

NOTE	DESCRIPTION
1.	THE CONTRACTOR SHALL PROVIDE A LICENSED GEOTECHNICAL ENGINEER TO VERIFY THAT THE BUILDING SUBGRADE PREPARATION IS SUITABLE AND THAT APPROPRIATE BEARING MATERIAL IS ACHIEVED PRIOR TO SLAB AND FOUNDATION POURS.
2.	ALLOWABLE CAPACITY OF FOUNDATION SHOULD BE 2500 PSF OR HIGHER
3.	UNDERCUT UPPER 18 INCH OF EXISTING HIGH PLASTICITY EXPANSIVE CLAYS AND REPLACE WITH COMPACTED LOW PLASTICITY STRUCTURAL FILL.
4.	PROVIDE 6 MIL VAPOR BARRIER BELOW SLABS AND GRADEBEAMS, ABOVE THE VOID BOXES.
5.	CONCRETE SHOULD BE TREMIED TO THE BOTTOM OF THE EXCAVATION TO CONTROL THE MAXIMUM FREE FALL OF THE PLASTIC CONCRETE TO LESS THAN 10 FEET.

CONCRETE	
NOTE	DESCRIPTION
1.	CONCRETE FOR PIERS, GRADEBEAMS AND SLABS SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 4000 PSI.
2.	NONPRESTRESSED CONCRETE REINFORCEMENT SHALL CONFORM WITH ASTM A 615 GRADE 60.
3.	REINFORCEMENT LAP SPLICES AND EMBEDMENT LENGTHS SHALL CONFORM TO ACI 318 CLASS B REQUIREMENTS.
4.	CONCRETE COVER OVER REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIRED BY ACI 318.
5.	REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315.
6.	MECHANICAL EQUIPMENT PADS SHALL BE ANCHORED TO FLOOR SLABS SHALL BE 6" THICK AND REINFORCED WITH #3 @ 12" ON CENTER EACH WAY, UNLESS NOTED OTHERWISE.
7.	SUBSTITUTION OF EXPANSION OR DRILLED AND EPOXY SET ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS OTHERWISE ALLOWED BY ENGINEER.
8.	WELDED WIRE FABRIC REINFORCING SHALL LAP TWO FULL SPACING OF THE CROSS WIRES AND BE SECURELY ATTACHED TO EACH END.
9.	UNLESS NOTED OTHERWISE, ALL REINFORCING STEEL HOOKS SHALL BE ACI STANDARD 90 DEGREE HOOKS.
10.	ALL OPENINGS IN CONCRETE WHERE GREATEST DIMENSION EXCEEDS 1'-0" SHALL HAVE TWO #5 BARS ON EACH SIDE AND AT EACH CORNER. BARS SHALL EXTEND THE FULL EMBEDMENT LENGTH (2'-0" MINIMUM) BEYOND EDGE OF OPENING.
11.	UNLESS NOTED OTHERWISE, INTERSECTING WALLS POURED SEPARATELY SHALL BE KEYED AND DOWELED TOGETHER. SIZE AND SPACING OF DOWELS SHALL MATCH HORIZONTAL WALL REINFORCEMENT.
12.	UNLESS NOTED OTHERWISE, CONCRETE KEYS SHALL BE 2"x4".
13.	UNLESS NOTED OTHERWISE, PROVIDE A 3/4"x3/4" CHAMFER AT ALL EXPOSED EXTERNAL CORNERS.
14.	ALL SLOTS, SLEEVES, AND OTHER EMBEDDED ITEMS SHALL BE SET PRIOR TO CONCRETE PLACEMENT. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND VENDOR DRAWINGS FOR SIZES AND LOCATIONS.
15.	UNLESS NOTED OTHERWISE, CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF ACI 318.
16.	TOLERANCES FOR ALL CONCRETE STRUCTURES SHALL MEET THE REQUIREMENTS OF ACI 117.
17.	THE METHOD OF CURING OF SLABS SHALL BE BASED ON TEMPERATURE, WIND SPEED, RELATIVE HUMIDITY AND OTHER FACTORS THAT CONTRIBUTE TO PLASTIC SHRINKAGE CRACKING DURING CURING.

DECKING AND SHEATHING	
NOTE	DESCRIPTION
1.	ROOF SHEATHING SHALL BE 3/4" THICK CDX PLYWOOD EXPOSURE 1 WITH APR RATING OF 40/20. DECKING APPLIED OVER 8.25" STRUCTURAL INSULATED PANELS (S.I.P).
2.	DECKING FOR FLOOR SHALL BE 1-1/8" THICK CDX T&G APA RATED PLYWOOD STANDARD C-D INTERIOR WITH EXTERIOR GLUE WITH PANEL SPAN RATING 48/24. INSTALL DECKING WITH FACE GRAIN ACROSS SUPPORT.
3.	GYPSUM WALLBOARD FOR INTERIOR SHEARWALL SHALL BE 5/16" THICK AND FREE FROM IMPERFECTIONS AND CONFORM TO ASTM C79 SPECIFICATIONS.
4.	EXTERIOR WALL SHEATHING SHALL BE 7/16" OSB (U.N.O)

WOOD NOTES	
NOTE	DESCRIPTION
1.	FRAMING LUMBER SHALL BE STRESS GRADED SOUTHERN PINE (MINIMUM) AS FOLLOWS (U.N.O.) A. JOISTS/TRUSS, BEAMS AND COLUMNS ..... "NO.2" (OR BETTER) B. STUDS, Max. 9'-0" HEIGHT ..... "STUDS" (OR BETTER) C. STUDS, GREATER THAN 9'-0" HEIGHT ..... "NO.2" (OR BETTER) D. BLOCKING AND BRIDGING ..... "NO.2 OR NO.3" (OR BETTER) E. MOISTURE CONTENT TO BE ..... 16%.
2.	PROVIDE 1"x4" EQUIVALENT CROSS BRIDGING NOT OVER 8'-0" O.C. FOR ALL WOOD JOISTS.
3.	PROVIDE 2X SOLID BLOCKING BETWEEN JOISTS AT ALL SUPPORTS.
4.	SET ALL JOISTS WITH CAMBER/CROWN UP.
5.	PROVIDE SOLID BLOCKING BETWEEN JOISTS/TRUSS UNDER BEARING WALLS PERPENDICULAR TO FLOOR JOISTS/TRUSS AND AT THE BEARING LOCATION OF CANTILEVERED JOISTS/TRUSS.
6.	ALLOWABLE UNIT STRESSES MUST BE SHOWN ON FABRICATOR'S SHOP DRAWINGS.
7.	TIMBER CONNECTORS CALLED FOR ON THE DRAWINGS ARE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY. CONNECTORS BY OTHER MANUFACTURERS MAY BE USED IF THE LOAD CAPACITY IS EQUAL TO OR GREATER THAN THE CONNECTOR SPECIFIED. USE MANUFACTURER'S FURNISHED NAILS AND BOLTS, NAILING PATTERN PER MANUFACTURERS RECOMMENDATIONS.
8.	ALL COLUMNS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE CONTINUOUS U.N.O.
9.	FASTEN ALL WOOD MEMBERS WITH COMMON NAILS ACCORDING TO CURRENT BUILDING CODES AND LOCAL AMENDMENTS, UNLESS OTHERWISE NOTED.
10.	DOUBLE JOISTS (BEAMS) SHALL BE ATTACHED W/(2) ROWS OF 16d's @ 12" O.C. MIN., U.N.O. TRIPLE JOISTS (BEAMS) SHALL BE ATTACHED W/(3) ROWS OF 16d's @ 12" O.C. MIN., U.N.O., EA. SIDE. EDGE DISTANCE OF NAILING TO BE 2" MINIMUM. FOUR JOISTS (BEAMS) SHALL BE ATTACHED W/(2) ROWS 1/2" DIAMETER BOLTS @ 24" O.C. MIN., U.N.O.
11.	ALL STORIES SHALL BE BRACED IN ACCORDANCE WITH THE CURRENT CODE.
12.	ALL SILL PLATES TO BE PRESSURE TREATED. SILL PLATES TO BE ANCHORED TO TOP OF FOUNDATION WALL WITH MINIMUM 1/2"x10" LONG ANCHOR BOLTS AT 3'-0" ON CENTER MAXIMUM SPACING UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE. EXTERIOR GRADE TO BE A MIN. 6" DOWN FROM TOP OF FOUNDATION WALL (SILL PLATE).
13.	MANUFACTURED PRODUCTS SHOWN SHALL BE AS MANUFACTURED BY THE TRUS-JOIST CORPORATION, BOISE, IDAHO, UNLESS NOTED OTHERWISE ON PLANS. ANY ALTERNATE SYSTEMS SHALL BE EVALUATED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. INSTALLATION DETAILS, BLOCKING, BRIDGING, ACING AND CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUFACTURER.
14.	STRUCTURAL LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE TREATED OR MANUALLY SEALED AT TIME OF CONSTRUCTION.
15.	WOOD PLATES APPLIED TO STEEL BEAMS SHALL BE RIPPED TO MATCH THE EXACT DIMENSION OF THE BEAM TOP FLANGE. WOOD PLATES SHALL BE CONNECTED TO THE BEAM WITH POWER FASTENERS (HILT X-AL-H62P, OR EQUIVALENT) AT 2'-0" O.C., STAGGERED, UNLESS NOTED OTHERWISE ON PLANS.
16.	WOOD MANUFACTURED PRODUCTS OTHER THAN THOSE NOTED, WHICH HAVE I.C.B.O. APPROVAL, MAY BE USED WITH APPROVAL BY THE ENGINEER.
17.	PREFABRICATED WOOD TRUSSES USING METAL PLATE CONNECTORS SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE I.C.B.O. APPROVAL RECOMMENDATIONS, INCLUDING QUALITY CONTROL INSPECTIONS BY INDEPENDENT TESTING AGENCY. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS BEARING THE STAMP AND ORIGINAL SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. ALL TRUSS CONNECTIONS TO BE SPECIFIED AND PROVIDED BY TRUSS MANUFACTURER.
18.	TIE-DOWN ANCHORAGE AND HARDWARE AS PER SIMPSON STRONG-TIE (OR EQUAL) WITH SHRINKAGE COMPENSATING CAPABILITIES.

STRUCTURAL STEEL	
NOTE	DESCRIPTION
1.	ALL DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AND WITH ALL LOCAL LAWS AND ORDINANCES. WHERE CONFLICTING REQUIREMENTS OCCUR, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
2.	ALL W SHAPES SHALL CONFORM TO ASTM A992 GRADE 50.
3.	ALL ANGLES, CHANNELS AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.
4.	ALL SQUARE/RECTANGULAR AND ROUND HOLLOW STRUCTURAL STEEL (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500, GRADE B, Fy = 46KSI OR ASTM A1085.
5.	ALL PIPE SHALL CONFORM TO ASTM A501 OR ASTM A53, TYPE E OR TYPE S, GRADE B, Fy = 35 KSI.
6.	ALL RAIL SHALL CONFORM TO AREMA STANDARDS, HEAD HARDENED FOR USE IN CURVED TRACK AND SHALL BE CONTINUOUSLY WELDED.
7.	ALL WELDS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY'S D1.1 "STRUCTURAL WELDING CODE - STEEL".
7.	ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325. UNLESS NOTED OTHERWISE, BOLTS SHALL BE 3/4" DIAMETER A325 AND HOLES SHALL BE 1/16" LARGER THAN THE BOLT SIZE. BOLTED CONNECTIONS HAVE BEEN DESIGNED AS BEARING TYPE WITH THREADS IN SHEAR PLANE. WASHERS SHALL BE INSTALLED UNDER NUTS OF FASTENERS WHEN REQUIRED BY THE SPECIFICATION FOR STRUCTURAL JOINTS.
8.	UNLESS NOTED OTHERWISE, ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 55 (W/ SUPPLEMENT S1, WELDABLE) WITH NUTS CONFORMING TO ASTM A563 AND TYPE 1 ASTM F436 WASHERS.
9.	UNLESS NOTED OTHERWISE, ALL SHOP CONNECTIONS SHALL BE MADE WITH WELDS OR HIGH STRENGTH BOLTS.
10.	UNLESS NOTED OTHERWISE, ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS.
11.	BEARING ENDS OF ALL COLUMNS SHALL BE FINISHED.
12.	NO OPENINGS MAY BE CUT IN STRUCTURAL MEMBERS UNLESS SHOWN ON THE DRAWINGS.
13.	ANCHOR BOLT HOLES IN BASE PLATES AND DETAIL MATERIAL SHALL BE SIZED IN ACCORDANCE WITH THE AISC "DETAILING FOR STEEL CONSTRUCTION".
14.	GUSSET PLATES SHALL BE 3/8" MINIMUM THICKNESS UNO.
15.	STEEL FRAME IS NOT SELF SUPPORTING. ROOF DECK, FLOOR SLAB, AND SHEAR WALLS ARE REQUIRED FOR LATERAL STABILITY OF THE FRAME AGAINST WIND AND SEISMIC FORCES. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN THE STABILITY OF THE STRUCTURAL SYSTEM(S) UNTIL ALL ELEMENTS REQUIRED FOR STRUCTURAL STABILITY ARE IN PLACE.
16.	COLUMN ANCHOR BOLTS ARE DESIGNED FOR A COMPLETE CONDITION ONLY. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL ALL ELEMENTS REQUIRED FOR STRUCTURAL STABILITY ARE IN PLACE.
17.	ALL ELEVATIONS IN THE BUILDING(S) ARE BASED ON A DATUM ELEVATION OF 00.00 AT FINISHED FLOOR.

