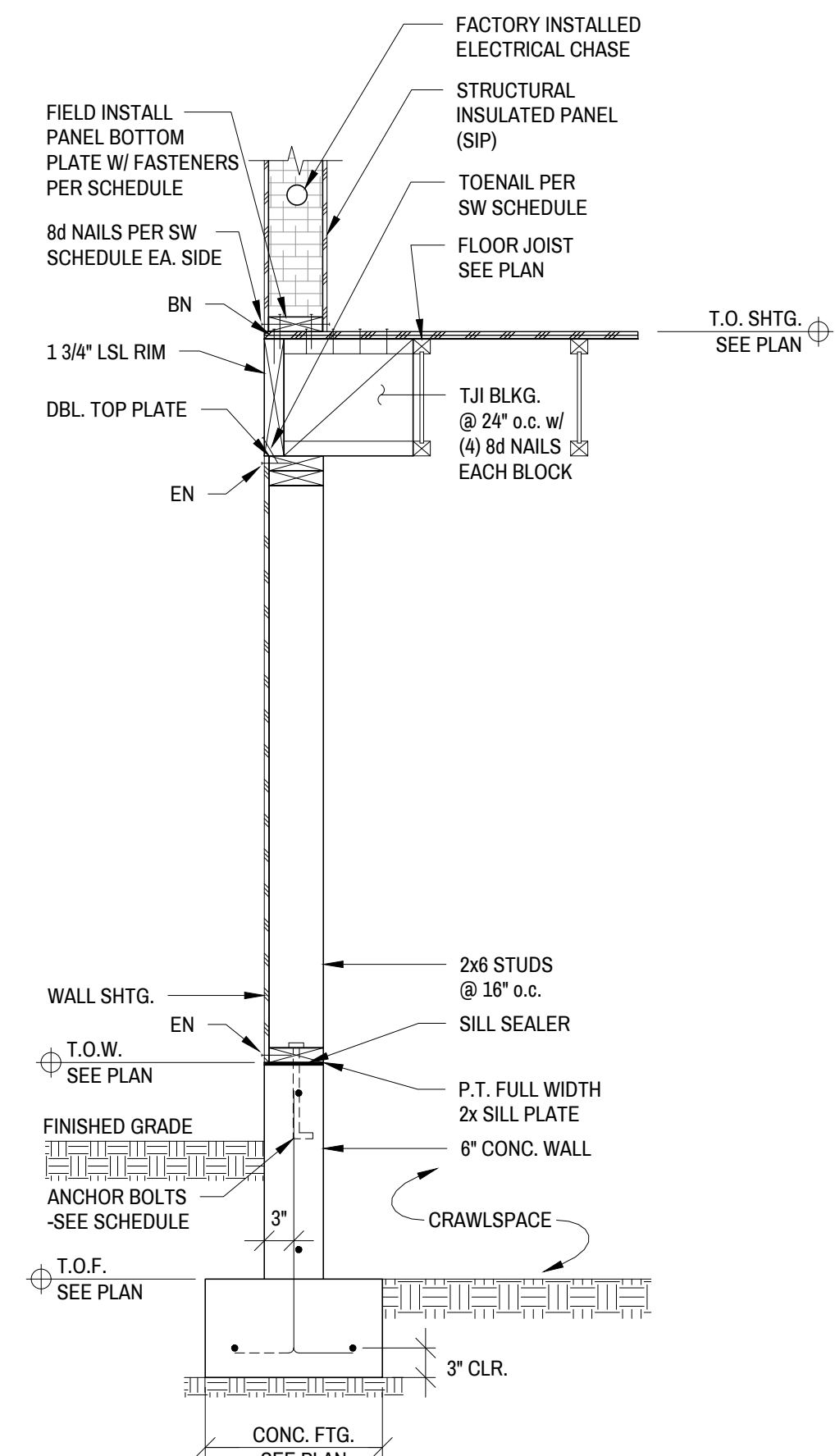
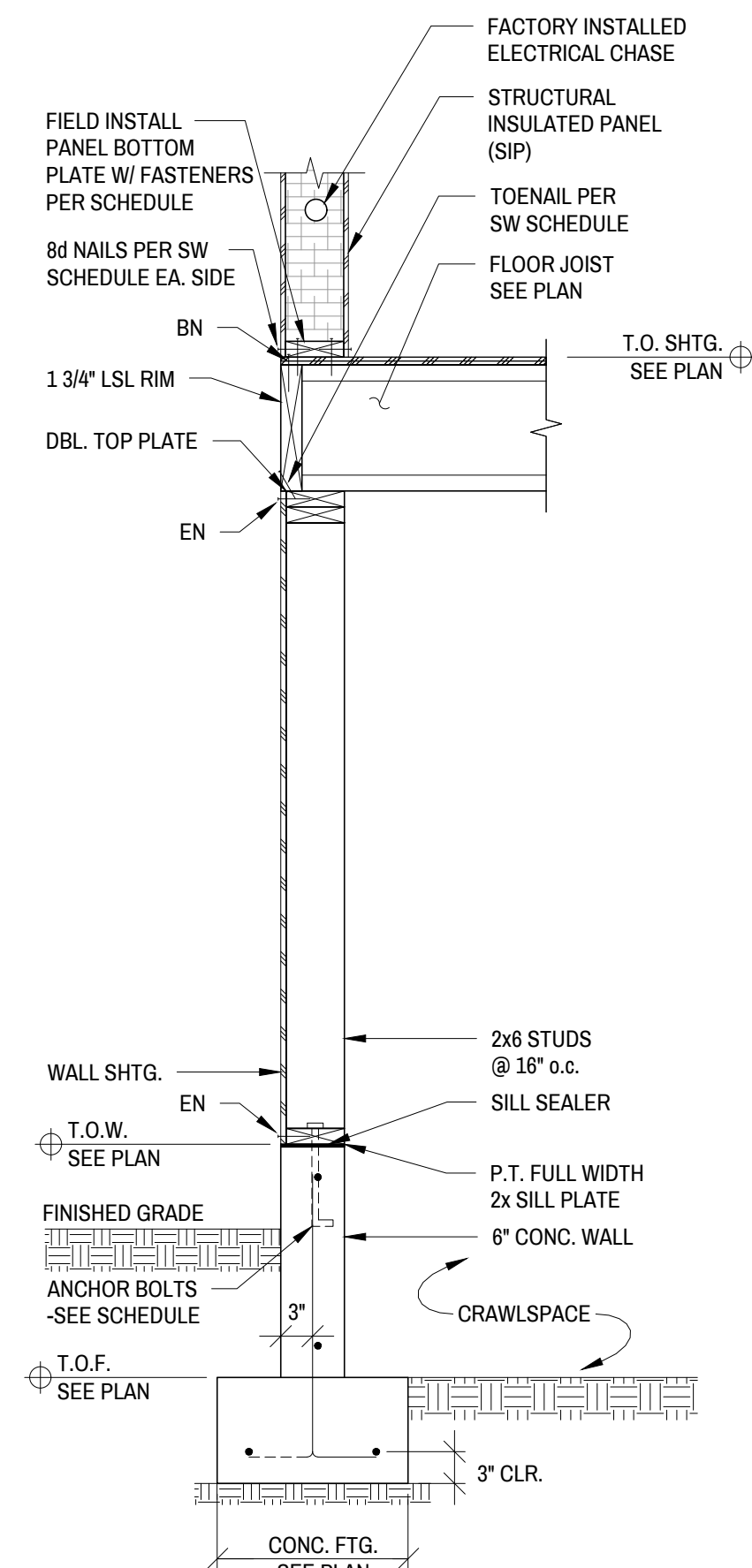
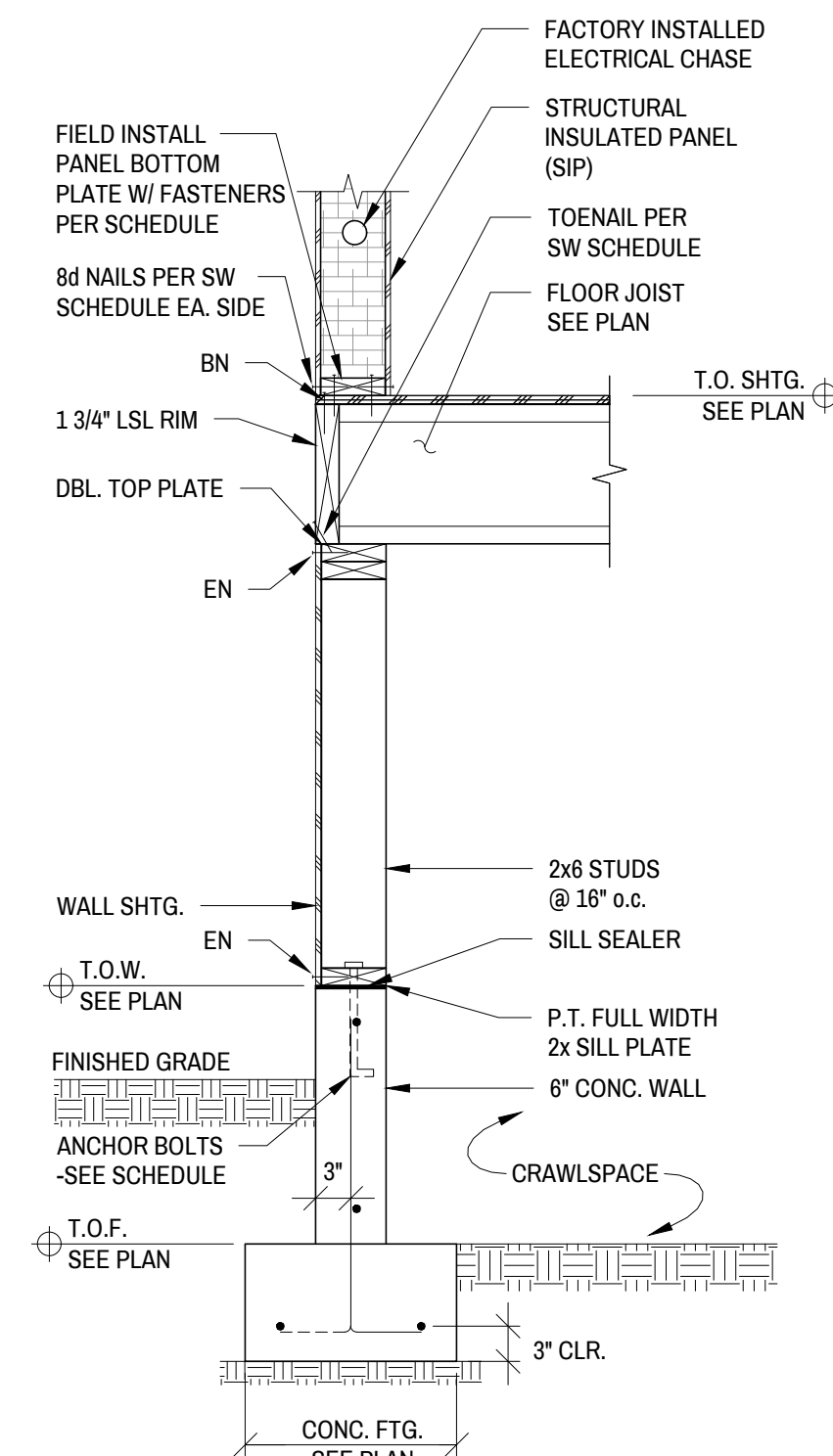
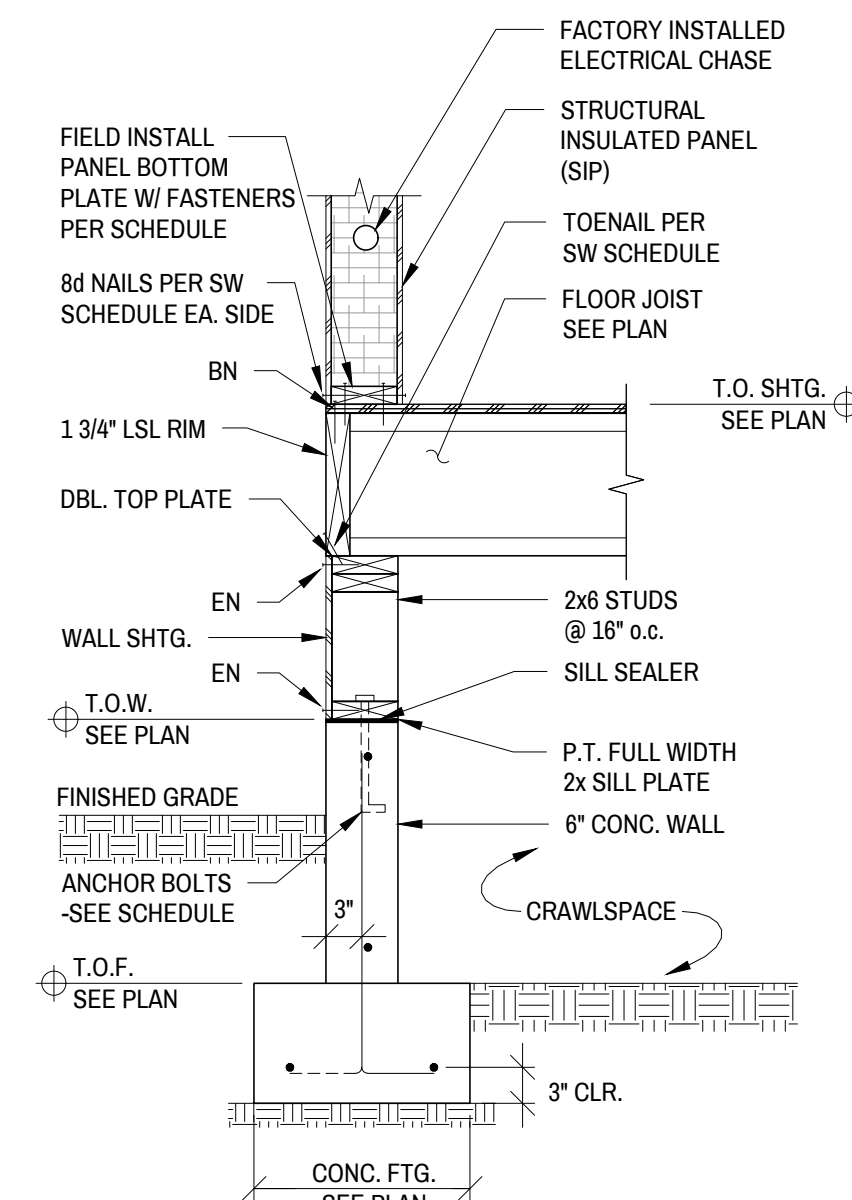
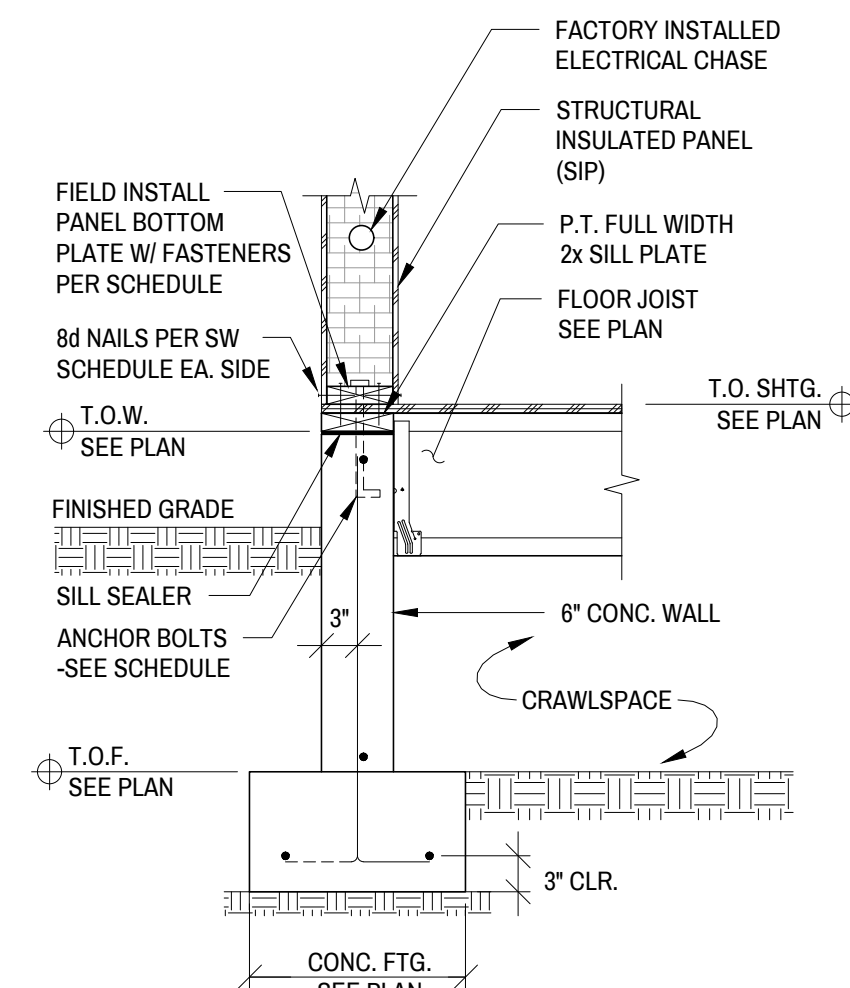
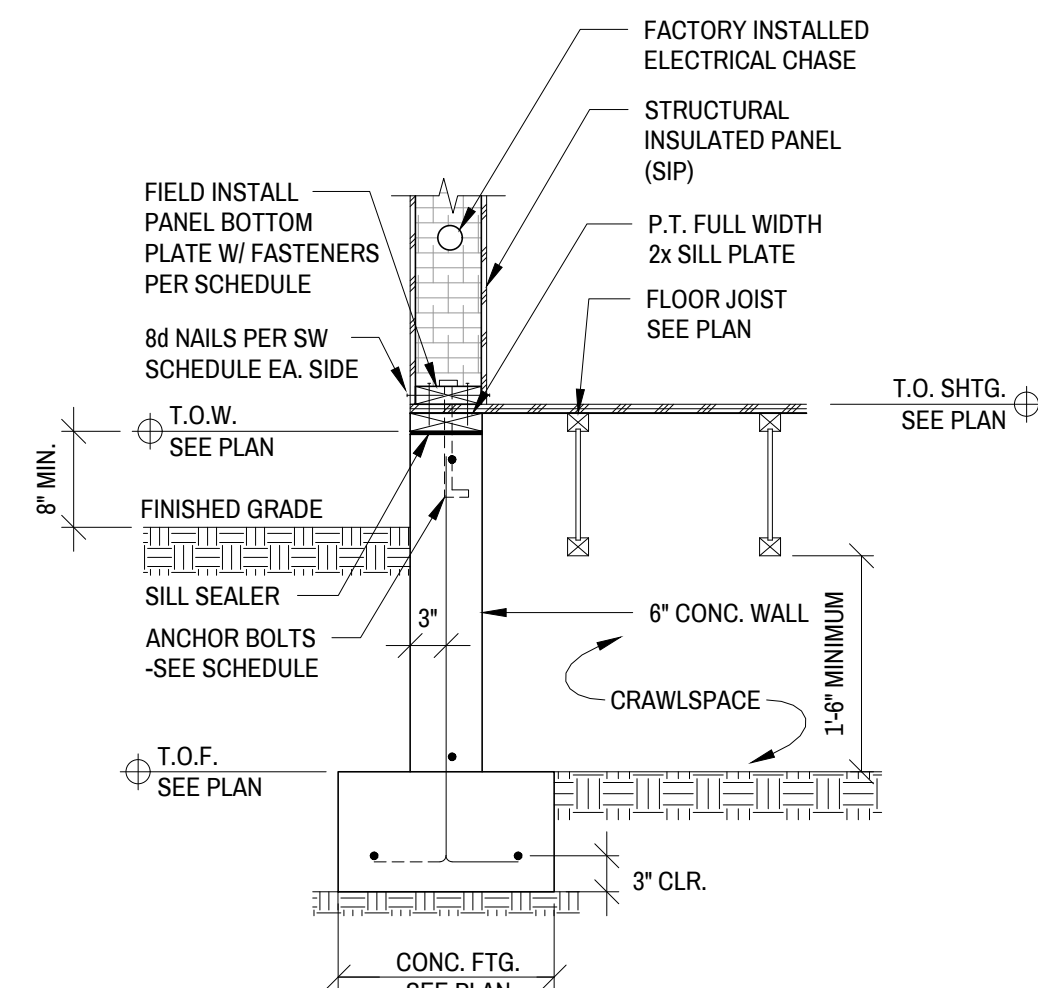
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ROOF FRAMING
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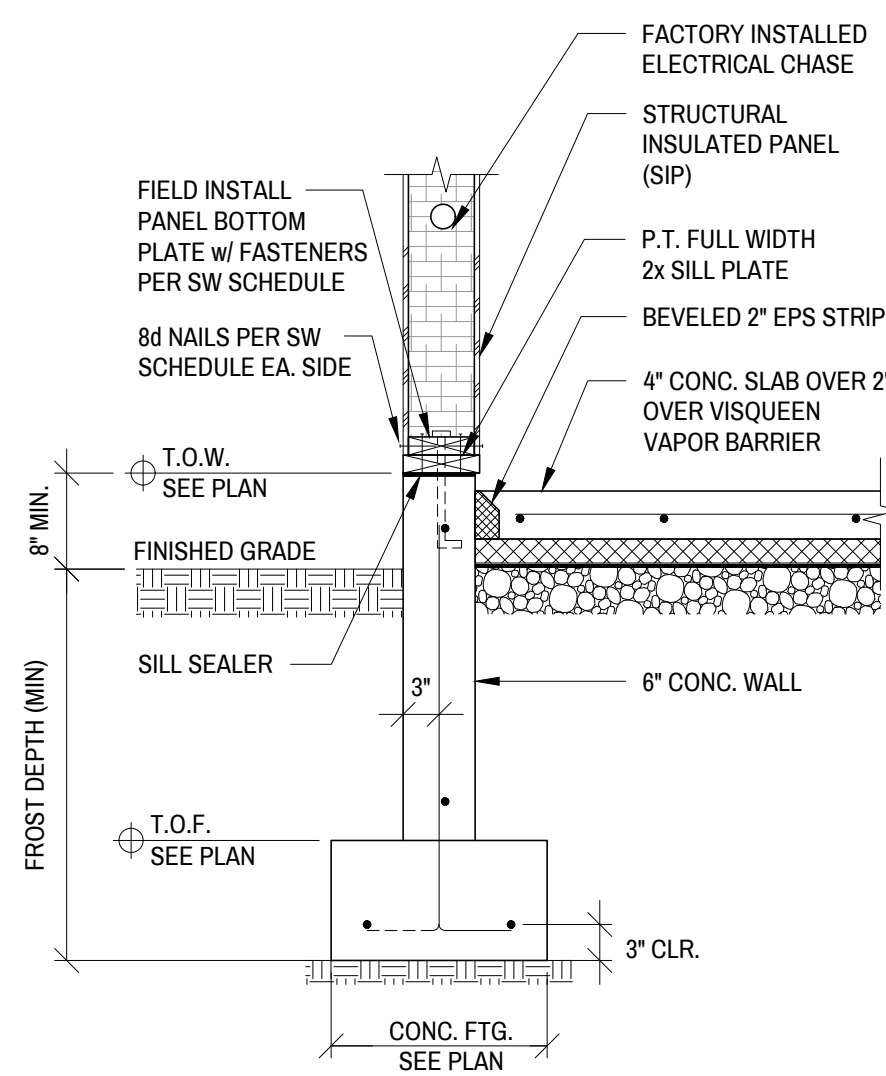
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REVISIONS	

