

December 30, 2022

Adams Homes 149 US 70 West Garner, NC 27529

Attn: Matt Galvin, 919-903-0735, matt.galvin@adamshomes.com, raleighadmin@adamshomes.com, raleighpermits@adamshomes.com, bjohnson@adamshomes.com

**CREEP -** Engineering - Field Observation, Subgrade Testing, Undercut/Subgrade Repair at Footing Excavations Lot 13 Cameron Woods Subdivision 211 Western Pine Way, Sanford, NC Project No. 22PG-1212-B, Harnett County Permit No. SFD-2203-0002

Dear Mr. Galvin,

Thank you for using Piedmont Geotechnical. The site was visited on December 12, 2022 and December 13, 2022 to test and evaluated the subgrade at the footing excavations for the house and rear deck at the above referenced address. The subgrade for the house and deck was tested with a Dynamic Cone Penetrometer (DCP) test in general accordance with ASTM special publication 399, and found to be of adequate bearing capacity. The footing excavation bottoms were probed with a steel probe rod for comparison to the test locations.

The test results indicated that the light tan sandy clay was of adequate bearing at the existing excavation bottoms. On December 12, 2022 the footing excavations for the house had been dug to about at about 2 ft. to 5 ft. below the surrounding grade. On December 13, 2022, the garage and deck footing excavations had been dug to about 1 ft. to 5 ft. below the surrounding grade. The excavation bottoms were tested, probed and found to be of adequate bearing capacity. The footing excavations for the house, garage and deck were undercut through the soft soils to the adequate bearing tan sandy clay soils. The excavation bottoms were found to have perched water conditions along the right wall and the right side of the back wall of the home and at the rear deck footings.

Per our recommendation, the footing excavations for the home, garage and rear deck were undercut through the soft soils to adequate bearing soil at about 1 to 5 ft. below grade. The undercut house garage footing excavations were properly backfilled with no.67 washed stone wrapped in filter fabric up to the planned bottom of footing elevation. Based on probing, the stone backfill was compacted in lifts.

Based on testing, observation and implementation of the recommendations, the subgrade for the home and garage was properly prepared for placing concrete and is adequate to support the proposed loads (2,000 psf) of the home. The subgrade for the deck at the undercut footing excavations was tested and is adequate to support 2,000 psf and it was recommended to be backfilled up to the planned bottom of footings with fabric wrapped stone or to be filled with concrete.

Sincerely

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D. Allen Hughes, P.E., President Piedmont Geotechnical, Inc., P.A.