



**FRONT ELEVATION**  
1/4" = 1'-0"



**REAR ELEVATION**  
1/4" = 1'-0"

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RESIDENCE OF  
**TAYLOR SMITH**

Project

**MADDEN HOME DESIGN**  
8375 Rushing Road  
Denham Springs, Louisiana  
70726  
Phone: (225) 791-2912

**A | B D**

Project No.: The Meadow View  
DATE: MAY 3, 2022  
DRAWN BY: Steven Madden  
DESIGNED BY: Steven Madden

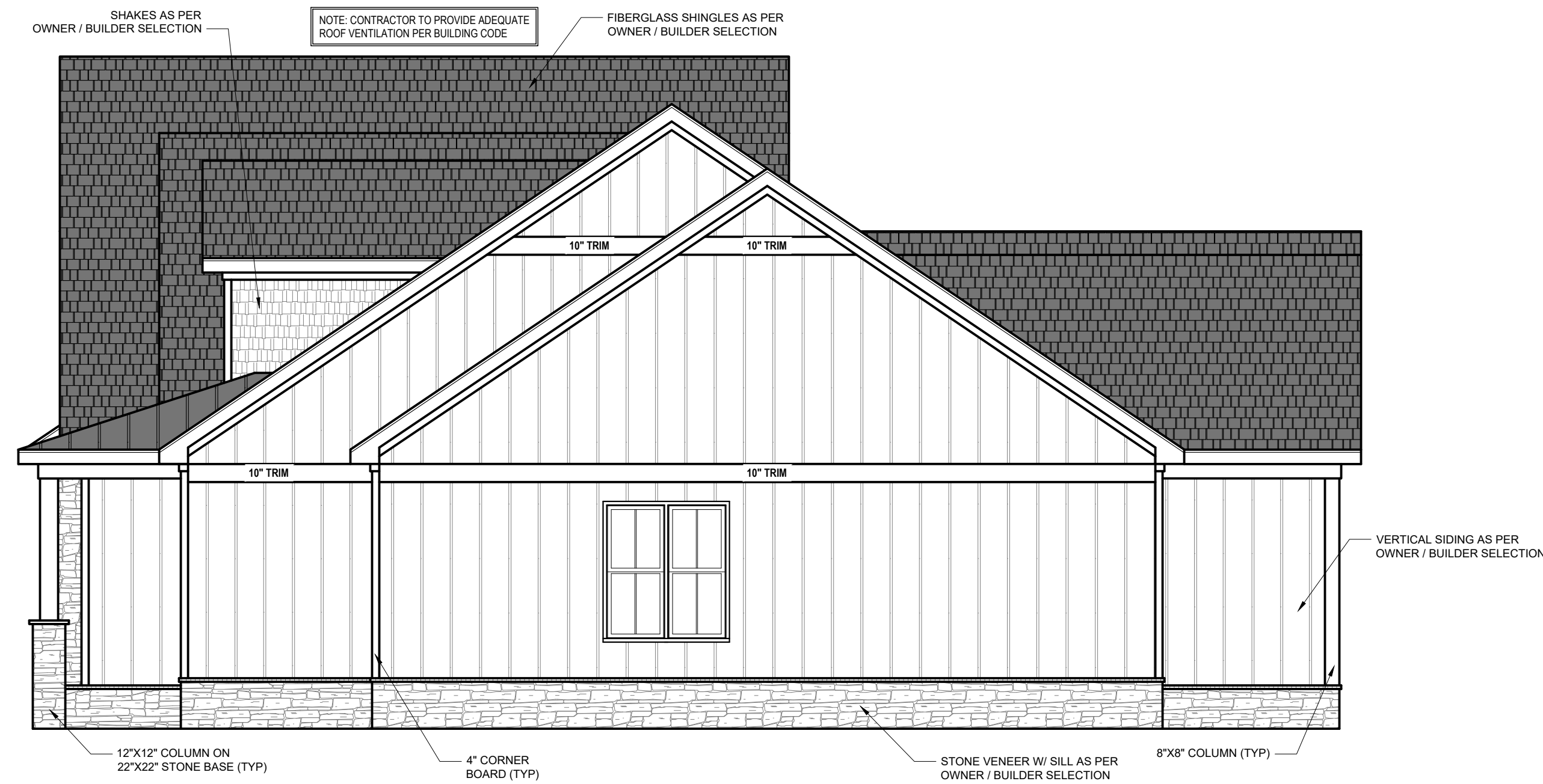
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Sheet Title  
**FRONT & REAR ELEVATIONS**

Sheet:  
 Preliminary Dwg.  
 Bidding Doc.  
 Construction Doc.

**A2.0**



**RIGHT ELEVATION**  
1/4" = 1'-0"



**LEFT ELEVATION**  
1/4" = 1'-0"

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Sheet Title  
**ELEVATIONS & DETAILS**

Sheet:  
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 Bidding Doc.  
 Construction Doc.

**A3.0**

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**A | B D**

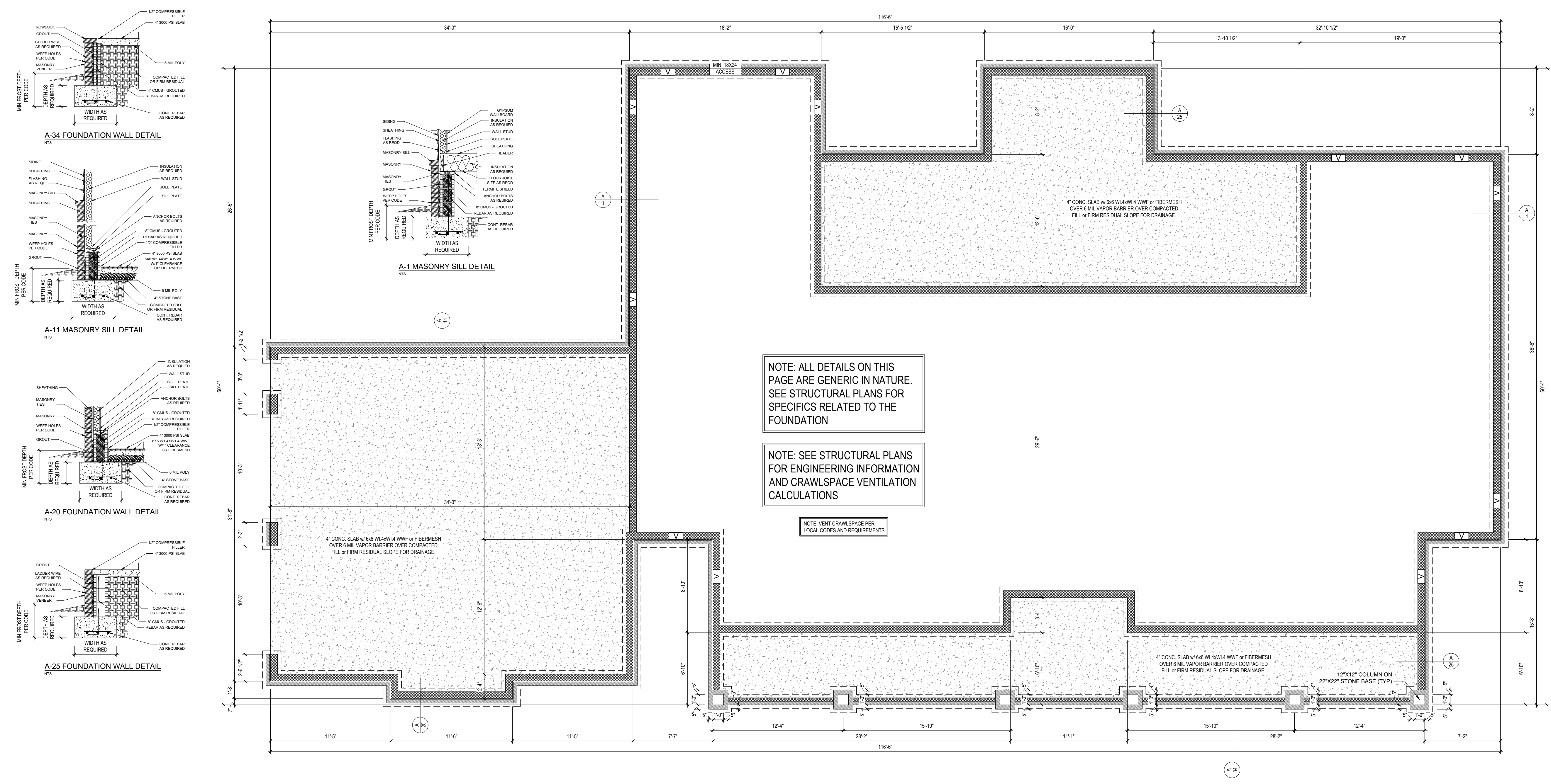
Project No.: **The Meadow View**  
DATE: **MAY 3, 2022**  
DRAWN BY: **Steven Madden**  
DESIGNED BY: **Steven Madden**

