OTG Consulting, PLLC

Geotechnical • Consulting Engineers • Quality Control

NC Registered Engineering Firm P-1855

28 August 2024

Reference: Deck Evaluation 197 A D Hill Road Sanford, North Carolina 27332

Parker Hunt:

OTG Consulting, PLLC (OTG) was onsite on August 27, 2024 to has completed the soils and foundation evaluation for the above referenced project. The purpose of the exploration was to try to determine the suitability of the foundation and foundation bearing soils for the newly constructed deck at the back of the house.

To evaluate the foundation bearing soils, we performed three (3) hand auger borings with DCP testing around the foundation. Dynamic Cone Penetrometer (DCP) tests were performed in the hand auger boreholes by a 1.5-inch diameter cone driven into the soil by a 15-pound ring weight with a free fall of 20 inches. The hand auger borings were conducted in general conformance with ASTM D-1452 with DCP testing conducted in general conformance with ASTM STP-399. To help in the soil evaluation, a 4-foot steel tip probe rod was also used at multiple locations. The probe rod aids in providing generalized strength conditions of the near surface soils.

The hand auger evaluations were performed to a depth of approximately 48 inches below the current subgrade elevations. It is the opinion of OTG Consulting, PLLC that the materials in place at test locations within the footings, at the areas and depths tested, will support the deck and foundation and have a bearing capacity of 2,000 psf.

In addition, OTG evaluated the foundation of the deck. The deck was supported with 4-inch by 4-inch pressure treated posts buried at least 2 feet below existing grades bearing on a 2-foot diameter footing. This satisfies the 2018 NCRC.

Closing

OTG has prepared this report of findings, evaluations, and recommendations to guide the client in response our onsite observations. If any of this information is inaccurate, either due to our interpretation of the documents provided or site or design changes that may occur later, OTG should be contacted immediately in order that we can review the report in light of the changes and provide additional or alternate recommendations as may be required.

Respectfully,

OTG Consulting, PLLC Aug 2024 Scott G. Dowell, P.E. President NC Registration No. 037387