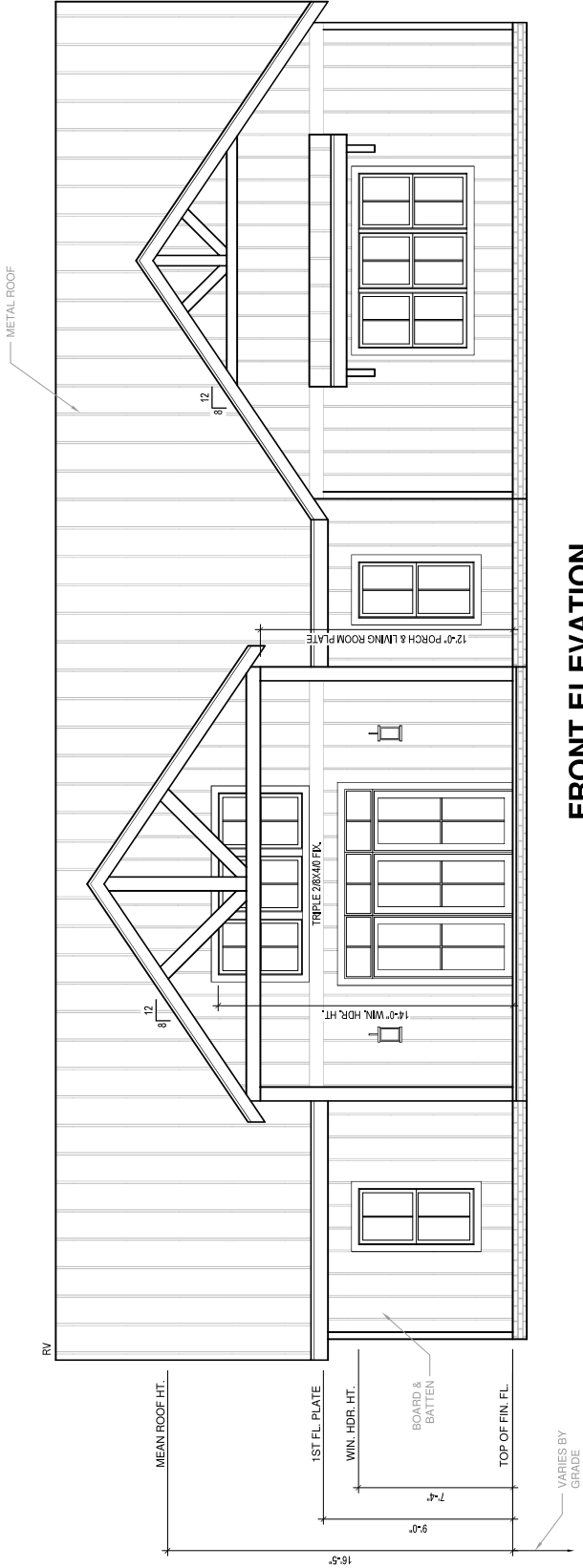




FRONT ELEVATION

1/4" = 1'-0"



