

MORTON BUILDINGS GENERAL SPECIFICATIONS

LAMINATED COLUMNS - NO. 1 OR BETTER SOUTHERN YELLOW PINE NAIL LAMINATED 3 MEMBER S4S COLUMNS NAILED 8" O.C. STAGGERED ON EACH SIDE WITH 4" NAILS.

ANCHORED ON CONCRETE - COLUMNS ARE ATTACHED TO CONCRETE BY USE OF 1/4" H.R. STEEL COLUMN SOCKETS. EACH SOCKET IS FASTENED TO THE CONCRETE BY (2) 1/2" DIA. X 6-1/2" THREADED RODS EMBEDDED 4-1/4" INTO THE CONCRETE WITH HILTI HIT-HY 200 V3 ADHESIVE. COLUMN IS FASTENED TO SOCKET BY (4) 1/2"X6" M. BOLTS & (8) 1/4"X2-1/2" POWER LAG WASHER HEAD YELLOW ZINC SCREWS.

TREATED LUMBER - PRESSURE PRESERVATIVE TREATED LUMBER OTHER THAN LAMINATED COLUMNS ARE NO. 1 OR BETTER SOUTHERN YELLOW PINE AND CENTER MATCHED OR NOTCHED AND GROOVED OR S4S. PRESSURE TREATMENT TO GROUND CONTACT RETENTION WITH PRESERVATIVE TREATMENT COMPLYING WITH USE CATEGORY UC4B (AWPA OR ICC-ES) AND IN COMPLIANCE WITH USEPA GUIDELINES AND STANDARDS.

FRAMING LUMBER - SIDING NAILERS ARE 2x4 S4S OR 2x6 SPF NO. 2 OR BETTER SPACED APPROXIMATELY 36" O.C. WITH ALL JOINTS STAGGERED AT ATTACHMENT TO COLUMNS. ROOF PURLINS ARE 2x4 S4S NO. 2 OR BETTER ON EDGE SPACED APPROXIMATELY 24" O.C. ALL OTHER FRAMING LUMBER IS NO. 2 OR BETTER.

ROOF TRUSSES - FACTORY ASSEMBLED WITH 18 OR 20 GAUGE GALVANIZED STEEL TRUSS PLATES AS REQUIRED AND KILN DRIED LUMBER AS SPECIFIED, IN-PLANT QUALITY CONTROL INSPECTION IS CONDUCTED UNDER THE AUSPICES OF THE TPI INSPECTION BUREAU. TRUSSES ARE DESIGNED IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS FOR THE STATED LOADING.

SIDING PANELS & ROOFING (FLUOROFLEX 1000™) - 0.019" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL WITH AN ADDITIONAL BAKED-ON 70% PVDF FINISH WITH A NOMINAL 1 MIL. PAINT THICKNESS ON EXTERIOR.

TRIM - DIE-FORMED TRIM OF 0.017" MIN., G90 GALVANIZED OR AZ55 GALVALUME STEEL ON GABLES, RIDGES, CORNERS, BASE WINDOWS, AND DOORS WITH SAME FINISH AS ROOFING OR SIDING PANELS.

GUTTERS - 5" OR 6" K-STYLE, .030 HIGH TENSILE ALUMINUM GUTTER, 70% PVDF FINISH TO MATCH TRIM, ON BOTH SIDES OF THE BUILDING.

2x4 F1 F1 CNC 09/20

DESIGN AND EXPLANATORY NOTES

1.) ALL PLOT PLANS AND RELATED DETAILS SHALL BE PROVIDED BY OWNER UNLESS INCORPORATED AS PART OF THESE DRAWINGS.

2.) MORTON BUILDINGS GENERAL SPECIFICATIONS APPLY UNLESS INDICATED DIFFERENTLY ON SPECIFIC JOB DRAWINGS OR SUPPLEMENTAL INFORMATION.

3.) MINIMUM LIVE ROOF LOAD DESIGNS FOR CONSTRUCTION, MAINTENANCE, REPAIR, AND OTHER TEMPORARY LOADS PER SECTION 1607.12.2

a.) ROOF PURLINS AND OTHER SECONDARY STRUCTURAL MEMBERS = 20 PSF

b.) ROOF TRUSSES, HEADERS, COLUMNS AND OTHER PRIMARY STRUCTURAL MEMBER = 18 PSF

c.) FOOTINGS = 12 PSF (DESIGNED FOR ROOF SNOW LOAD AND OTHER NON-TEMPORARY LOADS W/ APPROVAL FROM BUILDING OFFICIAL).

4.) NO ONE MAY ALTER ANY ENGINEERING ITEM UNLESS ACTING UNDER THE DIRECTION OF THE LICENSED / REGISTERED ENGINEER.

5.) ● THE PRECEDING SYMBOL IDENTIFIES ITEMS THROUGHOUT THE PLANS THAT ARE NOT PROVIDED BY MORTON BUILDINGS, INC. OR MORTON BUILDINGS' SUBCONTRACTORS AND ARE THE OWNER'S RESPONSIBILITY.



RLG
CONSULTING ENGINEERS

412 SW Washington St.
Peoria, IL 61602
309-713-2885
www.rlginc.com

date 1/16/2026
revised ---

drawn by VANDERKLEIJ
checked by ---

THE WESSON GROUP, LLC

COHOCTON, NY

SHEET INDEX	
SHEET #	DESCRIPTION
GS1 OF GS1	SPECIFICATIONS & SHEET INDEX
SF1 OF SF2	FOUNDATION PLAN & FOUNDATION SECTIONS A, B, C, D, E
SF2 OF SF2	FOUNDATION SECTIONS F, G
S1 OF S9	COLUMN PLAN
S2 OF S9	TRUSS/BRACING PLAN & DETAILS A, B, C, D, TRUSS TIE DETAIL
S3 OF S9	TRUSS DRAWING & PURLIN DETAILS
S4 OF S9	ELEVATIONS
S5 OF S9	SIDEWALL SECTION A, OHD HEADER SECTION B, & TRUSS HEEL, HEADER ISO DETAILS
S6 OF S9	ENDWALL SECTION C, CONNECTION SECTION D, CONNECTION DETAIL #1
S7 OF S9	SIDEWALL SECTION E, HEADER SECTION F, ENDWALL SECTION G
S8 OF S9	SCADA SIDEWALL SECTION H, SCADA CROSS SECTION I
S9 OF S9	OSB SHEARWALL DETAILS

CURRENT LUMBER SPECIFICATIONS (06-01-2013)		
SIZE	DESCRIPTION	BENDING VALUE F_b
2x4	NO. 2 SPF	1313 PSI
2x4	NO. 1 SYP	1500 PSI
2x4	2100I MSR SPF	2100 PSI
2x6	NO. 2 SPF	1138 PSI
2x6	NO. 1 SYP	1350 PSI
2x6	2100I MSR SPF	2100 PSI
2x6	2400 MSR SYP	2400 PSI
2x8	NO. 1 SYP	1250 PSI
2x8	2400 MSR SYP	2400 PSI
2x10	NO. 1 SYP	1050 PSI
2x10	2400 MSR SYP	2400 PSI
2x12	NO. 1 SYP	1000 PSI
2x12	2400 MSR SYP	2400 PSI
1 1/2x16"	LAMINATED VENEER LUMBER	2800 PSI
3 1/2x15"	GLU-LAM	1650 PSI
5 1/4x16 1/2"	GLU-LAM	2400 PSI
5 1/4x19 1/2"	GLU-LAM	2400 PSI

BUILDING DESIGN CRITERIA

USE GROUP	B/S-1
CONSTRUCTION TYPE	VB
RISK CATEGORY	II
BUILDING AREA	2280 SQ. FT.
ROOF SNOW LOAD *	48 PSF
GROUND SNOW LOAD	60 PSF
WIND SPEED (V _{ULT})	115 MPH
WIND SPEED (V _{ASD})	89 MPH

*ROOF SNOW LOAD CALCULATIONS

$P_f = 0.7 \times C_e \times I \times P_g \times C_t$
 $C_e = \text{SNOW EXPOSURE FACTOR} = 1.0$
 $I = \text{IMPORTANCE FACTOR} = 1.0$
 $P_g = \text{GROUND SNOW LOAD} = 60 \text{ PSF}$
 $C_t = \text{THERMAL FACTOR} = 1.2$
 $P_f = 0.7 \times 1.0 \times 1.0 \times 60 \times 1.2 = 50.40 \text{ PSF}$
 $C_s = \text{ROOF SLOPE FACTOR} = 0.94$
 $P_s = P_f \times C_s = 50.40 \times 0.94 = 47.38 \text{ PSF}$

SHEET NO. GS1 OF GS1
 SHEET NAME: SPECIFICATIONS AND SHEET INDEX
 SHEET NO. GS1 OF GS1

DESIGN AND EXPLANATORY NOTES

1.) FOOTINGS ARE DESIGNED FOR A 2000 PSF SOIL BEARING CAPACITY. LOCAL CONDITIONS MAY REQUIRE MODIFICATIONS.

- 2.) CONCRETE FLOOR NOTES:
 - a. 3500 PSI, 5 1/2 BAG MIX CONCRETE.
 - b. SLOPE GRADE AWAY FROM BUILDING @ 1" PER FOOT FOR A MINIMUM DISTANCE OF 10' PLUS OVERHANG WIDTH.
 - c. PLACE A MINIMUM 6 MIL POLYETHYLENE VAPOR RETARDER OVER A COMPACTED GRANULAR BASE AND DIRECTLY BELOW THE CONCRETE FLOOR.
 - d. CONTRACTION JOINTS UNIFORMLY SPACED 18' O.C. OR LESS.
 - e. FOR PERIMETER INSULATION USE EXTRUDED POLYSTYRENE OR A COMPARABLE PRODUCT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 40 PSI.
 - f. IF THE FLOOR IS TO BE HEATED, USE 1" TYPE VI EXTRUDED POLYSTYRENE OR A COMPARABLE PRODUCT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 40 PSI UNDER ENTIRE FLOOR.

