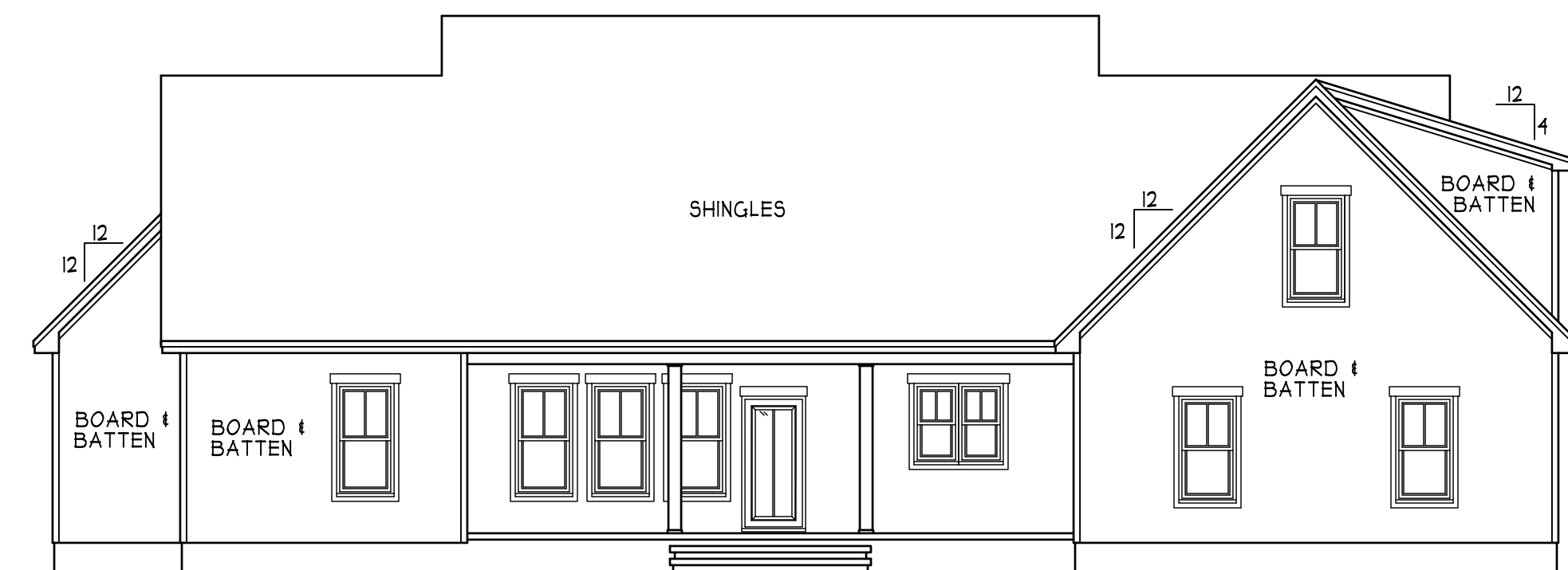




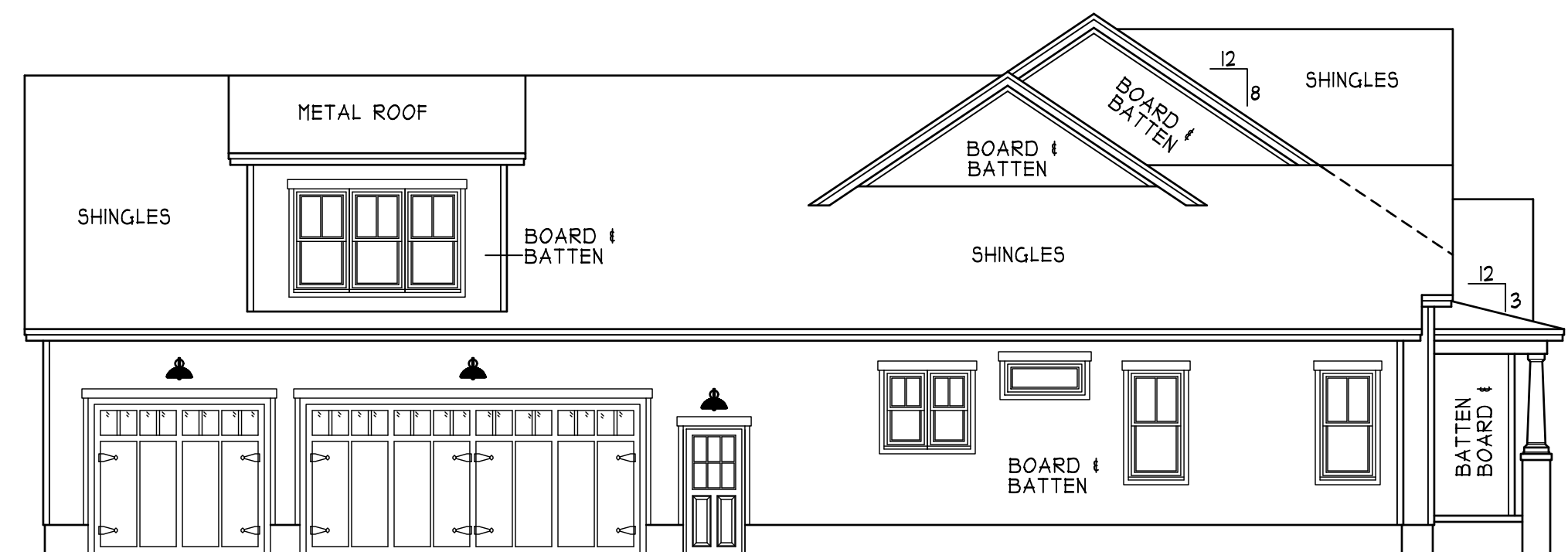
FRONT ELEVATION

SCALE 1/4" = 1'-0"



