

J.S. THOMPSON

ENGINEERING, INC

structural and geotechnical
custom residential design

March 25, 2019

Brian Culver
Triangle Home Pros
6312 Lauraca Lane
Fuquay Varina, NC 27526

RE: Lot 18 Pond Valley
Superior WRT 3036 fireplace addition

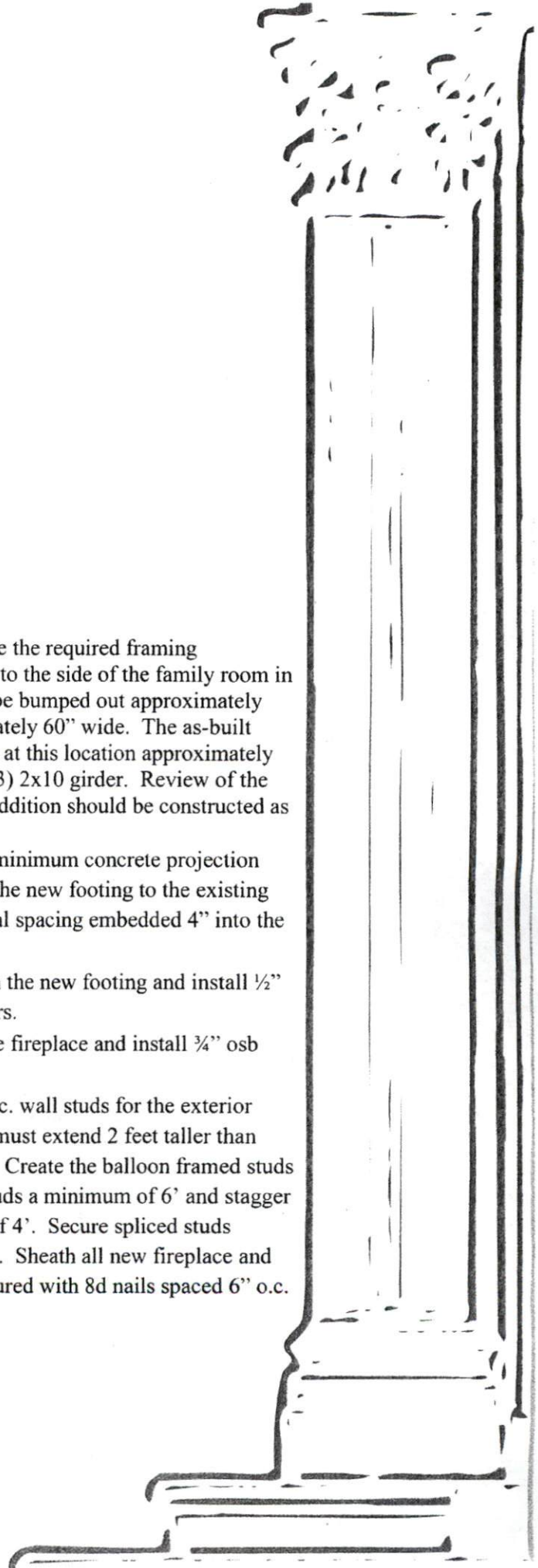
Dear Mr. Culver:

The above referenced plan was reviewed to determine the required framing modifications to add a Superior WRT 3036 fireplace to the side of the family room in front of the garage. The fireplace framed walls will be bumped out approximately 24" from the family room wall and will be approximately 60" wide. The as-built 2x10 at 16" o.c. first floor system spans front to back at this location approximately 8'-0" from the front foundation wall to the dropped (3) 2x10 girder. Review of the plans and fireplace specs revealed that the fireplace addition should be constructed as follows:

- Install an 8" thick concrete footing with 4" minimum concrete projection each side of the new foundation walls. Tie the new footing to the existing with (4) #4 rebar by 24" long dowels at equal spacing embedded 4" into the existing foundation with epoxy adhesive.
- Install 8" thick masonry foundation walls on the new footing and install 1/2" anchor bolts within 12" of the outside corners.
- Install a 2 x 10 at 16" floor system below the fireplace and install 3/4" osb subfloor.
- Install balloon framed double 2 x 4 at 16" o.c. wall studs for the exterior fireplace and chimney walls. The chimney must extend 2 feet taller than any rooflines within 10 feet of the chimney. Create the balloon framed studs by lap splicing 10' long (or greater) 2 x 4 studs a minimum of 6' and stagger splices between adjacent studs a minimum of 4'. Secure spliced studs together with (2) rows of 12d nails at 8" o.c.. Sheath all new fireplace and chimney walls with 7/16" osb sheathing secured with 8d nails spaced 6" o.c. along edges and 12" o.c. in the field.

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- Support the front side of the raised hearth with a triple 2 x 10 joist spanning approximately 8' from the front foundation wall to the girder line. Field verify the location of the new triple 2 x 10 to align below the front of the new hearth.
- Follow all fireplace manufacturer specifications for clearance to combustible materials.

The above described framing specifications are adequate to support all applied loads.
Please call me if you have any questions.

Sincerely,

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

Jacob E. Smith, P.E.



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