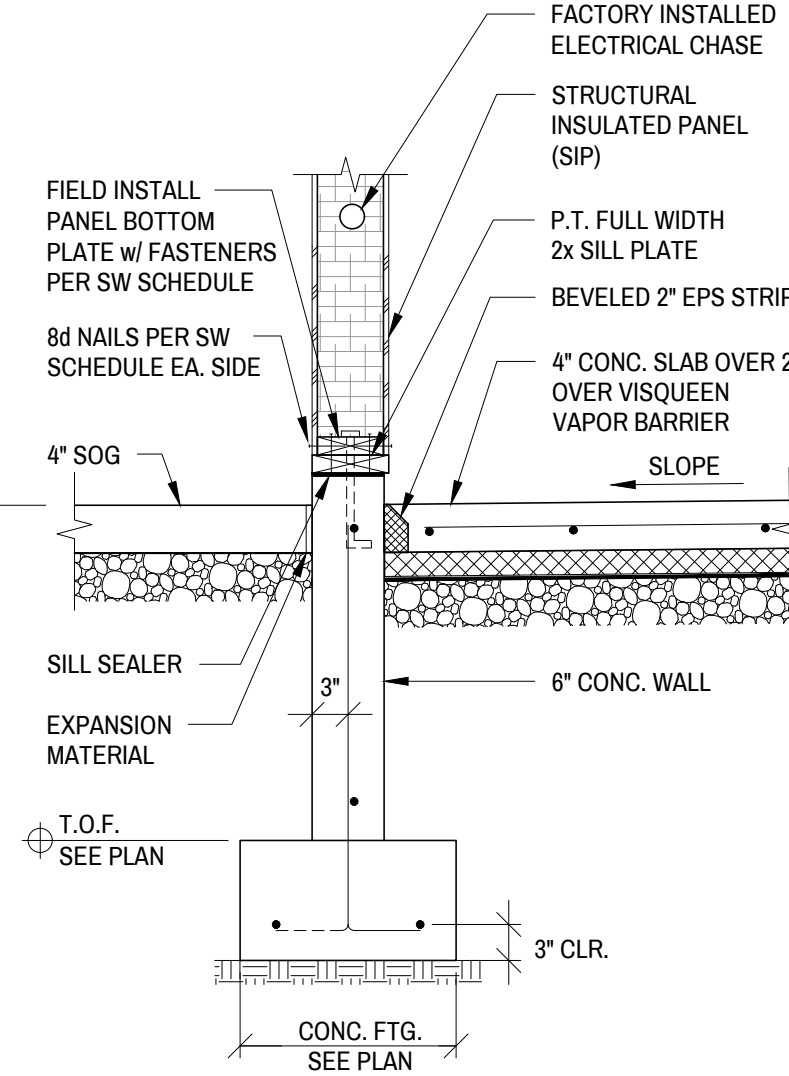
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PROJ. #:	21-06-191
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DATE:	08/02/2021
SHEET:	

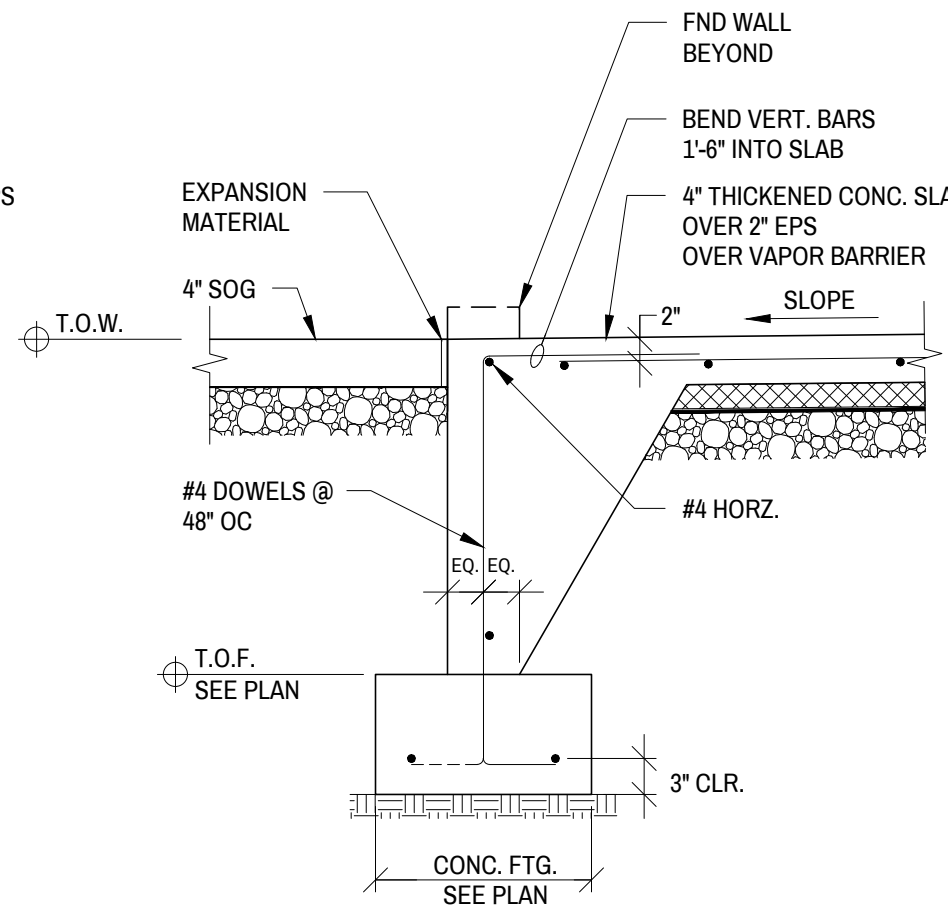
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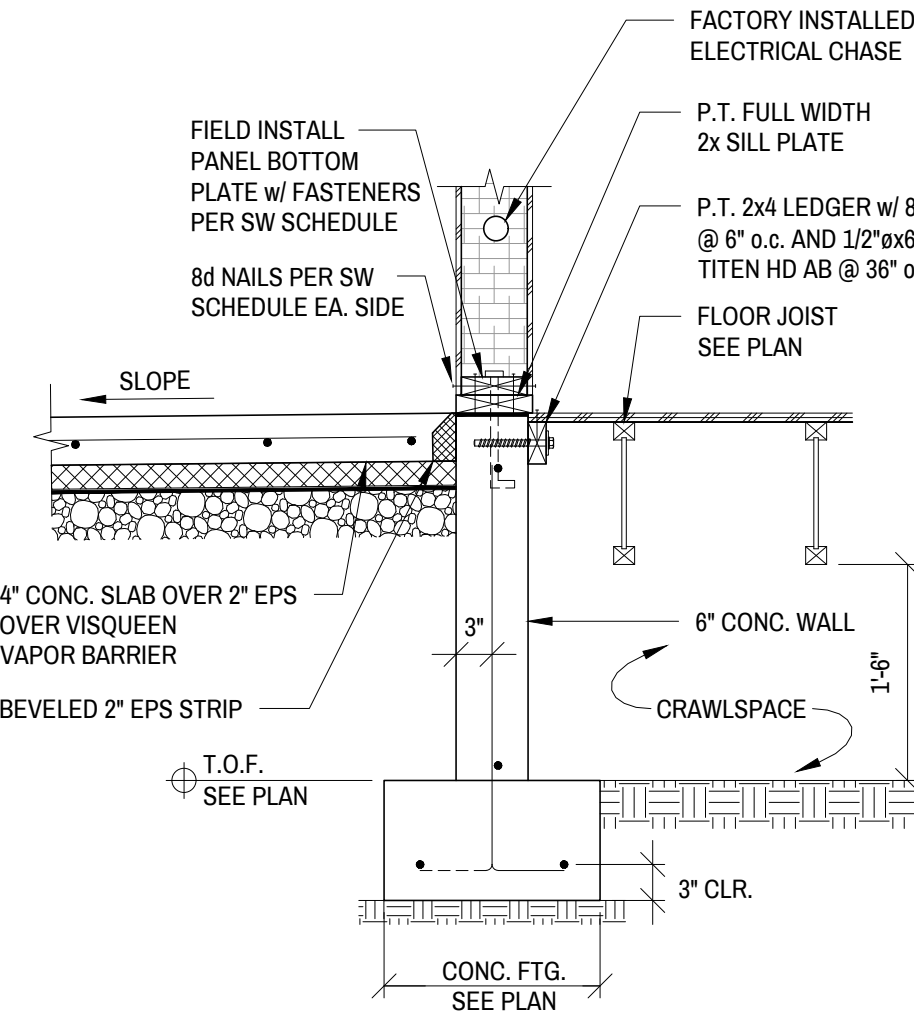
1 TYP. FND. WALL GARAGE-SIP
SCALE: 3/4" = 1'-0"



