STRUCTURAL NOTES

(THE FOLLOWING APPLY UNLESS DETAILED OR SPECIFIED OTHERWISE ON THE PLANS)

GENERAL NOTES:
PLEASE VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY MODIFICATIONS TO THE STRUCTURE MUST BE REVIEWED AND APPROVED BY EXODUS ENGINEERING. ALL METHODS, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC) 2021 EDITION.

DESIGN LOADS

ROOF:	25 PSF SNOW, 17 PSF DEAD
EXTERIOR WALLS:	12 PSF
INTERIOR WALLS:	8 PSF
FLOOR:	10 PSF DEAD
FLOOR (TYPICAL):	50 PSF LIVE & 2,000LB CONCENTRATED LOAD
CORRIDOR:	100 PSF LIVE & 2,000LB CONCENTRATED LOAD
LOBBIES	100 PSF LIVE & 2,000LB CONCENTRATED LOAD
BASIC WIND SPEED:	100 MPH (3-SEC)
EXPOSURE:	"B"
SEISMIC:	DESIGN CAT. "D", SS = 1.159, S_1 = 0.476, SDS = 0.927
IMPORTANCE:	IE = 1.0
SITE CLASS	"D",
SEISMIC RESPONSE	R = 6.5
BEARING DEPTH:	18" EXT./12" INT. (PER GEO)
SOIL BEARING:	2,000 PSF ALLOWABLE

GEOTECHNICAL REPORT PROVIDED BY GEOENGINEERS,
FILE NO: 24452-001-00; DATED 04/01/2020

FOUNDATIONS:
FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, COMPACTED FILL MATERIAL, OR CONTROLLED LOW-STRENGTH MATERIAL (CLSM) PER IBC 1809.2.

REINFORCING STEEL:
MINIMUM GRADE 60. LAP ALL SPLICES A MINIMUM OF 32 BAR DIAMETERS OR 18". LAP HORIZONTAL STEEL AT CORNERS AND INTERSECTIONS IN FOOTINGS AND WALLS WITH CORNER BARS. MINIMUM CONCRETE COVER FOR REINFORCING STEEL PER ACI 318:

- INTERIOR FACES OF SLABS &/OR WALLS = 1-1/2"
- EXPOSED TO WEATHER OR EARTH 1-1/2" FOR #5 AND SMALLER AND 2" FOR #6 AND LARGER.
- FOOTING BARS REQUIRE 3" COVER.

CONCRETE:
ALL CONCRETE MATERIALS AND PLACEMENT SHALL BE PER THE IBC 2021 SECTION 1901. MINIMUM DESIGN STRENGTH (F'c) SHALL BE 2,500 PSI, HOWEVER 3,000 PSI CONCRETE IS REQUIRED FOR WEATHERING PROTECTION WHERE CONCRETE IS EXPOSED TO THE WEATHER PER IBC. AIR ENTRAINMENT SHALL BE 5% +/-1%. AGGREGATE SIZE = 7/8" MAXIMUM.

ANCHOR BOLTS
ALL ANCHOR BOLTS EMBEDDED IN CONCRETE OR MASONRY SHALL BE BE A307 UNO.
POST-INSTALLED BOLTS INTO CONCRETE NOT OTHERWISE SPECIFIED SHALL BE SIMPSON TITEN HD ⅝"X8" ANCHORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. EPOXY-GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH SIMPSON AT-XP EPOXY.

PRESERVATIVE TREATED WOOD:
IBC 2304.12, WOOD USED ABOVE GROUND SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA U1 FOR THE CONDITIONS LISTED IN THE CODE.

METAL CONNECTORS
ALL METAL CONNECTORS COMING IN CONTACT WITH P.T. WOOD SHALL BE SIMPSON "Z-MAX", TRIPLE ZINC COATED, OR HOT DIPPED GALVANIZED FOR CORROSION RESISTANCE.

PREFABRICATED ROOF TRUSSES
PREFABRICATED ROOF TRUSSES TO BE DESIGNED FABRICATED AND INSTALLED PER MANUFACTURER'S DRAWINGS AND INSTALLATION INSTRUCTIONS. PRE-FABRICATED ITEMS TO BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. FABRICATOR TO PROVIDE ALL TRUSS TO TRUSS CONNECTION DETAILS. ALL TEMPORARY AND PERMANENT BRACING REQUIRED FOR THE STABILITY OF THE TRUSSES ELEMENTS UNDER GRAVITY LOADS AND IN-PLANE WIND OR SEISMIC LOADS SHALL BE DESIGNED BY THE TRUSS ENGINEER.

GLUED LAMINATED BEAMS (GLB)
(SEE EXPANDED WOOD FRAMING NOTES)

ENGINEERED LUMBER (LVL - PSL)
LVL MATERIAL SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: E=2.0E, Fb=2,600 PSI
PSL MATERIAL SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: E=2.0E, Fb=2,900 PSI

NOTATIONS AND ABBREVIATIONS

1. A.B. = ANCHOR BOLT
2. ABV = ABOVE
3. BLK'G = BLOCKING
4. BTM = BOTTOM
5. CANT = CANTILEVER
6. CONT = CONTINUOUS
7. DBL = DOUBLE
8. DIA = DIAMETER
9. EA = EACH
10. EMBED = EMBEDMENT
11. (E) = EXISTING
12. FDN = FOUNDATION
13. FTG = FOOTING
14. GALV = GALVANIZED
15. HDR = HEADER
16. H.D. = HOLDOWN
17. HORIZ = HORIZONTAL
18. MFR = MANUFACTURED/ MANUFACTURER
19. MAX = MAXIMUM
20. MIN = MINIMUM
21. O.C. = ON CENTER
22. OPT = OPTIONAL
23. PAR = PARALLEL
24. PERP = PERPENDICULAR
25. PLYW'D = PLYWOOD
26. P.T. = PRESSURE TREATED
27. REQ'D = REQUIRED
28. SCHED = SCHEDULE
29. SIM = SIMILAR
30. S.W. = SHEAR WALL
31. TYP = TYPICAL
32. U.N.O. = UNLESS NOTED OTHERWISE
33. VERT = VERTICAL
34. V.I.F. = VERIFY IN FIELD

1.0 WOOD

1.1 FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION FURNISH TO THE FOLLOWING MINIMUM STANDARDS.

JOISTS: (2x, 3x, AND 4x MEMBERS)	DOUG-FIR NO. 2
POSTS AND TIMBERS:	DOUGLAS FIR NO. 1 MINIMUM BASIC DESIGN STRESS, F'c = 1,000 PSI
STUDS, PLATES, & MISCELLANEOUS LIGHT FRAMING	DOUG-FIR STUD GRADE

1.2 GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND AITC STANDARDS. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, FV = 240 PSI. ALL CONTINUOUS OR CANTILEVERED SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8 Fb = 2,400 PSI, Fv = 240 PSI.

1.3 PREFABRICATED ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED TRUSSES TPI-2014" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS.
LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	5 PSF
BOTTOM CHORD DEAD LOAD	10 PSF
TOTAL LOAD	40 PSF

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO FABRICATION.

1.4 PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II. EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1-95 OR PS 2-92. ORIENTED STRAND BOARD OF EQUILIVENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

1.5 ALL WOOD PLATES IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE, PROVIDE 2 LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC. AND CONCRETE OR MASONRY.

1.6 TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C2021 (or newer) EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS OR IUS" HANGERS.

1.7 ALL CONNECTIONS IN CONTACT WITH PRESSURE TREATED WOOD, SHALL BE OF HOT DIPPED GALVANIZED STEEL OR STAINLESS STEEL. HOT DIPPED GALVANIZED FASTENERS SHOULD CONFORM TO ASTM STANDARD 153, AND HOT DIPPED GALVANIZED CONNECTORS SHOULD CONFORM TO ASTM STANDARD A653 (CLASS G-185). STAINLESS STEEL FASTENERS AND CONNECTORS SHOULD BE TYPE 304 OR 316. NOTE: ELECTROPLATED GALVANIZED FASTENERS AND CONNECTORS ARE NOT TO BE USED WITH PRESSURE TREATED WOOD. SIMPSON PRODUCT FINISHES CORRESPONDING TO THE ABOVE REQUIREMENTS ARE ZMAX (HOT DIPPED GALVANIZED) AND SST300 (STAINLESS STEEL).

1.8 WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-½"	0.131"
10d	3"	0.148"
12d	3-¼"	0.148"
16d	3-½"	0.162"
20d	4"	0.192"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. FASTENERS PER ESR 1539 SHALL BE ADEQUATE ALTERNATES.

B. NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING.

1.9 WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. UNLESS OTHERWISE NOTED, ALL NAILS SHALL BE AS SPECIFIED ABOVE. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

B. WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 16" O.C. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF WALLS AND AT EACH SIDE OF ALL OPENINGS. ALL INTERIOR AND EXTERIOR LOAD BEARING HEADERS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLAN ARE TO BE EITHER A 4x10 OR 6x8 DF#2 WITH AT LEAST ONE CRIPPLE AND ONE KING STUD FOR EACH END AT OPENINGS LESS THAN 5' WIDE AND TWO CRIPPLES AND ONE KING STUD FOR ALL OTHERS. ALL WINDOW OPENINGS SHALL HAVE A DOUBLE SILL PLATE BELOW THE OPENING. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE SOLID BLOCKING BETWEEN STUDS AT 4' O.C. ON ALL WALLS OVER 10' IN HEIGHT.

WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d AT 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE SIX 16d NAILS AT 4" O.C. EACH SIDE OF JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 6" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER A307 ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT) @ 4'-0" O.C. UNLESS INDICATED OTHERWISE. BOLTS SHALL HAVE A MINIMUM 3"x3x"1/4" PLATE WASHER. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 16d @ 6" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT NOTED OTHERWISE, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 7" O.C. USE 5d COOLER NAILS FOR 1/2" GWB AND 6d COOLER NAILS FOR 5/8" GWB. PROVIDE 1/2" (NOM.) APA RATED SHEATHING (SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UNSUPPORTED EDGES), TOP AND BOTTOM PLATES WITH NAILS @ 6" O.C. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH NAILS @ 12" O.C. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOISTS LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS.

TOENAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d @ 12" O.C. STAGGERED. ATTACH EACH RAFTERS AT BEARING LINES WITH A SIMPSON H2.5T. UNLESS OTHER METAL CONNECTIONS ARE PROVIDED.

SHEAR WALL SCHEDULE

LABEL	APA RATED SHEATHING	NAIL SIZE & SPACING @ EDGES	STUD & BLOCKING SIZE @ ADJOINING EDGES	STUD SPECIES & GRADE	2X BOTTOM PLATE ATTACHMENT (ASSUMING CONT. SHEATHING OVER RIM/PLATE)	2x BOTTOM PLATE ATTACHMENT (W/ SHEATHING SPLICE)	SILL PLATE ATTACHMENT: MASAP OR ⅝" ANCHOR BOLT SPACING	SILL PLATE ATTACHMENT: SILL PLATE SIZE @ FOUNDATION	CAPACITY (PLF) SEISMIC/WIND
A	7/16" OSB ONE SIDE	.113" x 2" @ 6" O.C.	2x	DF - STUD	.135"x3-½" @ 8" O.C.	LTP5 @ 24" O.C.	48" O.C.	2x	260/364
B	7/16" OSB ONE SIDE	.113" x 2" @ 4" O.C.	2x	DF - STUD	.135"x3-½" @ 8" O.C.	LTP5 @ 16" O.C.	32" O.C.	2x	350/532
C	7/16" OSB ONE SIDE	.113" x 2" @ 3" O.C.	2x	DF - STUD	.135"x3-½" @ 8" O.C.	LTP5 @ 12" O.C.	30" O.C.	2x	400/600
D	7/16" OSB ONE SIDE	.113" x 2" @ 2" O.C.	3x	DF - STUD	.135"x3-½" @ 8" O.C.	LTP5 @ 8" O.C.	24" O.C.	3x	410/896

SHEAR WALL NOTES

BLOCKING IS REQUIRED AT ALL PANEL EDGES. INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY WHERE STUDS ARE SPACED 16" O.C. MAX. STAGGER SHEATHING WHERE APPLIED ON BOTH SIDES OF WALLS. (2) 2X MAY BE USED IN LIEU OF SINGLE 3X IF EDGE NAILING IS STAGGERED BETWEEN PLATES, AND PLATES ARE STITCH NAILED TOGETHER WITH .131X3" @ 4" O.C. STAGGERED. WHEN USING ANCHOR BOLTS, 3"X3"X.229" PLATE WASHERS SHALL BE USED. SEE PLANS FOR ADDITIONAL ATTACHMENTS REQUIRED.

STATEMENT OF SPECIAL INSPECTIONS:

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND AS NOTED HEREIN.

