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9 January 2024

To: Reinert Construction

Re: 131 Piney Grove Rawls Road Harnett County NC

Permit # Pending JAMPE Job Number 2401-06

The following design and recommendation is based on the latest edition of the North Carolina Building Code and any local codes that may be in effect at the time of this letter.

Live Loads: 8roof/Limited Storage- 20 psf Upper Floors- 40 psf Main floors- 40 psf
Dead loads as applicable. Allowable Soil Pressure- 2000psf Wind load- 27 psf.
Allowable Stress: #2 SPF- 875 psi #2 SYP- 1050 psi LVL-06 2900 psi

Builder has requested verification of the following **Foundation** issues based on ON SITE review 0900 hours 9 January 2024 Design is to North Carolina Residential Code 2018 Foundation walls R404.1.1(4) R403.1 (Footings)

Builder has requested verification of the following **Slab Preparation** issues based on ON SITE review

Review of existing footing and foundation wall construction for renovation / re-construction to up to ten foot wall height.

Footing verified to up to required 12" frost depth and minimum of 12 inch thickness.
Maximum load $3(79) + 10(14) + 12/2(20+25) = 647$ plf $(1.4) = 950$ plf / $12/12 = 950$ psf
Existing footing is adequate for expected loads and conditions.

NOTE: The most extensive changes to the Building Code were for auxiliary and detached structures.

Framing at 2 x 6 @ 16 with ten foot #2 spf or better will require purlins at maximum eight foot on center or at nine foot panel ends.

Framing of main door opening will constitute Portal Framing. Frame opening with 7/16 OSB. Lap OSB from top plate down full eight foot or nine foot sheet prior to opening cut-out. Nail with 8d nails at three inches on center ends / edges and six inches on center in field.

Stem Walls each side of garage door opening to be anchored to footing with (two) 5/8" threaded rods embedded four inches and epoxied through bottom sill plate and anchored with 2" x 2" x 3/16" square washers.

Respectfully,

John A. McRae

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Questions or Comments John A McRae jampe@nc.rr.com

Design is to 2018 North Carolina Code

