

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.

MFS PRE-CAST CONCRETE COLUMN - MORTON BUILDINGS FOUNDATION SYSTEM IS A PRE-ENGINEERED, 10,000 PSI, STEEL REINFORCED COLUMN FOR BELOW GROUND INSTALLATION. DESIGNED TO BE MECHANICALLY FASTENED TO ABOVE GROUND NAIL LAMINATED COLUMNS. THE SYSTEM IS DESIGNED TO RESIST BOTH AXIAL AND BENDING FORCES.

FOOTINGS AND ANCHORAGE - COLUMN HOLES ARE DUG A MINIMUM DEPTH OF 4'-0" BELOW GRADE (SEE PLANS FOR DIAMETER AND DEPTH). MFS PRE-CAST CONCRETE COLUMNS ARE PLACED IN THE HOLE. CONCRETE (MINIMUM COMPRESSIVE STRENGTH 2500 PSI) IS POURED IN PLACE TO THE SPECIFIED THICKNESS (SEE PLANS FOR REQUIRED THICKNESS ABOVE AND BELOW THE COLUMN). THE COLUMN IS THEN BACKFILLED WITH SOIL AND COMPACTED AT 8" INTERVALS OR BACKFILLED WITH CONCRETE (SEE PLANS).

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 & ROOFING PANELS (FLUOROFLEX 1000 TM) - 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 MFS 09/20

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CURRENT LUMBER SPECIFICATIONS (06-01-2013)		
SIZE	DESCRIPTION	BENDING VALUE Fb
2x4	NO. 2 SPF	1313 PSI
2x4	NO. 1 SYP	1500 PSI
2x4	2100f MSR SPF	2100 PSI
2x6	NO. 2 SPF	1138 PSI
2x6	NO. 1 SYP	1350 PSI
2x6	2100f 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	2250f MSR SYP	2250 PSI
1 1/2"x16"	LAMINATED VENEER LUMBER	2800 PSI
3 1/2"x15"	GLU-LAM	1650 PSI
5 1/4"x16 1/2"	GLU-LAM	2400 PSI
5 1/4"x19 1/2"	GLU-LAM	2400 PSI

BUILDING DESIGN CRITERIA	
CONSTRUCTION TYPE	VB
RISK CATEGORY	II
ROOF SNOW LOAD *	26 PSF
GROUND SNOW LOAD	30 PSF
WIND SPEED (Vult)	115 MPH
WIND SPEED (Vasd)	89 MPH

*ROOF SNOW LOAD CALCULATIONS

Pf = 0.7 x Ce x I x Pg x Ct
Ce = SNOW EXPOSURE FACTOR = 1.0
I = IMPORTANCE FACTOR = 1.0
Pg = GROUND SNOW LOAD = 30 PSF
Ct = THERMAL FACTOR = 1.2
Pf = 0.7 x 1.0 x 1.0 x 30 x 1.2 = 25.20 PSF
Cs = ROOF SLOPE FACTOR = 1.00
Ps = Pf x Cs = 25.20 x 1.00 = 25.20 PSF

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.) NO ONE MAY ALTER ANY ENGINEERING ITEM UNLESS ACTING UNDER THE DIRECTION OF THE LICENSED / REGISTERED ENGINEER .
- 4.) ♦ 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.
- 5.) ARCHITECTURAL PLANS ARE NOT PROVIDED BY ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C. AND ARE THE OWNER'S RESPONSIBILITY.



Date: 2024.08.09
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Handwritten signature of Adam Crutchley.

I HEREBY CERTIFY THAT THE STRUCTURAL DESIGN FOR THIS BUILDING CONSISTING OF (6) PAGES WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED STRUCTURAL ENGINEER.

ADAM CRUTCHLEY
adam.crutchley@allieddesignaes.com
LICENSED STRUCTURAL ENGINEER #081-007507
EXP. DATE 11-30-24

ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C. PROFESSIONAL DESIGN FIRM-ARCHITECTURAL AND PROFESSIONAL ENGINEERING CORPORATION LICENSE #184-003480

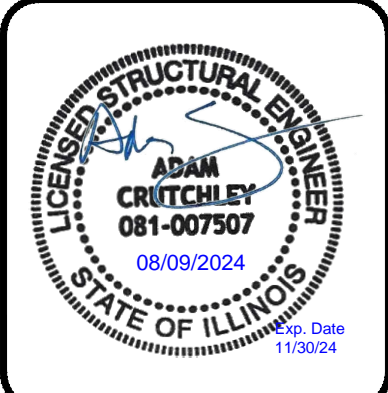
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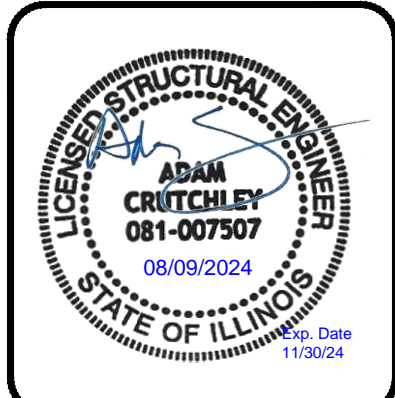
ALLIED DESIGN ARCHITECTURAL & ENGINEERING GROUP, P.C.
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100 S. PESSHING P.O. BOX 110 MORTON, IL 61550
IL PRO.F.DESIGN FIRM # 184003480
PHONE NUMBER: 309-263-105

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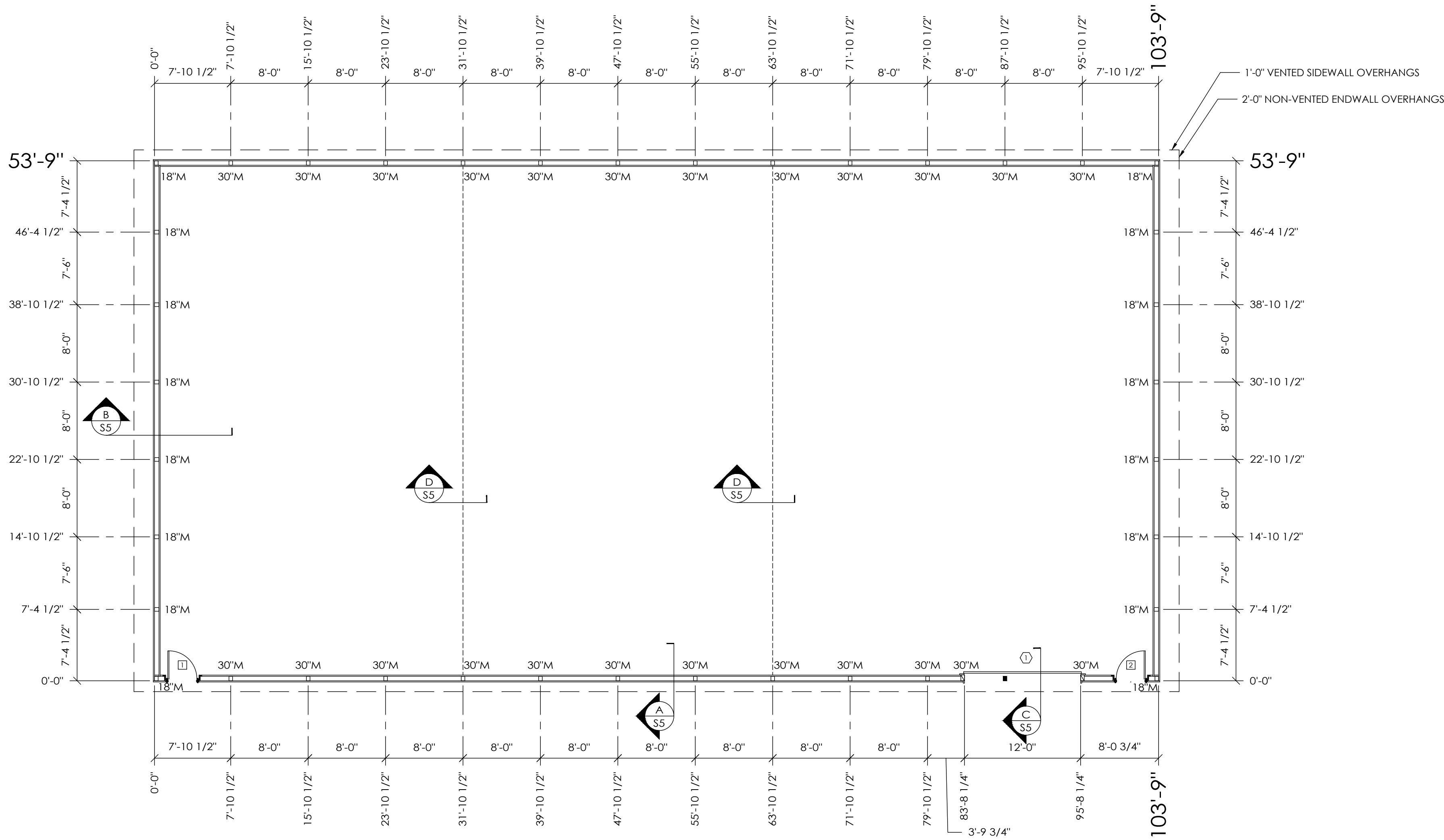