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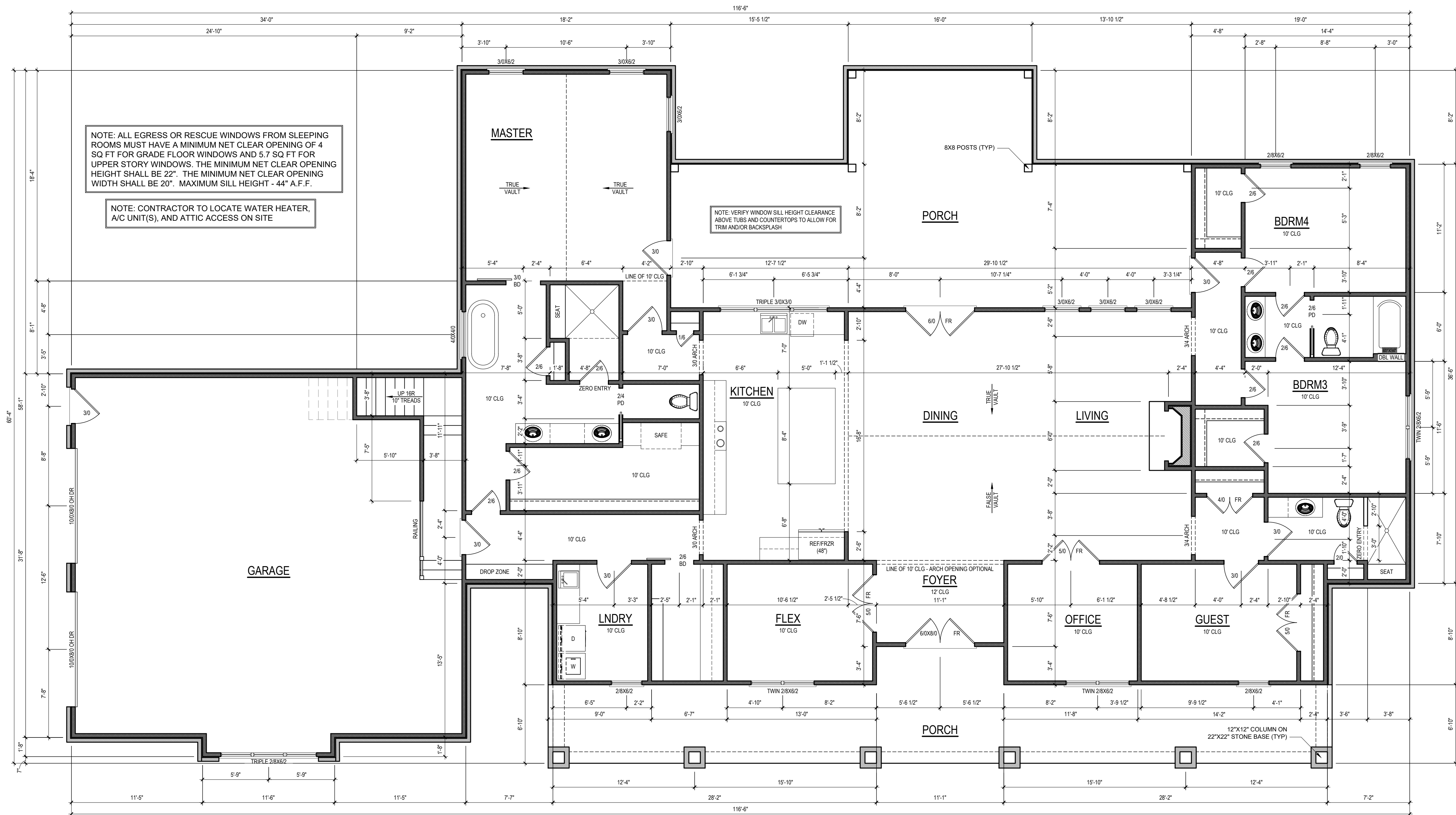
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Sheet Title  
**FOUNDATION**

Sheet:  
 Preliminary Dwg.  
 Bidding Doc.  
 Construction Doc.  
**A4.0**



**FOUNDATION PLAN**  
3/16" = 1'-0"



NOTE: ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 4 SQ FT FOR GRADE FLOOR WINDOWS AND 5.7 SQ FT FOR UPPER STORY WINDOWS. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 20". THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20". MAXIMUM SILL HEIGHT - 44" A.F.F.

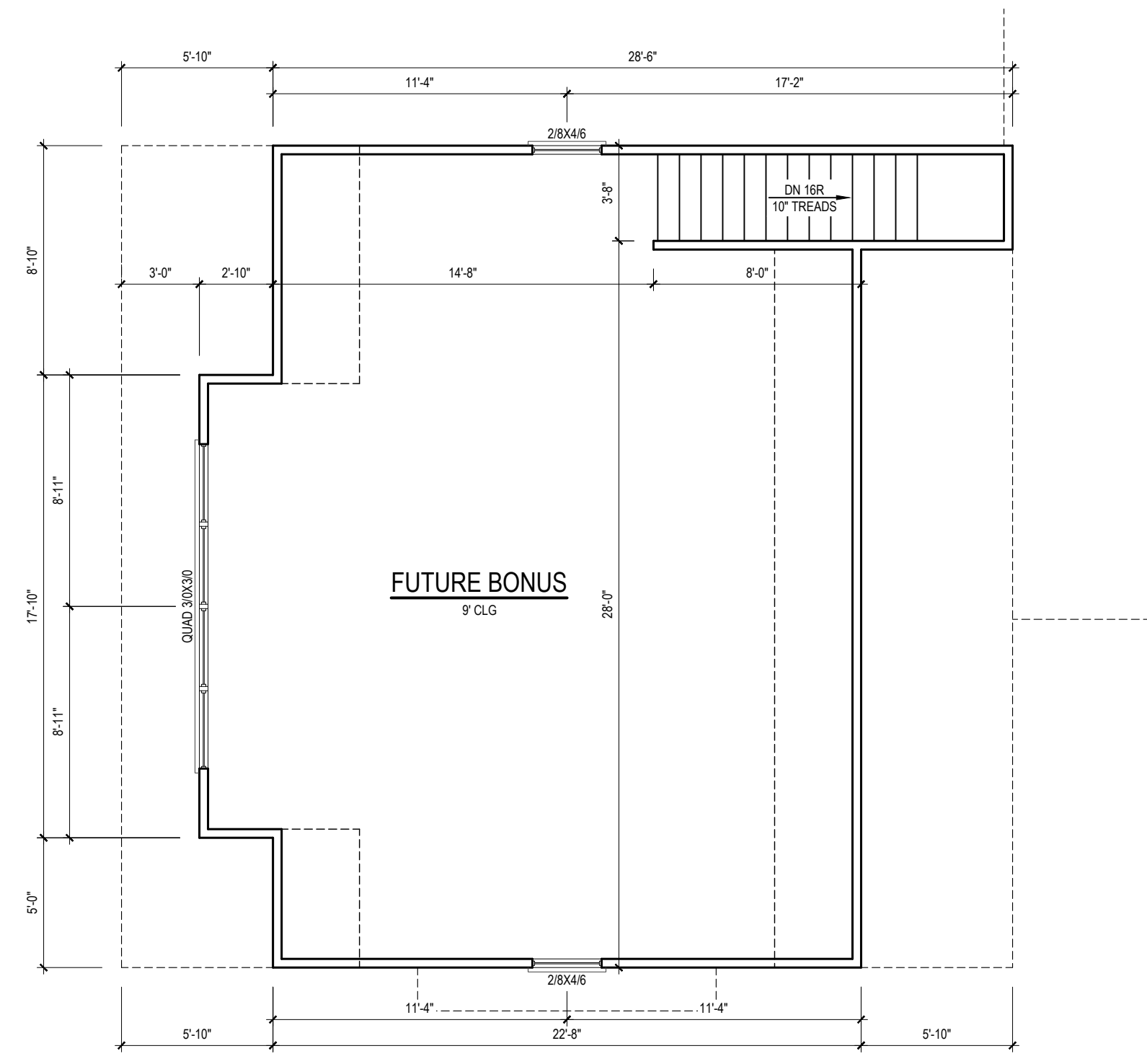
NOTE: CONTRACTOR TO LOCATE WATER HEATER, A/C UNIT(S), AND ATTIC ACCESS ON SITE

NOTE: VERIFY WINDOW SILL HEIGHT CLEARANCE ABOVE TUBS AND COUNTERTOPS TO ALLOW FOR TRIM AND/OR BACKSPLASH

HEATED SQUARE FOOTAGE	
First Floor	3152
<b>TOTAL HEATED</b>	<b>3152</b>
UNHTD SQUARE FOOTAGE	
Garage	1100
Front Porch	509
Rear Porch	697
<b>TOTAL UNHEATED</b>	<b>2306</b>
<b>TOTAL SQ FT</b>	<b>5458</b>

- NOTE: SEE ELEVATIONS FOR WINDOW HDR HGTS
- NOTE: ALL DOORS ARE 8'-0" TALL UNO
- NOTE: ALL EXTERIOR WALLS ARE NOMINAL 4" UNO
- NOTE: ALL INTERIOR WALLS ARE NOMINAL 4" UNO
- NOTE: ALL ANGLED WALLS ARE 45° UNO
- NOTE: ALL DIMENSIONS ARE FRAME TO FRAME