RIGHT ELEVATION

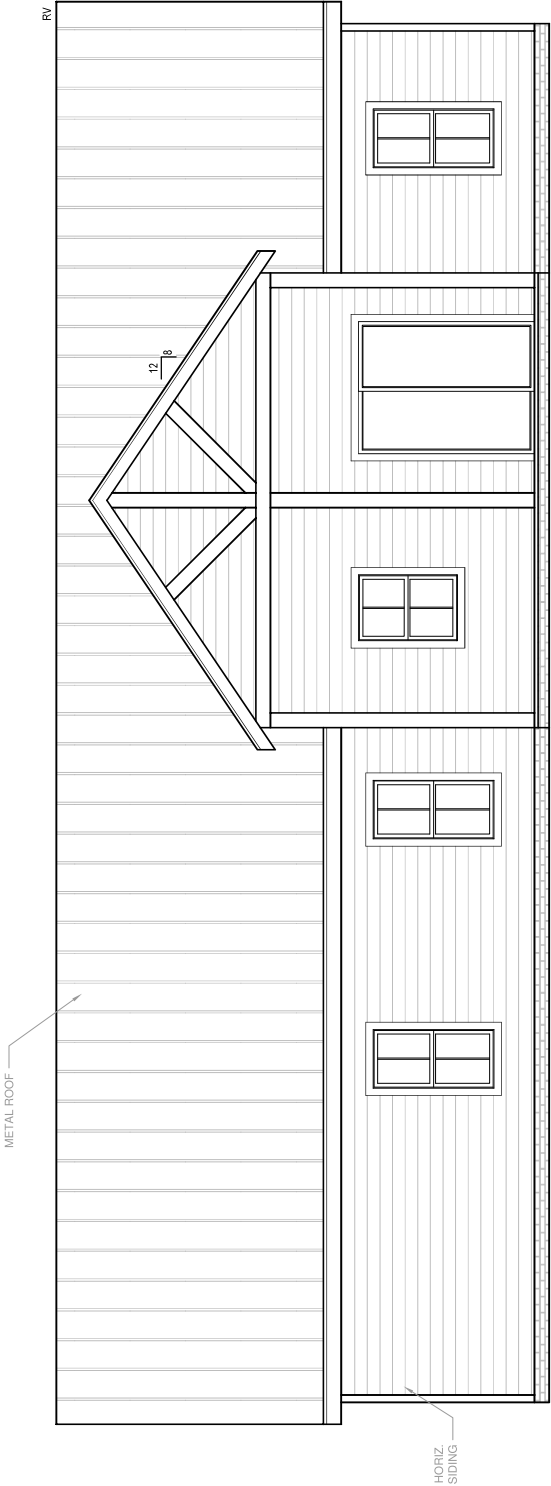
1/4" = 1'-0"

It is the sole responsibility of the contractor and/or builder to determine whether these plans comply with all applicable building codes, and any other local, state, and federal regulations. The contractor and/or builder shall be responsible for obtaining all necessary permits and for ensuring that the plans are in compliance with all applicable building codes. The contractor and/or builder shall be responsible for ensuring that the plans are in compliance with all applicable building codes. The contractor and/or builder shall be responsible for ensuring that the plans are in compliance with all applicable building codes.

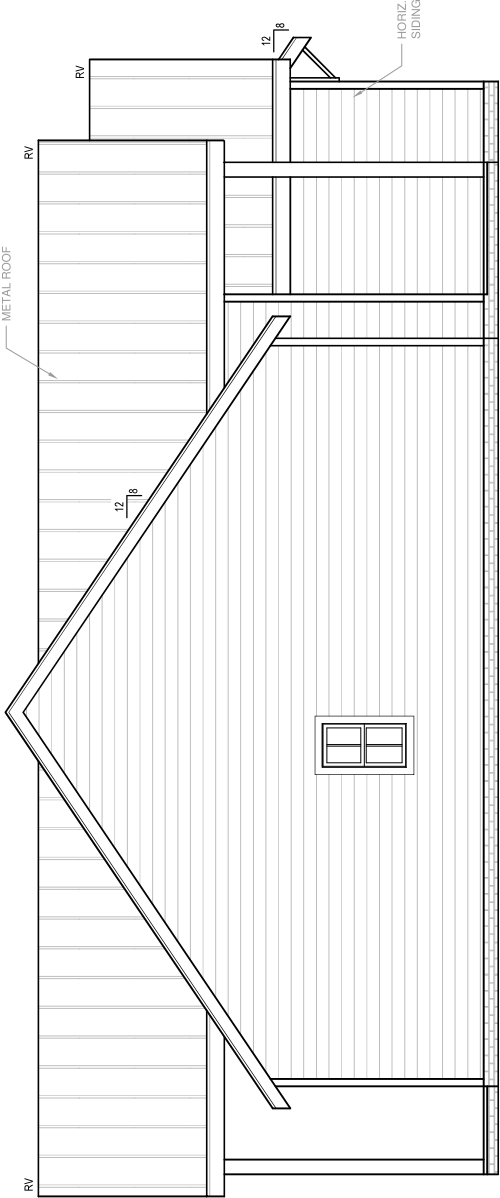
BERRY RESIDENCE

CIDER HOUSE STUDIO, INC.
424 E. MAIN ST.
CLAYTON, NC 27520
919.624.4776

WHITTENTON BUILDERS



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



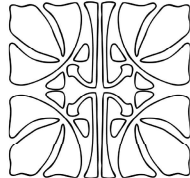
LEFT ELEVATION
1/4" = 1'-0"

It is the responsibility of the contractor and/or builder to determine whether these drawings are in compliance with all applicable building codes, and any other local, state, and federal regulations. The contractor and/or builder shall be responsible for obtaining all necessary permits and for ensuring that the drawings are in compliance with all applicable building codes. If a discrepancy is discovered, please contact Cedar House Studio before continuing work.