- 3.) CONCRETE FOUNDATION NOTES:
 - a. CONCRETE & REINFORCING BAR SPECIFICATIONS:

- 3500 PSI, 5 1/2 BAG MIX.
- GRADE 60, DEFORMED REINFORCING BARS.
- VERTICAL REINFORCING.

- b. VERTICAL REINFORCING:
 - HOOK VERTICAL REINFORCING IN FOOTING.

- SPLICE LENGTH SHALL BE 12" MINIMUM.
- COVER SHALL BE 2 1/2" MINIMUM.

- COVER SHALL BE 2 1/2" MINIMUM.
- c. HORIZONTAL REINFORCING:
 - HORIZONTAL REINFORCING SHALL BE CONTINUOUS OR PROPERLY SPLICE AROUND ALL CORNERS.
 - SPLICE LENGTH SHALL BE 12" MINIMUM.
 - COVER SHALL BE 3" MINIMUM.

4.) NOTCH WALL DOUBLE THE THICKNESS OF THE INTERIOR FLOOR PLUS THE HEIGHT THE WALL ABOVE THE FLOOR (IF APPLICABLE). NOTCH WALL 8" DEEP AT DOOR OPENING.

- 5.) LANDING & THRESHOLD:
 - a. ALL DOORS REQUIRED TO BE ACCESSIBLE & SHALL BE PROVIDED WITH LEVEL HANDLES OR PUSH/PULL HARDWARE.
 - b. ALL DETAILS SHALL CONFORM TO A117.1
 - c. ACCESSIBLE ROUTES SHALL BE BY HARD, FIRM, AND SLIP RESISTANT SURFACES AND SHALL HAVE SLOPES OF LESS THAN 1:20.
 - d. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
 - e. THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN ACCESSIBLE INTERIOR HINGED DOORS SHALL BE 5 LB/FT.
 - f. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED 34" MINIMUM TO 48" MAXIMUM ABOVE THE FINISHED FLOOR.

FOUNDATION PLAN

This technical diagram illustrates a cross-section of a concrete foundation wall. The wall is 8 inches thick and is built on a 36-inch deep washed gravel base. The foundation is supported by a 5-inch thick concrete approach, which slopes away from the wall at a 1/4" per foot grade for a minimum distance of 5'-0". The wall features an expansion joint. A continuous #4 rebar is embedded around the perimeter of the foundation. #4 dowels (24" x 24") are spaced at 12" o.c. along the wall. The floor above is 8 inches thick concrete. A note indicates that the floor thickness is 8 inches, and another note specifies a 4-inch minimum compacted granular base or in situ granular soil. A vertical dimension line shows a height of 6' from the bottom of the foundation to the top of the wall.

5" CONCRETE APPROACH

1/4" PER FOOT SLOPE

SLOPE GRADE AWAY FROM APPROACH A MINIMUM OF 1/4" PER FOOT SLOPE FOR A MINIMUM DISTANCE OF 5'-0"

#4 CONTINUOUS REBAR AROUND PERIMETER

6'

3"

3"

6"

36" DEEP WASHED GRAVEL

EXPANSION JOINT

8" CONCRETE FLOOR

SEE NOTE #4

4" MINIMUM COMPAKTED GRANULAR BASE OR IN SITU GRANULAR SOIL

#4 DOWEL (24" x 24") AT 12" O.C.

WALK DOOR NOTCH SECTION D

This technical diagram illustrates a cross-section of a concrete foundation wall. On the left, a textured area represents backfill. A vertical concrete wall is shown with an expansion joint. The top of the wall is labeled '5" CONCRETE APPROACH'. A note specifies a '1/4" PER FOOT SLOPE' away from the approach. The wall has a '36" DEEP WASHED' base. A '6" CONCRETE FLOOR' is shown on the right, supported by a vertical column. A note indicates '#4 x 48" L.G. @ 16" O.C. (MIN. 3)' for reinforcement. The floor has a '4" MINIMUM COMPAKTED GRANULAR BASE OR IN SITU GRANULAR SOIL'. A note 'SEE NOTE #4' is also present. A note on the left specifies a 'SLOPE GRADE AWAY FROM APPROACH A MINIMUM OF 1/4" PER FOOT SLOPE FOR A MINIMUM DISTANCE OF 5'-0"'.

WALK DOOR NOTCH SECTION E

FOUNDATION PLAN DIMENSION

6" MAX. FINISH GRADE 2 1/2" 4'-0" 10" 3" 18"

8" CONCRETE FLOOR
4" MINIMUM COMPACTED GRANULAR
OR IN SITU GRANULAR SOIL
R-10 PERIMETER INSULATION
8" CONCRETE FOUNDATION WALL
MIN. HORIZONTAL REINF. 2-#4 REBARS,
1 AT 6" FROM TOP, 1 AT 6" FROM BOTTOM
& SO NO BARS ARE MORE THAN 12" APART
MIN. VERTICAL REINF. #4 REBARS
SET IN FTG. NOT TO EXCEED 12" O.C.
TYPICAL FOOTING w/2-#4 REBARS
UNLESS SPECIFIED OTHERWISE

FOUNDATION SECTION A

FOUNDATION PLAN DIMENSION

6" MAX. ← FINISH GRADE 4'-0" ← 2 1/2" ← 6" CONCRETE FLOOR ← 4" MINIMUM COMPACTED GRANULAR OR IN SITU GRANULAR SOIL ← R-10 PERIMETER INSULATION ← 8" CONCRETE FOUNDATION WALL ← MIN. HORIZONTAL REINF. 2-#4 REBARS, 1 AT 6" FROM TOP, 1 AT 6" FROM BOTTOM & SO NO BARS ARE MORE THAN 12" AP ← MIN. VERTICAL REINF. #4 REBARS SET IN FTG. NOT TO EXCEED 12" O.C. ← TYPICAL FOOTING w/2-#4 REBARS UNLESS SPECIFIED OTHERWISE ← 10" ← 3" ← 18" ←

FOUNDATION SECTION B

This technical diagram illustrates the cross-section of an overhead door opening, detailing the construction of the approach, foundation, and door frame.

Labels and dimensions:

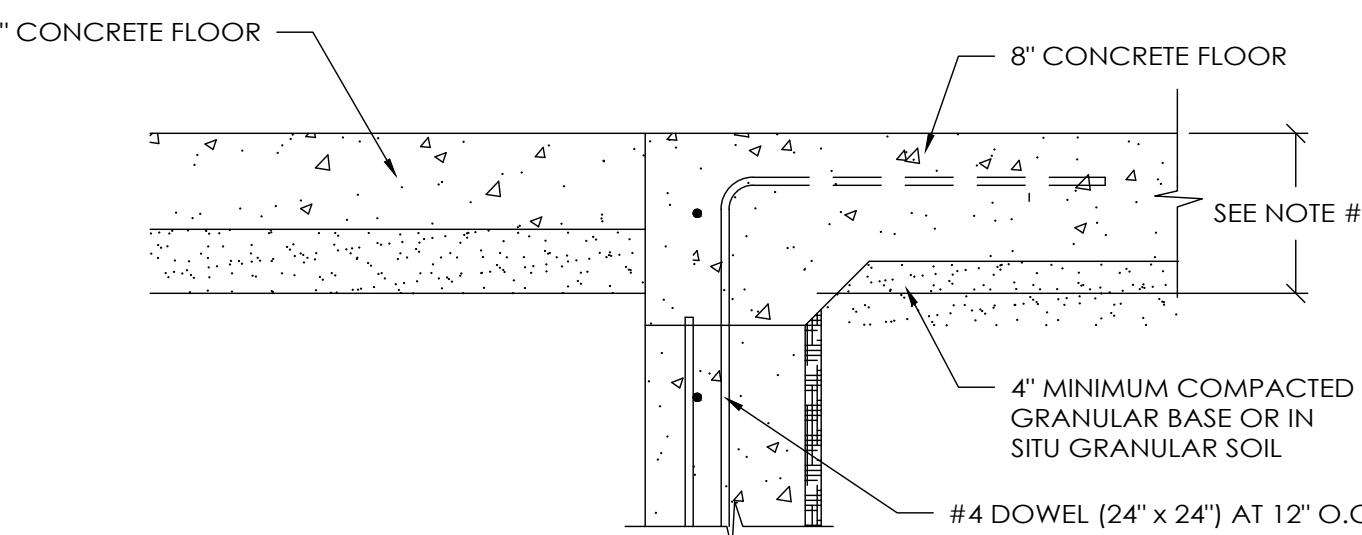
- OVERHEAD DOOR:** The top opening where the door is located.
- 2x3 JAMB:** The vertical frame of the door opening.
- COLUMN:** A vertical support column.
- 2x6 TRACK BLOCK:** A horizontal track block used for the door mechanism.
- 1/4" PER FOOT SLOPE:** The slope of the concrete approach.
- #4 x 48" L.G. @16" O.C. (MIN. 3):** The reinforcement for the concrete approach.
- 8" CONCRETE APPROACH:** The thickness of the concrete approach.
- SEE NOTE #4:** Reference to a note for further details.
- SLOPE GRADE AWAY FROM APPROACH A MINIMUM OF 1/4" PER FOOT SLOPE FOR A MINIMUM DISTANCE OF 5'-0":** The slope requirement for the ground surface away from the approach.
- #4 CONTINUOUS REBAR AROUND PERIMETER:** Reinforcement for the perimeter of the foundation.
- 6", 3", 3", 6":** Dimensions of the foundation wall.
- 36" DEEP WASHED GRAVEL EXPANSION JOINT:** A deep washed gravel expansion joint.
- 1 1/2":** The thickness of the concrete floor.
- 1"** and **1/2" LIP:** The thickness of the concrete floor lip.
- 4" MINIMUM COMPAKTED GRANULAR BASE OR IN SITU GRANULAR SOIL:** The minimum thickness of the granular base.
- #4 DOWEL (24" x 24") AT 12" O.C.:** Dowels used in the foundation.
- 17 1/4":** The total height of the foundation wall.