**FIRST FLOOR PLAN**  
3/16" = 1'-0" CEILING HGT. = 10'-0"



**FUTURE BONUS PLAN**  
3/16" = 1'-0" CEILING HGT. = 8'-0"

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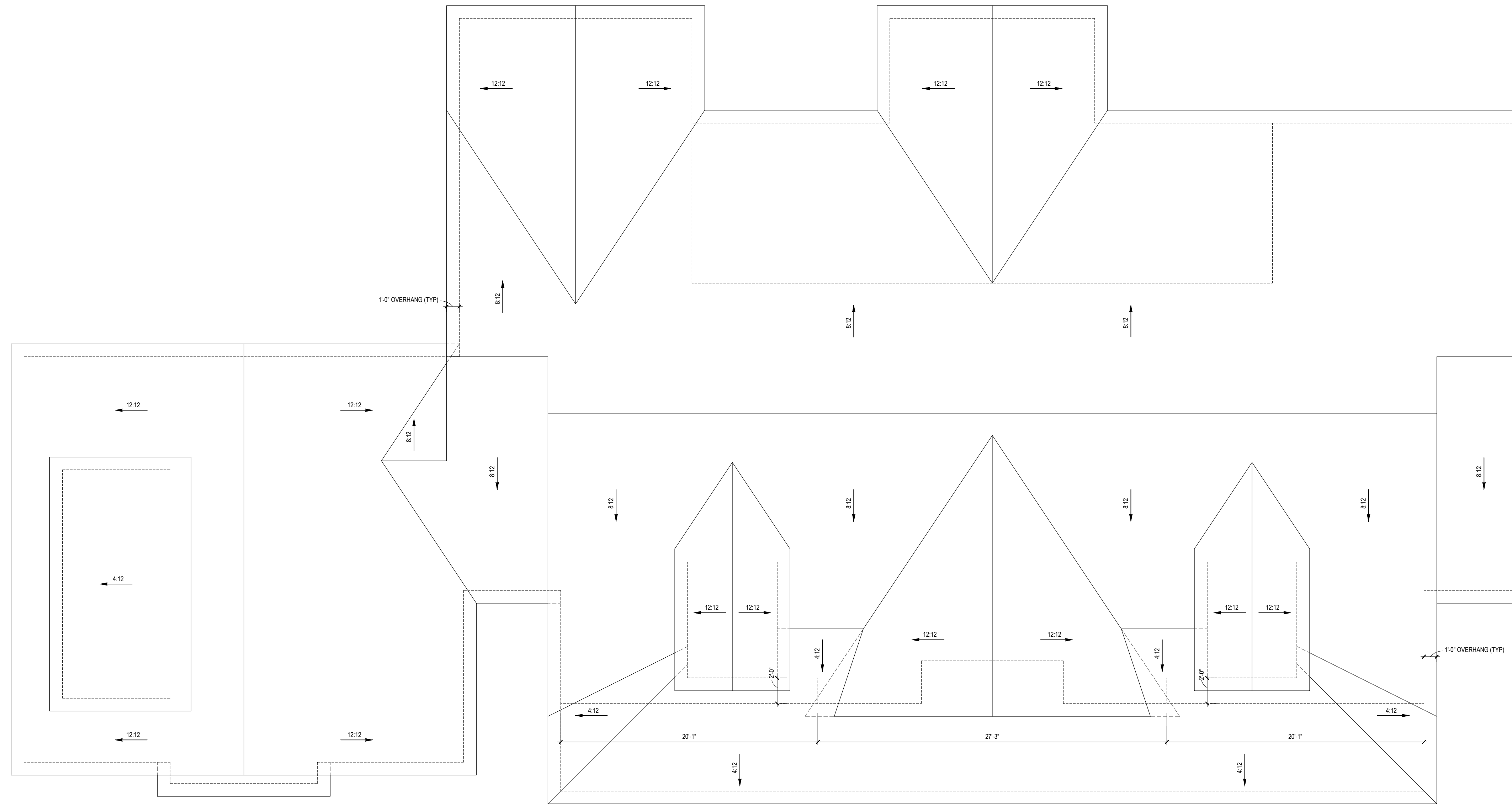
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Sheet Title  
**FLOOR PLAN**

Sheet:  
□ Preliminary Dwg.  
□ Bidding Doc.  
□ Construction Doc.

**A1.0**



**ROOF PLAN**  
3/16" = 1'-0"

NOTE: SEE STRUCTURAL PLANS FOR ATTIC VENTILATION CALCULATIONS

NOTE: OVERHANG DIMENSIONS ARE FROM FRAMING

NOTE: ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

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Sheet Title  
**ROOF PLAN**

Sheet:  
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 Construction Doc.  
**A5.0**





DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (no storage)	20	10	L/240	L/180
ATTIC (no storage)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSSES	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

STRUCTURAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE, IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, P.A. IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
- ALL LUMBER SHALL BE SYP #2 (UNO).  
ALL LVL LUMBER TO BE 1 7/8" WIDE (ACTUAL) EACH SINGLE MEMBER AND F<sub>v</sub> = 2000 PSI (E = 1,984,000) (OR GREATER) (I.E. LEVEL MICROLAM).  
ALL L.S. LUMBER IS TO BE 1 5/8" (F<sub>v</sub> = 2325 PSI) (OR GREATER).  
ALL PSL LUMBER IS TO BE 1 1/2" (F<sub>v</sub> = 2,400 PSI) (OR GREATER).
- ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.3, AND TOGETHER w/ (2) 10x NAILS @ 6" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 8" MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1 1/2". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
- ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO).
- REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 12" HIGH.
- ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 (F<sub>y</sub> = 50 KSI MIN.) (UNO).
- ALL EXTERIOR LUMBER TO BE #2 SYP PT.
- ALL CONCRETE f<sub>c</sub> = 3000 PSI MIN.
- PRESUMPTIVE BEARING CAPACITY = 2000 PSF
- 1/2" ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
- PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO).
- PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS (U.N.O.).
- PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCR.
- MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

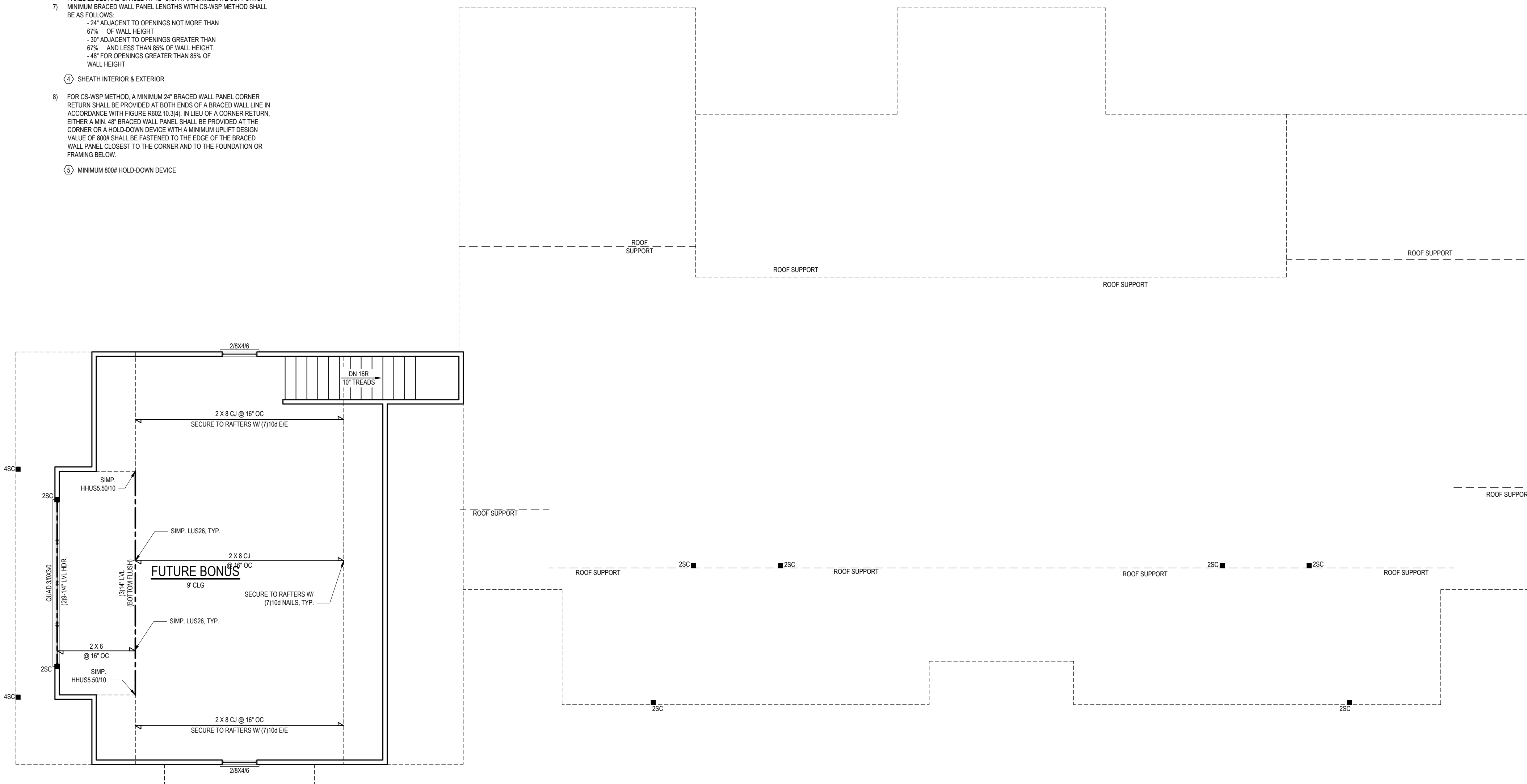
STRUCTURAL SHEATHING NOTES

- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCR.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
  - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCR.
- INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE CS METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO).
  - 12" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 6# COILER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS.
  - 3" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6# COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO).
- ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6# COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS. MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
  - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
  - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT
  - 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT
- SHEATH INTERIOR & EXTERIOR.
  - FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(6). IN THE CASE OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.
  - MINIMUM 800# HOLD-DOWN DEVICE