SOILS

VERIFICATION AND INSPECTION	C	P	REFERENCED STANDARD	NOTES
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X	IBC 1705.6	
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X		
PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X		
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X			
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X		

WOOD FRAMING

VERIFICATION AND INSPECTION	C	P	REFERENCED STANDARD	NOTES
NAILING, BOLTING, ANCHORING AND OTHER FASTENING ELEMENTS OF THE WIND & SEISMIC FORCE-RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS		X	IBC 1705.12, 1705.13	SPECIAL INSPECTION IS NOT REQUIRED ON PORTIONS OF THE STRUCTURE WHERE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4" ON-CENTER

MANUFACTURED TRUSSES

VERIFICATION AND INSPECTION	C	P	REFERENCED STANDARD	NOTES
FOR WOOD TRUSSES WITH A CLEAR SPAN OF 60 FEET OR GREATER, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE.		X	IBC 2021: 1705.5.2	

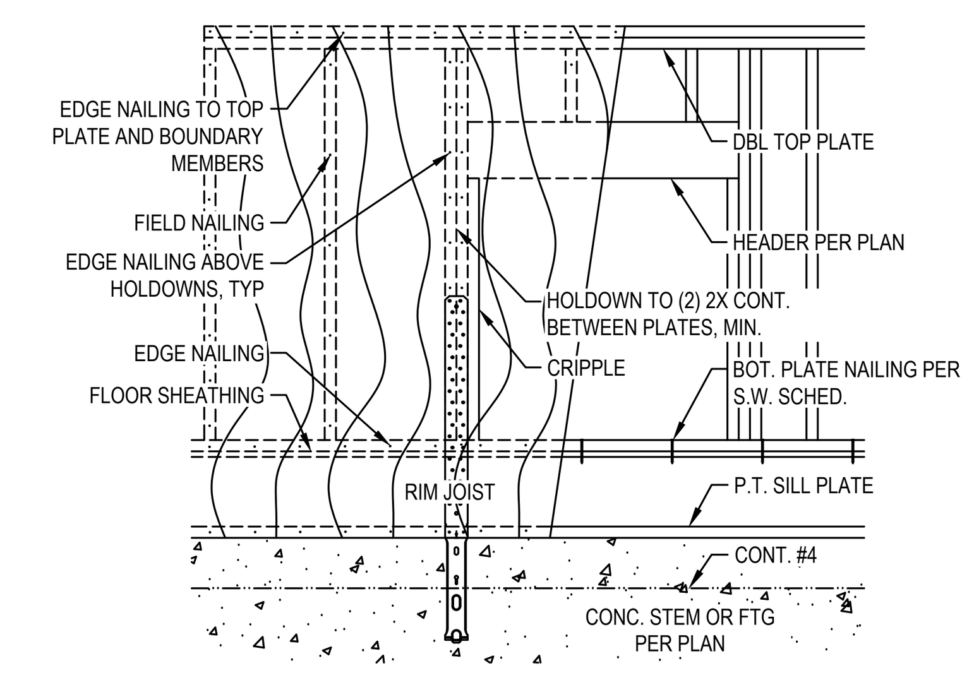
THE CONTRACTOR IS TO VERIFY THAT ALL DIMENSIONS, SPECIFICATIONS, AND DETAILS CORRESPOND WITH THE PROPOSED DESIGN PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO EXODUS ENGINEERING FOR FURTHER REVIEW. PLEASE REFERENCE ARCHITECTURAL DRAWINGS BY:

SHEET INDEX:

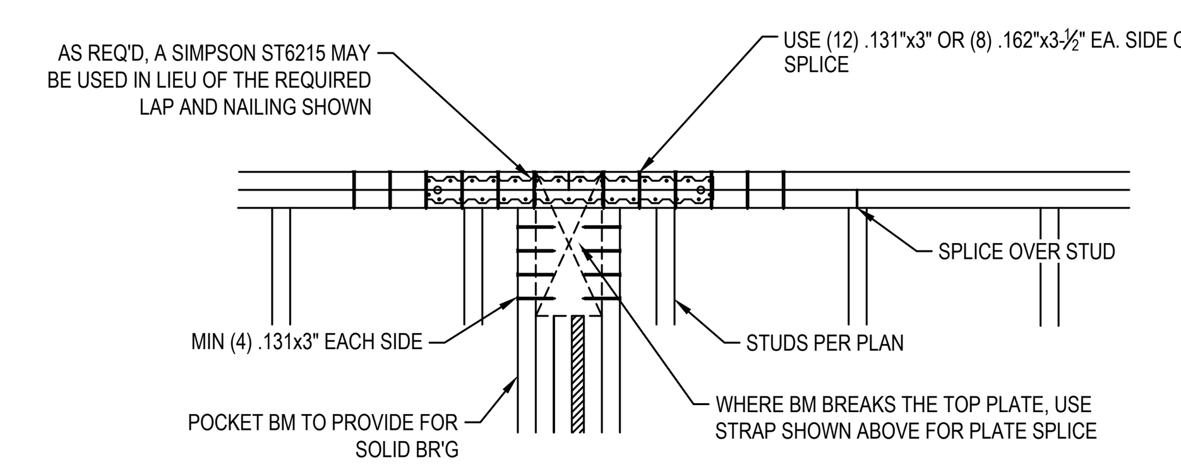
S-1 : GENERAL NOTES
S-2 : FOUNDATION, BASEMENT FLOOR PLAN AND FIRST FLOOR FRAMING
S-3 : PROPOSED FIRST FLOOR PLAN AND SHEAR WALL LAYOUT
S-4 : ROOF FRAMING
S-5 : STRUCTURAL DETAILS
S-6 : STRUCTURAL DETAILS

LEGEND:

- HOLD DOWN
- SHEAR WALL
- DETAIL CUT SECTION / REFERENCE
- (SF01) BEAM REFERENCE

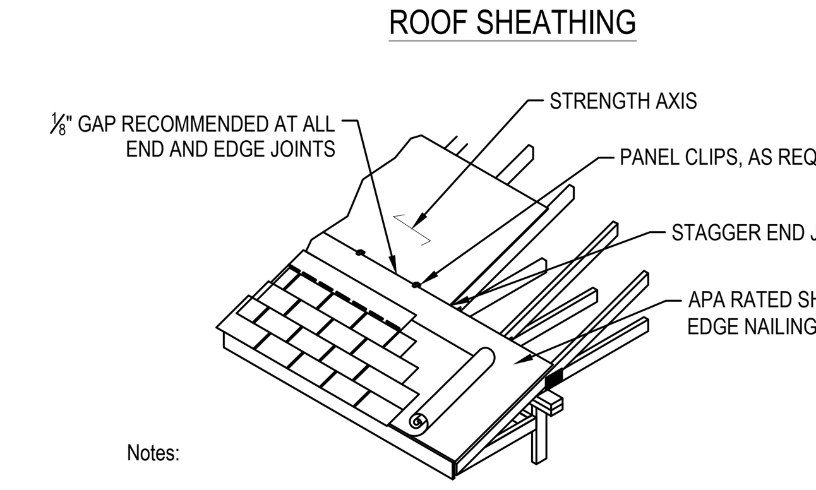


1 TYPICAL SHEAR WALL
SCALE - ½" = 1'-0"



2 TYPICAL PLATE SPLICE
SCALE: ¾" = 1'-0"

ROOF SHEATHING



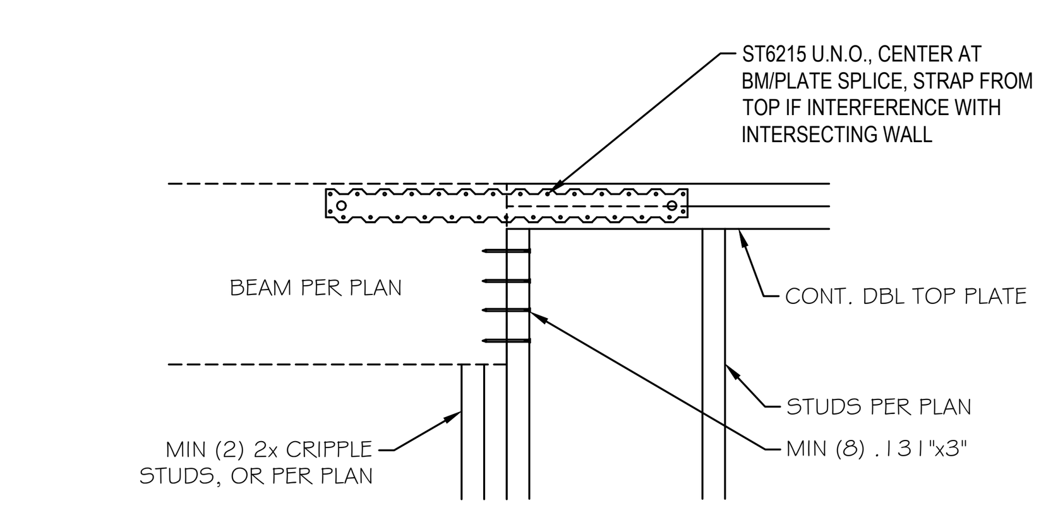
Notes:

1. Cover sheathing as soon as possible with roofing felt for extra protection against excessive moisture prior to roofing application.

2. For pitched roofs, place screened surface or side with skid-resistant coating up if OSB panels are used. Keep roof surface free of dirt, sawdust and debris, and wear skid-resistant shoes when installing roof sheathing.

3. For buildings with conventionally framed roofs (trusses or rafters), limit the length of continuous sections of roof area to 80 feet maximum during construction, to allow for accumulated expansion in wet weather conditions. Omit roof sheathing panels in each course of sheathing between sections, and install "fill in" panels later to complete roof deck installation prior to applying roofing.

3 TYPICAL ROOF SHEATHING
SCALE - NOT TO SCALE



4 TYPICAL BEAM DRAG SPLICE
SCALE - 1" = 1'-0"

8.25.2025

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*** Plans are designed for ARCH D (24" x 36") Size Paper Only UNO -- Do Not Scale ***

General Notes

Elevation Home Designs
Job # : 24-0166

Exodus Engineering
Job # : 24-291 (CJB)

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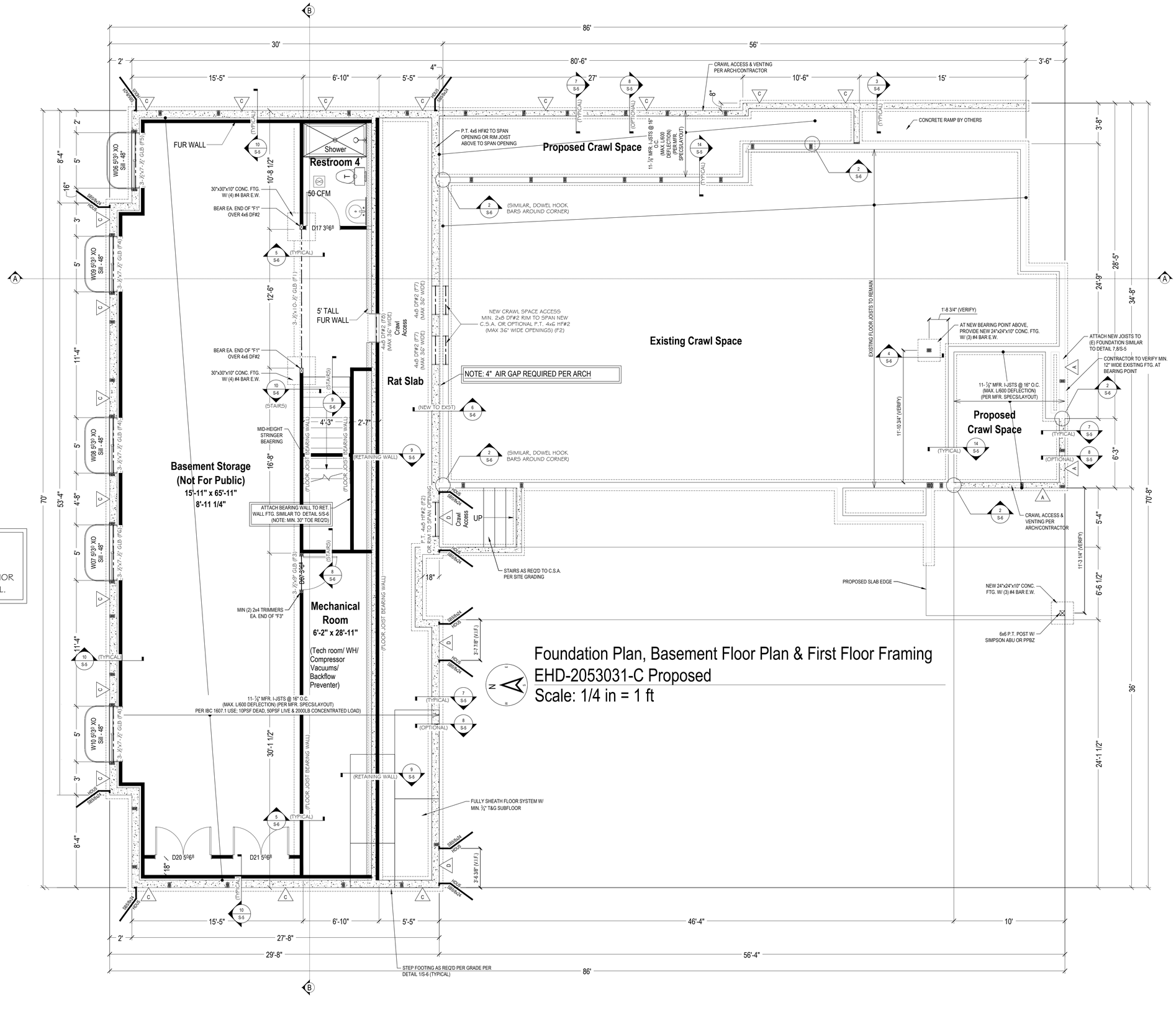
Layout Sheet #
1 of 6

Sheet:
S-1

Foundation Plan, Basement Floor Plan & First Floor Framing
EHD-2053031-C Proposed
Scale: 1/4 in = 1 ft



RETAINING WALL NOTES:
DETAIL 10/S-5 IS A RESTRAINED RETAINING WALL AND THE FLOOR DIAPHRAGM MUST BE IN PLACE PRIOR TO BACKFILLING AGAINST THE WALL.

A ⅝"Ø ANCHOR BOLTS @ 48" O.C.
B ⅝"Ø ANCHOR BOLTS @ 32" O.C.
C ⅝"Ø ANCHOR BOLTS @ 30" O.C.
D ⅝"Ø ANCHOR BOLTS @ 24" O.C.

WALL LEGEND
▨ NEW FOUNDATION WALL
☐ EXISTING FOUNDAITON WALL

FOUNDATION NOTES
1. VERIFY ALL DIMS W/ ARCH SHEETS PRIOR TO CONSTRUCTION.
2. SEE S-1 PAGE FOR SILL ANCHOR INFORMATION
3. SEE 7 & 11/S-6 FOR HOLD DOWN INFORMATION
4. STEP FOUNDATION AS REQUIRED PER DETAIL 1/S-6
5. ▩ INDICATES POINT LOAD. PROVIDE FULL BR'G TO FDN W/ 2x B.U. STUDS & BLK'G AS REQ'D U.N.O.

