

Attn: Mr David Trickey

21-Dec-2021

RE: 935 Utsonati Lane
Crack in Slab Floor

Mr Trickey,

On Tuesday, December 21st we visited the home at 935 Utsonati Lane in Connestee. The owner wanted to proactively address a concern over a crack that was occurring in the basement studio floor slab. According to county records the home was built in 2007.

The home, like many in Connestee, was built on a slope. A typical residential framed construction with a poured wall foundation was done. For this type of construction, a footer (~24"-36" wide) is dug and poured in undisturbed soils at the perimeter. Then a concrete wall is formed and poured. All is reinforced with structural steel (rebar). The poured walls showed no signs of cracking or movement.



The area of the slab with the crack was then filled to subgrade elevation. In ~2007, this fill was usually accomplished by moving site soils dug or cut from another area of the foundation. These soils were typically compacted, but no inspections were usually done to confirm the quality of the compaction. The final 4" of fill typically consisted of clean #57 (washed) stone. This is visible in pictures taken during construction.



It is our belief that this fill has settled under the slab and caused the displaced crack in the floor. We do expect some minor additional settlement may occur in the future. This is not a structural concern but rather a cosmetic issue.

Recommendations

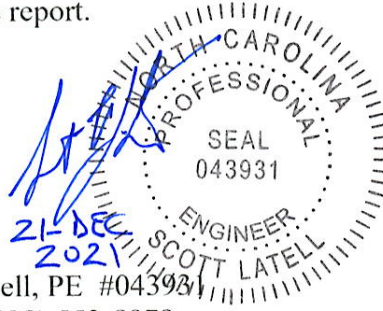
There is not a structural concern. The structure of the house sits directly on the poured exterior walls and the loads are transferred to the footers and stable earth. No structural repairs are needed associated with these cracks in the slab.

Please call me if there are any questions related to this report.

Regards,



Emma Joyner
(717)798-0710



Scott Latell, PE #043931
(828) 553-8979

Engineering of Brevard, PLLC – PO Box 202 – Brevard, NC 28712