KING STUD SCHEDULE

HEADER SPAN (FT)	MIN. # OF FULL HEIGHT STUDS (KING) E.E. SF. OPENINGS PER WALL DEPTH	
	2 X 4 STUD WALL	2 X 6 STUD WALL
UP TO 3'-0"	1	1
3'-1" TO 6'-0"	2	1
6'-1" TO 9'-0"	3	2
9'-1" TO 12'-0"	4	2
12'-1" TO 15'-0"	5	3
15'-1" TO 18'-0"	6	3

NOTES:  
 1. TABLE DENOTES REQUIRED MINIMUM NUMBER OF STUDS PER FOOT OF HEADER, TOP AND ON PLANS.  
 2. NUMBER OF KING STUDS LISTED ABOVE ARE BASED ON NOMINAL WALL HEIGHT, STUD SPACING OF 16" O.C. AND LEAST KING STUDS OF 20# SYP #2.  
 3. HEADER SPANS IN TABLE ARE BASED ON ROUGH OPENING INTERPOLATION BETWEEN SPAN VALUES. EXPLICITED NUMBER OF STUDS LISTED ABOVE IS MINIMUM CONTACT.  
 4. TYNDALL ENGINEERING AND DESIGN P.A. HEADERS EXCEED TABLE VALUES.



SECOND FLOOR PLAN

3/16" = 1'-0"

Engineers and designers shall not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviation or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.

Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.

**TYNDALL ENGINEERING & DESIGN, P.A.**  
 1197 W. 75th St., Suite 100, Raleigh, NC 27617  
 919.778.0000  
 www.tyndallengineering.com

**ASHLYN SMITH**  
 Client: SMITH RESIDENCE

**2ND FLOOR HEADER  
 2ND FLR. CLG. FRAMING**

Project #: DRB2201-0061\_B  
 Date: 10/28/2024  
 Engineered By: SMH  
 DWG. Checked By: PAT  
 Scale: SEE PLAN

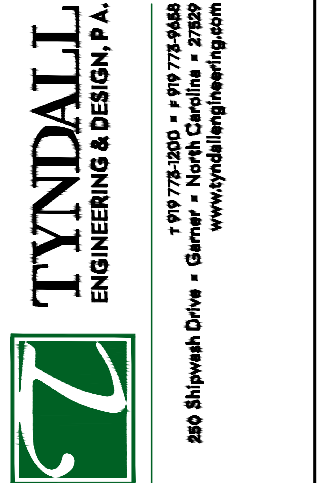
No.	Date	Remarks

Sheet Number  
**S3**  
 3 of 6

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 PLOT DATE: 10/27/2024 10:38 AM



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Client: **ASHLYN SMITH**  
Project: **SMITH RESIDENCE**

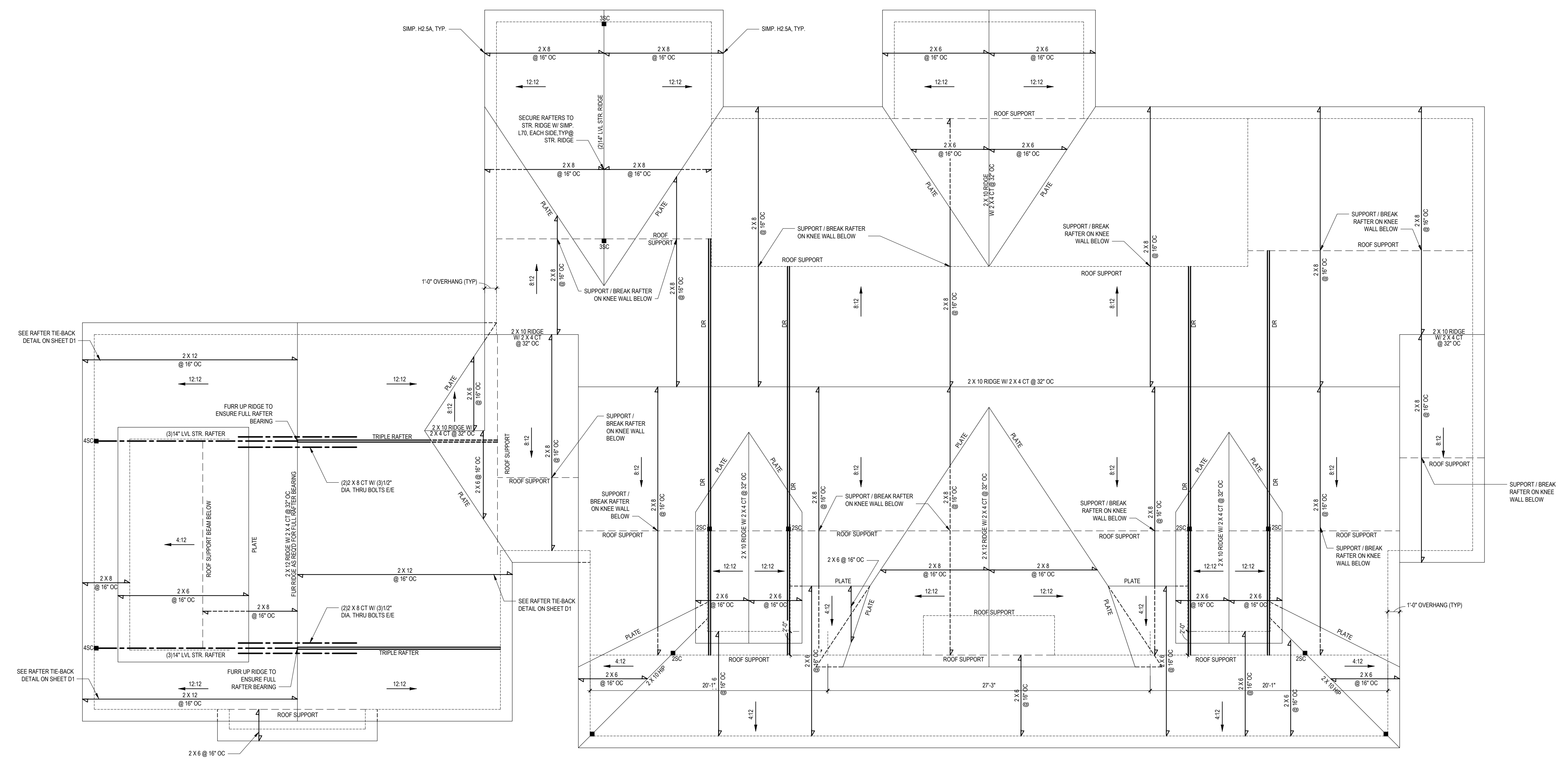
# ROOF PLAN

Project #: **DRB2201-0061\_B**  
Date: **10/28/2024**  
Engineered by: **SMH**  
DWG. Checked by: **PAT**  
Scale: **SEE PLAN**

REVISIONS		
No.	Date	Remarks

Sheet Number

# S4



5447 SQ. FT. OF ATTIC / 300 = 18.2 SQ. FT. INLETS/OUTLETS REQUIRED

- CALCULATION BASED ON VENTILATORS USED AT LEAST 1" ABOVE THE CORNER KEEL WITH THE RANGE OF VENTILATION PROVIDED BY EACH VENT.
- OVERHANGING EAVES SHOULD HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

NO SCALE

ATTIC VENTILATION CALCULATION

**ROOF PLAN**  
3/16" = 1'-0"

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**STRUCTURAL NOTES**

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
- DESIGN LOADS:
 

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
ALL FLOORS	40	10	L/360	L/240
ATTIC (w/ walk-up stairs)	30	10	L/360	L/240
ATTIC (p/dn access)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF-TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH EXPOSURE B)			
SEISMIC	SEISMIC ZONES A, B & C			
- MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- ALL FRAMING LUMBER SHALL BE SYP #2 (F<sub>b</sub> = 800 PSI, BASED ON 2x10 UNO). ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2600 PSI, E = 1.9M PSI (U.N.O.) ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2325 PSI, E = 1.6M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2400 PSI, E = 1.8M PSI (U.N.O.)
- ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10 (U.N.O.) REFER TO TABLE R902.7(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.
- ALL STRUCTURAL STEEL W/ SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50. ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3'-10" AND FULL FLANGE WIDTH PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2" Ø x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2" Ø ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- WALL AND ROOF CLADDING VALUES:  
WALL CLADDING SHALL BE DESIGNED FOR 20.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:  
39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1/12  
36.0 LBS/SQFT FOR ROOF PITCHES 1/12 TO 6/12  
18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12  
"MEAN ROOF HEIGHT 30'-0" OR LESS
- FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.
- PROVIDE CONTINUOUS SHEATHING PER SECTION 602.1.3 OF THE 2018 NCRC.
- UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.
- PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)
- PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, P.A. IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