LUKE W. MOERKE
44713
8.25.2025

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Foundation Plan

Elevation Home Designs
Job # : 24-0166

Exodus Engineering
Job # : 24-291 (CJB)

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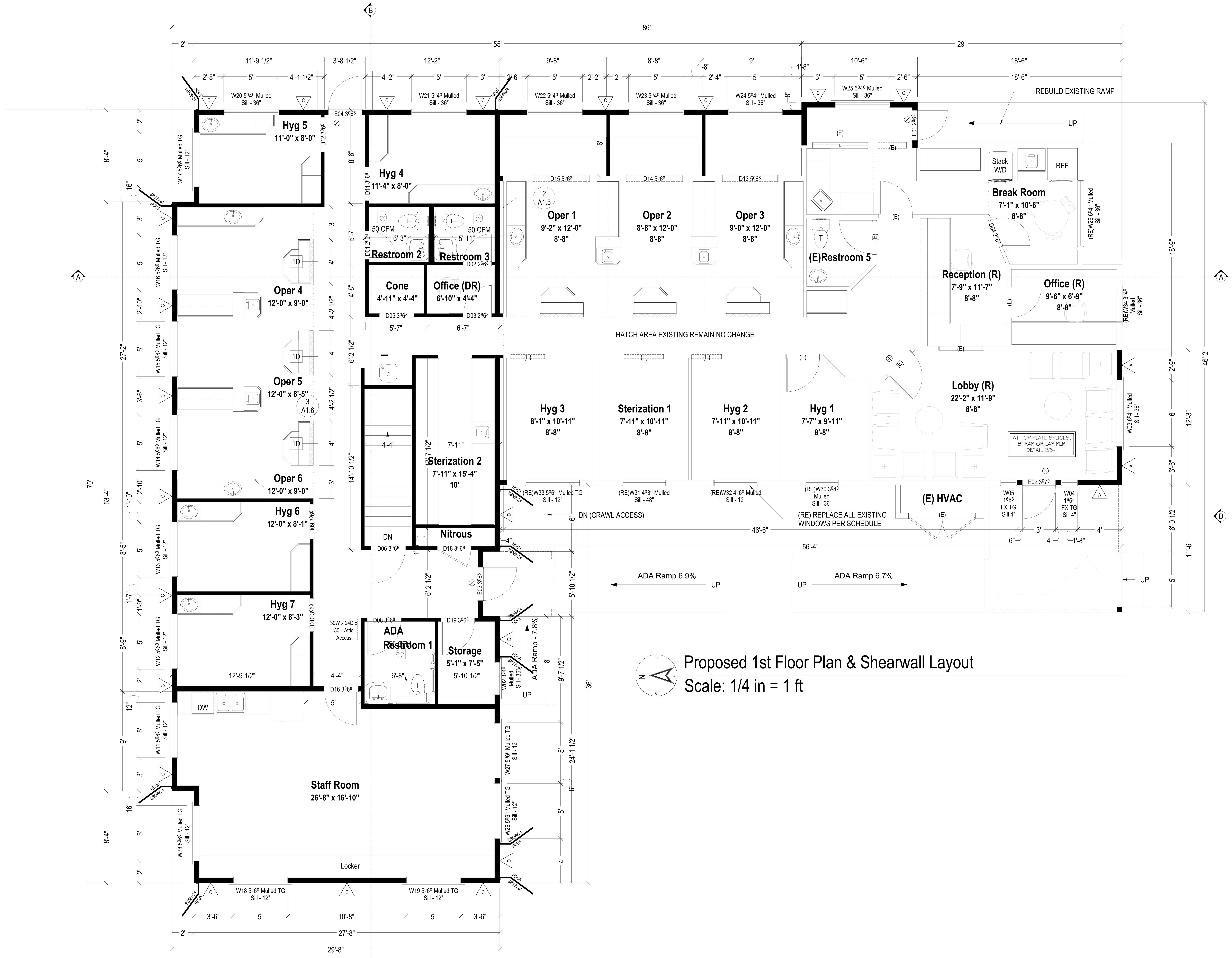
Layout Sheet #
2 of 6

Sheet:
S-2



Proposed 1st Floor Plan & Shearwall Layout
Scale: 1/4 in = 1 ft

- A — ⅝"Ø ANCHOR BOLTS @ 48" O.C.
- B — ⅝"Ø ANCHOR BOLTS @ 32" O.C.
- C — ⅝"Ø ANCHOR BOLTS @ 30" O.C.
- D — ⅝"Ø ANCHOR BOLTS @ 24" O.C.

WALL LEGEND
- NEW STUD WALL
- EXISTING STUD WALL

SHEAR WALL NOTES
1. SEE 7 & 11/S-6 FOR HOLD DOWN INFORMATION
2. SEE SHEAR WALL SCHEDULE ON S-1 FOR NAILING AND ANCHOR SPACING

LUKE W. MOERKE — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER
8.25.2025

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1st Floor Shear

Elevation Home Designs
Job # : 24-0166

Exodus Engineering
Job # : 24-291 (CJB)

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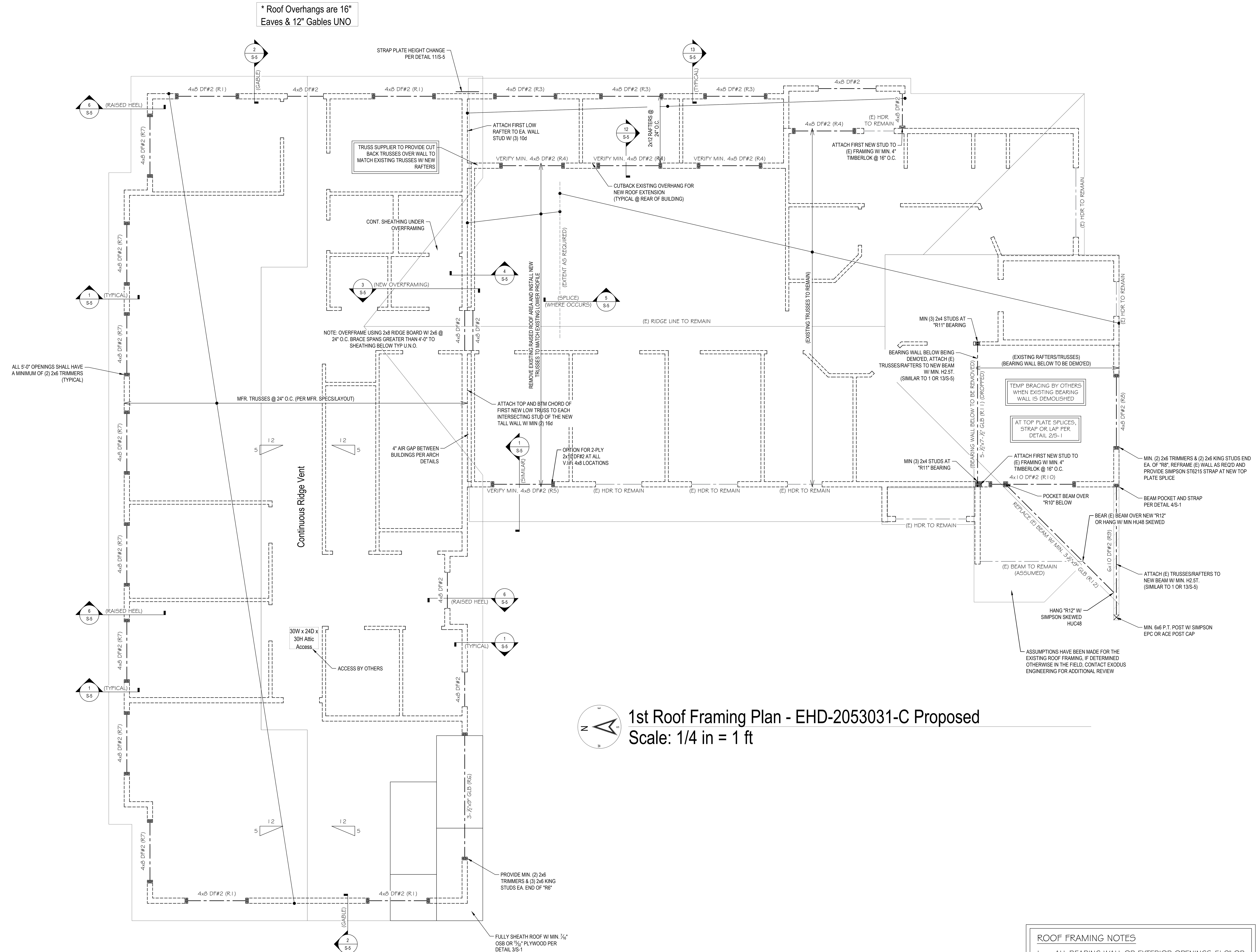
Layout Sheet #
3 of 6

Sheet:
S-3



1st Roof Framing Plan - EHD-2053031-C Proposed
Scale: 1/4 in = 1 ft

ROOF FRAMING NOTES
1. ALL BEARING WALL OR EXTERIOR OPENINGS 5'-0" OR LARGER SHALL HAVE MIN. (2) 2x6 TRIMMERS U.N.O.
2. OPENINGS OVER 6'-0" SHALL HAVE (2) 2x6 KING STUDS U.N.O.
3. FULLY SHEATH ROOF PER 3/S-1
4. ▩ INDICATES POINT LOAD. PROVIDE FULL BR'G TO FDN W/ 2x B.U. STUDS & BLK'G AS REQ'D U.N.O.

LUKE W. MOERKE, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
8.25.2025

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*** Plans are designed for ARCH D (24" x 36") Size Paper Only UNO – Do Not Scale ***

Roof Framing

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8/25/2025 8:49:50

Layout Sheet #
4 of 6

Sheet:
S-4

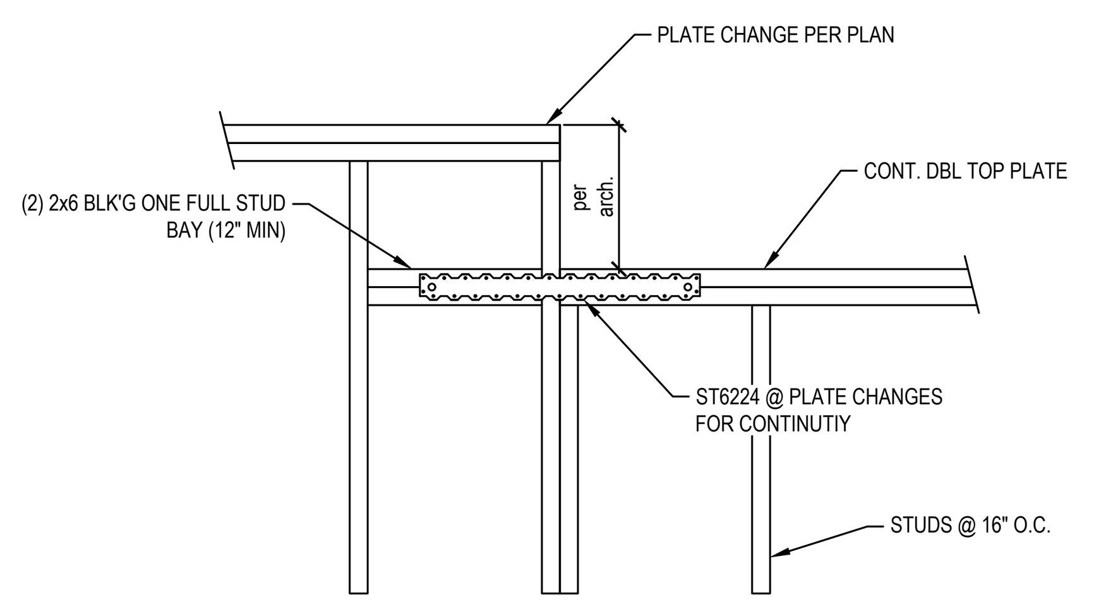
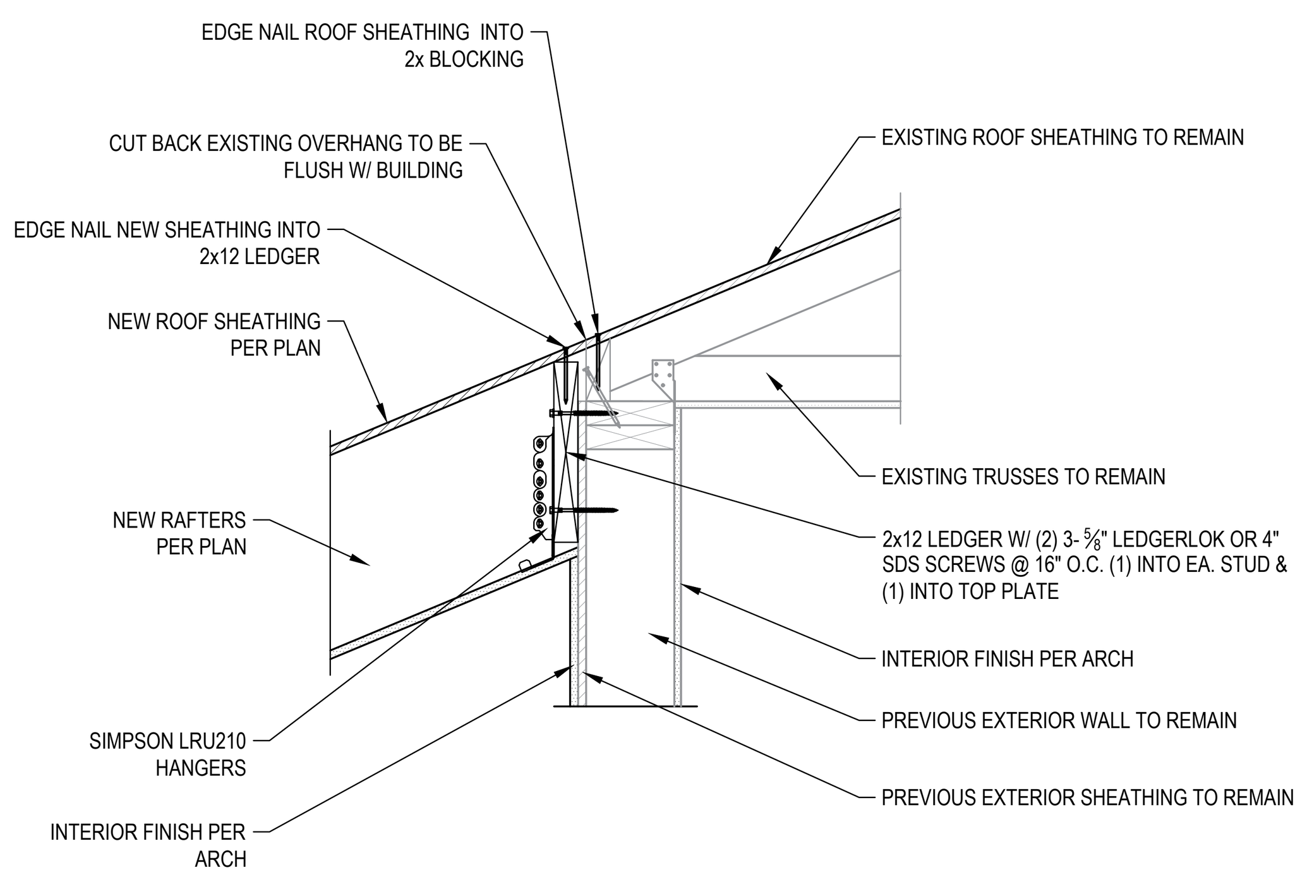