OVERHEAD DOOR CONCRETE APPROACH SECTION C

A technical drawing of a concrete step. The overall height of the step is 17 1/4". The vertical rise is 7", and the horizontal run is 6". A 1/2" thick lip is shown at the top edge. The slope of the face is indicated as 1/4" SLOPE PER FOOT.

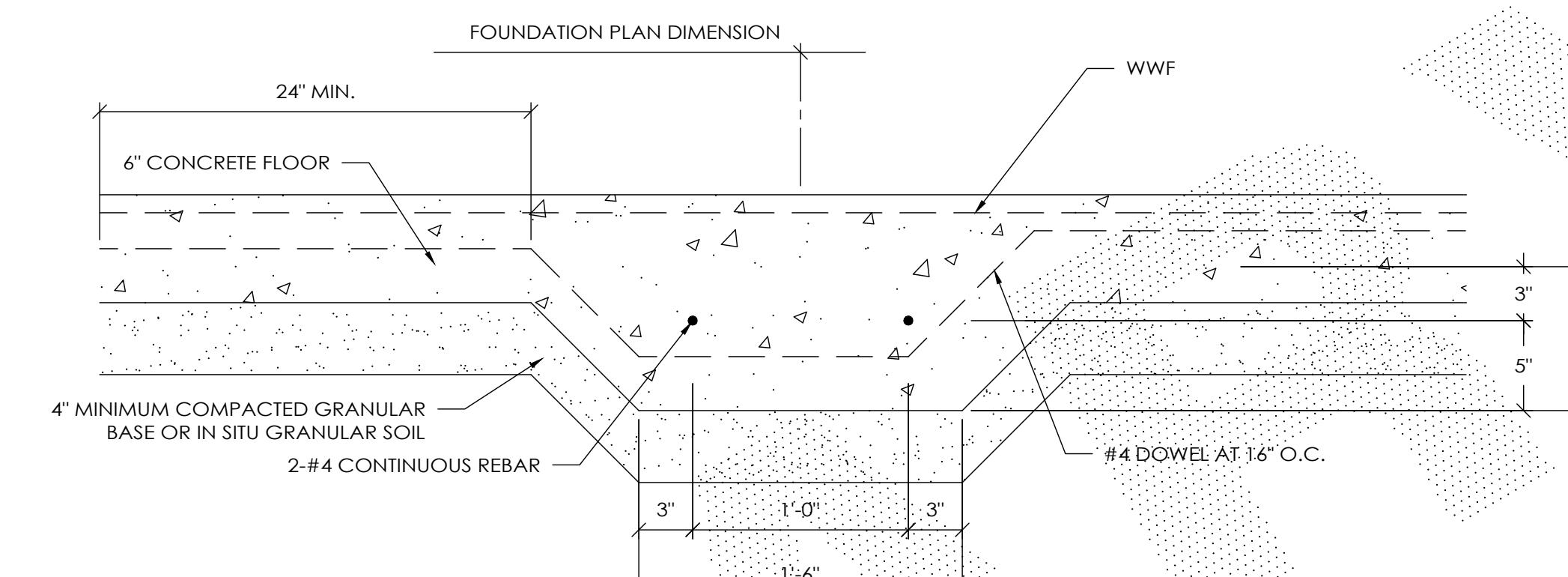
OVERHEAD DOOR CONCRETE JAMB DETAIL

A scale diagram for a room 16' wide. It features a thick black horizontal line representing the wall. Above the line, the width is marked with two tick marks and labeled '16''. Below the line, the width is divided into four equal segments, each labeled '4''. Above the first segment, the label '1'' is centered. Above the third segment, the label '8'' is centered. Above the fourth segment, the label '2'' is centered.



WALK DOOR NOTCH SECTION F

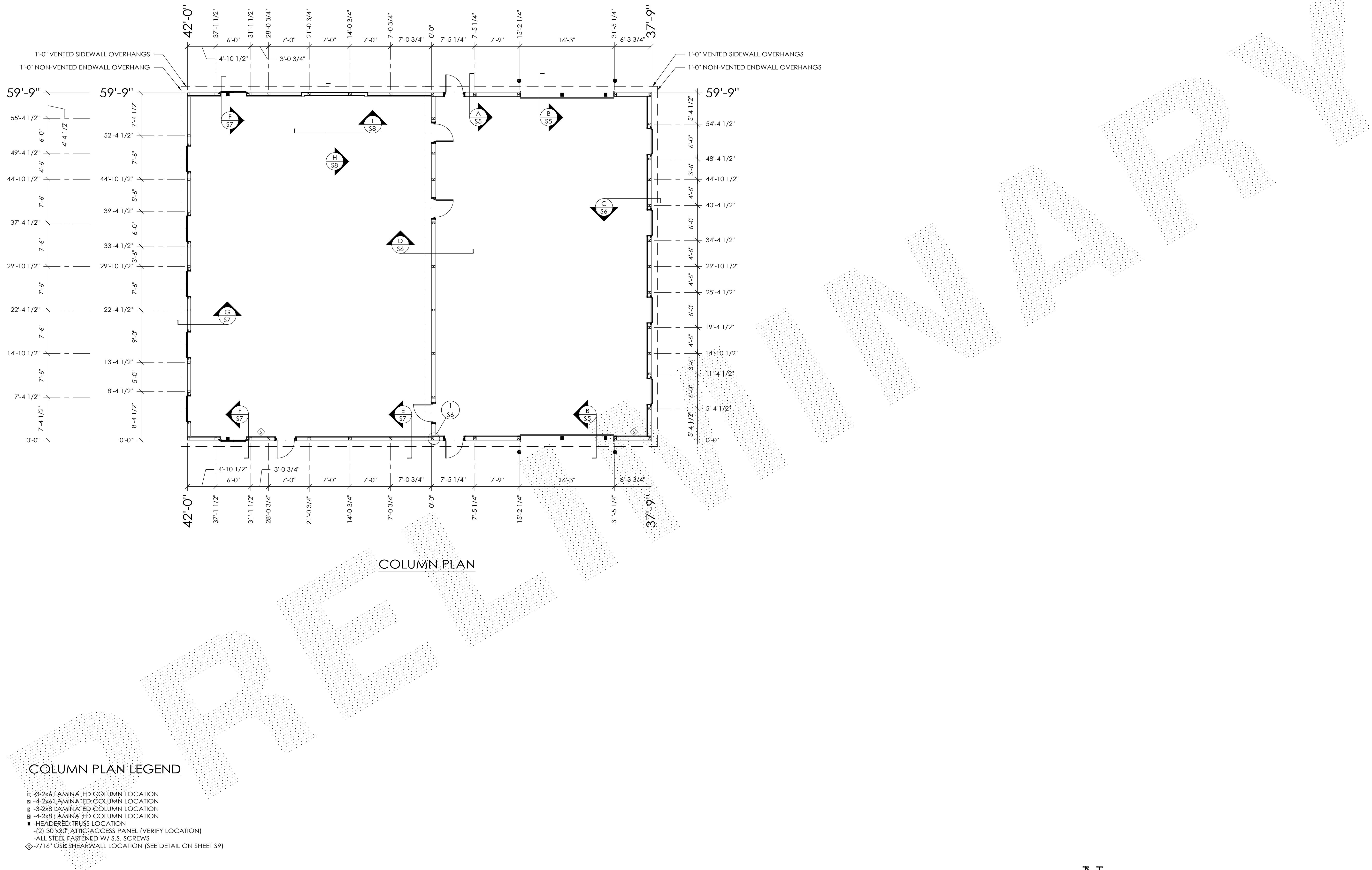
SCALE: 1" = 1'-0"