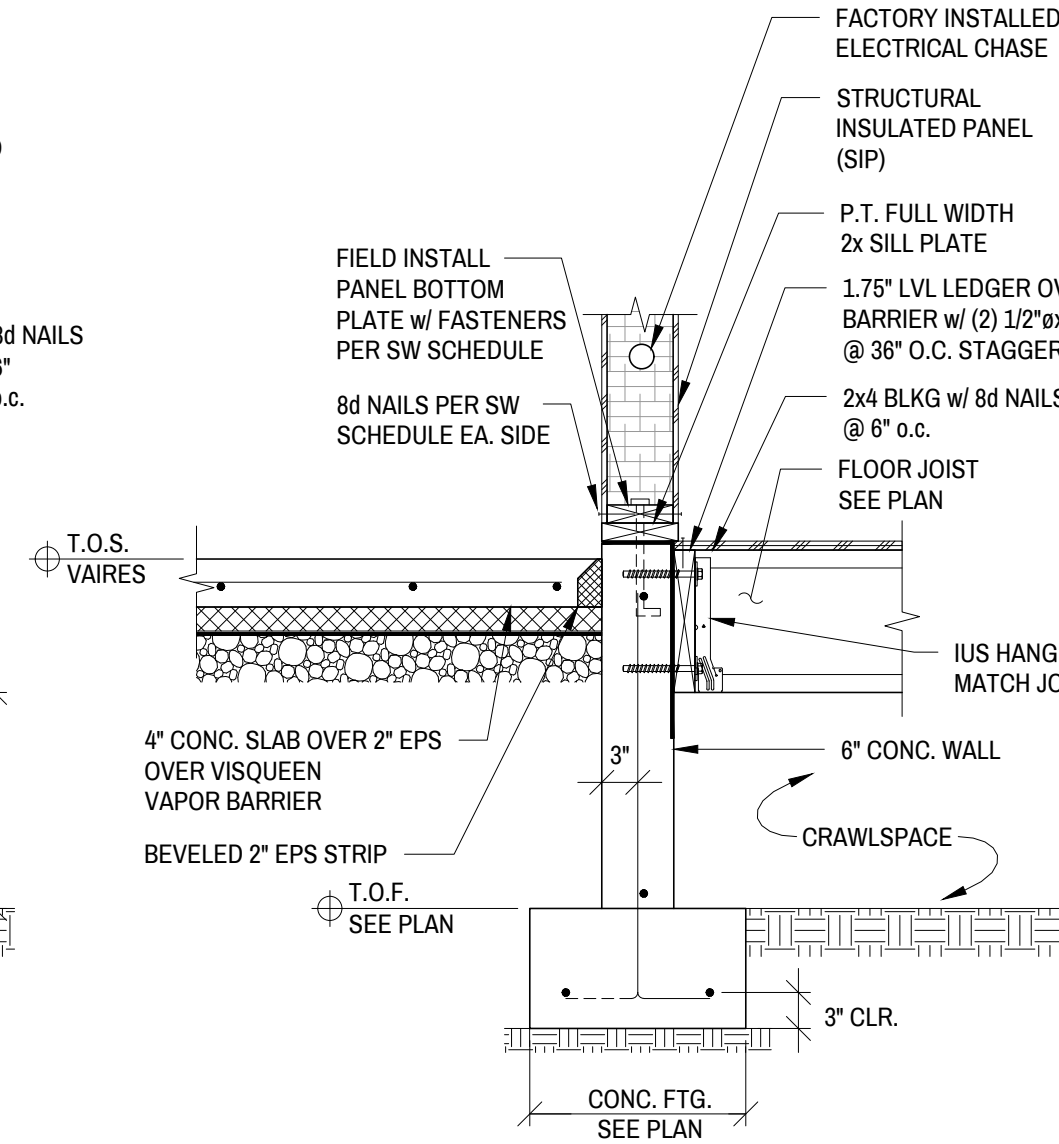
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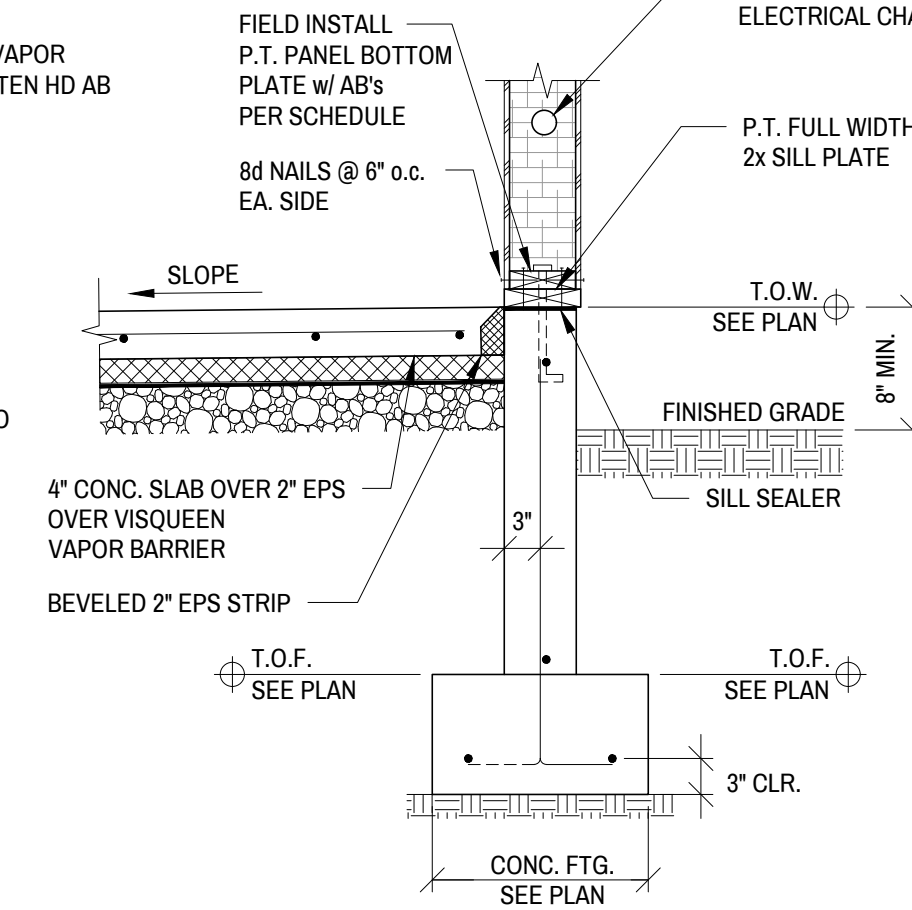
3 TYP. BLOCKOUT
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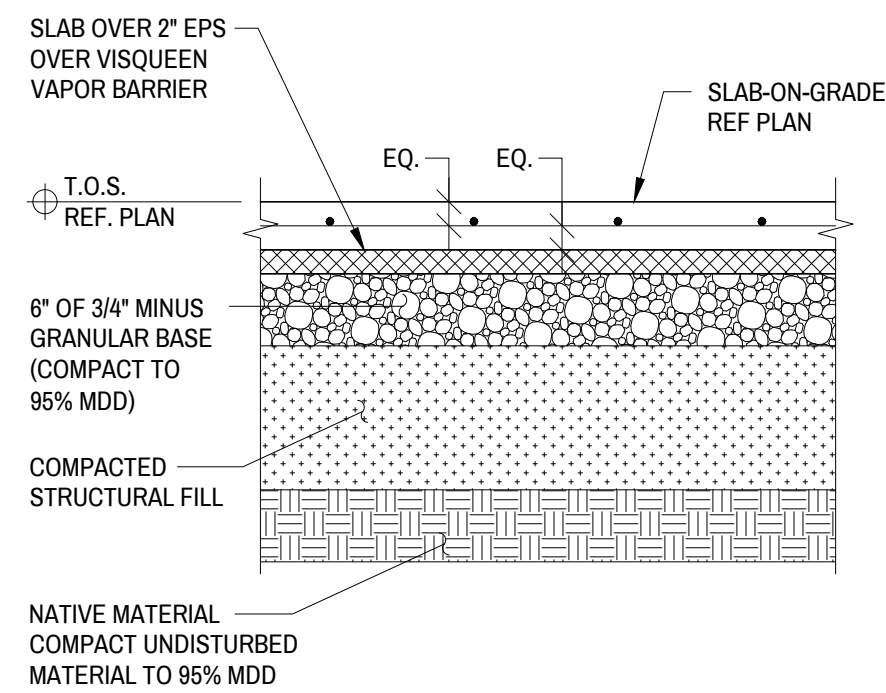
4 TYP. FND. WALL WITH CRAWLSPACE-SIP
SCALE: 3/4" = 1'-0"



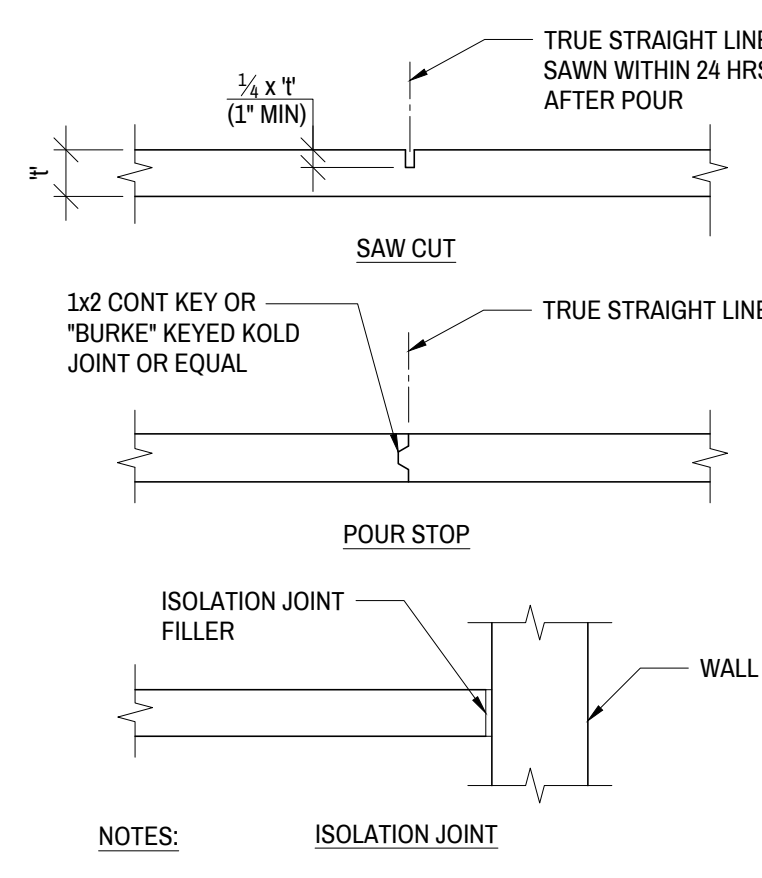
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SCALE: 3/4" = 1'-0"



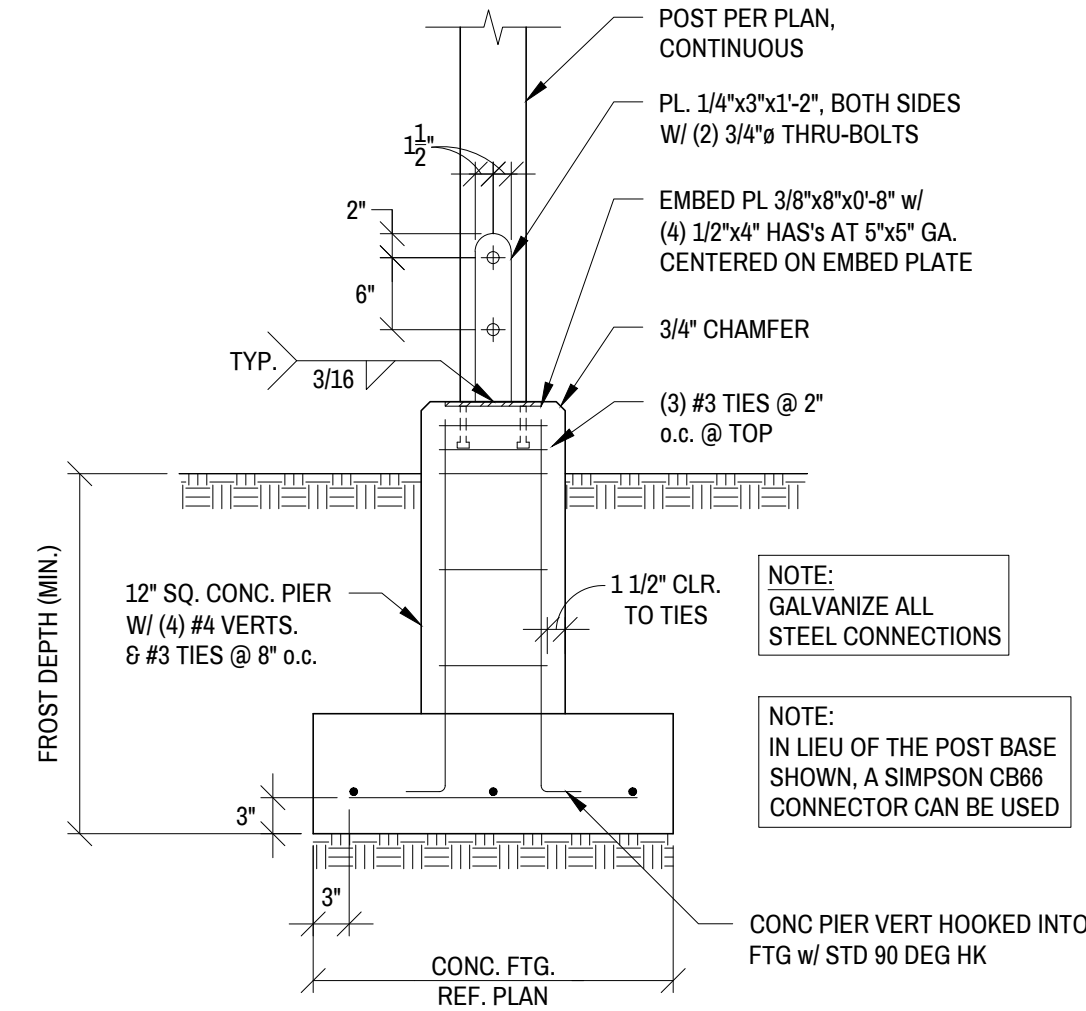
6 TYP. FND. WALL WITH CRAWLSPACE-SIP
SCALE: 3/4" = 1'-0"



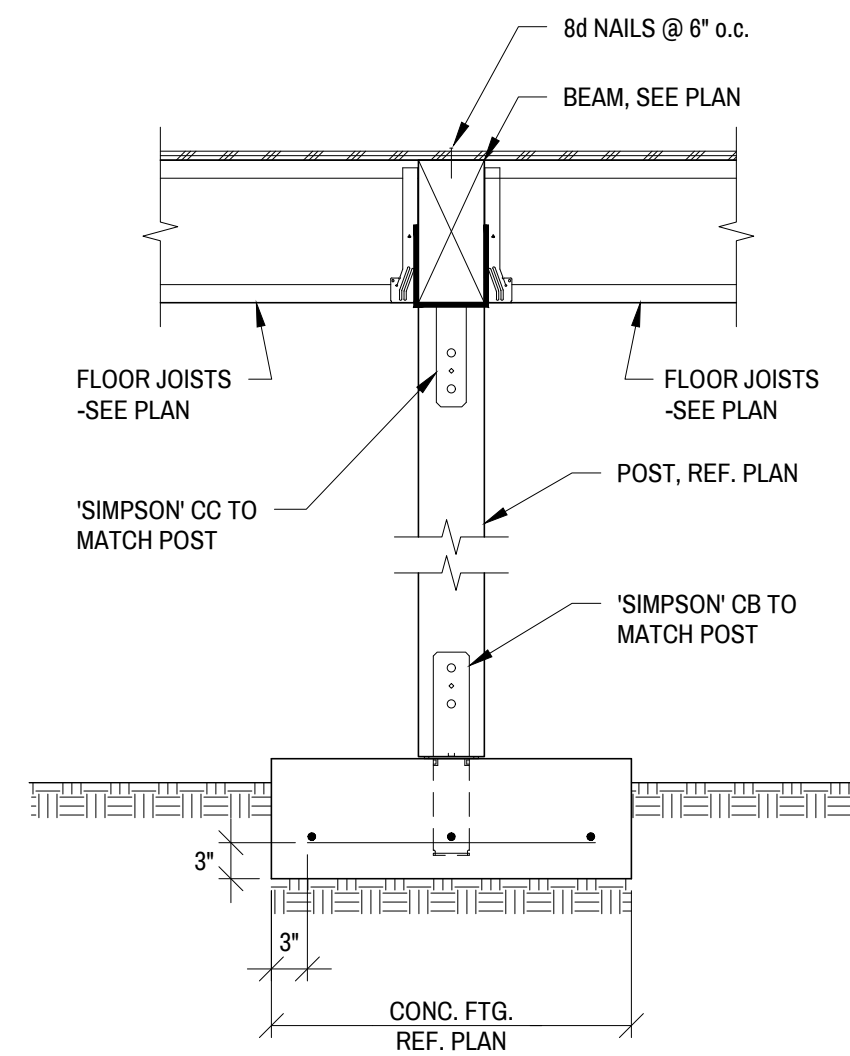
7 SLAB-ON-GRADE
SCALE: 3/4" = 1'-0"



