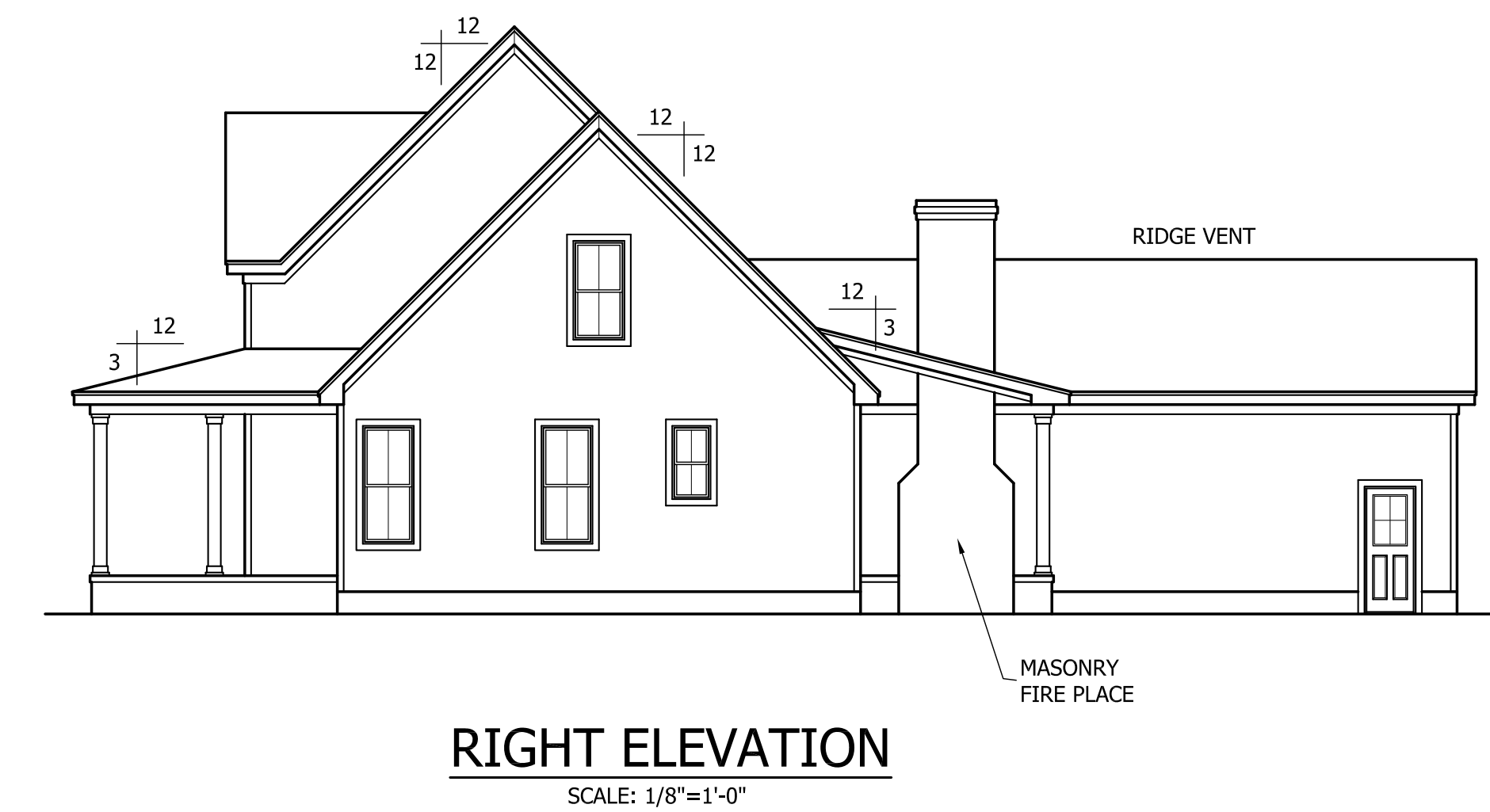
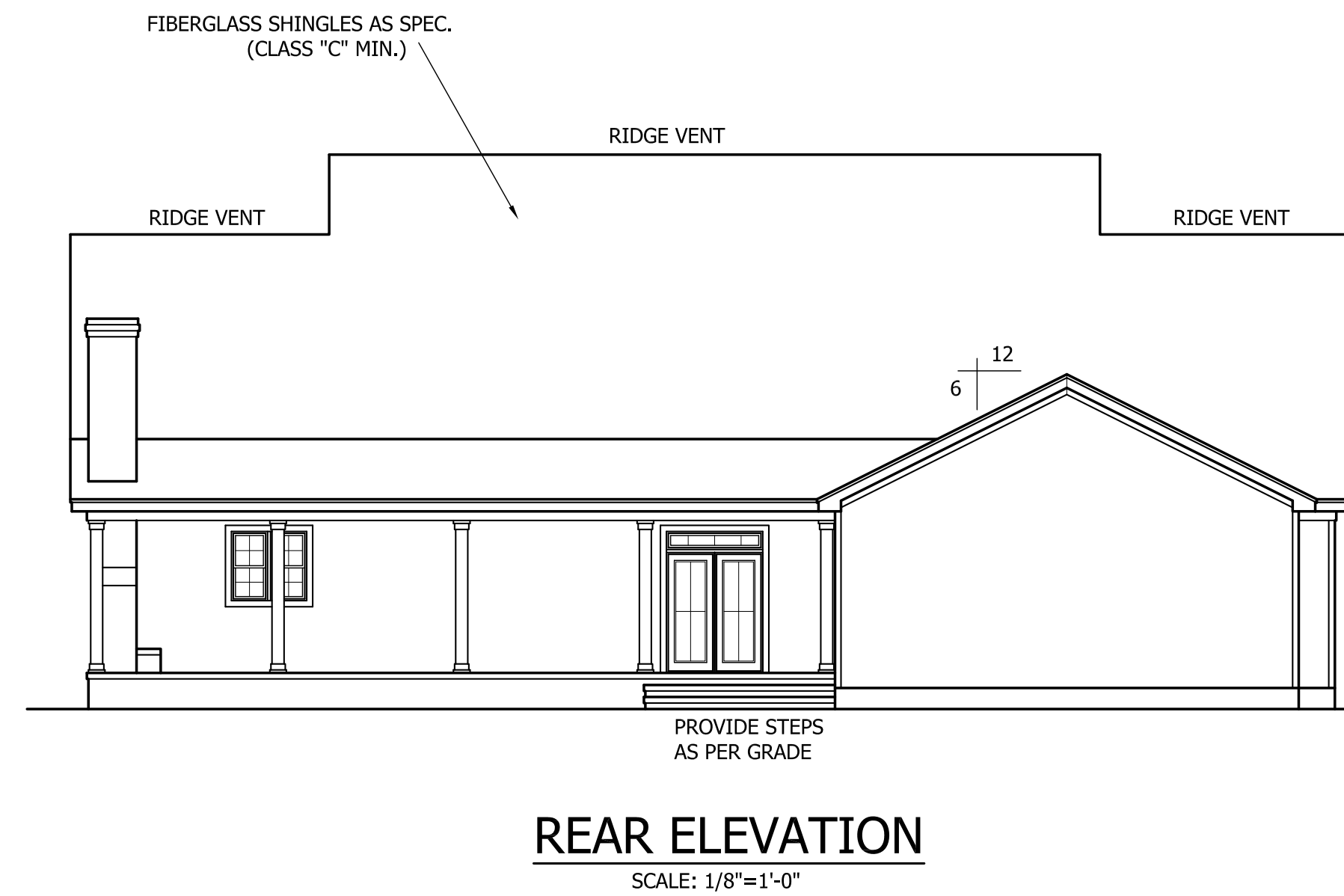