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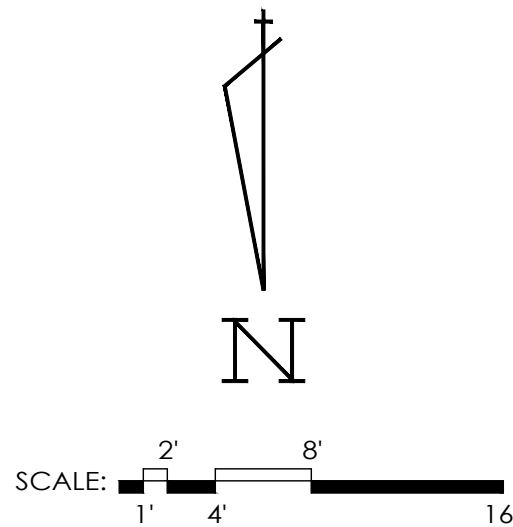


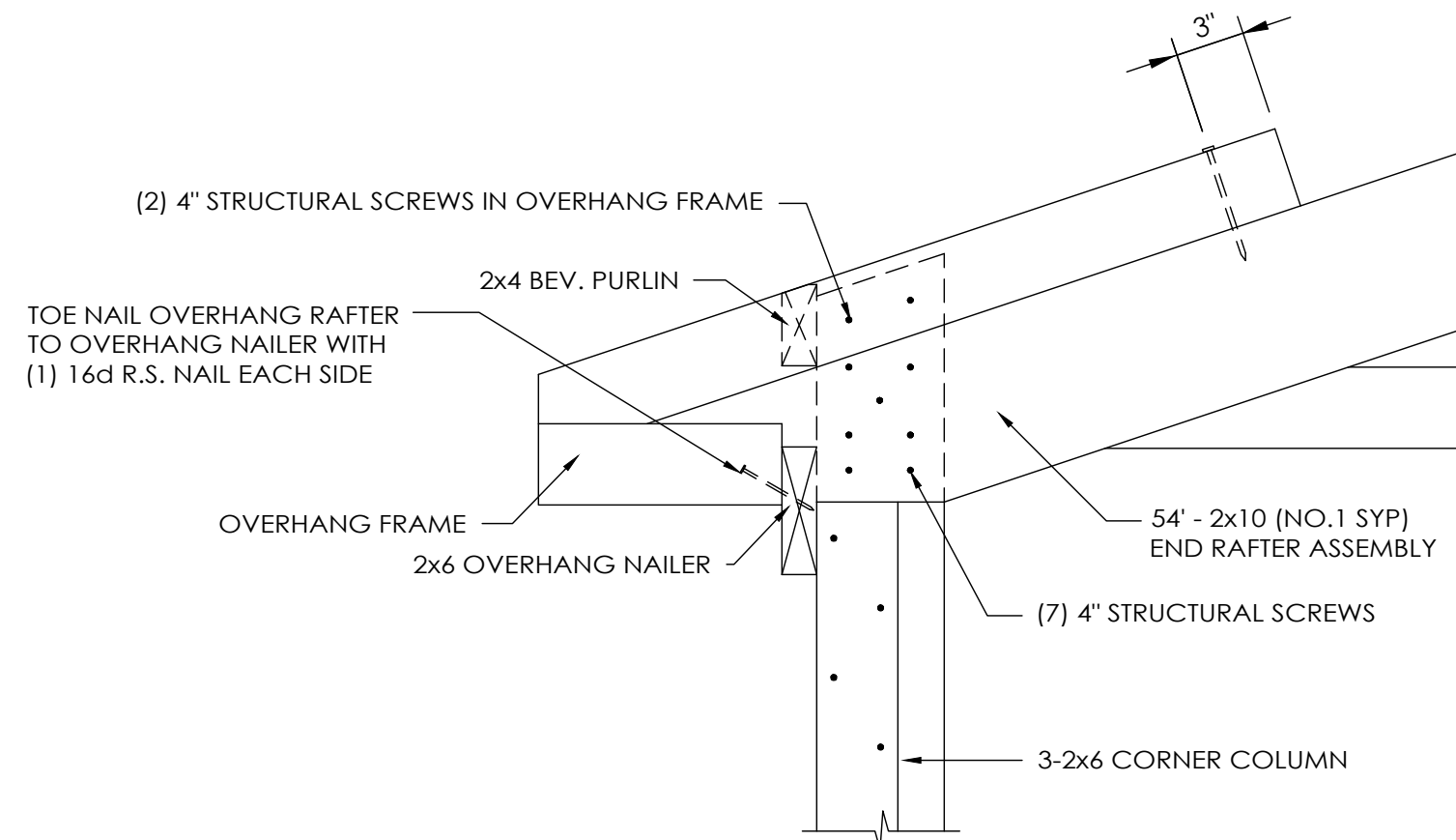
COLUMN PLAN

COLUMN PLAN LEGEND

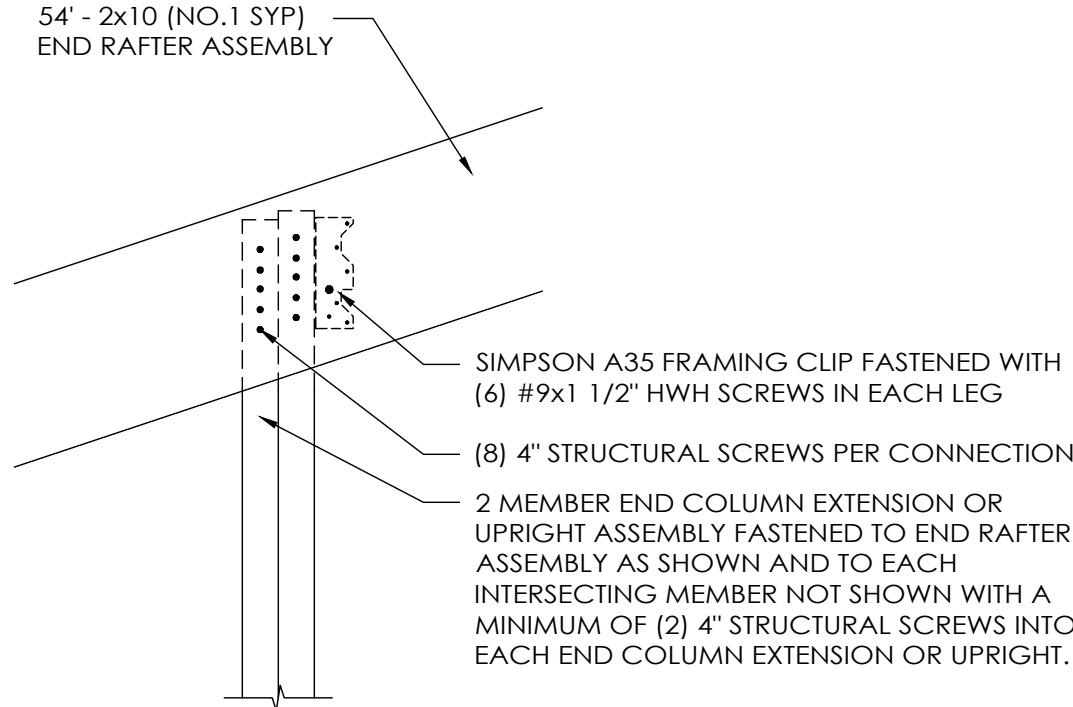
- 3-2x6 LAMINATED COLUMN LOCATION
- 3-2x8 LAMINATED COLUMN LOCATION
- HEADERED TRUSS LOCATION
- 3068 PLAIN FLAT LEAF FIBERSTEEL WALKDOOR, IN SWING, RIGHT HINGE WITH LOCKSET
- 3068 PLAIN FLAT LEAF FIBERSTEEL WALKDOOR, IN SWING, LEFT HINGE WITH LOCKSET
- 12'-2"x14'-1" OVERHEAD DOOR (Umax=0.25)
- (3) 30x30 ATTIC ACCESS PANEL (VERIFY LOCATION)
- ALL STEEL FASTENED WITH STAINLESS STEEL SCREWS
- 18" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x14" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN. PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.
- 30" DIAMETER FOOTING WITH 4" TO BOTTOM OF 21" THICK CONCRETE PAD (2500 PSI MINIMUM), 20" BELOW BOTTOM OF PRECAST CONCRETE COLUMN AROUND EXPOSED REBAR CAGE AND 3/4"x14" THREADED ROD WITH AN ADDITIONAL MINIMUM 1" ABOVE BOTTOM OF PRECAST CONCRETE COLUMN. PLACE CONCRETE BELOW AND ABOVE BOTTOM OF LOWER COLUMN IN ONE OPERATION.