**DEFINITIONS FOR COMMON ABBREVIATIONS**

ALT = ALTERNATE	MANUF = MANUFACTURER
CANT = CANTILEVER	MAX = MAXIMUM
CJ = CEILING JOIST	MIN = MINIMUM
CMU = CONCRETE MASONRY UNIT	NOM = NOMINAL
COL = COLUMN	O.C. = ON CENTER
CONC = CONCRETE	PL = POINT LOAD
CONT = CONTINUOUS	PT = PRESSURE TREATED
CT = COLLAR TIE	REINF = REINFORCED
DBL = DOUBLE	REQD = REQUIRED
DIA = DIAMETER	RJ = ROOF JOIST
DJ = DOUBLE JOIST	RS = ROOF SUPPORT
DR = DOUBLE RAFTER	SC = STUD COLUMN
DSP = DOUBLE STUD POCKET	SCH = SCHEDULE
EA = EACH	SPEC = SPECIFIED
EE = EACH END	TH = THICK
FJ = FLOOR JOIST	TJ = TRIPLE JOIST
FND = FOUNDATION	TRTD = TREATED
FTG = FOOTING	TSP = TRIPLE STUD POCKET
GALV = GALVANIZED	TYP = TYPICAL
HORIZ = HORIZONTAL	UNO = UNLESS NOTED OTHERWISE
HT = HEIGHT	W = WIDE FLANGE BEAM
JSC = JACK STUD	WWF = WELDED WIRE FABRIC
KS = KING STUD	XJ = EXTRA JOIST

1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**
4 x 4	8'-0"
6 x 6	20'-0"
***	OVER 20'-0"

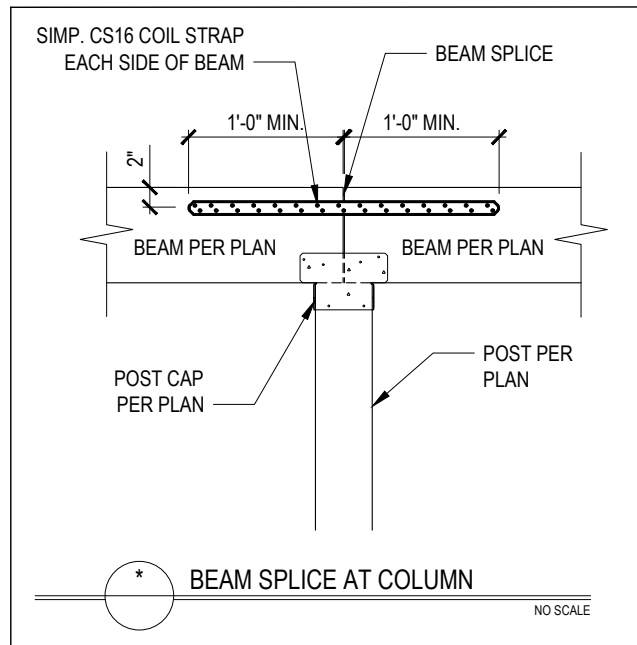
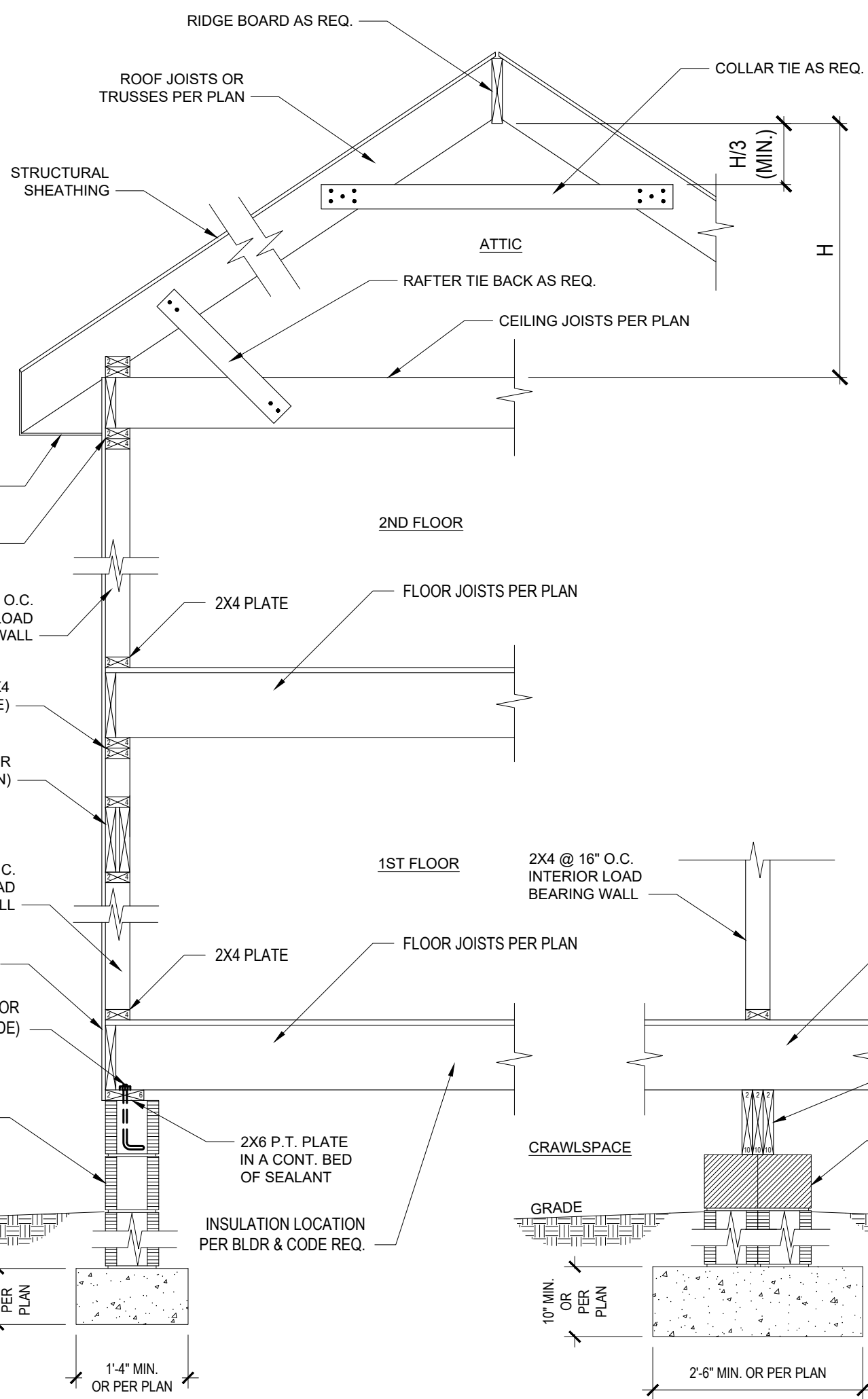
\* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.  
\*\* FROM TOP OF FOOTING TO BOTTOM OF GIRDER.  
\*\*\* DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.

2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:

- THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
- 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST. AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED TO THE POST AND GIRDER WITH ONE 5/8" Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.
- FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 x 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6 x 6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

- 2 x 6 DIAGONAL VERTICAL CROSS BRACE SHALL BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8" Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
- FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



CLIMATE ZONES	FENESTRATION U-FACTOR <sup>a</sup>	SKYLIGHT U-FACTOR <sup>b</sup>	GLAZED FENESTRATION SHGC <sup>c,d</sup>	CEILING R-VALUE <sup>e</sup>	WOOD FRAMED WALL R-VALUE <sup>f</sup>	MASS WALL R-VALUE <sup>g</sup>	FLOOR R-VALUE	BASEMENT WALL R-VALUE <sup>h</sup>	SLAB AND DEPTH <sup>i</sup>	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 or 30 SOFT	15 or 13 + 2.5 h	5/13 or 5/10 SOFT	19	5/13	0	5/13
4	0.35	0.55	0.30	38 or 30 SOFT	15 or 13 + 2.5 h	5/13 or 5/10 SOFT	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 SOFT	18, or 13 + 5 h or 15 + 3	13/17 or 13/12.5 SOFT	30 <sup>g</sup>	10/15	10	10/19

**TABLE N1102.1 CLIMATE ZONES 3-5**

\* NO SCALE

a. R-VALUES ARE MINIMUM U-FACTORS AND SHGC ARE MAXIMUM. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE VALUE SPECIFIED IN THE TABLE.

b. THE FENESTRATION U-FACTOR COLUMN EXCLUDED SKYLIGHTS, THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

c. 1010" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-10 CAVITY INSULATION AT THE INTERIOR OF THE INTERIOR WALL OR CRAWL SPACE WALL.

d. FOR MONOLITHIC SLAB INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR MINIMUM OF 2" BELOW GRADE UNLESS OTHERWISE SPECIFIED. FOR COILING BATT INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 2" UNLESS OTHERWISE SPECIFIED. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.

e. DELETED

f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1102.1 AND TABLE N1102.2.

g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19 MINIMUM.

h. THE FIRST VALUE IS CAVITY INSULATION. THE SECOND VALUE IS CONTINUOUS INSULATION. 80" 104" MEANS R-10 CAVITY INSULATION PLUS R-8 INSULATED SHEATHING. 154" MEANS R-15 CAVITY INSULATION PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR, INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS BLVD. IF STRUCTURAL SHEATHING COVERS MORE THAN 25% PERCENT OF THE EXTERIOR, SHALL BE SUBSTITUTED WITH INSULATED SHEATHING OF AT LEAST R-5. 104" 154" MEANS R-10 CAVITY INSULATION PLUS R-2.5 SHEATHING.

i. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.

