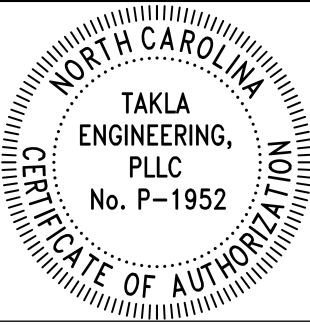




Takla Engineering, PLLC

NC Firm License # P-1952

Consulting | Design | Efficiency

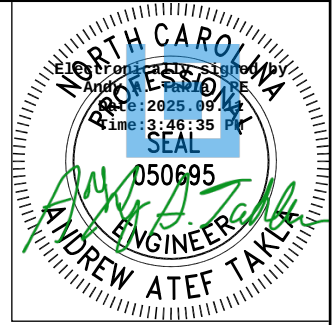
PO Box 71298 Durham, NC 27722

Office@TaklaEngr.com | 919-258-2648

Alfred A. Takla, PE
NC PE License # 047507
Fred@TaklaEngr.com

Andy A. Takla, PE
NC PE License # 050695
Andy@TaklaEngr.com

Macon J. Hubert, EI
NC EI # A-31279
Macon@TaklaEngr.com



Project: Jasmine Road New Home

Address: 929 Jasmine Road

City: Fuquay-Varina, NC

Subject: Monoslab Subgrade Soils and
3rd Party Inspection

Care Of: John Szalecki

Company: Family Building Company

Job Number: 2-5939-25

Page Number: 1 of 1

As requested, a engineer representative of Takla Engineering visited the above referenced site on September 10th, 2025 to evaluate the bearing capacity of the sub-grade soils supporting:

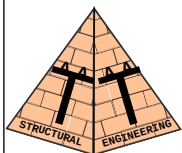
- ☐ Foundation wall and/or interior pier footings
- ☒ Turndown monoslab on grade and interior lug footings
- ☒ Front porch post lug footings
- ☐ Attached garage turndown footings
- ☐ Rear porch turndown footings

*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.

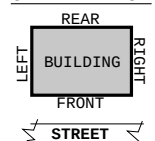
We also performed a 3rd party monoslab inspection in-lieu of a municipal inspector using the plans provided by the builder and approved by municipal building inspections department. Based on our inspection, we verify the following:

- Depth and size of turndown excavations meets or exceeds plan specifications and code requirements.
- Locations of all turndown excavations as well as interior thickened lug footings appear per plans. Note, our inspection does not guarantee against overhangs of framing members.
- Approximately 4" of stone are placed within the field(s) of the slab(s) leaving sufficient space for at least a 4" slab.
- R10 insulation, if required by code or intended by builder is installed, extending to the lesser of the bottom of excavation or 24" below grade, and all required through holes cut.
- Vapor barrier is correctly placed with comprehensive coverage at all conditioned spaces.
- Formwork heights in relation to grade provides room for plan specified concrete slab thickness without imposing of excessive lateral pressures on the turndown.
- Footings are prepared in compliance with NCRC 2024 Chapter 4 (Sections R401-R404)
- **All conditions are acceptable to receive concrete.**



Limitations of Inspection and Liability: Engineering services in this report follow standard structural engineering practice and the North Carolina Residential Code (2024 Edition). Conclusions and recommendations are based solely on site conditions observed at the time of evaluation and are limited by the agreed scope, schedule, and budget. This report excludes any responsibility for construction sequencing, shoring, or means and methods. Evaluations are limited to visible and accessible elements; no destructive testing or inspection of concealed components was performed. No guarantees or warranties, express or implied, are provided in connection with these services. Takla Engineering relies on the accuracy of information provided by others and assumes no liability for conclusions based on incomplete, inaccurate, or misleading input. Reasonable efforts were made to ensure accuracy. However, the potential for human error and the limitations of non-invasive inspection must be acknowledged. Takla Engineering's maximum liability—whether from contract, tort, or otherwise—is limited to the total fees paid for services under this agreement, barring gross negligence. By accepting, referencing, or using this report, the recipient agrees to all terms, limitations, and conditions set forth herein, barring gross negligence by Takla Engineering.

DIRECTION ORIENTATION



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: ☒ Y ☐ N	Commercial Project: ☐ Y ☒ N
Code Enforcement Project No:	Permit No: SFD2506-0019
Project Name: 929 Jasmine Road	Owner:
Project Address: 929 Jasmine Road	Suite No:
Date Inspected: 9-10-2025	Contractor Name: Family Building Comp.
Component Inspected: Slab	(John Szalecki)

Responsible Licensed NC Architect or NC Engineer

Name:	Andy A Takla, PE
Firm Name:	Takla Engineering, PLLC
Phone Numbers:	Office: 919-258-2648 Mobile: 919-423-0470
Email Address:	andytakla@taklaengr.com
Mailing Address:	PO Box 71298 Durham, NC 27722

APPLICABLE CODE: NCRC 2024

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

Describe Element/Component/Type of Inspection: *

Monoslab Subgrade and 3rd Party Inspection
(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 (a2) of NC GS§ 160D-1106 and is in compliance with the Code or other proposal of the architect or engineer for the project. This inspection is in compliance with all of the requirements of the above referenced Code. Attach any additional documents if needed.

Electronically signed by
Andy A. Takla, PE **Date: 2025.09.11**
Time: 3:46:54 PM

Licensed Architect or Engineer



Inspection Department disclaimer:

Upon the receipt of a signed written document as required under subsection (b) of Article 160D-1106, 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.