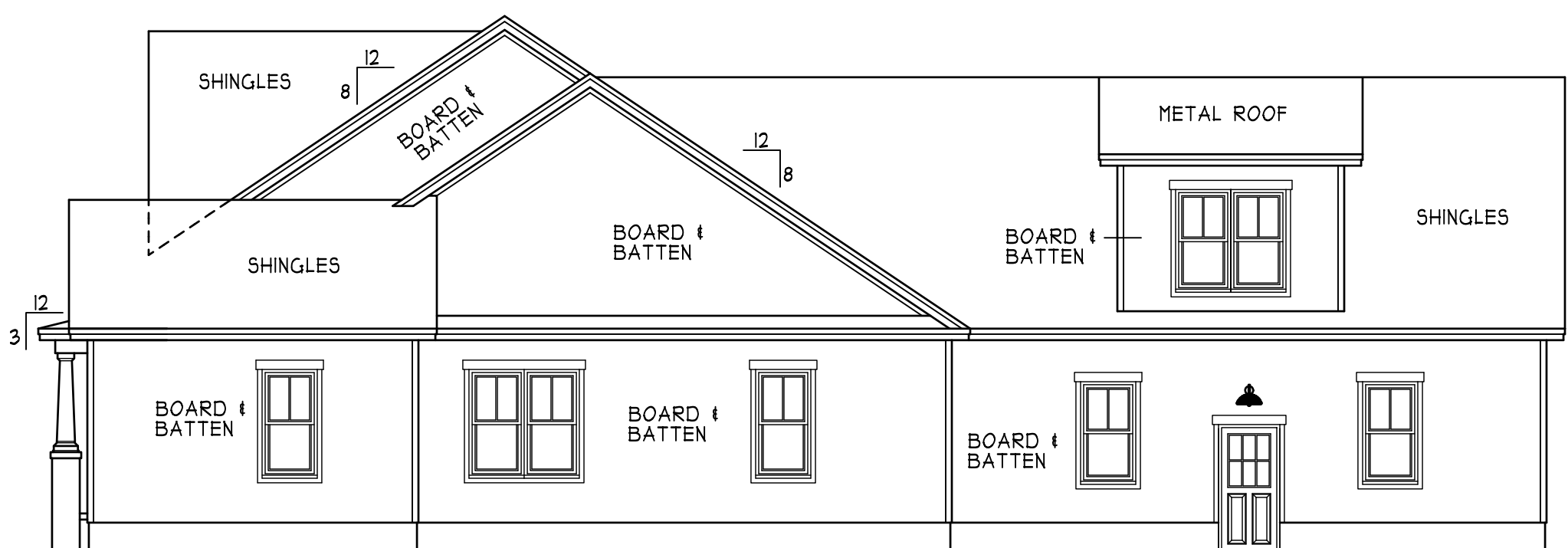
REAR ELEVATION

SCALE 1/8" = 1'-0"



LEFT ELEVATION

SCALE 1/8" = 1'-0"



RIGHT ELEVATION

SCALE 1/8" = 1'-0"

ENERGY COMPLIANCE

ZONE 3 = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15, FLOORS R19
FOR JOHNSTON, SAMPSON, WAYNE COUNTY

ZONE 4 = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15, FLOORS R19
FOR WAKE, DURHAM, ORANGE COUNTY

ATTIC VENTILATION:

THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE 1 TO 300 PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY EAVE OR CORNICE VENTS.

GROSS ATTIC AREA TO BE VENTILATED 4414 SQ.FT.

4414/150 = 29.43 SQ.FT. NET FREE AREA

DANIEL & LINDSEY

STEPHENS RESIDENCE

HEATED FOOTAGE:

#2565

SQUARE FOOTAGE:

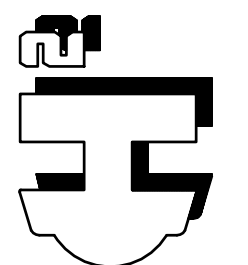
2565
658
306
412
966

FIRST FLOOR
FUT. REC ROOM
FRONT PORCH
COVERED PORCH
3 CAR GARAGE

DESIGNED BY:

HEATHER or JOHNATHAN HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

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DESIGN, INC.



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DATE:

12/20/24

1 STORY

FILE:

071524



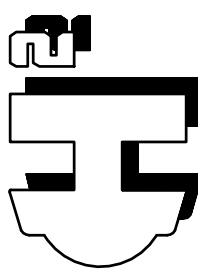
#2565

$$\begin{aligned} &= 2565 \\ &= 658 \\ &= 306 \\ &= 412 \\ &= 966 \end{aligned}$$

FIRST FLOOR
FUT. REC ROOM
FRONT PORCH
COVERED PORCH
3 CAR GARAGE

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BENSON NC 27504
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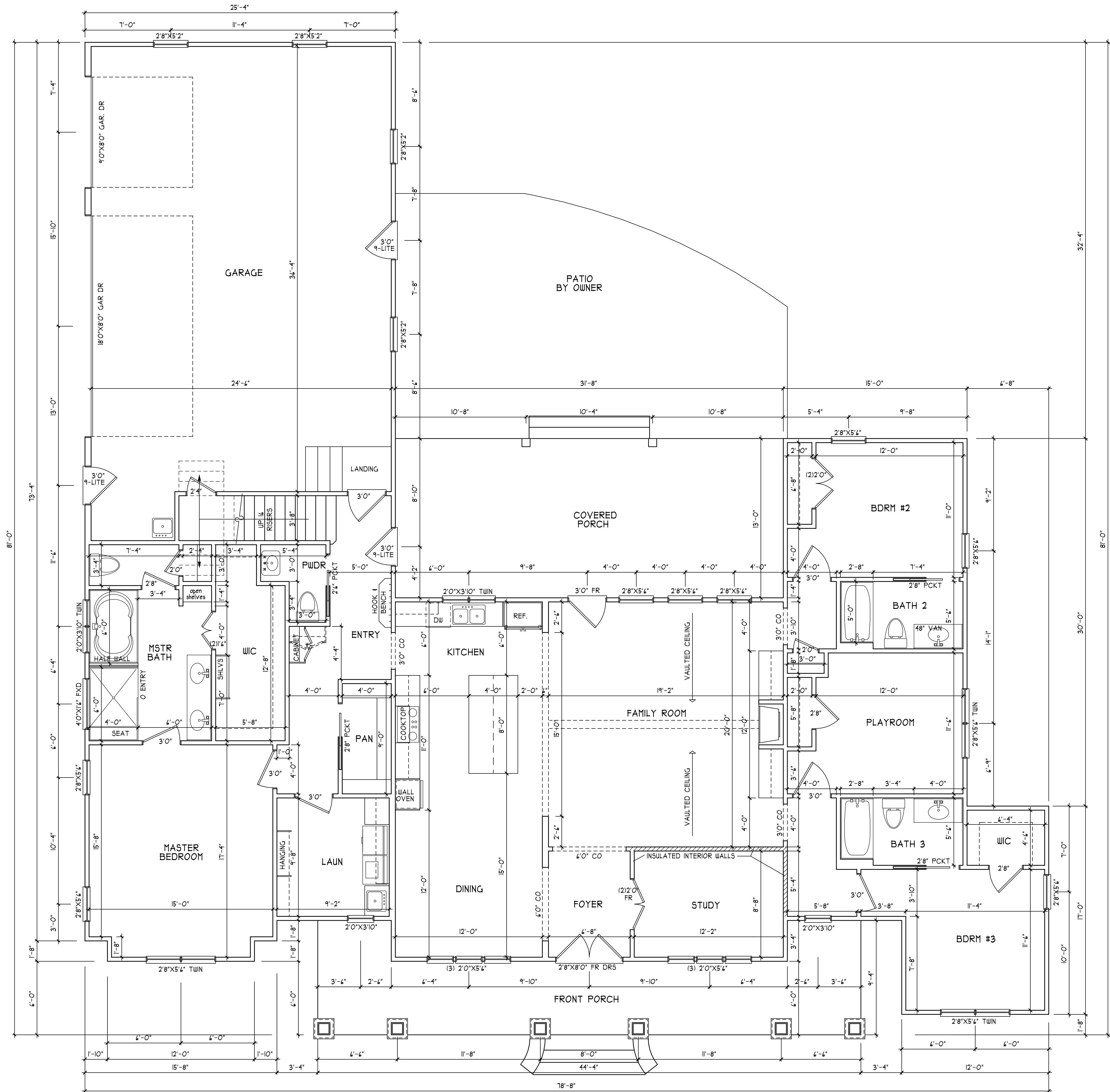
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TE:
12/20/24

I STORY

E:
071524



FIRST FLOOR PLAN
SCALE 1/4" = 1'-0"

DANIEL & LINDSEY

STEPHENS RESIDENCE

HEATED FOOTAGE:

#2565

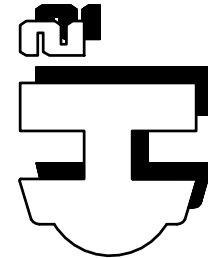
SQUARE FOOTAGE:

FIRST FLOOR
FUT. REC ROOM
FRONT PORCH
COVERED PORCH
3 CAR GARAGE

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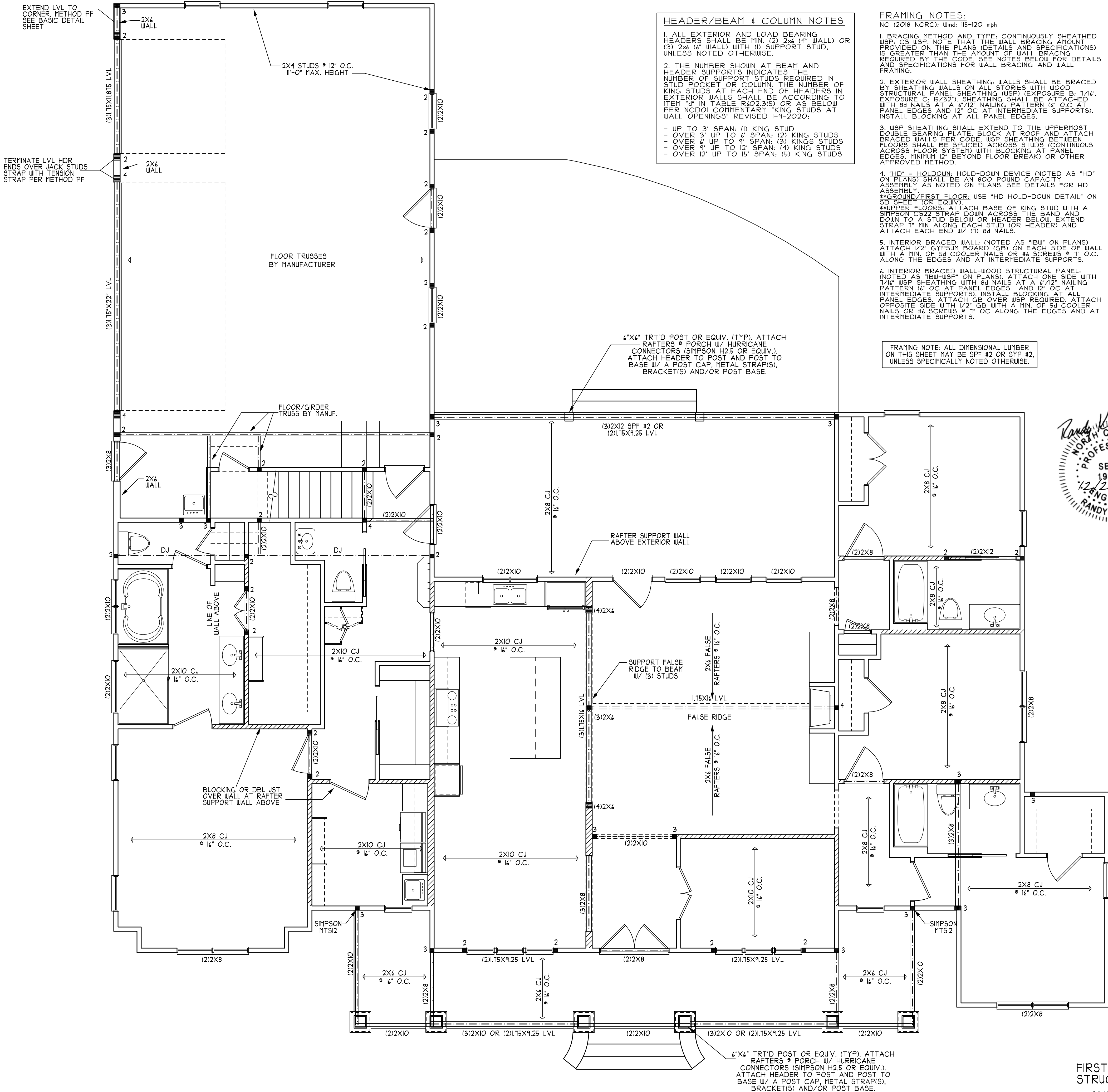
DATE:

12/20/24

1 STORY

FILE:

071524



FIRST FLOOR
STRUCTURAL PLAN

SCALE 1/4" = 1'-0"

DANIEL & LINDSEY
STEPHENS RESIDENCE

#2565

HEATED FOOTAGE:
= 2565
= 658
= 306
= 412
= 966

SQUARE FOOTAGE:
FIRST FLOOR
FUT. REC ROOM
FRONT PORCH
COVERED PORCH
3 CAR GARAGE

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BENSON NC 27504
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DESIGN, INC.
HSD

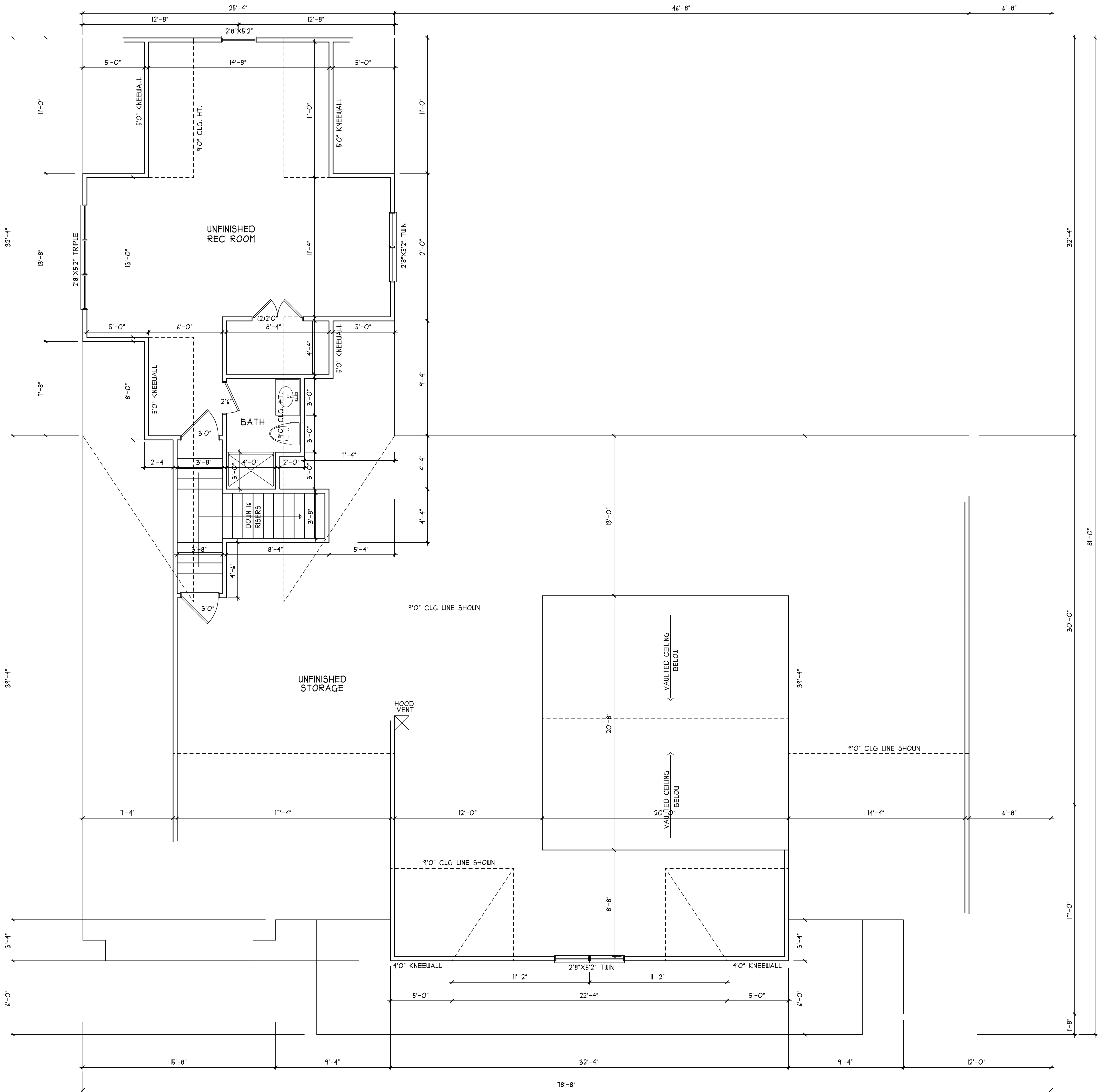
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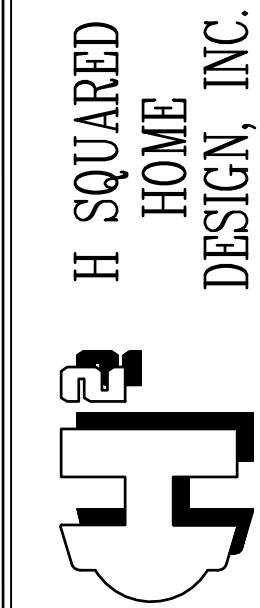
DATE:
12/20/24

