

# 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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NC PE License # 050695

**Project:** Chartres Lot 20  
**Location:** Fuquay Varina, NC  
**Company:** Family Building CO.  
**Care Of:** John Szalecki  
**Subject:** Slab Subgrade and 3rd Party Inspection  
**Job Number:** 1933-22



As requested, Andy Takla, PE visited the above referenced site on December 20th, 2022 to evaluate the bearing capacity of the sub-grade soils supporting:

- Foundation wall and/or interior pier footings
- Turndown monoslab on grade and interior lug footings
- Front porch turndown footings
- Attached garage turndown footings
- Rear porch turndown footings

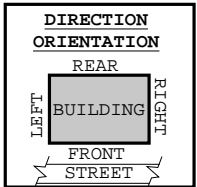
\*Patio slabs with no thickened or lug footings are outside the scope of our inspection.

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 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 monoslab inspection in-lieu of city inspector using the plan provided by the builder and approved by municipal building inspections department. Based on our inspection, we verify the following:

- 1) Depth and size of turndown grade beam footing excavations for monoslab meets or exceeds per plan specifications and code requirements.
- 2) Locations of all turndown grade beam footing excavations as well as interior thickened lug footings for monoslab appear per plans. Note, our inspection does not guarantee against overhangs of framing members.
- 3) R10 insulation is installed per code.
- 4) Vapor barrier is correctly placed.
- 5) Formwork heights in relation to grade of grade provides room for plan specified concrete slab thickness.
- 6) Footings are prepared in compliance with NCRC 2018 Chapter 4 (Sections R401-R404)

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: Y <input checked="" type="radio"/> N <input type="radio"/>
Code Enforcement Project No:	Permit No: SFD2206-0075
Project Name: Chartres Lot 20	Owner:
Project Address: Chartres Lot 20	Suite No:
Date Inspected: 12-20-2022	Contractor Name: Family Building
Component Inspected: Monoslab	CO. (Szalecki)

**Responsible Licensed NC Architect or NC Engineer**

Name:	Andy A Takla, PE
Firm Name:	A.A. Takla Engineering, PLLC
Phone Numbers:	Office: 919-258-2648 Mobile: 919-919-423-0470
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 and 3rd Party Inspection

\*(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.



**ANDY A TAKLA PE**

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.