

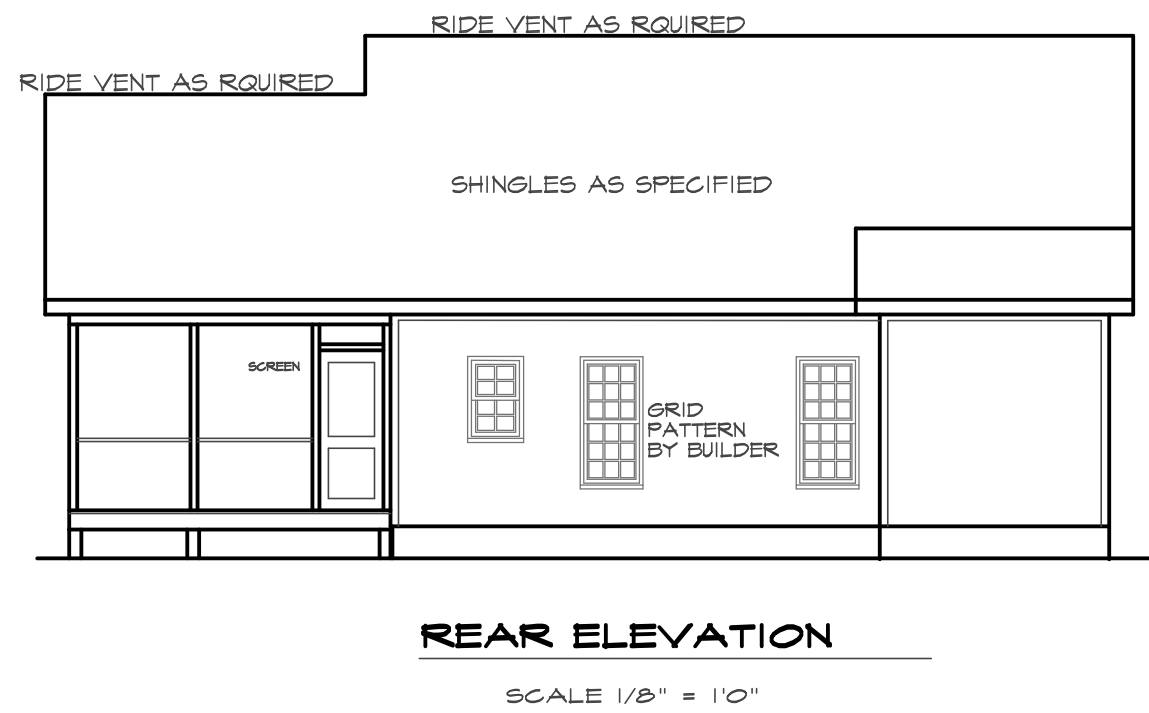


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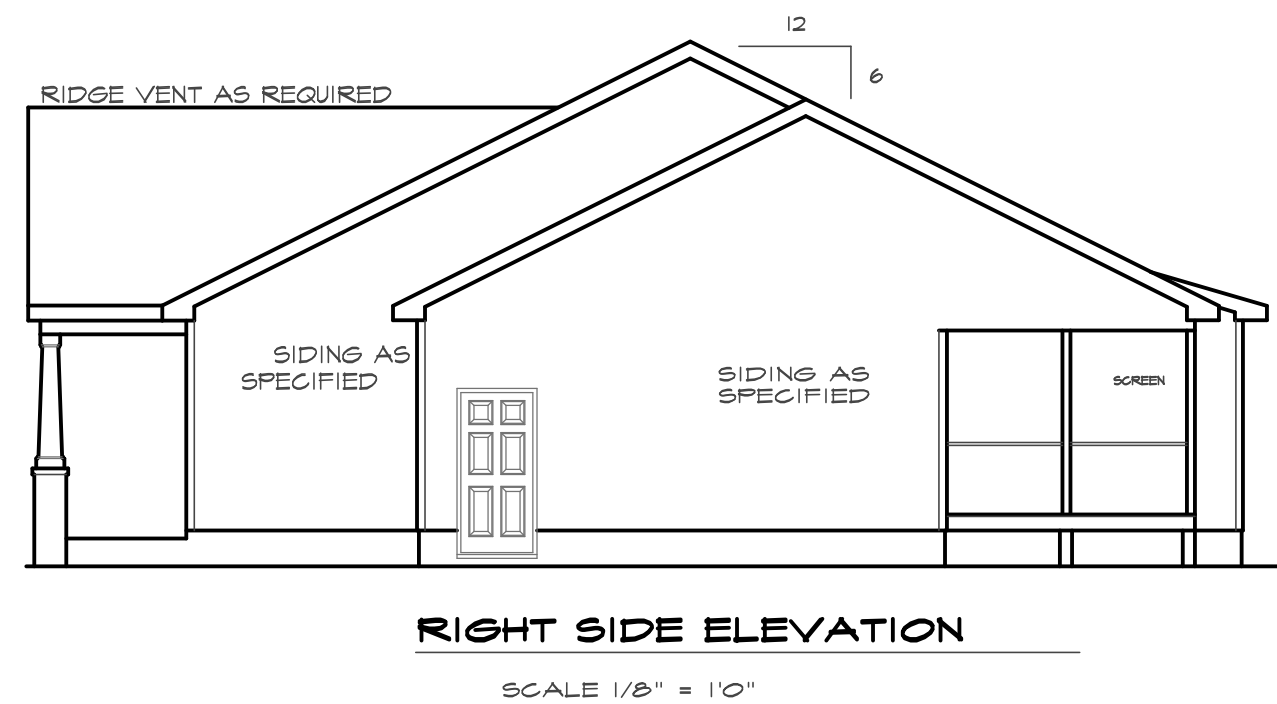
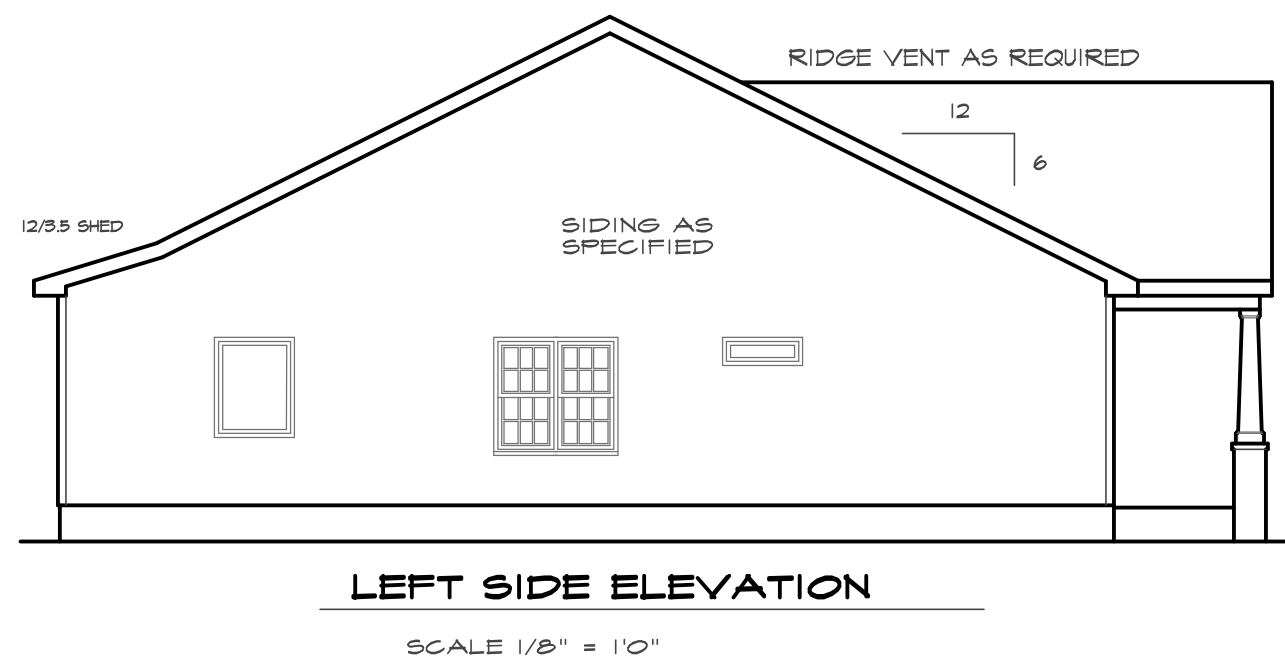
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ATTIC VENTILATION:

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 500, 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 1255 SQ.FT.
1255/300 = 4.2 SQ.FT. NET FREE AREA
50% OF VENTING MUST BE 3FT. ABOVE EAVE OR SOFFIT VENTS.



