

**GENERAL FOUNDATION NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING TO BE A MINIMUM OF 16" WIDE AND CONSTRUCTED WITH 3000 PSI CONCRETE. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS REFER TO STATE AND LOCAL BUILDING CODES. THE ASSUMED SOIL BEARING CAPACITY FOR THIS PROJECT IS 2000 PSF. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AND CONTACT A SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUB-GRADE A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE OR AS OTHERWISE DIRECTED BY THE LOCAL INSPECTOR.
4. FOUNDATION DRAINAGE SHALL BE IN ACCORDANCE WITH SECTION R405 "FOUNDATION DRAINAGE" AND SECTION R406 "FOUNDATION WATERPROOFING AND DAMPPROOFING".
5. ANCHOR BOLTS SHALL BE 1/2" DIAMETER AND INSTALLED AT 12" ON CENTER AND 12" FROM EACH CORNER OR SILL PLATE SPICE LOCATIONS.

**STRUCTURAL EVALUATION BY:**

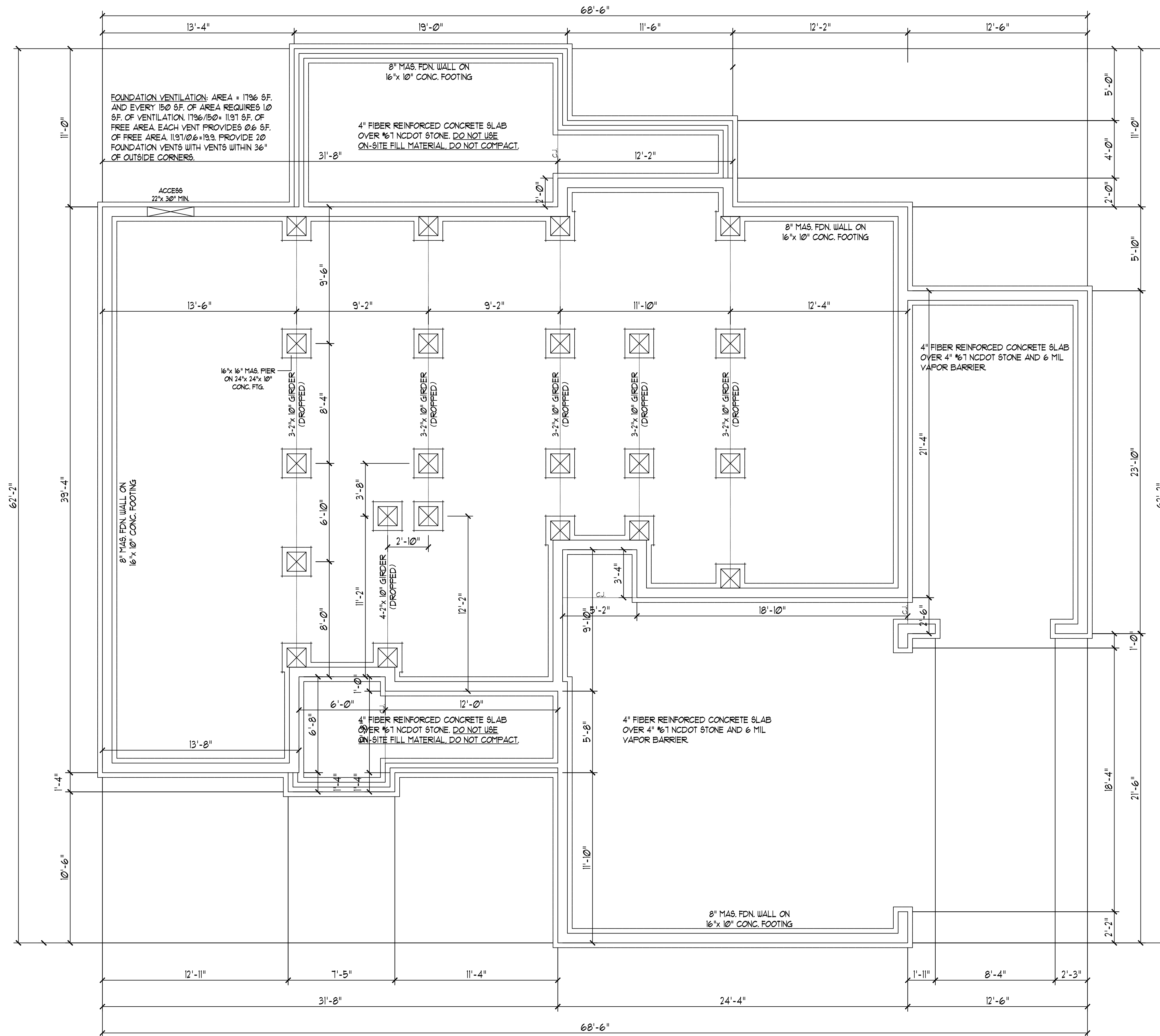
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6/30/2023

FILE: JACKSON

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 \*ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
 \*DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



**FOUNDATION PLAN**  
 Scale: 1" = 1'-0"

DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SITE DIRECTIONS ARE TO BE OBTAINED FROM THE ORIGINAL DRAWINGS. ANY DISCREPANCIES OR OMISSIONS BE NOTED. THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THESE DRAWINGS ARE FOR STRUCTURAL ELEMENTS ONLY. THE ENGINEER'S LIABILITY IS LIMITED TO THE STRUCTURAL DESIGN AND CONSTRUCTION OF NON-STRUCTURAL ITEMS.

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**JACKSON RESIDENCE**  
 PLAN #21-359

Sheet No.  
 51

**GENERAL NOTES:**

1. THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 241 PSF.
3. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 1/12  
 34.5 PSF FOR ROOF PITCHES FROM 1/12 TO 2/12  
 21.0 PSF FOR ROOF PITCHES FROM 2/12 TO 12/12  
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'.
4. ALL WALLS, CEILINGS, AND FLOORS SHALL BE INSULATED IN ACCORDANCE WITH PART IV, ENERGY CONSERVATION, CHAPTER II, ENERGY EFFICIENCY OF THE CODE FOR ZONE 4I (TABLE R102.1).
5. DESIGN CRITERIA IS AS FOLLOWS:  


	DEAD LOAD (PSF)	LIVE LOAD (PSF)
PRIMARY FLOOR	10	40
SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20

 WIND LOADING IS BASED ON 3 SECOND GUST OF 15 MILES PER HOUR.  
 LIVE LOAD DEFLECTION LIMITS (LIVE LOAD) ARE L/360 FOR FLOORS, L/240 FOR ROOF.
6. ALL HEADERS IN LOAD BEARING WALL SHALL BE 2"x 10" UNLESS NOTED OTHERWISE. FULL HEIGHT KING STUDS SHALL BE INSTALLED FM EACH SIDE OF EXTERIOR WALL HEADERS AND BEAMS AS FOLLOWS:  

HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	1
6'-0"	3	2
12'-0"	5	3
16'-0"	6	4
7. ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SPF OR BETTER LUMBER USED FOR STUD WALL SHALL BE #3 SPF OR BETTER. DOUBLE FLOOR JOISTS SHALL BE INSTALLED UNDER ALL WALLS RUNNING PARALLEL WITH THE FLOOR JOISTS.
8. LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fb=2000 PSI, Fv=285 PSI, E=2,000,000 PSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
9. THE FOLLOWING SHALL APPLY TO ALL BRACED WALL LINES:  
 ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED WITH 1/2" OSB OR CDX WSP SHALL BE IN ACCORDANCE WITH R-602.10.3 AND SHALL BE COVERED WITH 1/2" GYPSUM BOARD ON THE INTERIOR FACE. ALL WSP PANELS SHALL BE FASTENED WITH 8d NAILS AT 12" ON CENTER (FIELD) AND 6" ON CENTER (EDGES). ALL EXTERIOR WALLS SHALL BE 2"x 4" AT 16" ON CENTER AS A MINIMUM (EXCEPT FOR BALLOON FRAMED WALL SECTIONS AS NOTED) AND CONTINUOUSLY SHEATHED.

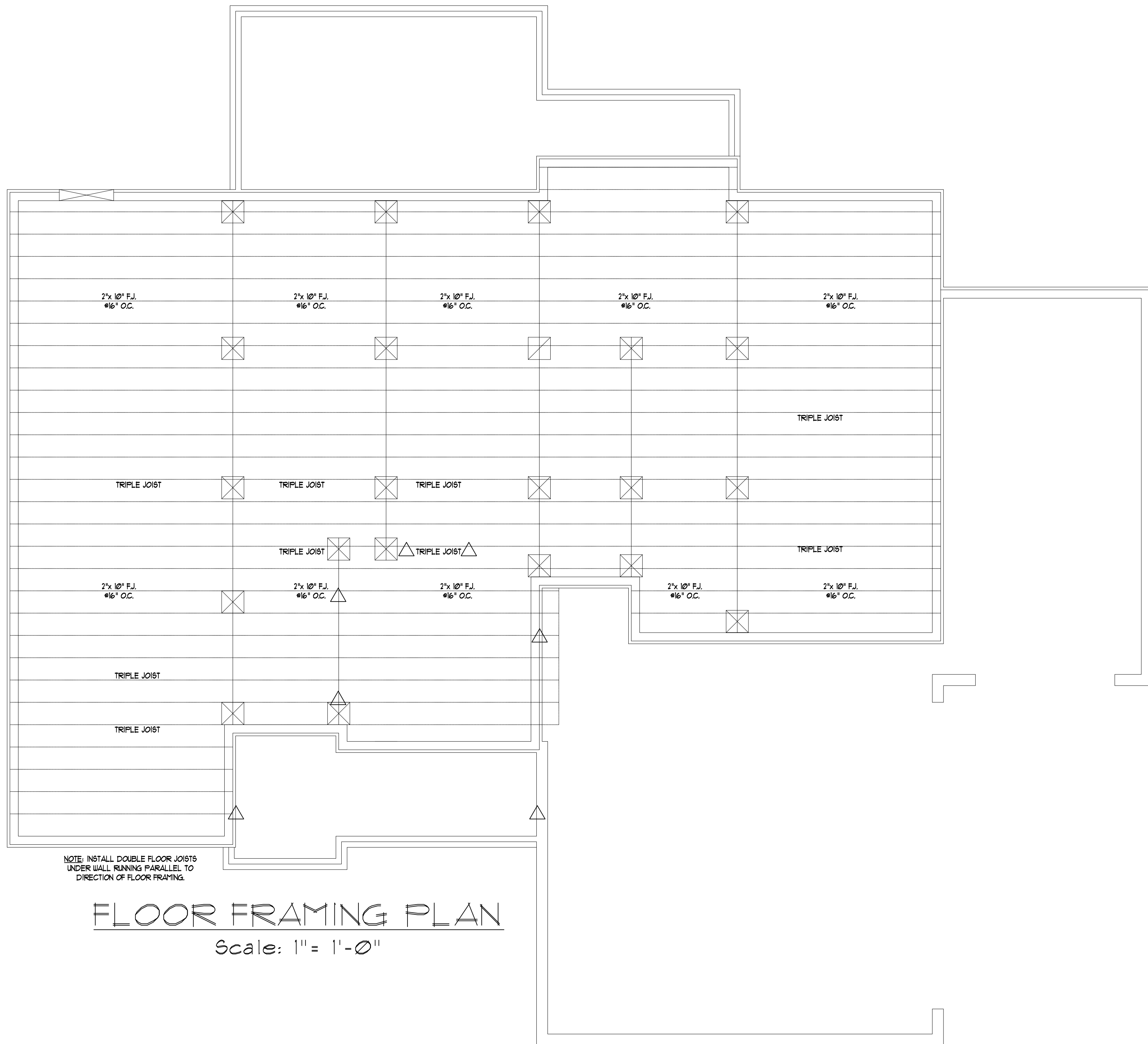
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**FLOOR FRAMING PLAN**  
 Scale: 1" = 1'-0"

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 ALL DIMENSIONS AND SHEET DIMENSIONS ARE TO BE TAKEN FROM THESE DRAWINGS UNLESS OTHERWISE NOTED. THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THESE DRAWINGS APPLY TO STRUCTURAL ELEMENTS ONLY. COMPLIANCE OF NON-STRUCTURAL ITEMS.