# SHEET INDEX

## STRUCTURAL DRAWINGS

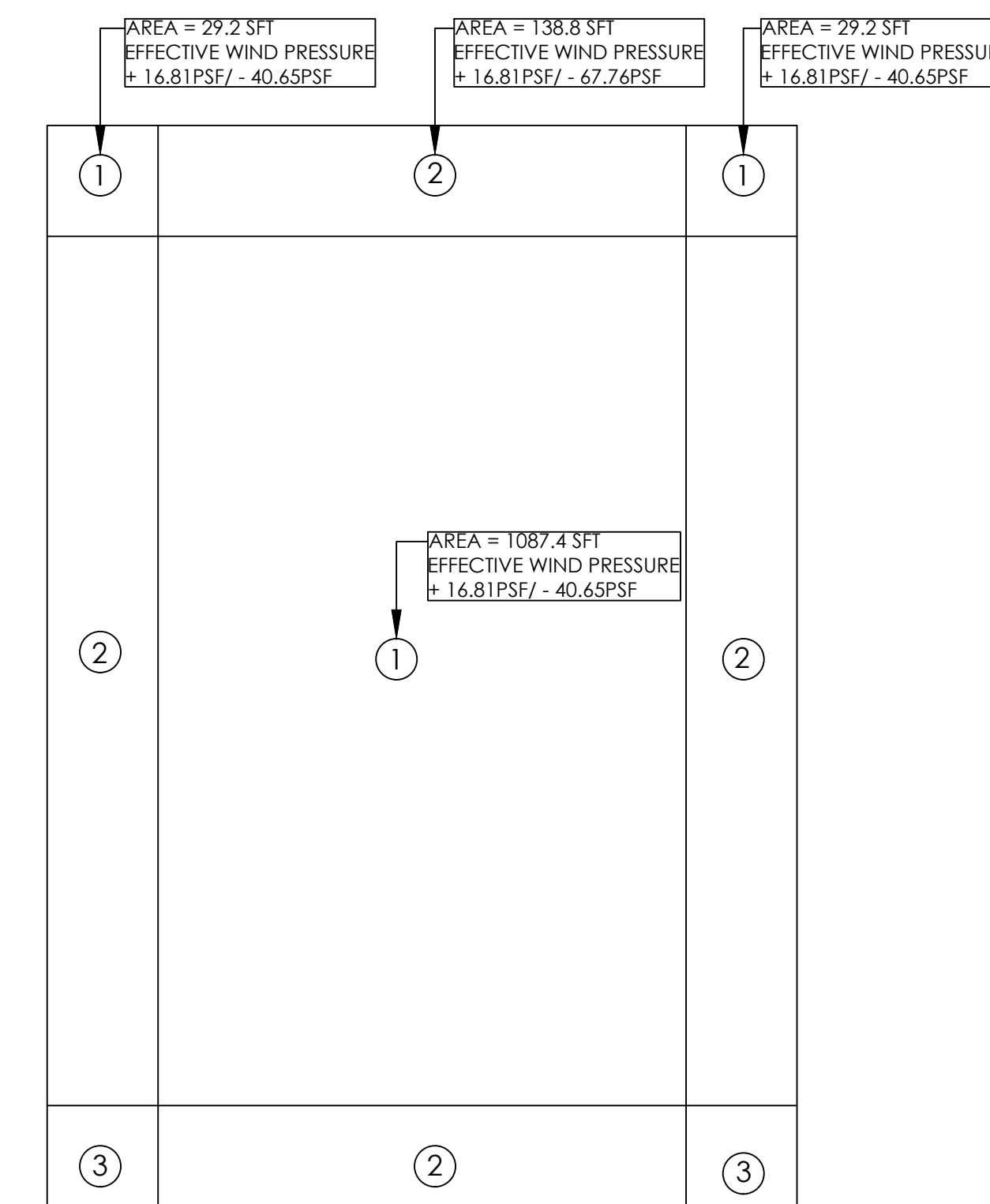
- S-1.0 GENERAL NOTES
- S-2.0 FOUNDATION PLAN
- S-3.0 FRAMING PLAN-1
- S-4.0 FRAMING PLAN-2
- S-5.0 FASTENERS SCHEDULE
- S-6.0 GENERAL FRAMING DETAIL-1
- S-7.0 GENERAL FRAMING DETAIL-2

DESIGN CRITERIA	
NOTE	DESCRIPTION
	CITY OF GALVESTON, TX GENERAL BUILDING REQUIREMENTS - IBC 2018, IRC 2018 & ASCE 07-16
	LIVE LOAD PARAMETERS - IBC 2018 DESIGN LIVE LOADS -
	ROOF ----- 20 PSF
	ROOF SNOW ----- 5 PSF
	RISK CATEGORY ----- II
	Is ----- 1.0
	FLOORS -----
	RESIDENTIAL ----- 40 PSF
	CORRIDORS, STAIRS, COMMON AREAS ----- 100 PSF
	PARTITIONS ----- 10 PSF
	ELECTRICAL ROOM ----- 150 PSF
	WIND LOAD PARAMETERS - ASCE 7-16 ----- 140 MPH
	ULTIMATE DESIGN WIND SPEED ----- II
	RISK CATEGORY ----- C
	EXPOSURE CATEGORY -----

COMPONENT & CLADDING PRESSURE ACCORDING TO IRC 2018

ZONE	EFFECTIVE AREA (SFT)	WIND SPEED-- 150 MPH (PSF)	
1	10	13.9	-33.6
1	20	12.9	-32.2
1	50	11.9	-30.8
1	100	10.9	-30.8
2	10	13.9	-56.0
2	20	12.9	-50.4
2	50	11.9	-42.0
2	100	10.9	-36.4
3	10	13.9	-85.4
3	20	12.9	-70.0
3	50	11.9	-50.4
3	100	10.9	-30.8

NOTE: PRESSURE DERIVED FROM IRC TABLE R301.2(2) & R301.2(3)



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TEXAS P.E. 90326

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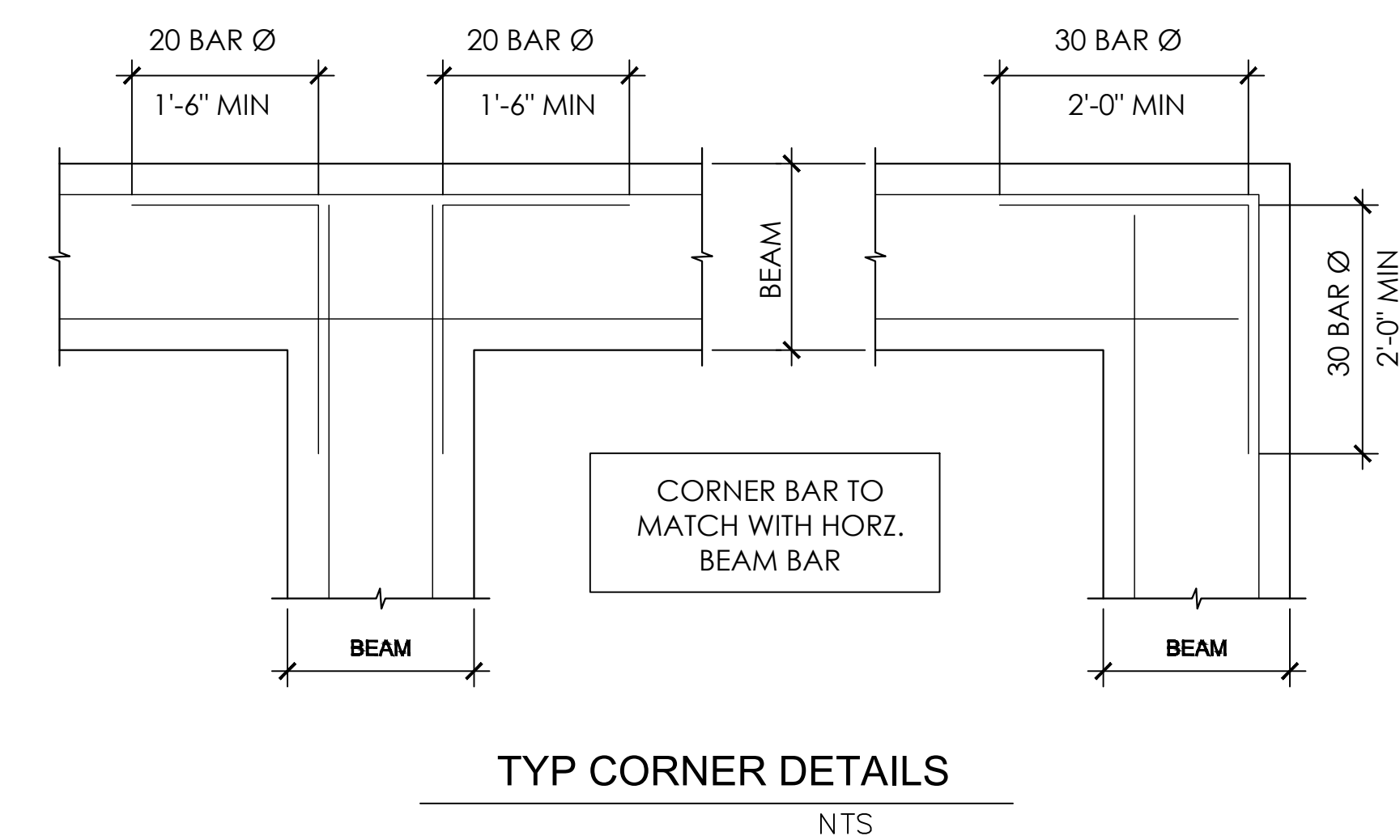
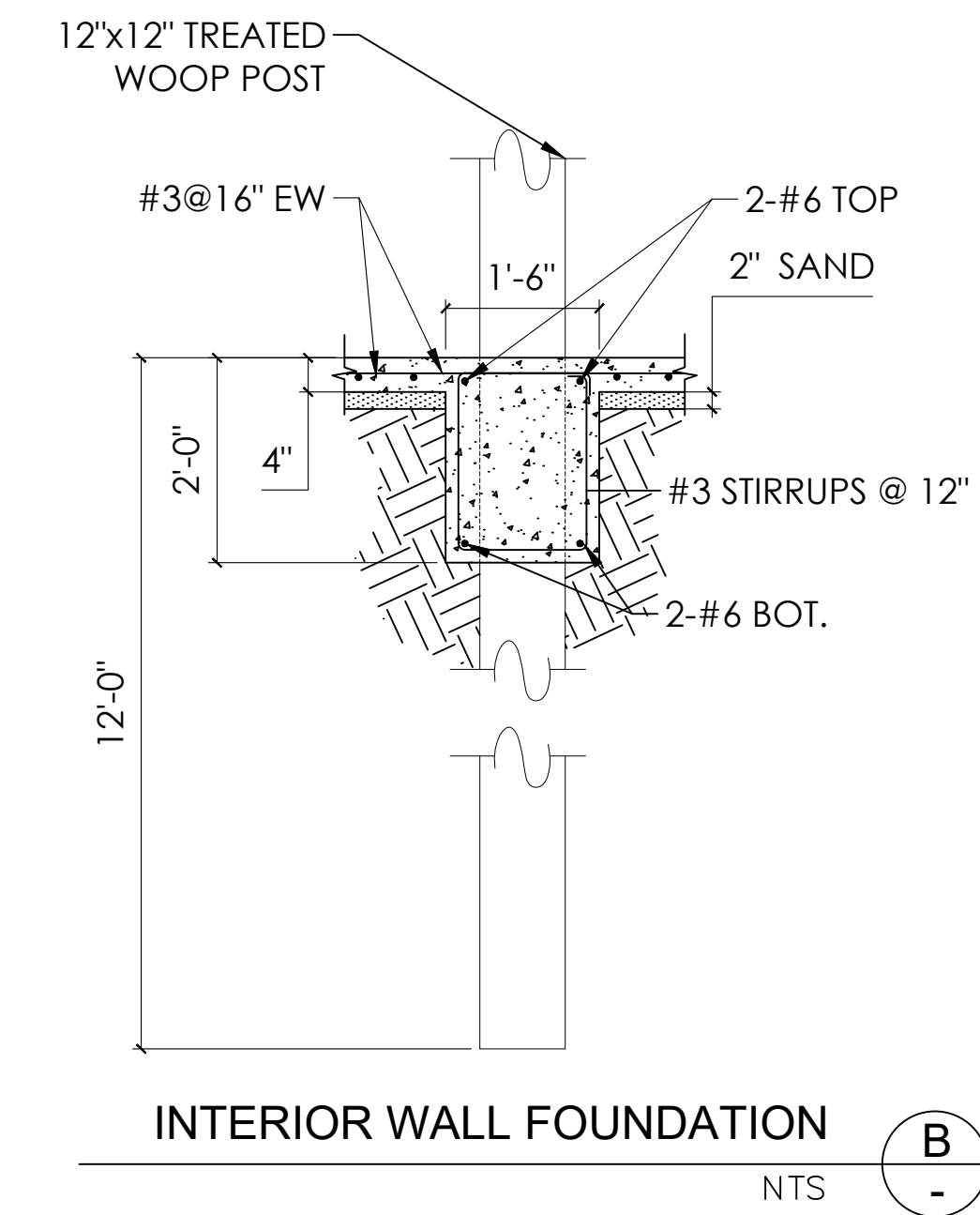
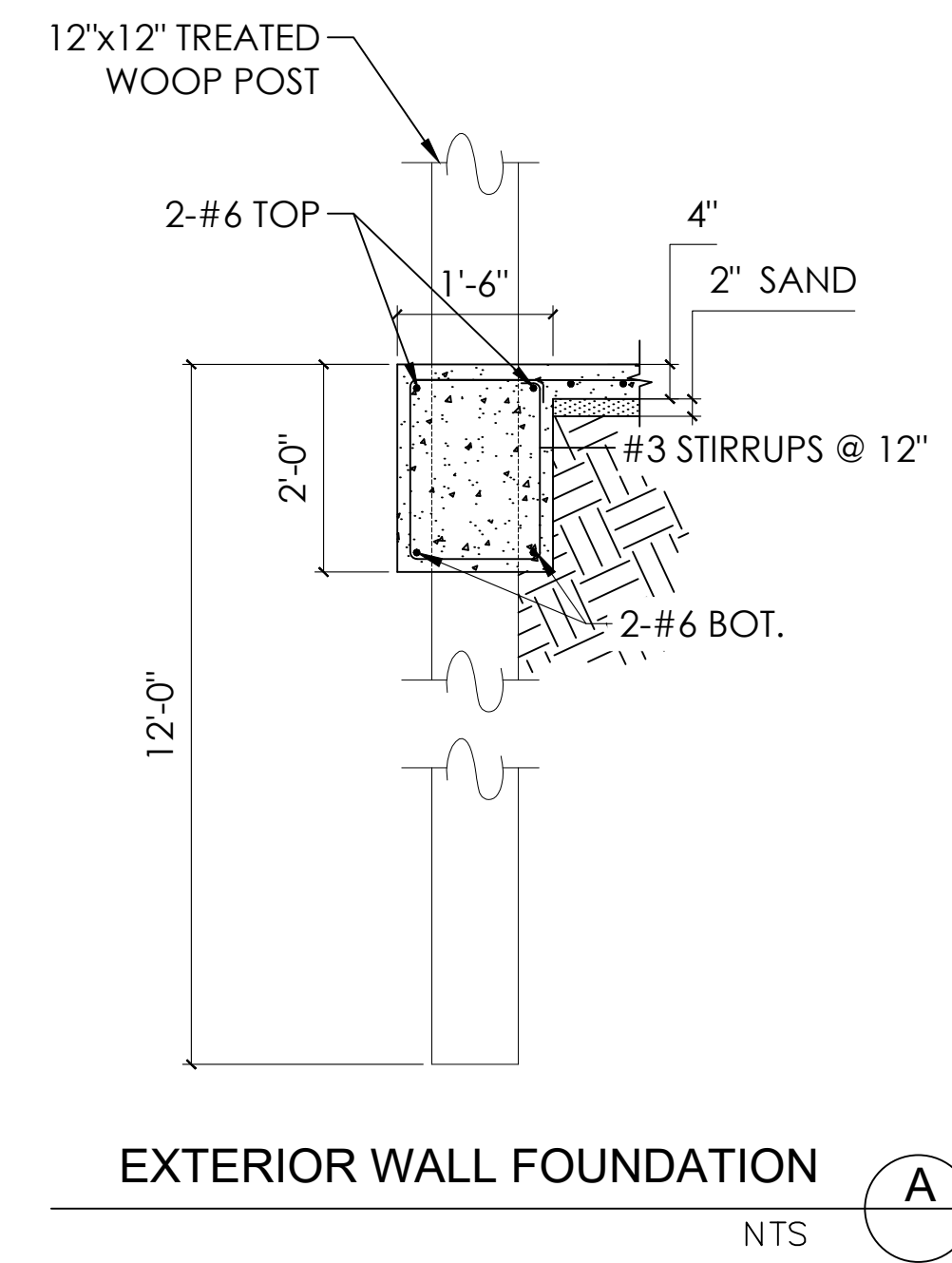
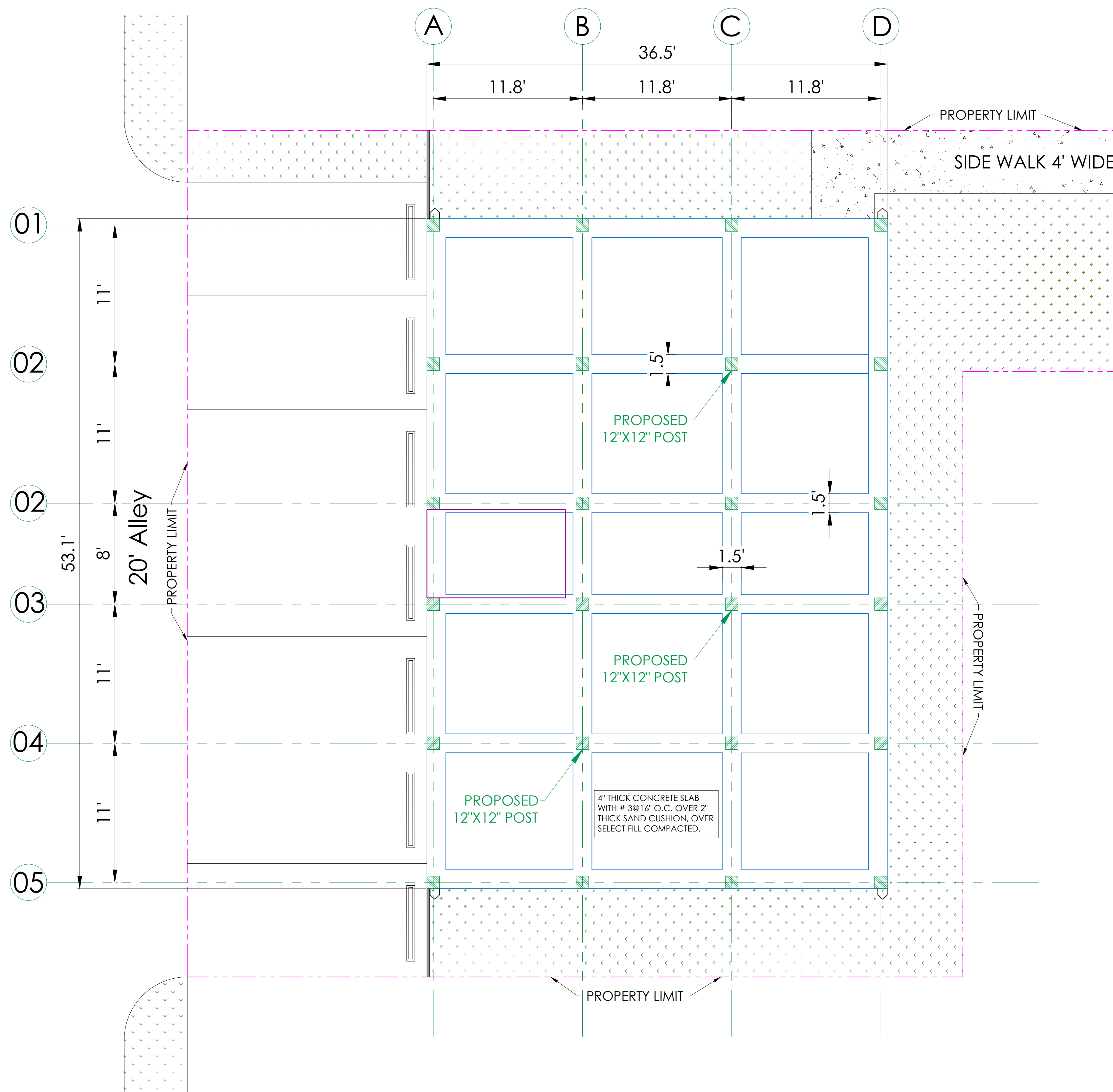
**APARTMENTS BUILDING**  
3013 AVENUE M 1/2, GALVESTON, TX 77550