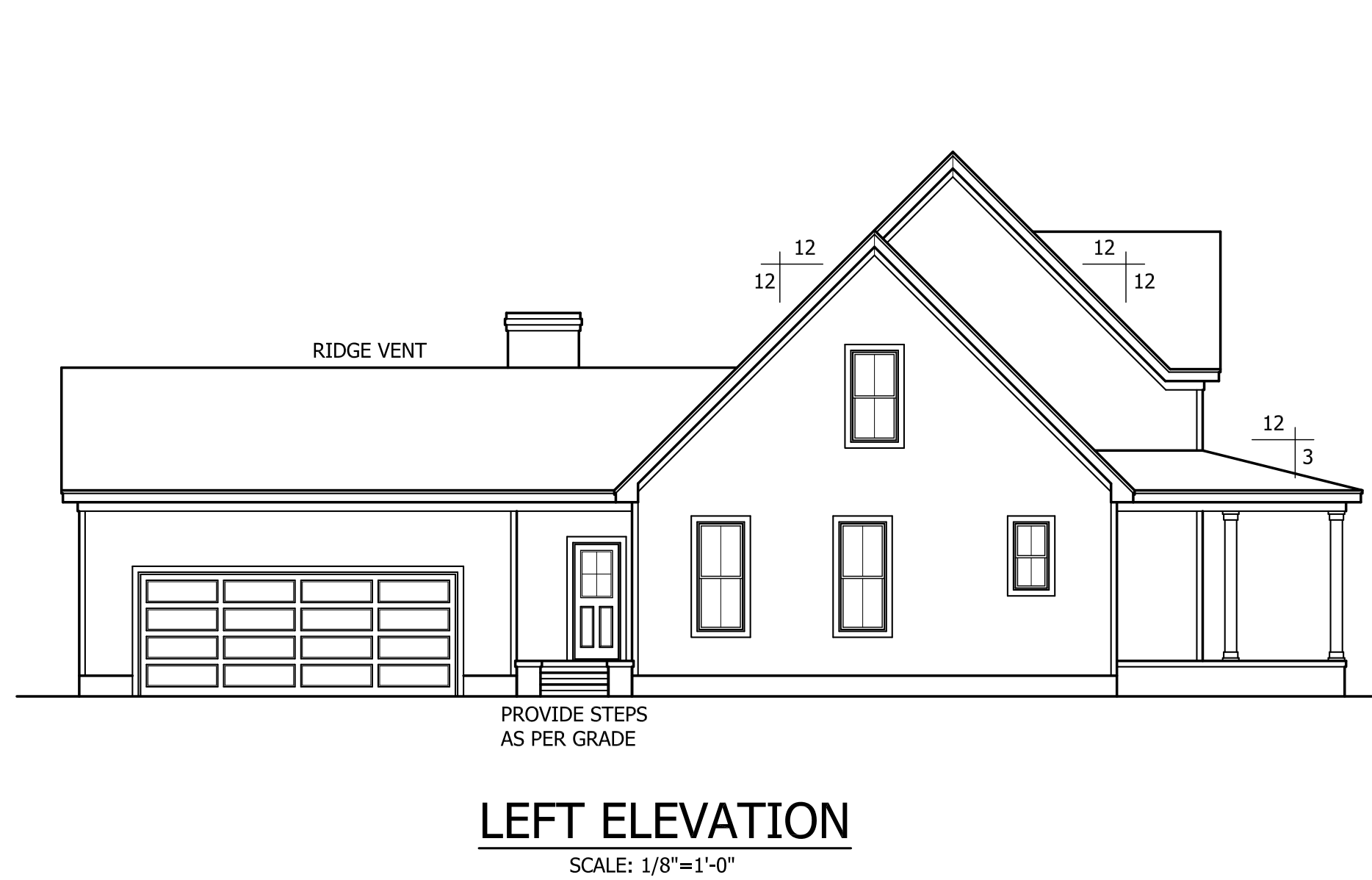
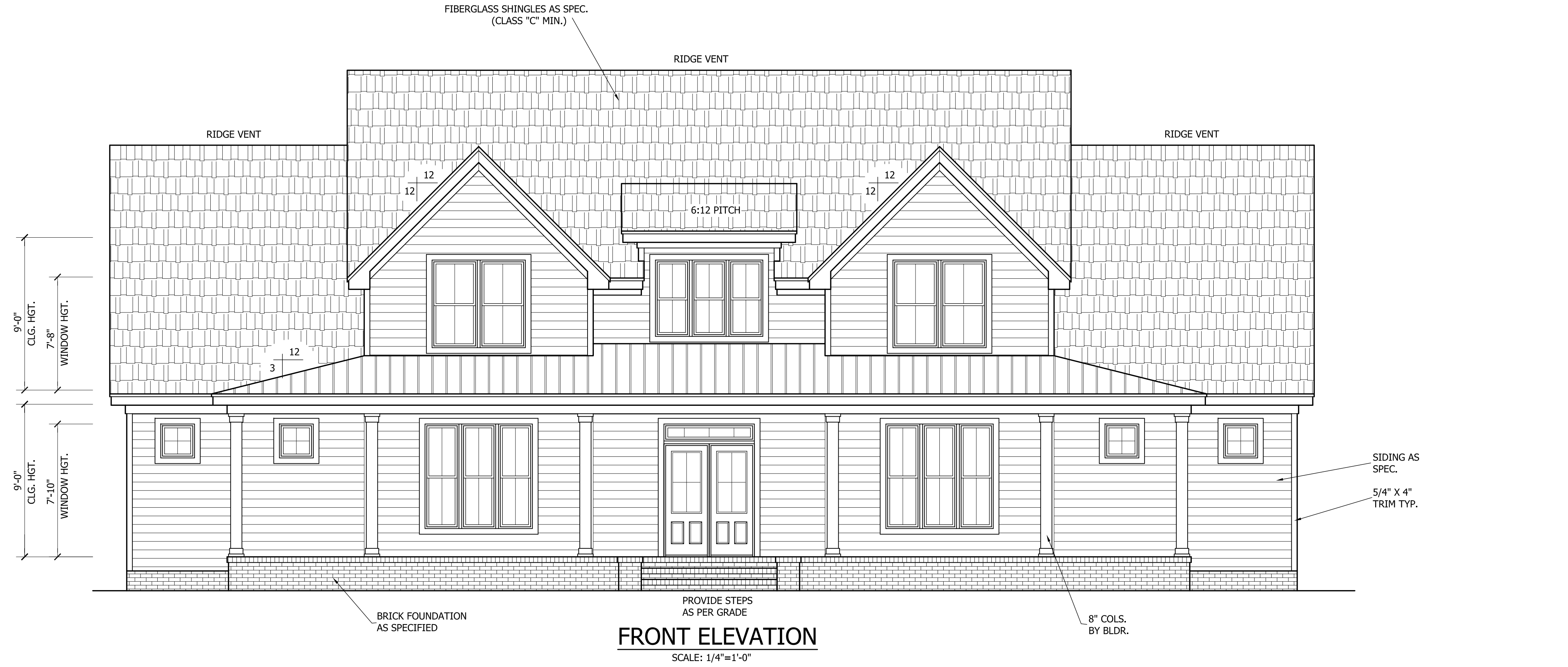