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JACKSON RESIDENCE  
 PLAN #21-359  
 Sheet No. 5/01

**GENERAL NOTES:**

- THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
- WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 241 PSF.
- ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 12/12  
 34.5 PSF FOR ROOF PITCHES FROM 2.25/12 TO 1/12  
 21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 12/12  
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'
- ALL WALLS, CEILINGS, AND FLOORS SHALL BE INSULATED IN ACCORDANCE WITH PART IV, ENERGY CONSERVATION, CHAPTER II, ENERGY EFFICIENCY OF THE CODE FOR ZONE 4I (TABLE #102.1)
- DESIGN CRITERIA IS AS FOLLOWS:  

	DEAD LOAD (PSF)	LIVE LOAD (PSF)
PRIMARY FLOOR	10	40
SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20

- WIND LOADING IS BASED ON 3 SECOND GUST OF 115 MILES PER HOUR
- LIVE LOAD DEFLECTION LIMITS (LIVE LOAD) ARE L/360 FOR FLOORS, L/240 FOR ROOF
- ALL HEADERS IN LOAD BEARING WALL SHALL BE 2-2"x 10" UNLESS NOTED OTHERWISE. FULL HEIGHT KING STUDS SHALL BE INSTALLED FROM EACH SIDE OF EXTERIOR WALL HEADERS AND BEAMS AS FOLLOWS:  

HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	1
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16'-0"	6	4
- ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SFF OR BETTER LUMBER USED FOR STUD WALL SHALL BE #2 SFF OR BETTER. DOUBLE FLOOR JOISTS SHALL BE INSTALLED UNDER ALL WALLS RUNNING PARALLEL WITH THE FLOOR JOISTS.
- LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fc=2000 FSI, Fv=285 FSI, E=2,000,000 FSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
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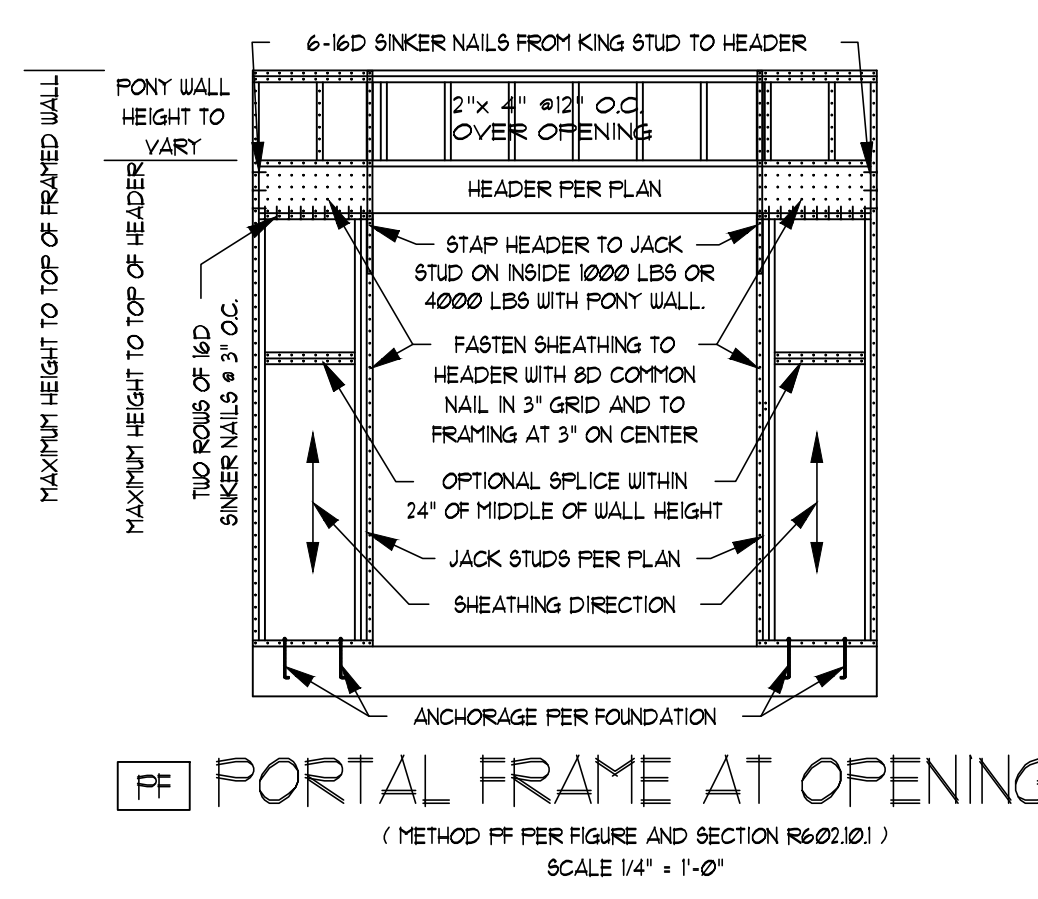
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**FIRST LEVEL CEILING PLAN**  
 Scale: 1" = 1'-0"



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 PLAN #21-359  
 Sheet No. S2

GENERAL NOTES:

- 1. THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
- 2. WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 241 PSF.
- 3. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:
  - 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 1/12
  - 34.5 PSF FOR ROOF PITCHES FROM 2/12 TO 1/12
  - 21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 12/12
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'.
- 4. ALL WALLS, CEILINGS, AND FLOORS SHALL BE INSULATED IN ACCORDANCE WITH PART IV, ENERGY CONSERVATION, CHAPTER II, ENERGY EFFICIENCY OF THE CODE FOR ZONE 4I (TABLE #102.1).
- 5. DESIGN CRITERIA IS AS FOLLOWS:
 

	DEAD LOAD (PSF)	LIVE LOAD (PSF)
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SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20
- 6. ALL HEADERS IN LOAD BEARING WALL SHALL BE 2"x 12" UNLESS NOTED OTHERWISE. FULL HEIGHT KING STUDS SHALL BE INSTALLED FROM EACH SIDE OF EXTERIOR WALL HEADERS AND BEAMS AS FOLLOWS:
 