ISSUE DATE: 03/08/2023

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REVISION 2:  
REVISION 3:  
REVISION 4:  
REVISION 5:

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DRAWN: BR  
SCALE: N.T.S  
SHEET SIZE: 36 X 24

GENERAL NOTES



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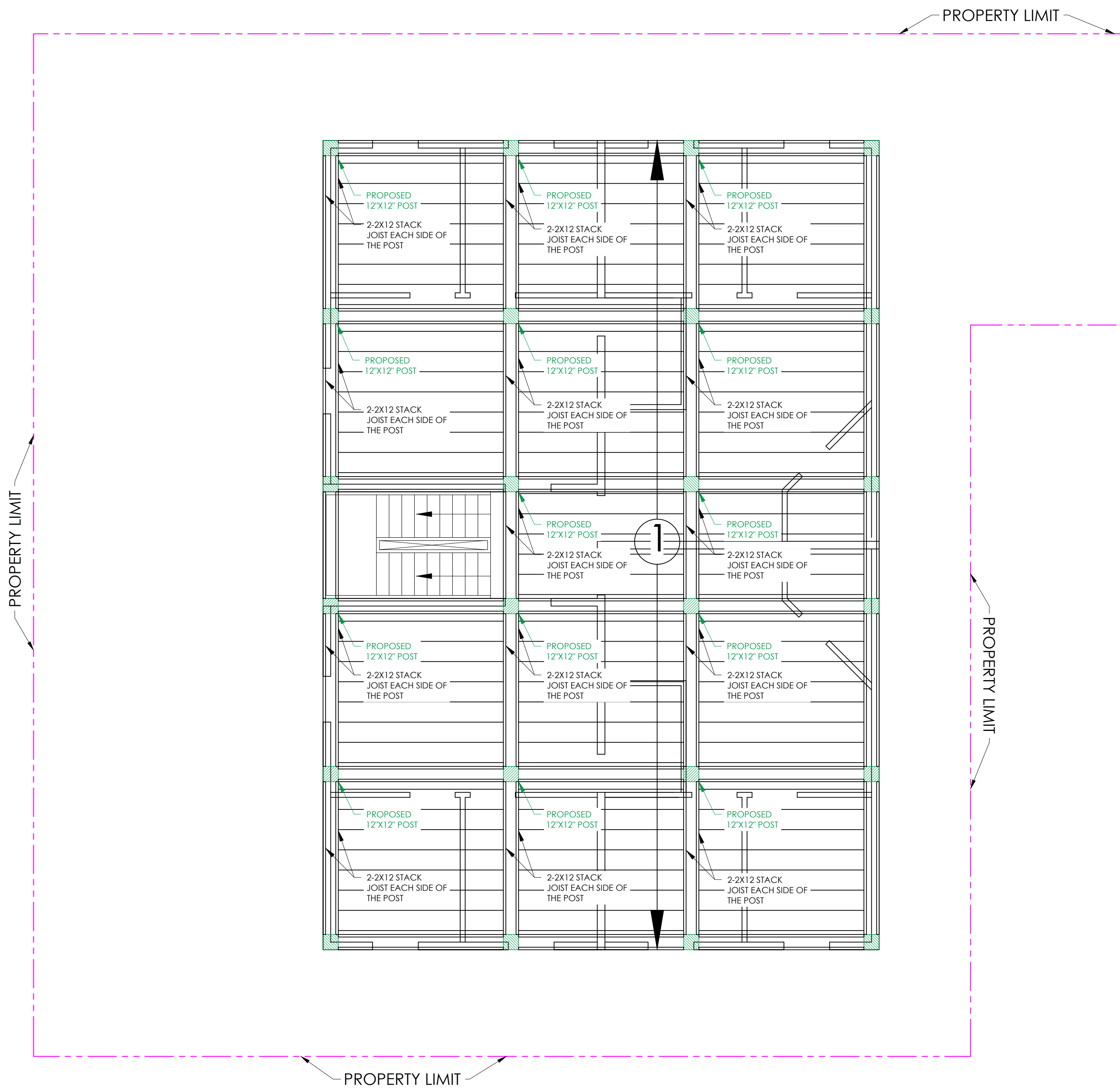
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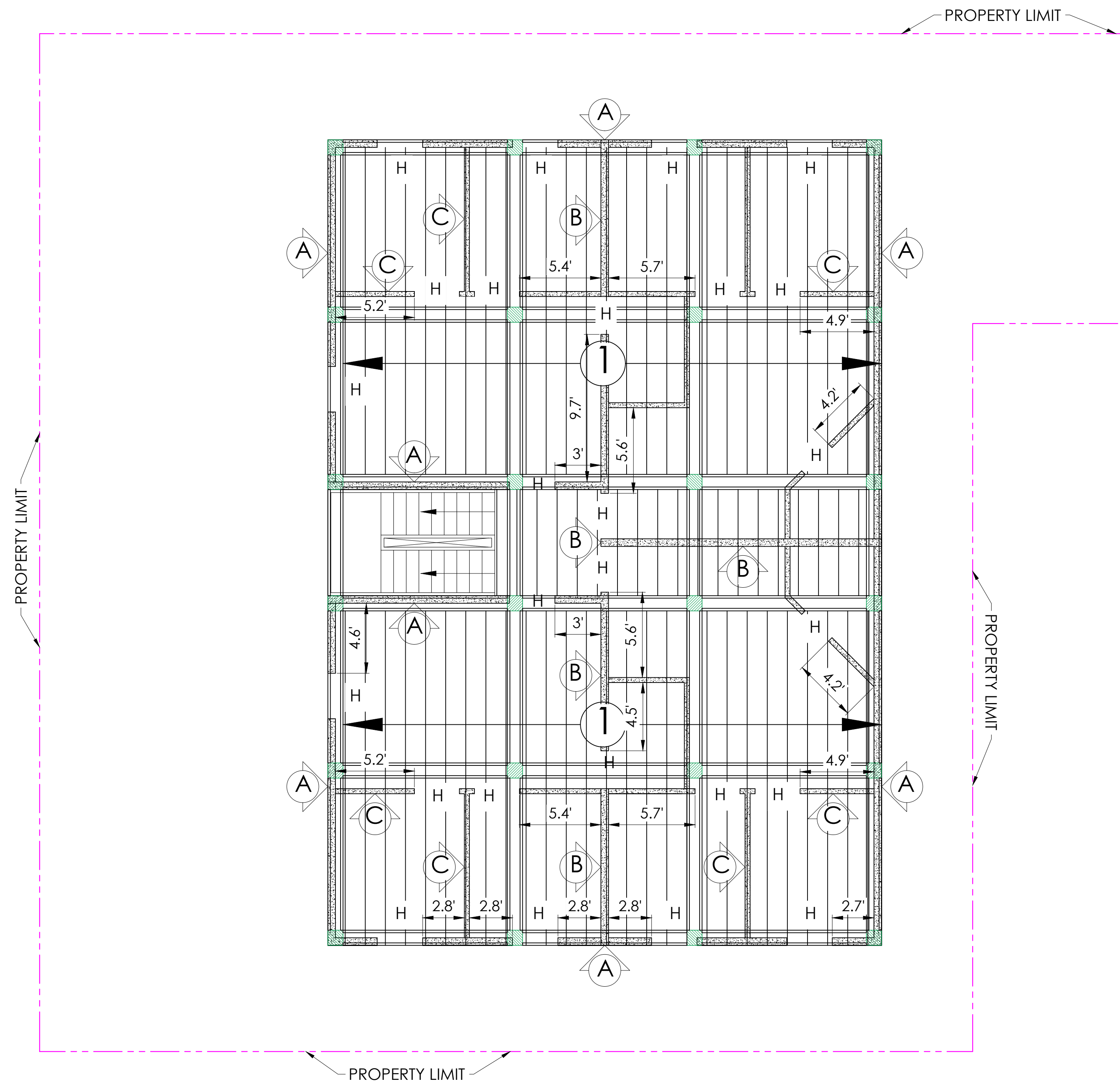
SCALE: 1 : 50