ROUGH OPENING SCHEDULE		
UNIT SYMBOL FROM LEGEND	WIDTH	HEIGHT
1	38 1/4"	81"
2	38 1/4"	81"

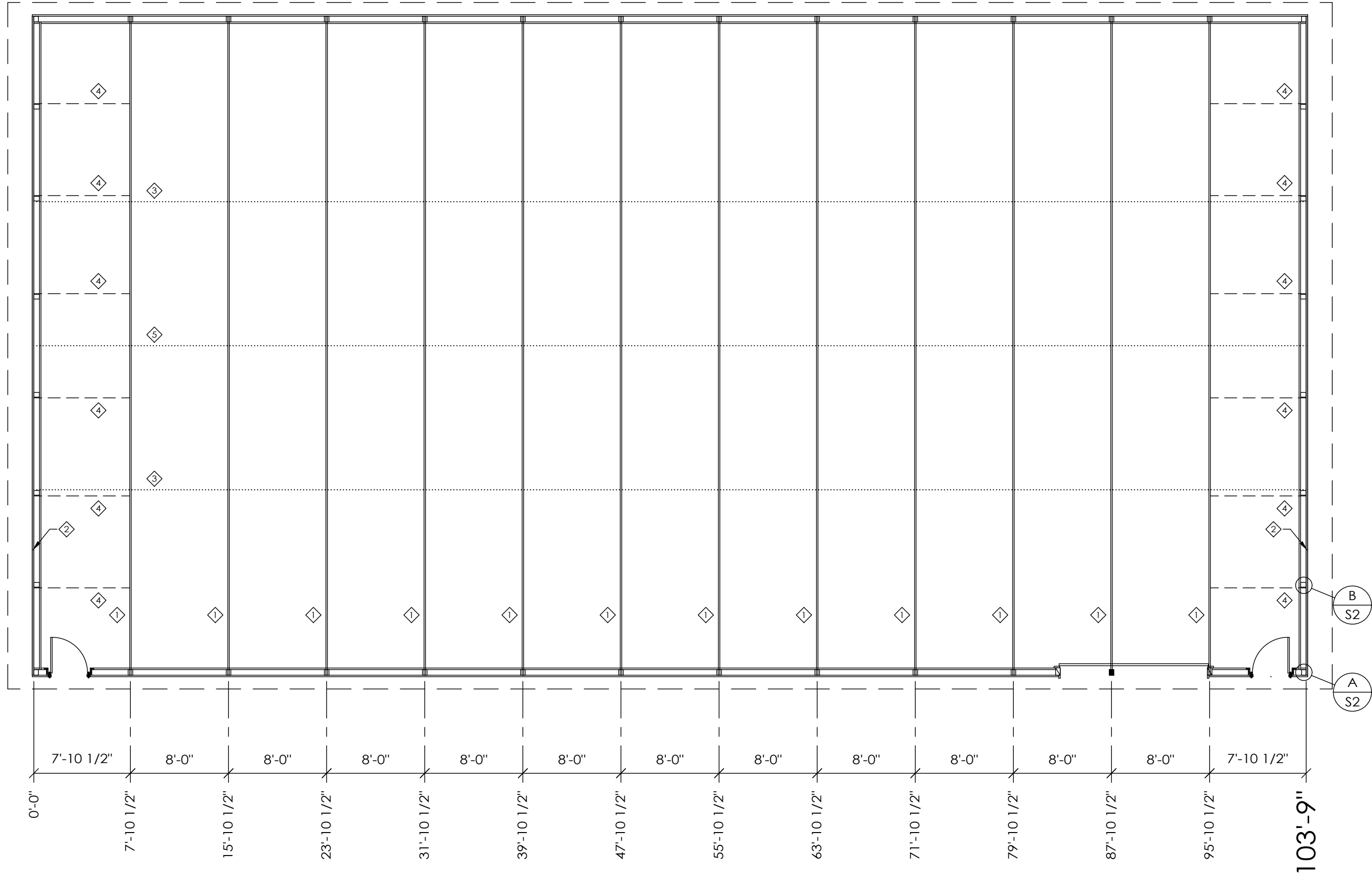




DETAIL A
SCALE: 1 1/2" = 1'-0"



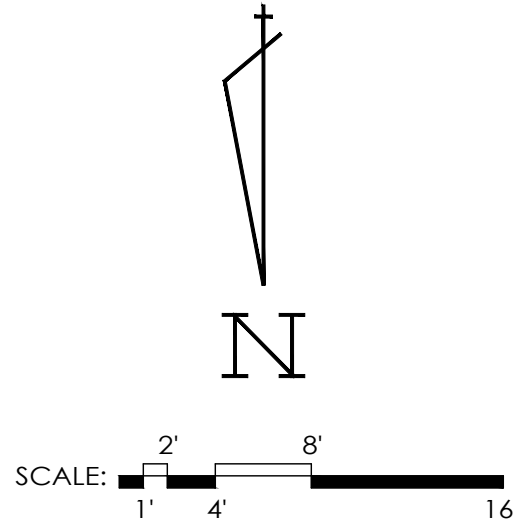
DETAIL B
SCALE: 1 1/2" = 1'-0"