BERRY RESIDENCE

CEDAR HOUSE STUDIO, INC.
424 E. MAIN ST.
CLAYTON, NC 27520
919.624.4776

WHITTENTON BUILDERS



WHITTENTON BUILDERS

ALL WALLS TO BE 4" THICK

GENERAL STRUCTURAL SPECIFICATIONS

APPLICABLE DESIGN CODES:

- 2024 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE
 - DESIGN WIND SPEED VWF: 120 MPH
- FOUNDATIONS AND SOIL CONDITIONS
- ALLOWABLE BEARING CAPACITY: FOR SHALLOW PAD FOUNDATIONS, 2000 PSF (ASSUMED VALUE BASED ON CODE RECOMMENDATIONS)
 - EXCAVATIONS TO BE FREE OF LOOSE SOIL MATERIAL, DEBRIS, AND EXCESS WATER.

EXCAVATIONS

- CONTRACTOR SHALL FOLLOW ALL OSHA STANDARDS AND RECOMMENDATIONS FOR EXCAVATIONS. THIS INCLUDES BUT NOT LIMITED TO SLOPES OF CUTS AND SHORINGS OF EXCAVATIONS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY EXISTING UTILITIES ON THE PROJECT SITE PRIOR TO ANY EXCAVATION. THE ENGINEER'S RECORD SHALL BE NOTIFIED OF ANY CONFLICT DUE TO ANY EXISTING UTILITIES OR CONDITIONS.

CONCRETE

- COMPRESSIVE STRENGTH (FCD) = 3000 PSI
- ENHANCED AIR = 6% ± 1% BY VOLUME
- ALL CONCRETE TO BE DESIGNED AND CONSTRUCTION USING THE SPECIFICATIONS STATED IN ACI 318 (LATEST CODE ADOPTED EDITION).
- MINIMUM CONCRETE COVER AND EDGE DISTANCES TO FOLLOW ACI 318
- CONSTRUCTION JOINTS REQUIRE APPROVAL BY THE STRUCTURAL ENGINEER.
- CONCRETE SHALL BE THOROUGHLY VIBRATED IN FORMS.
- WHEN MULTIPLE POURS ARE REQUIRED, EXISTING CONCRETE SURFACES SHALL BE ROUGHENED, CONCRETE BONDING AGENT SHALL THEN BE APPLIED TO ALL ROUGHENED SURFACES, BONDING AGENT MUST CONFORM TO ASTM
- CONCRETE SLABS ON GRADE MUST SATISFY THE FOLLOWING:
 - MIN. 4" THICK.
 - CONTAIN WELDED WIRE FABRIC OR SYNTHETIC MICRO-FIBERS.
 - MICROFIBERS MUST BE 1.5" LONG, HAVE A MINIMUM COMPRESSION STRENGTH OF 1500 PSI, AND APPLIED AT A RATE OF 4.5 LBS PER CUBIC YARD OF CONCRETE.
 - 6 MIL VAPOR BARRIER BELOW SLAB (CAN BE OMITTED FOR NON-HEATED SPACES)
 - PLACED ON 4" OF GRANULAR FILL THAT RESTS ON SOIL, ACHIEVING 90% COMPACTION
 - CONCRETE MUST CURE FOR A MINIMUM OF 28 DAYS PRIOR TO INSTALLING ANY STRUCTURE UNLESS GIVEN APPROVAL FROM ENGINEER OF RECORD.

