

A. A. Takla Engineering, PLLC

NC Firm License # P-1446
Consulting | Design | Efficiency
718 Arnette Ave. Durham, NC 27701

Andy A. Takla, PE
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Project: 521 Natchez Trace
Location: Fuquay Varina, NC
Company: Family Building CO.
Care Of: John Szalecki
Subject: Monoslab Subgrade and 3rd Party Inspection
Job Number: 1440-23



As requested, Andy Takla, PE visited this site on September 7th, 2023 to evaluate the bearing capacity of the sub-grade soils supporting:

- Foundation wall and interior pier footings
- Turndown monoslab and interior lug footings
- Rear porch turndowns
- Attached garage foundation wall footings
- Front Porch turndowns

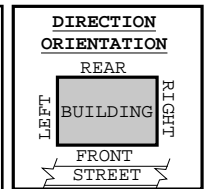
*Patio slabs with no thickened or lug footings are outside the scope of our inspection.

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 a Dynamic Cone Penetrometer (DCP), and/or a 1/2" diameter steel probe rod, we verify the average bearing capacity of the sub-grade soils 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.

We also performed a 3rd party footing inspection in-lieu of city inspector using the plan provided by the builder. Based on our inspection, we verify the following:

- Depth and size of footings mentioned above meets or exceeds per plan specifications and code requirements.
- Locations of all footing excavations are found to be per plans.
- Footings are reinforced per plans.
- Footings are prepared in compliance with NCRC 2018 Chapter 4 (Sections R401-R404)
- **All conditions are acceptable to acceptable to receive concrete.**

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. A.A. 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 this document, the maker cannot guarantee against human error nor evaluations of structural elements which are concealed from visual inspection.



DESIGN PROFESSIONAL INSPECTION FORM

RECORD OF THE INSPECTION OF A COMPONENT OR ELEMENT BY A NC LICENSED ARCHITECT OR ENGINEER

Project Information:

Residential Single-Family Project: <input checked="" type="radio"/> Y <input type="radio"/> N	Commercial Project: <input type="radio"/> Y <input checked="" type="radio"/> N
Code Enforcement Project No:	Permit No: SFD-2304-0037
Project Name: 521 Natchez Trace	Owner:
Project Address: 521 Natchez Trace	Suite No:
Date Inspected: 9-7-2023	Contractor Name: Family Building CO.
Component Inspected: Monoslab	

Responsible Licensed NC Architect or NC Engineer

Name:	Andy A Takla, PE
Firm Name:	A.A. Takla Engineering, PLLC
Phone Numbers:	Office: 919-200-0722 Mobile: 919-200-0722
Email Address:	andytakla@taklaengr.com
Mailing Address:	718 Arnette Ave. Durham, NC 27701

APPLICABLE CODE: NCRC 2018

2018 NCBC = 2018 NC Building Code; 2018 NCRC = 2018 NC Residential Code

Describe Element/Component/Type of Inspection: *

Monoslab (With Front Porch)

*(subgrade form/letter may also be required)

Attestation/Signature:

By signing below, I certify that the component and/or element of the building as identified on this form has been inspected by me or someone under my direct supervision per subsection (b2) of NC G.S. 153A-352 and is in compliance with the approved plans & specifications for the project. This inspection is in compliance with all of the requirements of the above referenced code. Attach any additional documents if needed.

Licensed Architect or Engineer



Inspection Department disclaimer:

Upon the receipt of a signed written document as required under subsection (a) of Article 160A-413.5., Code Enforcement shall be discharged and released from any liabilities, duties and responsibilities imposed by this article or in common law from any claim arising out of or attributed to the component or element in the construction of the building for which the signed written document was submitted. Be aware that this inspection will be noted in all inspection records including the Certificate of Occupancy or Certificate of Compliance. This inspection does not address any local ordinances or zoning requirements.