The Palmer
GARAGE RIGHT

THIS PLAN DESIGNED UNDER NORTH CAROLINA
RESIDENTIAL CODE 2018 EDITION (2021 IRC)

DATE
5/5/2025
PROJECT #
250406

MidTown Designs Inc. 1732 Deacon Falls Way. Wendell NC 27591 Phone: 919-783-8626 www.midtowndesigns.com

S1



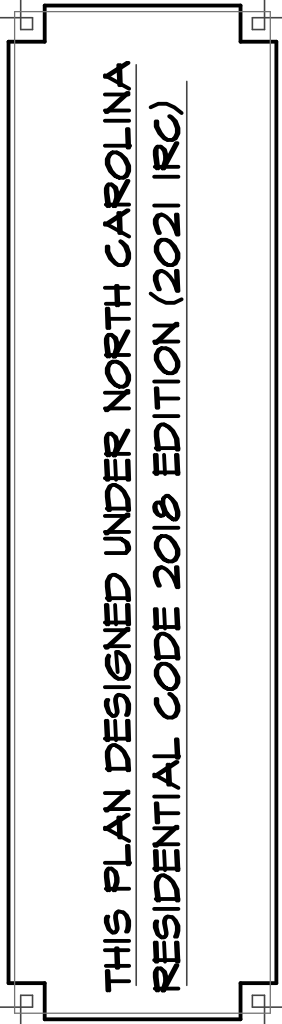
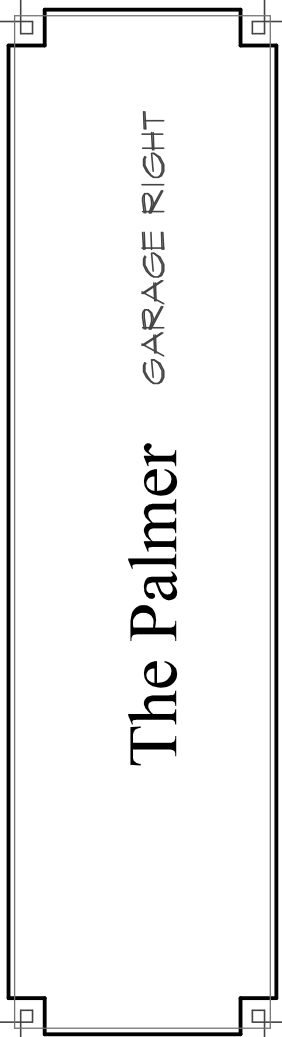