REINFORCEMENT (IF REQ'D BY PLANS)

- REINFORCEMENT SHALL BE GRADE 60 AND CONFORM TO ASTM A615. SEE THE "MANUAL OF STEEL PRACTICE", LATEST EDITION, FOR DETAILING, FABRICATION, AND INSTALLATION.
- REINFORCEMENT LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYPE UNO

MINIMUM LAP SPLICES

REBAR SIZE MIN. LAP SPLICE (IN)

4#

- MINIMUM CONCRETE COVER FOR REINFORCEMENT (UNO)
 - EXPOSED TO EARTH = 2" MIN.
 - ALL OTHER = 1.5" MIN.

POST-INSTALLED ANCHORS

- POST-INSTALLED ANCHORS INDICATED ON PLANS CAN BE SUBSTITUTED WITH AN ENGINEER APPROVED EQUIVALENT PRODUCT.
- IF ANCHOR NOT LISTED ON PLANS, THE FOLLOWING PRODUCTS CAN BE USED
 - ADHESIVE ANCHOR: HLT-HIT-RE 500 V3 EPOXY (USE MANUFACTURED APPROVED ANCHOR WITH EPOXY)
 - MECHANICAL ANCHOR: BOLT-TZ, HLT-TWIKY-HUS-4Z
- SUBSTITUTIONS FOR ANCHORING PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.
- FOLLOW MANUFACTURER'S GUIDELINES FOR INSTALLATION.
- CONCRETE MUST CURE FOR A MINIMUM OF 7 DAYS PRIOR TO INSTALLING ANY POST-INSTALLED ANCHORS UNLESS GIVEN APPROVAL FROM ENGINEER OF RECORD.

WOOD LUMBER

- SAWN WOOD MEMBERS ARE DESIGNED BASED ON SOUTHERN YELLOW PINE #2 OR SOUTHERN PINE #2. (LUMBER MUST MEET OR EXCEED THE PROPERTIES FOR THESE SPECIES)

ENGINEERED LUMBER

- MINIMUM PROPERTIES
 - LSL: E = 1500 KSI, FB = 1800 PSI, FV = 165 PSI, FCI = 970 PSI
 - PSL: E = 1500 KSI, FB = 2300 PSI, FV = 185 PSI, FCI = 970 PSI
 - PSL: E = 2000 KSI, FB = 2500 PSI, FV = 200 PSI, FCI = 625 PSI
- MULTIPLE BEAMS TO BE FASTENED TOGETHER PER MANU. RECOMMENDATIONS.

BOLTS AND LAG SCREWS

- BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYPE UNO.
- BOLTS, WASHERS, AND NUTS SHALL BE GALVANIZED IN ACCORDANCE TO ASTM A153 IF EXPOSED TO ELEMENTS.
- LAG SCREWS SHALL CONFORM TO ANSIS/ASME STANDARD B18.2.1-1981.D
- CAST IN PLACE CONCRETE ANCHORS TO BE PROTECTED FROM DAMAGE DURING CONCRETE INSTALL, INCLUDING THREAD CONTACT WITH WET CONCRETE.

ADDITIONAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE ENGINEER OF RECORD SHOULD BE CONTACTED PRIOR TO CONSTRUCTION IF:
 - THE PLANS CONTAIN INACCURATE INFORMATION.
 - THE PLANS ARE INCOMPLETE OR LACK NECESSARY INFORMATION FOR CONSTRUCTION.
- THE CONTRACTOR SHALL REVIEW ALL DIMENSION, ANY DISCREPANCY SHOULD BE REPORTED TO ENGINEER OF RECORD PRIOR TO CONSTRUCTION OR PROCEEDING.
- FOUNDATION CONTRACTOR SHALL COMPLY WITH ALL OSHA STANDARDS.