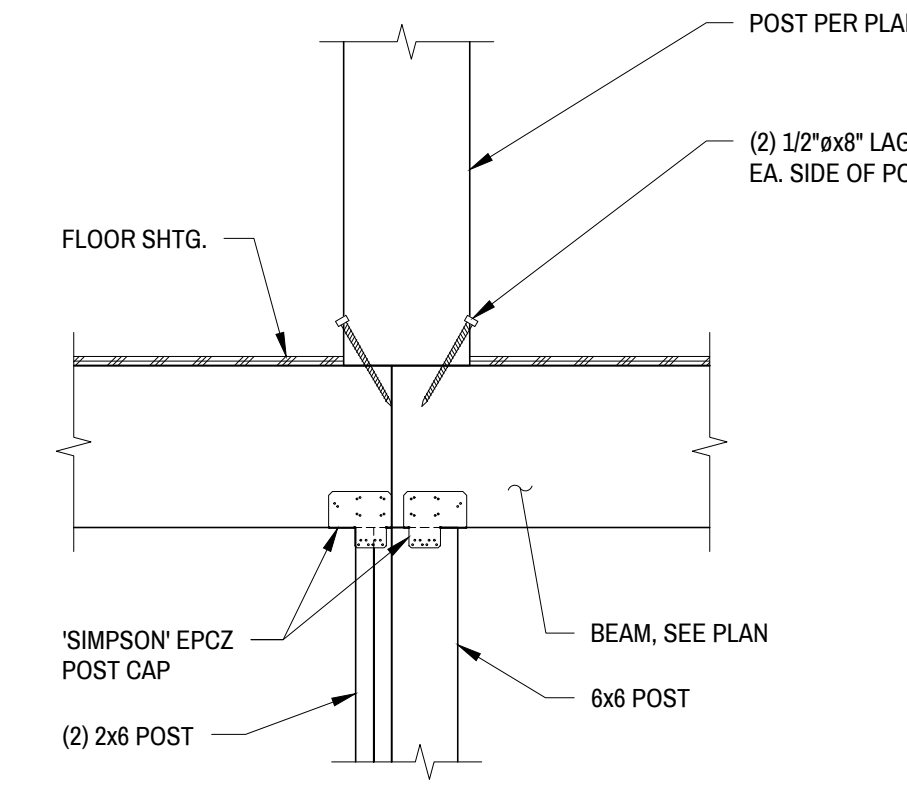
8 SLAB JOINTS
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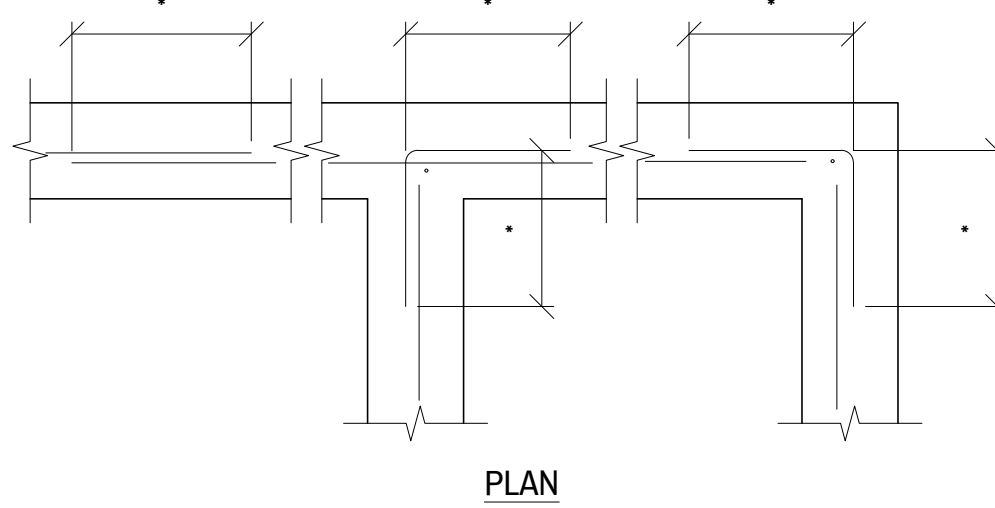
9 TYP. CONCRETE PIER
SCALE: 3/4" = 1'-0"



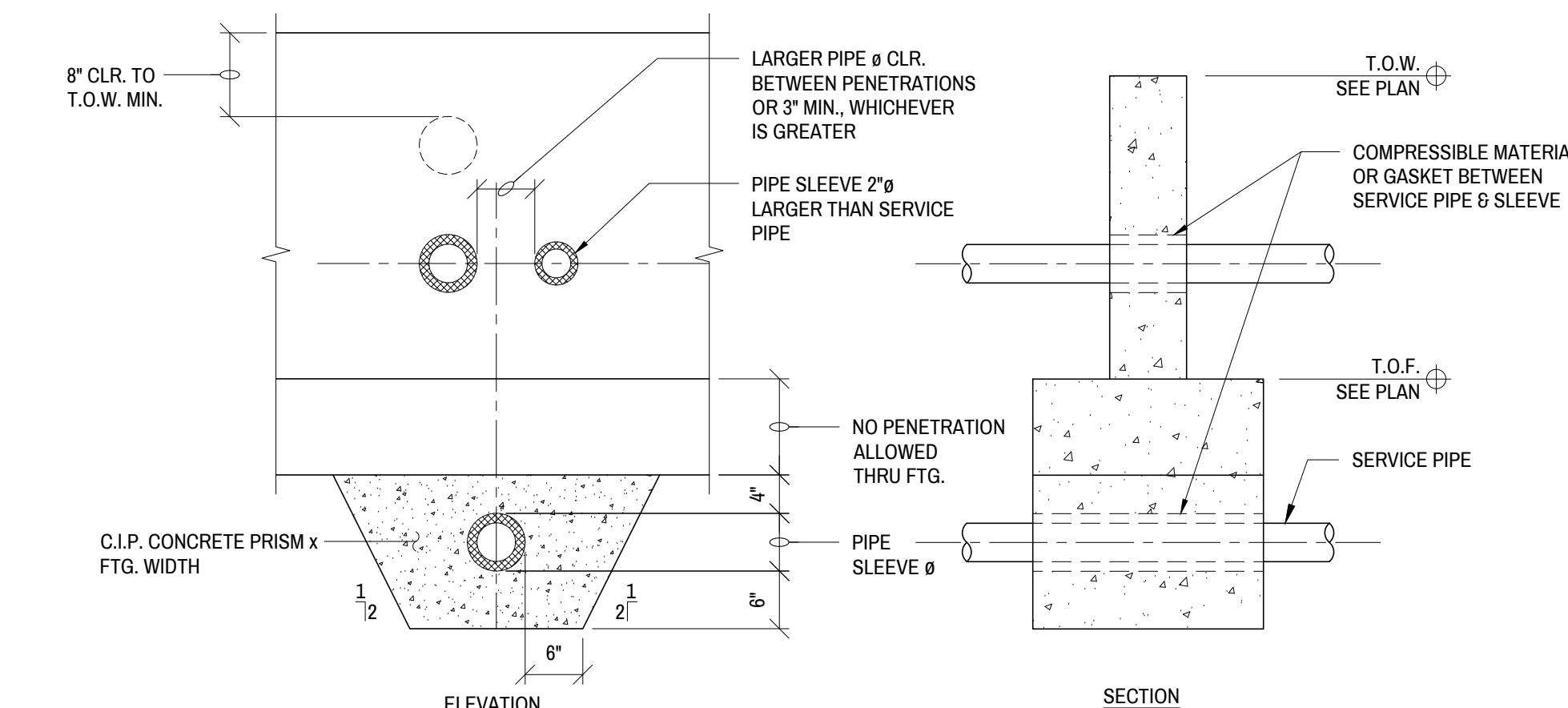
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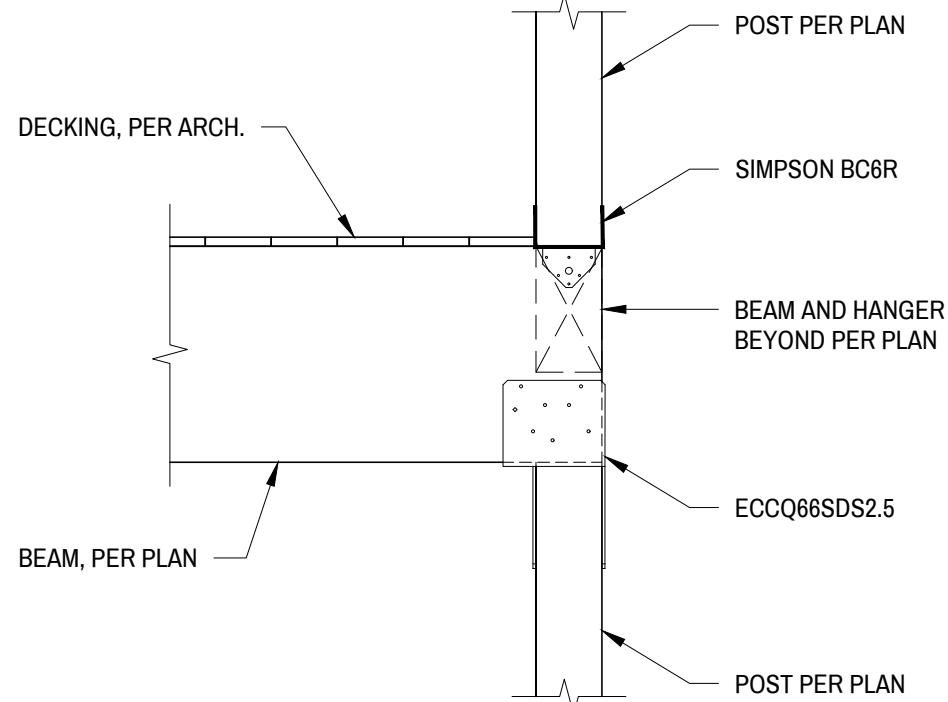
11 SCALE: 3/4" = 1'-0"



