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August 4, 2025

Mike Badin
Black Sheep Construction, LLC
350 Raleigh Street
Holly Springs, North Carolina 27540

Dear Mr. Badin:

I have reviewed the Badin residence plan being constructed at 164 Horse Path Lane in Holly Springs, North Carolina as well as the pictures you have provided to address two framing issues. The original plan was designed by Triangle Residential Designs Inc. and the engineering was sealed on October 9, 2024. All new construction shall conform to the 2018 North Carolina Residential Code (2018 NCRC), plus all local codes and regulations. All relative directions are noted as if one were facing the front elevation as noted on the architectural drawings. Analysis revealed the following:

1) As per our conversation and the pictures, two W10 x 33 steel beams were installed in the basement directly below the first floor system. One beam is located below bedroom #3 spanning left-to-right approximately 11'-0" from the stairwell rear right corner to the basement right foundation wall. The other beam is located below bedroom #2 spanning left-to-right approximately 11'-0" from the basement foundation wall below thegame room rear right corner to the basement right foundation wall. Each beam is supported by a 6 x 6 pressure treated post at each end with 2-ply 1 3/4" thick LVL pack-out material installed between the end of beam and the Superior Walls™ foundation wall at each end. The steel beams, LVL material, and supporting 6 x 6 posts may be considered to be supporting no loads other than self-weight with no additional modification required provided the first floor system is connected to the top of the Superior Walls™ foundation walls as per the requirements of the Builder Guideline Booklet™ provided by Superior Walls™.

2) The two 9-0 x 8-0 garage door openings specified on the plan may be omitted and replaced with a single 18-0 x 10-0 garage door opening centered approximately 4'-5" back from the garage front right corner. The opening is to be framed with a (2) 1 3/4" x 23 7/8" LVL installed continuously from corner to corner along the garage right wall with five 2 x 6 jacks at each end of the opening. Install two Simpson CS16 coiled straps on the inside face of each 2 x 6 jack column lapped 15" minimum onto two

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of the jacks in each column and 15” minimum onto the inside face of the LVL header (the header may be packed out as needed for the strap installation). Construct the wall segment at the front end of the opening as required for an approximately 4’-5” long CS-PF braced wall panel. Additionally, verify a 30” x 30” x 10” deep minimum concrete footing centered below each end of the opening.

The alternate configuration(s) listed above will provide the required support for all applied loads. This document is intended to describe alternate configuration(s) only and is not intended to relieve the Code Enforcement Official of the responsibility to inspect and field verify the alternate configuration(s) conform to this letter and the NCRC. The structural engineer is not responsible for, and will not have control of, construction means, methods, techniques, sequences or procedures, or safety precautions and programs in connection with the construction work.

Please call me if you have any questions.

Sincerely,

Spectra Engineering and Design, PLLC

Max D. Winters, P.E.

8/4/2025