April 21, 2021

Mr. Chris Martin
Caviness and Cates
639 Executive Place, Suite 400
Fayetteville, North Carolina 28305

Subject: **Summary of Garage Slab Evaluation**
Lot No. 656 – (447 Pittfield Run)
Manors at Lexington Plantation Subdivision
Cameron, North Carolina
Permit Number: 2102-0066
SUMMIT Project Number: 2662-12R (32057-01)

Dear Mr. Martin:

On April 8, 2021, SUMMIT Engineering, Laboratory and Testing, Inc. (**SUMMIT**) visited the subject site for the purpose of observing and evaluating the near surface subgrade materials for the proposed garage slab. The following is a summary of our onsite observations and evaluation.

During our site visit, **SUMMIT** advanced hand augers within the garage slab areas. The soil consistency at the bottom of selected intervals of the auger borings were measured with a Dynamic Cone Penetrometer. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at selected locations in the front porch and garage areas. The soil consistency at soil subgrade 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 slab support capability was determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. Additionally, the garage slab areas were 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 exposed subgrade materials generally consisted of brown-tan and brown-gray, sandy-clay (fill underlain by residual soils) 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 is desired, **SUMMIT** can provide these services.

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

If slab subgrade materials are exposed to inclement weather or adverse construction activities, **SUMMIT** should be contacted to re-evaluate the slab subgrade materials prior to concrete placement. If it is imminent that inclement weather is forecasted prior to concrete placement, then the slab area can be covered with a plastic sheet to help protect the slab subgrade materials from softening.

SUMMIT 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,
SUMMIT Engineering, Laboratory and Testing, Inc.

4/21/2021

NORTH CAROLINA PROFESSIONAL SEAL 042148 ENGINEER JEFF A. TAYLOR

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