



Takla Engineering, PLLC

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Consulting.
Design.
Efficiency.
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Project: Prince Prince Lot 22
Location: 16 Blue Monarch Lane Fuquay-Varina, NC
Company: Davidson Homes
Care Of: Lee Aversano
Subject: Footing Evaluation



As requested, Alfred Takla, PE visited the aforementioned site on April 19th, 2022 to evaluate bearing capacity of the sub-grade soils supporting:

- Foundation wall and/or interior pier footings including attached garage
- Turndown slab on grade and lug footings
- Rear porch post footings
- Detached garage foundation wall footings
- Front porch foundation wall footings

*Patio slabs with no thickened or lug footings are outside the scope of our inspection.

Observations of lot topography, vegetation horizons and soil characteristics were made in order to generally characterize the lot. Based on these observations, and evaluations by means of probing excavation bottoms with a static cone penetrometer with a 60 degree cone assembly, friction sleeve, and gauge with pressure readings correlated to blow counts associated with 7a Dynamic Cone Penetrometer (DCP), and/or a 1/2" diameter steel probe rod, we verify the average bearing capacity of the sub-grade soils to meet or exceed a minimum of 2000 pounds per square foot as required by NCRC 2018, Chapter 4 and engineered specifications. No mechanical soil borings, standard proctors or density testing was completed during our inspection to verify compaction or soil conditions at deeper depths. If lot has been subjected to fill (compacted or otherwise), documentation of these aspects should be provided by grading contractor or a geotechnical engineering firm.

Unless Takla Engineering has conducted a third party inspection in-lieu of city inspections department (which would be stated below this paragraph), city/county/municipal inspector should verify if footings are clear of debris and loose/saturated soils prior to placement of concrete. The current condition of subgrades are adequate to receive concrete pending approval of city inspection department. If footing excavations are exposed to inclement weather prior to the placement of concrete, we recommend removing any standing water, loose, soft or saturated soil and scheduling a re-evaluation.

Limitations of Inspection: Services provided are in accordance with the standard of practice for structural engineering, the North Carolina Residential Code (2018 edition) and within the limits imposed by scope, schedule and budget. The determinations contained in this report are based on conditions observed at the time of the evaluation. No guarantees or warranties, expressed or implied, under this Agreement or otherwise, shall be construed in connection with services provided. Sequencing, shoring, means and methods of construction are considered beyond the scope of this report. All information used to form decisions and recommendations provided to engineer are taken as truthful. Takla Engineering assumes no responsibility for untruthful statements provided by any party. Lastly, while every effort has been made to ensure accuracy in the preparation of these documents, the maker cannot guarantee against human error nor evaluations of structural elements which are concealed from visual inspection.