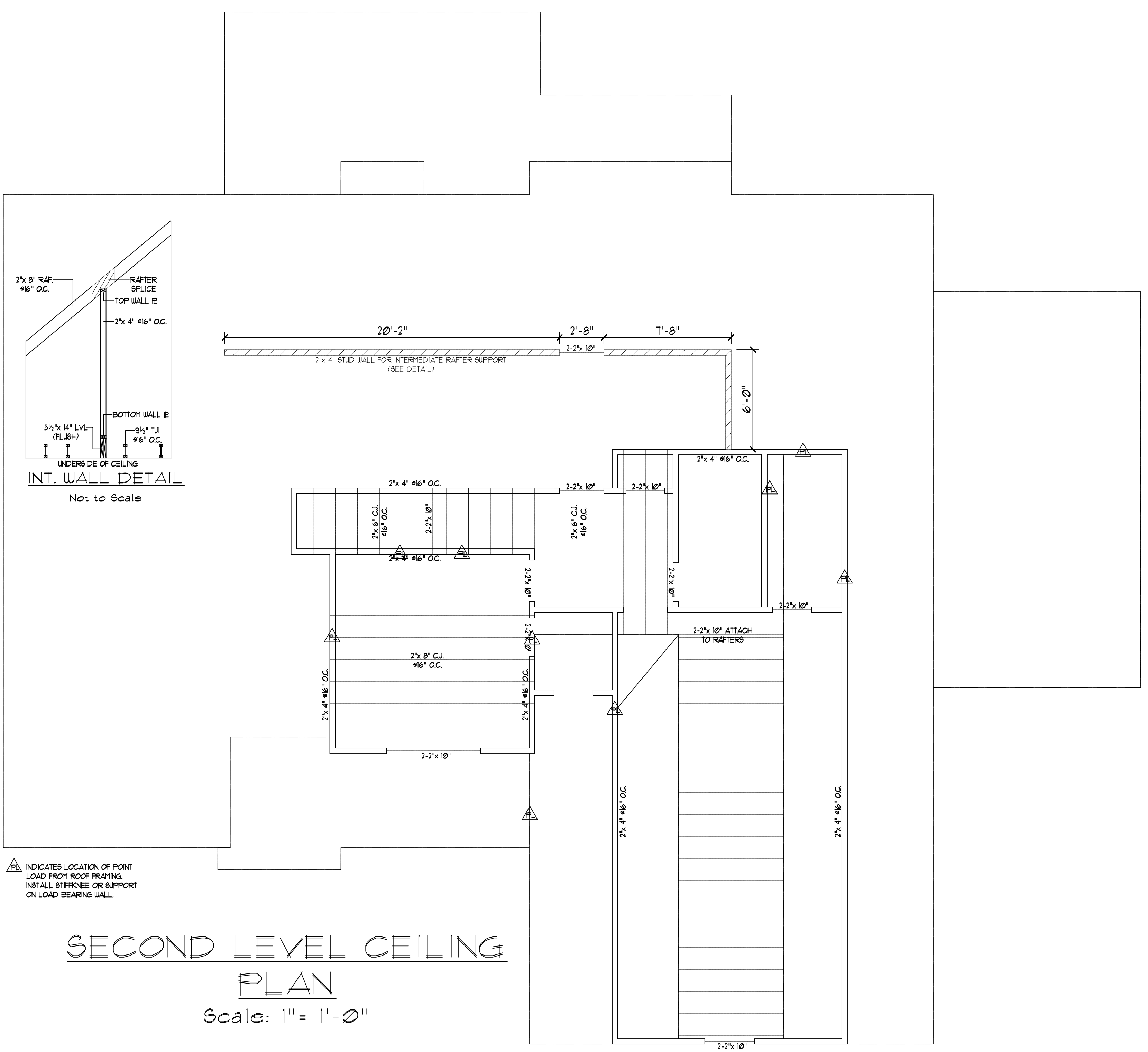
HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	2
8'-0"	3	3
12'-0"	5	5
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- 7. ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SFF OR BETTER LUMBER USED FOR STUD WALL SHALL BE #2 SFF OR BETTER. DOUBLE FLOOR JOISTS SHALL BE INSTALLED UNDER ALL WALLS RUNNING PARALLEL WITH THE FLOOR JOISTS.

- 8. LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fc+12000 FSI, Fv+285 FSI, E+2000000 FSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
- 9. THE FOLLOWING SHALL APPLY TO ALL BRACED WALL LINES:
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JACKSON RESIDENCE  
 PLAN #21-359

Sheet No.  
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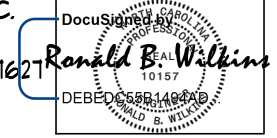
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**GENERAL ROOF NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 2/12  
 34.5 PSF FOR ROOF PITCHES FROM 2.25/12 TO 1/12  
 21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 12/12  
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'
3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE BUILDING CODE.
4. ALL LUMBER SHALL BE #1 SPF SYP OR BETTER.
5. THIS ROOF AND STRUCTURE ARE DESIGNED FOR A DESIGN WIND SPEED OF 115 MPH.
6. ROOF TRUSSES (IF USED) SHALL BE DESIGNED BY THE MANUFACTURER AND THE ANALYSIS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

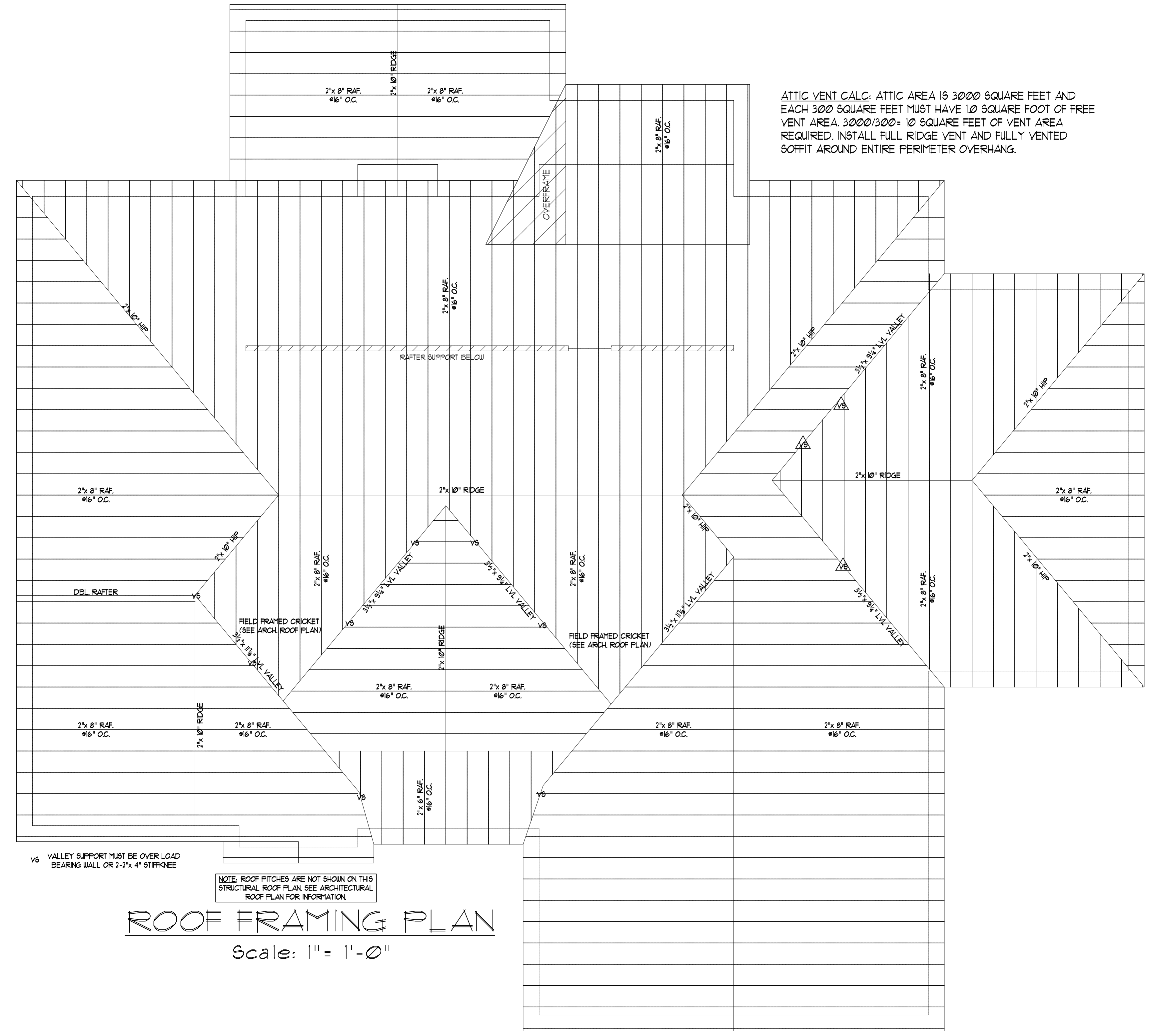
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ATTIC VENT CALC: ATTIC AREA IS 3000 SQUARE FEET AND EACH 300 SQUARE FEET MUST HAVE 10 SQUARE FOOT OF FREE VENT AREA. 3000/300 = 10 SQUARE FEET OF VENT AREA REQUIRED. INSTALL FULL RIDGE VENT AND FULLY VENTED SOFFIT AROUND ENTIRE PERIMETER OVERHANG.