PLATE CONNECTION AT ELEV. CHANGES

SCALE - 3/4" = 1'

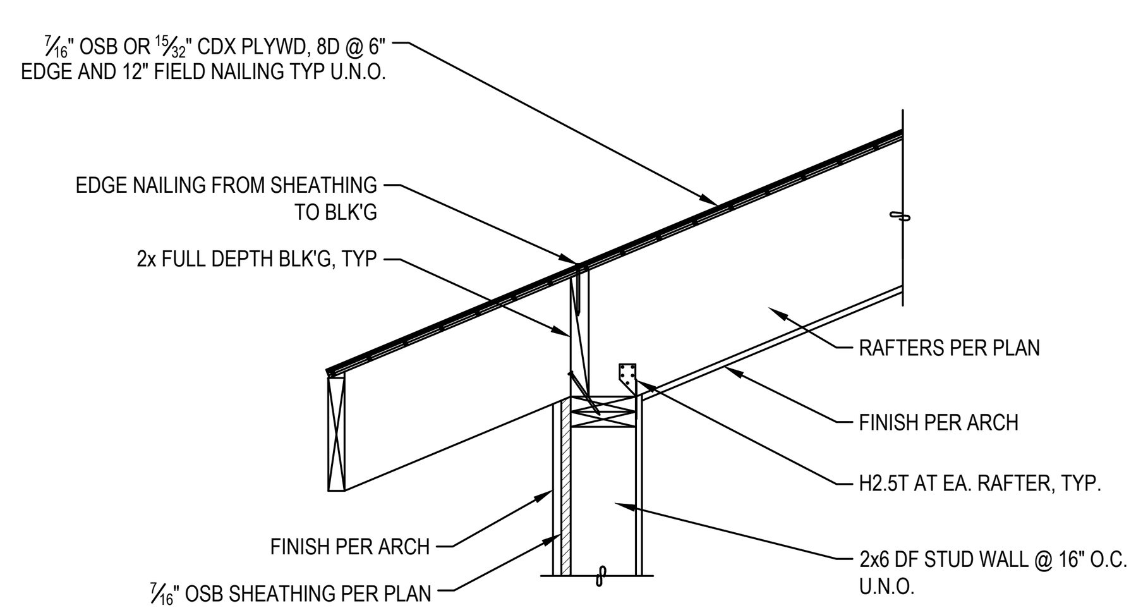
11



TYPICAL TRUSS TO TOP PLATE

SCALE - 1" = 1'-0"

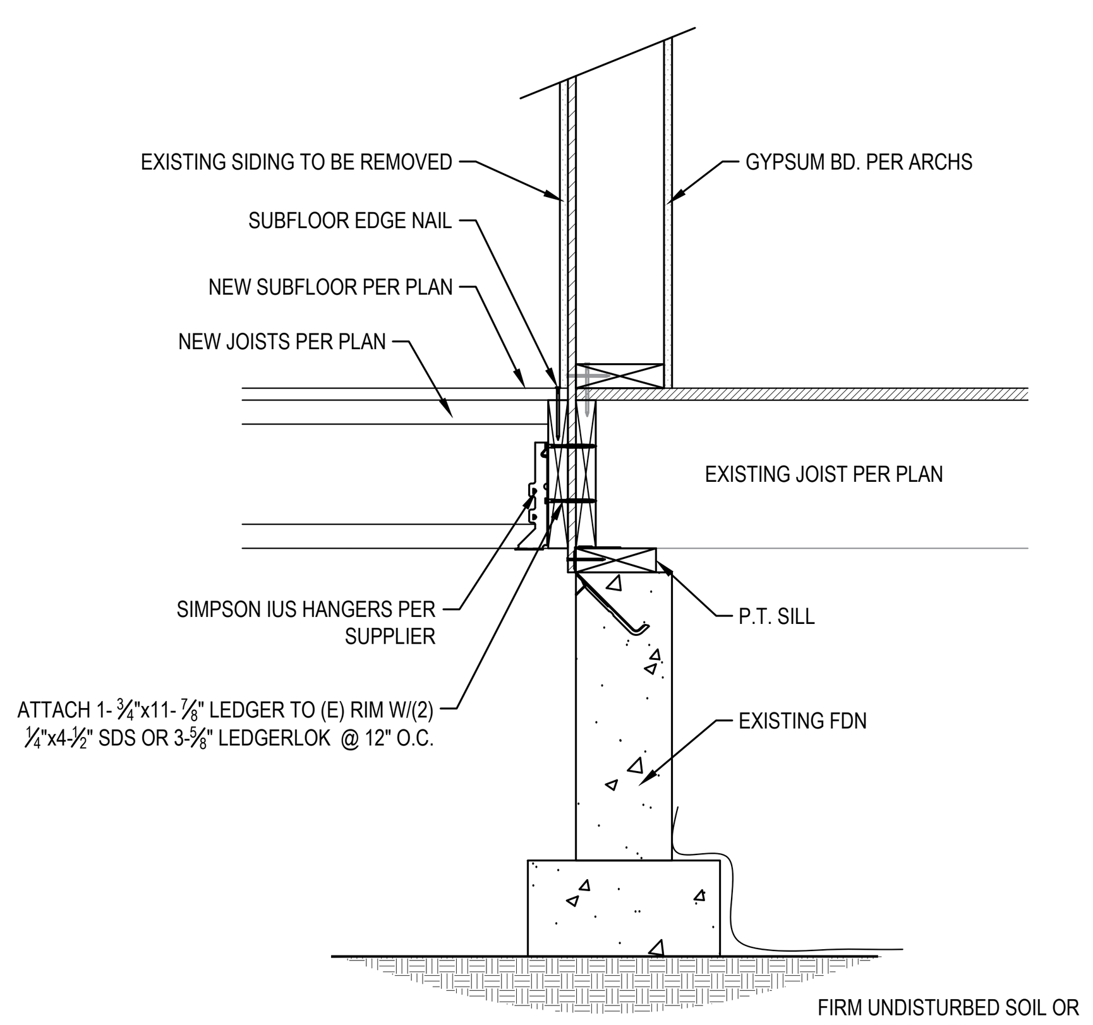
12



RAFTER TO TOP PLATE

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

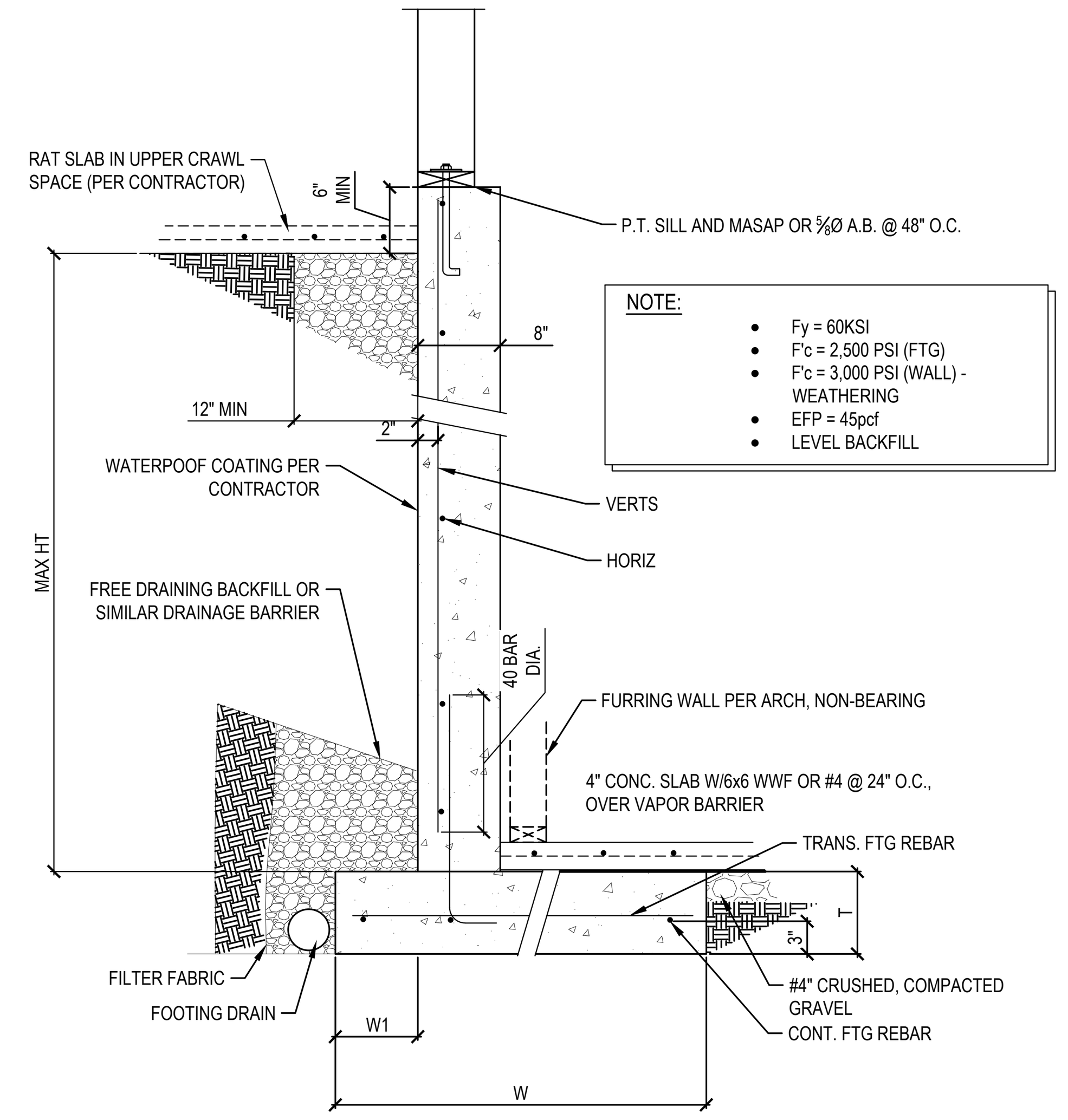
13



NEW FLOOR JOIST ATTACHMENT

SCALE - 1" = 1'-0"

14



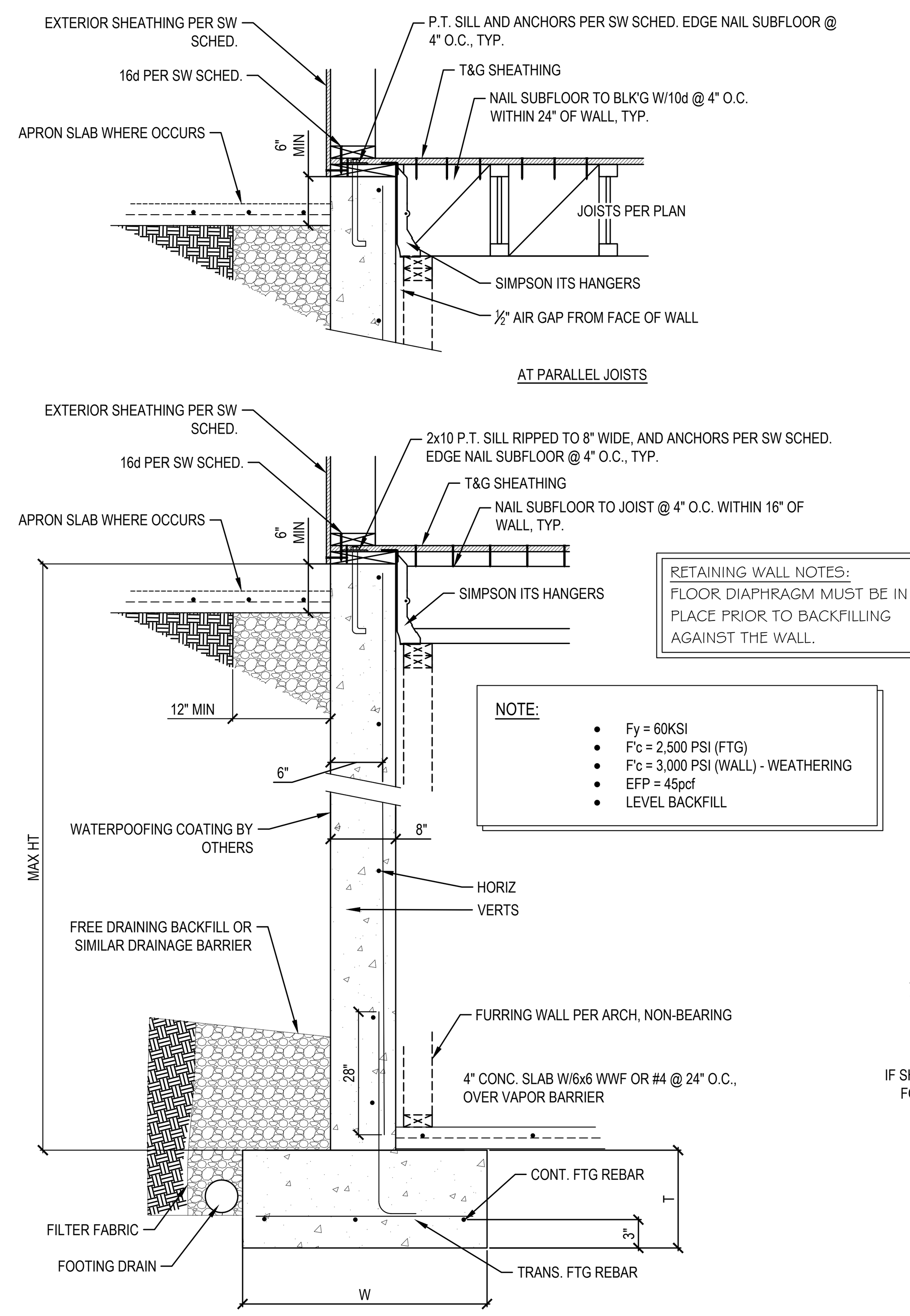
NOTE:
- Fy = 60KSI
- F'c = 2,500 PSI (FTG)
- F'c = 3,000 PSI (WALL) - WEATHERING
- EFP = 45pcf
- LEVEL BACKFILL

RETAINING WALL SCHEDULE (SEE WALL SECTION DETAIL)							
MAX HT	W1	W	T	CONT. FTG	TRANS FTG	HORIZ	VERTS
4'-0"	6"	2'-6"	11½"	(2) #4	N/A	#4@12" O.C.	#4@18" O.C.
5'-0"	6"	3'-0"	11½"	(3) #4	N/A	#4@12" O.C.	#4@13" O.C.
6'-0"	6"	3'-6"	11½"	(3) #4	#4 @ 9" O.C.	#4@12" O.C.	#4@13" O.C.
8'-0"	6"	5'-0"	11½"	(4) #4	#4 @ 8" O.C.	#4@12" O.C.	#4@8" O.C.