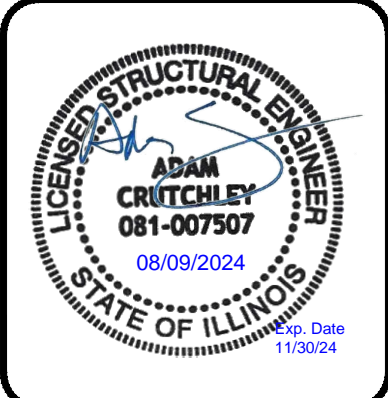
TRUSS/BRACING PLAN

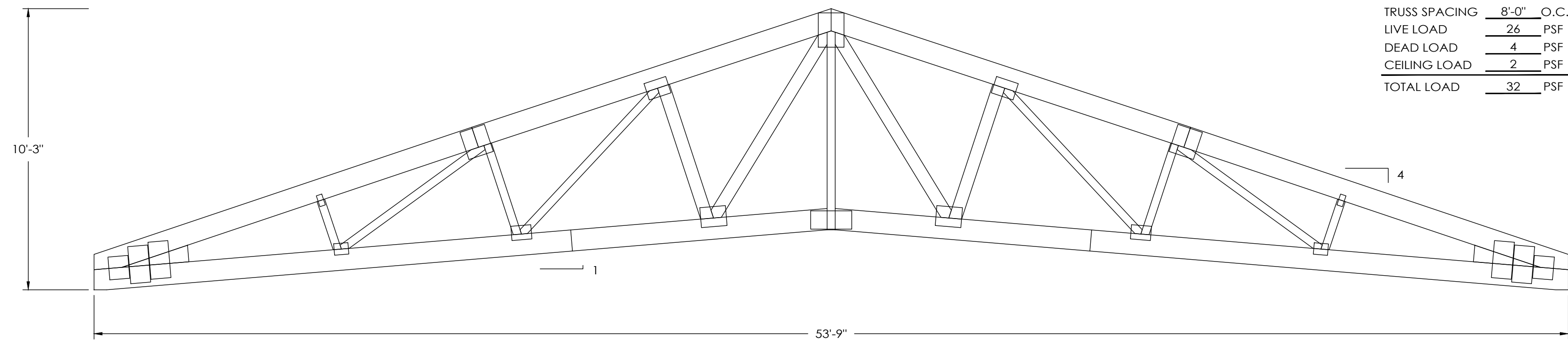
TRUSS/BRACING PLAN LEGEND

- ◇ - 54' 2090-S1 R.C. TRUSS
- ◇ - 54' END RAFTER ASSEMBLY
- ◇ - 2x4 TRUSS TIES
- ◇ - 2x6 DIAGONAL END BRACES (TO EXTEND TO FIRST TRUSS IN FROM ENDWALL)
- ◇ - 2x6 FLAT TRUSS TIE CENTERED IN BUILDING

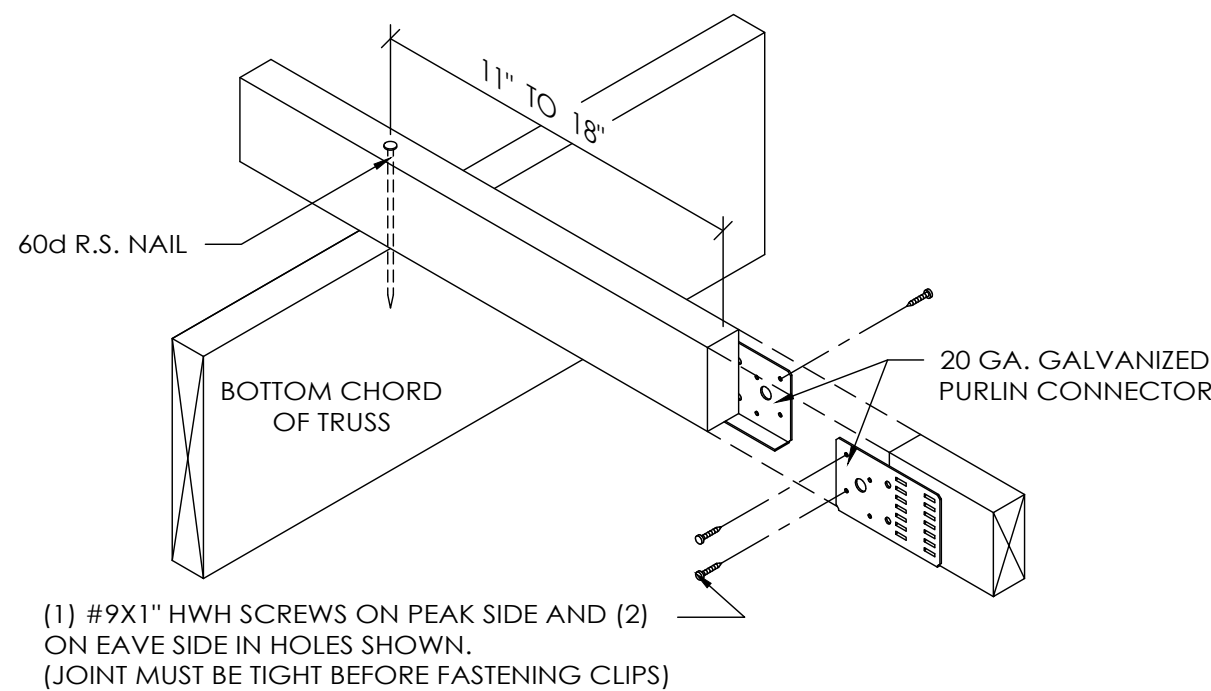


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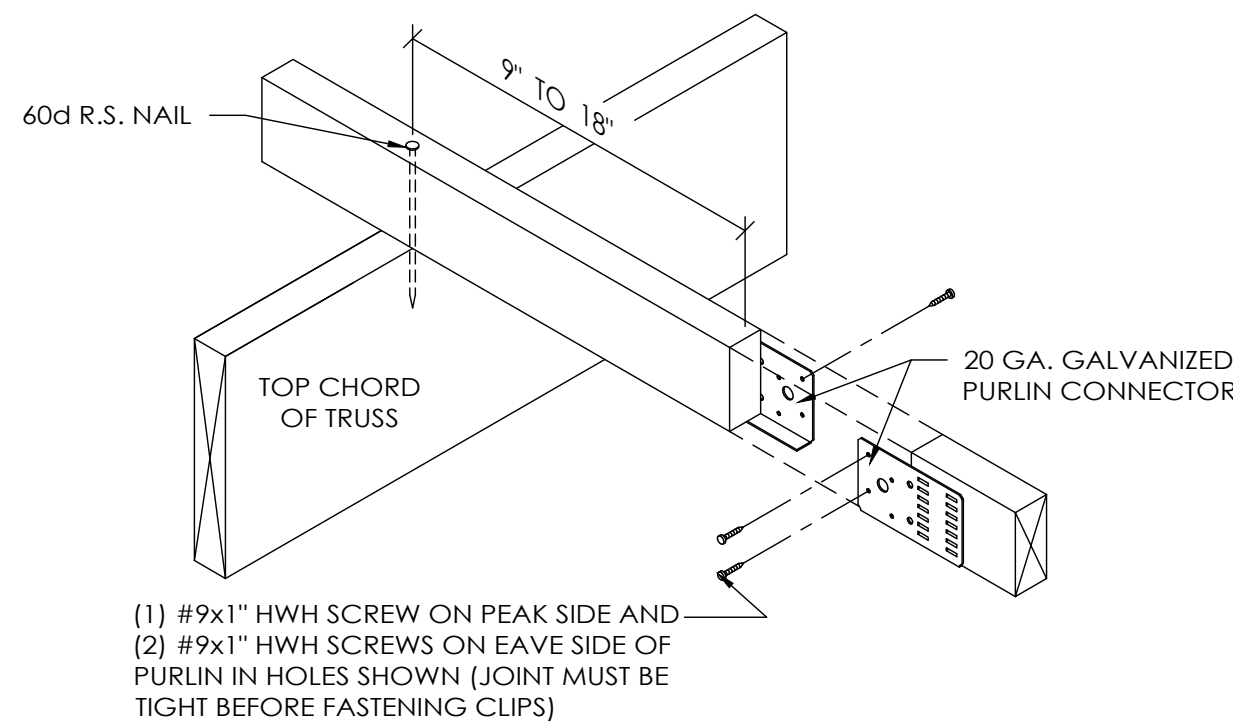




54' R.C. 2090-S1 TRUSS
SCALE: 5/16" = 1'-0"

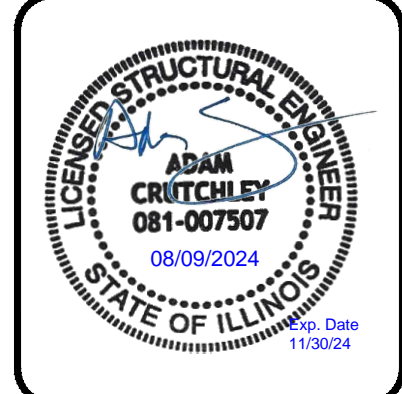


2x4 TRUSS TIE DETAIL
SCALE: 1 1/2" = 1'-0"