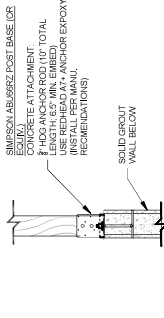
WALL BRACING

- CONTINUOUS SHEATHING
 - 1/2" MIN. OSB ON ALL EXTERIOR WALLS
 - INTERIOR OF PANEL NAILING: 6d NAILS @ 12" O.C.
 - PANEL EDGE NAILING: 6d NAILS @ 6" O.C.
- OSB GYPSUM BOARD BRACING (WHERE INDICATED)
 - 1/2" MIN. INSTALLED ON BOTH SIDES OF WALL
 - INTERIOR OF PANEL NAILING: 5d NAILS @ 10" O.C.
 - PANEL EDGE NAILING: 5d NAILS @ 10" O.C.
- WSP: WOOD STRUCTURAL PANEL BRACING (WHERE INDICATED)
 - 1" MIN. WSP
 - INTERIOR OF PANEL NAILING: 6d NAILS @ 12" O.C. (6d FOR 1/2" WSP) PANEL
 - EDGE NAILING: 6d NAILS @ 6" O.C. (6d FOR 1/2" WSP)

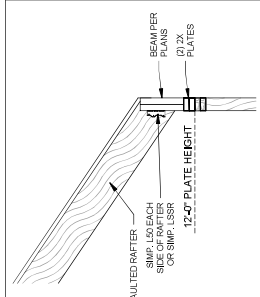
DOCUMENTS AND LIMITATIONS

- THIS DOCUMENT SERVES TO PROVIDE A TOOL FOR THE SPECIFIC NEEDS OF THE PARTICULAR JOB SITE AND INFORMATION GIVEN, ENDURE ENGINEERING PLLC DOES NOT ACCEPT LIABILITY FOR REUSE OR IMPROPER USE OF THIS DOCUMENT UNLESS GIVEN PRIOR WRITTEN AUTHORIZATION.
- THIS DOCUMENT IS NOT TO BE USED FOR ANY OTHER PROJECTS, ADOPTED CODE TO BE USED AND CURRENT GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRACTICES, THE STRUCTURAL ENGINEER OF RECORD GIVES NO WARRANTY FOR ANY FINDINGS, DESIGNS, RECOMMENDATIONS, SPECIFICATIONS, OPINION, OR PROFESSIONAL ADVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INFORMATION FROM THE STRUCTURAL ENGINEER OF RECORD. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY WORK THAT HE/SHE DID NOT REVIEW OR WAS NOT COMPLETED IN ACCORDANCE WITH THE SEALED RELEASED PLANS.

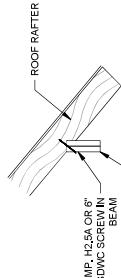
ABBREVIATION	TERM
ABV	ABOVE
ABF	ABOVE FINISHED FLOOR
BE	BOTH ENDS
BE	BOTH ENDS
BTWN	BETWEEN
BW	BOTH WAYS
CLR	CONCRETE
CONC	CONCRETE
DBL	DOUBLE
DSP	DOUBLE STUD POCKET
EQ	EQUAL
EA	EACH
EQ	EQUAL
FND	FOUNDATION
HOG	HOT-DIPPED GALVANIZED
MSN	MASONRY
MTS	NOT TO SCALE
OC	ON CENTER
PL	OUTSIDE DIAMETER
SC	STUD COLUMN
SD	STANDARD
SQ	SQUARE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
XJ	EXTRA JOIST
XS	EXTRA STRONG



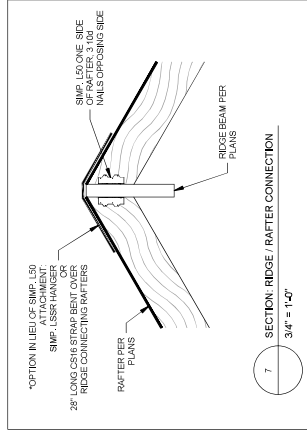
SECTION: PORCH COLUMN
3/4" = 1'-0"



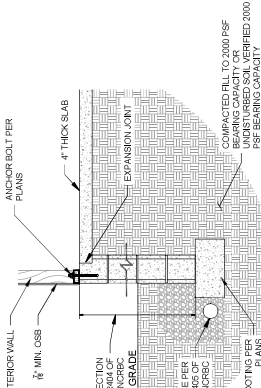
SECTION: VAULTED RAFTER TO BEAM
3/4" = 1'-0"



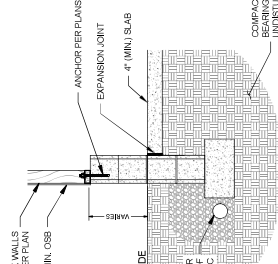
SECTION: RAFTER TO BEAM CONNECTION
3/4" = 1'-0"