CANTILEVERED RETAINING WALL SECTION

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

9



RETAINING WALL NOTES:
FLOOR DIAPHRAGM MUST BE IN PLACE PRIOR TO BACKFILLING AGAINST THE WALL.

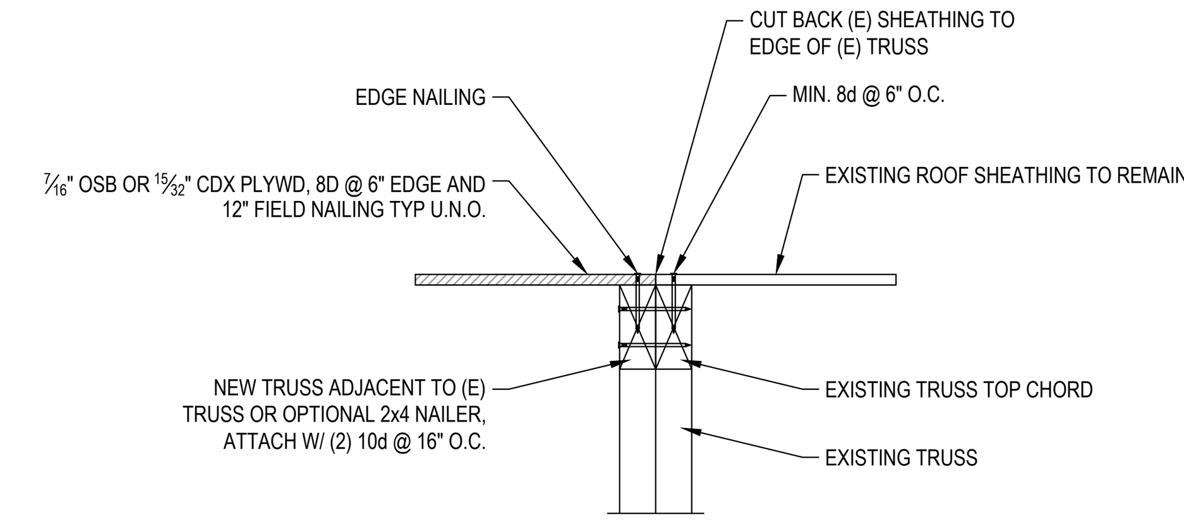
NOTE:
- Fy = 60KSI
- F'c = 2,500 PSI (FTG)
- F'c = 3,000 PSI (WALL) - WEATHERING
- EFP = 45pcf
- LEVEL BACKFILL

RETAINING WALL SCHEDULE						
MAX HT	W1	T	CONT. FTG	TRANS FTG	HORIZ	VERTS
10'-0"	2'-6"	12"	(3) #4	#4 @ 16" O.C.	#4@12" O.C.	#5 @ 8" O.C.

RESTRAINED RETAINING WALL SECTION (SUBFLOOR TIED TO SILL PLATE

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

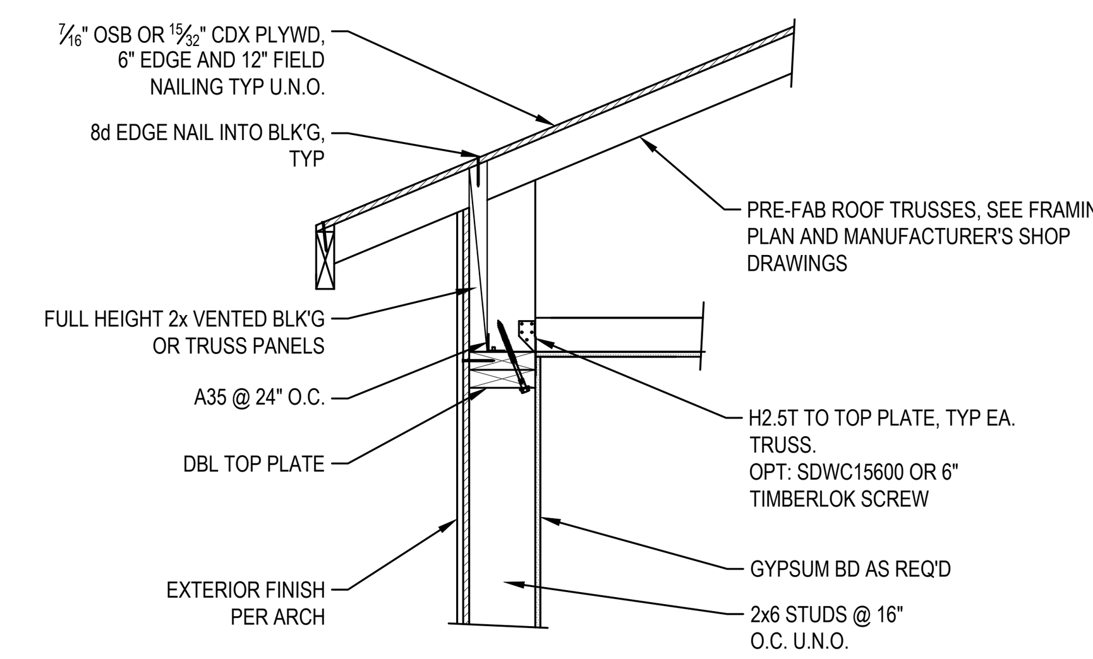
10



TYPICAL TRUSS TO TOP PLATE

SCALE - 1-1/2" = 1'-0"

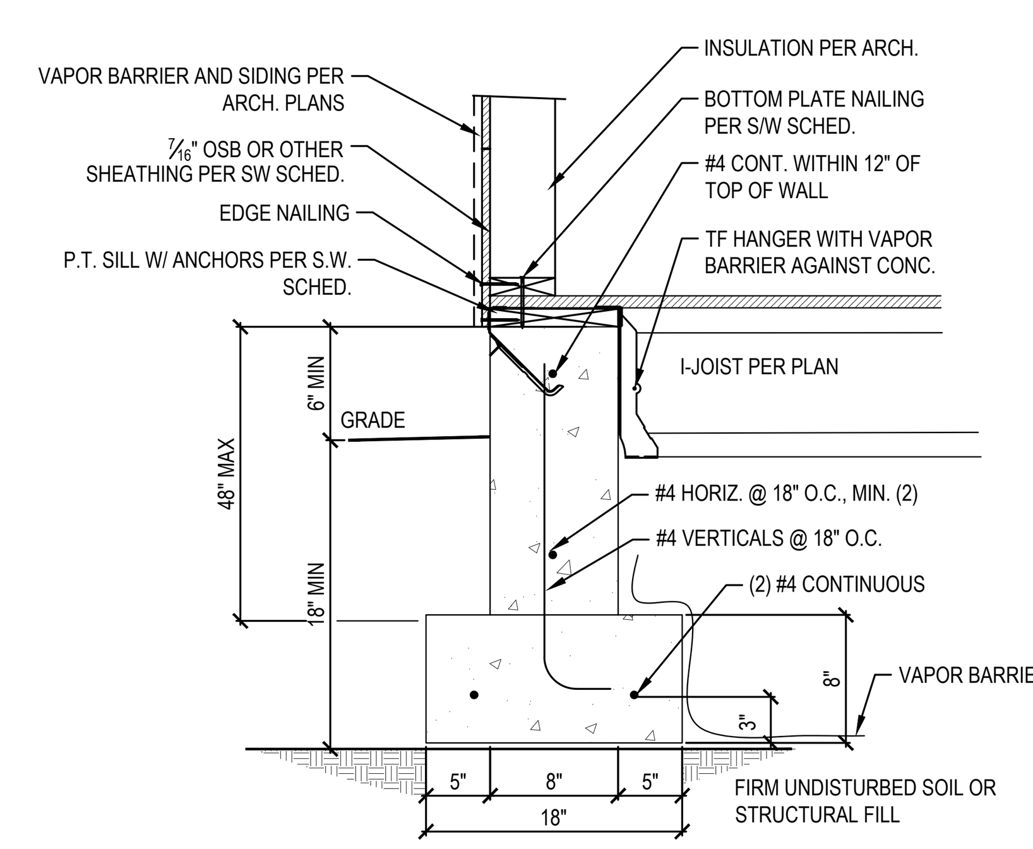
5



TYPICAL RAISED HEEL TRUSS TO TOP PLATE

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

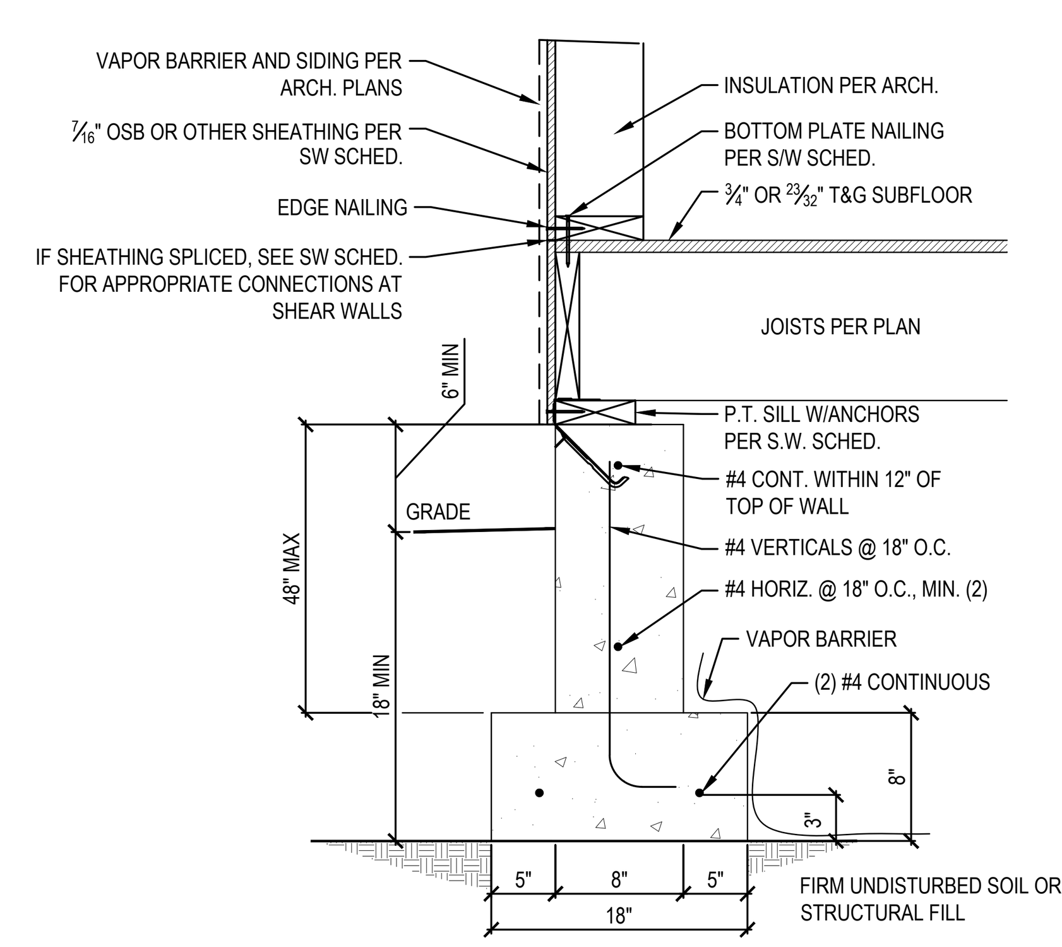
6



TYPICAL EXTERIOR FOOTING

SCALE - 3/4" = 1'

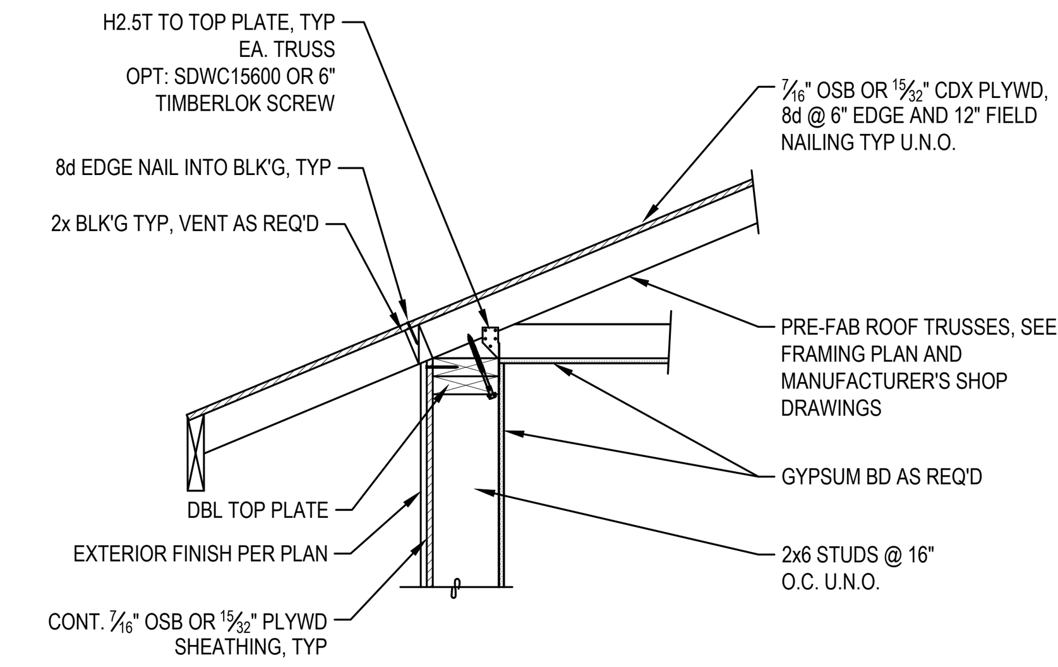
7



OPTIONAL EXTERIOR FOOTING

SCALE - 1" = 1'-0"