THICKENED FOOTING SECTION G

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

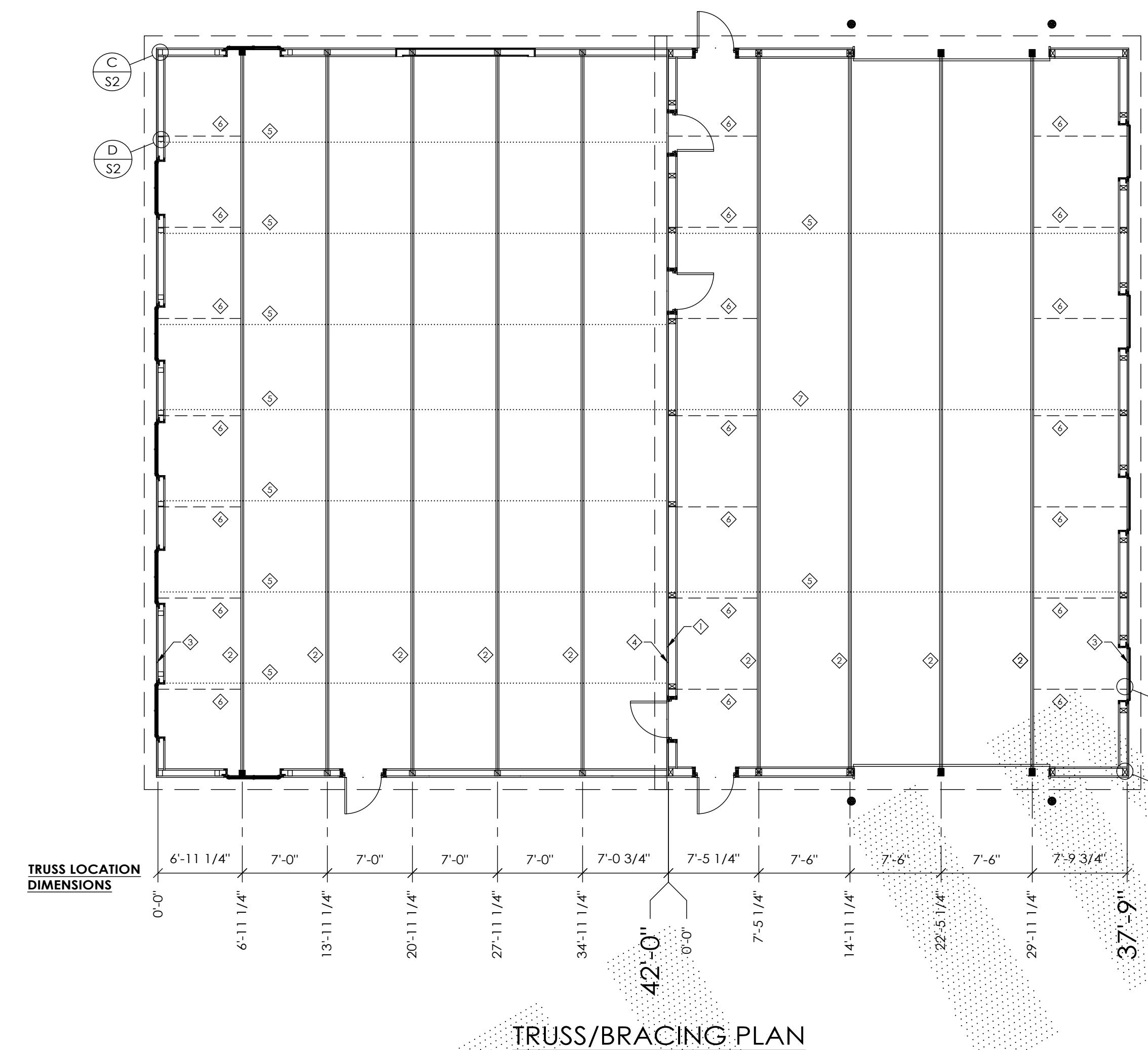
ROOM FOR REINFORCEMENT DETAILS



N

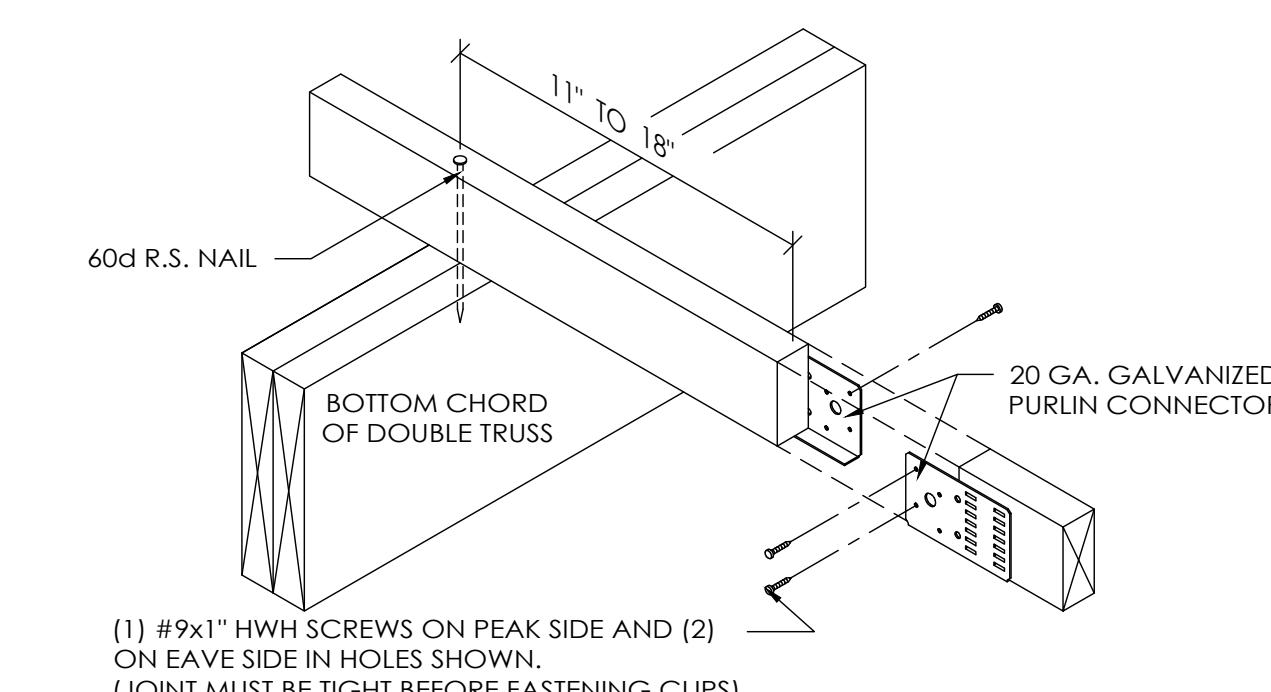
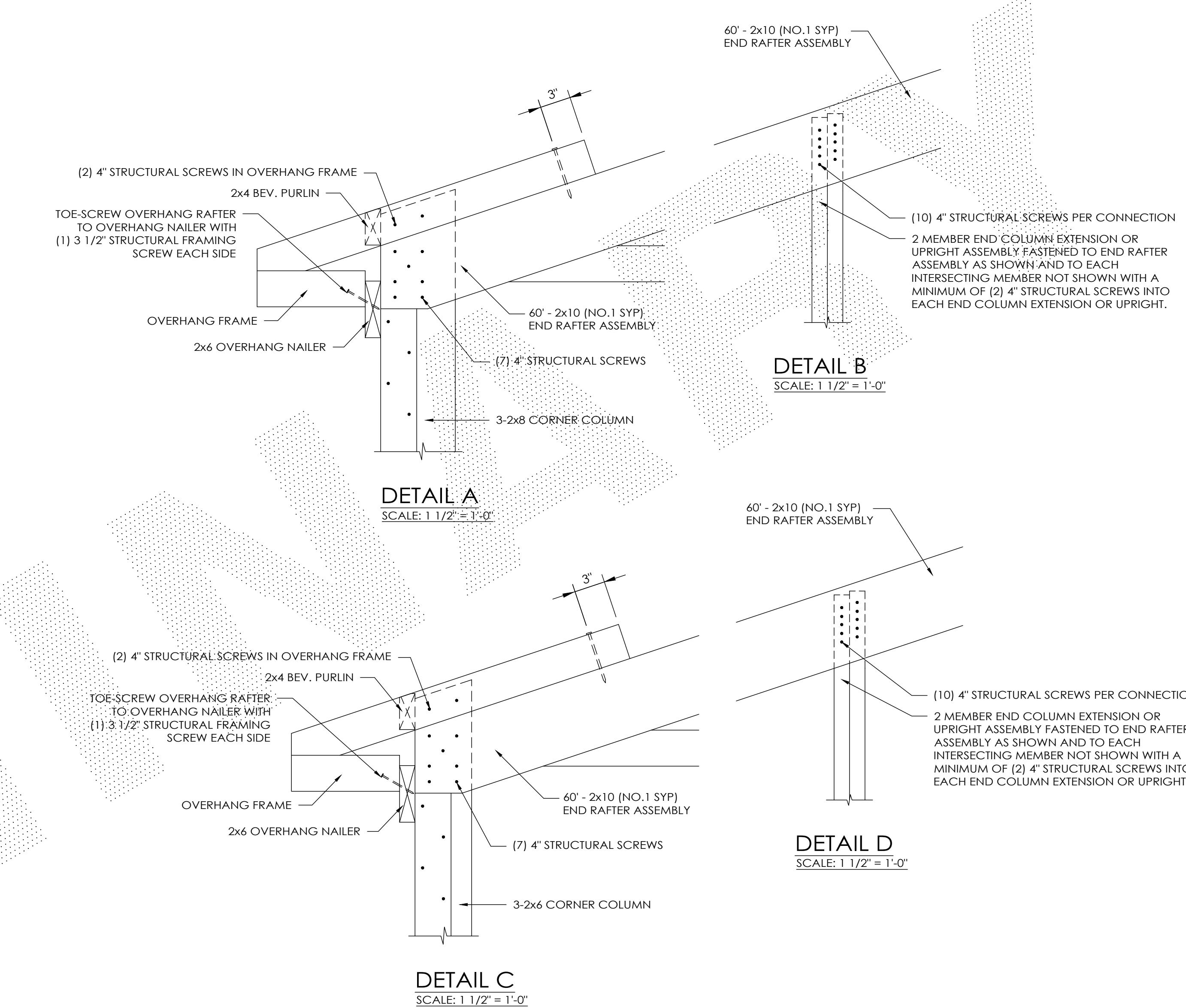
SCALE: 2' 8' 16'

1' 4'

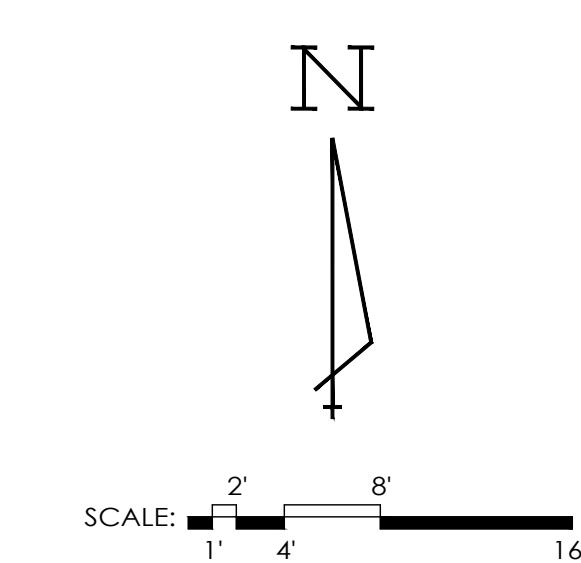


TRUSS/BRACING PLAN LEGEND

- 60'-2090-S1 S.C. TRUSS
- DOUBLE 60'-2090-S1 S.C. TRUSS
- 60'-END RAFTER ASSEMBLY
- 2x10 RAFTER (NO. 1 SYP)
- 2x4 TRUSS TIES
- 2x6 DIAGONAL END BRACES (TO EXTEND TO FIRST TRUSS IN FROM ENDWALL)
- 2x6 FLAT TRUSS TIE CENTERED IN BUILDING