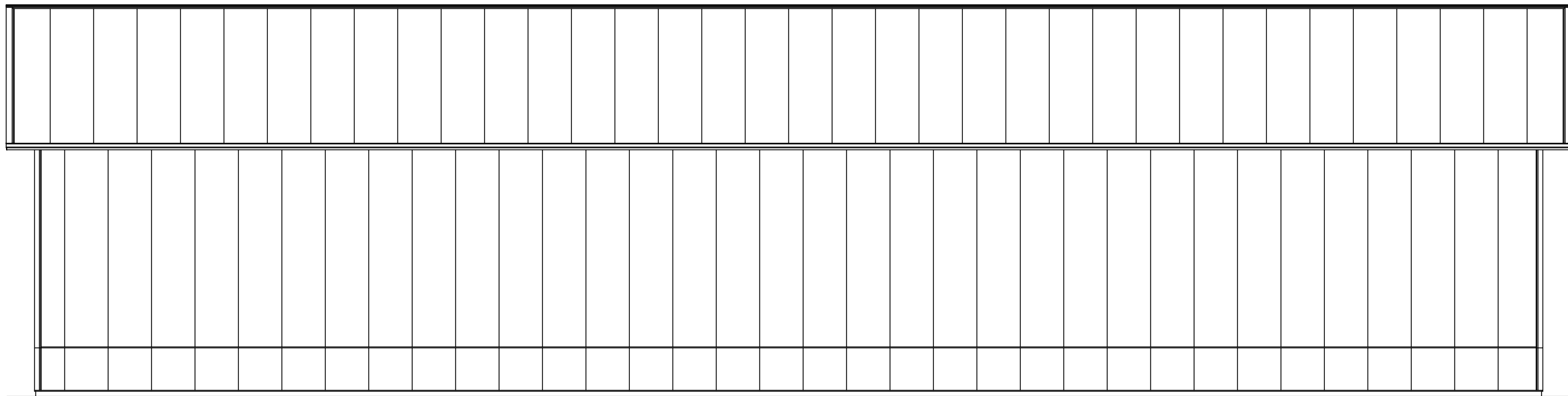
2x4 BUTTED PURLIN DETAIL
(PURLIN CONNECTED WITH 60D R.S. NAIL)
SCALE: 1 1/2" = 1'-0"

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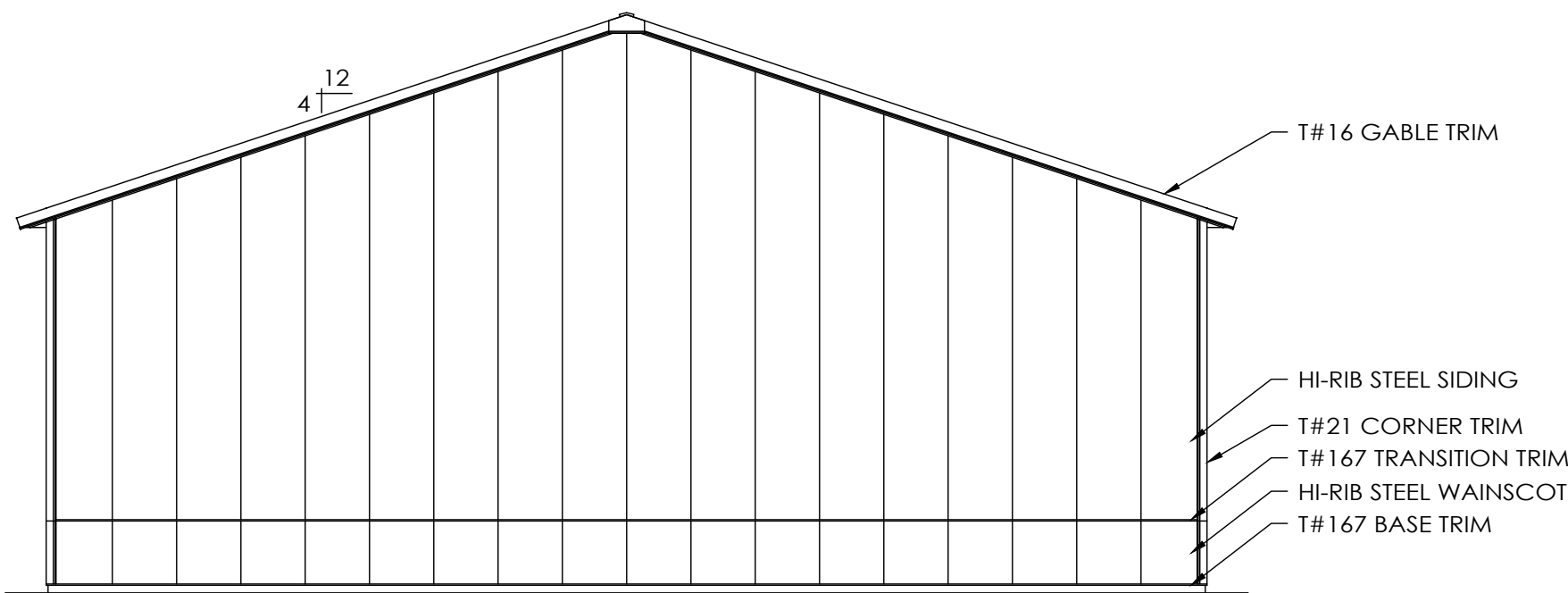


DESIGN AND EXPLANATORY NOTES

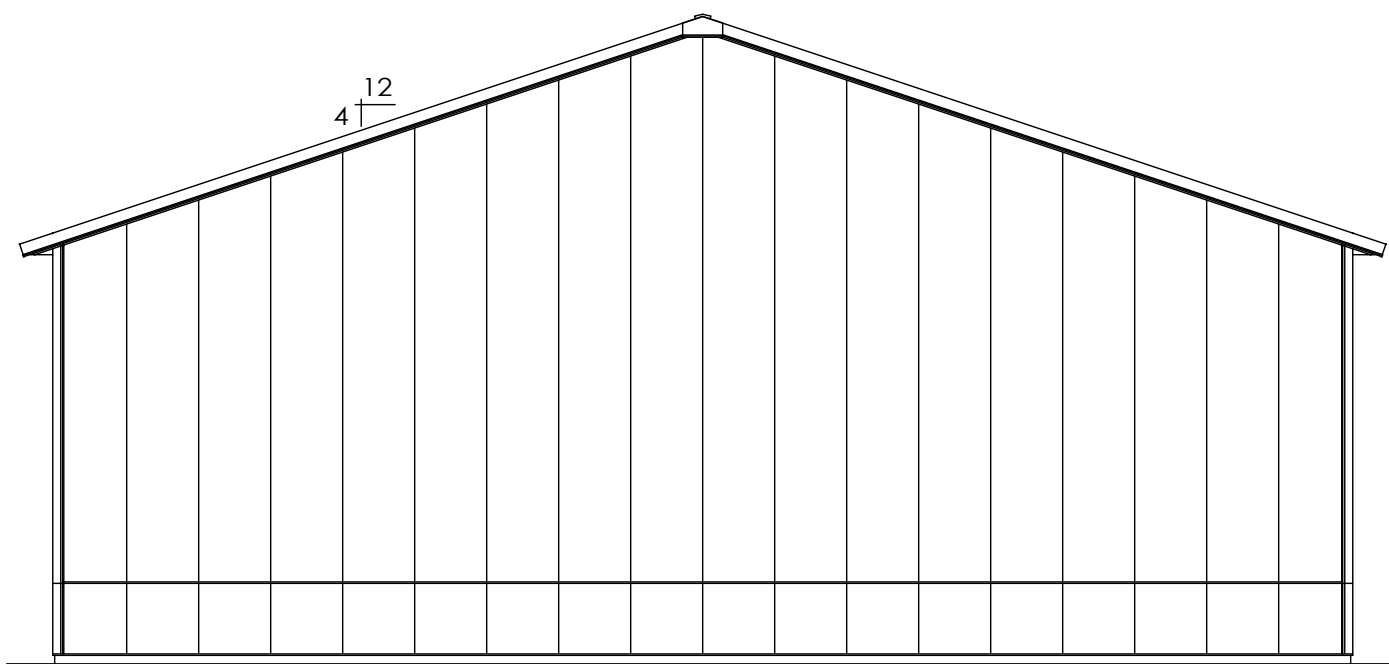
1.) EXTERIOR DOOR LOCATIONS ARE TAKEN FROM THE EXTERIOR FACE OF THE NAILERS AND ARE TO THE CENTER OF THE DOOR UNIT. VERIFY ALL DOOR LOCATIONS WITH THE OWNER.



