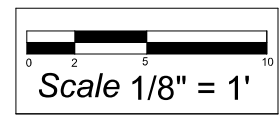


# ROOF FRAMING PLAN

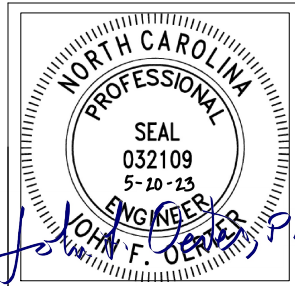
Supplemental Structure Plans for BB-2077

*John Oerter, PE*  
 Engineer Design Consultant, Permit Drawings  
 919-210-2798

Date 5-20-23



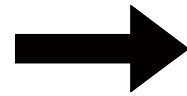
Sheet **S2**



**STRUCTURAL NOTES**

1. All construction shall conform to the the latest requirements of the North Carolina Building Code, in addition to all local codes and regulations.

2. Design Loads:



DESIGN LOADS	LIVE LOAD (psf)	DEAD LOAD (psf)	DEFLECTION	
			LL	TL
ALL FLOORS	40	10	L/360	L/240
ATTIC (w/ Walk Up stairs)	30	10	L/360	L/240
ATTIC (Pull Down Access)	20	10	L/240	L/180
ATTIC (No access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON !@) MPF (Exposure B)			
SEISMIC	SEISMIC ZONES A< B< & C			

3. Minimum allowable soil pressure bearing pressure = 2000 psf

4. Concrete shall have a minimum 28 day strength of 3000 psi and a maximum slump of 5 inches unless noted otherwise.

5. Maximum depth of unbalanced fill against foundation walls to be less than 4'-0" without using sufficient wall bracing. Refer to section R404 of 2018 NC Residential Building Code for backfill limitations based on wall height, wall thickness, soil type, and unbalanced backfill.

6. All framing lumber shall be SYP #2 (Fb = 800 psi). All framing lumber exposed to the elements shall be treated material.

- All LVL Lumber to be 1.75" wide nominal. Each single member Fb - 2600 psi, E = 1.9M psi (UNO)
- All LSL Lumber to be 3.5" wide nominal. Each single member Fb - 2325 psi, E = 1.6M psi (UNO)
- All PSL Lumber to be 3.5" wide nominal. Each single member Fb - 2400 psi, E = 1.8M psi (UNO)
- PSL columns desiged with a MAXIMUM height of 9'-0".

7. All load bearing headers shall be (2) 2x10 unless otherwise noted. All window headers shall be supported by(1) jack stud and (1) king stud at each end unless otherwise noted. All other beams shall be supported by 2 studs or the amount of studs required for full bearing at each end unless otherwise noted. Point loads shall consist of 2 studs unless otherwise noted. All supports of 2 studs or more shall be transferred through each floor to the foundation. Refer to table R602.7(1) & (2) for Jack Stud requirements for header spans for interior and exterior load conditionsunless specifically noted on plans.

8. All exterior wall to be sheathed with 7/16" wood structural panels fastned with 8D nails at 6" O.C. at edges and 12" O.C at interior supports. Blocking shall be installed if less than 50 percent of the wall length is sheathed. Where blocking is required, all panels shall be fastened at 3" O.C. at edges and 6" O.C. at interior supports. Refer to section R602.3 for framing of all walls over 10'-0" in height.

9. All structural steel shall be ASTM A-36. All structural Steel W-Shapes (I-Beams) shall be ASTM A992 Grade 50. All steel angles, plates and C-Channels shall be ASTM A36. All Steel Pipe sall be ASTM A53 Grade B. Steel beams shall be supported at each end with a minimum bearing length of 3'-1/2" 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 and 4" long). Lateral support is considered adequate providing the joists are toe nailed to the sole plates and the sole plates are nailed or bolted to the beam flanges at a maximum spacing of 48" O.C.

10. Provide Anchor bolt Placement per section R403.1.6. 1/2" diameter Anchor bolts spaced at 6'-0" O.C. and placed 12" from the end of each plate section. Anchor bolts shall be placed at 3'-0" O.C. for basements. Anchor bolts shall extend 7 inches into concrete or masonry. The bolt shall be located in the middle third of the width of the plate. There shall be a minimum two anchor bolts per plate section.

11. Foundation drainage/damp proofing or water proofing per section 405 and 406 of 1018 NC Residential Building Code.

12. Uplift loads greater tan 500 lbs. sall be continuously anchored to the foundation.

13. Provide a minimum of 500 lbs. uplift & lateral connection at top and bottom of porch columns (UNO)

14. Maximum masonty pier height shall not exceed four times it least horizontal dimension.

15. Wall and Roof cladding values:

- Wall cladding shall be designed for a 28.0 pounds per square foot or greater positive and negative pressure.
- Roof values both positive and negative shall be as follows:
  - 45.5 lbs/sqft for roof pitches 0/12 to 2.25/12
  - 34.8 lbs/sqft for roof pitches 2.25/12 to 7/12
  - 21.0 lbs/sqft for roof pitches 7/12 to 12/12
  - \*\* Mean roof height 30' or less.

13. For roof slopes from 2/12 through 4/12, Builder to install 2 layers of 15# felt paper.

14. It is the contractors responsibility to verify all dimensions and square footage prior to construction .

**GENERAL NOTES**

1. It is the contractor's responsibility that all dimensions, roof pitches, and square footage are correct prior to construction. Engineer sealing plans is not responsible for any dimensioning, roof pitch, or square footage errors once construction begins.
2. All walls shown on the floor plans are drawn at 5" unless noted otherwise.
3. Stud wall design shall conform to North Carolina State Building Code requirements.
4. DO NOT SCALE PLANS. Drawing scale may be distorted due to copier imperfections.
5. All construction shall be in accordance with NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 edition.



**Supplimental Structure Plans for BB-2077**

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Sheet S3