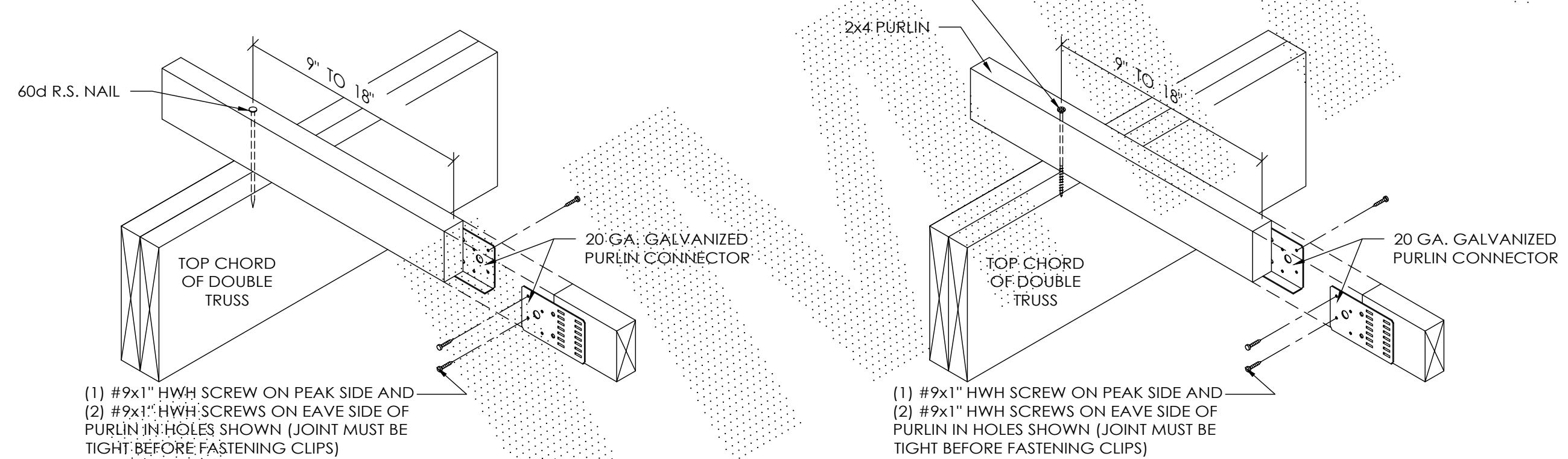
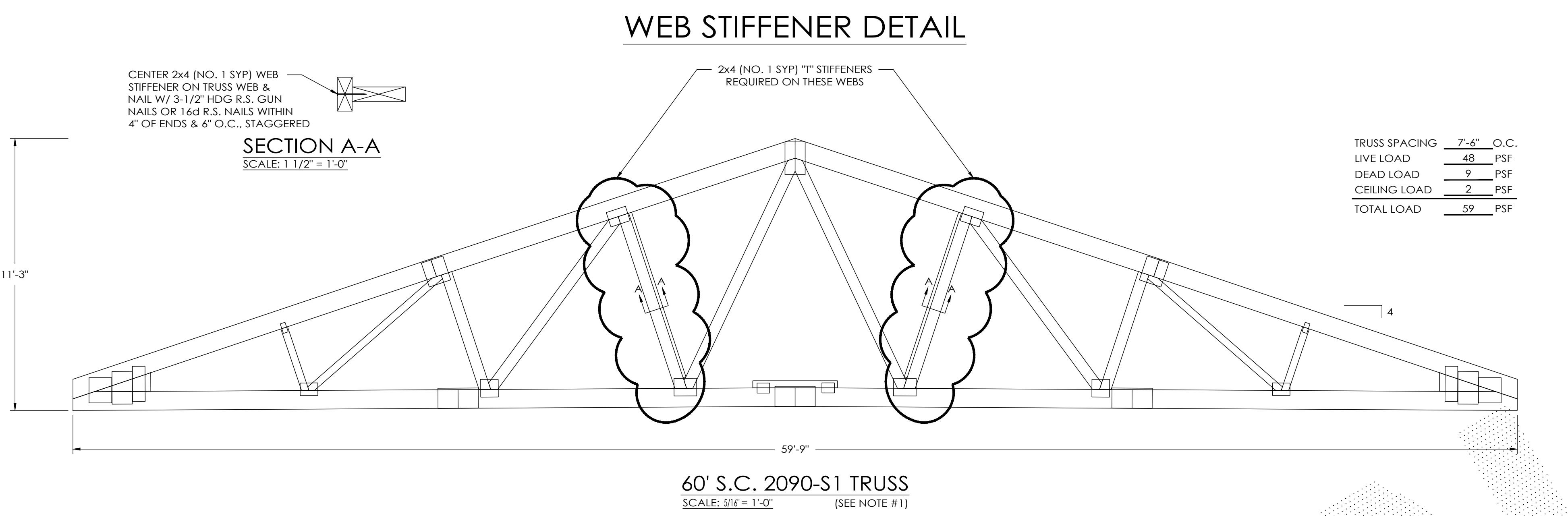


2x4 TRUSS TIE DETAIL
SCALE: 1 1/2" = 1'-0"