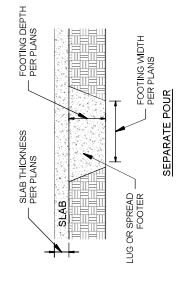
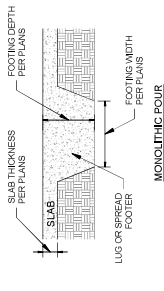
SECTION: RIDGE / RAFTER CONNECTION
3/4" = 1'-0"



SECTION: STEM WALL SLAB
3/4" = 1'-0"



SECTION: GARAGE END WALL
3/4" = 1'-0"



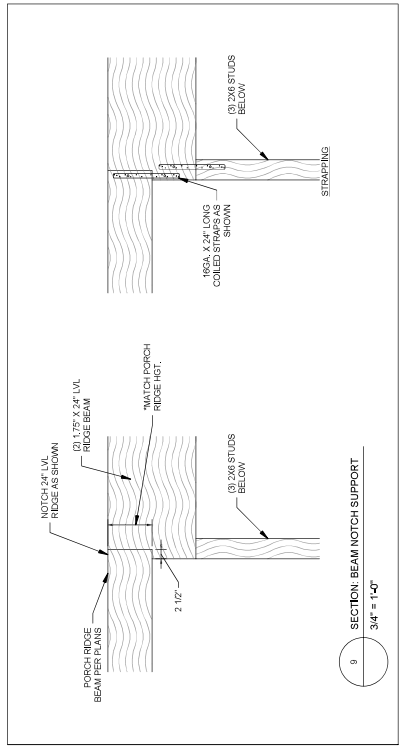
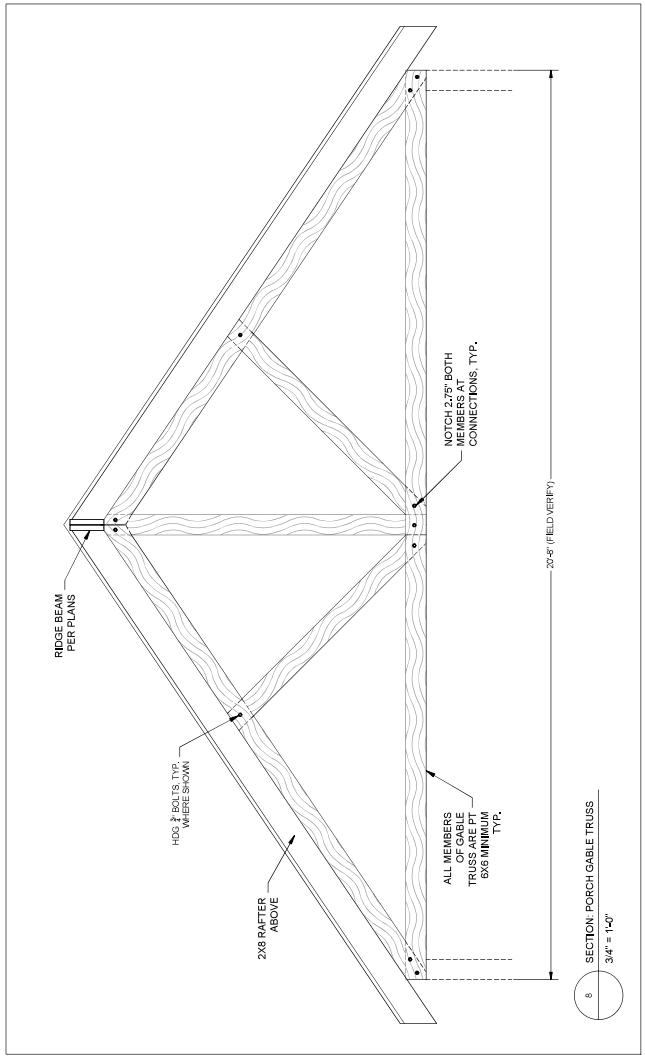
SECTION: LUG FOOTING / SPREAD FOOTER
3/4" = 1'-0"