**ROOF FRAMING PLAN**  
 Scale: 1" = 1'-0"

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**JACKSON RESIDENCE**  
 PLAN #21-359  
 Sheet No.

54

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SECONDARY FLOOR	10	40
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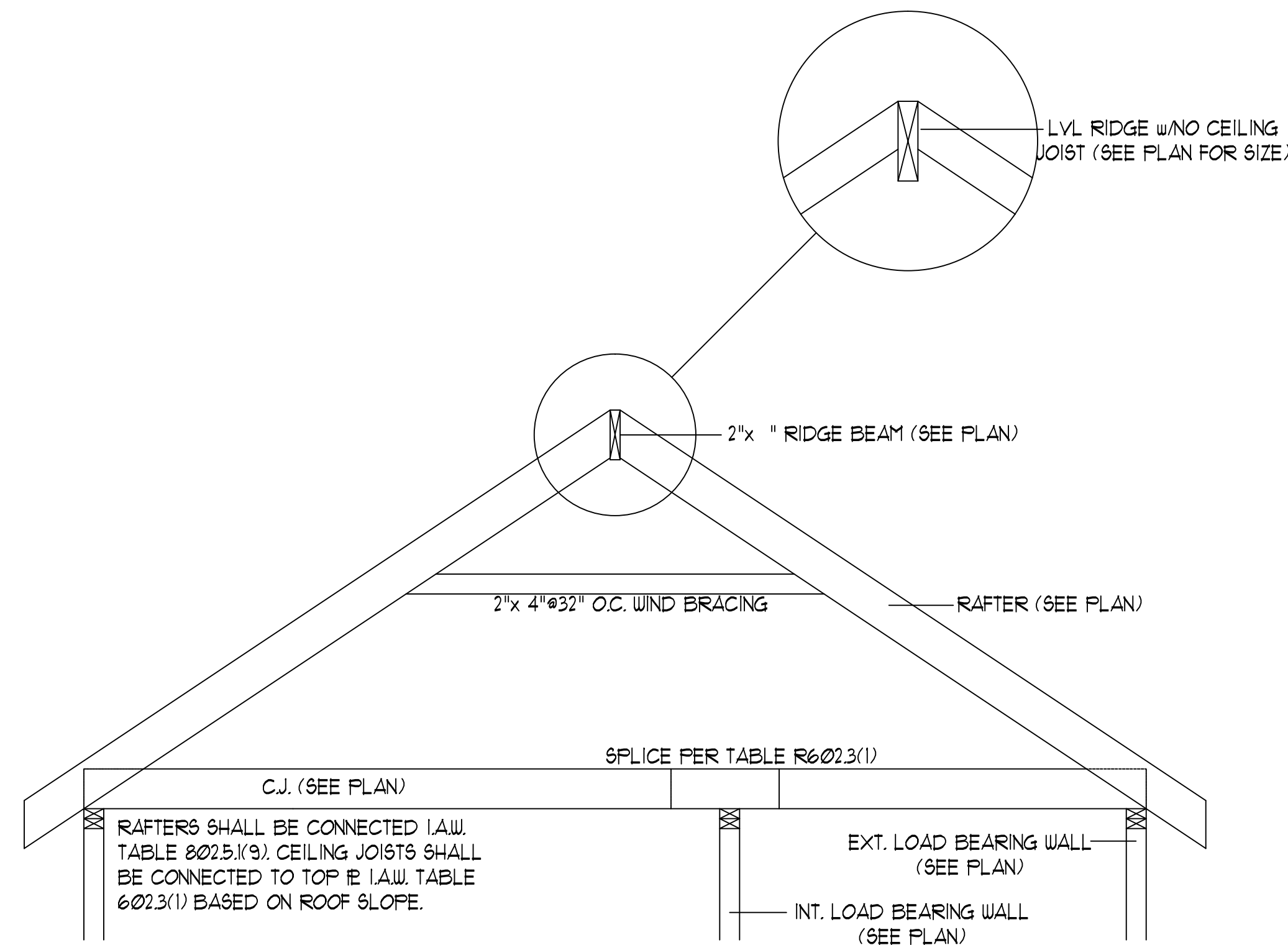
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- LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fc=2800 PSI, Fv=285 PSI, E=1,000,000 PSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
- THE FOLLOWING SHALL APPLY TO ALL BRACED WALL LINES: ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED WITH 1/2" OSB OR CDX. WSP SHALL BE IN ACCORDANCE WITH R-602.10.3 AND SHALL BE COVERED WITH 1/2" GYPSUM BOARD ON THE INTERIOR FACE. ALL WSP PANELS SHALL BE FASTENED WITH 8d NAILS AT 12" ON CENTER (FIELD) AND 6" ON CENTER (EDGES). ALL EXTERIOR WALLS SHALL BE 2"x 4" AT 16" ON CENTER AS A MINIMUM (EXCEPT FOR BALLOON FRAMED WALL SECTIONS AS NOTED) AND CONTINUOUSLY SHEATHED.