12 TYP. CORNER REINF.
SCALE: 3/4" = 1'-0"



13 TYP. CONCRETE PIER
SCALE: 3/4" = 1'-0"



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



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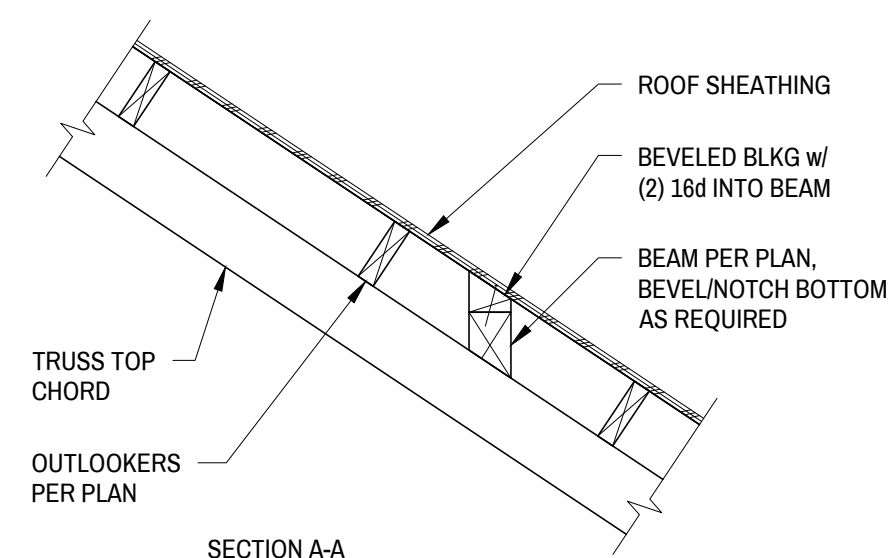
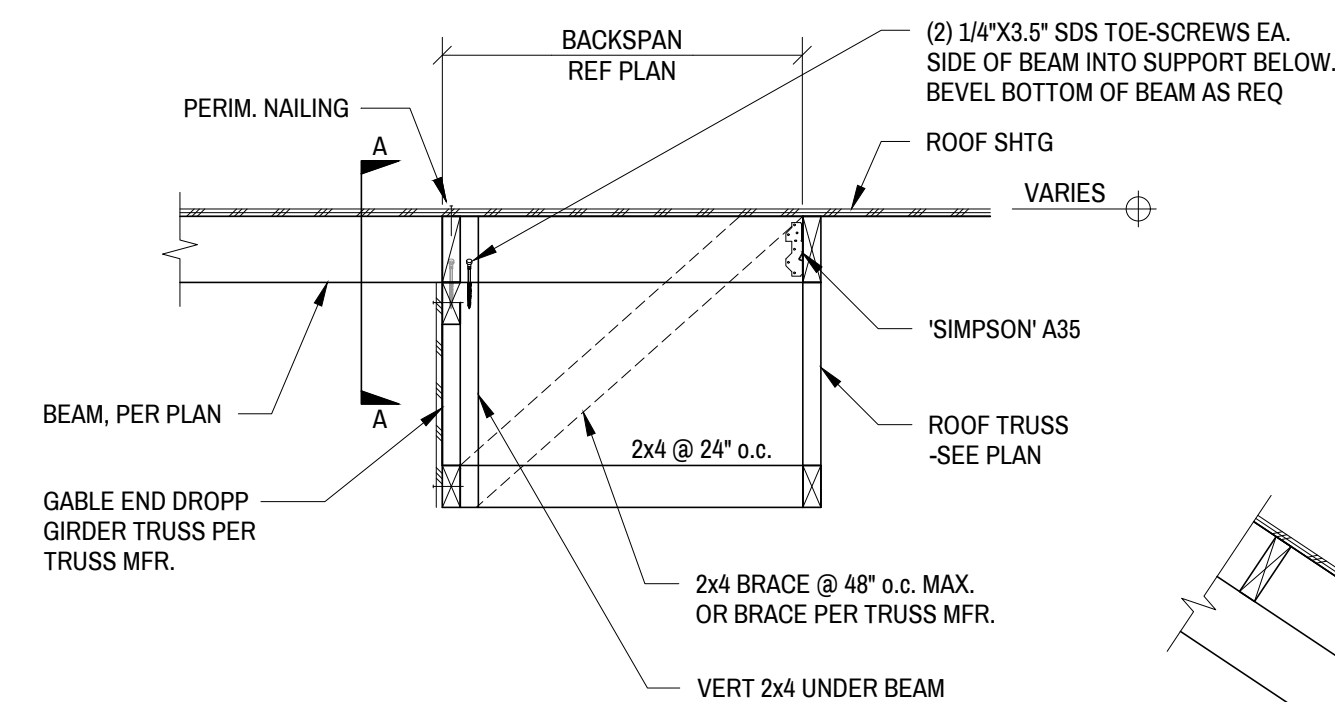
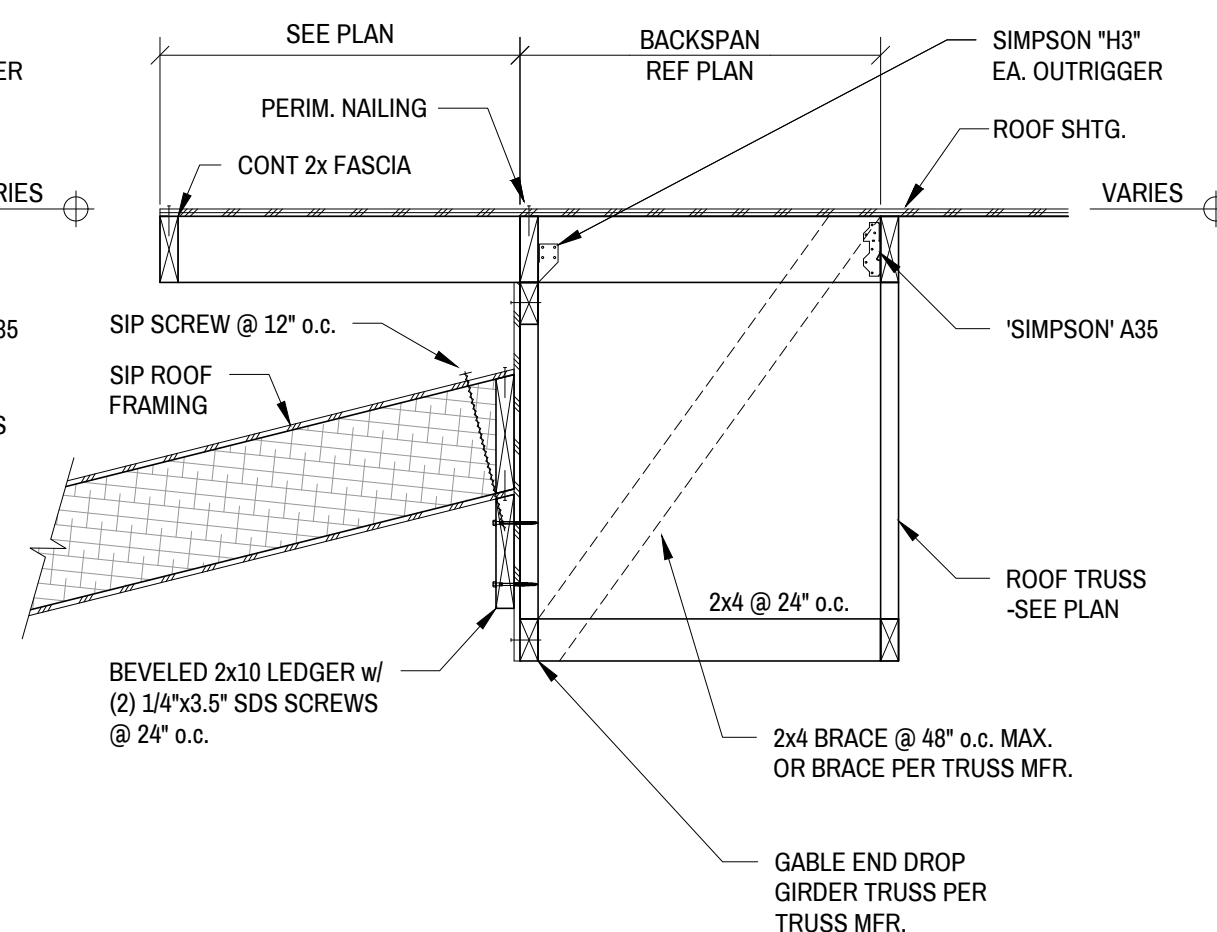
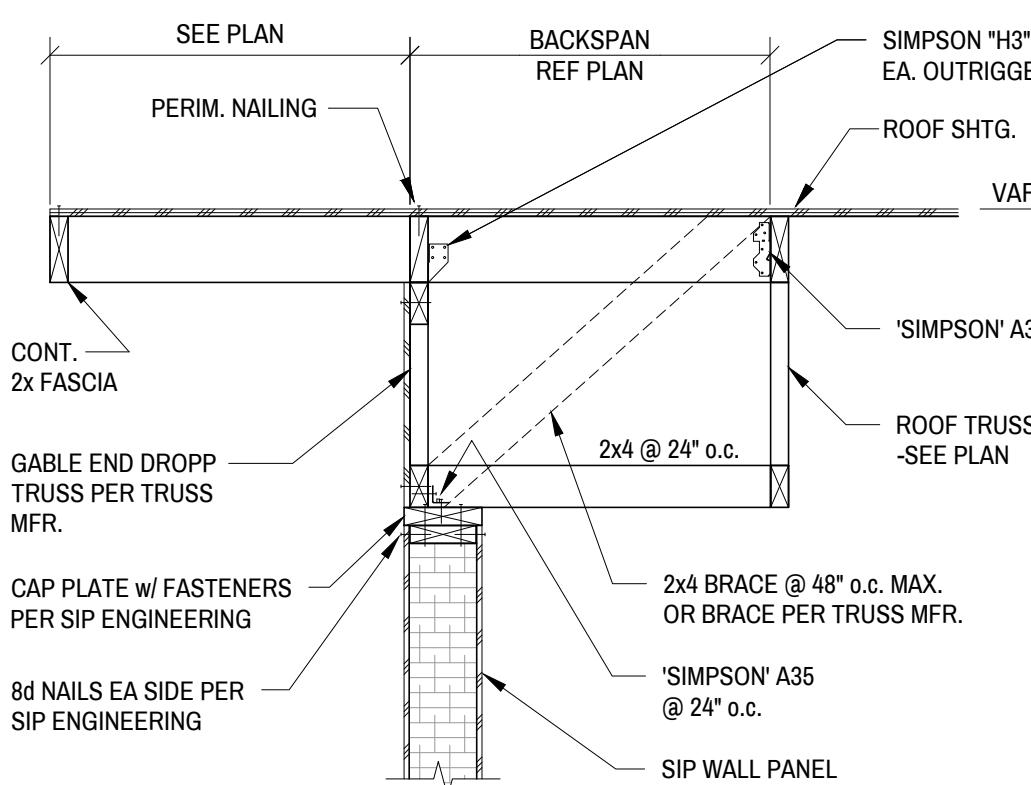
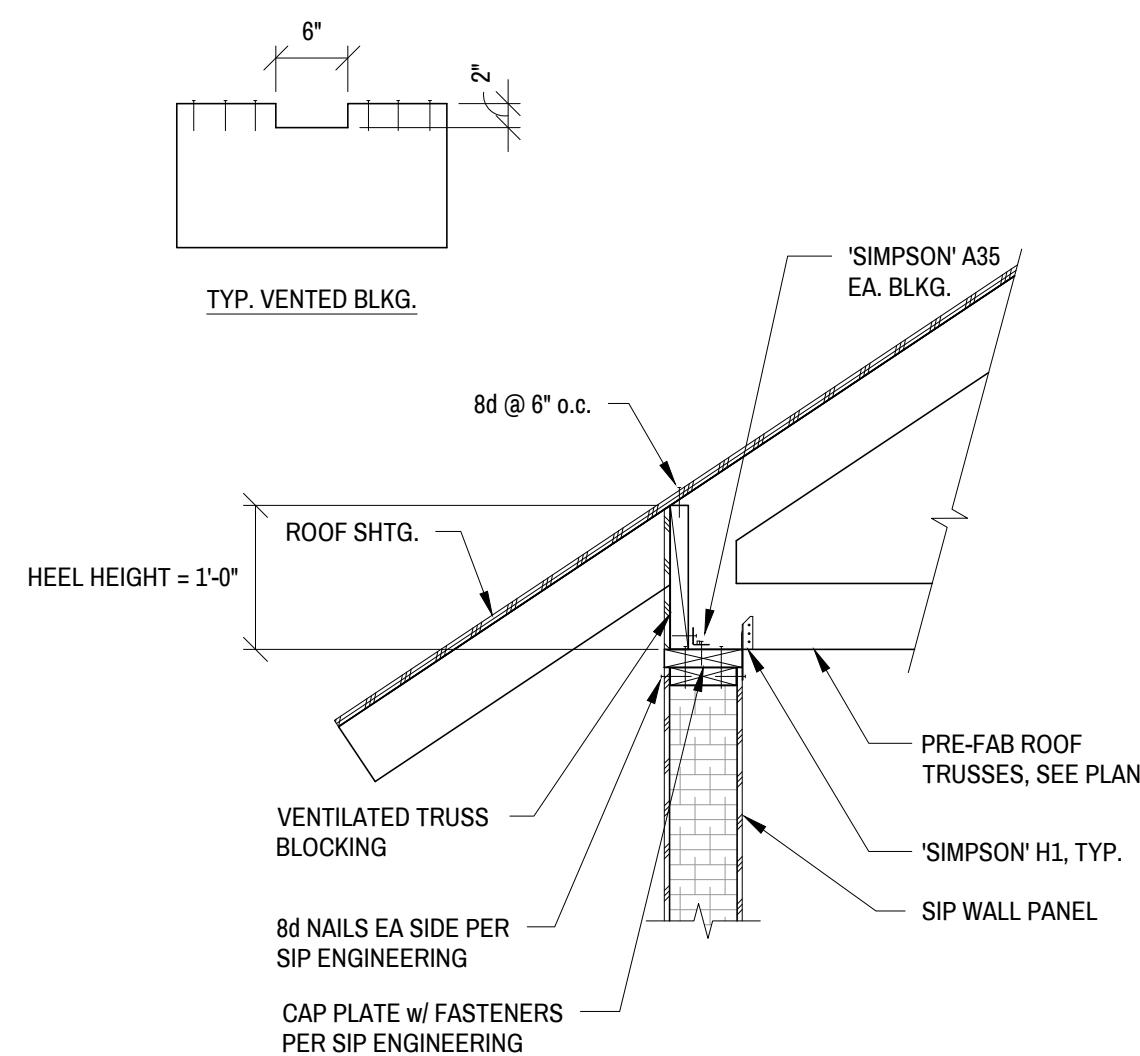
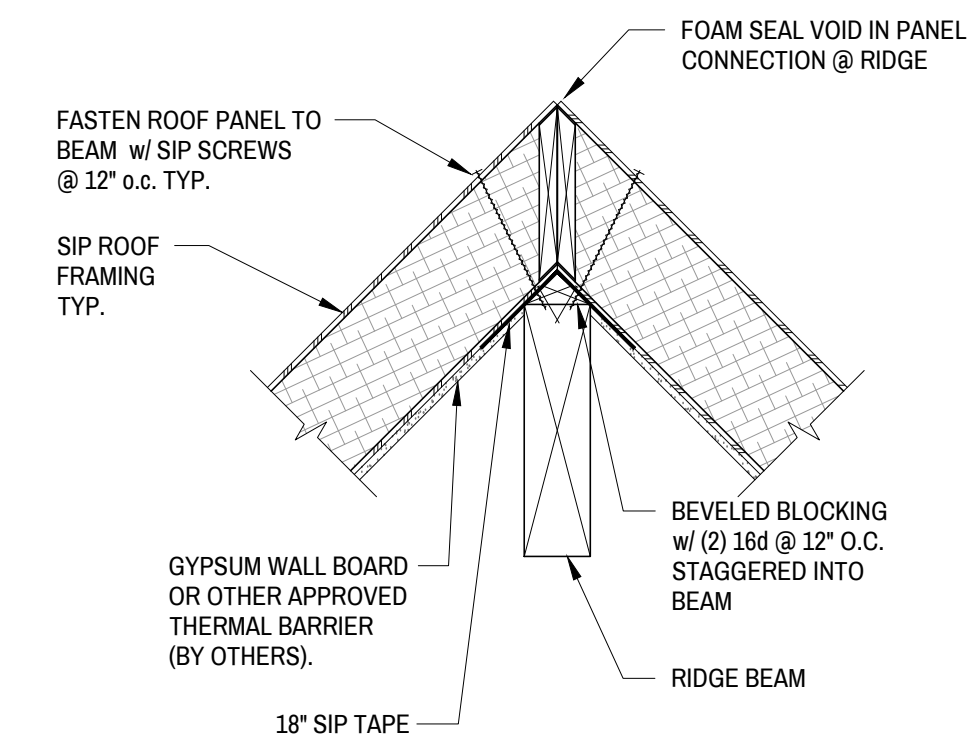