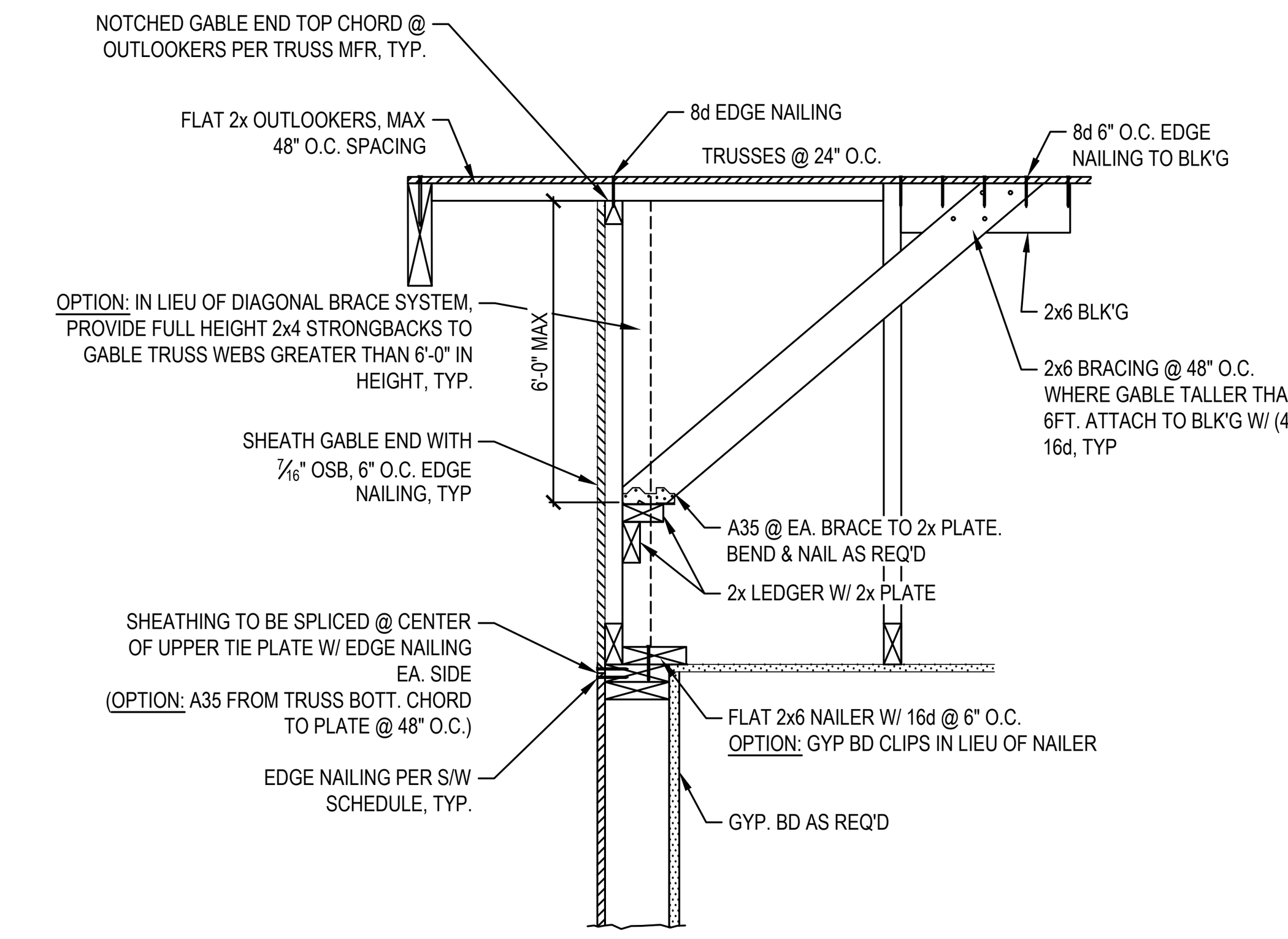
8



TYPICAL TRUSS TO TOP PLATE

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

1

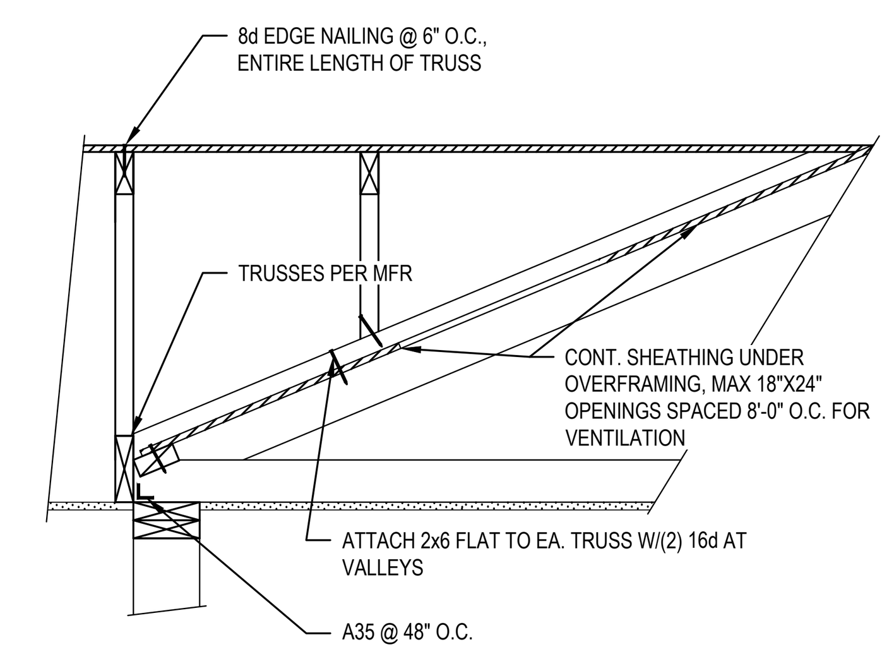


GABLE END ATTACHMENT

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

2

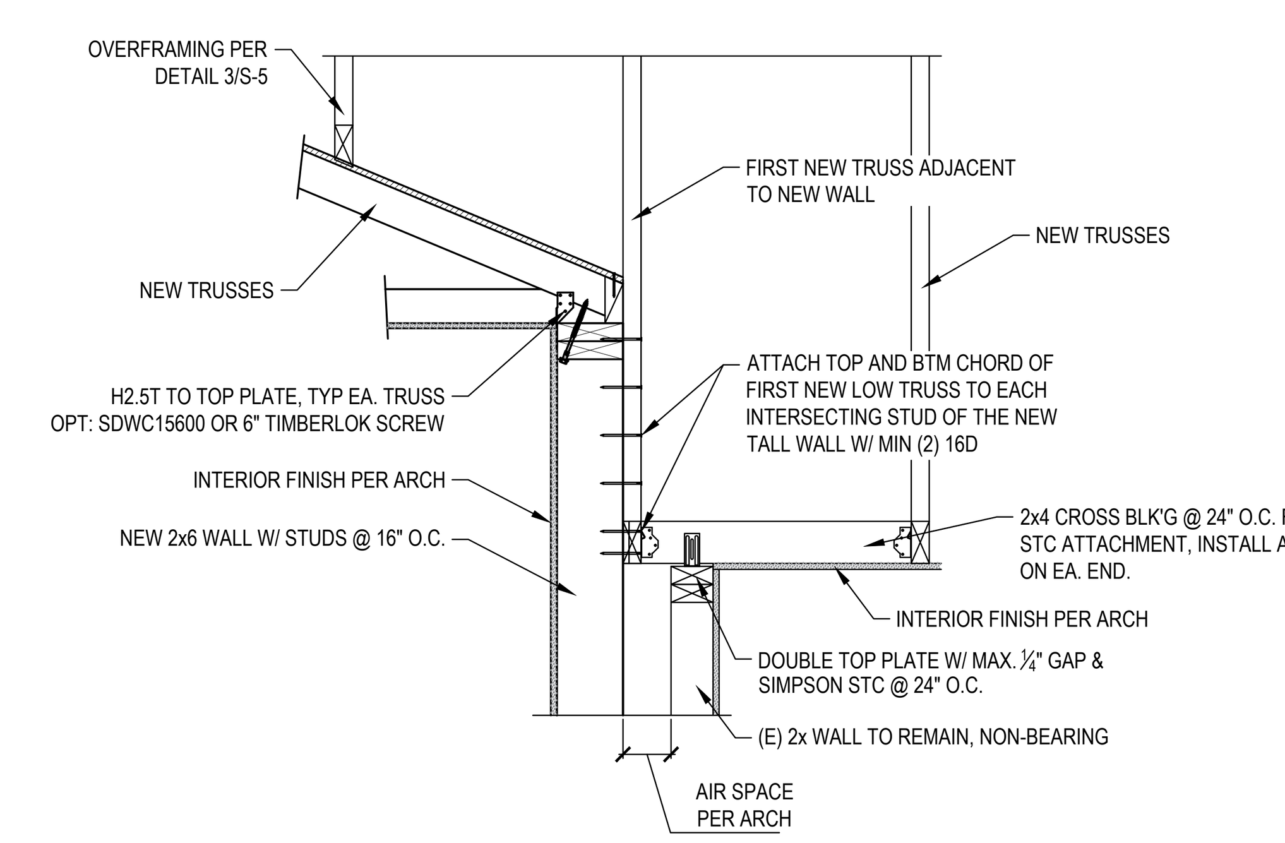
NOTE: OVERFRAME USING 2x8 RIDGE BOARD W/2x6 @ 24" O.C. BRACE SPANS GREATER THAN 4'-0" TO SHEATHING BELOW TYP U.N.O.



TYP. OVERFRAMING DETAILS

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

3



STEP IN PLATE HEIGHT

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

4

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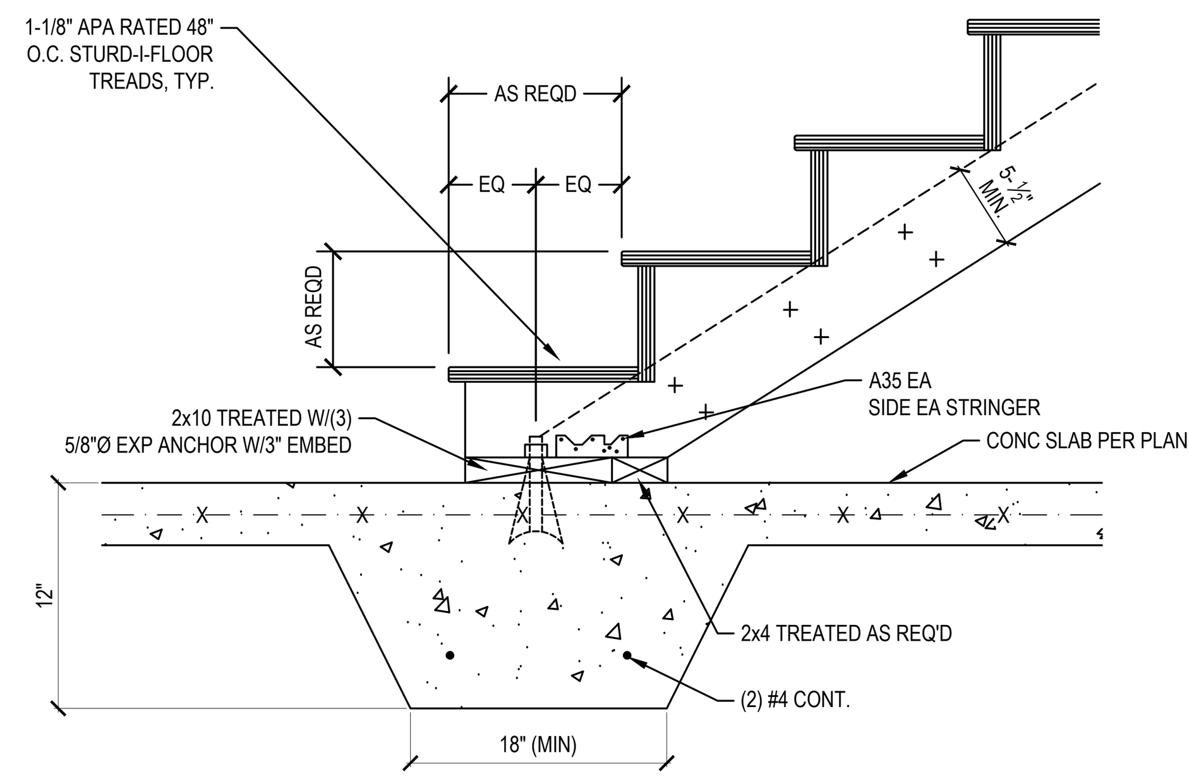
Printed On:
8/25/2025 8:49:50