I STORY

FILE:
071524



SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"



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BENSON NC 27504
(919) 207-1403

SQUARE FOOTAGE:
FIRST FLOOR = 2565
FUT. REC ROOM = 658
FRONT PORCH = 306
COVERED PORCH = 412
3 CAR GARAGE = 966

HEATED FOOTAGE:
#2565

DANIEL & LINDSEY
STEPHENS RESIDENCE

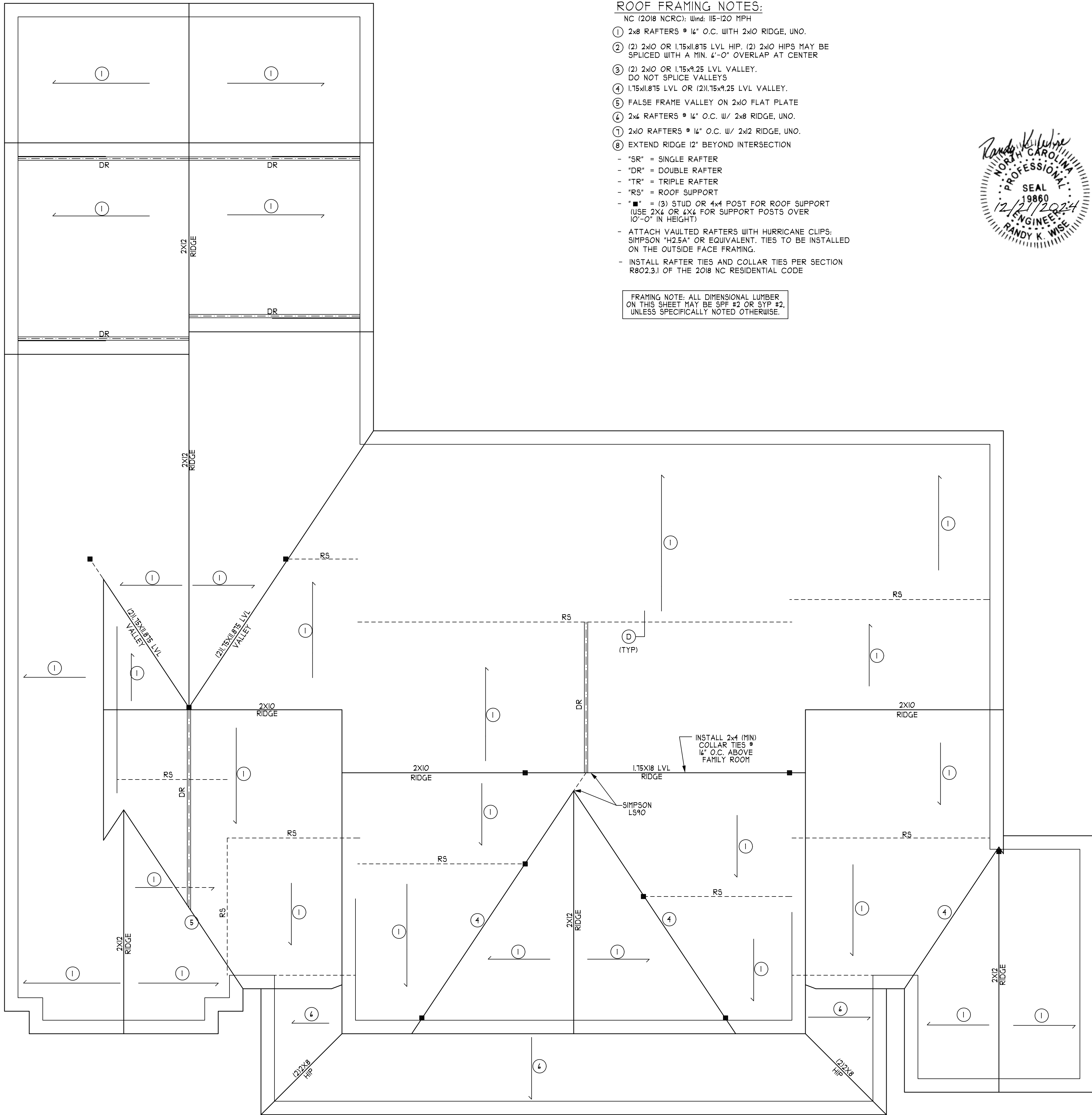
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1 STORY

FILE:
071524



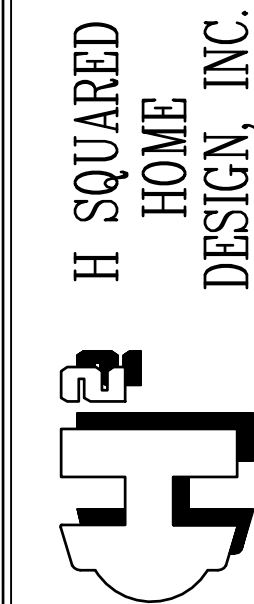
ROOF FRAMING NOTES:

- NC (2018 NCRC): Wind: 115-120 MPH
- 1 2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.
 - 2 (2) 2x10 OR 1.75x11.875 LVL HIP, (2) 2x10 HIP5 MAY BE SPLICED WITH A MIN. 4'-0" OVERLAP AT CENTER
 - 3 (2) 2x10 OR 1.75x9.25 LVL VALLEY. DO NOT SPLICE VALLEYS
 - 4 1.75x11.875 LVL OR (2)1.75x9.25 LVL VALLEY.
 - 5 FALSE FRAME VALLEY ON 2x10 FLAT PLATE
 - 6 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
 - 7 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE, UNO.
 - 8 EXTEND RIDGE 12" BEYOND INTERSECTION
 - "SR" = SINGLE RAFTER
 - "DR" = DOUBLE RAFTER
 - "TR" = TRIPLE RAFTER
 - "RS" = ROOF SUPPORT
 - "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2x6 OR 4x4 FOR SUPPORT POSTS OVER 10'-0" IN HEIGHT)
- ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS: SIMPSON "H2.5A" OR EQUIVALENT. TIES TO BE INSTALLED ON THE OUTSIDE FACE FRAMING.
- INSTALL RAFTER TIES AND COLLAR TIES PER SECTION R802.3.1 OF THE 2018 NC RESIDENTIAL CODE

FRAMING NOTE: ALL DIMENSIONAL LUMBER ON THIS SHEET MAY BE SPF #2 OR SYP #2, UNLESS SPECIFICALLY NOTED OTHERWISE.



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



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BENSON NC 27504
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SQUARE FOOTAGE:
FIRST FLOOR = 2565
FUT. REC ROOM = 658
FRONT PORCH = 306
COVERED PORCH = 412
3 CAR GARAGE = 966

HEATED FOOTAGE:
#2565

DANIEL & LINDSEY
STEPHENS RESIDENCE

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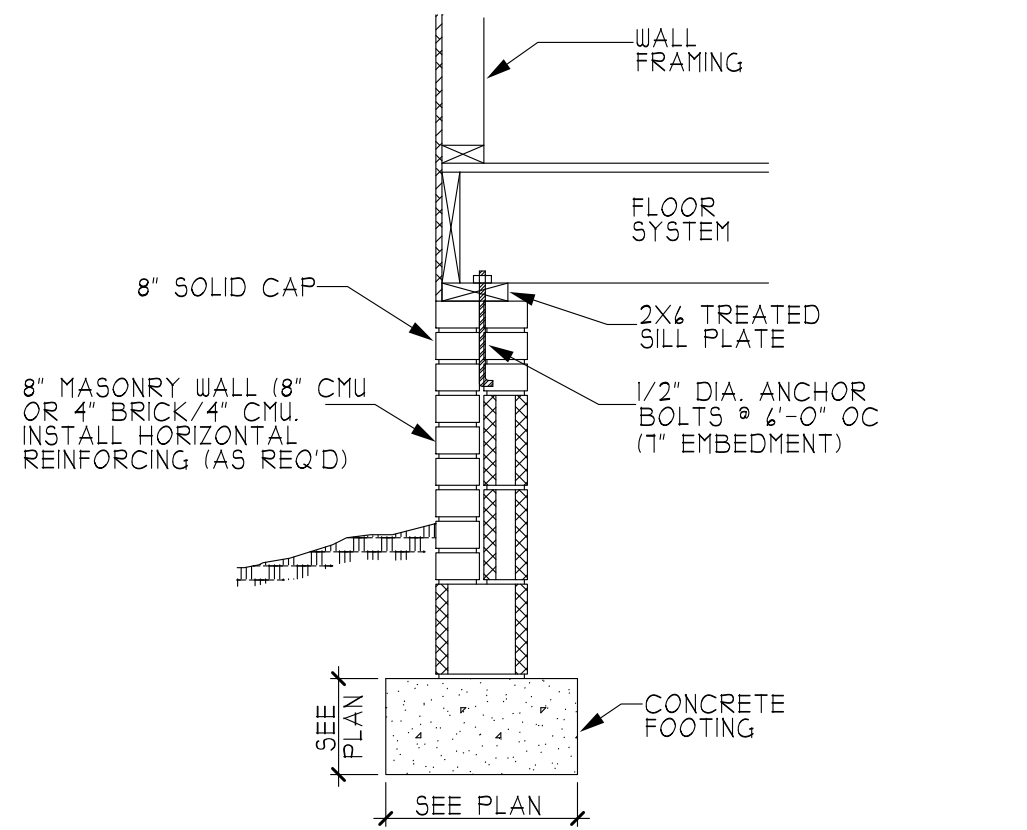
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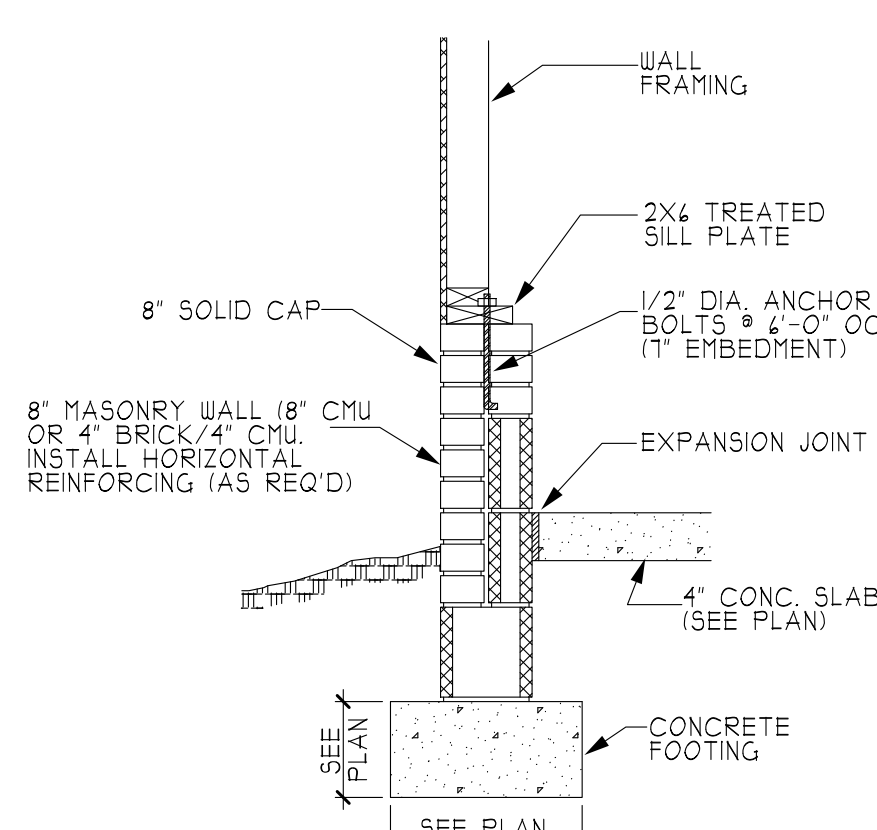
FILE: 071524

