



Wise Engineering
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July 29, 2019

Will Reed

Subject: 155 Harborview Dr., Sanford, NC 27332

Mr. Reed,

At your request, I reviewed the proposed renovation at the home located at 155 Harborview, Sanford, NC. Specifically, I reviewed the proposed removal of the wall between the kitchen/breakfast/dining area and the family room/foyer area (wall running front to back). Also, I reviewed the proposed removal of the wall between the kitchen and the dining room (wall running left to right).

Based on my observations and analysis, the existing wall running front to back may be removed provided a beam consisting of a (2) 1.75"x11.875" beam spanning from the back wall to the front wall. A support column, consisting of a minimum of (4)2x4's should be installed approximately 15ft-6in to 16ft from the back wall. The support column should be solid blocked to be supported over the pier below. A pier and footing (8"x16" pier w/ 24"x24"x8" footing should be installed at the back-wall area, directly under the girder where the back point load is located (the foundation wall is pier and curtain wall and beam support will be between piers).

The wall between the kitchen and the front dining room is only loadbearing in the area directly under the dormer (between the 2 sets of double trusses). In this area, the floor joist may be cut and a (2)2x10 flush beam may be installed to run between the sets of double trusses. They should be fastened to the trusses using a LUS210-2 hanger on both ends of the (2)2x10.

The above-mentioned beam designs to replace wall sections are designed in accordance with the 2018 NC Residential Building Codes. If you need additional information or have other questions, please let us know.

Sincerely,

Randy K. Wise, PE

