

Wise Engineering 3915 Old Fairground Rd. Angier, NC 27501 (919)894-2203

August 25, 2023

Vicki Lackey

Subject: 400 W East St, Erwin, NC 28339

Ms. Lackey,

At your request, we reviewed the existing home located at 400 W East St, Erwin, NC 28339. Specifically, we reviewed the first-floor floor framing components and the existing foundation. Our inspection consisted of visual observations within the crawlspace and the interior of the home. We entered the crawlspace via the crawlspace access door on the right rear of the home and made visual observations in readily accessible areas to analyze the wood framing components for structural damage by wood destroying fungi and/or wood-rot. There was no attempt to remove any obstructions or uncover any hidden areas within the crawlspace.

Based on our observations and analysis, the foundation consists of a pier and curtain foundation with girders spanning between the piers and floor joists evenly spaced between them. There was extensive damage to the wood framing components of the first-floor floor system associated with wood destroying insects. There have been repairs to the damage, however, none of the existing repairs are adequate to support the anticipated loading conditions. The repaired sections of the outer band do not span from pier to pier and there are splices between the piers. To properly repair the outer band, damaged and improperly repaired sections should be removed from center of pier to center of pier and replaced with a continuous member. Additionally, the repaired floor joists were sistered with members that were not the same depth. Therefore, the sistered floor joists are lacking support on the top and/or bottom. These floor joists should be enhanced by sistering the floor joists on the other side with a continuous member that is the same depth and supported with a joist hanger on each end. Furthermore, there are multiple dropped girders under the damaged floor joists, which are not properly supported. All of the dropped girders except for the one at the mid-span of the floor joists may be removed. The new dropped girders at the mid-span of the floor joists should consist of (2)2x10's with a max span of 6'-0". The dropped girders should be supported by new 8"x16" masonry piers on 24"x24"x8" poured concrete footings.

If you need additional information or have other questions, please let us know.

Sincerely,

Taylor Poulos

Randy K. Wise, PE