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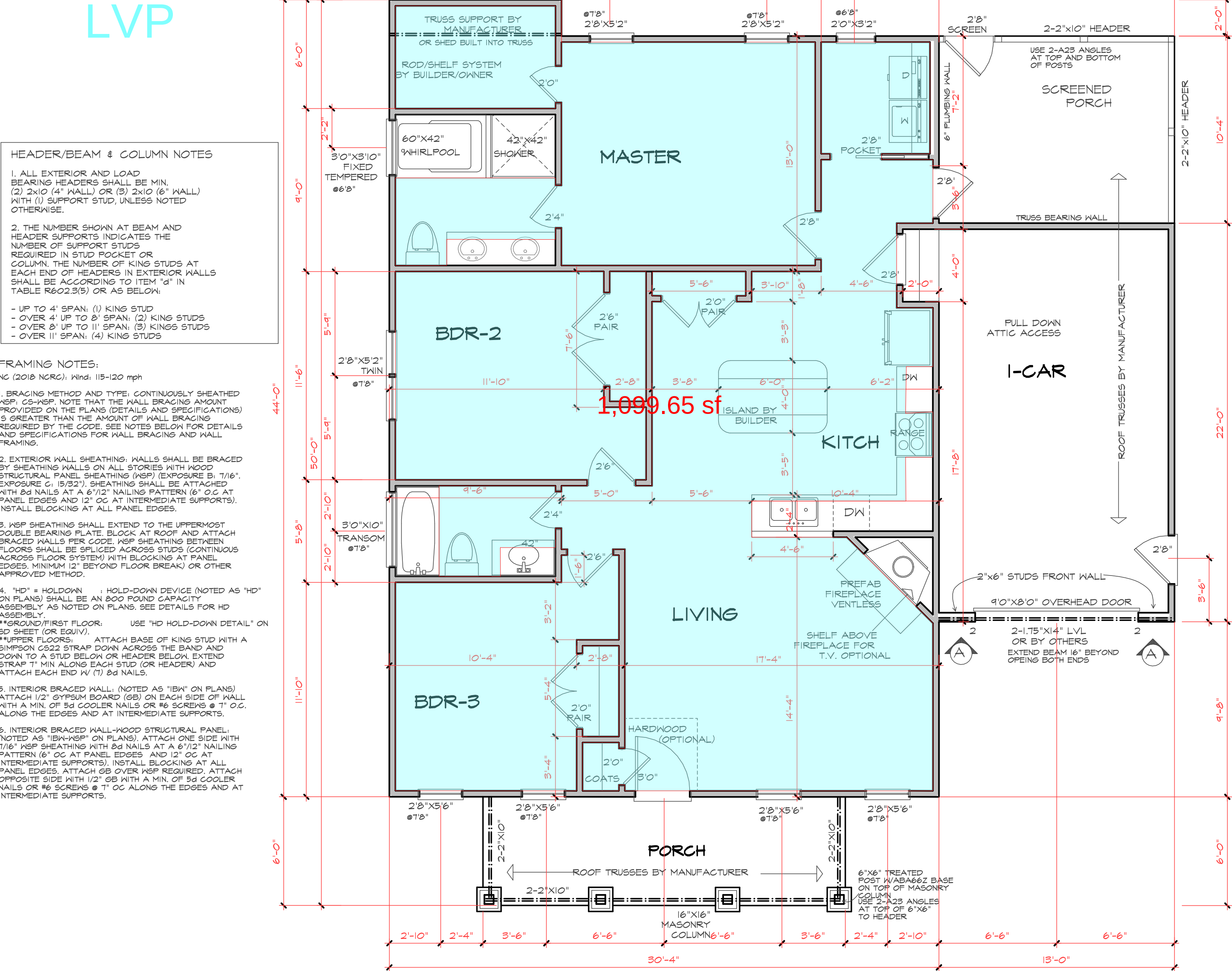
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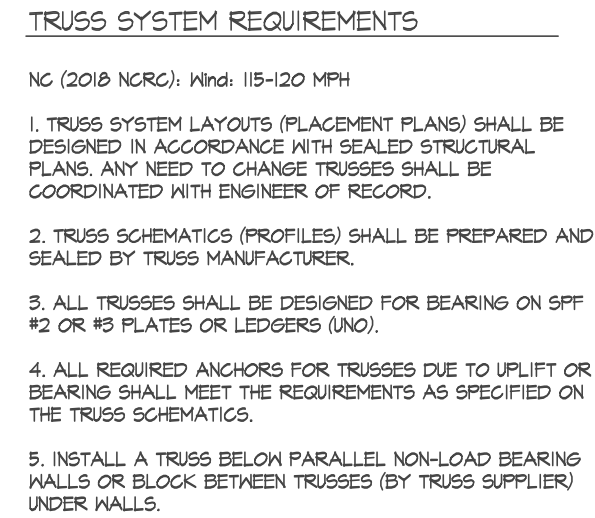
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5) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION (2015 IRC), PLUS ALL LOCAL CODES AND REGULATIONS.

ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

5) DESIGN LOADS LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION LIMIT) R 301.5

ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)

SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)

ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)

ATTIC WITH OUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)

ATTIC WITH OUT STORAGE: (10 PSF, 10 PSF, L/240)

STAIRS: (40 PSF, --, L/360)

EXTERIOR BALCONIES: (40 PSF, 10 PSF, L/360)

DECKS: (40 PSF, 10 PSF, L/360)

GAUDDRAILS AND HANDRAILS: (200 LBS)

PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)

FIRE ESCAPES: (40 PSF, 10 PSF, L/360)

WIND LOAD: (BASED ON 115 OR 120 MPH WIND VELOCITY & EXPOSURE B)

VERIFY WIND ZONE BEFORE CONSTRUCTION

5) 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. 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.

6) 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.

7) ALL FRAMING LUMBER SHALL BE SPF #2($F_b = 875$ PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 ($F_b=975$ PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 ($F_c(perp) = 425$ PSI - MIN).

8) 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).

4) L.V.L SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1,900,000 PSI. P.S.L SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2,000,000 PSI. L.S.L SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1,550,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

10) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

11) 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.

12) REBAR SHALL BE DEFORMED STEEL. ASTM615, GRADE 60

13) 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 6" FROM EACH END.

14) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

15) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF. 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 7:12 PITCH
21 PSF - 7:12 TO 12:12 PITCH

WALLS:

24.1 PSF - WALLS

SECTION RBOT

RBOT.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m2) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section MIBOS.1.3 for access requirements where mechanical equipment is located in attics.

Exceptions:

1. Concealed areas not located over the main structure including porches, areas behind knee walls, dormers, bay windows, etc. are not required to have access.
2. Pull down stair treads, stringers, handrails, and hardware may protrude into the net clear opening.

NO SCALE

SCALE 3/4" TO 1'-0"

REFER TO SECTIONS R302.5, R302.6, AND R302.7 WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting floor/ceiling assemblies used for separation required by this section.

STAIRS. A minimum of 1/2" gypsum board must be installed on the underside and exposed sides of all stairways.

CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling.

OPENING PENETRATIONS. Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors.

DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the *dwelling* from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings into the garage.

OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

1. STAIRS RISERS MUST BE UNIFORM AND NOT EXCEED $8\frac{1}{4}"$.
2. TREADS SHALL NOT BE LESS THAN $10"$ DEEP A $1"$ PROJECTION OVER RISER IS PERMITTED.
3. A MINIMUM OF $6'8"$ HEADROOM MUST BE MAINTAINED AT ALL PLACES ON STAIR.
4. THE WIDTH OF THE STAIR SHALL BE A MINIMUM OF $3'0"$ HANDRAIL MAY PROJECT FROM EACH SIDE OF STAIR A DISTANCE OF $3\frac{1}{2}"$ INTO THE REQUIRED WIDTH.
5. WINDERS MUST BE A MINIMUM OF $9"$ IN WIDTH AT $12"$ FROM THE NARROWEST SIDE. TREAD SHALL BE NO NARROWER THAN $4"$ AT ANY POINT AND AVERAGE NO LESS THAN 9 INCHES.
6. HANDRAILS SHALL BE NO LESS THAN $34"$ AND NO MORE THAN $38"$ ABOVE TREAD NOSING.
7. WINDERS AND SPIRAL STAIRS SHALL HAVE THE HANDRAIL LOCATED ON THE OUTSIDE RADIUS.
8. ALL REQUIRED HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS.

2 X 4 SOLE PLATE

3/4" SUBFLOOR

FLOOR JOISTS AS SPECIFIED

(2) 2 X 4 TOP PLATE

1/2" GYPSUM

WALL INSULATION PER CLIMATE ZONE SEE CODE NOTE ON ELEVATION PAGES

SIDING AS SPECIFIED

SHEATHING AS SPECIFIED

2 X 4 STUDS AT 16" O.C. UNLESS NOTED OTHERWISE

SCALE 3/4" = 1'-0"

SCALE 3/4" = 1'-0"

Diagram illustrating the cross-section of a foundation wall assembly, showing the following components and details:

- WALL
- 1/2" D.I.A. ANCHOR BOLTS @ 6'-0" O.C. AND WITHIN 12" OF PLATE ENDS (EMBED 7")
- EXPANSION JOINT
- 4" CONG. SLAB WITH FIBERMESH OR WIREMESH ON 6 MIL. VAPOR BARRIER ON 4" CRUSHED STONE
- GARAGE SLAB SLOPE PER CODE
- 8" FOUNDATION WALL
- SEE FOUNDATION PLAN FOR FOOTING SIZE
- GRADE
- 8" SOLID CAP
- 4" BRICK
- 4" CMU
- TREATED SILL PLATE

2" X 4" STUDS

SUBFLOOR

BAND

8" SOLID MASONRY CAP

TREATED SILL

1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C. AND WITHIN 12" OF PLATE ENDS (EMBED 7")

4" BRICK

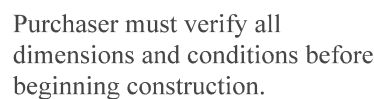
4" CMU

FINISH GRADE

8" CMU

12" MIN.

SEE FOUNDATION PLAN FOR FOOTING SIZE



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Detail Sheet

DATE	REV	DATE	REV

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LOT

SUB.

DATE 1/16/2019

SCALE