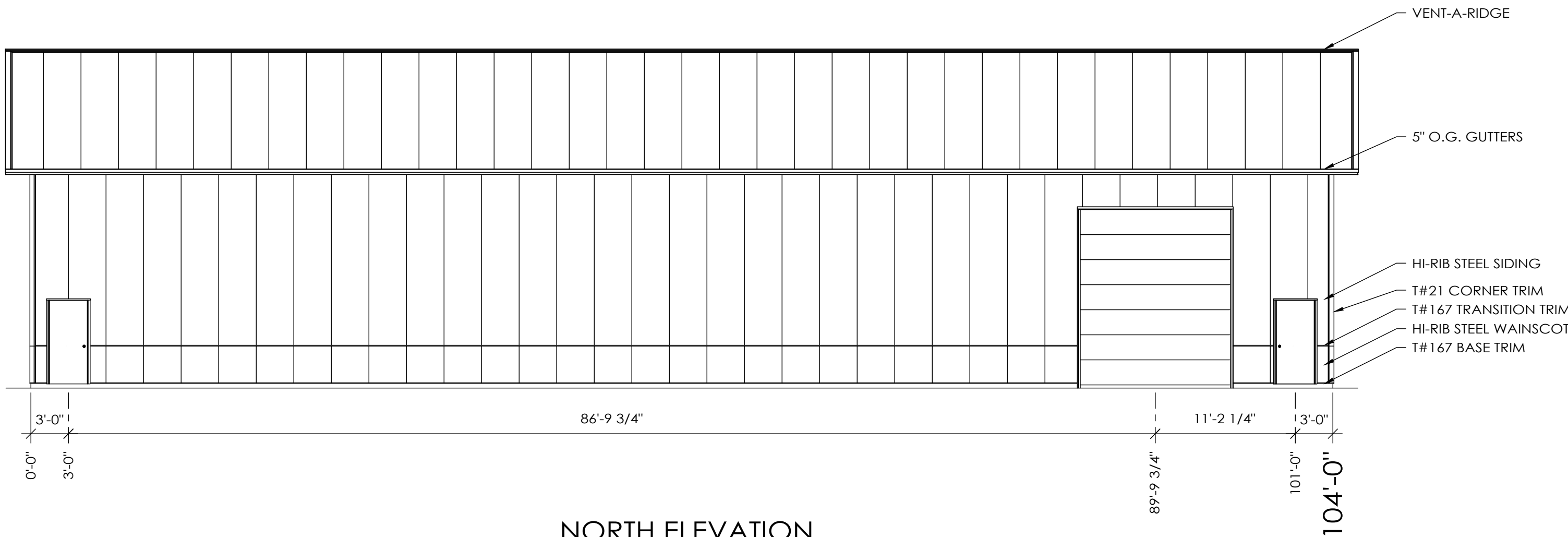
SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION

SCALE: AS NOTED
1' 4' 8' 16'

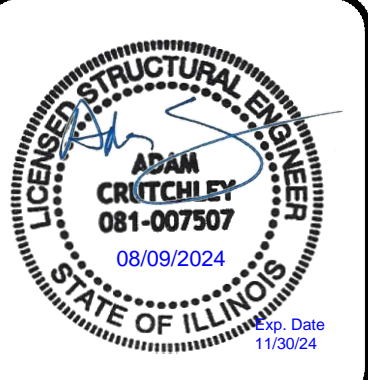
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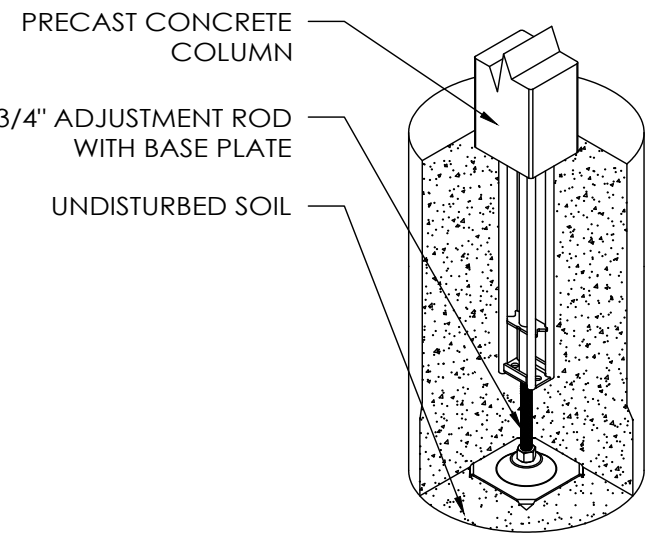
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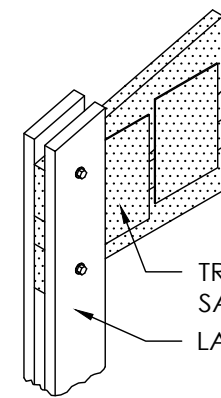
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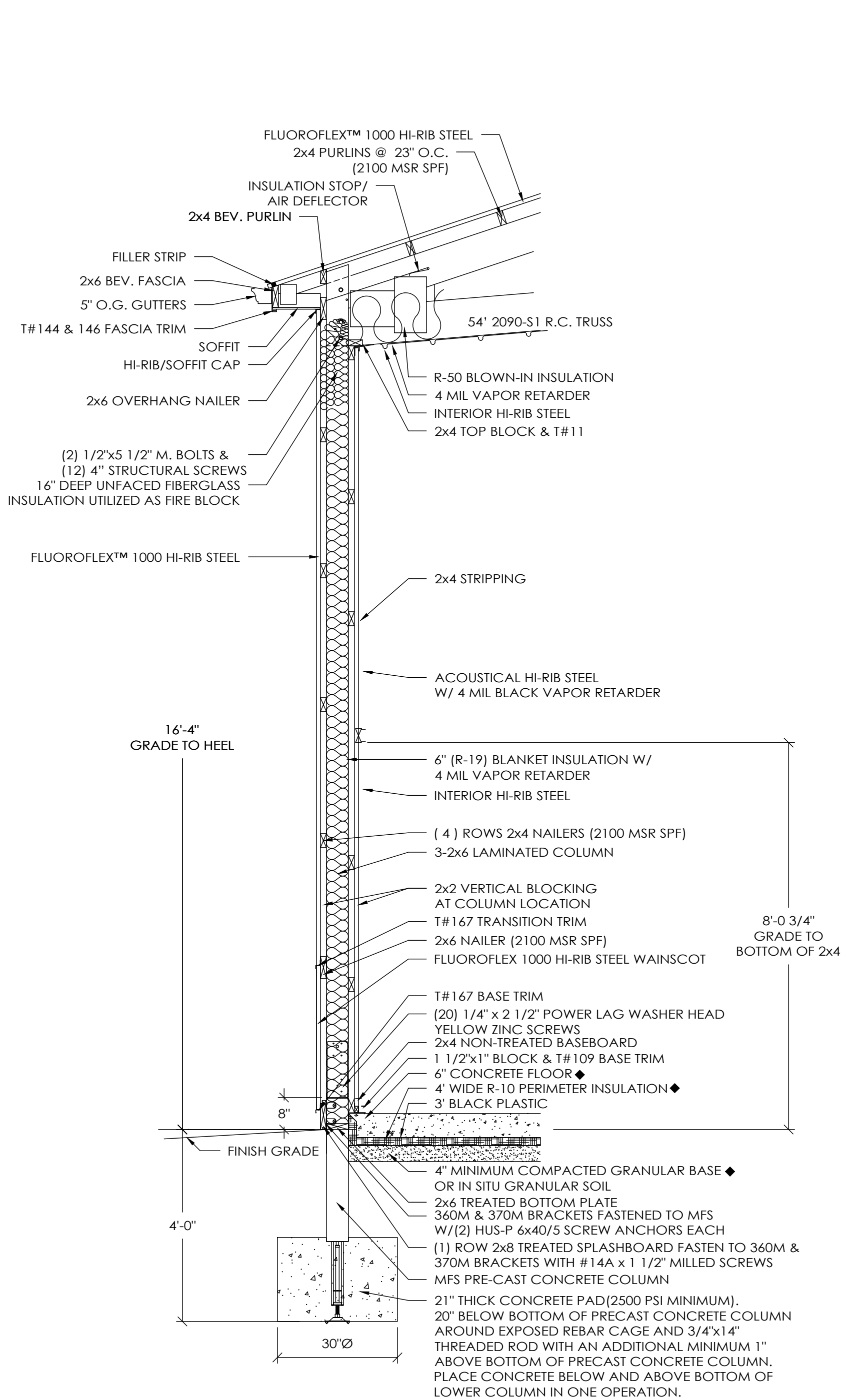
LOWER COLUMN
ISOMETRIC