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FOUNDATION PLAN



**FIRST FLOOR FRAMING**  
SCALE 1 : 50



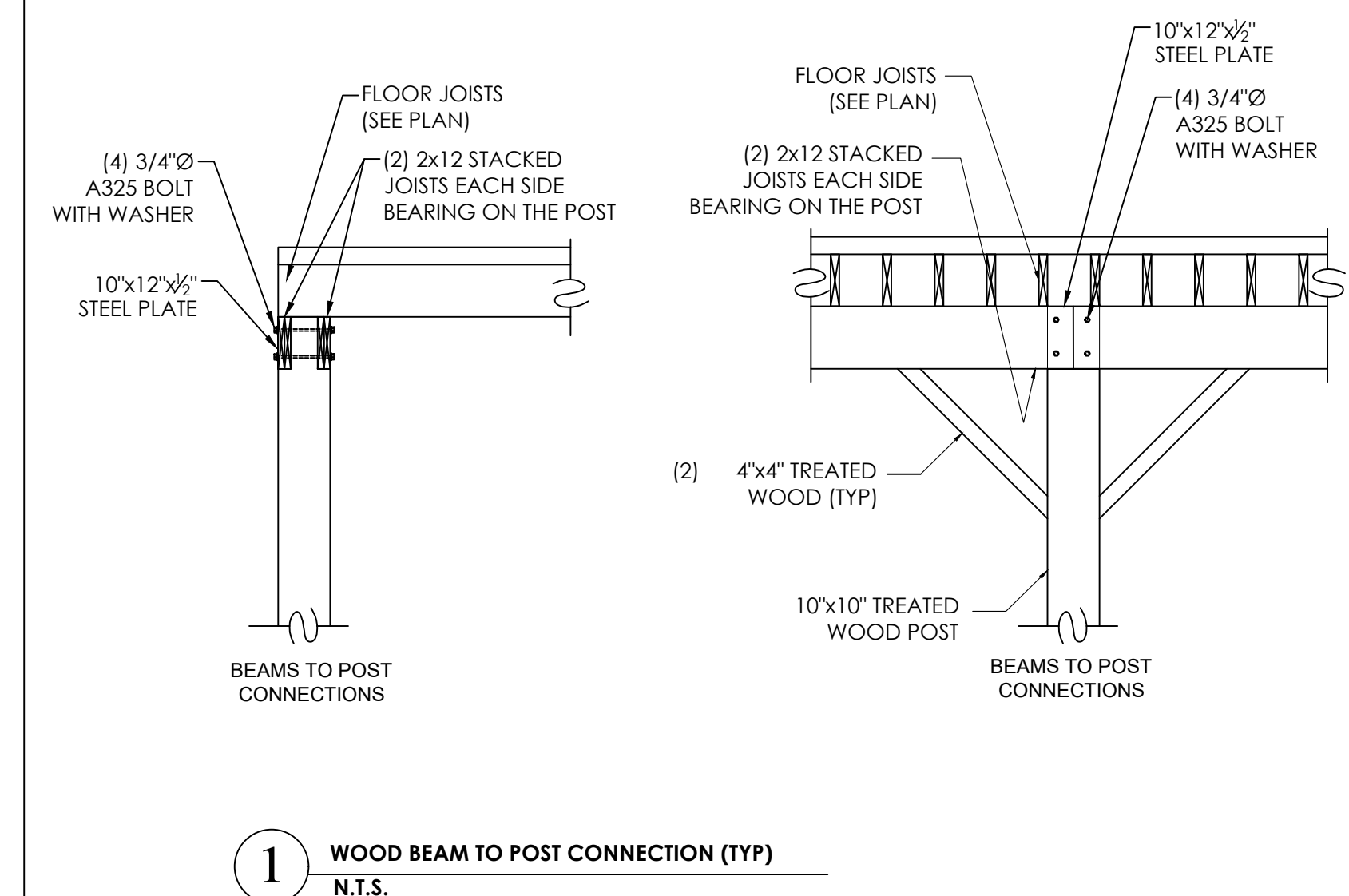
**FIRST FLOOR ROOF FRAMING**  
SCALE 1 : 50

**KEY NOTE:**  
① CEILING JOISTS TO BE 2X10 @ 16" O.C. (MAX), U.O.N.

**FRAMING NOTES AND LEGEND:**

- ALL WALLS ARE BELOW THIS LEVEL, UNO.
- ALL EXTERIOR WALL SHOULD BE LOAD BEARING WALL.
- ▨ INDICATES 4" LOAD BEARING STUD WALL WITH 2x4 @ 16" OC.
- INDICATES COLUMN 3-2X4
- "H" DENOTES HEADERS - REFER SPAN CHART.
- USE 1/2" PLYWOOD SPACERS AS REQ'D. BETWEEN MEMBERS TO FLUSH W/ WALL.
- ▬ Represents 2-2X10 Beam

SHEARWALL SCHEDULE						
WALL TYPE	SHEATING TYPE	NAIL TYPE & SPACING			END COLUMN	HOLD DOWN @ FLOORS
		NAIL TYPE	EDGE SPACING	FIELD SPACING		
A	7/16" OSB SHEATHING ONE SIDE	8d COMMON	4"	6"	3-2x6	MSTC 40
B	5/8" GYPSUM BOARD FIREWALL UL TYPE REF: ARCH DRAWING	8d COMMON	4"	6"	3-2x6	MSTC 40
C	1/2" OSB SHEATHING ONE SIDE	8d COMMON	4"	6"	3-2x4	



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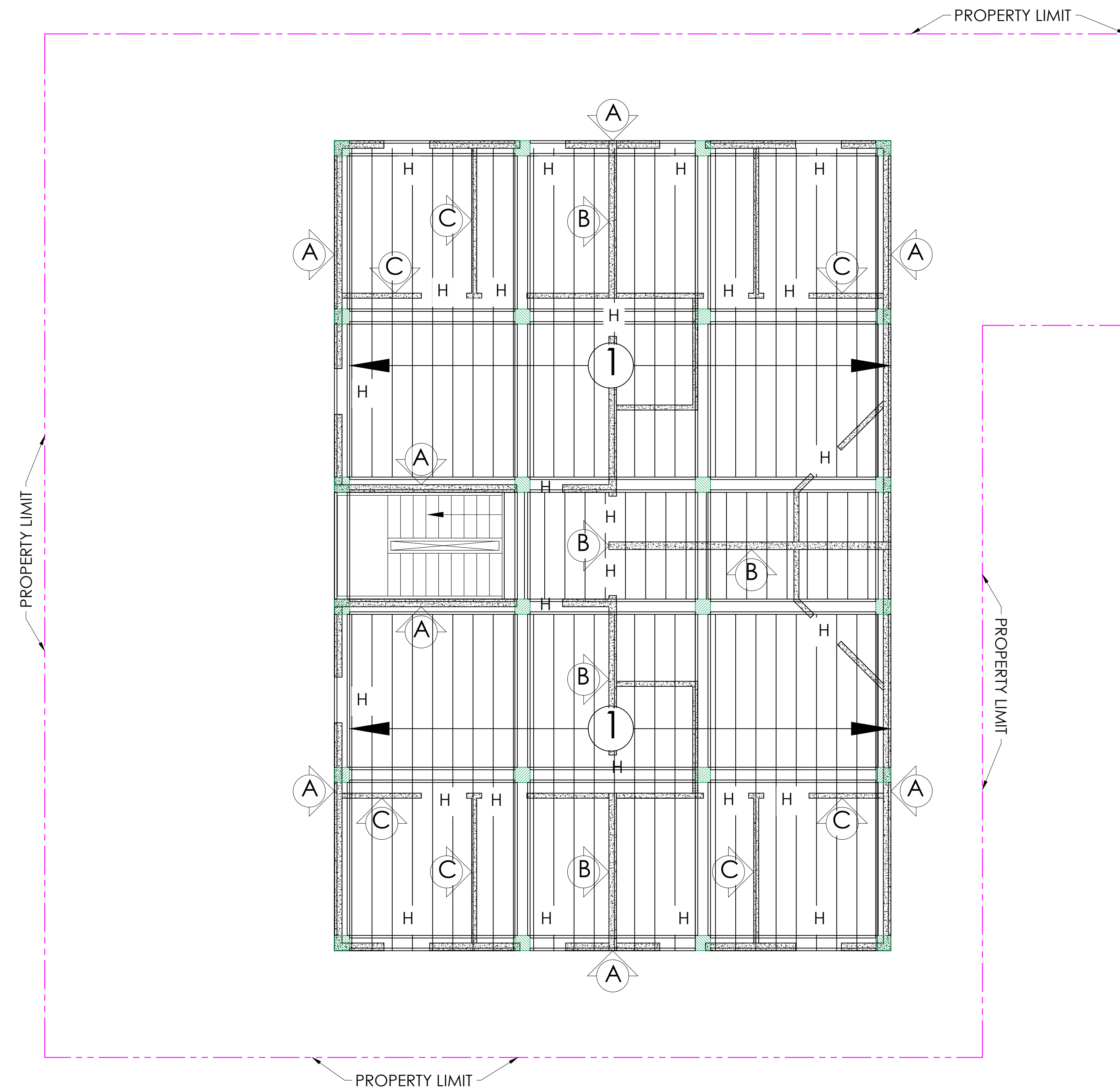
FRAMING PLAN

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**SECOND FLOOR**  
SCALE 1 : 50

**KEY NOTE:**

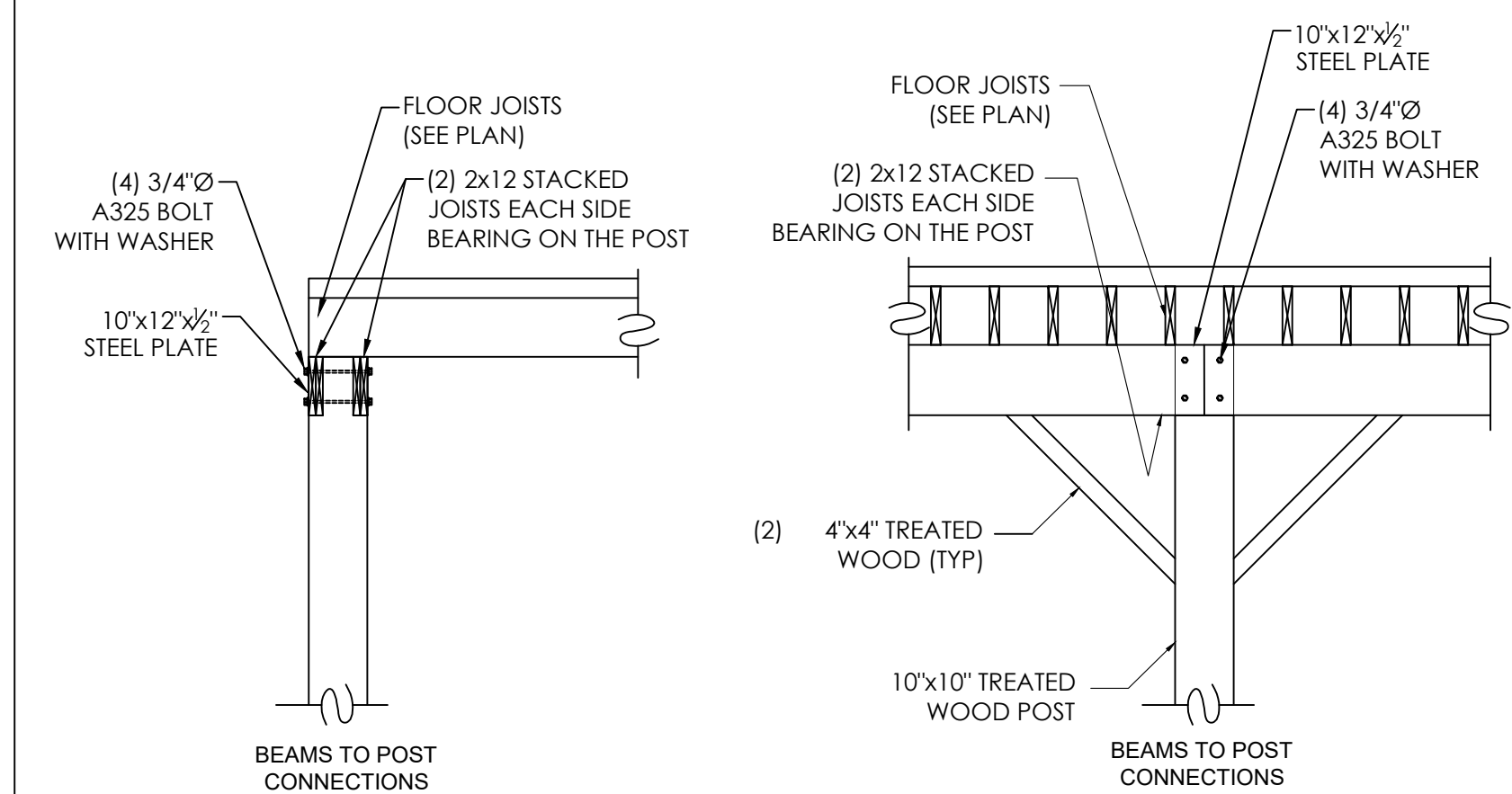
1 CEILING JOISTS TO BE 2X10 @ 16" O.C. (MAX), U.O.N.

