

FISHER ENGINEERING, P.C.

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November 7, 2019

Mr. Norman Larson
Vice Chairman
Moultonborough Heritage Commission
Moultonborough, New Hampshire

Re: Taylor House
970 Whittier Highway
Moultonborough, New Hampshire

Dear Mr. Larson,

We understand that there is some confusion regarding the structural integrity of the foundation and first floor of the Taylor House. You requested that we address the need for structural modifications of the foundation and first floor to accommodate a commercial establishment.

As discussed, the foundation appears to be sound. There may be isolated portions of the foundation which will need patching or partial reconstruction. However, we did not observe any signs of distress which would cause us to recommend replacement of the entire foundation or any significant portion thereof.

The first floor is in need of strengthening to meet 2015 International Building Code live load requirements for a commercial occupancy. The original occupancy was a residence, which required a live load capacity of 40 pounds per square-foot (psf). The proposed commercial occupancy, which is understood to be a retail store, requires the first floor to have a live load capacity of 100 psf.

The existing floor structure does not have a 100 psf live load capacity. Strengthening of the floor would involve the installation of additional beams and columns, as well as footings to support the columns. The footings could be cast integral with a concrete floor in the basement for cost effectiveness.

Our observation of the first floor framing was limited by the presence of ceiling boards which covered most of the framing. We developed a schematic design based on our limited observations. We made assumptions to facilitate the preparation of a schematic design. The ceiling boards will need to be removed and the framing observed to confirm our assumptions, and complete a structural design. Please refer to the attached sketches for the basic schematic design we developed.

The existing basement floor is exposed earth. This is not in accordance with current Code requirements. A vapor barrier and a concrete slab need to be installed to help mitigate moisture infiltration and prevent burrowing rodents from entering the building.

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The existing side entry porch floor framing and roof framing should be replaced, and a ramp added for Code required accessibility. The porch floor, porch roof, and ramp construction will require isolated piers and footings to support the columns which will support the floor and roof framing. The piers and footings can be single precast concrete units which are easily erected with light duty equipment.

Our Scope of Services is specifically limited to the observation of the main building foundation and first floor, and does not include the attached barn structure. No other review or analysis of the existing structure has been performed.

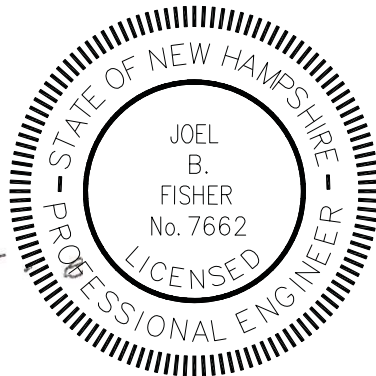
Please feel free to call if you have any questions or require further assistance.

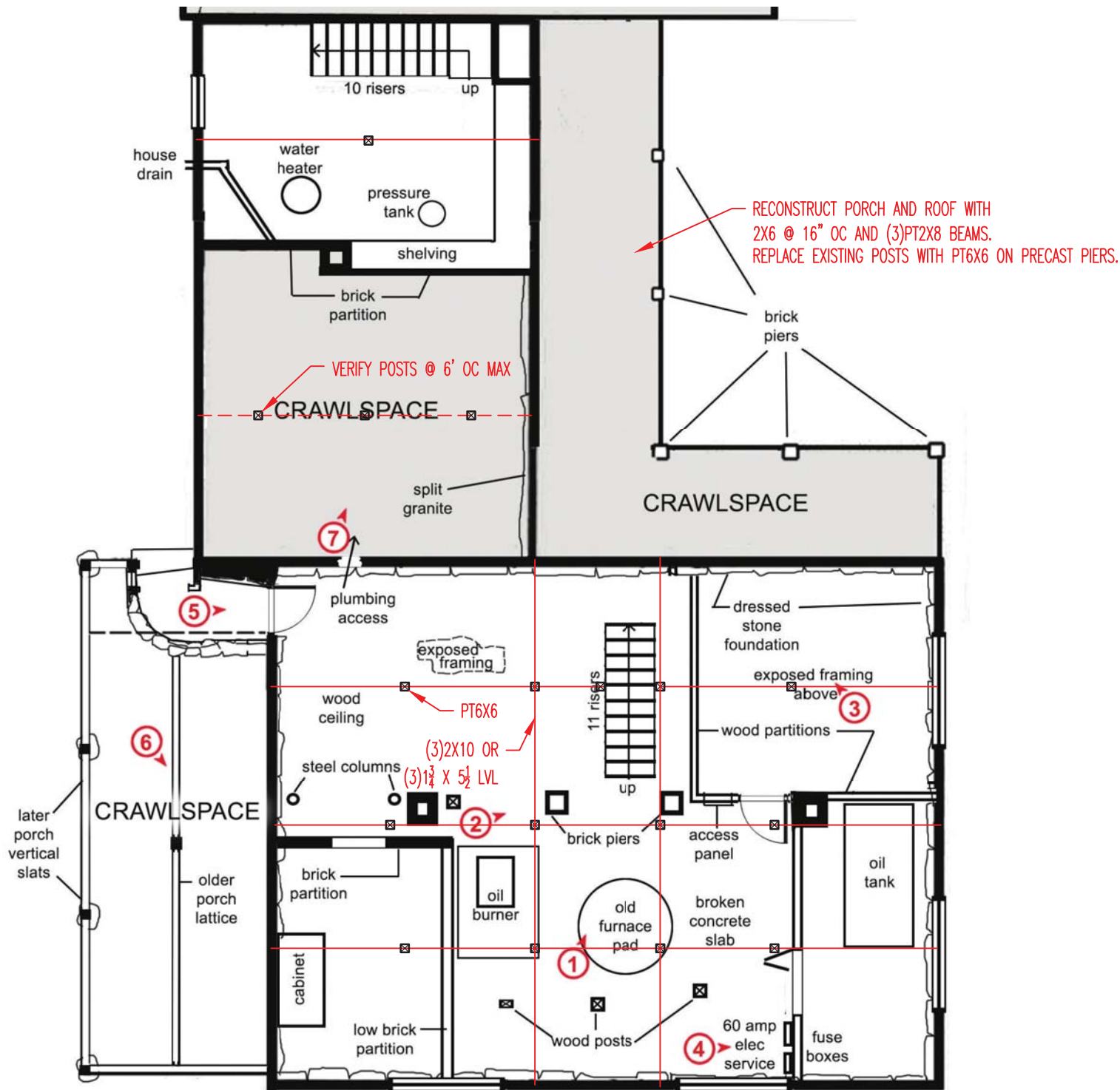
Thank you.