LOWER COLUMN INSTALLATION

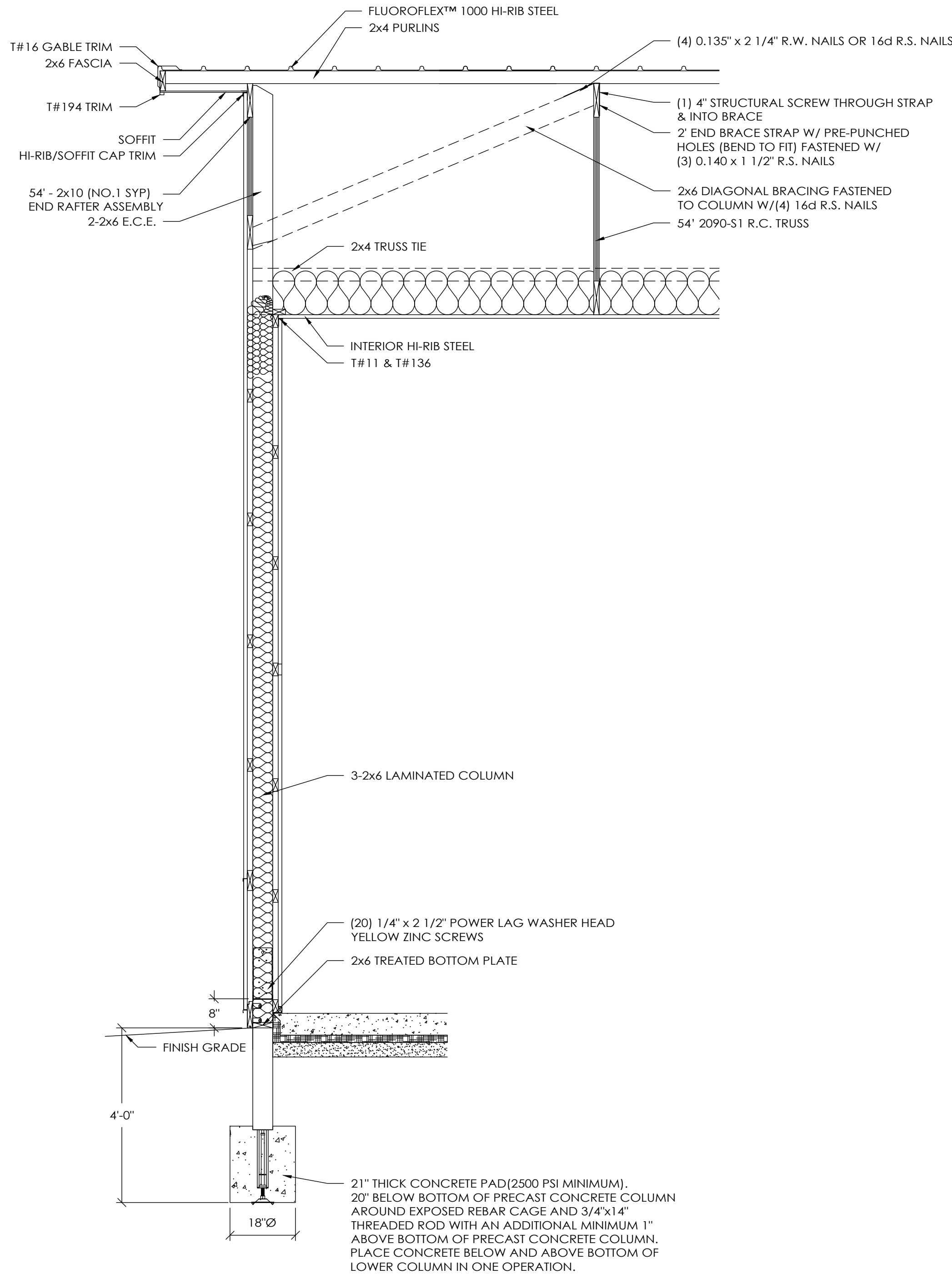
1. INSTALL PRECAST CONCRETE COLUMN W/ADJUSTMENT ROD & BASE PLATE IN THE AUGERED HOLE.
2. PLUMB PRECAST CONCRETE COLUMN IN BOTH DIRECTIONS
3. ADJUST HEIGHT UP OR DOWN WITH ADJUSTMENT HEX ROD
4. POUR READI-MIX CONCRETE INTO THE HOLE AS SPECIFIED.
5. BACKFILL AND COMPACT THE ANNULAR SPACE AROUND THE COLUMN TO GRADE WITH SOIL AUGERED FROM THE SITE.