PROJECT DETAILS
CLIENT: WHITTENTON BUILDERS
CLIENT EMAIL:
SCOPE OF WORK: STRUCTURAL PLANS
ADDRESS: BERRY RESIDENCE
NOTES:

REV. #	DESCRIPTION	BY	DATE
0	STRUCTURAL PLANS AND FOUNDATION	CLH	08/29/2025

SCALE:
DETAILS



PROJECT DETAILS
CLIENT: WHITTENTON BUILDERS
CLIENT EMAIL:
SCOPE OF WORK: STRUCTURAL PLANS
ADDRESS: BERRY RESIDENCE

ENDURE ENGINEERING
Endure Engineering, PLLC (P-2652)
499 Acorn Ct. Sunset Beach, NC 28568
Clyde.hudson@endureengineering.com

FOUNDATION SCHEDULE

EXTERIOR WALL ANCHORS: 5/8" MIN. Ø ANCHOR BOLTS / 6'-0" O.C. SPACING / 12" MAX FROM CORNERS / 2 BOLT MIN. PER PLATE SECTION INSTALLED IN MIDDLE THIRD OF PLATE 7" MIN. EMBED / SECTION R403.1.6 OF NCORC!





PROJECT DETAILS
CLIENT: WHITTENTON BUILDERS
SCOPE OF WORK: STRUCTURAL PLANS
ADDRESS: BERRY RESIDENCE
NOTES:
DATE: 09/29/2025
BY: CLH
DESCRIPTION: STRUCTURAL PLANS AND FOUNDATION
REV. # 0

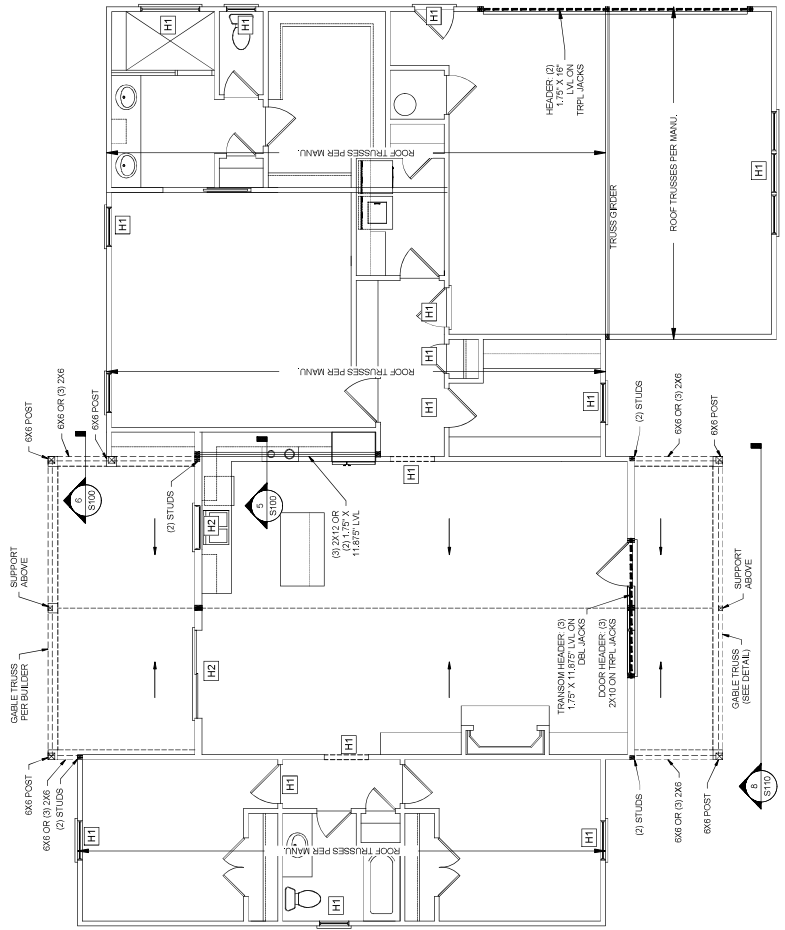
REV. #	DESCRIPTION	BY	DATE
0	STRUCTURAL PLANS AND FOUNDATION	CLH	09/29/2025