**FRAMING NOTES AND LEGEND:**

- ALL WALLS ARE BELOW THIS LEVEL, UNO.
- ALL EXTERIOR WALL SHOULD BE LOAD BEARING WALL.
- INDICATES 4" LOAD BEARING STUD WALL WITH 2x4 @ 16" OC.
- INDICATES COLUMN 3-2X4
- "H" DENOTES HEADERS - REFER SPAN CHART.
- USE 1/2" PLYWOOD SPACERS AS REQ'D. BETWEEN MEMBERS TO FLUSH W/ WALL.
- Represents 2-2X10 Beam

**SHEARWALL SCHEDULE**

WALL TYPE	SHEATING TYPE	NAIL TYPE & SPACING			END COLUMN	HOLD DOWN @ FLOORS
		NAIL TYPE	EDGE SPACING	FIELD SPACING		
A	7/16" OSB SHEATHING ONE SIDE	8d COMMON	4"	6"	3-2x6	MSTC 40
B	5/8" GYPSUM BOARD FIREWALL UL TYPE REF: ARCH DRAWING	8d COMMON	4"	6"	3-2x6	MSTC 40
C	1/2" OSB SHEATHING ONE SIDE	8d COMMON	4"	6"	3-2x4	



1 WOOD BEAM TO POST CONNECTION (TYP)  
N.T.S.

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SCALE: 1 : 50

SHEET SIZE: 36 X 24

FRAMING PLAN

CONNECTION	FASTENING <sup>a, m</sup>	LOCATION
1. Joist to sill or girder	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail
	3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
2. Bridging to joist	2 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail each end
	2 - 3" × 0.131" nails 2 - 3" 14 gage staples	
3. 1" × 6" subfloor or less to each joist	2 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	face nail
4. Wider than 1" × 6" subfloor to each joist	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	face nail
5. 2" subfloor to joist or girder	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	blind and face nail
6. Sole plate to joist or blocking	16d (3 <sup>1</sup> / <sub>2</sub> " × 0.135") at 16" o.c. 3" × 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c.	typical face nail
	3 - 16d (3 <sup>1</sup> / <sub>2</sub> " × 0.135") at 16" o.c.	
Sole plate to joist or blocking at braced wall panel	4 - 3" × 0.131" nails at 16" o.c.	braced wall panels
	4 - 3" 14 gage staples at 16" o.c.	
7. Top plate to stud	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	end nail
	3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
8. Stud to sole plate	4 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail
	4 - 3" × 0.131" nails 3 - 3" 14 gage staples	
	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	end nail
	3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
9. Double studs	16d (3 <sup>1</sup> / <sub>2</sub> " × 0.135") at 24" o.c. 3" × 0.131" nail at 8" o.c. 3" 14 gage staple at 8" o.c.	face nail
	16d (3 <sup>1</sup> / <sub>2</sub> " × 0.135") at 16" o.c.	
10. Double top plates	3" × 0.131" nail at 12" o.c. 3" 14 gage staple at 12" o.c.	typical face nail
	8 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	
Double top plates	12 - 3" × 0.131" nails 12 - 3" 14 gage staples	lap splice
	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	
11. Blocking between joists or rafters to top plate	3 - 3" × 0.131" nails 3 - 3" 14 gage staples	toenail
	8d (2 <sup>1</sup> / <sub>2</sub> " × 0.131") at 6" o.c. 3" × 0.131" nail at 6" o.c. 3" 14 gage staple at 6" o.c.	
12. Rim joist to top plate	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	face nail
	3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
14. Continuous header, two pieces	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	16" o.c. along edge
15. Ceiling joists to plate	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail
	5 - 3" × 0.131" nails 5 - 3" 14 gage staples	
16. Continuous header to stud	4 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail

For SI: 1 inch = 25.4 mm.

- Common or box nails are permitted to be used except where otherwise stated.
- Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
- Common or deformed shank (6d - 2" × 0.113"; 8d - 2 1/2" × 0.131"; 10d - 3" × 0.148").
- Common (6d - 2" × 0.113"; 8d - 2 1/2" × 0.131"; 10d - 3" × 0.148").
- Deformed shank (6d - 2" × 0.113"; 8d - 2 1/2" × 0.131"; 10d - 3" × 0.148").
- Corrosion-resistant siding (6d - 17/8" × 0.106"; 8d - 23/8" × 0.128") or casing (6d - 2" × 0.099"; 8d - 2 1/2" × 0.113") nail.
- Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
- Corrosion-resistant roofing nails with 7/16-inch-diameter head and 1 1/2-inch length for 1/2-inch sheathing and 13/4-inch length for 25/32-inch sheathing.
- Corrosion-resistant staples with nominal 7/16-inch crown or 1-inch crown and 1 1/4-inch length for 1/2-inch sheathing and 1-inch length for 25/32-inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
- Casing (11/2" × 0.080") or finish (11/2" × 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
- Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
- For roof sheathing applications, 8d nails (2 1/2" × 0.113") are the minimum required for wood structural panels.
- Staples shall have a minimum crown width of 7/16 inch.
- For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
- Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
- Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

CONNECTION	FASTENING <sup>a, m</sup>	LOCATION
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") minimum, Table 2308.10.4.1	face nail
	4 - 3" × 0.131" nails 4 - 3" 14 gage staples	
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") minimum, Table 2308.10.4.1	face nail
	4 - 3" × 0.131" nails 4 - 3" 14 gage staples	
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	toenail
	3 - 3" × 0.131" nails	
20. 1" diagonal brace to each stud and plate	3 - 3" 14 gage staples	face nail
	2 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131") 2 - 3" × 0.131" nails 3 - 3" 14 gage staples	
21. 1" × 8" sheathing to each bearing	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	face nail
22. Wider than 1" × 8" sheathing to each bearing	3 - 8d common (2 <sup>1</sup> / <sub>2</sub> " × 0.131")	face nail
	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 3" × 0.131" nails 3" 14 gage staples	
23. Built-up corner studs	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 3" × 0.131" nails 3" 14 gage staples	24" o.c. 16" o.c. 16" o.c.
	20d common (4" × 0.192") 32" o.c. 3" × 0.131" nail at 24" o.c. 3" 14 gage staple at 24" o.c.	
24. Built-up girder and beams	2 - 20d common (4" × 0.192") 3 - 3" × 0.131" nails 3 - 3" 14 gage staples	face nail at ends and at each splice
	16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	
25. 2" planks	3 - 10d common (3" × 0.148") 4 - 3" × 0.131" nails	at each bearing
26. Collar tie to rafter	3 - 10d common (3" × 0.148") 4 - 3" × 0.131" nails	face nail
	4 - 3" 14 gage staples	
27. Jack rafter to hip	3 - 10d common (3" × 0.148") 4 - 3" × 0.131" nails	toenail
	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
28. Roof rafter to 2-by ridge beam	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 3 - 3" × 0.131" nails 3 - 3" 14 gage staples	face nail
	2 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 3 - 3" × 0.131" nails 3 - 3" 14 gage staples	
29. Joist to band joist	3 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162") 4 - 3" × 0.131" nails 4 - 3" 14 gage staples	face nail

CONNECTION	FASTENING <sup>a, m</sup>	LOCATION
30. Ledger strip	3 - 16d common (3 <sup>1</sup> / <sub>2</sub> " × 0.162")	face nail at each joist
	4 - 3" × 0.131" nails 4 - 3" 14 gage staples	
31. Wood structural panels and particleboard <sup>b</sup> Subfloor, roof and wall sheathing (to framing)	<sup>1</sup> / <sub>2</sub> " and less	6d <sup>c, 1</sup>
		2 <sup>3</sup> / <sub>8</sub> " × 0.113" nail <sup>n</sup>
		1 <sup>3</sup> / <sub>4</sub> " 16 gage <sup>o</sup>
	<sup>19</sup> / <sub>32</sub> " to <sup>3</sup> / <sub>4</sub> "	8d <sup>d</sup> or 6d <sup>e</sup>
		2 <sup>3</sup> / <sub>8</sub> " × 0.113" nail <sup>p</sup>
		2" 16 gage staple <sup>p</sup>
	<sup>7</sup> / <sub>8</sub> " to 1"	8d <sup>c</sup>
	1 <sup>1</sup> / <sub>8</sub> " to 1 <sup>1</sup> / <sub>4</sub> "	10d <sup>d</sup> or 8d <sup>e</sup>
Single floor (combination subfloor-underlayment to framing)	<sup>3</sup> / <sub>4</sub> " and less	6d <sup>e</sup>
	<sup>7</sup> / <sub>8</sub> " to 1"	8d <sup>e</sup>
	1 <sup>1</sup> / <sub>8</sub> " to 1 <sup>1</sup> / <sub>4</sub> "	10d <sup>d</sup> or 8d <sup>e</sup>
32. Panel siding (to framing)	<sup>1</sup> / <sub>2</sub> " or less	6d <sup>f</sup>
	<sup>5</sup> / <sub>8</sub> "	8d <sup>f</sup>
33. Fiberboard sheathing <sup>g</sup>	<sup>1</sup> / <sub>2</sub> "	No. 11 gage roofing nail <sup>h</sup>
		6d common nail (2" × 0.113")
		No. 16 gage staple <sup>i</sup>
	<sup>25</sup> / <sub>32</sub> "	No. 11 gage roofing nail <sup>h</sup>
		8d common nail (2 <sup>1</sup> / <sub>2</sub> " × 0.131")
		No. 16 gage staple <sup>i</sup>
34. Interior paneling	<sup>1</sup> / <sub>4</sub> "	4d <sup>j</sup>
	<sup>3</sup> / <sub>8</sub> "	6d <sup>k</sup>

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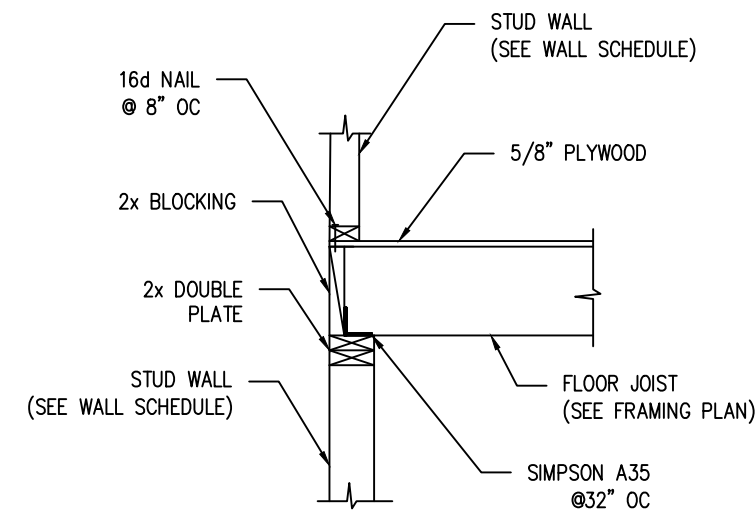
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TEXAS P.E. 90326

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DATE

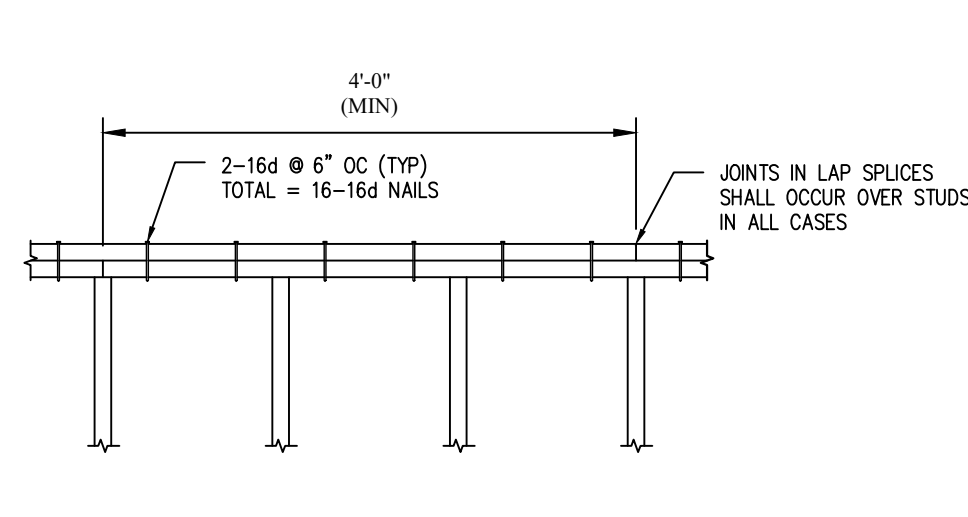
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REVISION 1:  
REVISION 2:  
REVISION 3:  
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REVISION 5:  
PROJECT NO:  
DATE: 03/08/2023  
DRAWN: BR  
SCALE: N.T.S  
SHEET SIZE: 36 X 24