THIS PLAN HAS BEEN DRAWN TO CONFORM TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL STATE AND LOCAL BUILDING CODES AND ORDINANCES. KADS CUSTOM HOME DESIGNS ASSUMES NO LIABILITY FOR SITE CONDITIONS, CONSTRUCTION METHODS OR ANY DEVIATION OF THESE PLANS.

NOTE:  
ALL WINDOWS TO BE INSTALLED MUST MEET A MAXIMUM OF .32 U VALUE OR BETTER, UNLESS ENERGY CALCULATIONS ARE SUBMITTED WITH PLANS PROVIDED BY BUILDER AT TIME OF PLAN REVIEW.



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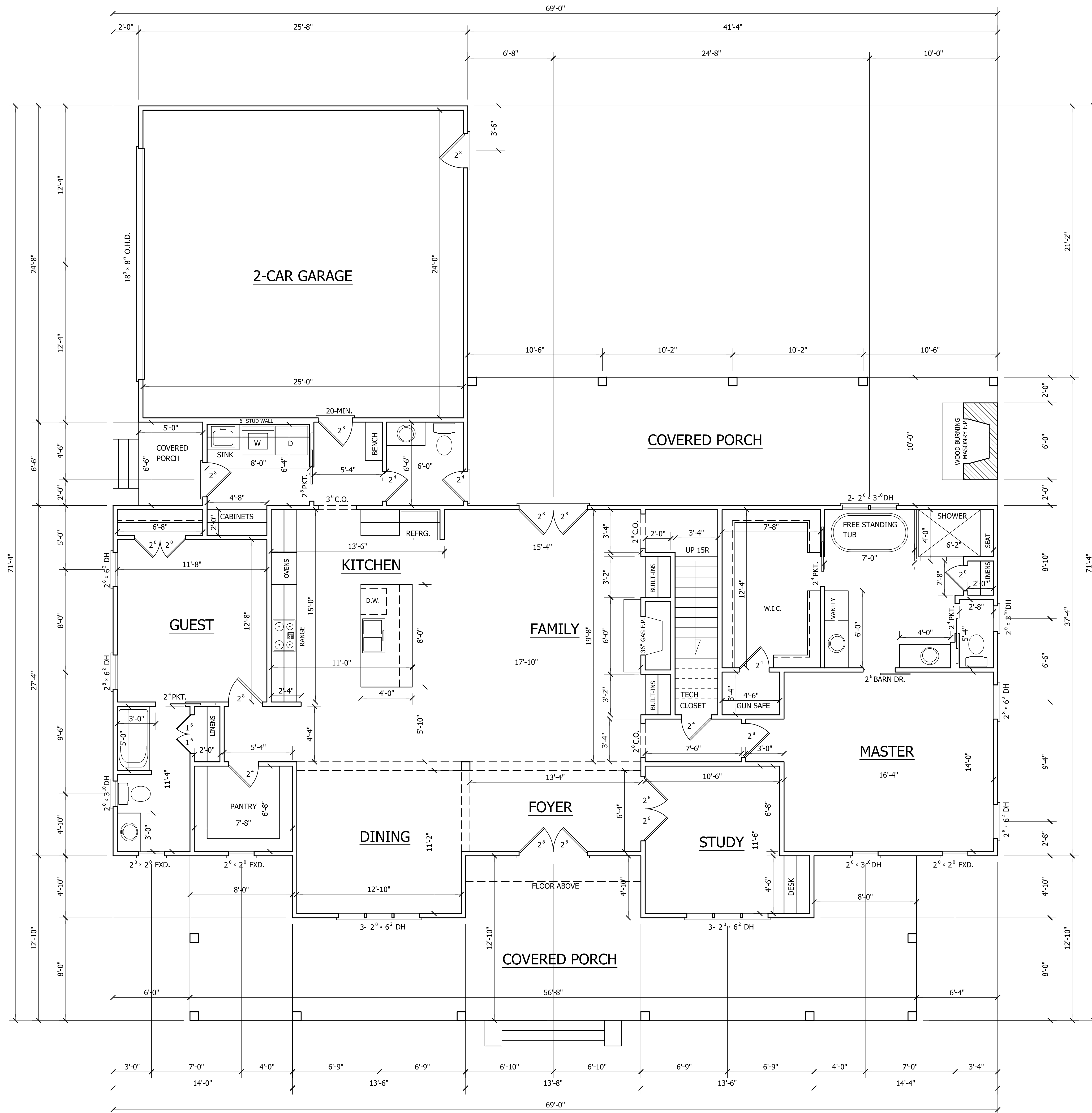
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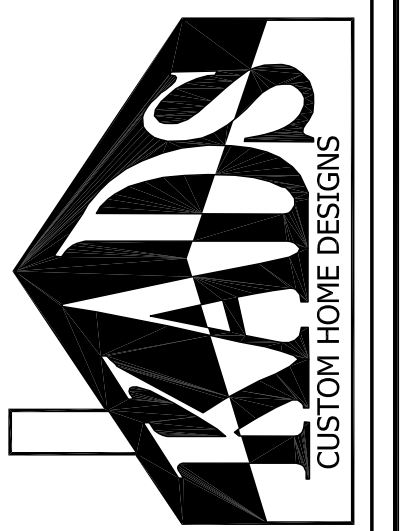
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<b>HEATED</b>	
FIRST FLOOR HTD. SQ. FT.	= 2158
SECOND FLOOR HTD. SQ. FT.	= 589
TOTAL HEATED SQ. FT.	= 2747
<b>UNHEATED</b>	
FRONT PORCH SQ. FT.	= 597
REAR PORCH SQ. FT.	= 413
SIDE PORCH SQ. FT.	= 32
GARAGE SQ. FT.	= 626

**FIRST FLOOR PLAN**

SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.  
 SET WINDOWS AT 7'-10" A.F.F.