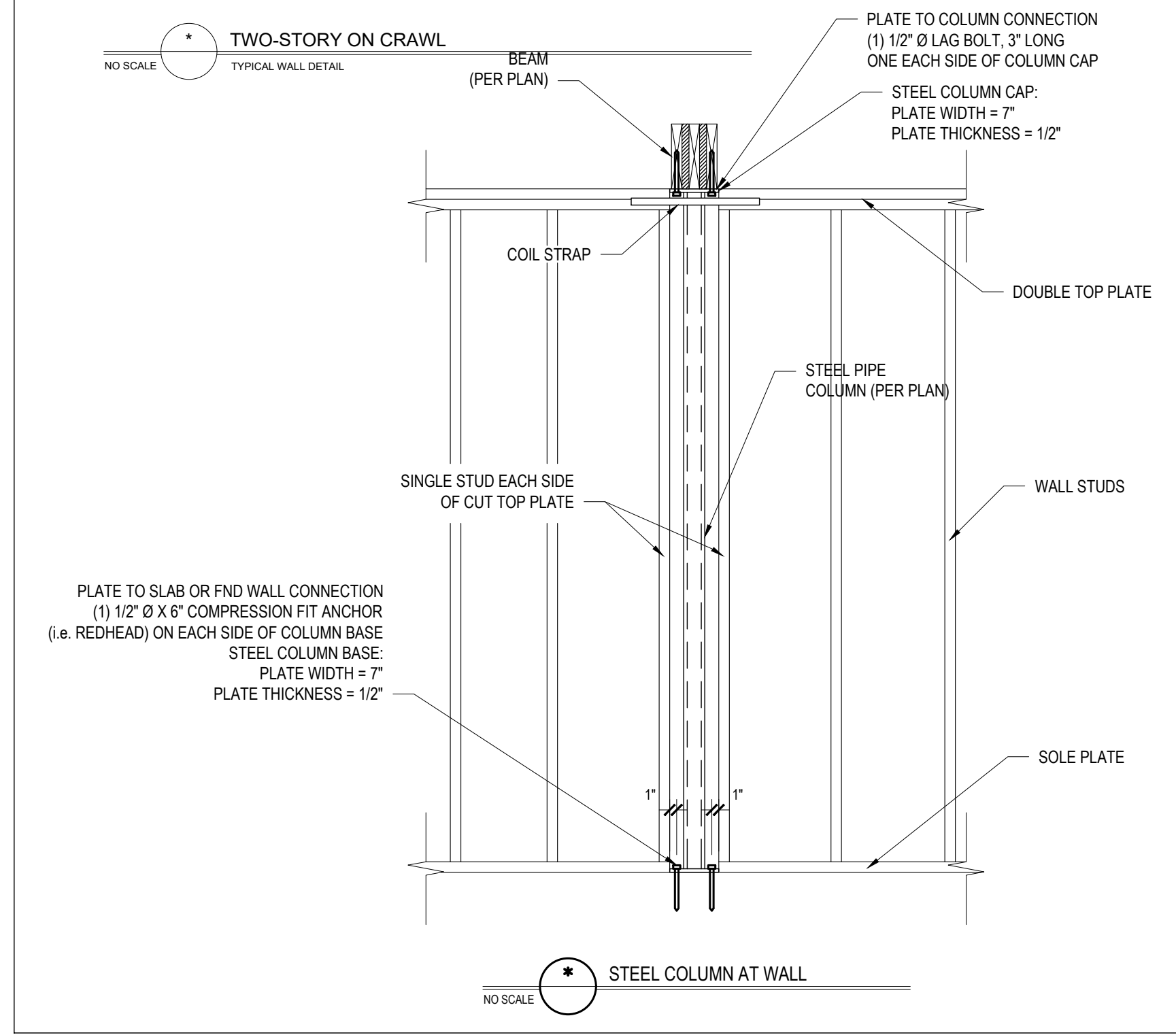
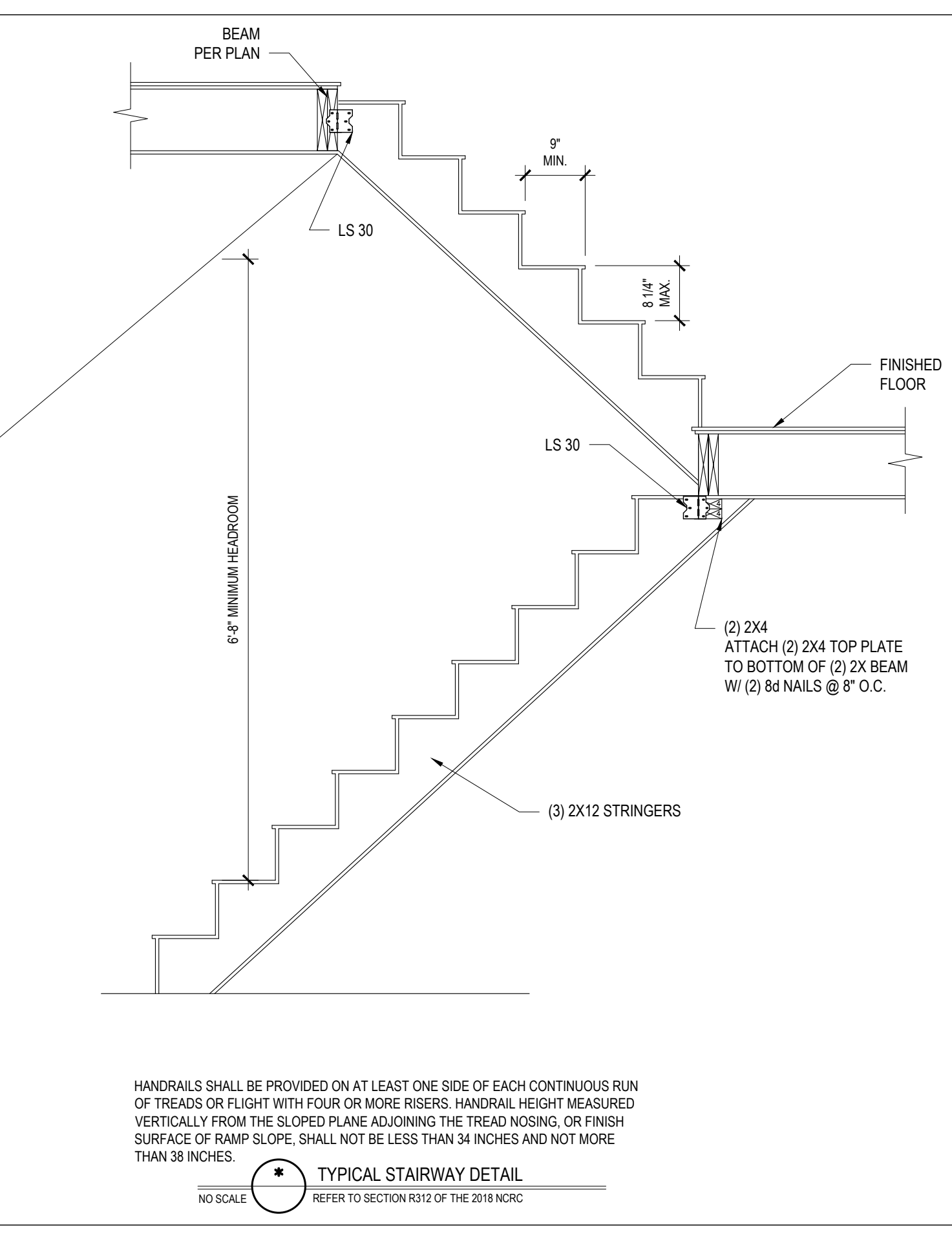
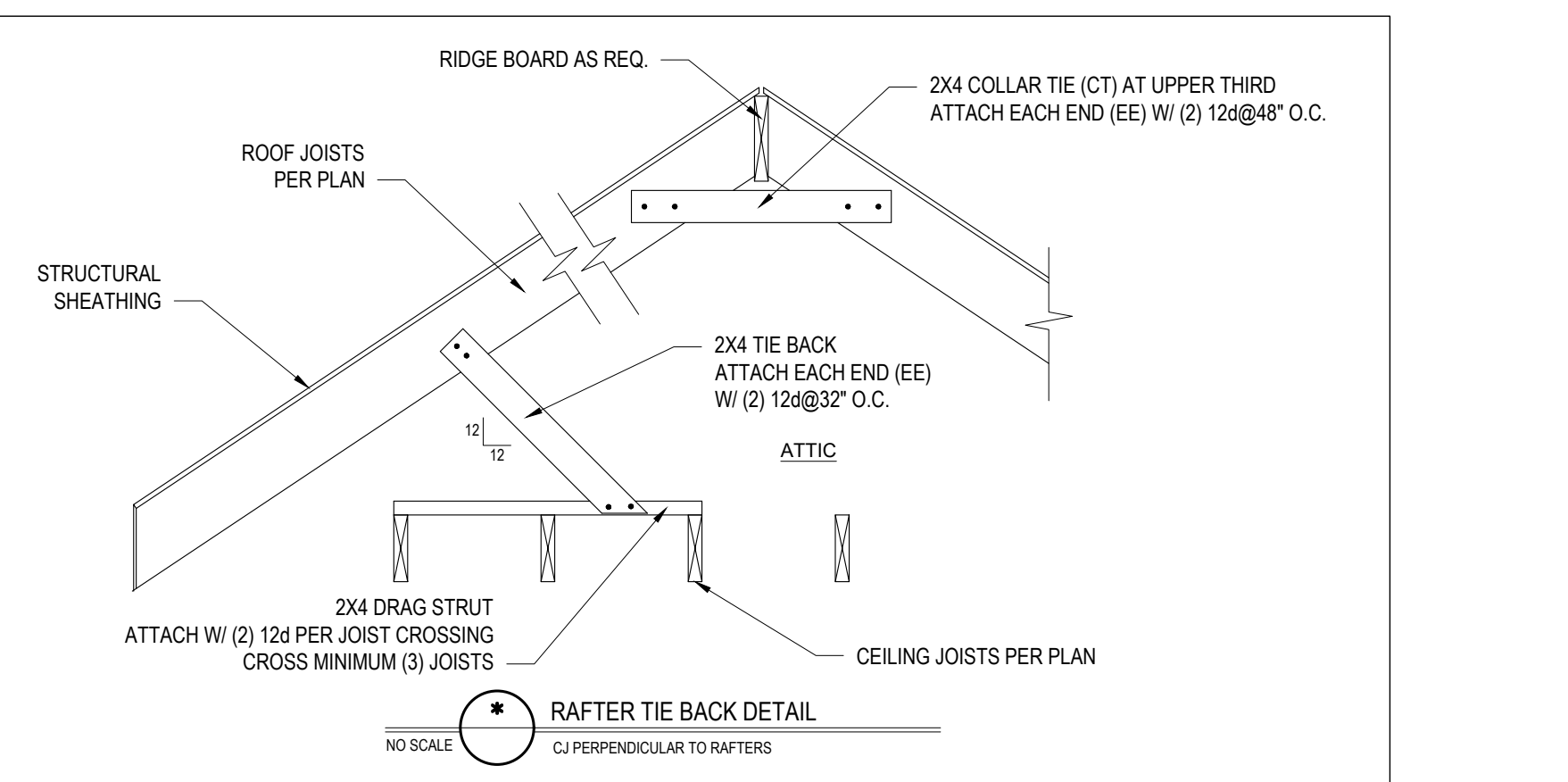
1. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MINIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.35 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

2. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MINIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.35 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

3. BATT INSULATION SHALL BE PERMITTED TO SATISFY THE CEILING INSULATION REQUIREMENT PROVIDED THE FULL HEIGHT OF UNCOMPRESSED OR INSULATION EXTENDS OVER THE WALL TOP PLATE TO THE CEILING. OTHERWISE, INSULATION REQUIREMENT APPLIES TO THE CEILING INSULATION EXTENDING TO THE INSULATION ABOVE THE WALL TOP PLATE OF THE ATTIC ROOF DECK.

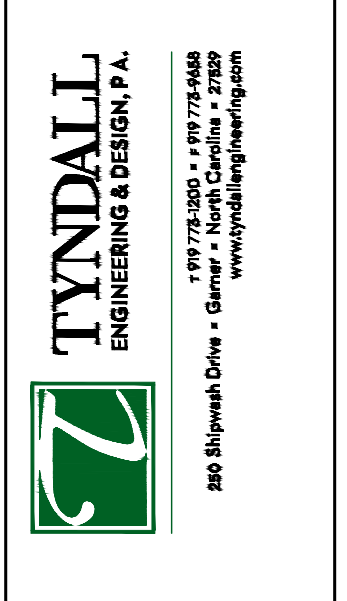
4. BATT INSULATION REQUIREMENT FOR ROOF DECK WHERE THE SPACE IS LIMITED BY THE PROTRUSION OF THE ROOF. THE INSULATION MUST FILL THE SPACE UP TO THE AIR BARREL AND THE INSULATION SHALL BE COMPRESSED AND INSTALLED IN A NOMINAL 2" x 8" FRAMING CAVITY. FIBERGLASS BATT RATED R-19 OR HIGHER COMPRESSED AND THE INSULATION SHALL BE COMPRESSED TO COMPLY.

5. BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC-HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.



HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS. HANDRAIL HEIGHT MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL NOT BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.

\* Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.  
Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.



CLIENT: ASHTYN SMITH  
PROJECT: SMITH RESIDENCE

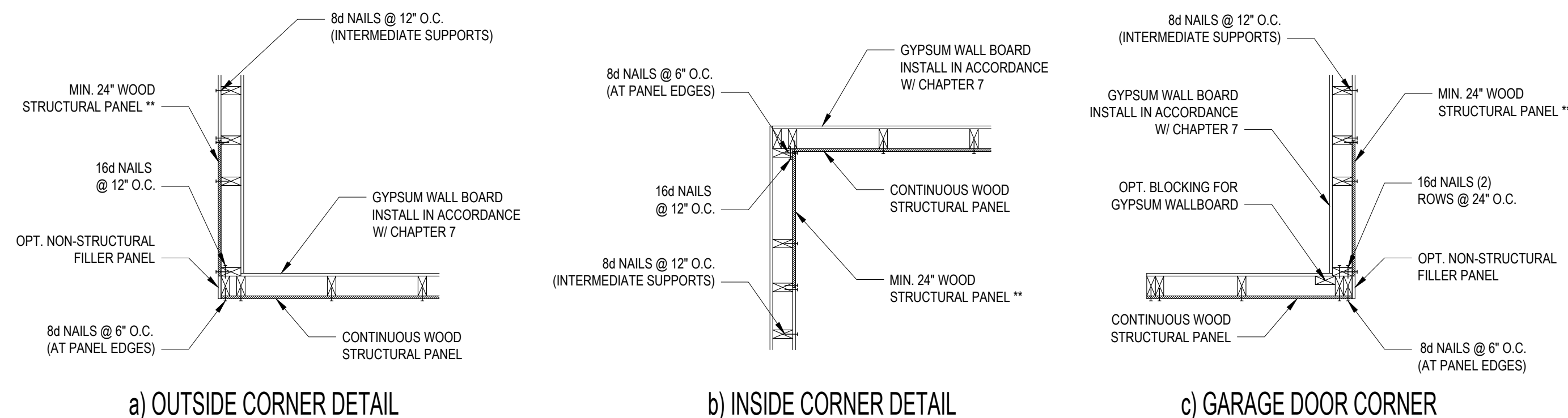
**STANDARD DETAILS**

Project #: DRB2201-0061\_B  
Date: 10/28/2024  
Engineered By: SMH  
DWG. Checked By: PAT  
Scale: SEE PLAN

No.	Date	Remarks

Sheet Number  
**D1**  
5 of 6

FILENAME: \\192.168.1.15\DATA\ARCHD\OFFICE\DWG\DRB\_2024\DRB201-0061\_TYNDALL\ASHTYN\_Smith\024989.dwg REV. SEW HOUSES LAST PLOT DATE: 10/29/2024 10:38 AM