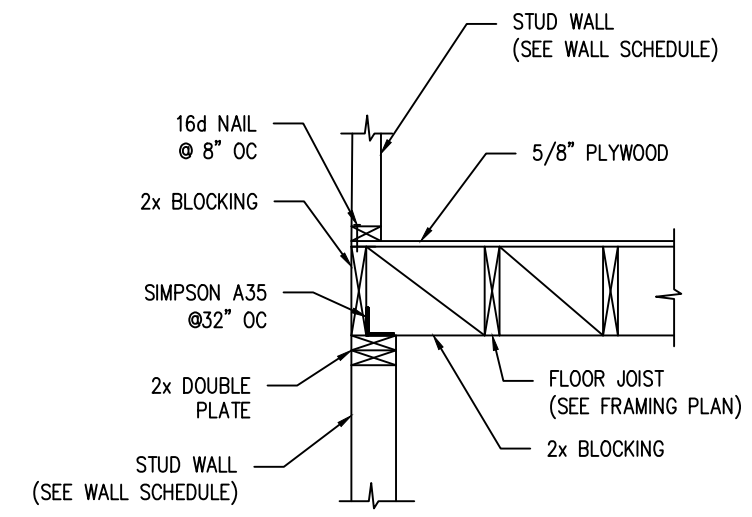
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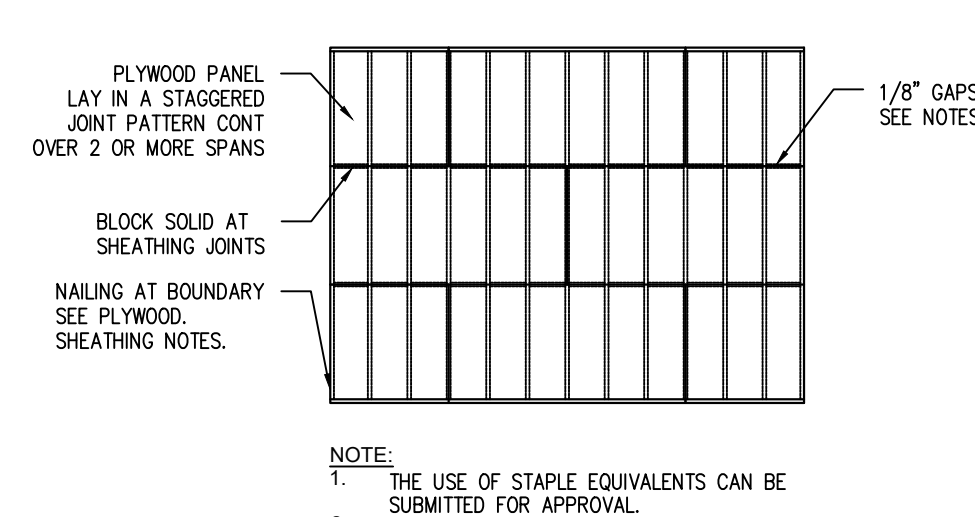
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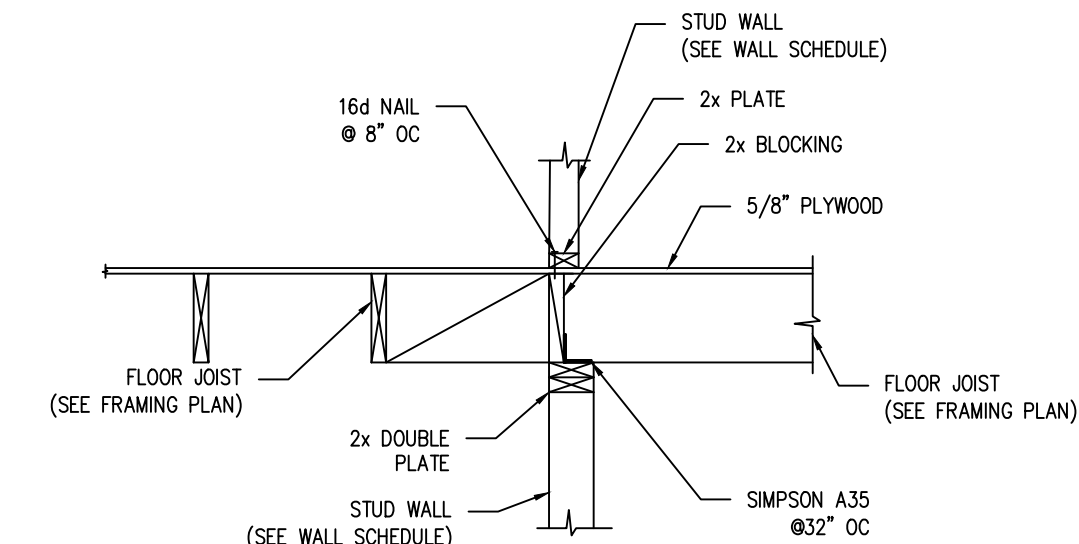
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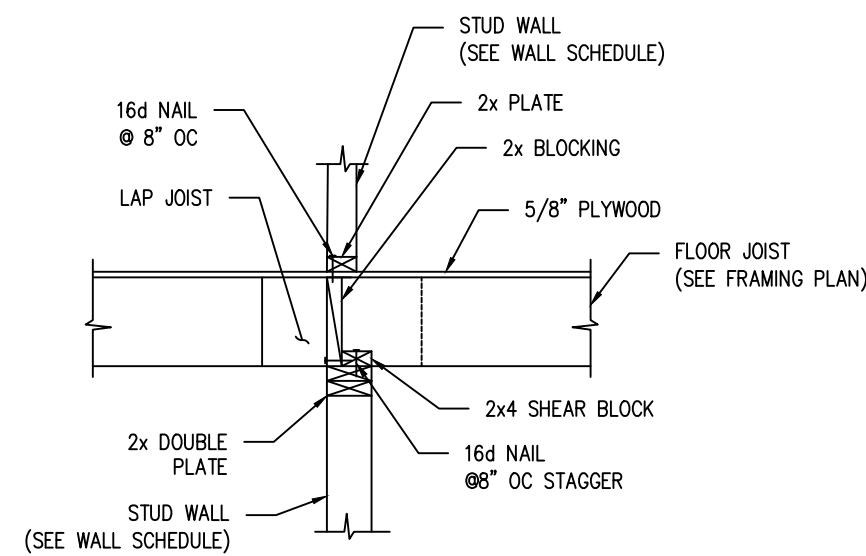
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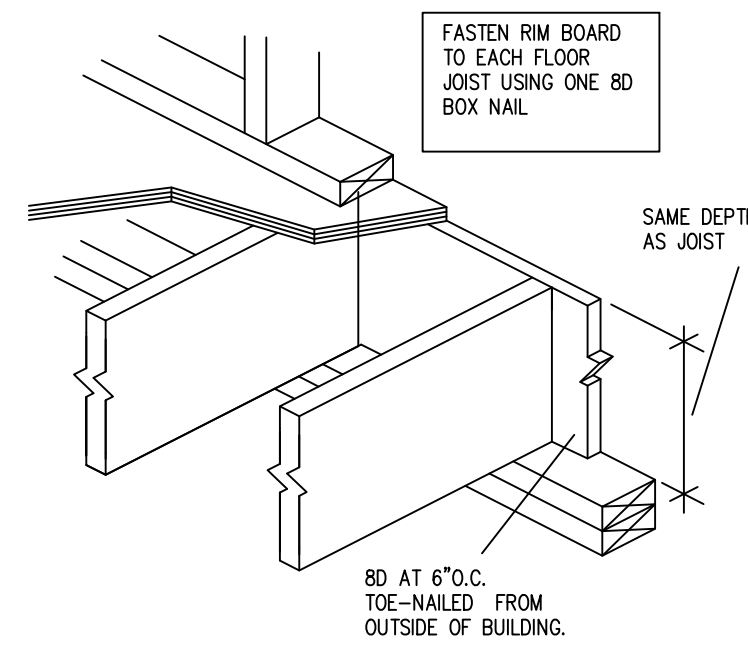
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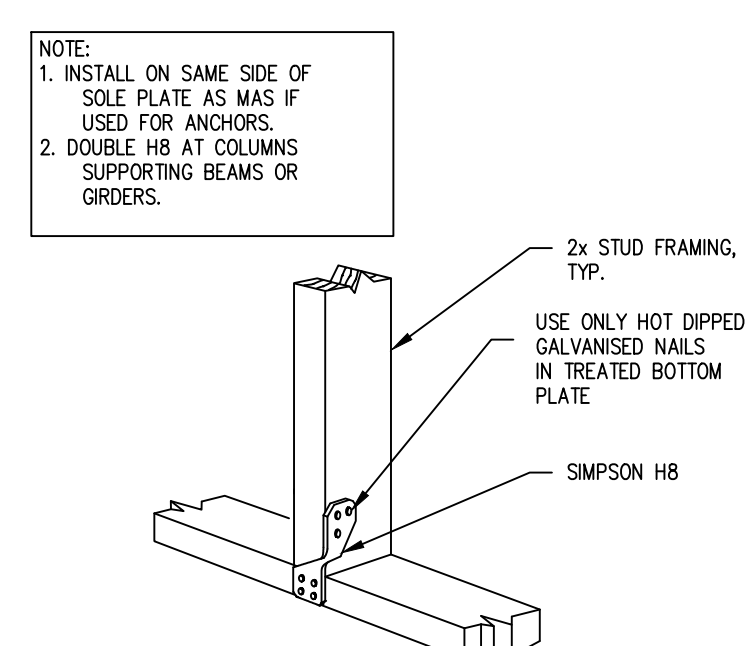
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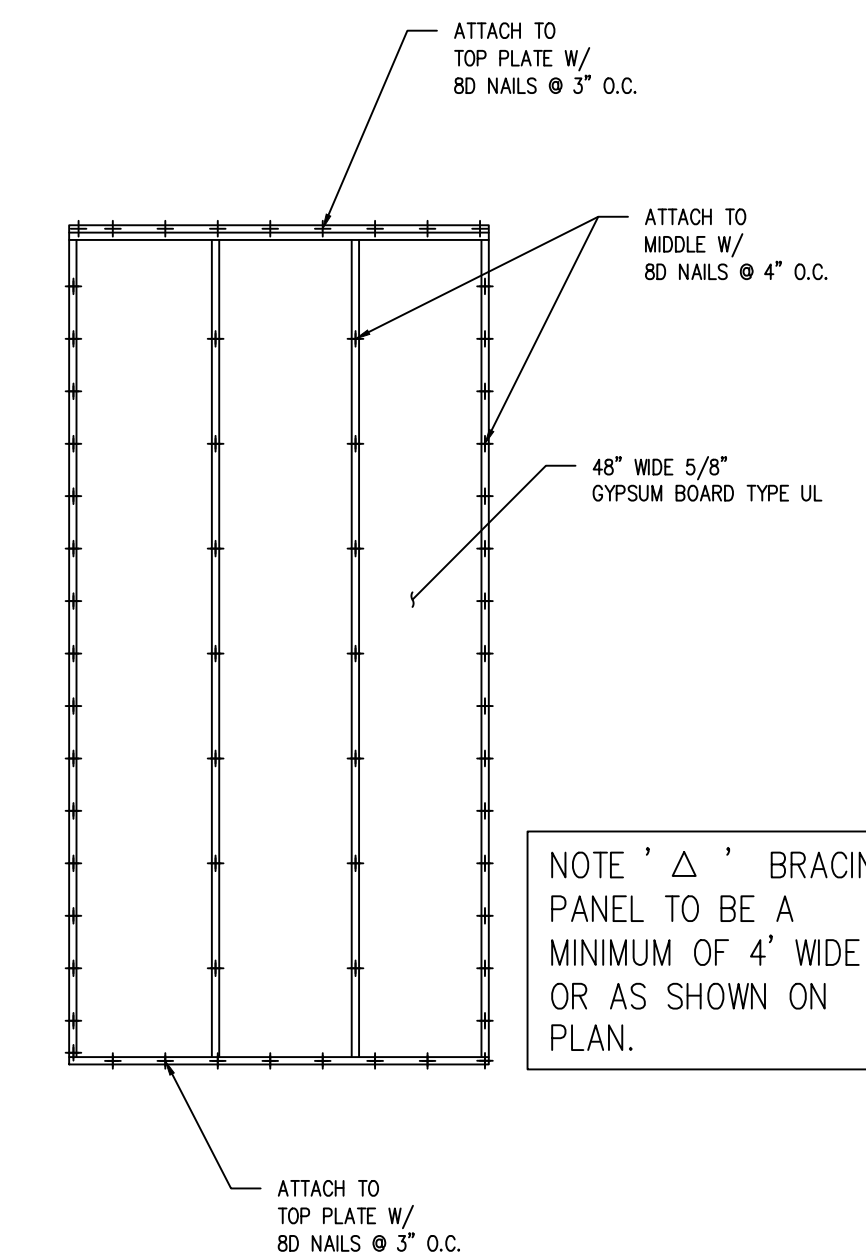
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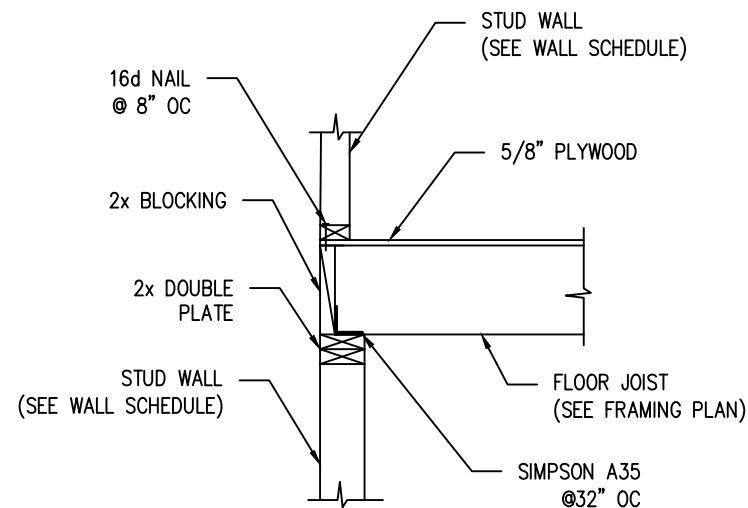