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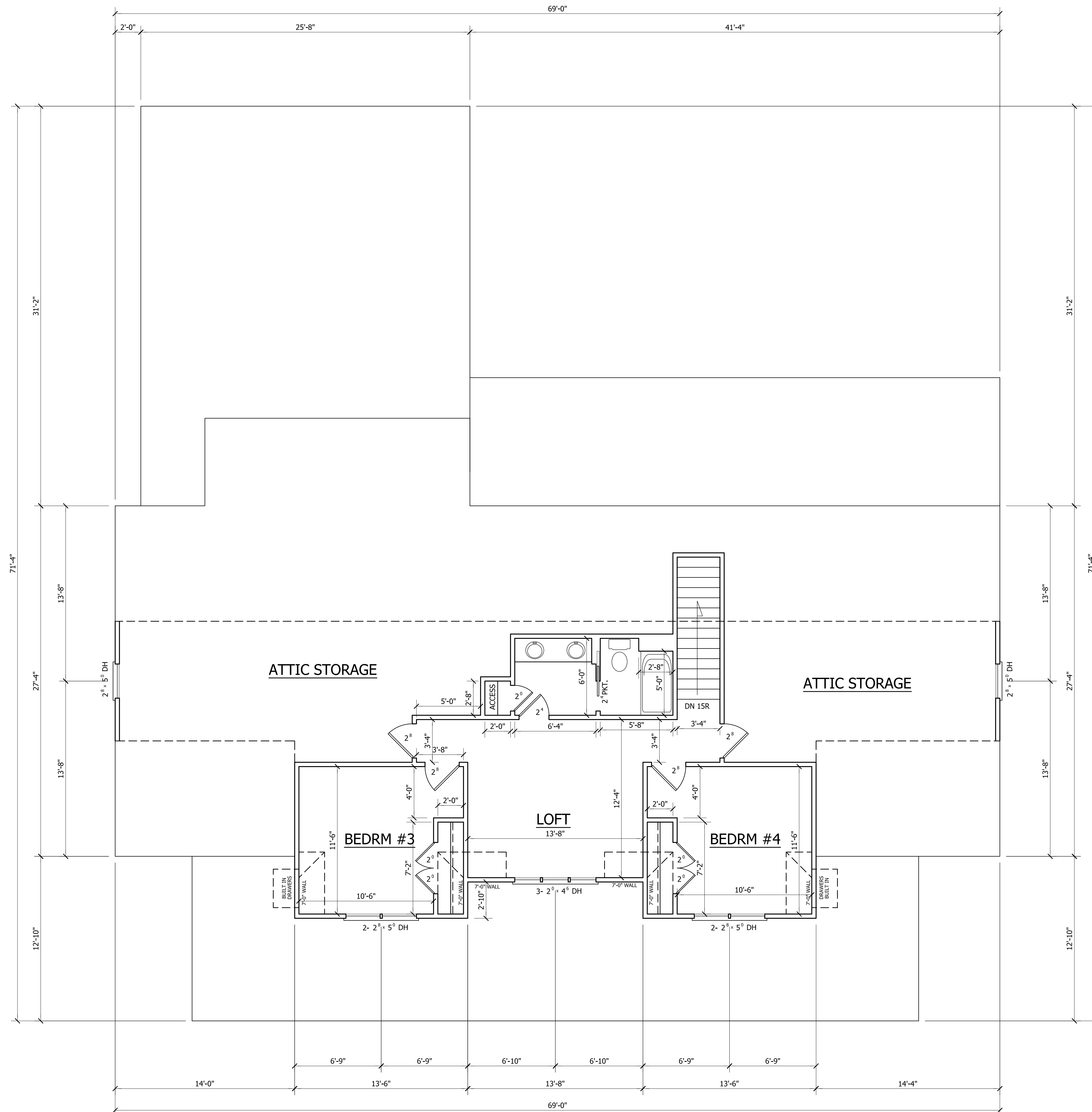
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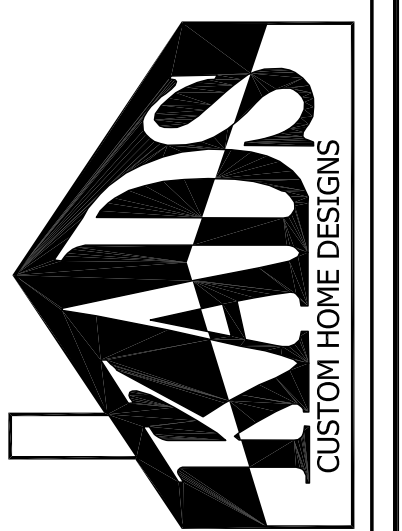
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**CARROLL RESIDENCE**



**SECOND FLOOR PLAN**

SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.  
 SET WINDOWS AT 7'-8" A.F.F.



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**CARROLL RESIDENCE**



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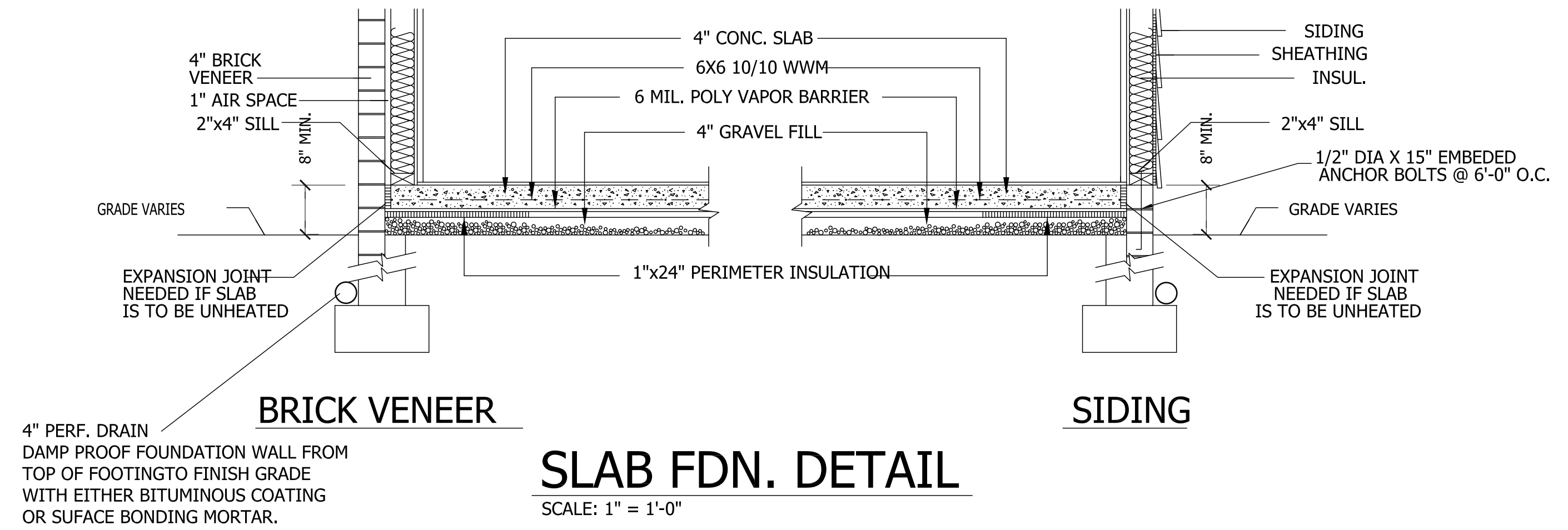
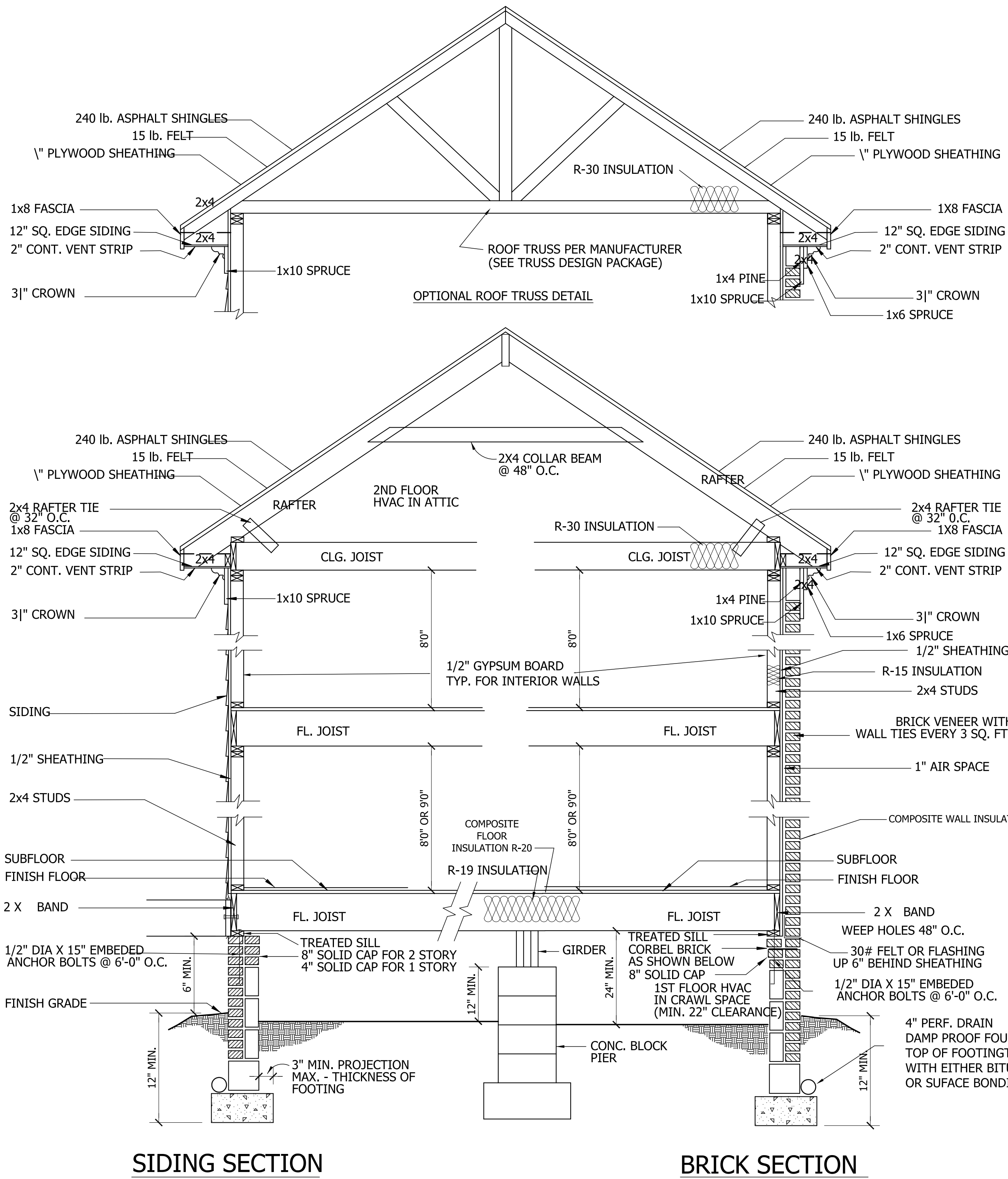
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**CRAWL SPACE VENTILATION**