Layout Sheet #
5 of 6

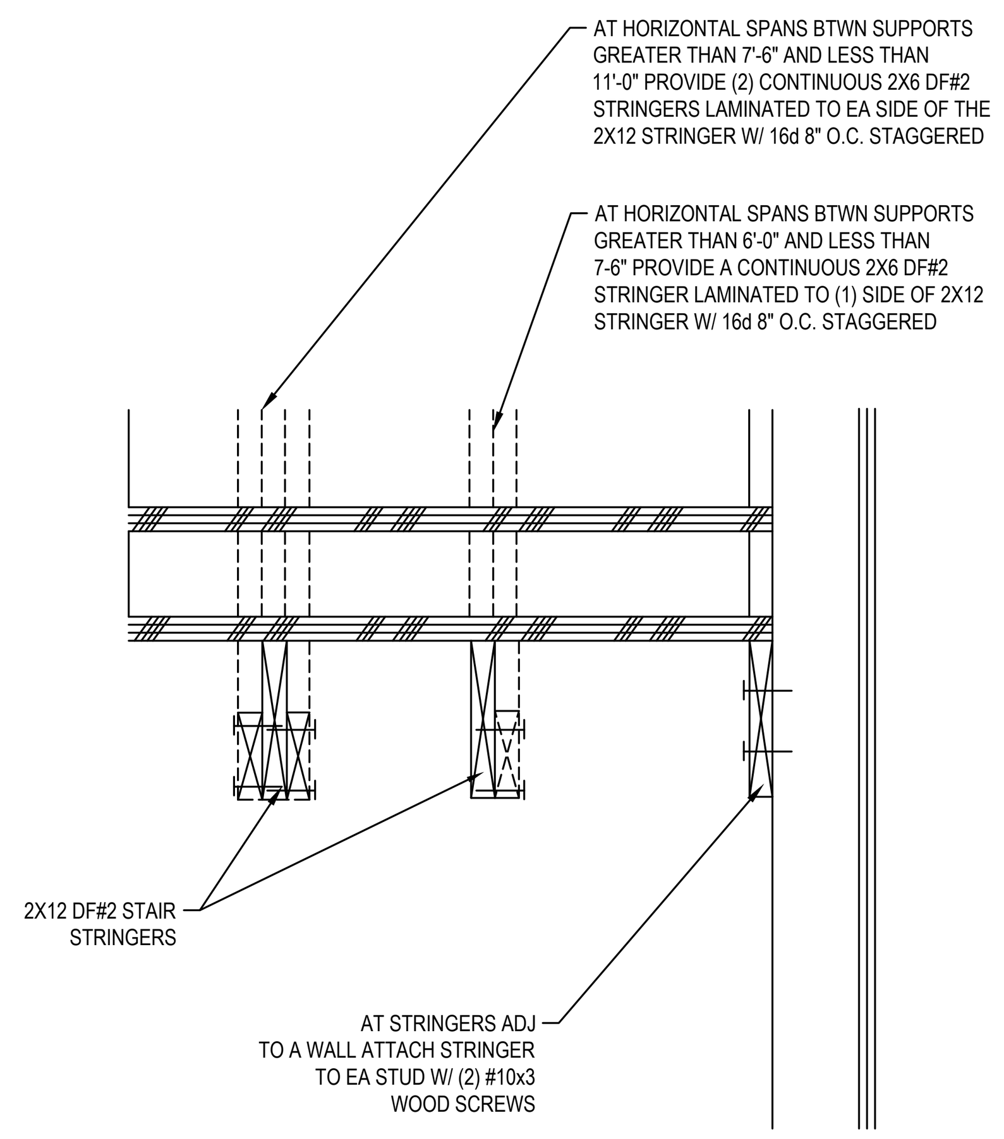
Sheet:
S-5



STAIRS TO CONCRETE DETAILS

9

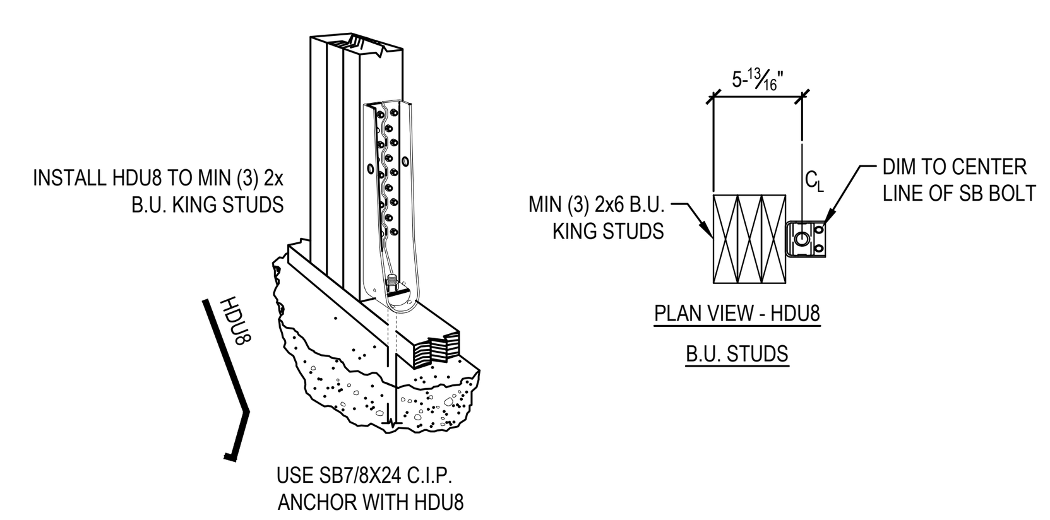
SCALE - N.T.S.



TYPICAL STRINGER DETAIL

10

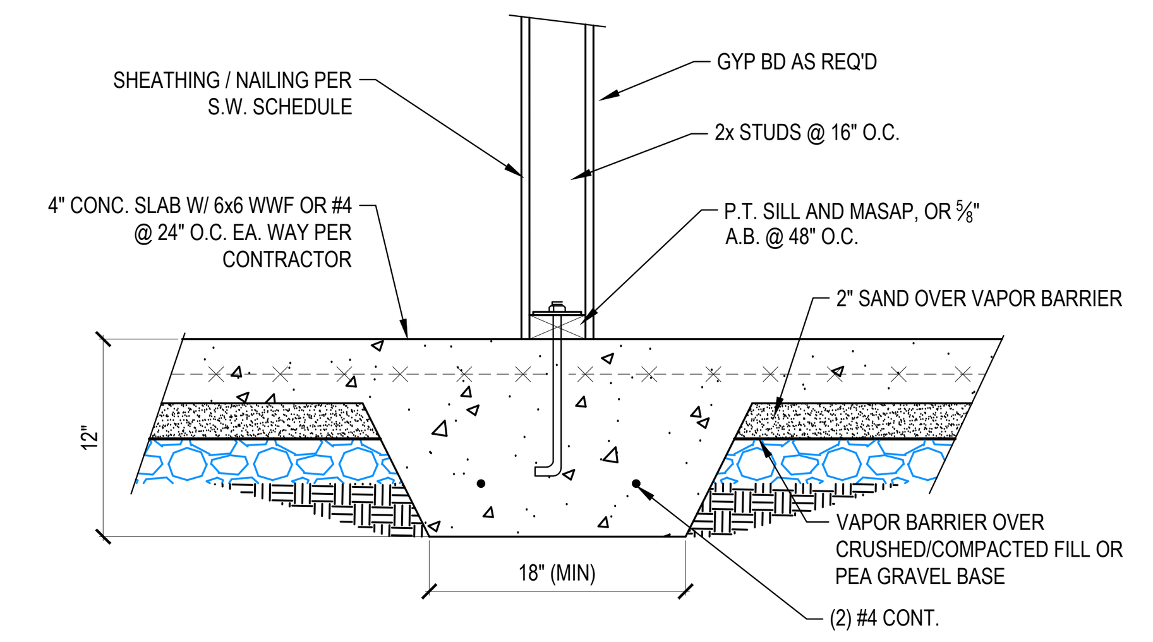
SCALE - ½" = 1'-0"



HDU8 INSTALLATION

11

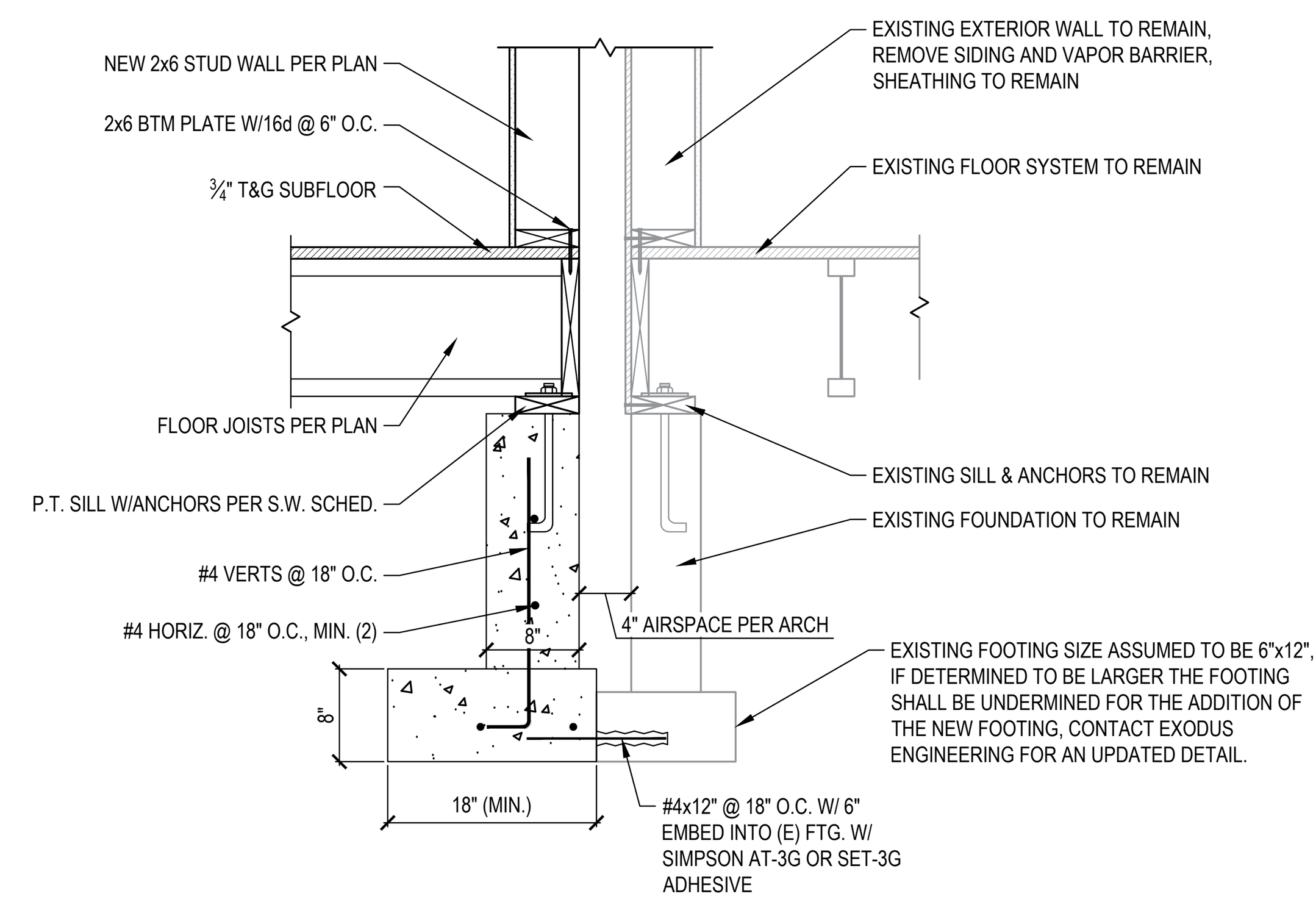
SCALE - N.T.S.



THICKENED SLAB FOOTING

5

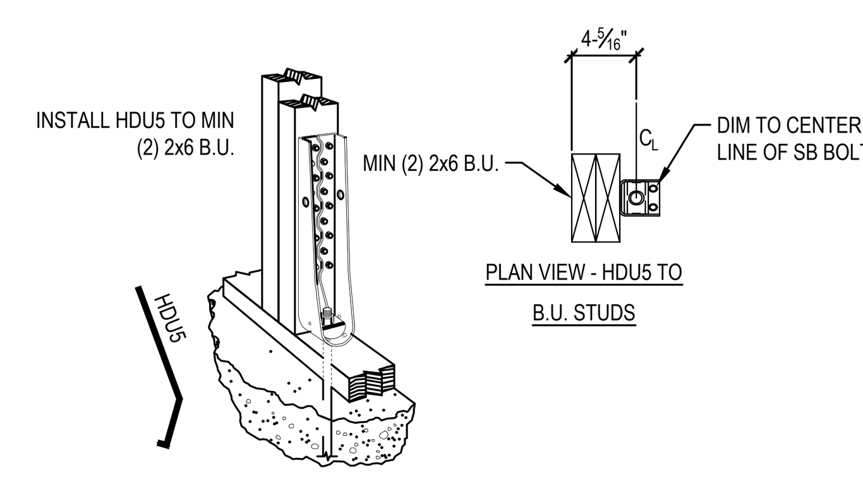
SCALE - 1" = 1'-0"



NEW TO EXISTING FOOTING

6

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

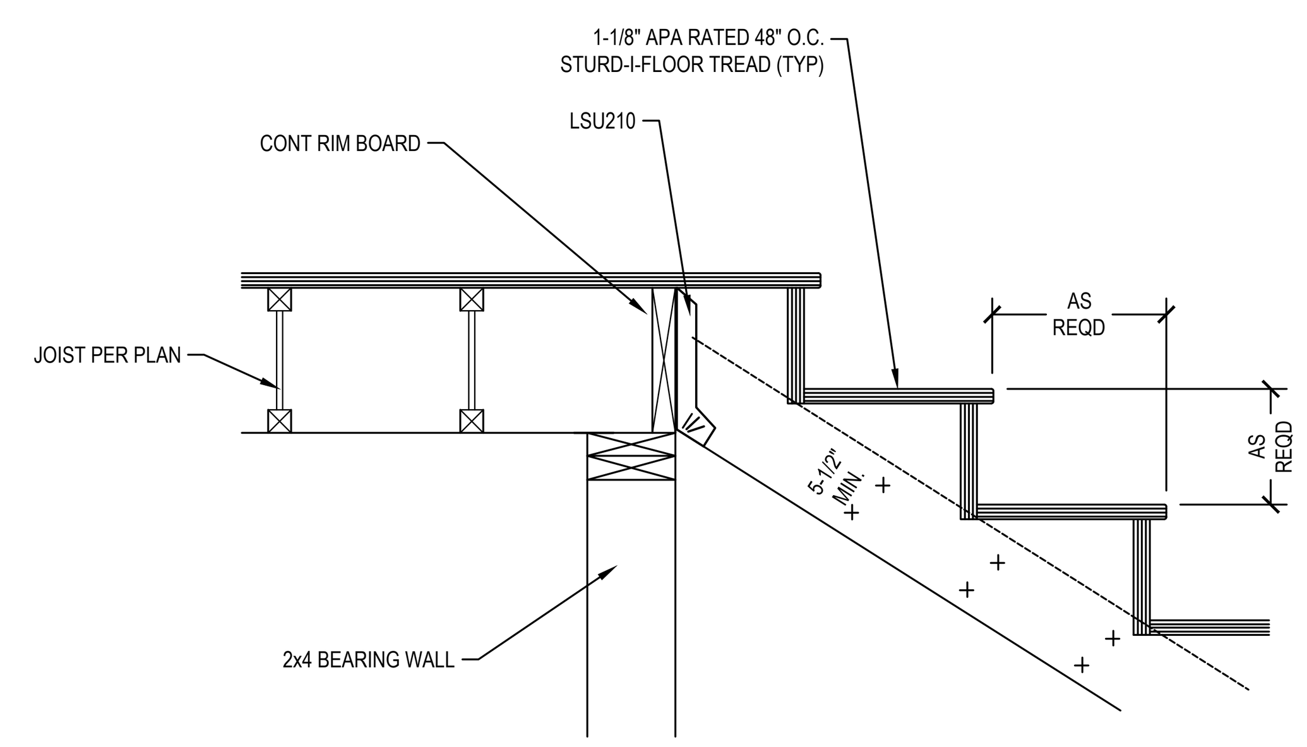


USE SB5/8x24 C.I.P. ANCHOR WITH HDU5, TYP. NO EPOXY OPTION AVAILABLE U.N.O.
NOTE: AS REQ'D, PROVIDE ⅝" THREADED ROD & COUPLERS TO EXTEND SB ANCHOR TO FDN WALL BELOW @ STEPPED FDN. PROVIDE MIN. (2) 2x6 B.U. @ PONY WALL & ALIGN W/ B.U. USED FOR HDU5 INSTALLATION