STRUCTURAL NOTES

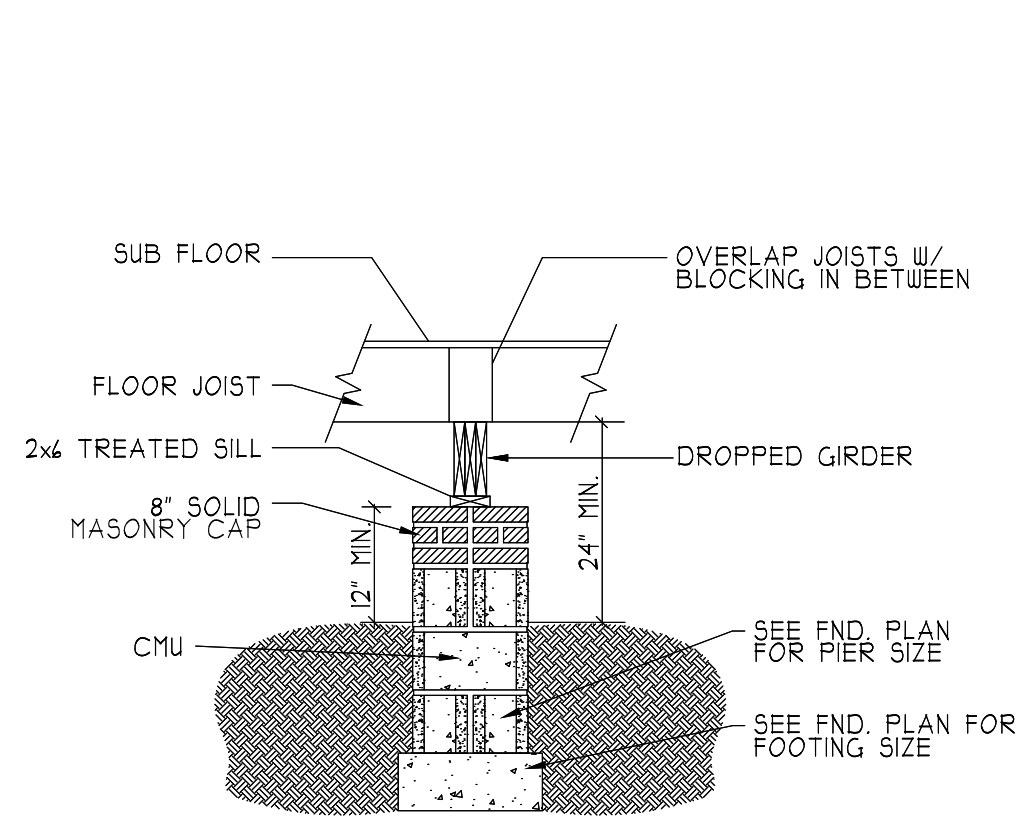
- 1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER OR DESIGNER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER OR DESIGNER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.
- 2) DESIGN LOADS (R301.4)
- | | LIVE LOAD
(PSF) | DEAD LOAD
(PSF) | DEFLECTION
(LL) |
|---------------------------------|--------------------|--------------------|--------------------|
| ROOMS OTHER THAN SLEEPING ROOMS | 40 | 10 | L/360 |
| SLEEPING ROOMS | 30 | 10 | L/360 |
| ATTIC WITH PERMANENT STAIR | 40 | 10 | L/360 |
| ATTIC WITH OUT PERMANENT STAIR | 20 | 10 | L/360 |
| ATTIC WITH OUT STORAGE | 10 | 10 | L/240 |
| STAIRS | 40 | 10 | L/360 |
| EXTERIOR BALCONIES | 40 | 10 | L/360 |
| DECKS | 40 | 10 | L/360 |
| GUARDRAILS AND HANDRAILS | 200 | -- | ---- |
| PASSENGER VEHICLE GARAGES | 50 | 10 | L/360 |
| FIRE ESCAPES | 40 | 10 | L/360 |
| SNOW | 20 | -- | ---- |
- WIND LOAD (BASED ON 115/120 MPH WIND VELOCITY & EXPOSURE B)
- 3) WALL BRACING: BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.10.3. THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R602.10.1. THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R602.10.4. LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER SECTION R602.10.3. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINMENT PER TABLE 402.2.1. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.
- 5) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.
- 6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 (Fb=975 PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (F_{cl}perp) = 425 PSI - MIN).
- 7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS:
(1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN (UNO), (2) 2X4 STUDS FOR BEAM SPAN GREATER THAN 6'-0" (UNO).
- 8) L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2400 PSI, Fv=285 PSI, E=1.9x10⁶ PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2400 PSI, Fv=240 PSI, E=2.0x10⁶ PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- 9) ALL ROOF TRUSSES AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH ANY SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH DESIGNER OR ENGINEER.
- 10) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. . ALL STEEL TUBING SHALL BE ASTM A500.
- 11) REBAR SHALL BE DEFORMED STEEL, ASTM#45, GRADE 40.
- 12) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 4" FROM EACH END.
- 13) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 4'-0" SPAN AND 4"x4"x1/4" STEEL ANGLE WITH 4" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).
- 14) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.
- 15) THE POSITIVE AND NEGATIVE DESIGN PRESSURES REQUIRED FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION SHALL BE AS FOLLOWS:
- ROOF:
45.4 PSF - 2/25:12 PITCH OR LESS
34.8 PSF - 2/25:12 TO 1:12 PITCH
21 PSF - 1:12 TO 12:12 PITCH
- WALLS:
24.1 PSF - WALLS



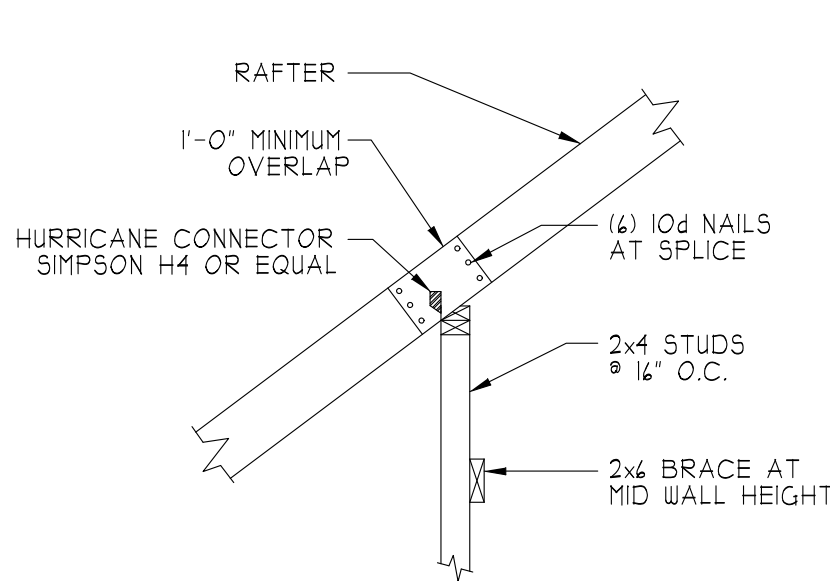
A CRAWL SPACE FOOTING
(SIDING)



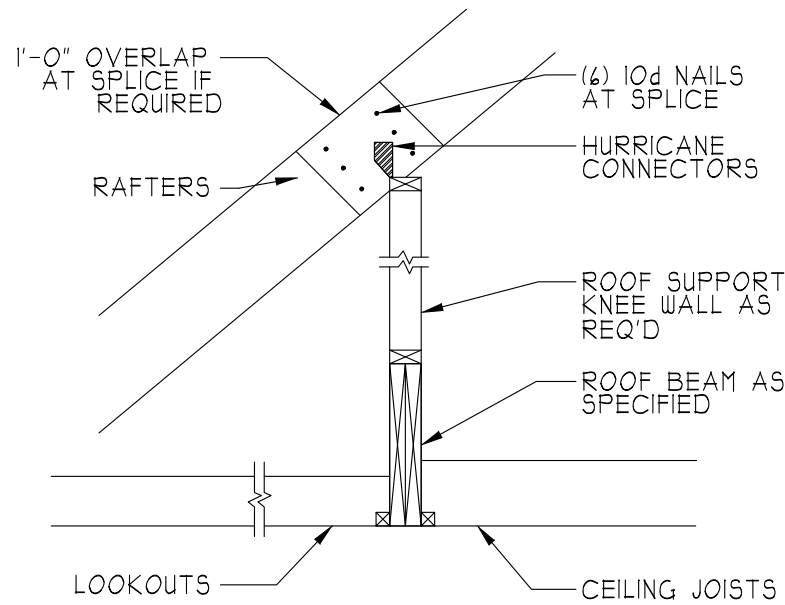
B GARAGE WALL FOOTING
(SIDING)



