J.S.THOMPSON ENGINEERING. INC

structural and geotechnical custom residential design

February 4, 2022

Steve Thomas Thomas Properties PO Box 875 Broadway, NC 27505

Dear Mr. Thomas:

Per your request, the McKinney residence plan was reviewed to address several framing issues. Analysis of these areas revealed the following:

- 1) The slab foundation per sheet 1 from Plan HPD-2149-RH will not be constructed per the plan. See attached foundation plan for structural information.
- 2) The structure's width increased by 8'-0" along the rear garage and shared great room and master bedroom wall. This change resulted in the garage, storage room, utility room, pantry, office, master bedroom, kitchen, and great room each becoming 4'-0" wider than the original plans. The porch at the right side of the master suite will not be constructed.
- 3) The items labeled "Engineered beam above as required" on sheet 2 of 6 of the McKinney plan are not to be installed and can be disregarded. The roof trusses engineered by others will span across the house to each exterior wall and there will not be any internal bearing points.
- 4) All dimensional lumber is to be SPF #2 unless noted otherwise.
- 5) The girder truss engineered by others labeled "B04G" is to be supported by (4) 2 x 4 at the kitchen wall and (5) 2 x 4 at the utility room exterior wall. The stud columns are the fastened with Simpson CS16 straps at 24" o.c.

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- 6) The garage door header is to be (3) 1 3/4" x 18" LVL supported by (3) 2 x 6 jacks and (3) 2 x 6 king studs at each end. The exterior garage door wall is to be 2 x 6 @ 16" o.c. to provide adequate bearing for the (3) ply beam. The exterior storage door header is to be (2) 2 x 10 supported by (1) 2 x 4 king stud and (2) 2 x 4 jacks at each end.
- 7) The front French doors and front twin window headers are to be (2) 2 x 12 supported by (1) king stud and (2) 2 x 4 jacks at each end. All other exterior headers are to be (2) 2 x 6 and supported by (1) 2 x 4 jack and (1) 2 x 4 king stud.
- 8) The front porch posts are to be re-spaced as needed not to exceed a maximum span of 13'-0". All front porch beams are to be (2) 2 x 10 supported by 4 x 4 treated posts (minimum).
- 9) The left porch posts on the left elevation cannot exceed a maximum span of 13'-0". All left porch beams are to be (2) 2 x 10 supports by 4 x 4 treated posts (minimum).
- 10) The rear porch posts at the rear elevation are to be re-spaced and cannot exceed a maximum span of 13'-0". All rear porch beams are to be (2) 2 x 10 supported by min 4 x 4 treated posts.
- 11) The roof trusses are to be installed per the truss layout provided by Truswood and per the manufacturer's specs.

This configuration will provide the required support for all applied loads. Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc. N.C. License No. C-1733

Joshua A. Grantham, E.I.

J. Scott Thompson, P.

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