SWF 7 EXTERIOR RIM BOARD  
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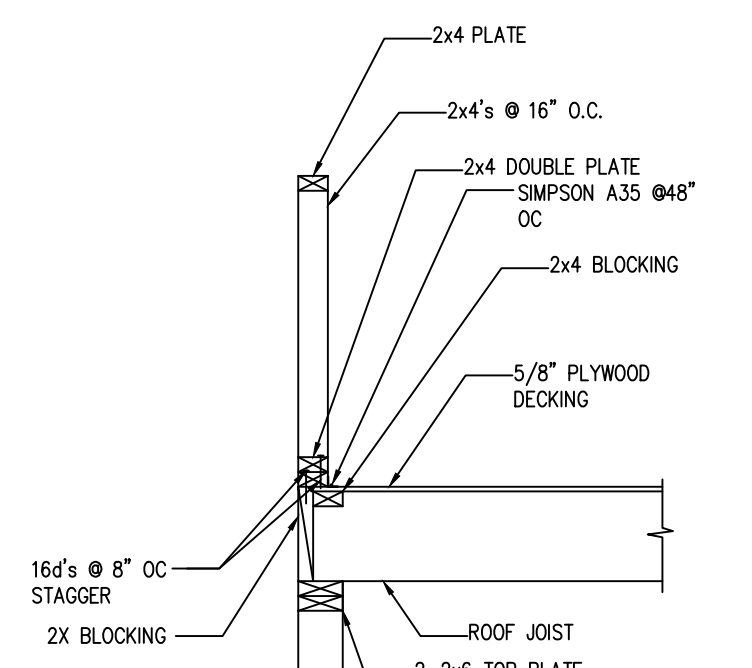
SWF 8 TYPICAL STUD CONNECTION DETAILS  
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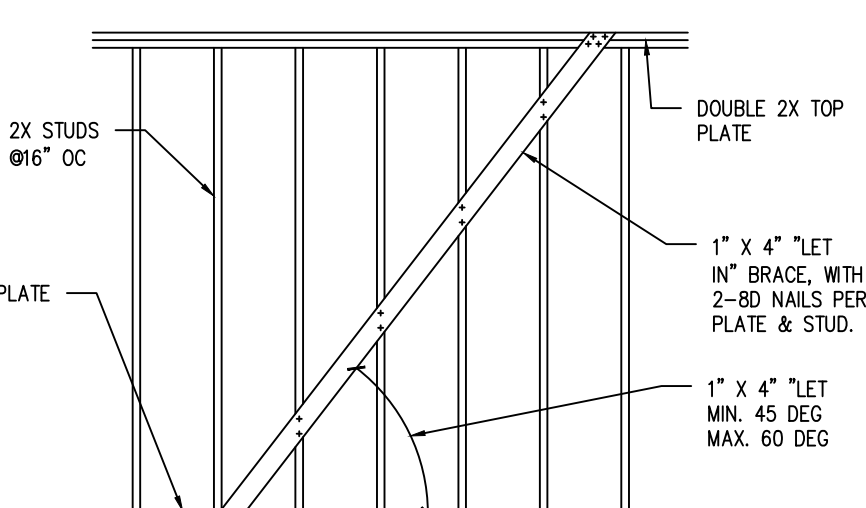
SWF 9 SHEARWALL PANEL DETAIL  
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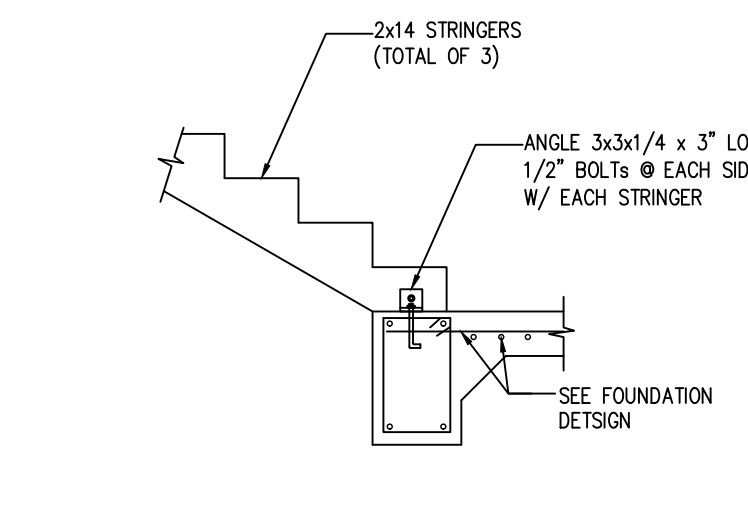
SWF 10 WALLS AND FLOOR DETAILS  
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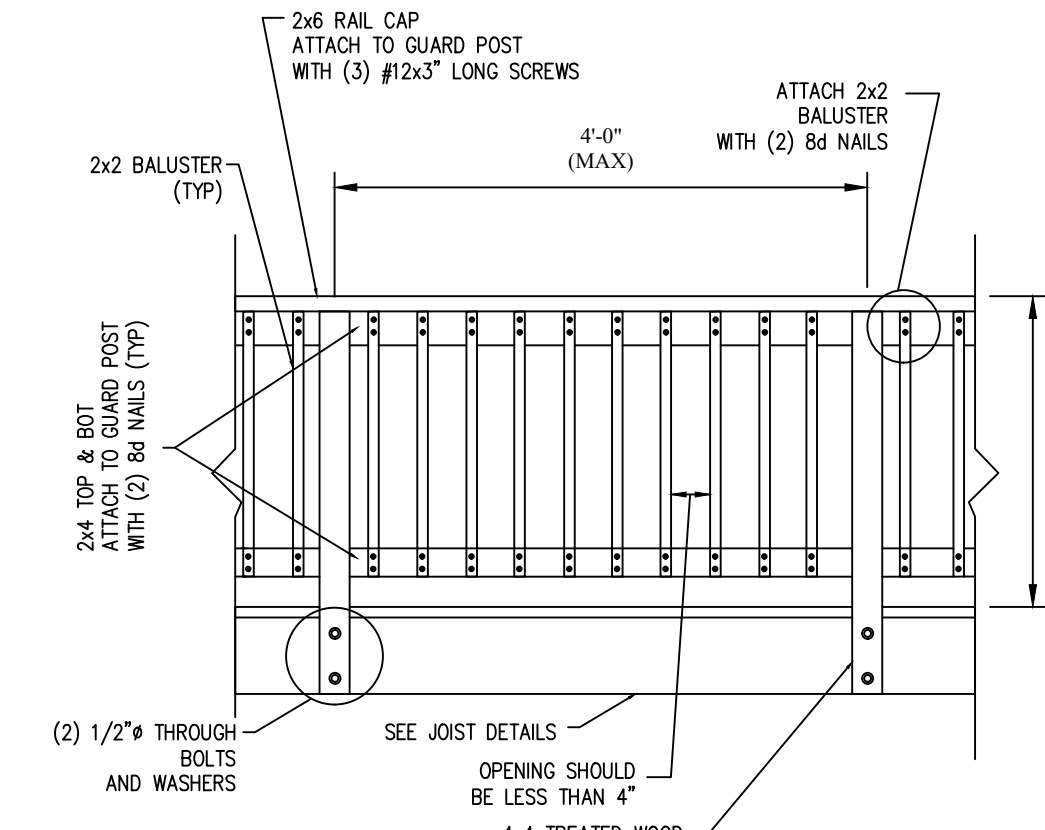
SWF 11 RAILING DETAILS  
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SWF 12 SHEARWALL METHOD LIB  
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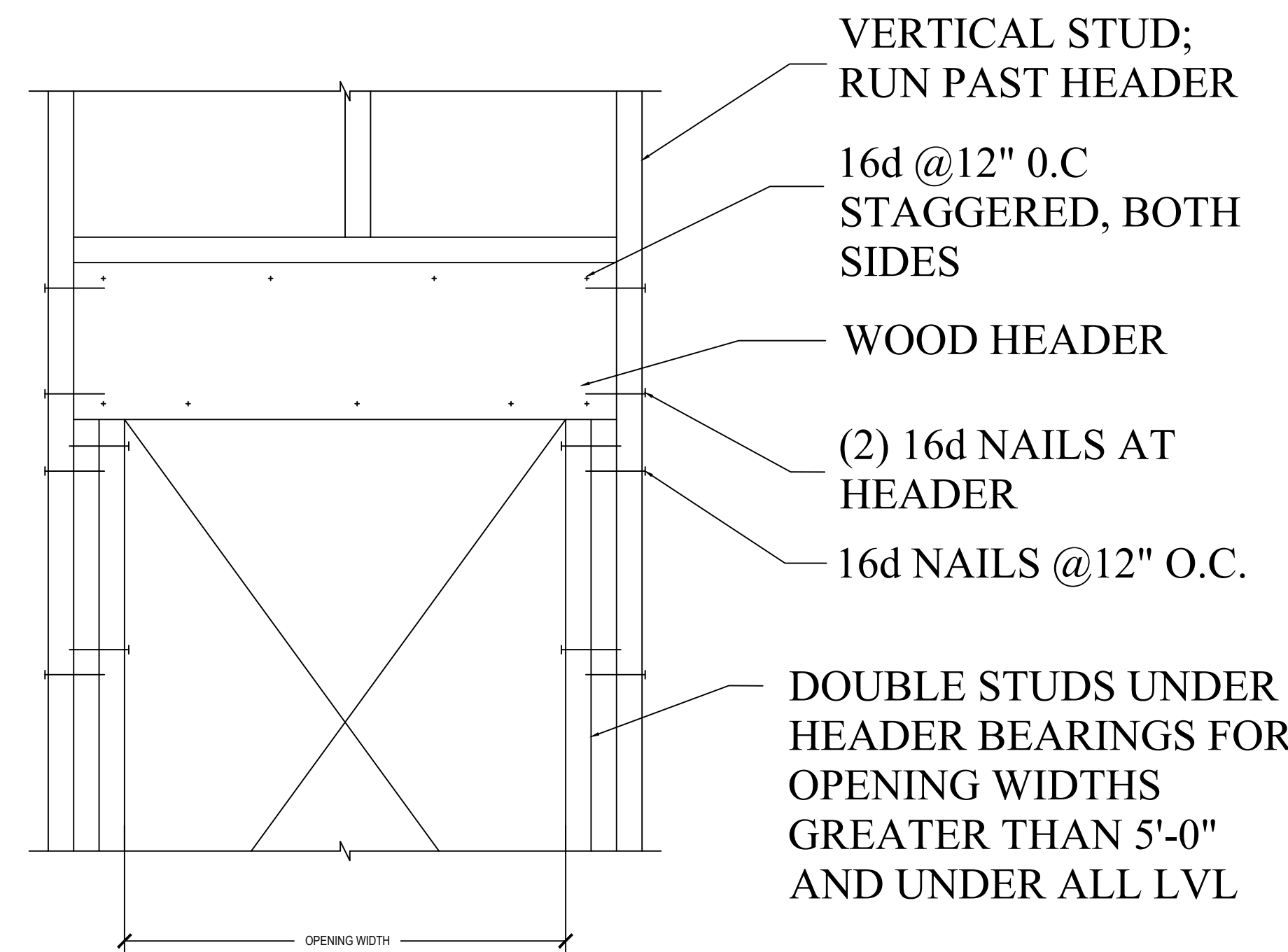