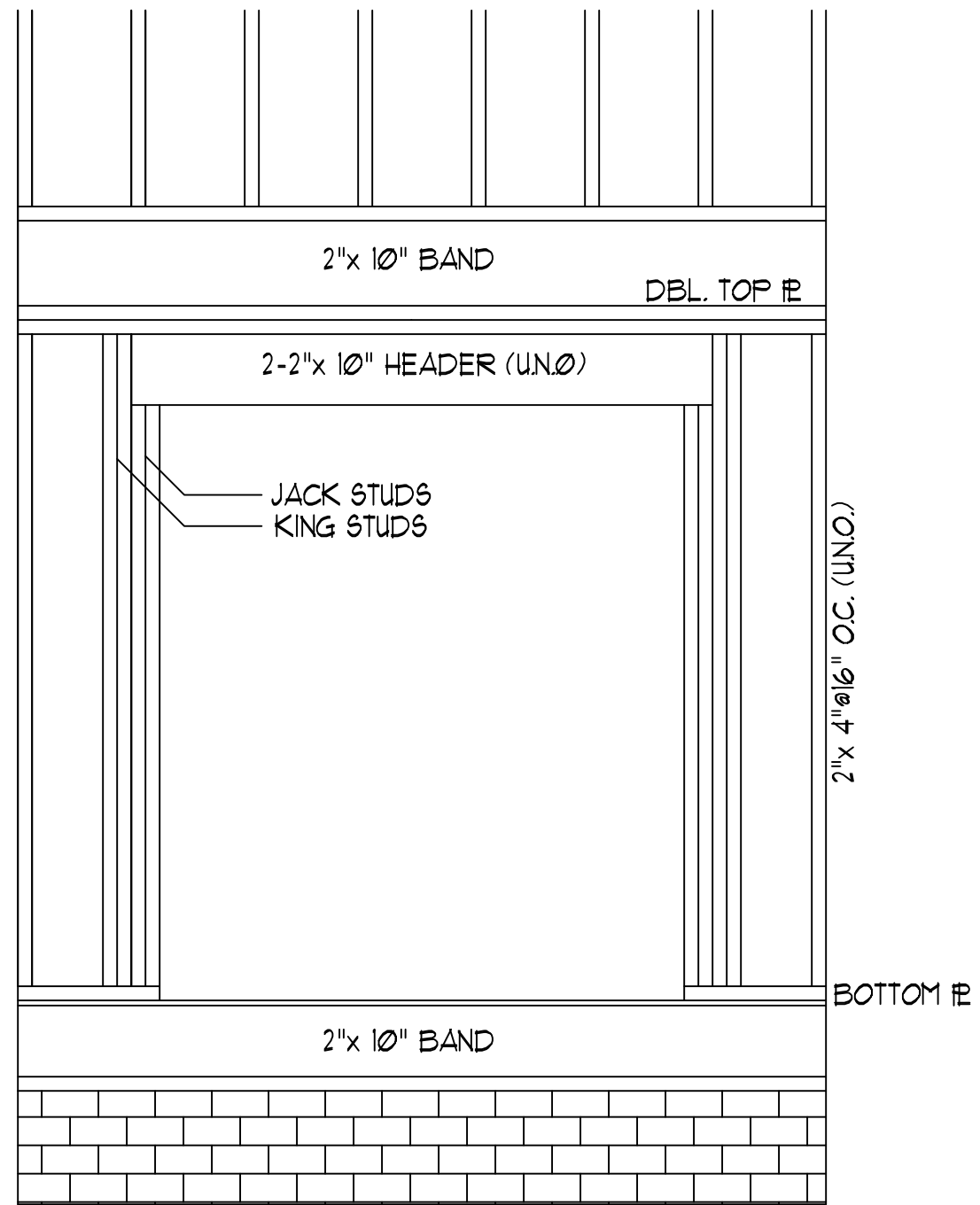
**STRUCTURAL EVALUATION BY:**

WILKINS ENGINEERING, P.C.  
 Post Office Box 37446  
 Raleigh, North Carolina 27621  
 Ronald P. Wilkins  
 6/30/2023