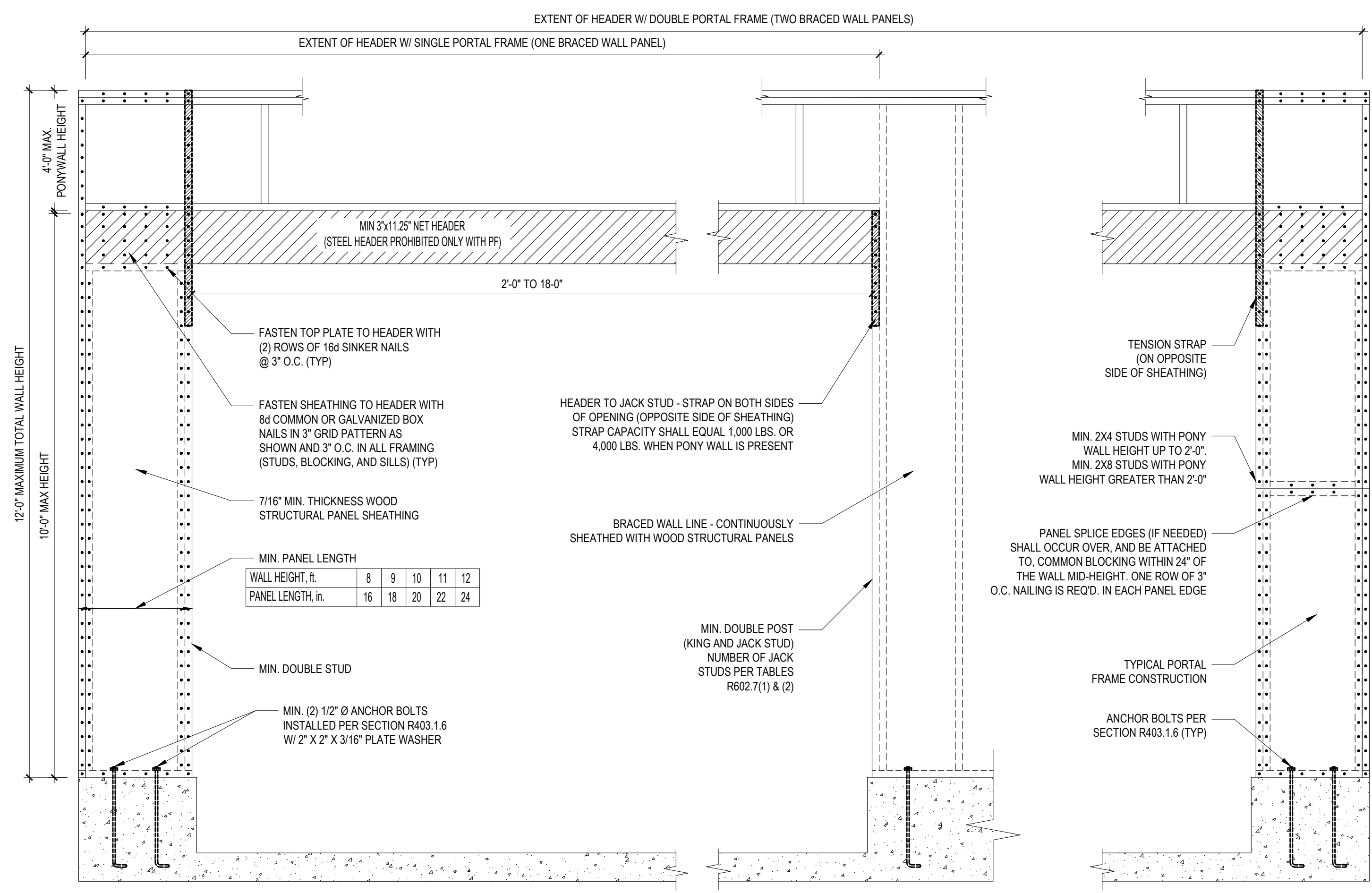
**B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING**  
NO SCALE

- STRUCTURAL SHEATHING NOTES**
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
  - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.3 OF THE 2018 NCR.
  - BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
  - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCR.
  - INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO).
  - 12\"/>

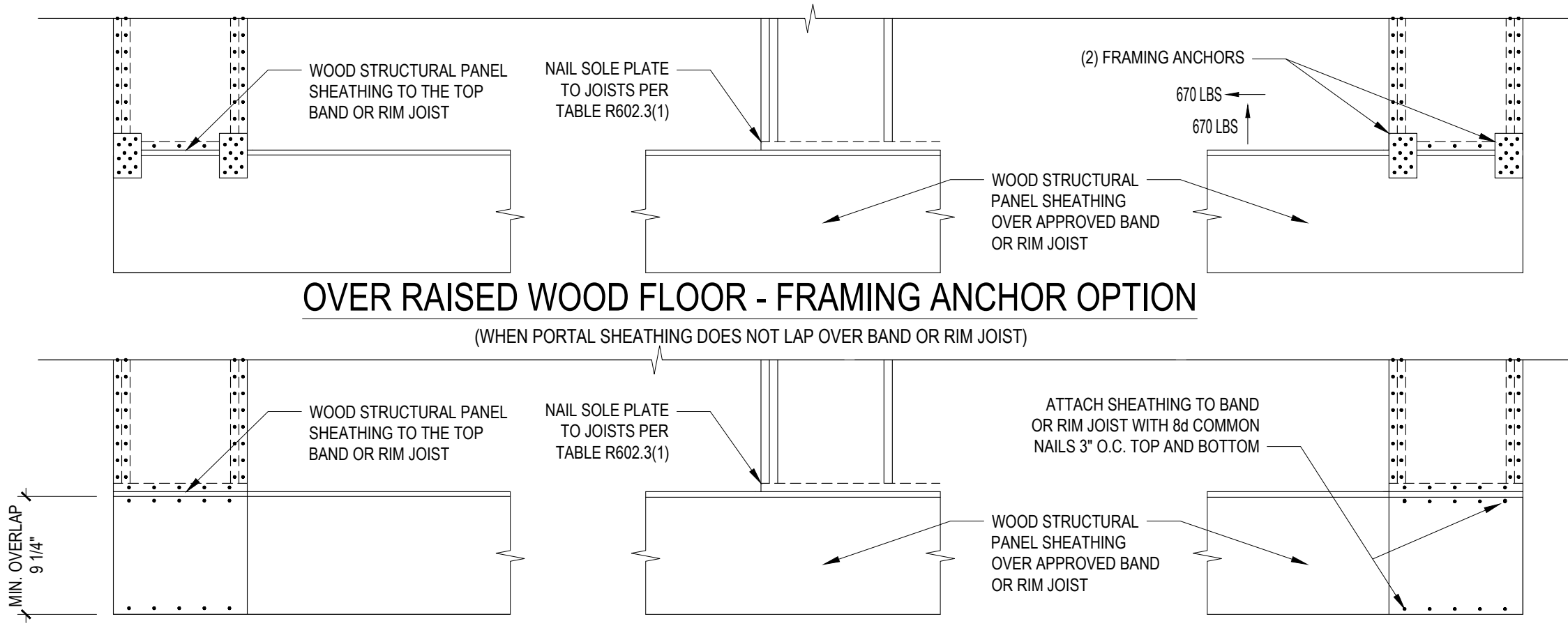
**REQUIRED BRACED WALL PANEL CONNECTIONS**

METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** @ 7" O.C.	5d COOLER NAIL** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.

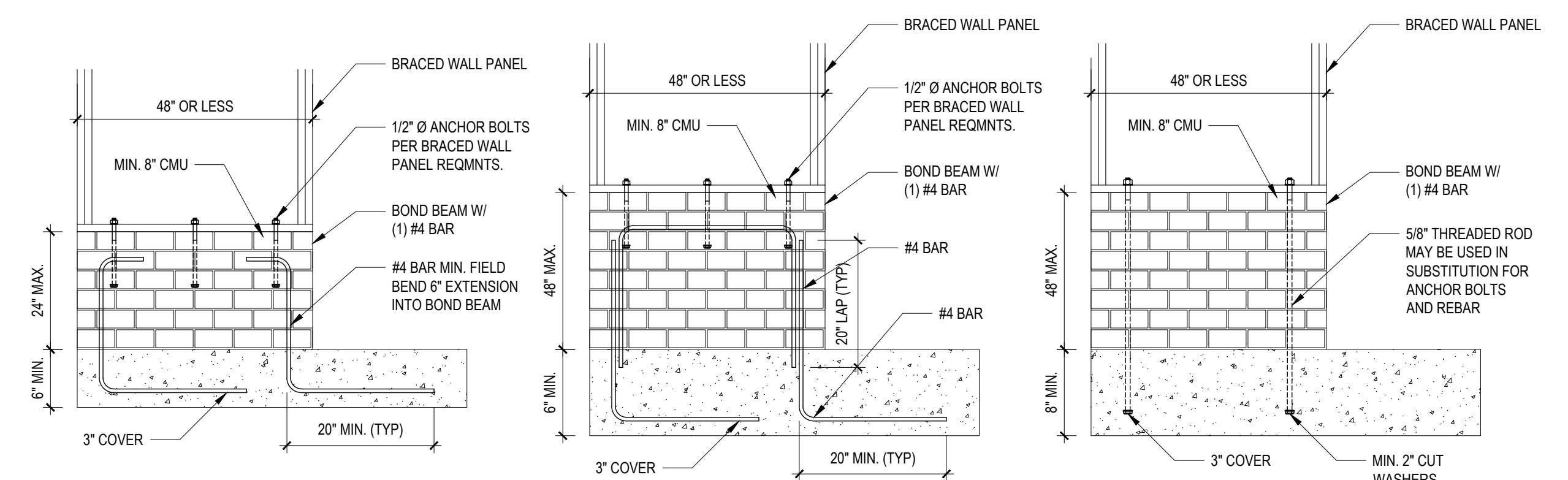
\*\*OR EQUIVALENT PER TABLE R702.3.5  
**B3: BRACE WALL PANEL CONNECTIONS**  
NO SCALE



**B2: METHOD PF: PORTAL FRAME CONSTRUCTION**  
FIGURE R602.10.1



**B3: BRACE WALL PANEL CONNECTIONS**  
NO SCALE



**B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS**  
FIGURE R602.10.4.3 OF THE 2018 NCR  
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviation or discrepancies on plans are to be brought to the immediate attention of Tyn dall Engineering & Design, P.A. Failure to do so will void Tyn dall Engineering & Design, P.A. liability. Please review these documents carefully. Tyn dall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.



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Client: **ASHLYN SMITH**  
Project: **SMITH RESIDENCE**

**SHEATHING DETAILS**

Project #: **DRB2201-0061\_B**  
Date: **10/28/2024**  
Engineered by: **SMH**  
DWG. Checked by: **PAT**  
Scale: **SEE PLAN**

**REVISIONS**

No.	Date	Remarks