SWF 13 STAIR DETAILS  
N.T.S.



SWF 14 GUARD RAILING DETAILS  
N.T.S.

WOOD HEADER SCHEDULE



	ROUGH OPENING WIDTH	HEADER SIZE	
		LOAD BEARING	NON BEARING
H	UP TO 3'-0"	(2) 2x6	(2) 2x6
H	3'-2" TO 4'-0"	(2) 2x8	(2) 2x8
H	4'-1" TO 6'-0"	(2) 2x10	(2) 2x8
H	6'-1" TO 8'-0"	(2) 2x12	(2) 2x10
B1	(3) - 1 3/4" X 16" 2900 Fb - 2.0E LVL BY LP WOOD PRODUCTS		
B2	(3) - 1 3/4" X 18" 2900 Fb - 2.0E LVL BY LP WOOD PRODUCTS		

NOTES:  
ALL FIRST FLOOR LOAD BEARING HEADERS TO BE 2X12'S, U.O.N.  
FOR LOAD BEARING HEADERS OVER 8'-0" SPAN, SEE FRAMING PLAN

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TEXAS P.E. 90326

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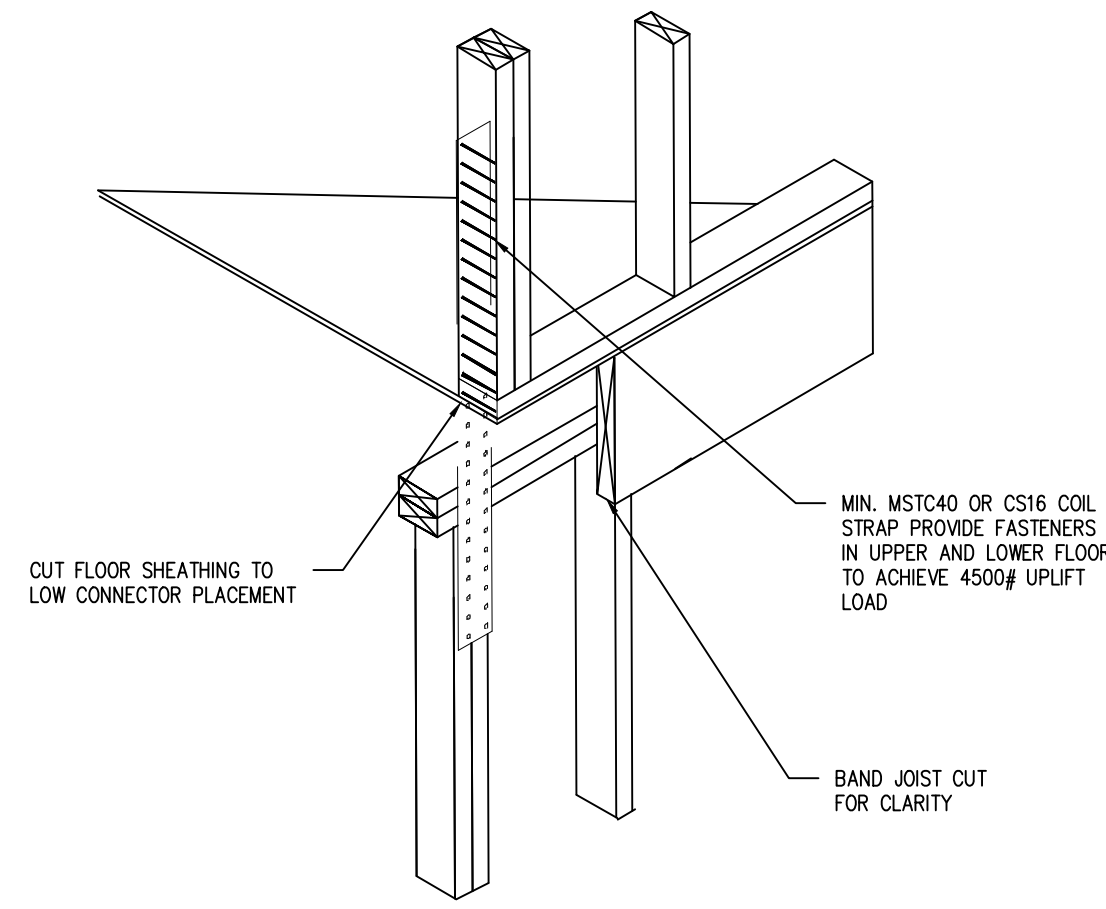
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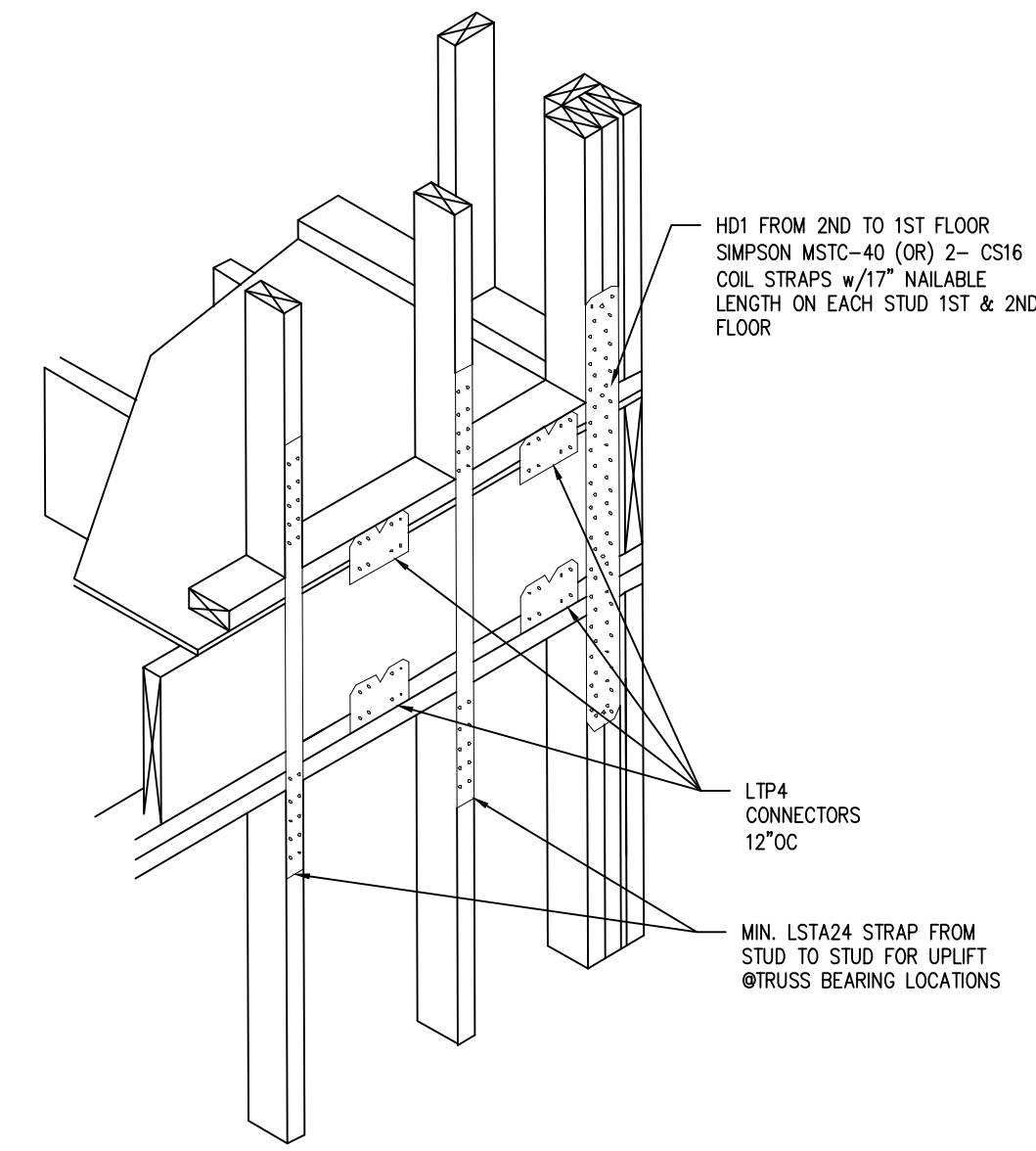
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SHEET SIZE: 36 X 24

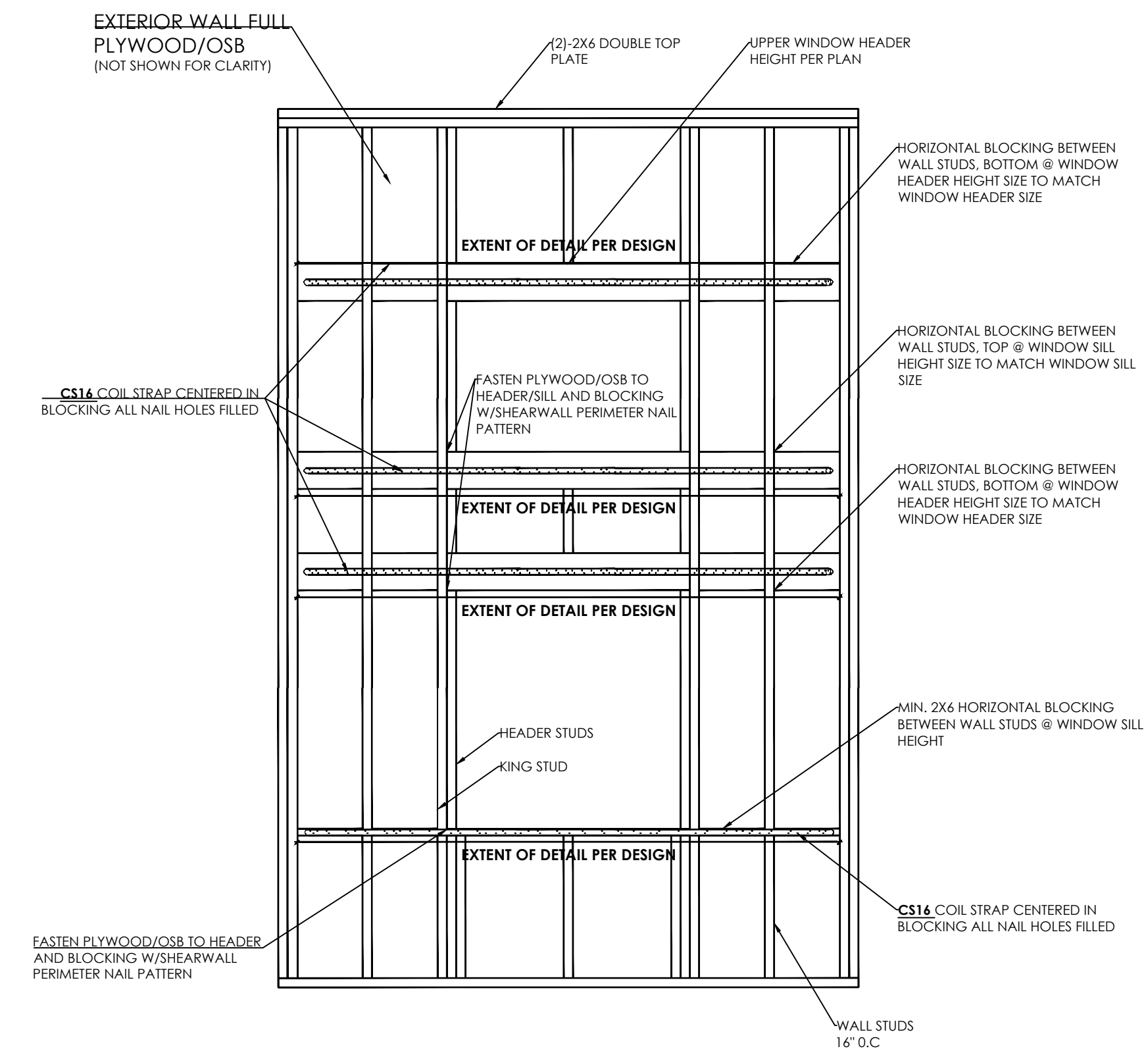
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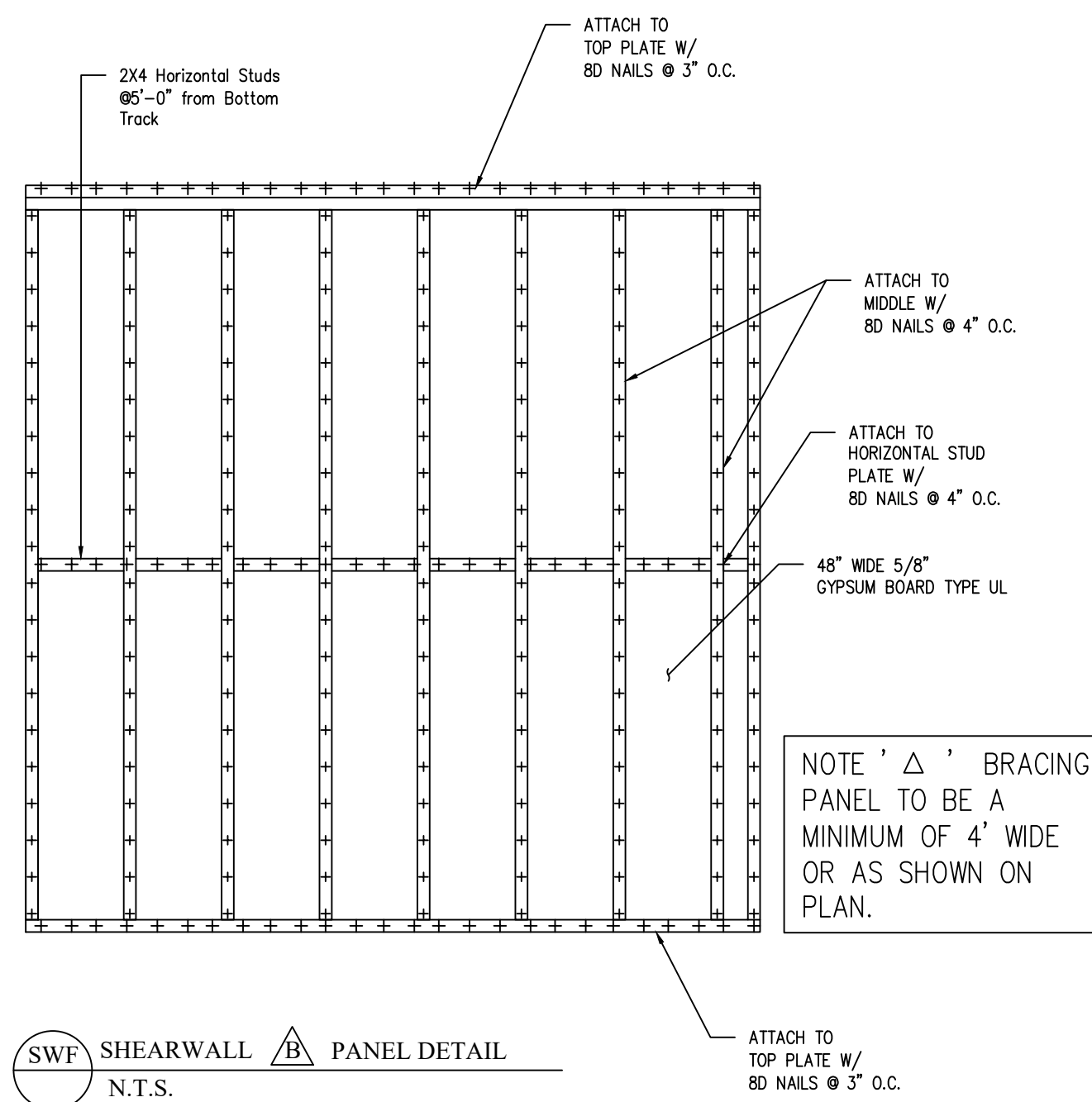
SWF 15 2ND FLOOR HOLDDOWN ANCHORAGE FOR OFFSET  
N.T.S.



SWF 15 EXTERIOR WALL  
N.T.S.



SWF 17 HORIZONTAL BLOCKING AND STRIPPING DETAILS  
N.T.S.



SWF SHEARWALL PANEL DETAIL  
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FRAMING DETAIL-2