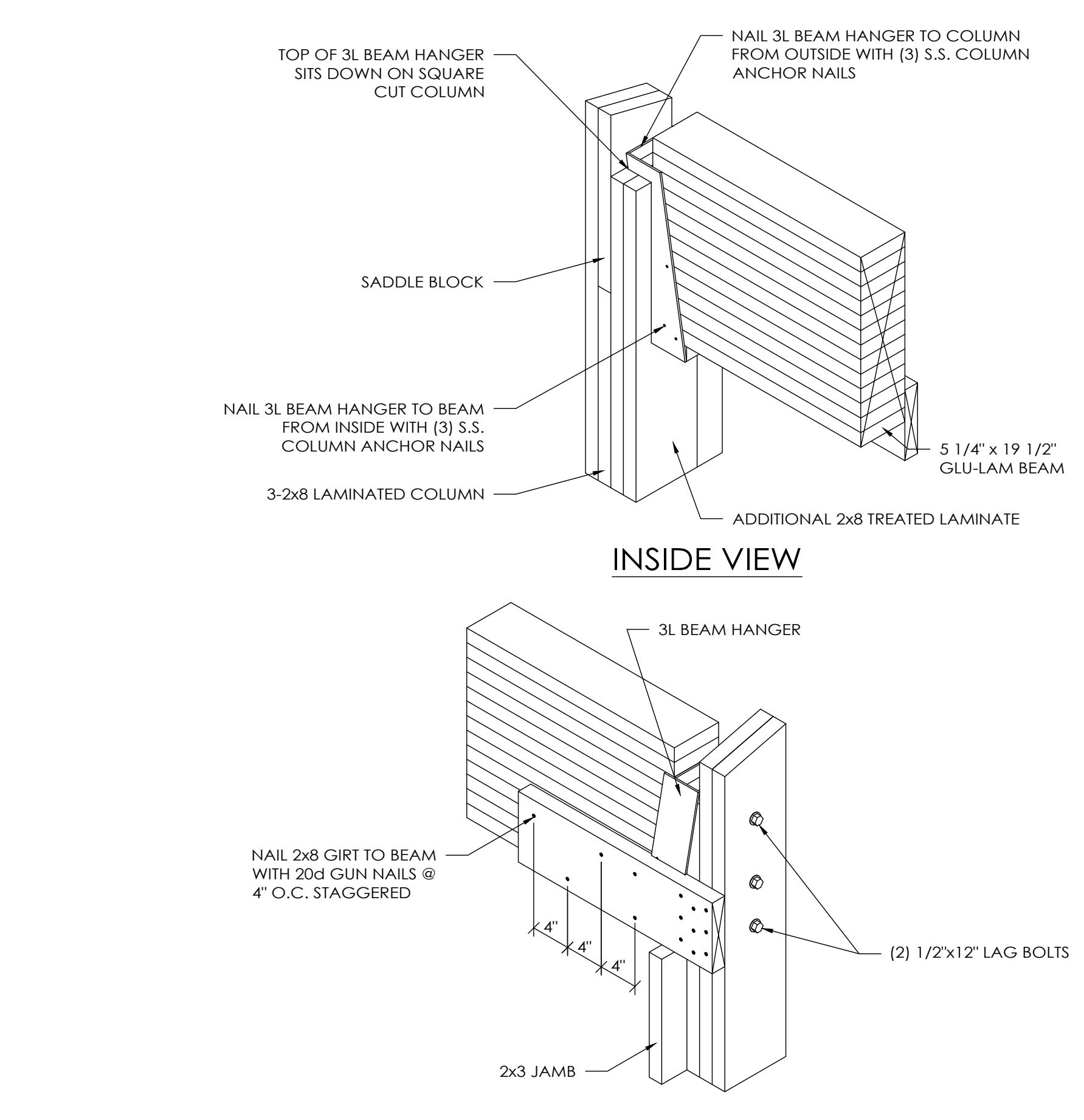
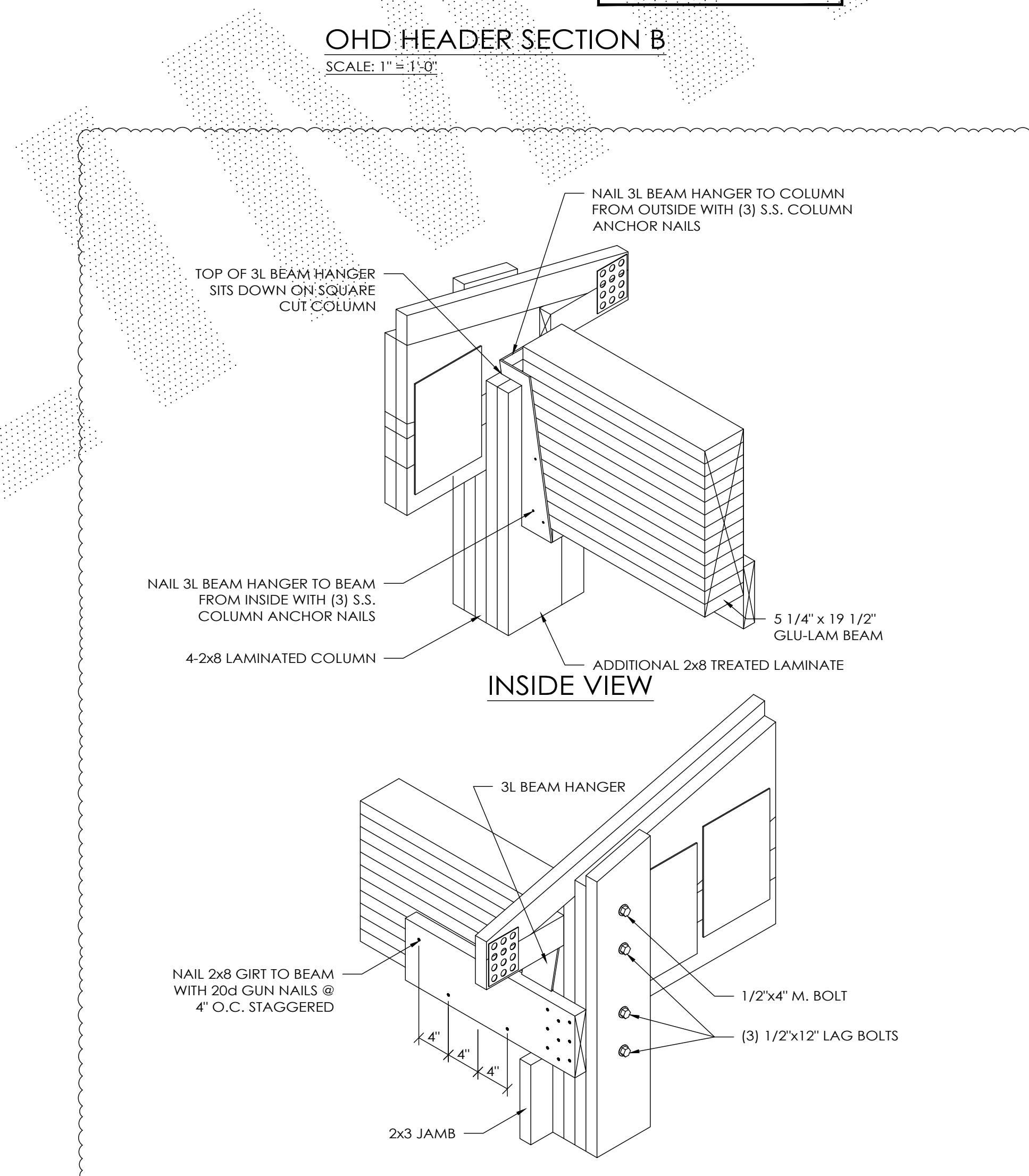
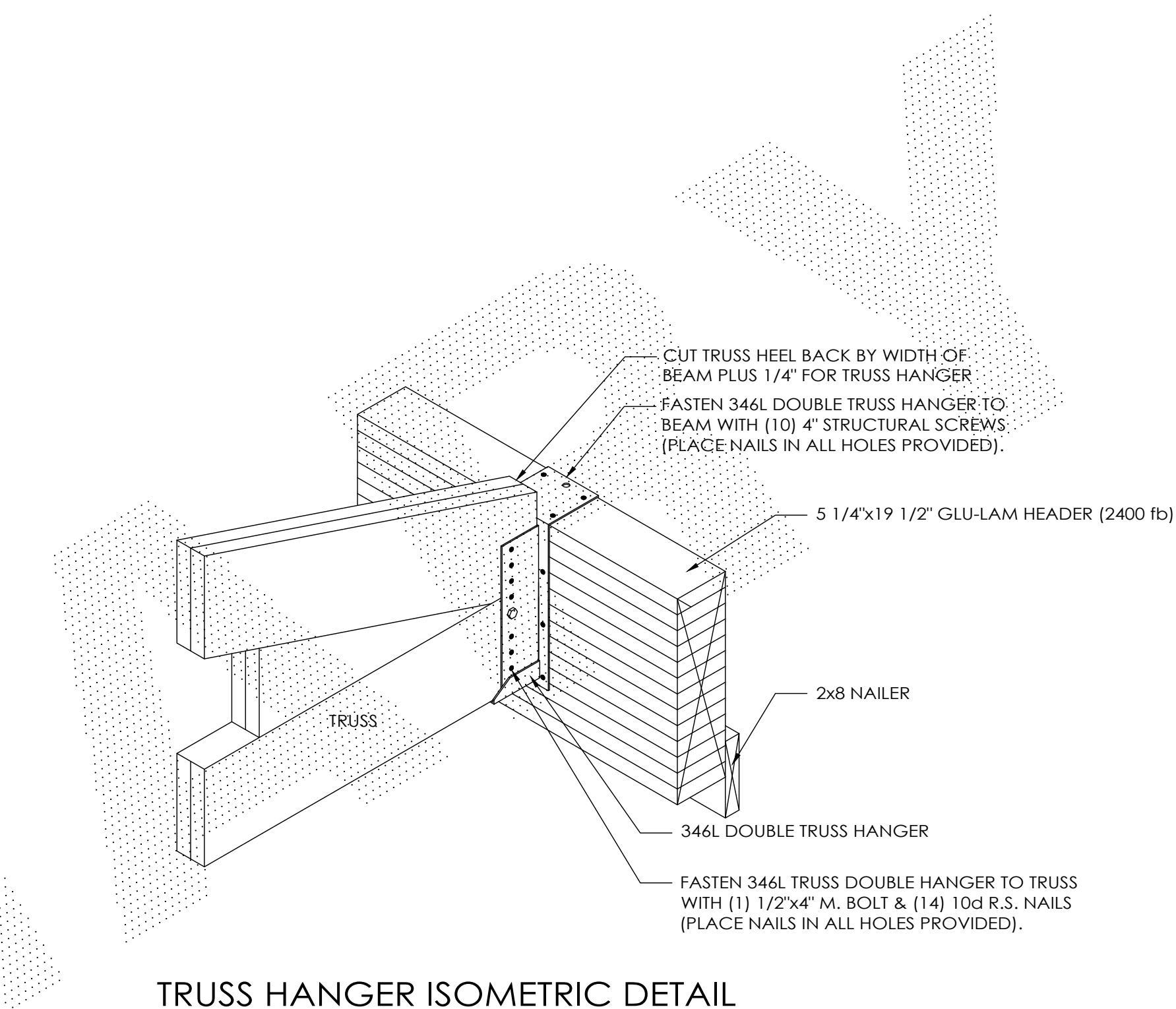
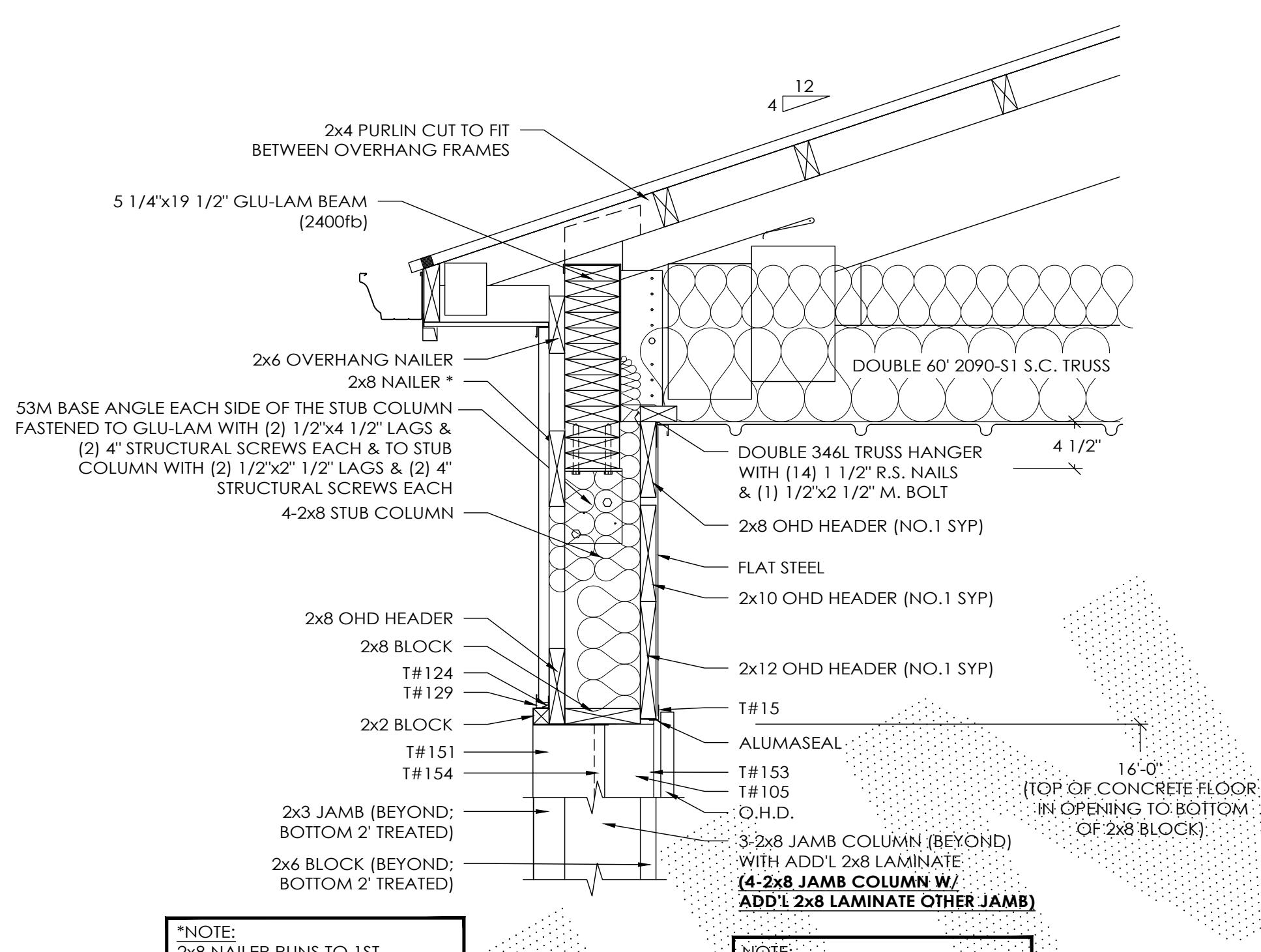
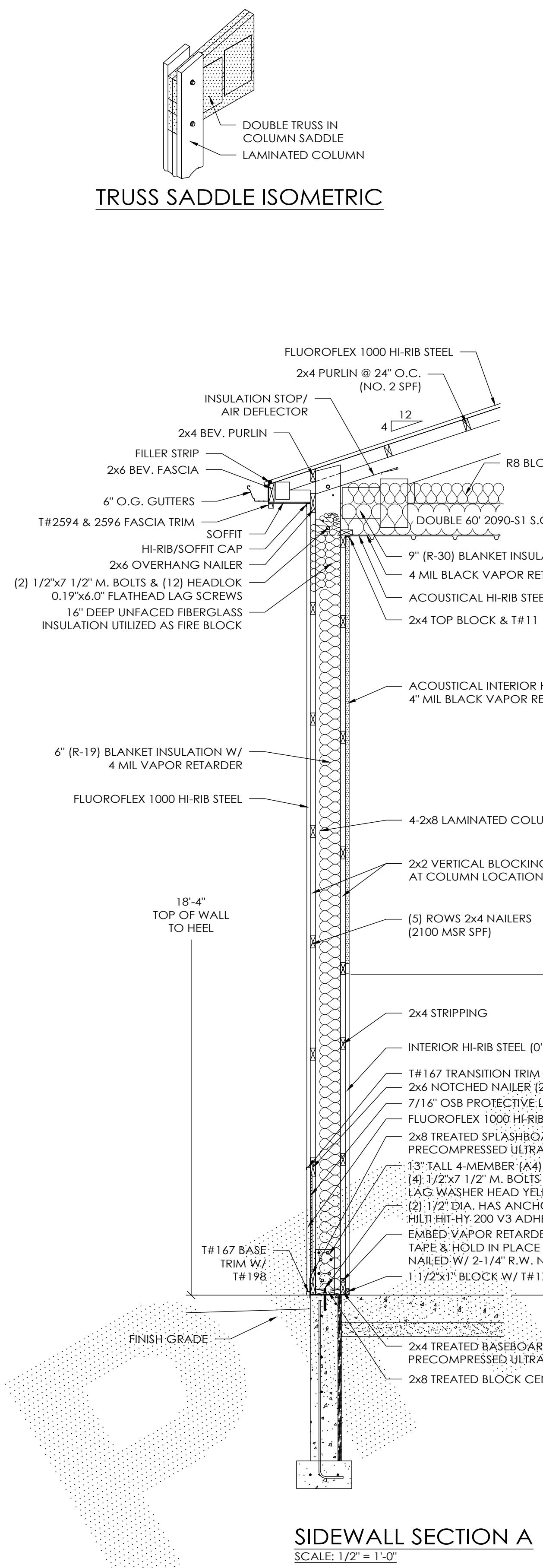
DESIGN AND EXPLANATORY NOTES