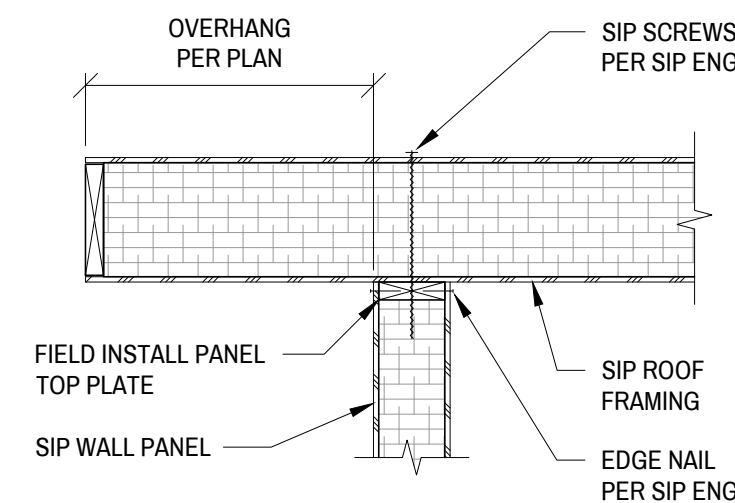
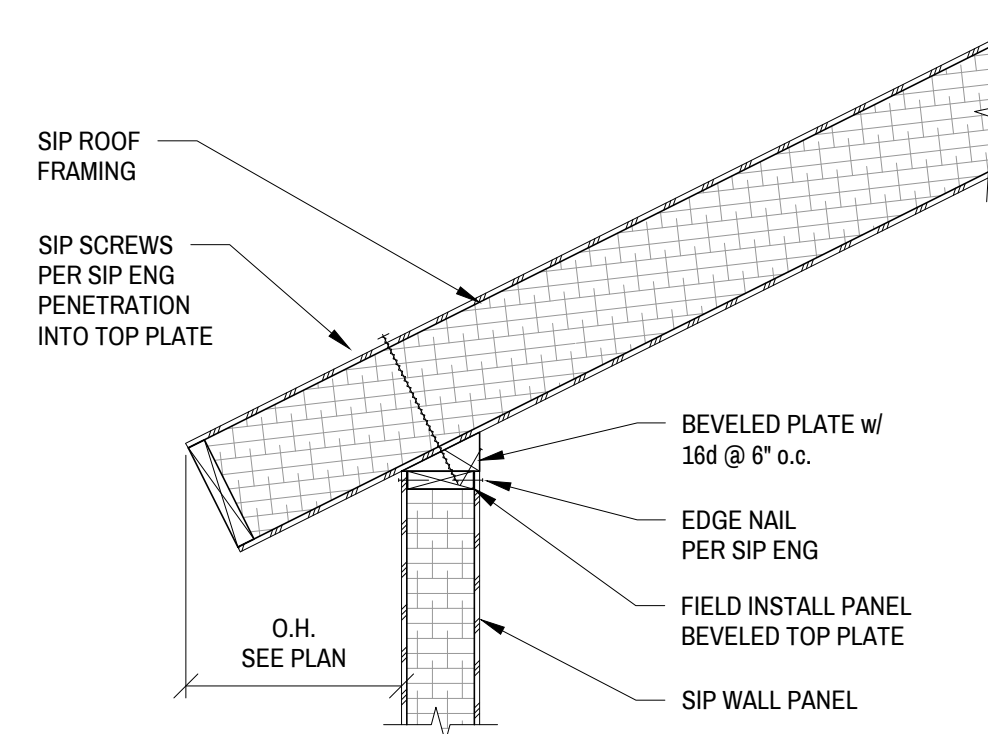
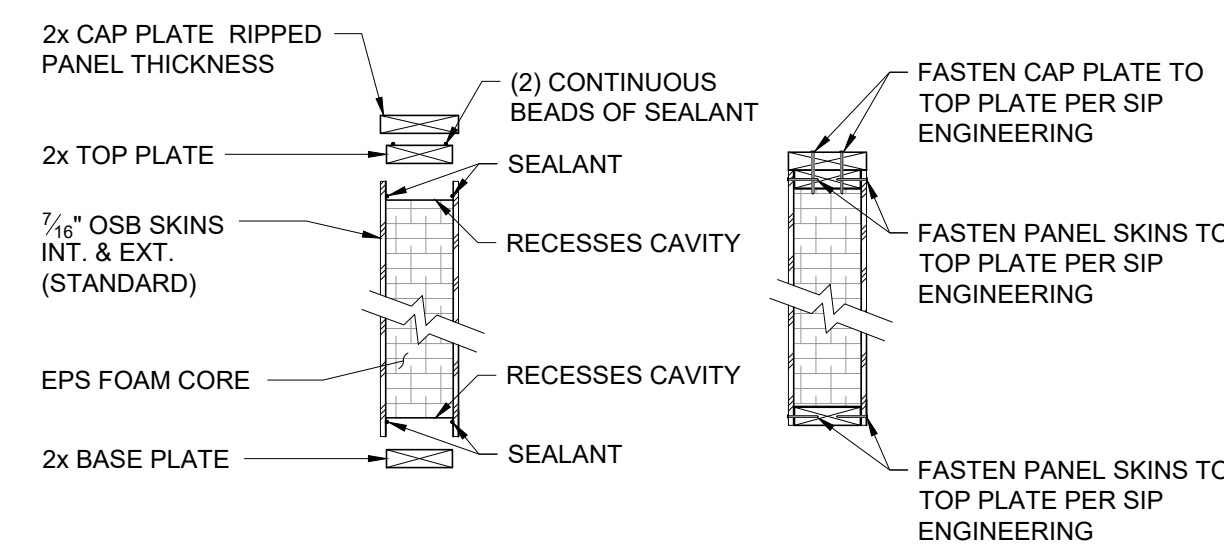
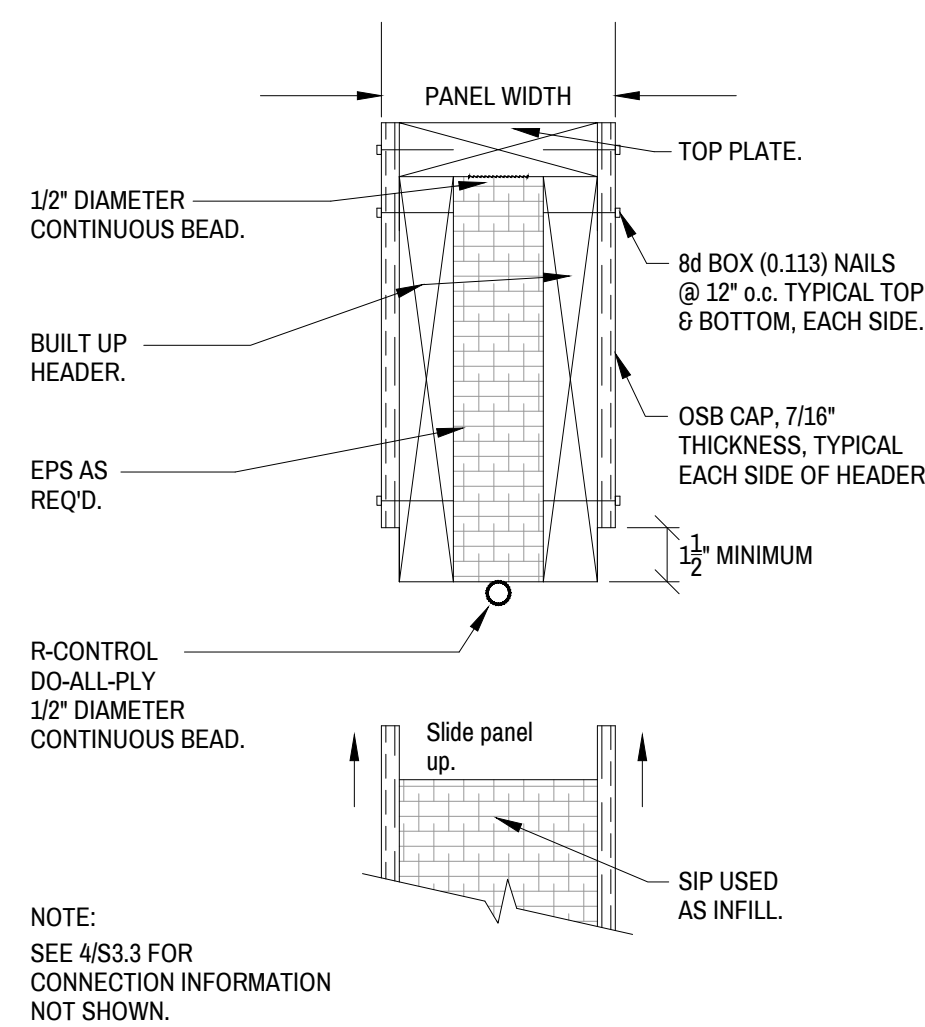
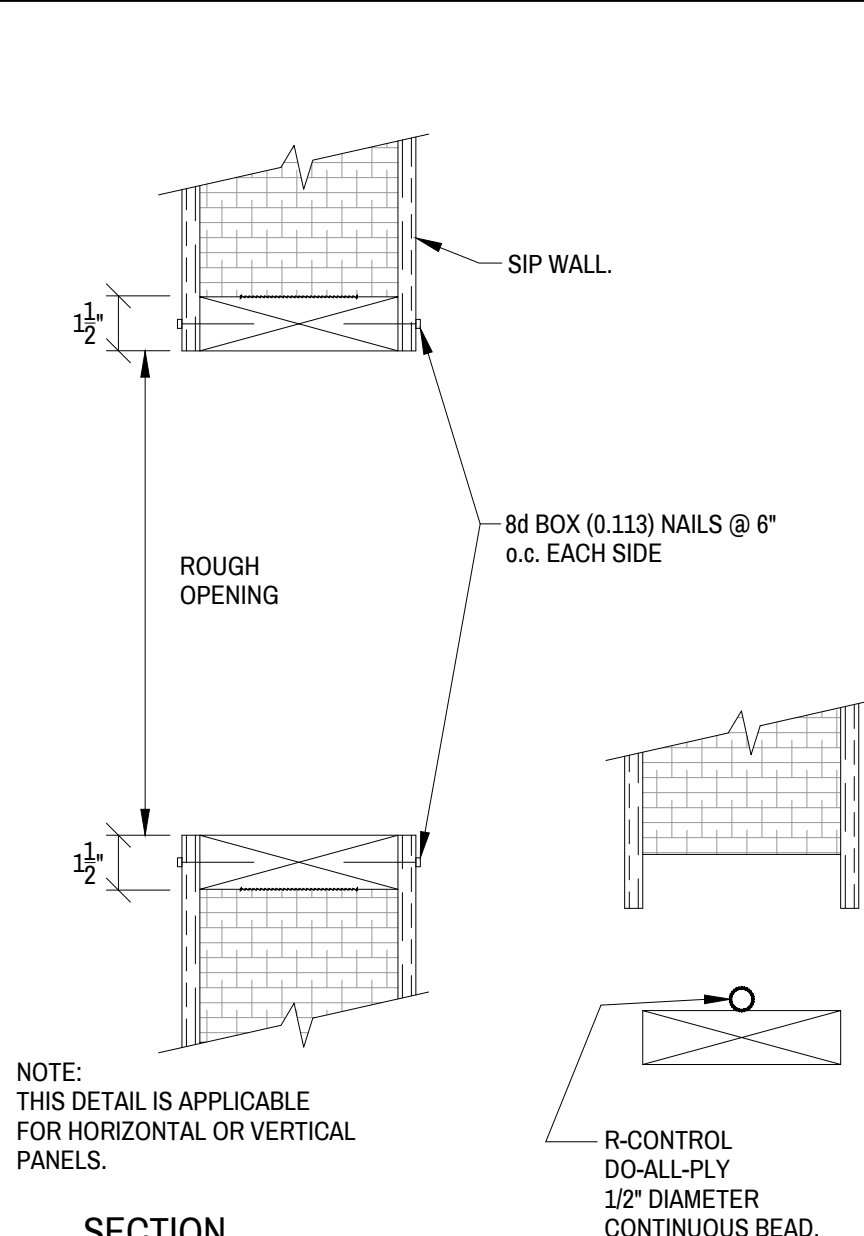
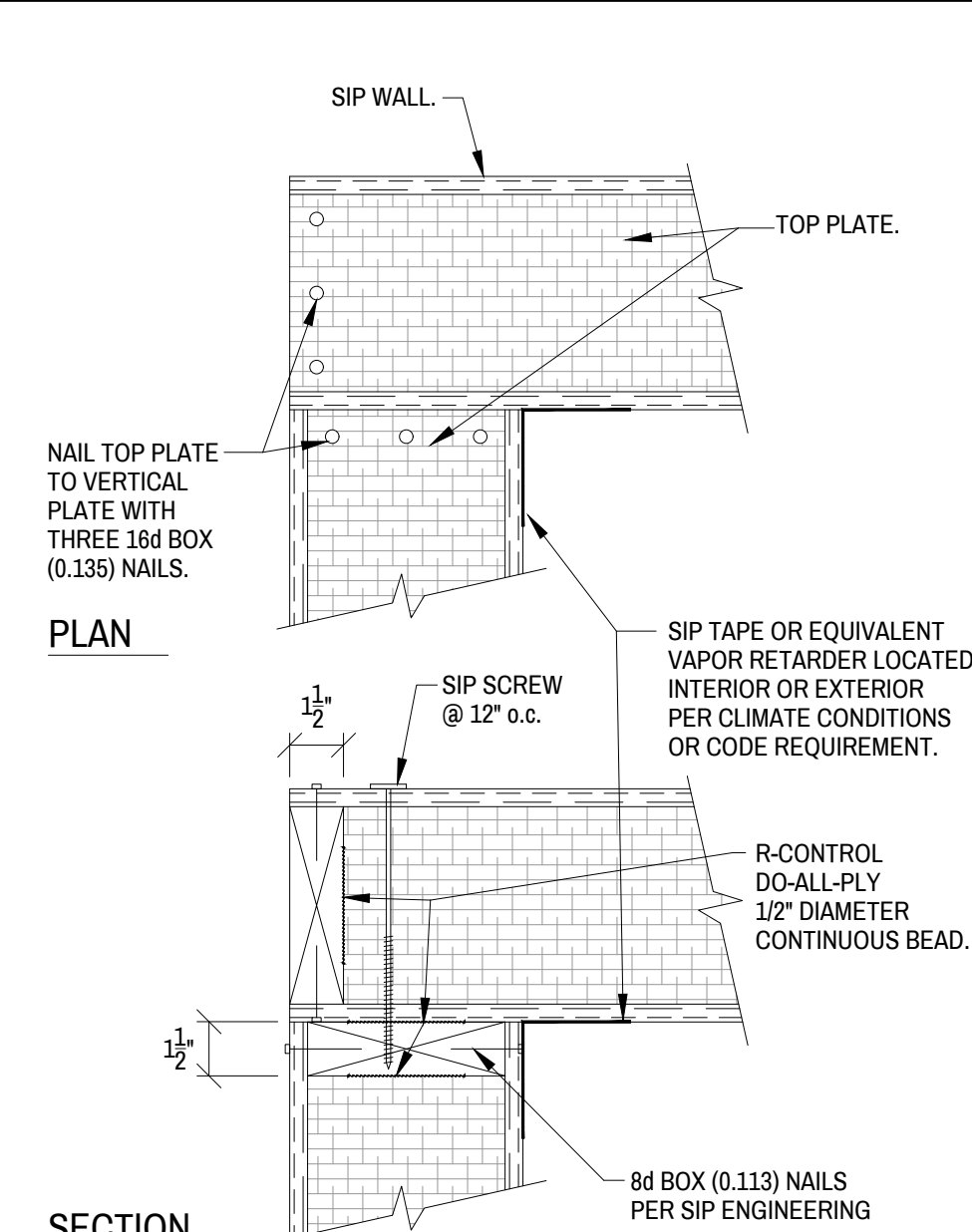
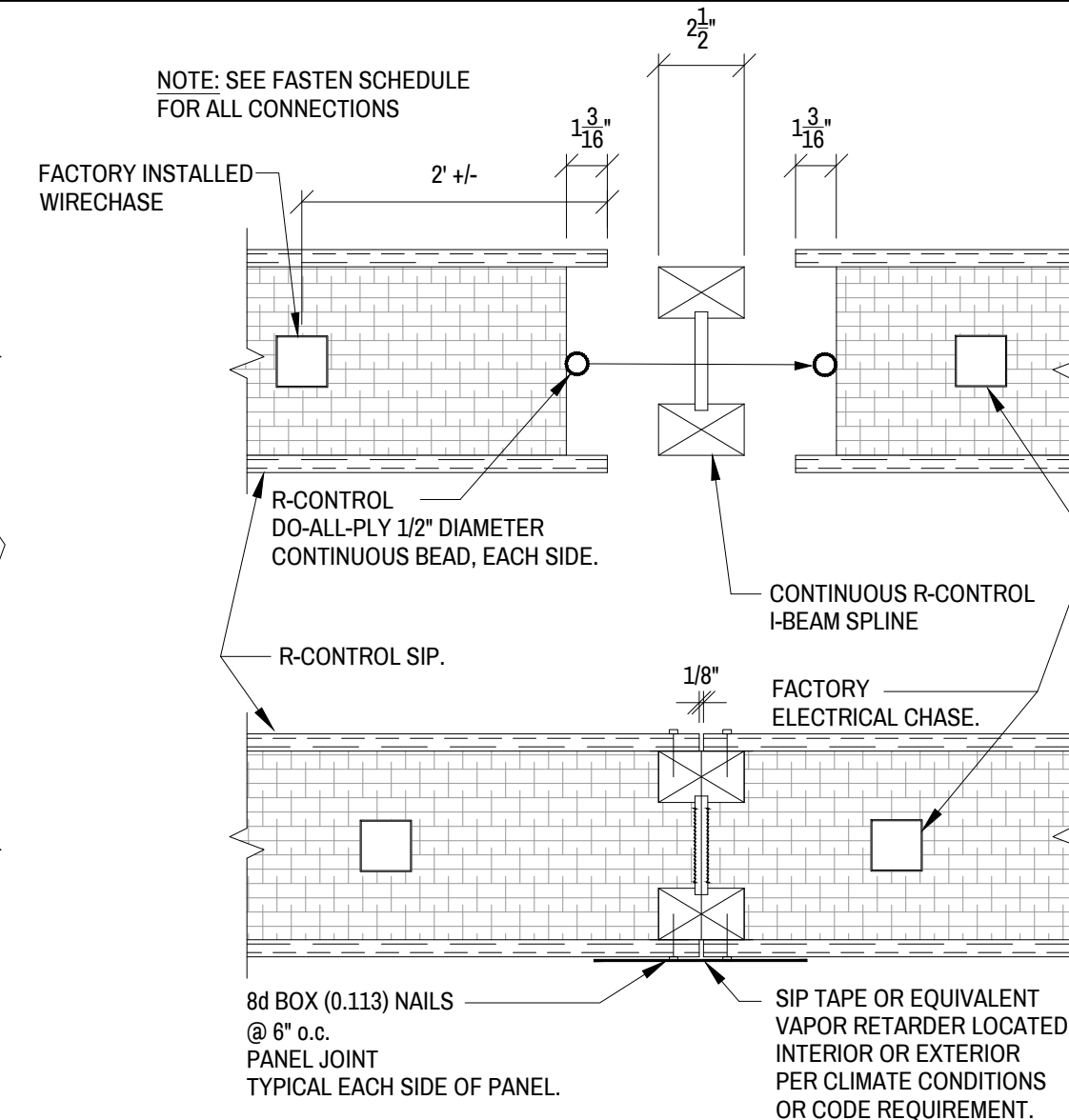
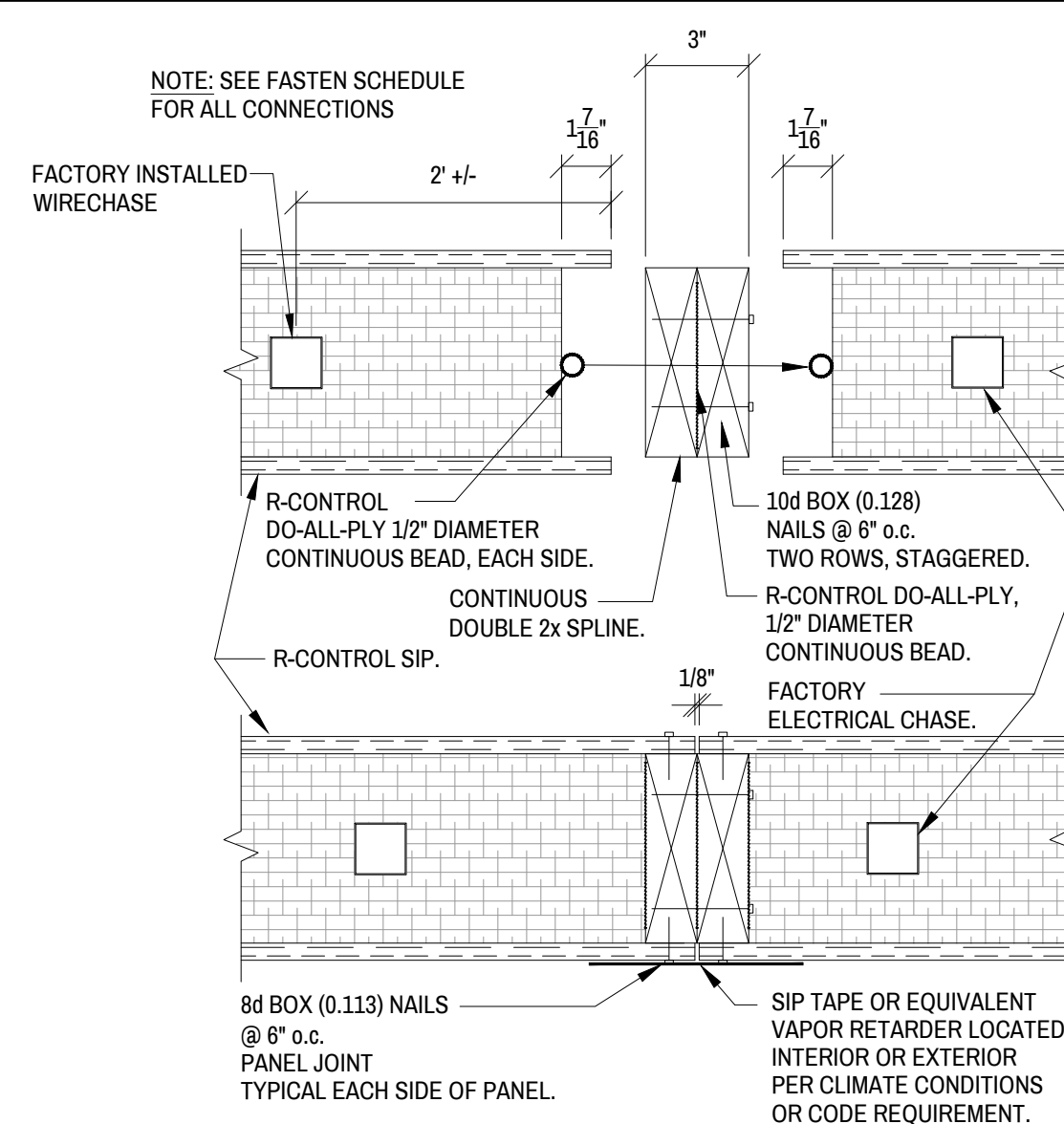
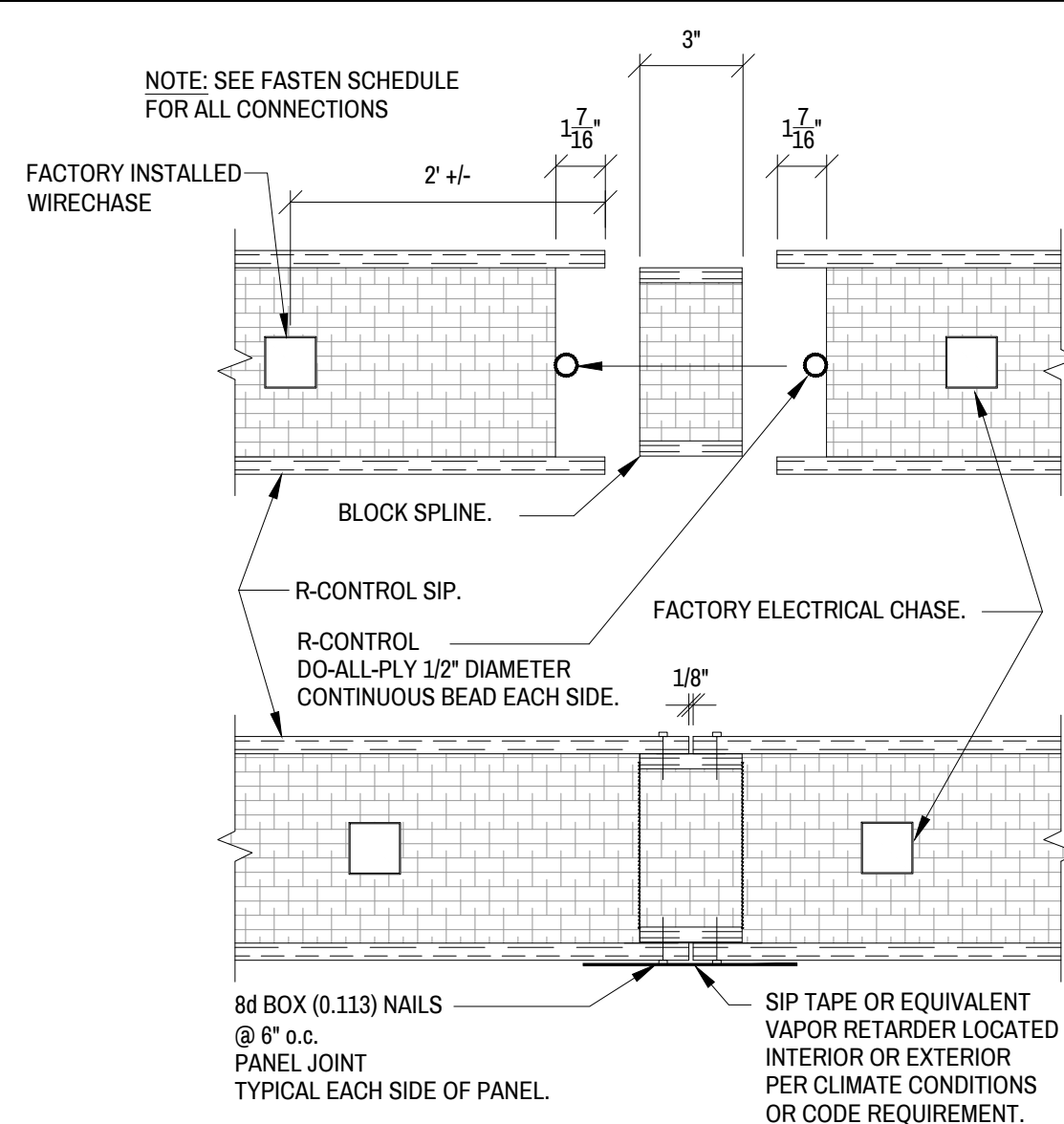
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SHEET:

S3.2



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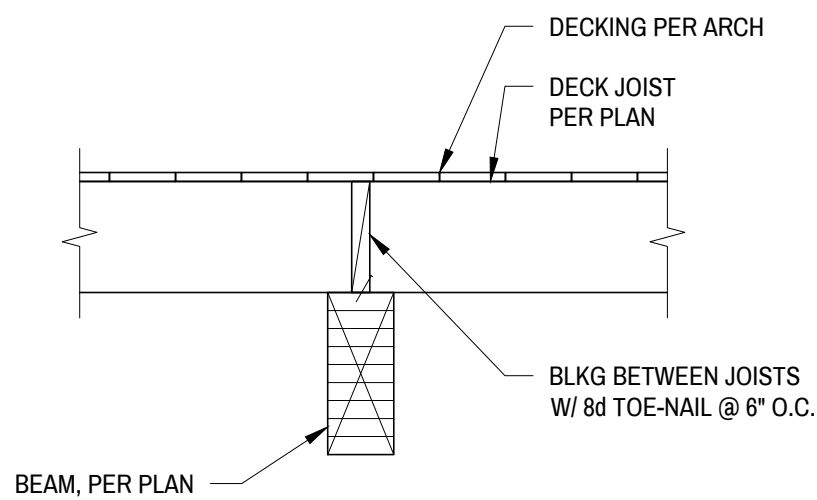
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REVISIONS	

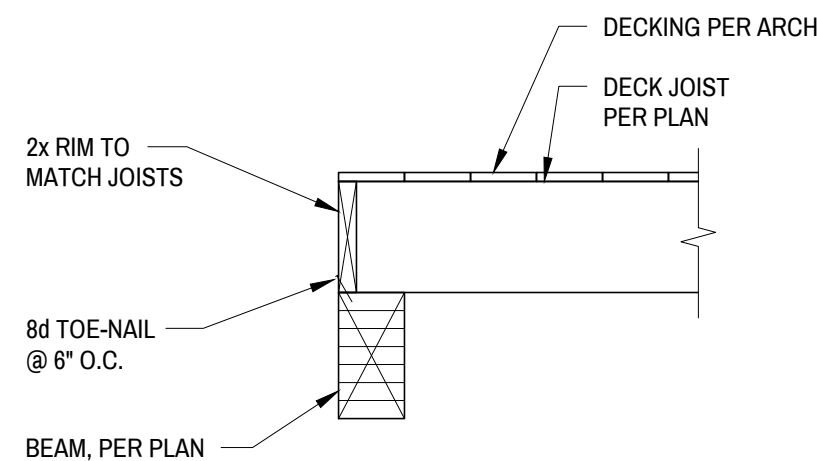
DETAILS

PROJ. #:	21-06-191
CHECKED BY:	CL
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SHEET:	