PROVIDE AT LEAST 1.0 SQ. FT. NET FREE VENTILATION AREA FOR EACH 150 SQ. FT. OF CRAWL SPACE.

CRAWL SPACE AREA = 2158 SQ. FT.  
2158/150 = 14.39 SQ. FT. REQ'D.

REDUCE REQUIRED AREA TO 1.0 SQ. FT. NET FREE VENTILATION AREA FOR EACH 1,500 SQ. FT. OF CRAWL SPACE WITH APPROVED VAPOR BARRIER.

PROVIDE (1) VENT WITHIN 3'-0" OF EACH CORNER.

REFER TO MANUFACTURER SPECIFICATIONS FOR ACTUAL VENTS USED TO DETERMINE NUMBER OF VENTS REQUIRED.

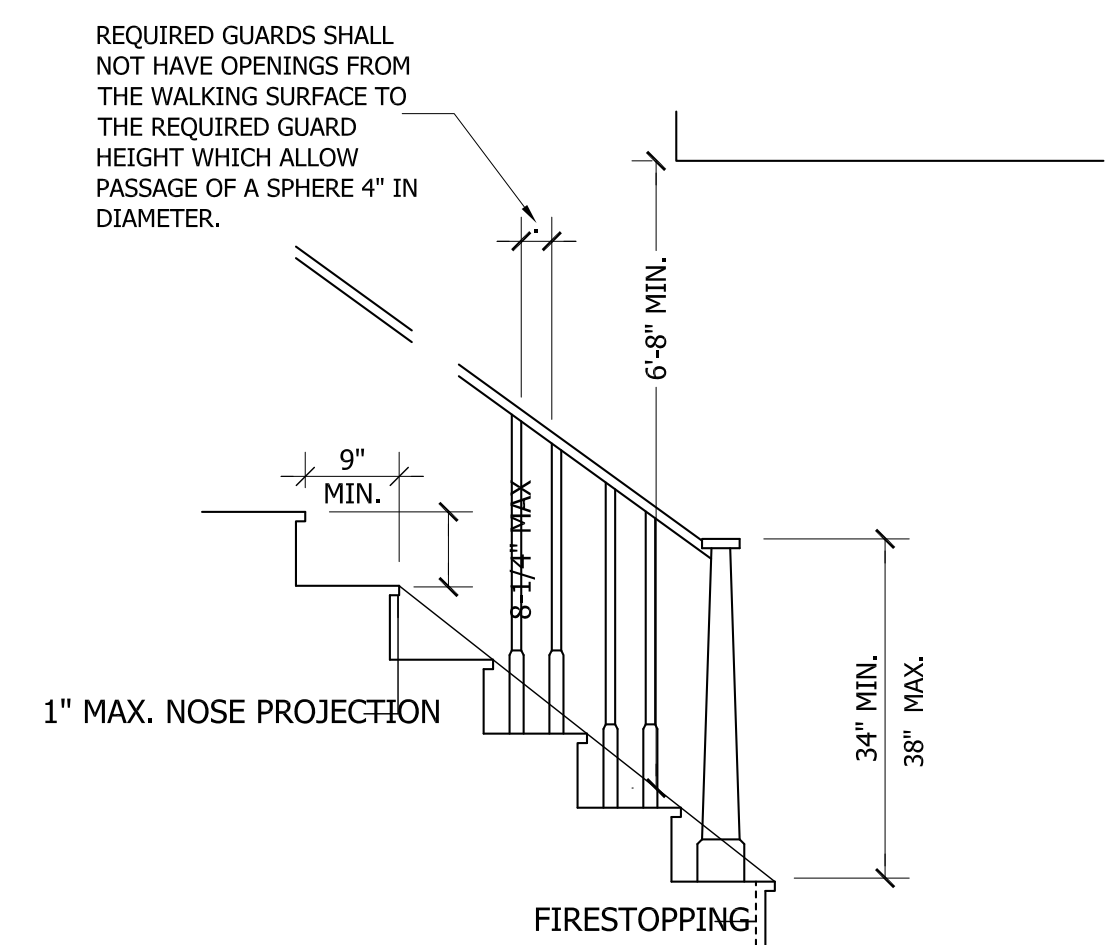
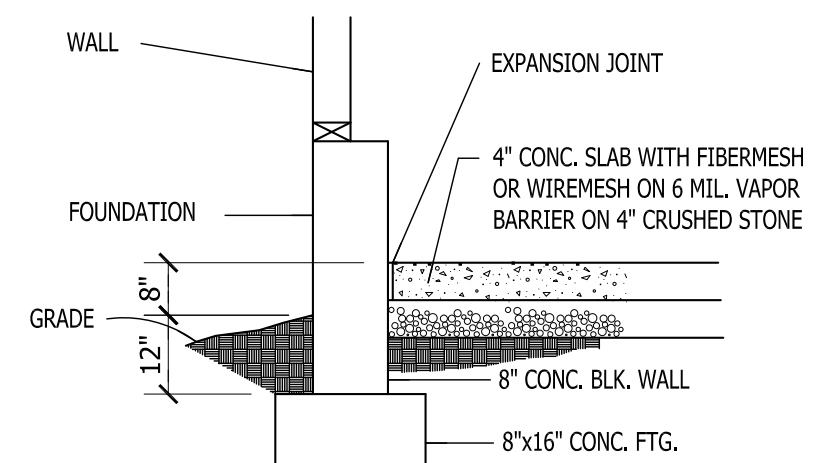
**ROOF VENTILATING REQUIREMENTS**