1.) TRUSSES ARE USED AS A DOUBLE MEMBER TRUSS ASSEMBLY WHERE NOTED ON THE TRUSS/BRACING PLAN ON SHEET S2. FASTEN TRUSSES TOGETHER FROM ONE SIDE WITH SIMPSON #9x2 1/2" WS212S SCREWS 4" O.C. STAGGERED ALONG TOP CHORD; 8" O.C. STAGGERED ALONG LOWER CHORD AND WEB MEMBERS.



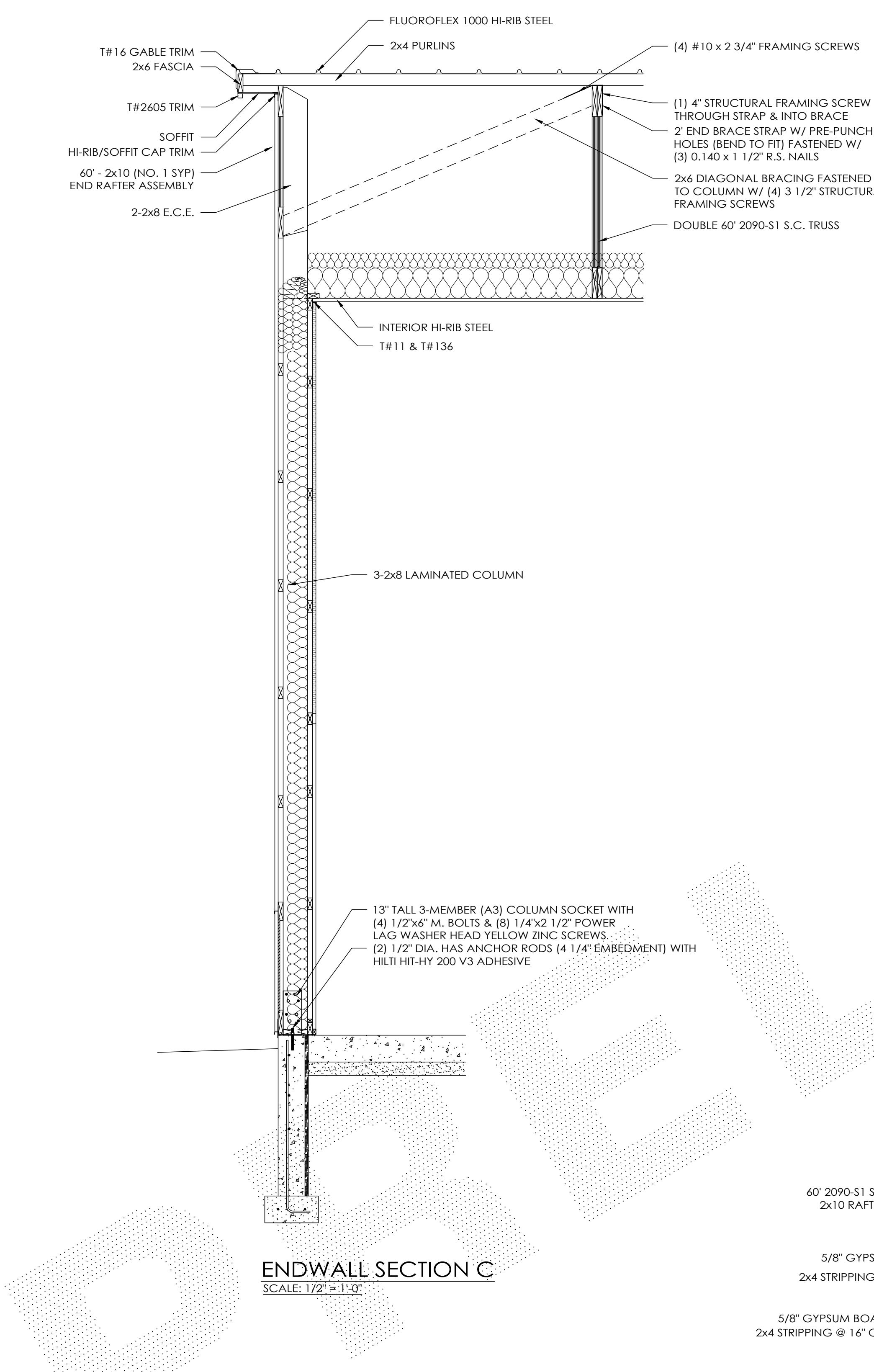
2x4 BUTTED PURFLIN DETAIL
(PURFLIN CONNECTED WITH 60d R.S. NAIL)
SCALE: 1 1/2" = 1'-0"