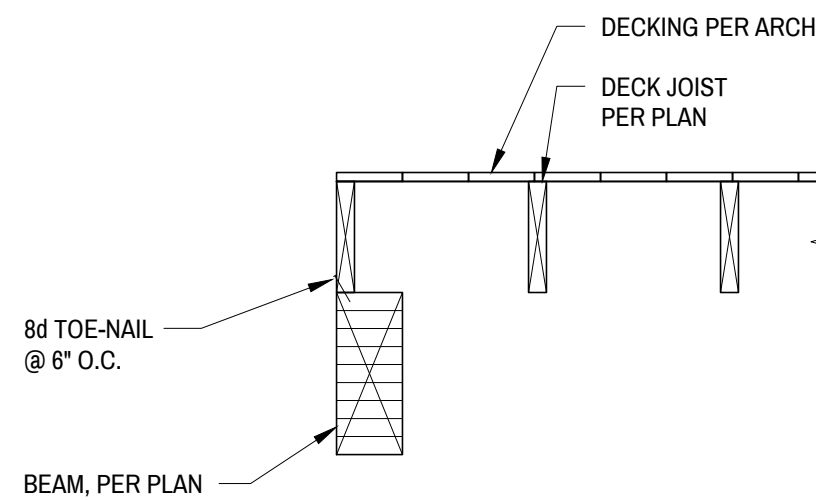
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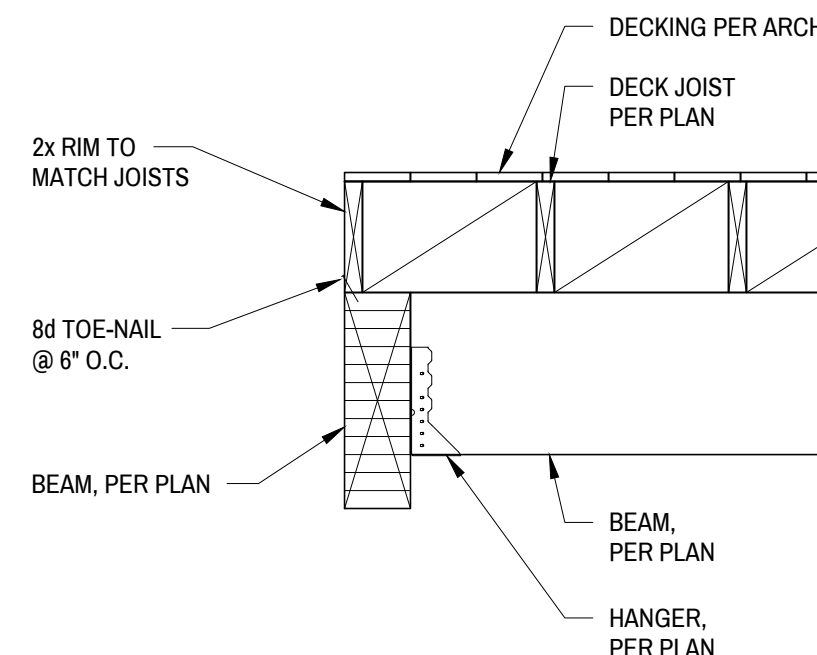
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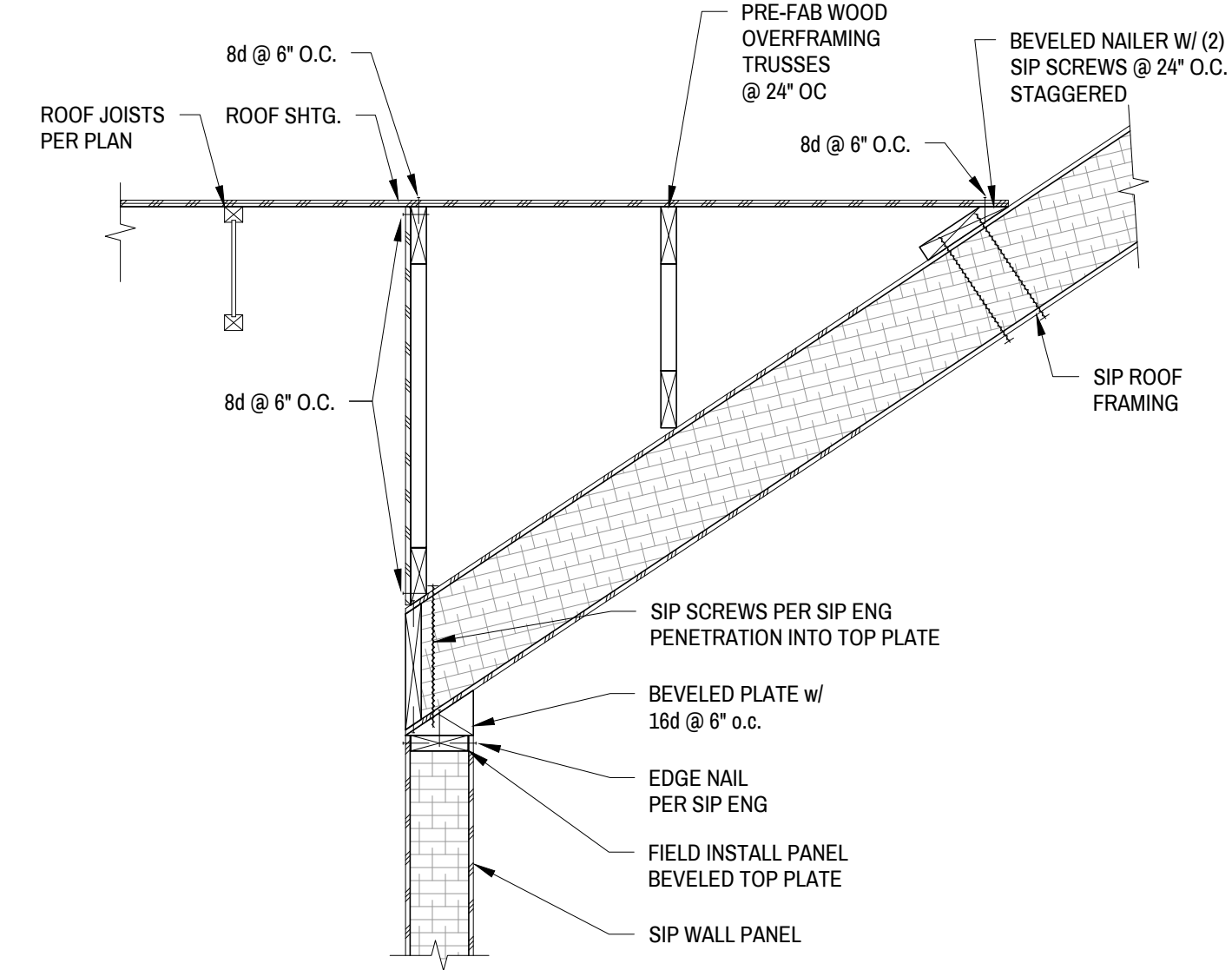
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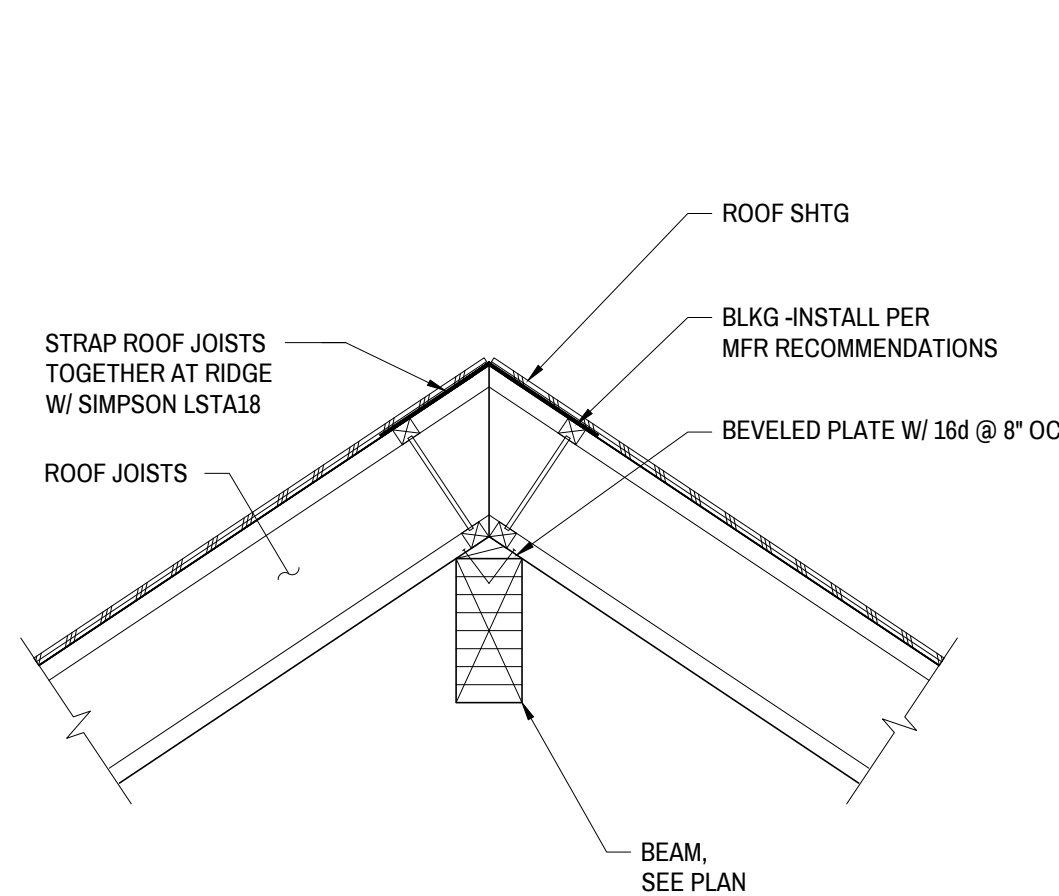
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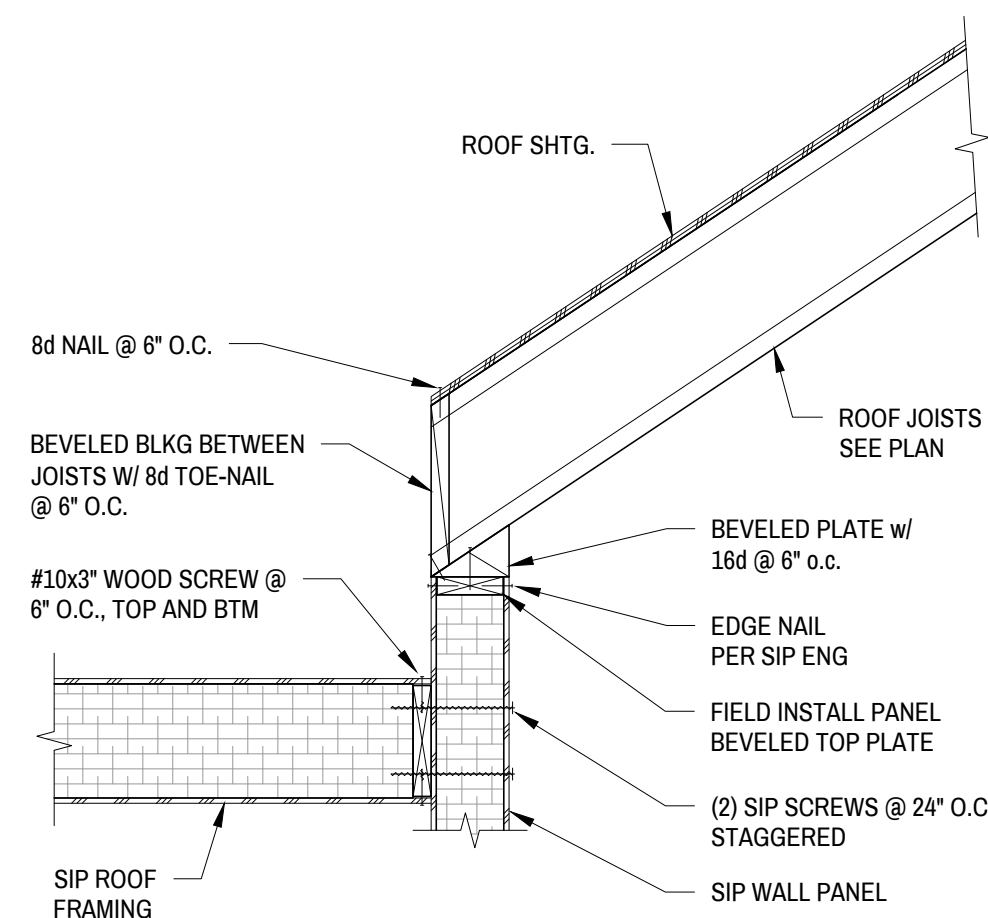
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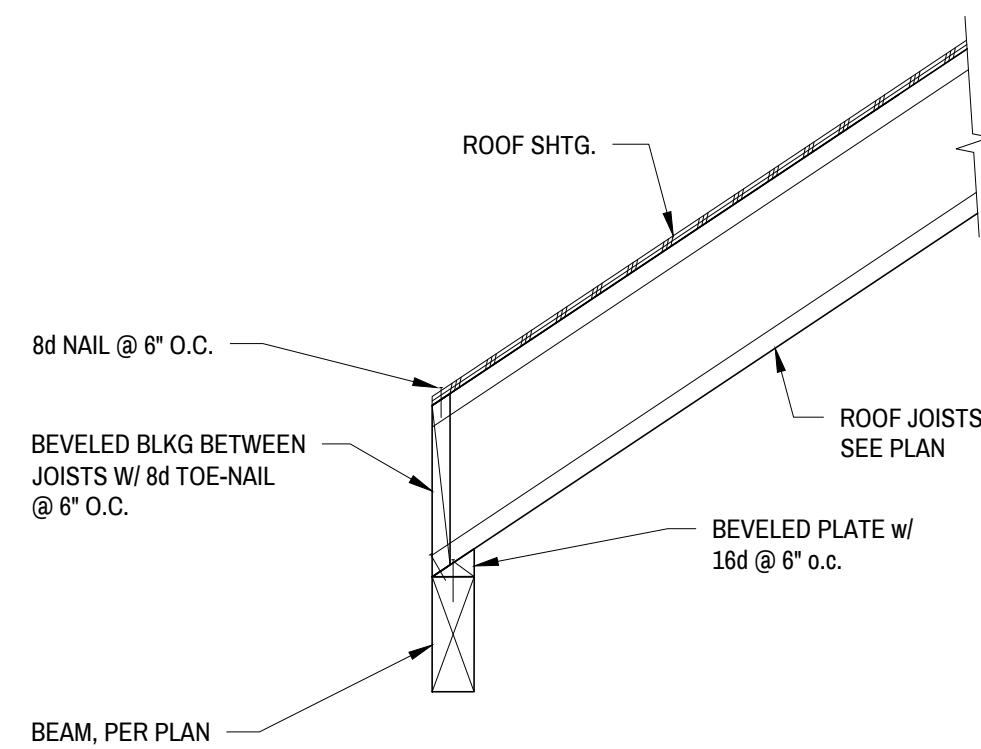
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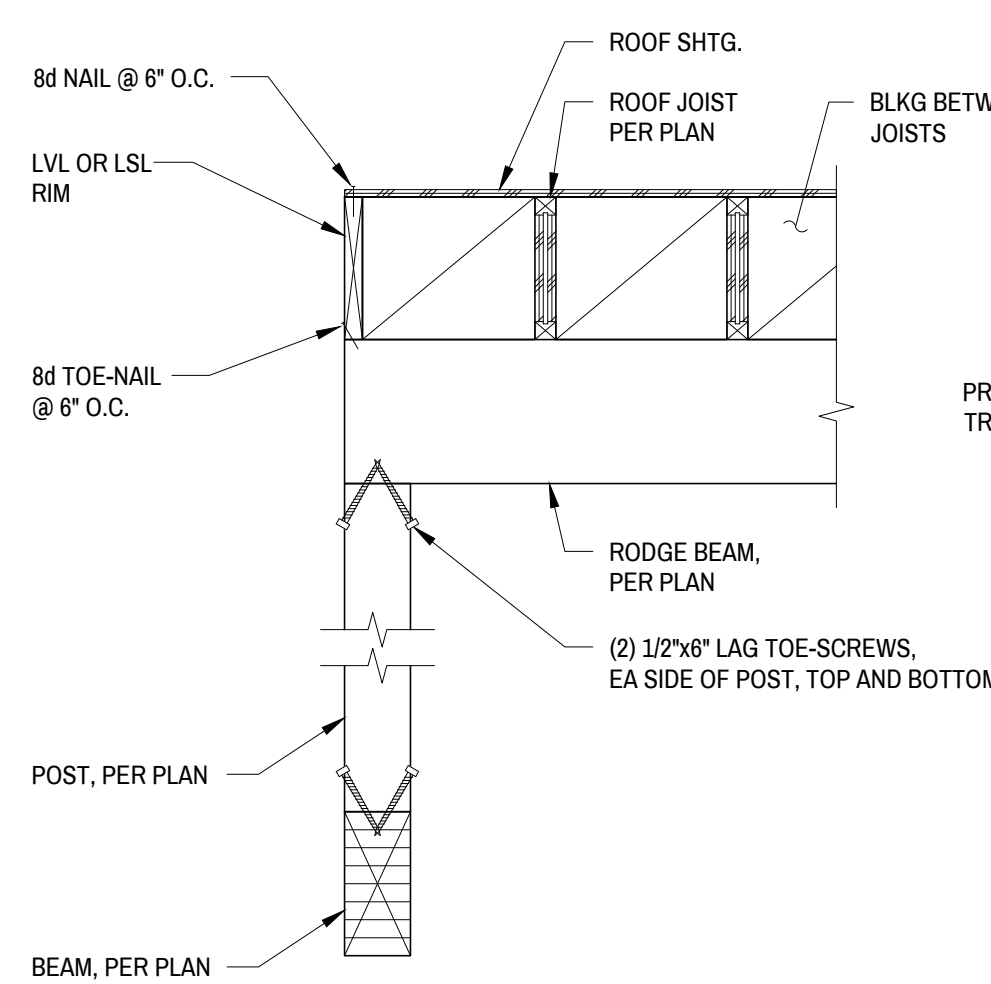
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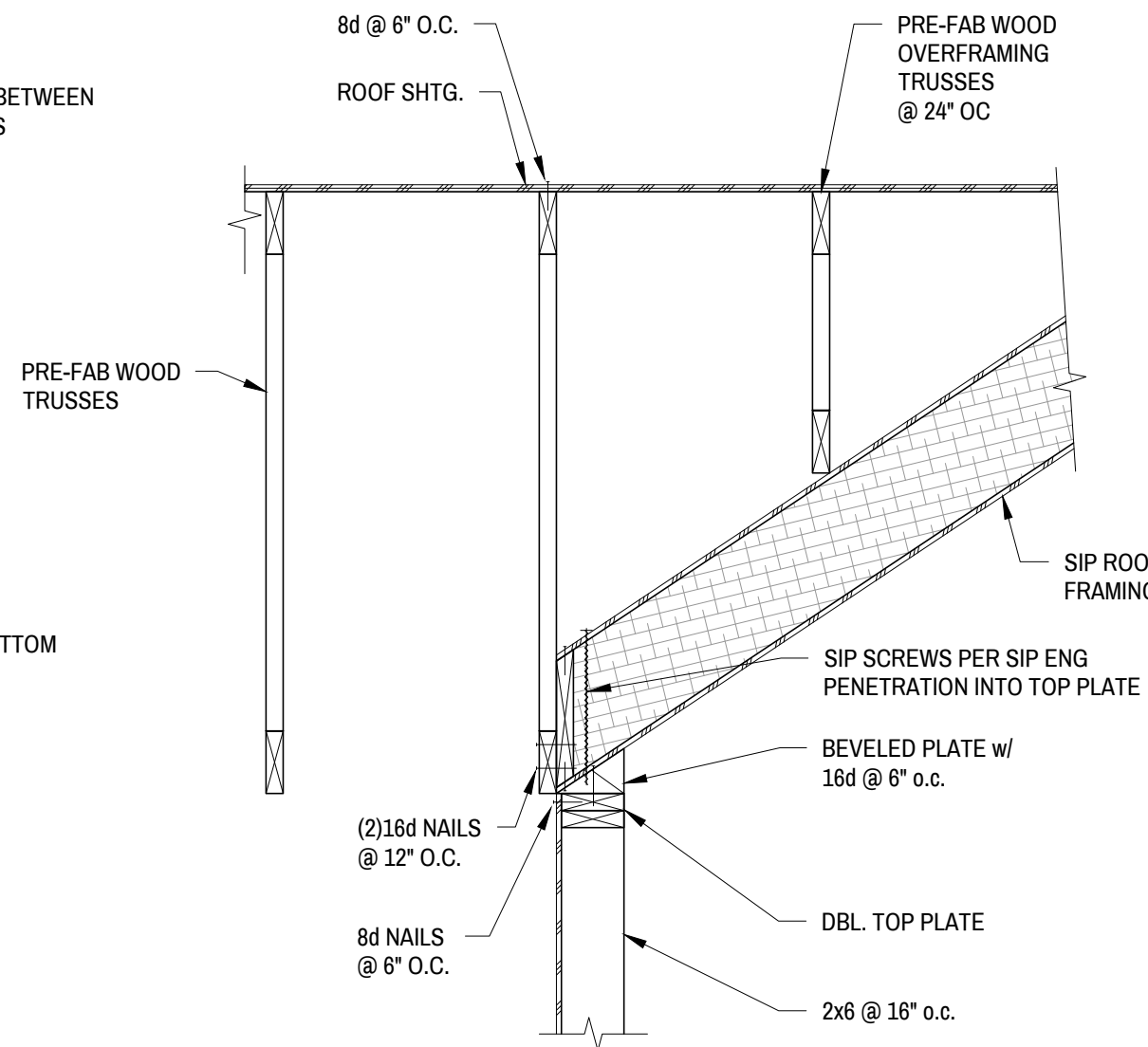
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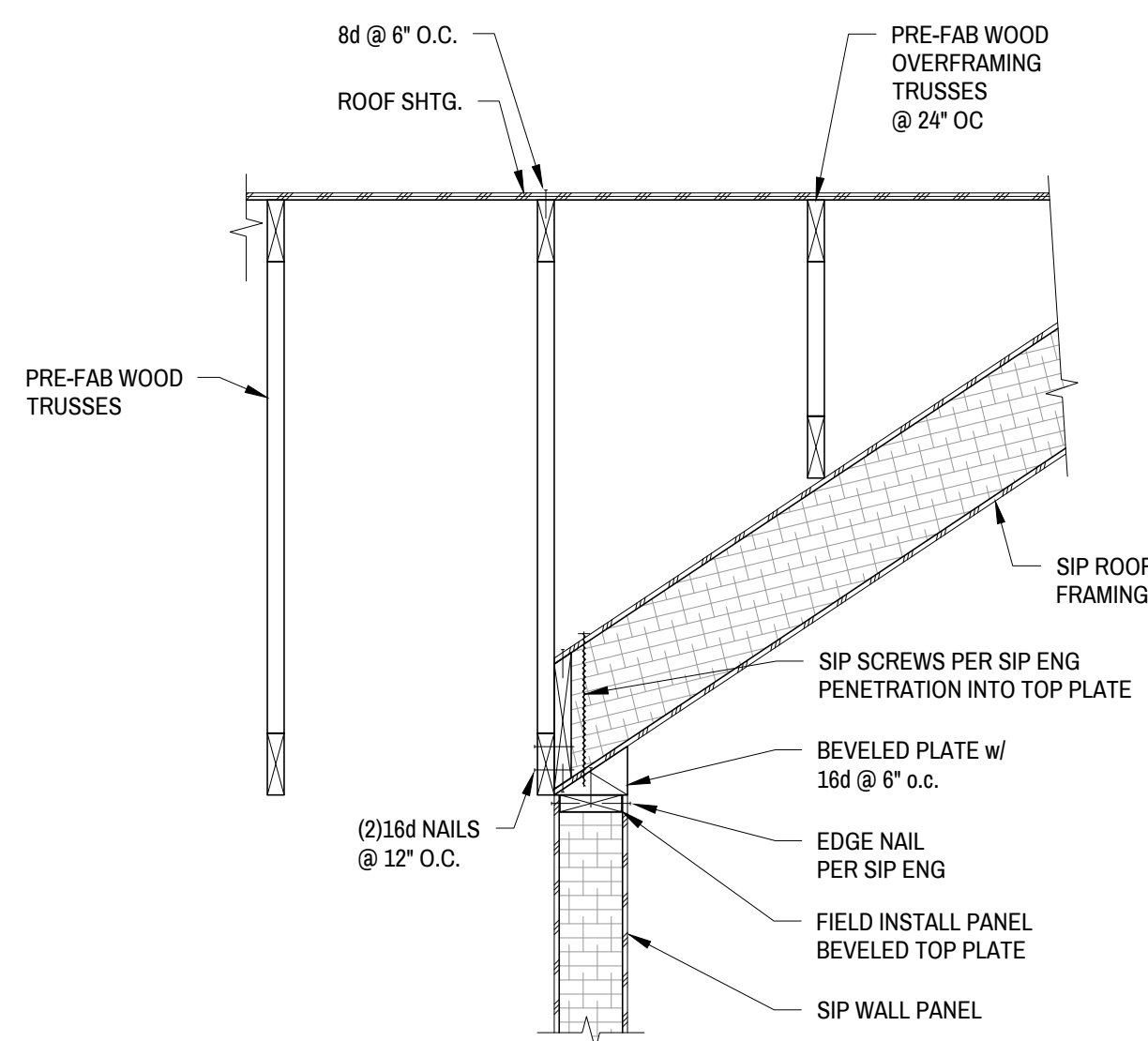
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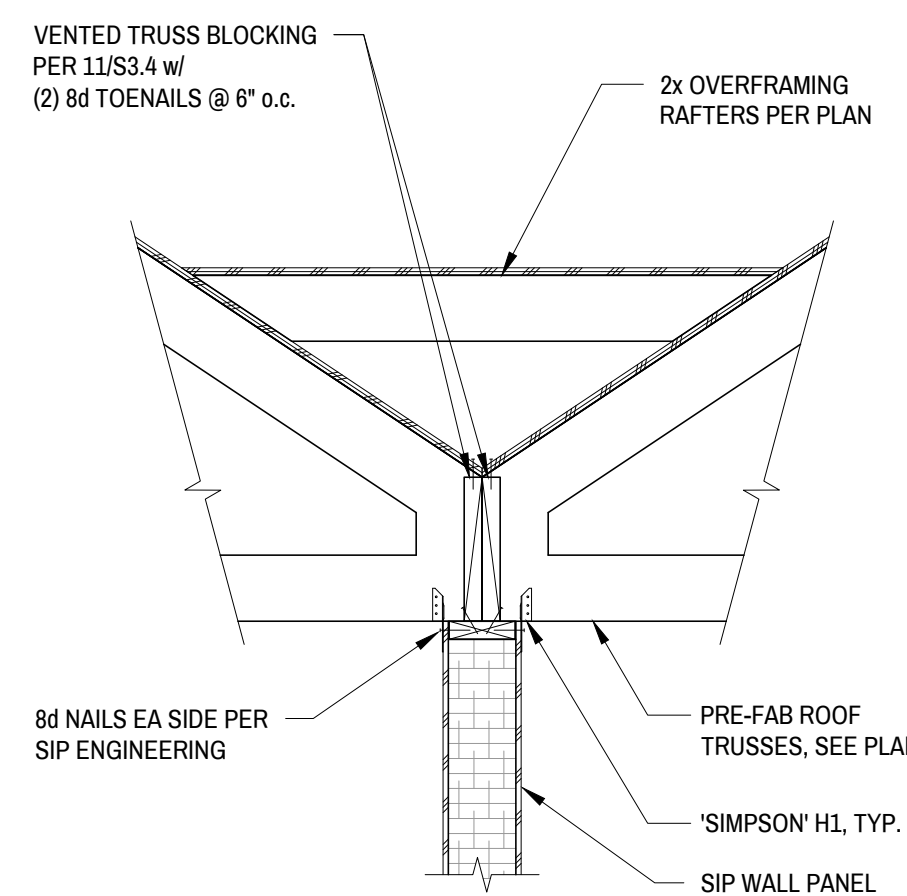
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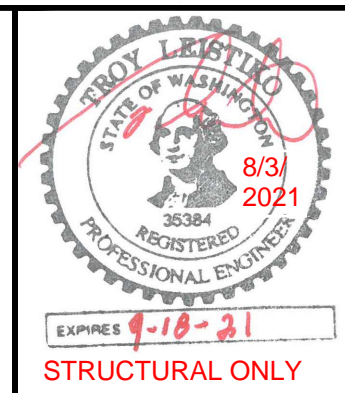
10 SCALE: 3/4\" = 1'-0"



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



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



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DETAILS

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SHEET:

S3.4