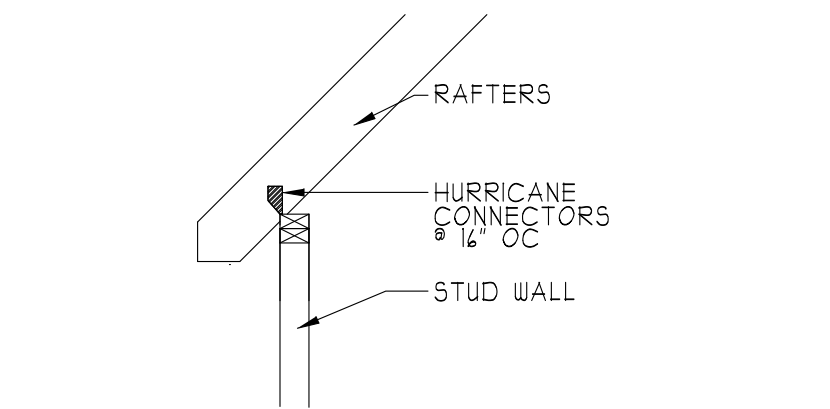
C DROPPED GIRDER
NTS



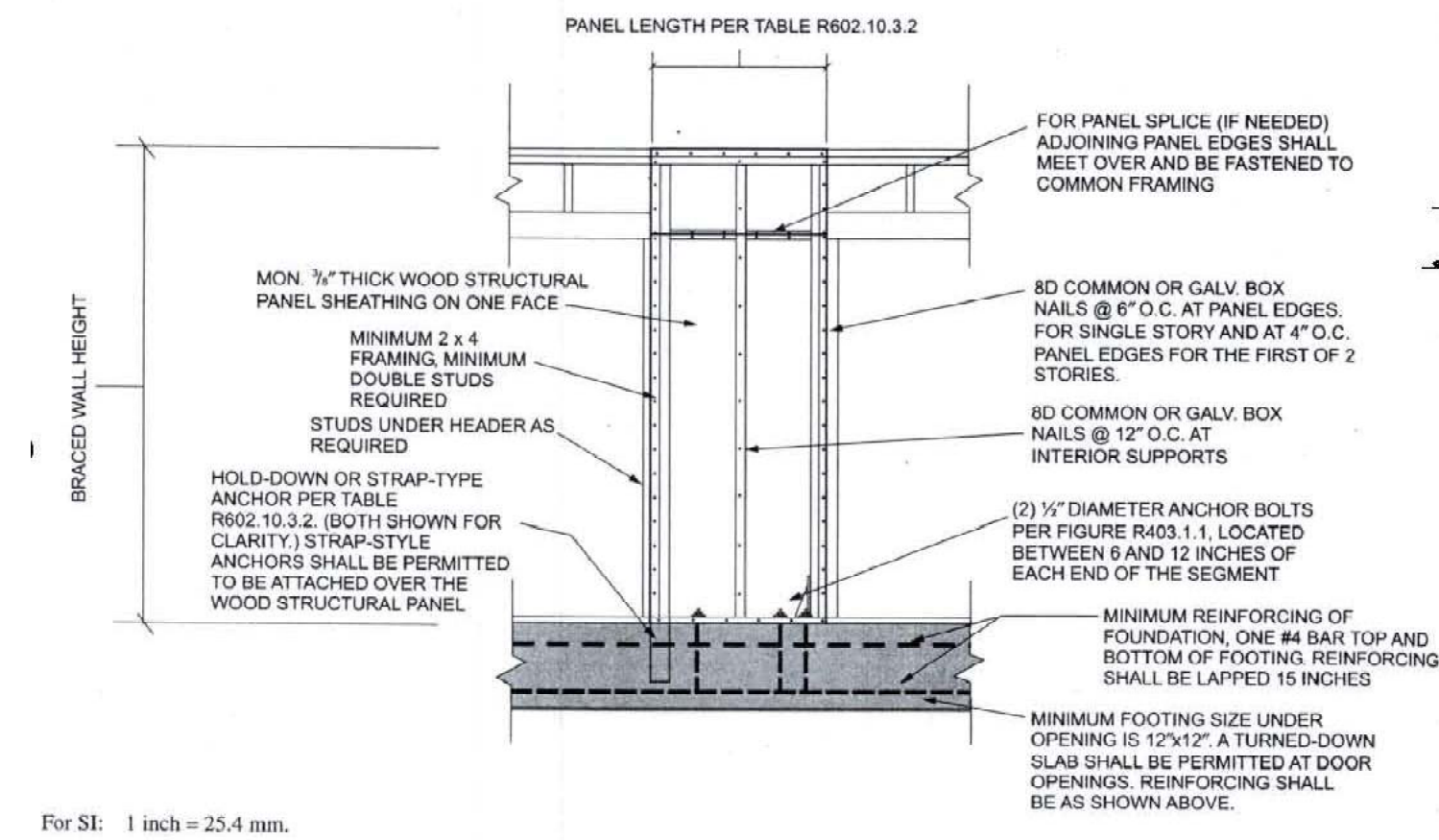
D TYPICAL RAFTER SPLICE ON ATTIC KNEEWALL
NTS



E ROOF BEAM
NTS.