$\frac{3826}{150} = 25.50$  SQ. FT. REQ'D

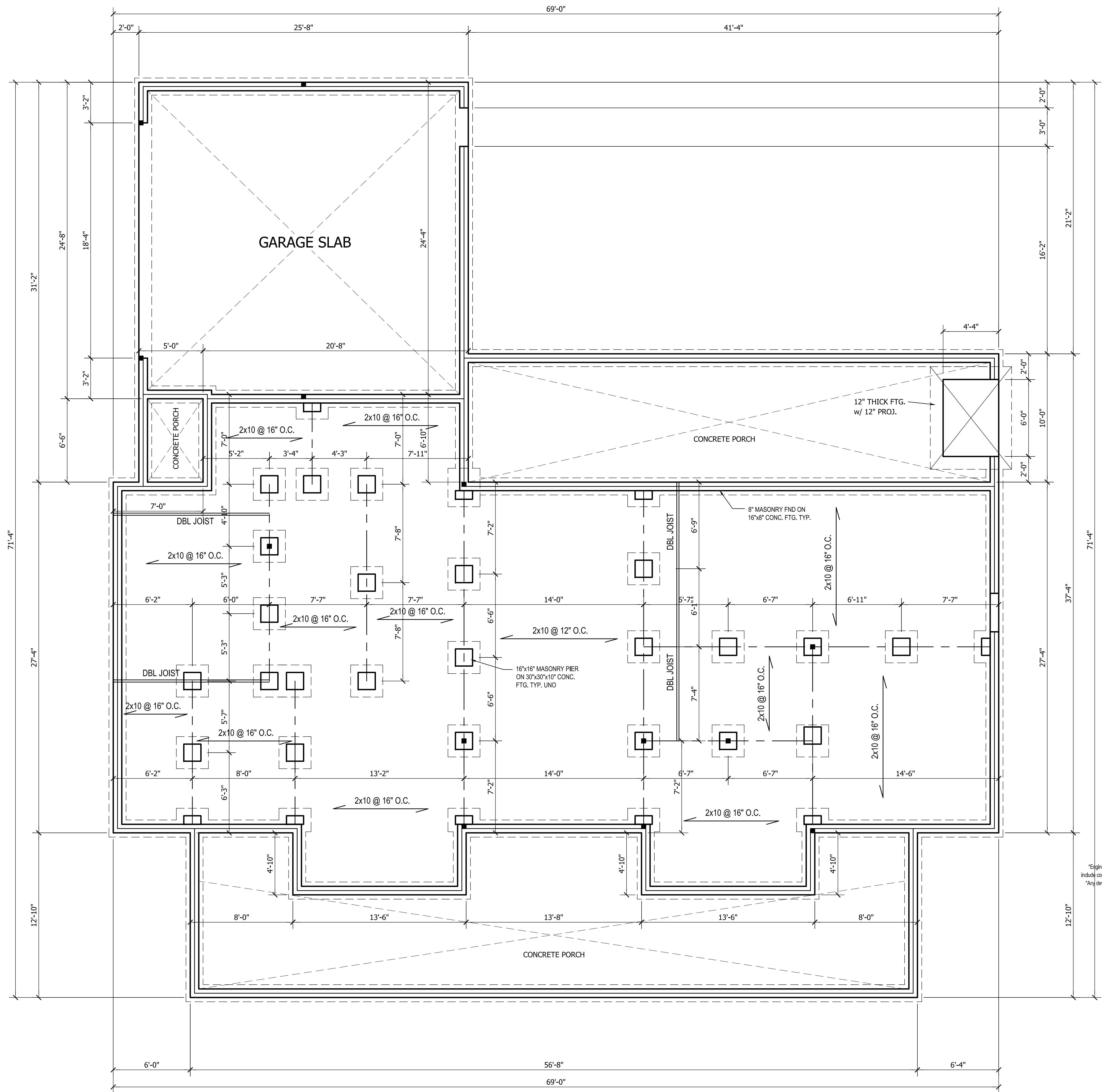
**ROOF VENTILATING REQUIREMENTS**  
(POWER ROOF VENTILATOR REQUIRED)

$\frac{3826}{300} = 12.75$  SQ. FT. REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED.



**NOTE:**  
Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31-1/2 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides



Mark E. Jones

Structural Engineering by:  
**Mark E. Jones, PE**  
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 \*Any deviations or discrepancies on plans are to be brought to the immediate attention of Mark E. Jones, PE. Failure to do so will void Mark E. Jones, PE liability.  
 Structural analysis based on NCR Residential Building Code 2018.

Project No. 21-225

**FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0"

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**STRUCTURAL NOTES**

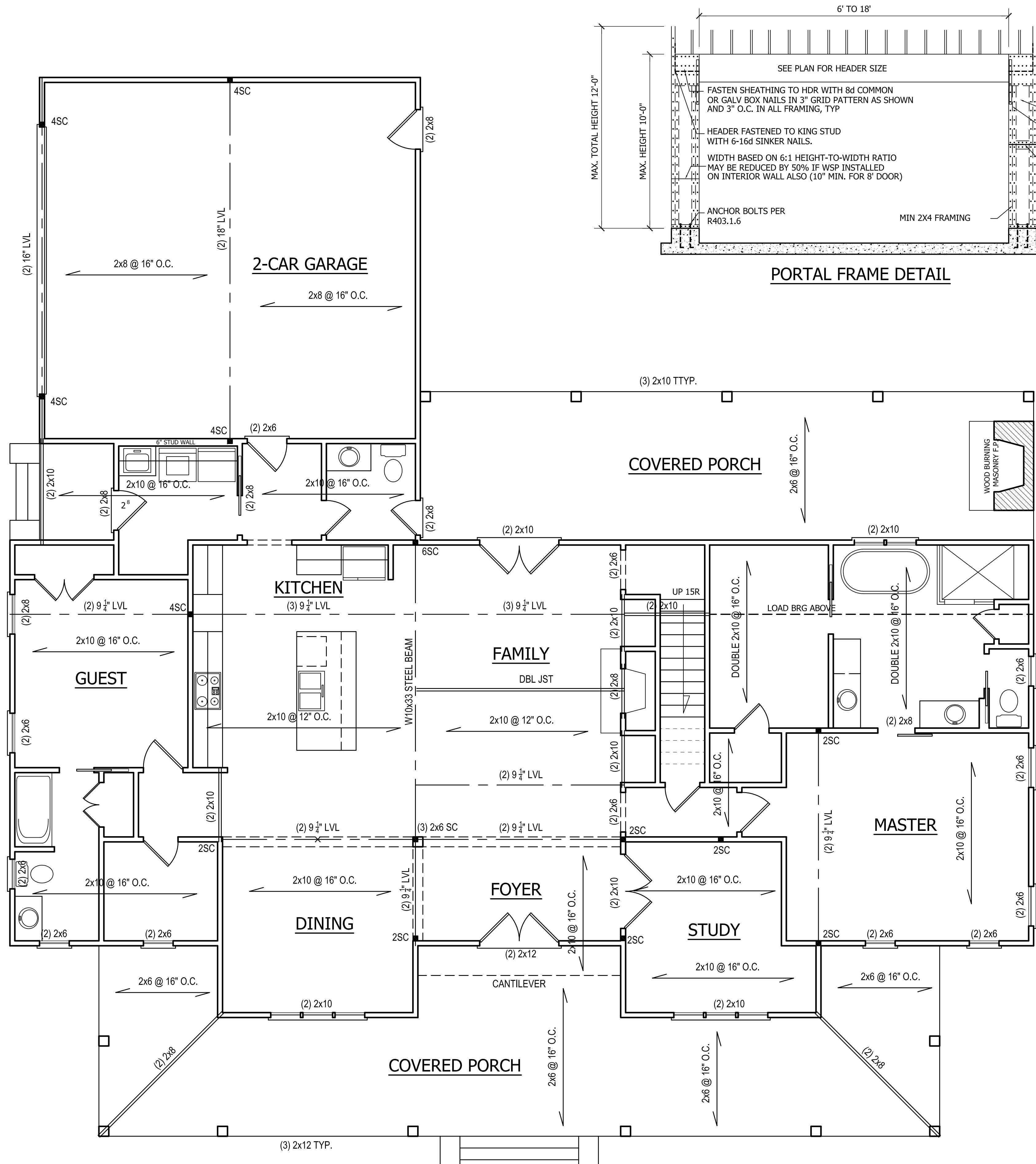
1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE, IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (IN. ILL.)
ALL FLOORS	40	10	L/360
ATTIC (ON DOWN ROOFS)	20	10	L/360
ATTIC (ON UP ROOFS)	10	5	L/360
EXTERNAL BALCONY	60	10	L/360
ROOF	20	10	L/180
ROOF TRUSS	20	20	L/240
WIND LOAD	(BASED ON 120 MPH 1-MINUTE GUST)		