1ST FLOOR WALLS AND CEILING PLAN
SCALE: 1/4" = 1'-0"

PROJECT #
25-1-99
SHEET #
S210

HEADER SCHEDULE	
LOAD BEARING HEADERS (LABELED)	
TAG	DESCRIPTION
H1	(2) 2X10 ON SINGLE JACKS
H2	(3) 2X10 ON SINGLE JACKS
NON-LOAD BEARING HEADERS	
0" - 38" OPENINGS: SINGLE 2X4 TURNED FLAT	
38" TO 72" OPENINGS: DBL 2X4 ON SINGLE JACKS	
KING STUDS FOR BRACED WALLS (BOTH SIDES OF OPENING)	
# STUDS	MAX OPENING
1	5'-0"
2	8'-0"
3	10'-0"
4	12'-0"
5	15'-0"

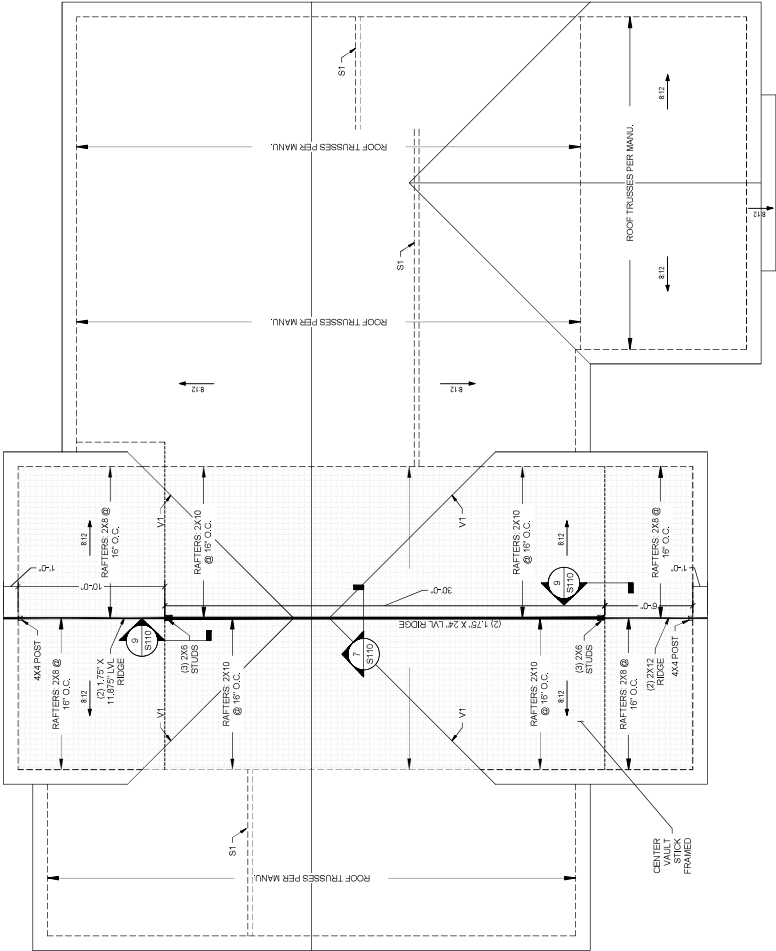
- NOTES
- BEAMS ARE ASSUMED TO BE SET BOTTOM FLUSH WITH FLOOR SYSTEM UNO
 - BEAMS SHALL BE SUPPORTED BY A CENTERED GANGED JOIST OR WALL, OR CHANGING OR EXCEEDING THE WIDTH OF THE BEAM, UNO.



1ST FLOOR WALLS AND CEILING PLAN
SCALE: 1/4" = 1'-0"

ROOF FRAMING NOTES	
- ROOF PITCHES, KNEEWALLS, AND OVERHANGS TO BE VERIFIED WITH ARCH. DRAWINGS	

ROOF LEGEND	
NOTATION	DESCRIPTION
S1	TRUSS SUPPORT WALL
V1	OVERFRAMED VALLEY; OPPOSING RAFTER FRAME TO 2X10 SLEEPER OR (2) 2X4S ON MAIN RAFTERS



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