HDU5 INSTALLATION

7

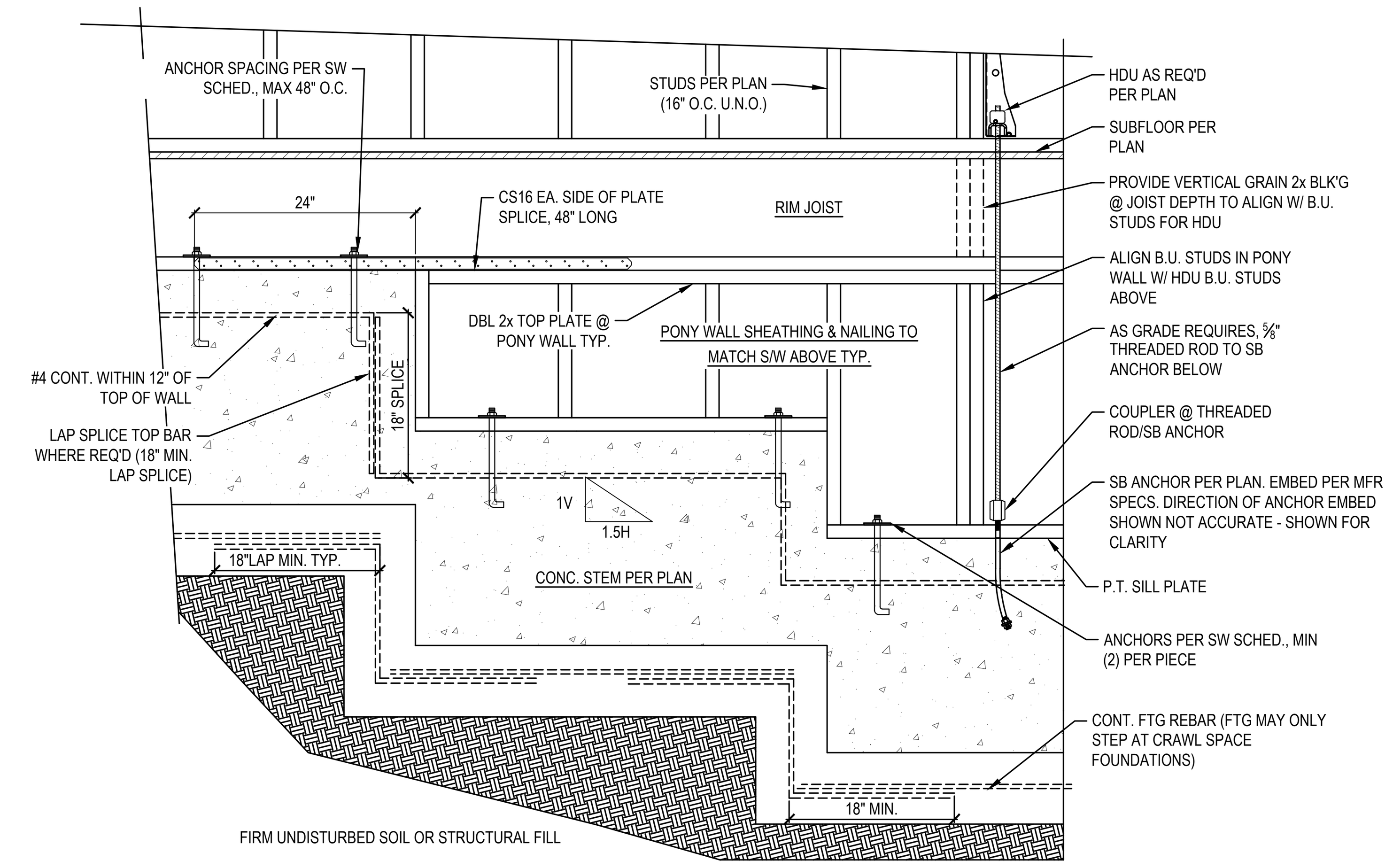
SCALE - N.T.S.



STAIRS TO BEARING WALL DETAIL

8

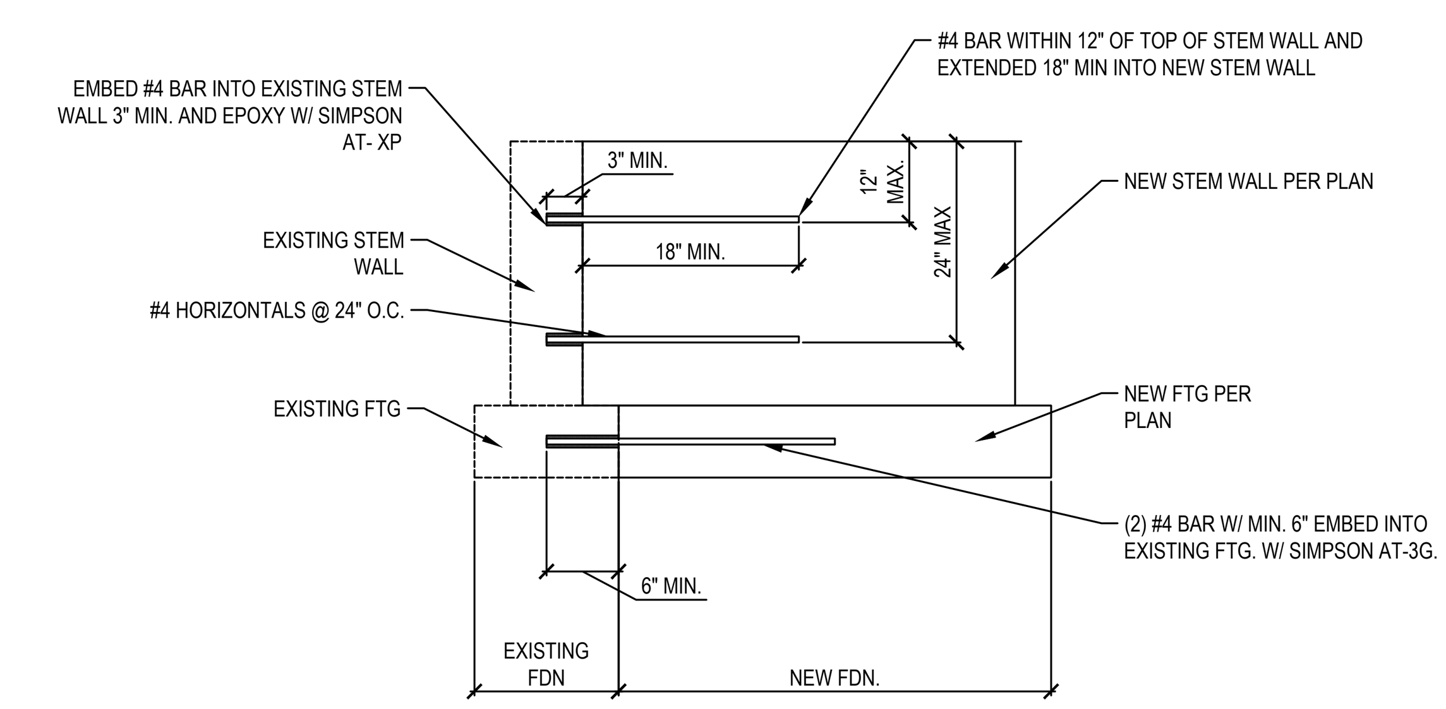
SCALE - ½" = 1'



STEPPED WALL/FDN DETAIL

1

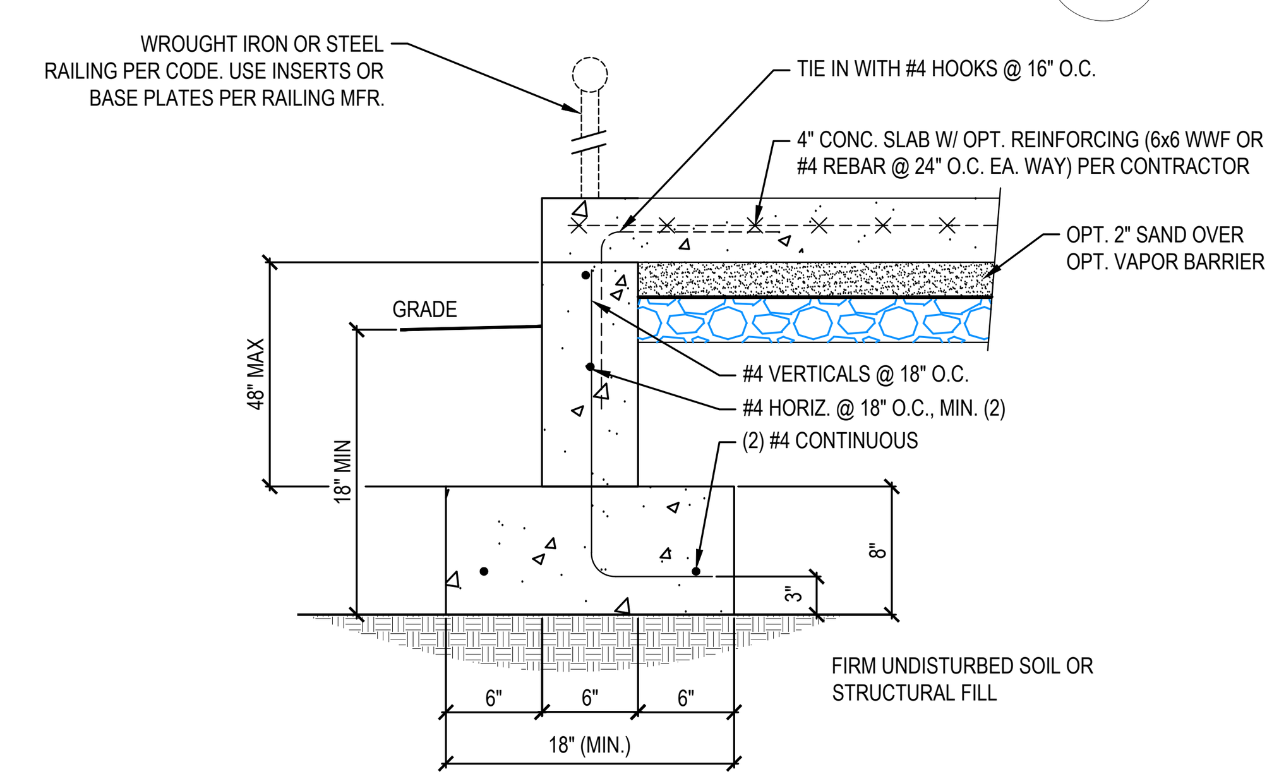
SCALE - ¾" = 1'-0"



NEW TO EXISTING FDN

2

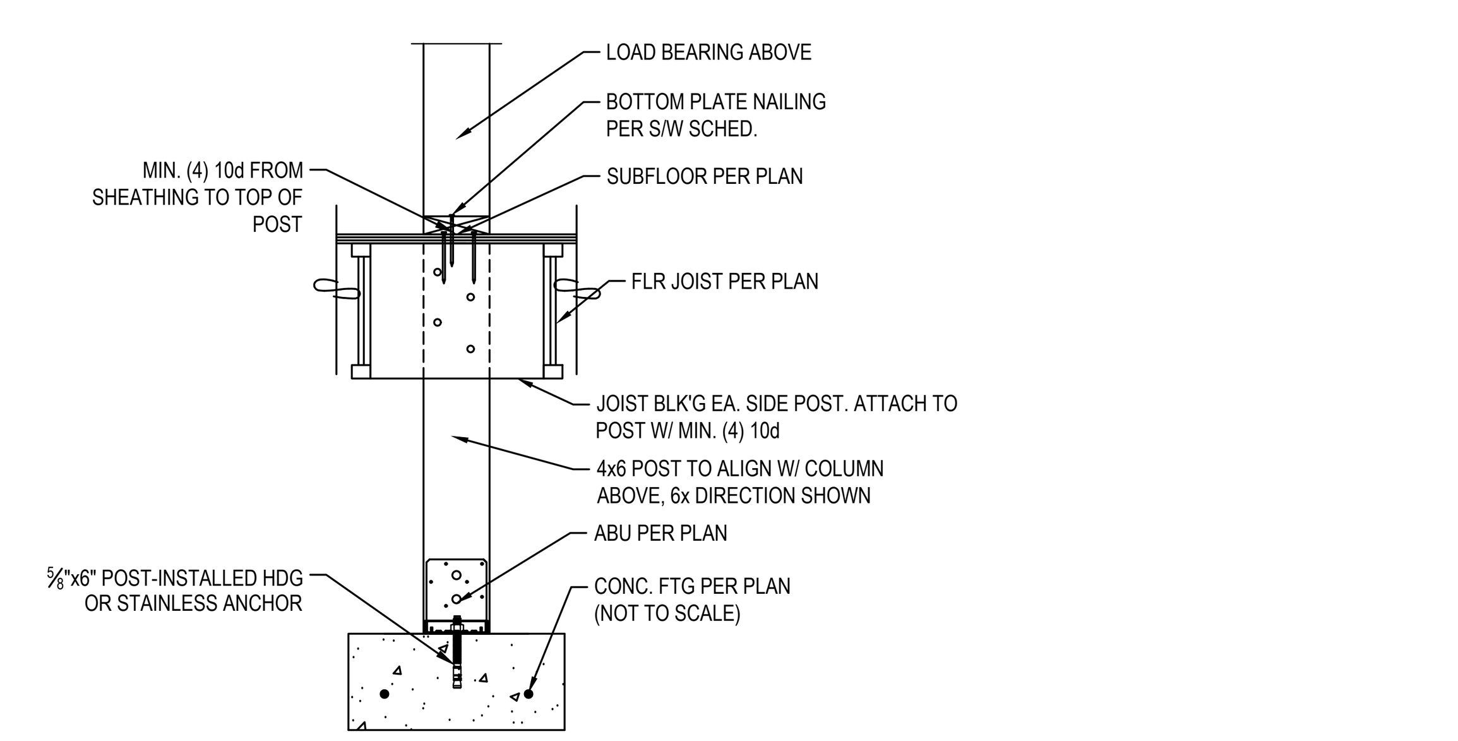
SCALE - N.T.S.



RAMP WALL AS REQ'D PER CONTRACTOR

3

SCALE - 1" = 1'-0"



POST TO FOOTING & SUBFLOOR

4

SCALE - ¾" = 1'-0"

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Layout Sheet #
6 of 6

Sheet:
S-6