Sincerely,



Joel B. Fisher, P.E.
Principal





NOT FOR CONSTRUCTION

PARTIAL FIRST FLOOR FRAMING PLAN

TAYLOR HOUSE SCHEMATIC DESIGN

FIRST FLOOR RETROFIT

ROUTE 11B

MOULTONBOROUGH, NEW HAMPSHIRE

FISHER ENGINEERING, P.C.

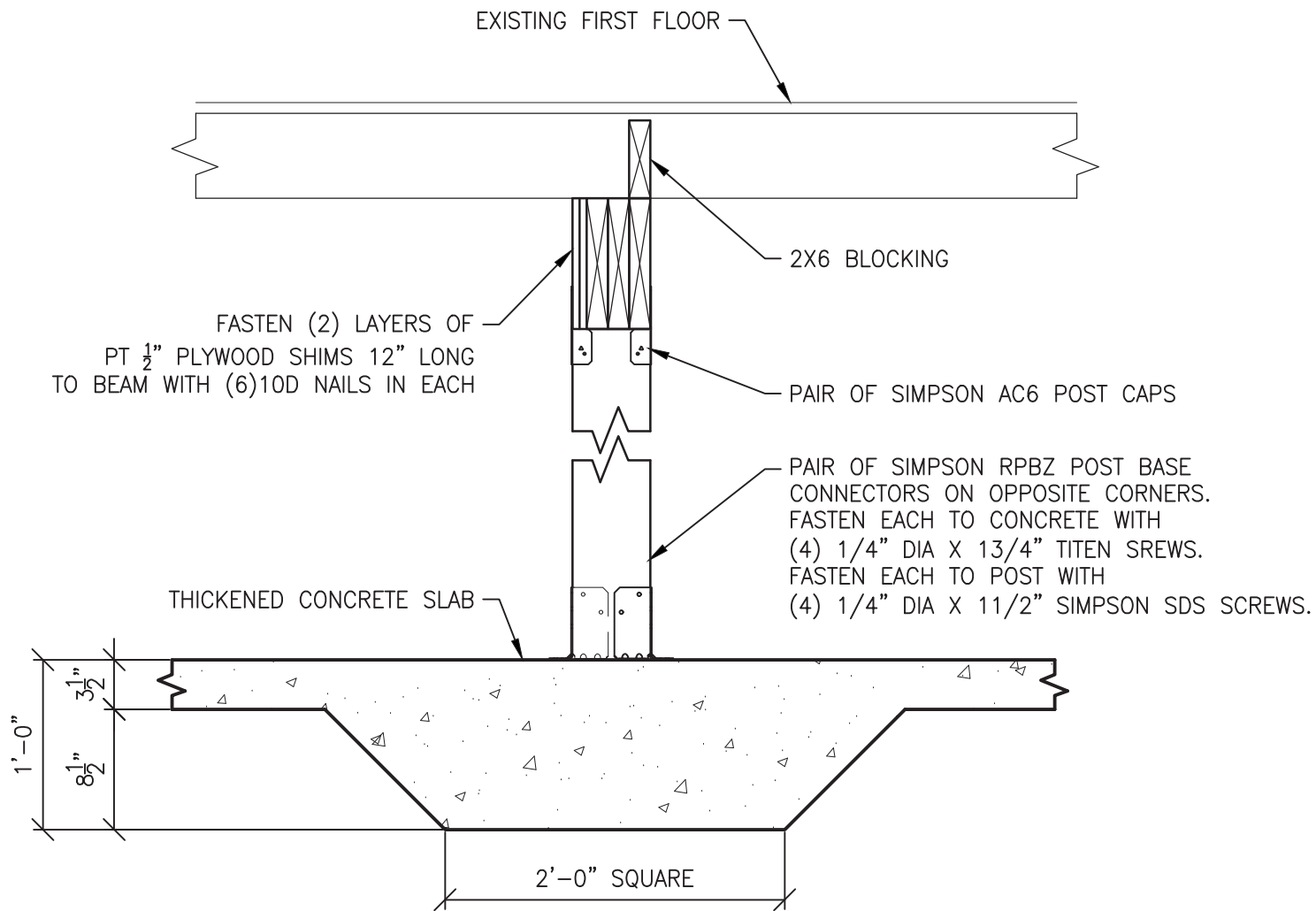
686 BELKNAP MOUNTAIN ROAD
GILFORD, NEW HAMPSHIRE 03249

(603) 528-7641

SCALE: NTS

SKETCH 1 OF 2

DATE: 11/07/19



NOT FOR CONSTRUCTION

TYPICAL POST AND BEAM DETAIL

TAYLOR HOUSE SCHEMATIC DESIGN

FIRST FLOOR RETROFIT

ROUTE 11B

MOULTONBOROUGH, NEW HAMPSHIRE

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SCALE: 1"=1'-0"

SKETCH 2 OF 2

DATE: 11/07/19