- 3) WINDHAIL ALLOWABLE SOIL BEARING CAPACITY = 2000 PSF  
 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE (CONC).  
 5) MINIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION AREA OF 2011 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.  
 6) ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.  
 7) ALL LOAD BEARING HEADERS SHALL BE (2X10) LVLs. ALL WINDOW AND DOOR HEADERS SHALL BE SUPPORTED BY (1) JACK STUD AND (1) KING STUD AT EACH END UNLESS NOTED. ALL OTHER BEAMS SHALL BE SUPPORTED BY 2 STUDS OR THE NUMBER OF STUDS REQUIRED FOR FULL BEARING AT EACH END UNLESS NOTED. POINT LOADS (STIFF KNEES, ETC.) SHALL CHECK FOR STUDS UNLESS NOTED. ALL SUPPORTS OF STUDS OR WIDE SHALL BE TRANSFERRED THROUGH EACH FLOOR TO THE FOUNDATION.  
 8) ALL EXTERIOR WALLS TO BE SHEATHED WITH MIN. 7/16" WOOD STRUCTURAL PANELS FINISHED WITH 60 MILS 0" O.C. AT EXTERIOR AND 1/2" O.C. AT INT. SUPPORTS. BRACING SHALL BE INSTALLED IF LESS THAN 50 PERCENT OF THE WALL LENGTH IS SHEATHED. WHERE BRACING IS REQ'D, ALL PANELS SHALL BE POSTERED AT 7' O.C. AT EXTERIOR AND 6' O.C. AT INT. SUPPORTS.  
 9) ALL STRUCTURAL STEEL SHALL ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3" UNLESS OTHERWISE NOTED. PROVIDE SOLE BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER AND 6" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TIE WALLED TO THE SOLE PLATES, AND THE SOLE PLATES ARE WALLED OR BOLTED TO THE BEAM FRAMES AT 6" O.C.  
 10) ANCHOR BOLT PLACEMENT PER SECTION R602.1.1. 1/2" DIAMETER ANCHOR BOLTS SPACED AT 6'-0" AND PLACED 12" FROM THE END OF EACH PLATE SECTION.  
 11) FOUNDATION BRACING/DRY-DRY PROTECTING OR WATERPROOFING PER SECTION 405 AND 406 OF 2011 NC BUILDING CODE.  
 12) WALL AND ROOF CLADDING VALUES.  
 13) WALL CLADDING SHALL BE DESIGNED FOR A 24.1 PSF FL. OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:  
 45.1 LB/SQFT FOR ROOF PROCESSES 0.5 TO 2.0 TO 1  
 24.1 LB/SQFT FOR ROOF PROCESSES OF 2.0 TO 7 TO 1  
 23.8 LB/SQFT FOR ROOF PROCESSES OF 7 TO 1 TO 1  
 \*\* MEAN ROOF HEIGHT 30' OR LESS  
 14) FOR ROOF SLOPES FROM 2:12 THROUGH 4:12, BUILDER TO INSTALL 2 LAYERS OF 1/2" FELT PAPER.  
 15) IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SIZES ARE CORRECT PRIOR TO CONSTRUCTION. DESIGNER IS NOT RESPONSIBLE FOR DIMENSIONING OR SIZING. ERRORS ONCE CONSTRUCTION BEGINS.

THIS PLAN SHALL BE CONTINUOUSLY BRACED WITH WOOD STRUCTURAL PANELS PER SECTION R602.10.3 OF THE NC RESIDENTIAL BUILDING CODE. NOTE ALL WALL BRACING LINES SATISFY THE MINIMUM AMOUNTS OF WALL BRACING PER CODE. GARAGE DOOR HEADER SHALL BE CONSTRUCTED PER FIGURE R602.10.1, METHOD PF.



3/8" MIN THK STRUCTURAL SHEATHING  
 LSTA-24 STRAPS (INSIDE AND OUTSIDE) AT FIRST JACK, CENTERED AT BOTTOM OF HEADER, BOTH SIDES OF OPENING  
 FOR A PANEL SPLICE (IF NEEDED), PANEL EDGES SHALL BE BLOCKED, AND OCCUR WITHIN 24" OF MID-HEIGHT. ONE ROW OF TYP SHEATHING-TO-FRAMING NAILING IS REQ'D IF 2X4 BLOCKING IS USED, THE 2X4'S MUST BE NAILED TOGETHER WITH 3-16d SINKERS



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Project No. 21-225

**FIRST FLOOR PLAN**

SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.  
 SET WINDOWS AT 7'-10" A.F.F.