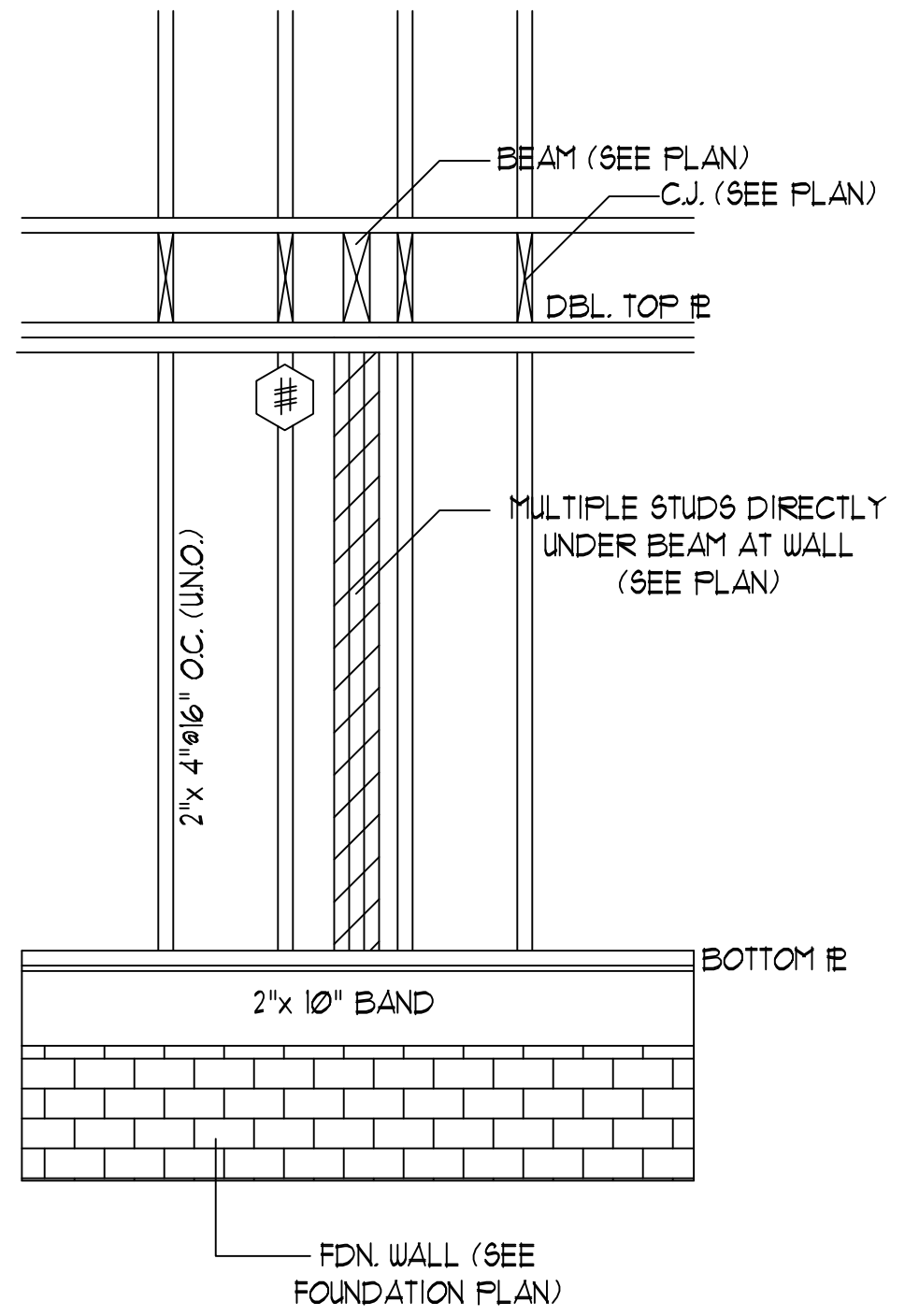
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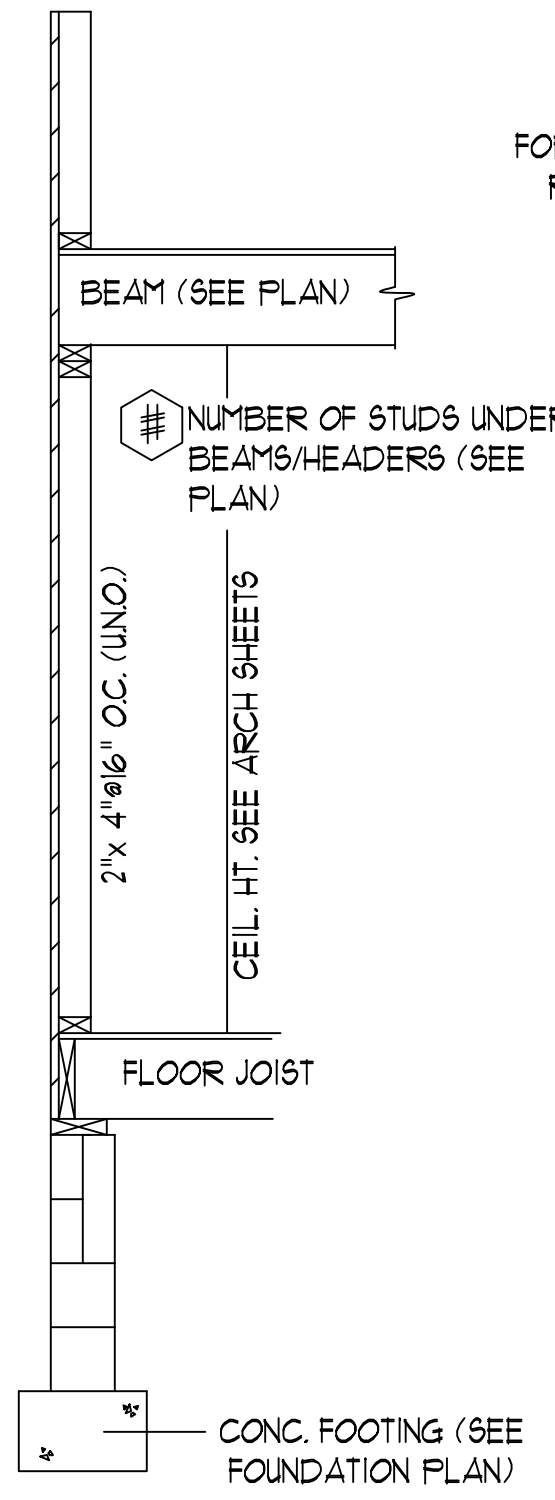
RIDGE BEAM/RAFTER DETAIL (N.T.S.)



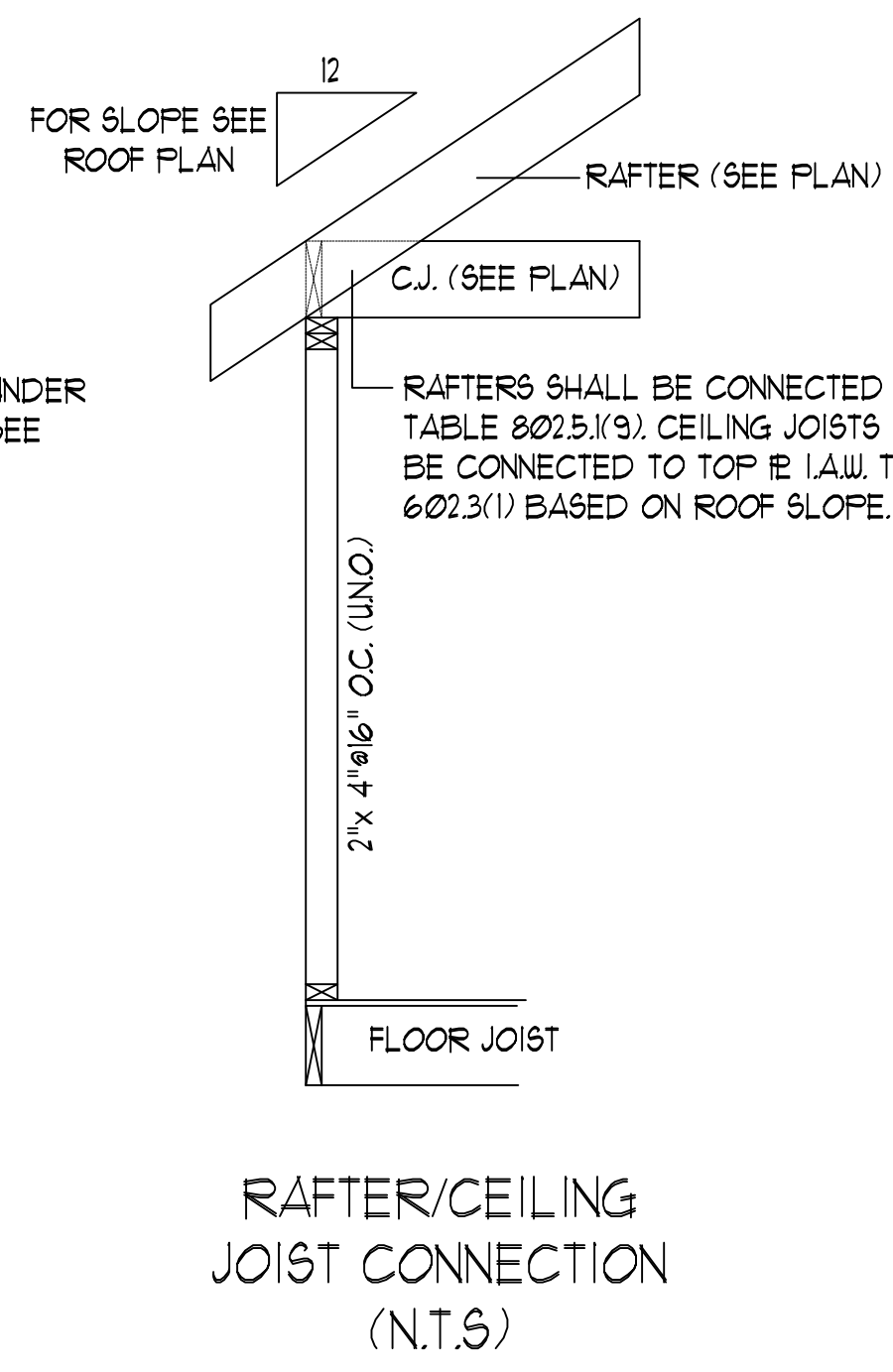
HEADER DETAIL AT EXT. WALL OPENINGS (N.T.S.)