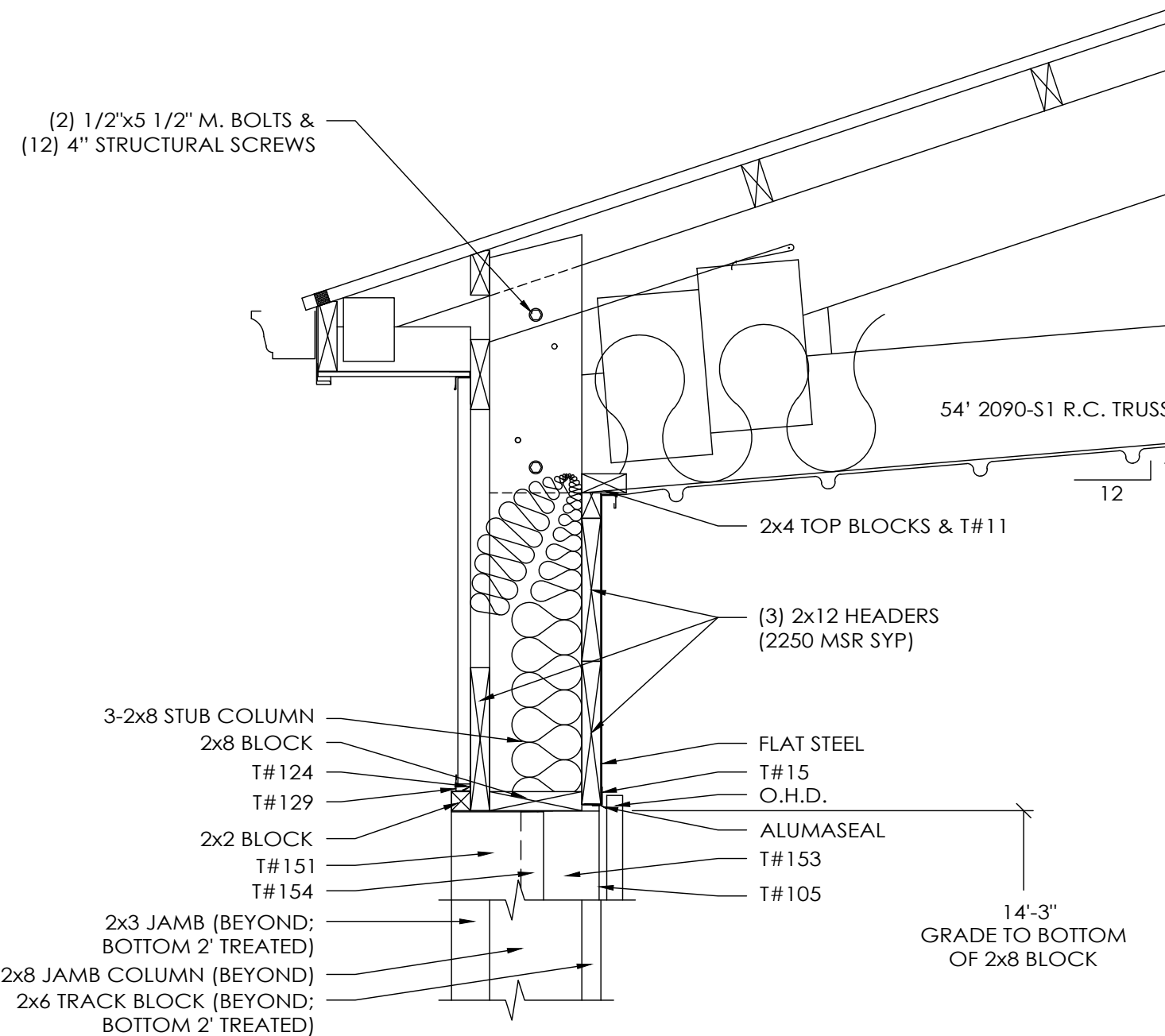
TRUSS SADDLE ISOMETRIC



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



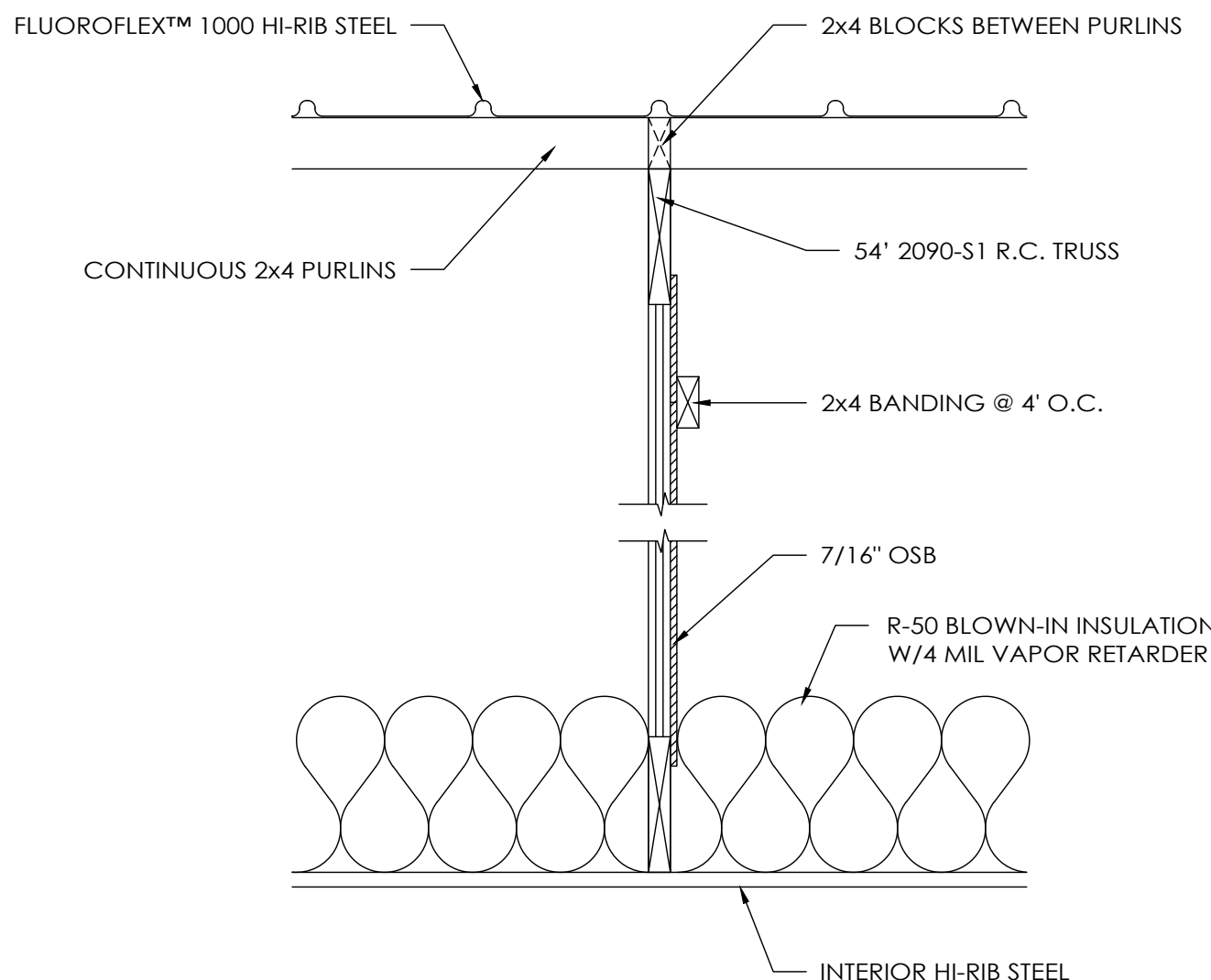
ENDWALL SECTION B
SCALE: 1/2" = 1'-0"



OHD HEADER SECTION C
SCALE: 1" = 1'-0"

HEADER FASTENING SCHEDULE		
HEADER MEMBER	STUB COLUMN	JAMB COLUMN
EA. 2x12	12	8

- NOTES:
1. NUMBERS ABOVE ARE 4" STRUCTURAL SCREWS REQUIRED PER CONNECTION.
 2. PRE-DRILL HEADERS AS REQUIRED TO PREVENT SPLITTING.
 3. IF NUMBER OF SCREWS REQUIRED FOR HEADER TO JAMB COLUMN CONNECTION IS EXCESSIVE TO CAUSE SPLITTING, THE EXCESS SCREWS MAY BE INSTALLED IN HEADER SUPPORT BLOCKING.



ATTIC DRAFT STOP SECTION D
SCALE: 1" = 1'-0"

DESIGN AND EXPLANATORY NOTES

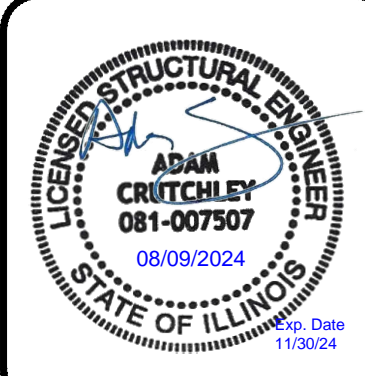
1. FOOTINGS ARE DESIGNED FOR A 2000 PSF SOIL BEARING CAPACITY. LOCAL CONDITIONS MAY REQUIRE MODIFICATIONS.
2. CONCRETE FLOOR NOTES:
 - a. 3500 PSI, 5 1/2 BAG MIX CONCRETE.
 - b. SLOPE GRADE AWAY FROM BUILDING @ 1" PER FOOT FOR A MINIMUM DISTANCE OF 10' PLUS OVERHANG WIDTH.
 - c. A VAPOR RETARDER IS NOT MANDATED PER IBC SECTION 1907 EXCEPTION 3. UNLESS THE FLOOR WILL BE COVERED BY MOISTURE SENSITIVE FLOORING MATERIALS OR IMPERMEABLE FLOOR COATINGS OR WHERE THE FLOOR WILL BE IN CONTACT WITH ANY MOISTURE SENSITIVE EQUIPMENT OR PRODUCT.
 - 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 25 PSI.
 - f. IF THE FLOOR IS TO BE HEATED, USE 2" TYPE IV EXTRUDED POLYSTYRENE OR A COMPARABLE PRODUCT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 25 PSI UNDER ENTIRE FLOOR.
3. PRIOR TO PLACING THE CONCRETE FOOTINGS, HAND TAMP THE BOTTOM 2'-3" OF LOOSE SOIL TO CONSOLIDATE. IF THE DRILLED HOLE CONTAINS MORE THAN 3" OF LOOSE SOIL, REMOVE EXCESS SOIL TO A UNIFORM THICKNESS OF 2'-3", HAND TAMP AND PROCEED WITH CONCRETE FOOTING PLACEMENT.
4. DO NOT PLACE CONCRETE FOOTING THROUGH MORE THAN 3" OF STANDING WATER. IF MORE THAN 3" OF STANDING WATER IS PRESENT IN THE FOOTING HOLE CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR INSTALLATION INSTRUCTIONS.

FOREST CITY GEAR

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