**CARROLL RESIDENCE**



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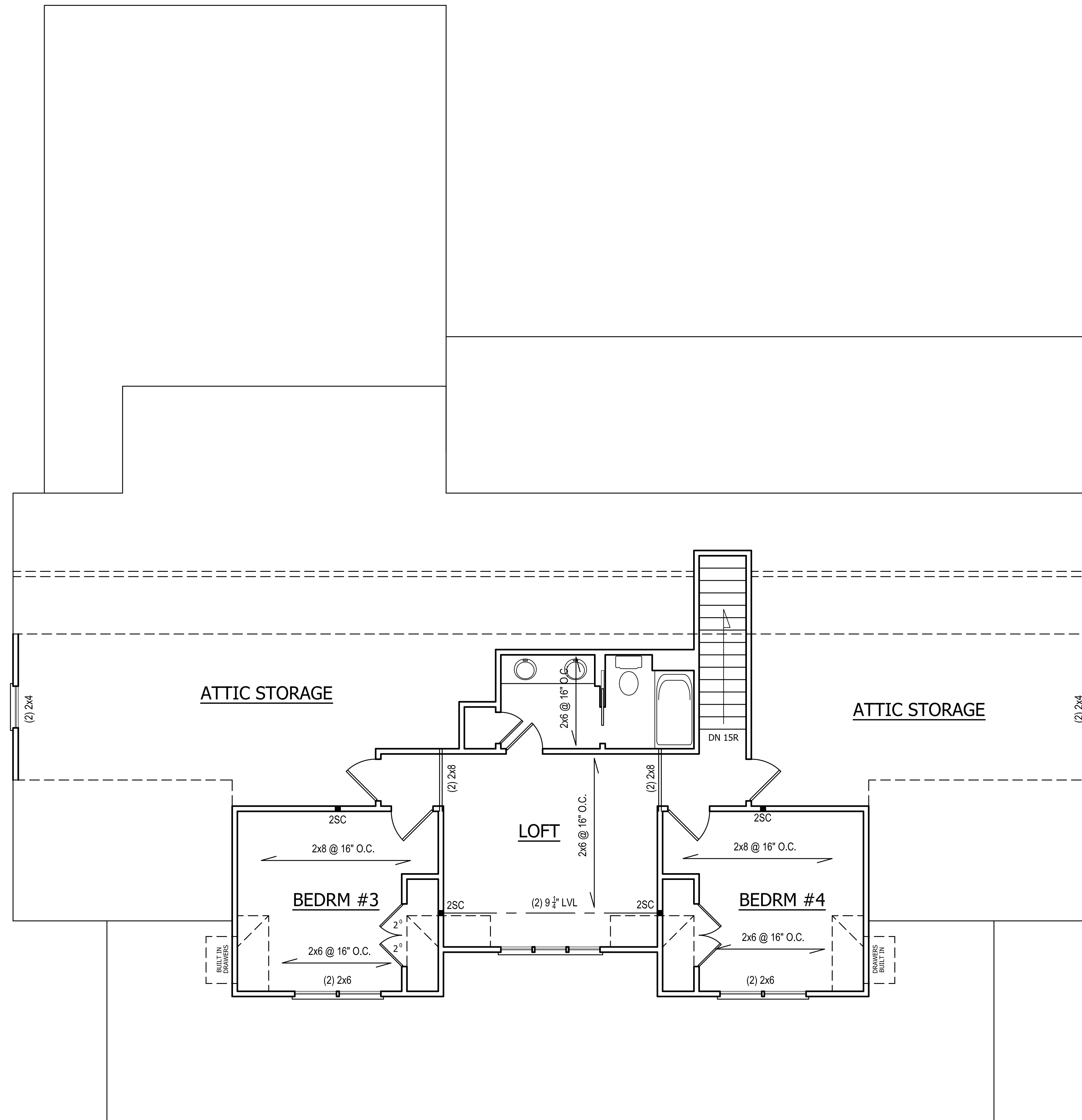
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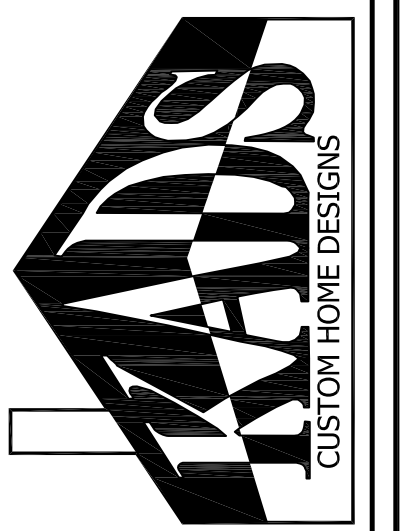


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**SECOND FLOOR PLAN**  
 SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.  
 SET WINDOWS AT 7'-8" A.F.F.

**CARROLL RESIDENCE**



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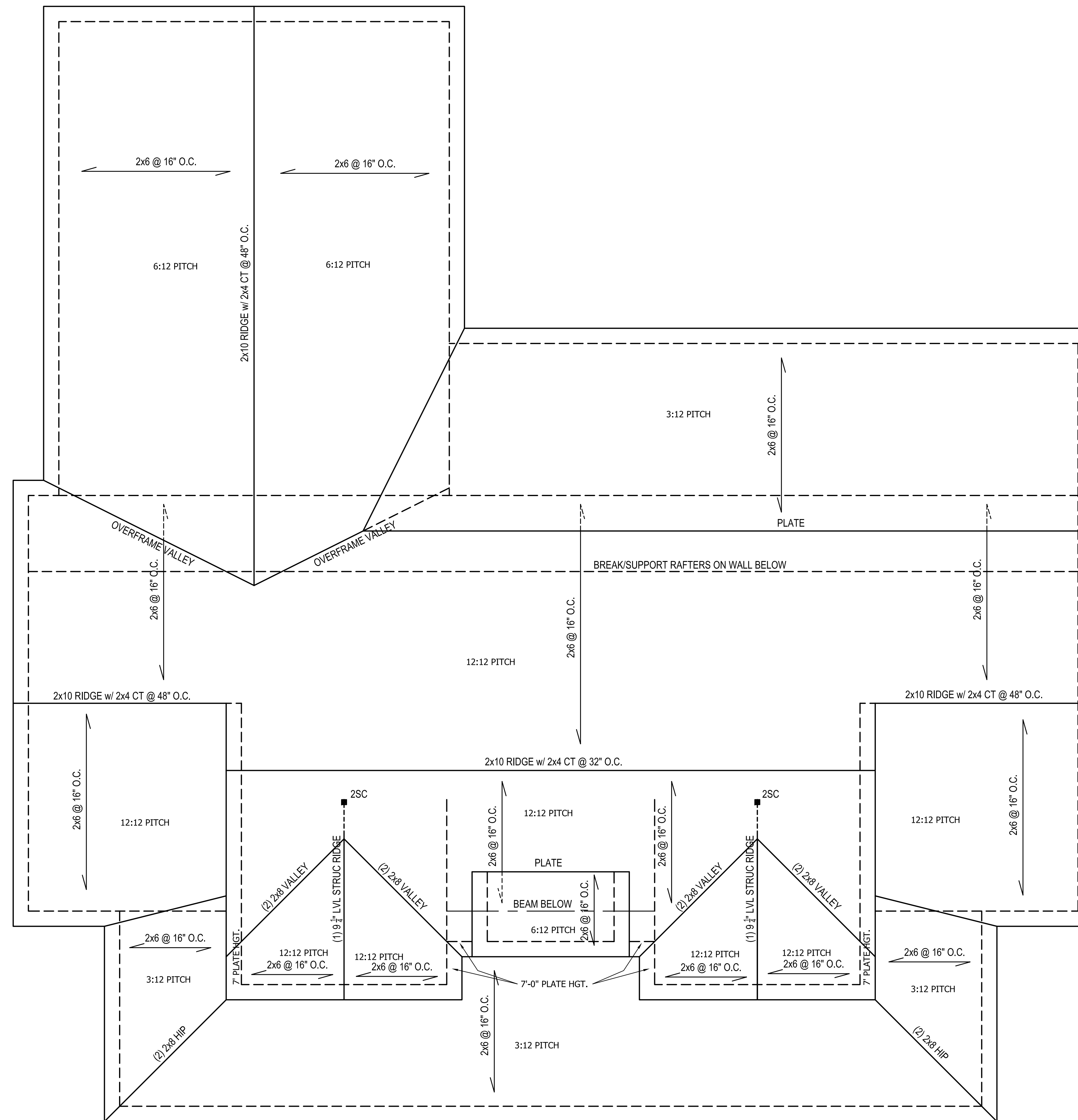
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Project No. 21-225

**ROOF PLAN**  
 SCALE: 1/4"=1'-0"

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