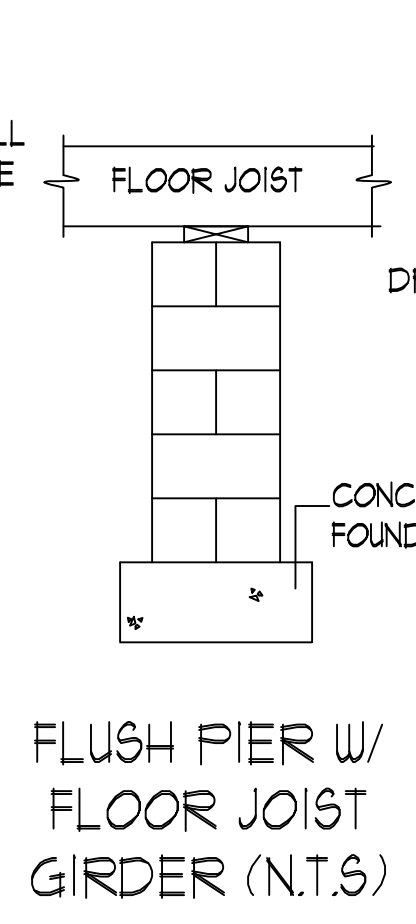
STUD SUPPORT FOR BEAMS/HEADERS (ELEV. N.T.S.)



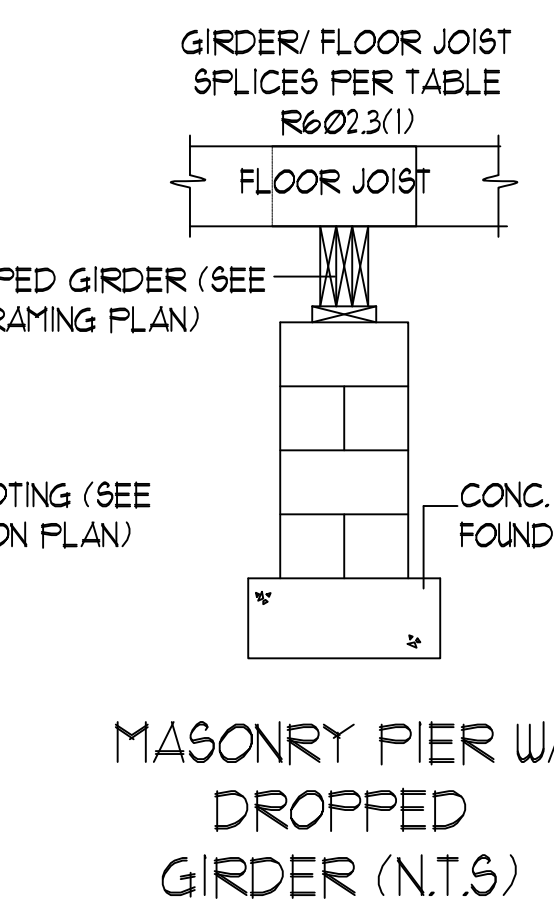
STUD SUPPORT FOR BEAMS/HEADERS (SECT. N.T.S.)



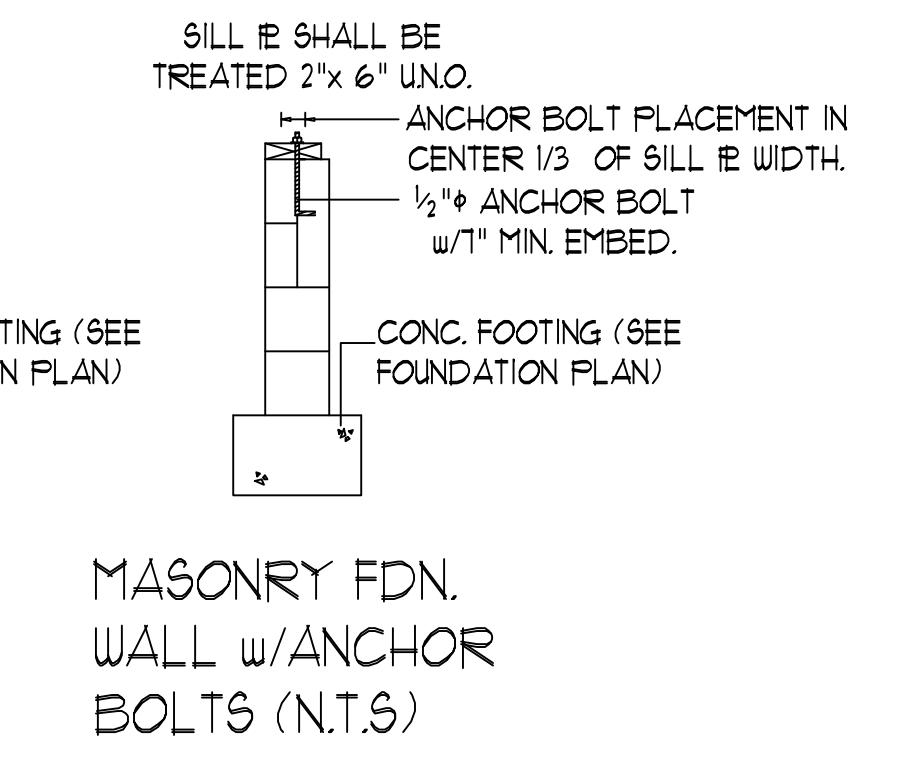
RAFTER/CEILING JOIST CONNECTION (N.T.S.)



FLUSH PIER W/ FLOOR JOIST GIRDER (N.T.S.)



MASONRY PIER W/ DROPPED GIRDER (N.T.S.)



MASONRY FDN. WALL w/ ANCHOR BOLTS (N.T.S.)

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