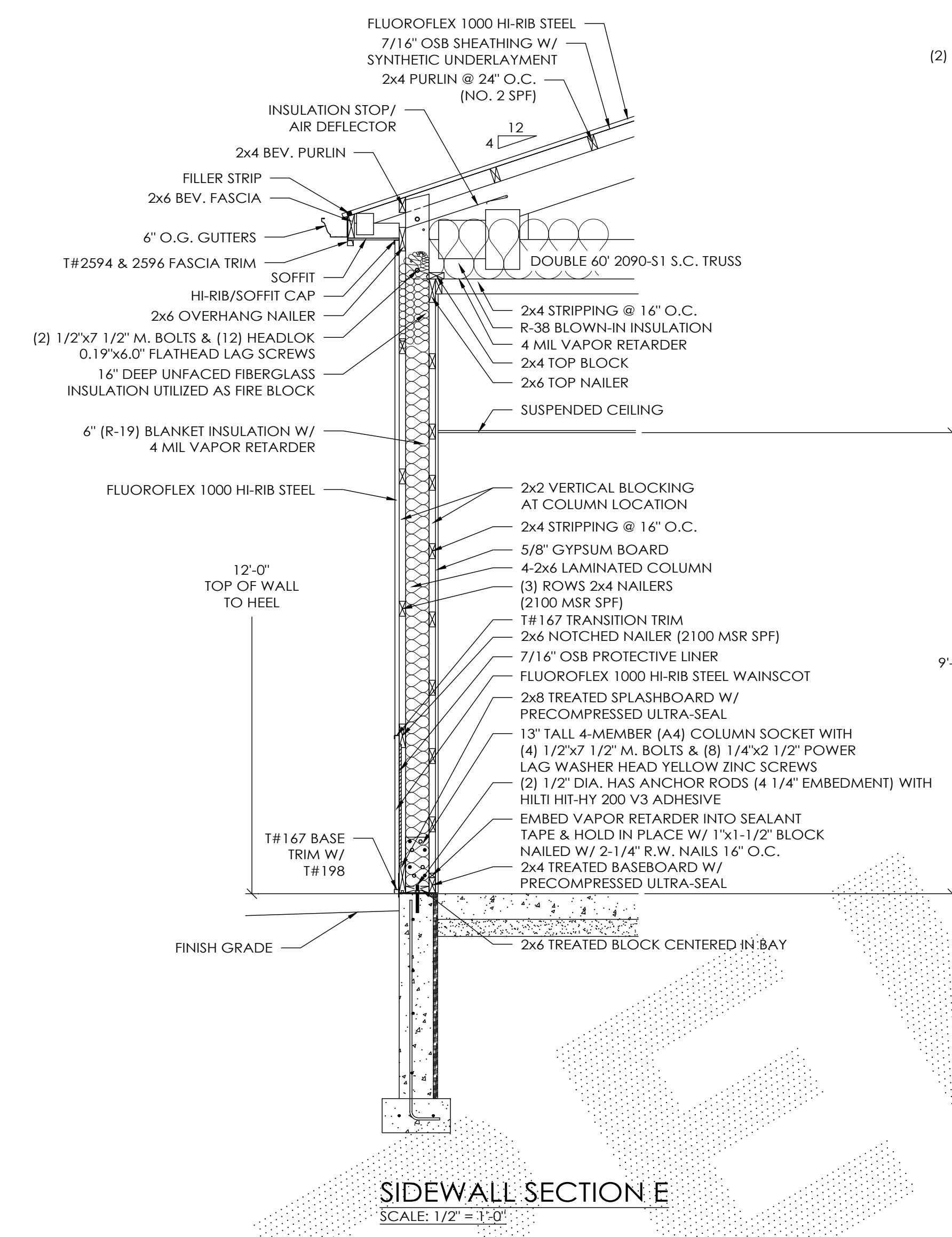
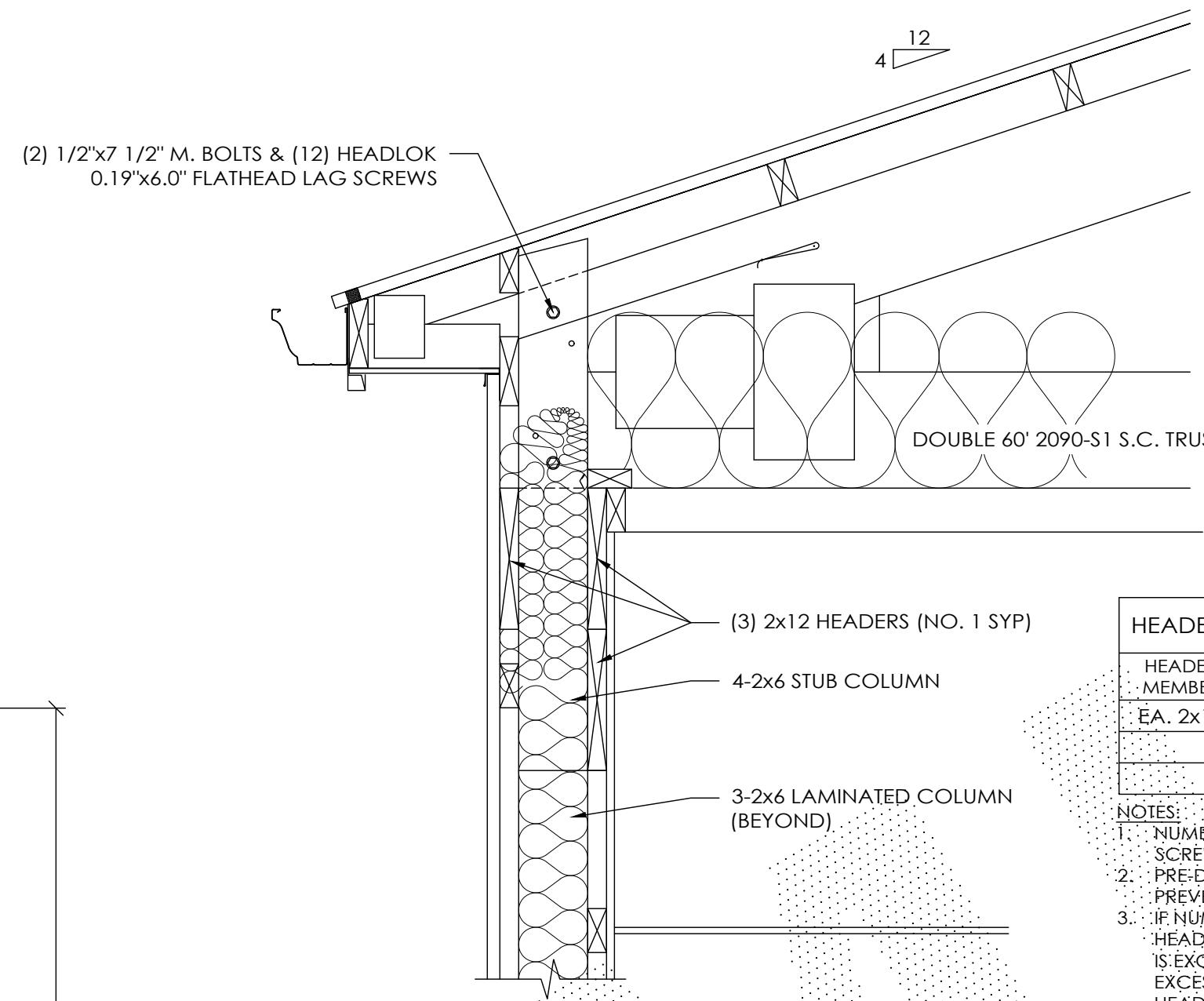
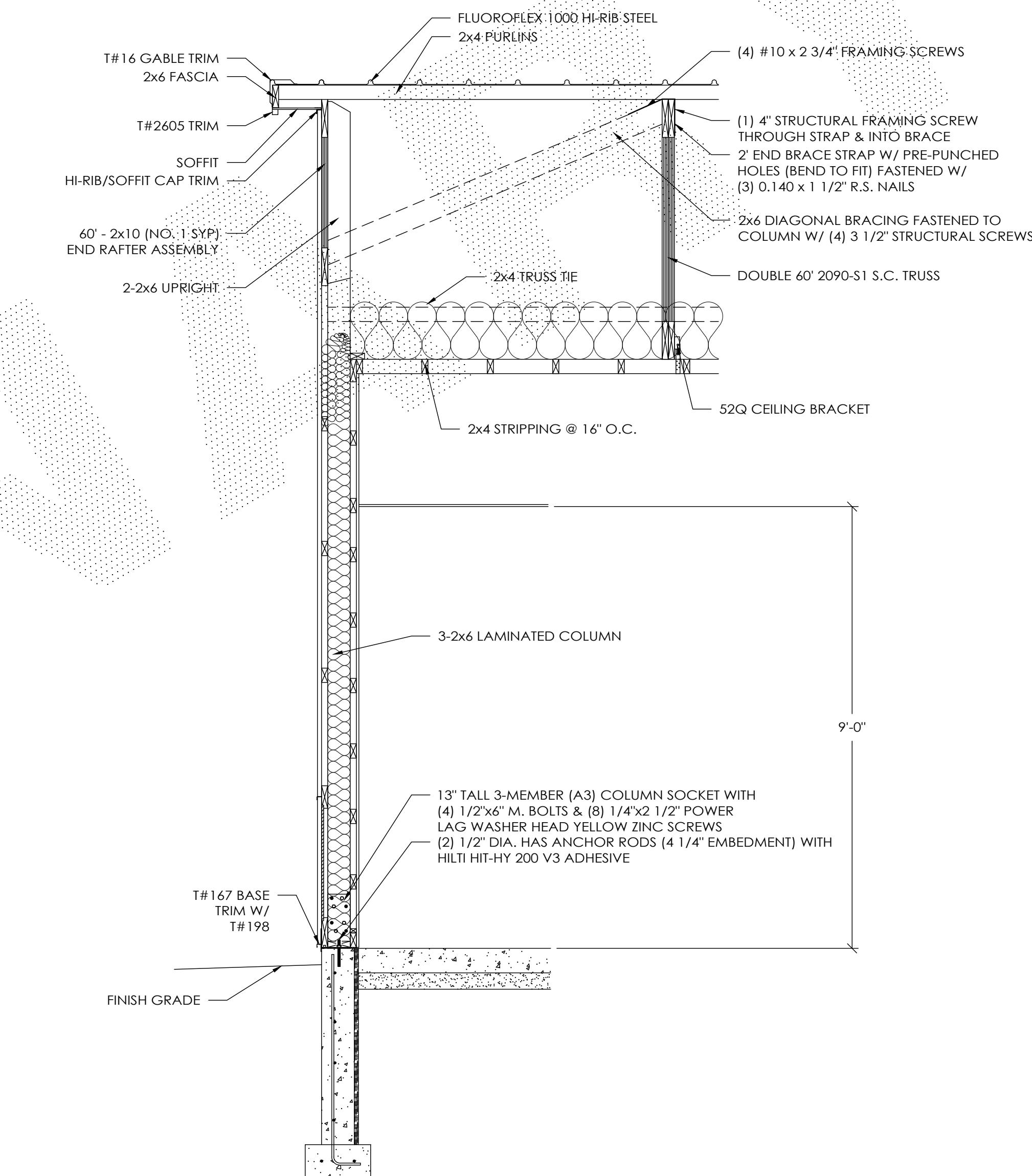
2x4 BUTTED PURFLIN DETAIL
(PURFLIN CONNECTED WITH 6" HEADLOK FLATHEAD LAG SCREW)
SCALE: 1 1/2" = 1'-0"



5 1/4" x 19 1/2" GLU-LAM BEAM JAMB DETAILS

5 1/4" x 19 1/2" GLU-LAM BEAM JAMB DETAILS




 SIDEWALL SECTION E
SCALE: 1/2" = 1'-0"

 HEADER SECTION F
SCALE: 1" = 1'-0"

 ENDWALL SECTION G
SCALE: 1/2" = 1'-0"