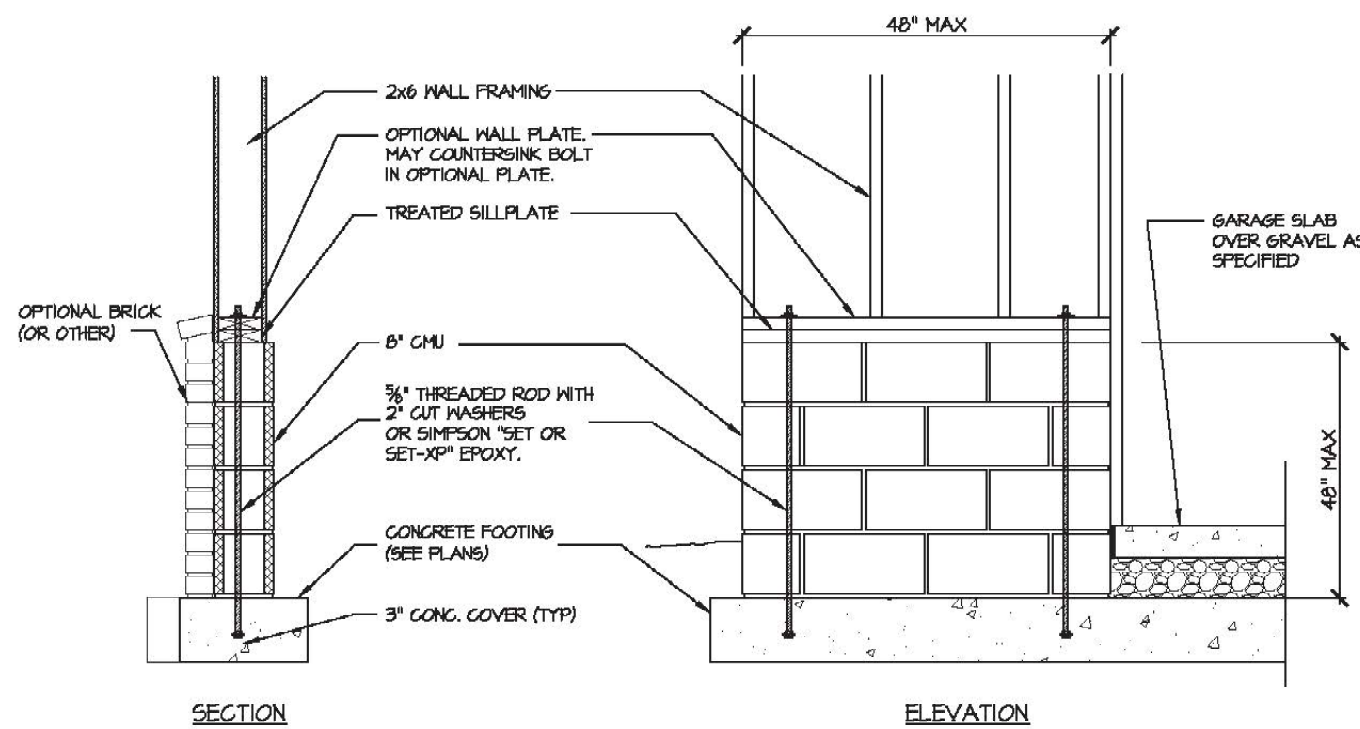


F RAFTER TIE @ VAULT
NTS.

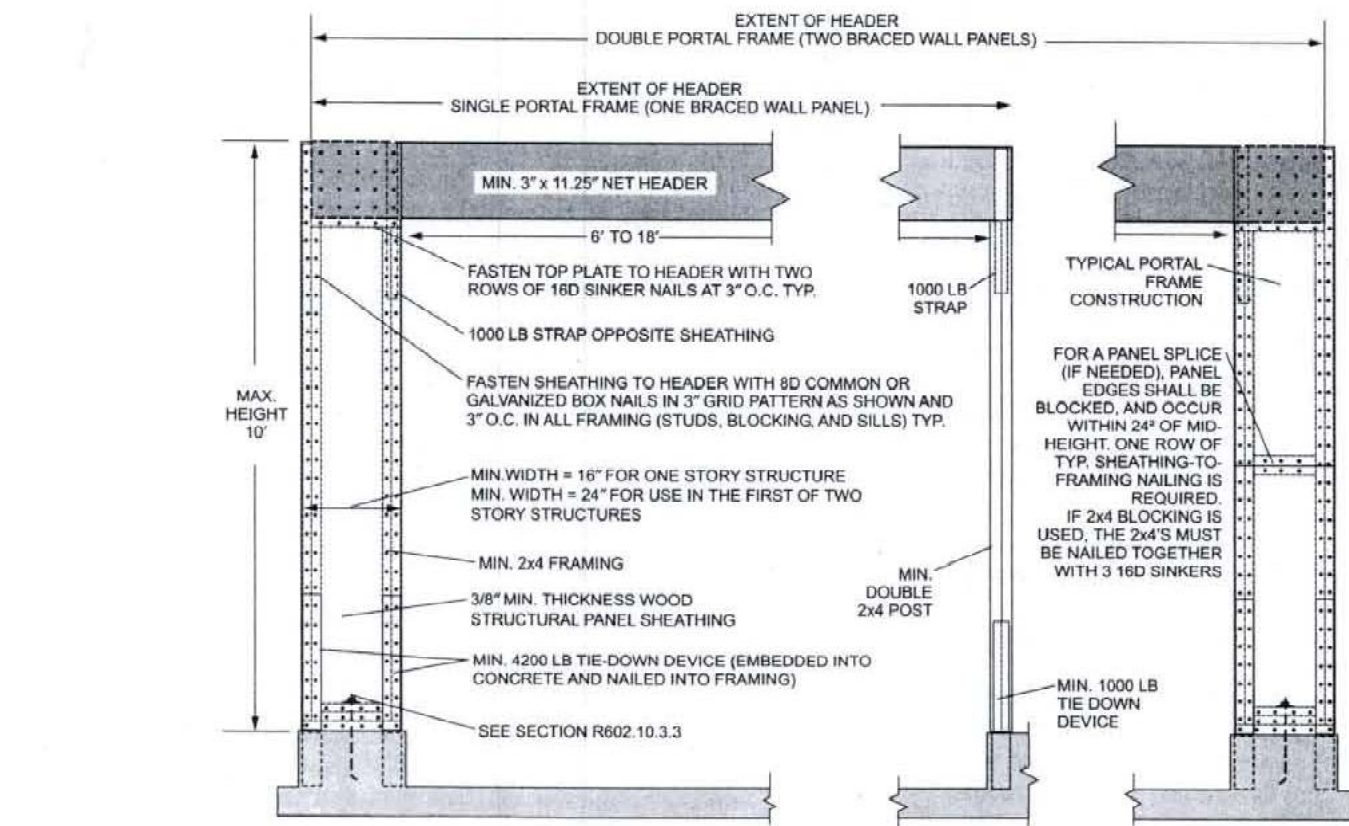


For SI: 1 inch = 25.4 mm.

**FIGURE R602.10.3.2
ALTERNATE BRACED WALL PANEL**



GARAGE 'WING WALL' REINFORCING
PER IRC FIGURE R602.10.4.3



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound force = 4.448 N.

**FIGURE R602.10.3.3
METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS**

TRUSS SYSTEM REQUIREMENTS

NC (2018 NCRC):

1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED TRUSS PROFILES. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH THE TRUSS MANUFACTURER.

2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.

3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).

4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING WALLS SHALL BE MIN. (2) 2x8 (4\"/>

2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDOT COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:

- UP TO 3' SPAN: (1) KING STUD
- OVER 3' UP TO 4' SPAN: (2) KING STUDS
- OVER 4' UP TO 9' SPAN: (3) KING STUDS
- OVER 9' UP TO 12' SPAN: (4) KING STUDS
- OVER 12' UP TO 15' SPAN: (5) KING STUDS

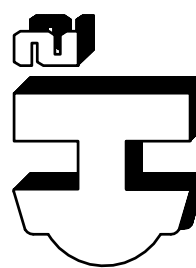
BASIC BUILDING

DETAIL SHEET (115-120 MPH)

*PLEASE NOTE THAT NOT ALL DETAILS APPLY TO EVERY PLAN.

HEATHER HALL
165 HEATHERSTONE CT
BENSON NC 27504
(919) 207-1403

H SQUARED HOME
DESIGN, INC.



ANY DEVIATION OF THE SPECIFIED HEADERS, JOISTS OR DIMENSIONS VOID THE DESIGN. INC'S LIABILITY.

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DATE:

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