

April 23, 2024

Mr. Bill Carr Weaver Homes 350 Wagoner Drive Fayetteville, North Carolina 28303

**Subject:** Summary of Slab Subgrade Material Evaluations

Lot No. 46 – (134 Hillwood Drive)

West Pointe Subdivision Sanford, North Carolina

Project Number: 8984.F0001 (40273-00)

Dear Mr. Carr:

On April 17, 2024, a representative of UES PROFESSIONAL SOLUTIONS 29, INC. (**UES**) visited the subject site for the purpose of observing the near surface slab bearing materials for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

The proposed slab areas had approximately 3 feet of processed fill placed and compacted prior to our site visit. Our work included testing and bearing grade evaluations of the in-place soil at the slab bearing grade. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at selected locations within the slab. The soil consistency at the slab bearing elevation and at selected intervals below the bearing grade were evaluated by Dynamic Cone Penetrometer (DCP) testing. The conical point of the DCP was first seated to penetrate any loose cuttings and then driven three additional 1-3/4 inch increments with blows from a 15-pound hammer falling 20 inches. The soil's strength characteristics and foundation support capability was determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. The entire slab area was evaluated by hand probing using a ½ inch diameter steel probe rod to check for soft areas at the surface intermediate of our hand auger boring locations.

The materials encountered in our hand auger borings generally consisted of processed fill and were free of significant quantities of organics and debris. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation of the tested soils is desired, **UES** can provide these services.

Based on the results of our DCP testing, hand probing, and our site observations, the slab bearing soils encountered are suitable for support of the proposed residential slab loading conditions.

If slab subgrade materials are exposed to inclement weather or adverse construction activities, **UES** should be contacted to re-evaluate the slab subgrade materials prior to concrete placement.

**UES** appreciates the opportunity to provide our professional services to you on this project. If you have any questions concerning the information in this report or if we can be of further service, please contact us.

## Sincerely,

**UES** PROFESSIONAL SOLUTIONS 29, INC.

Jeff A. Taylor, P.E. Geotechnical Engineer



Adam D. Perry, E.I. Staff Professional

