A & G Residential
916 Arsenal Ave
Suite B
Fayetteville, NC 28305

06/02/2025

Attention : Chad Stewart
Jamie Godwin
Jenn Wagner
John Adams

RE: Daily Field Report for 06/02/2025
Lot 9 Jones Creek (CMT) Lillington, NC
Building & Earth Project No : RD250481

Ladies and Gentlemen:

On this date, representative(s) of Building & Earth were present to perform construction material testing services at this project site. Our testing and observations for this date include the following:

FO-1 : Field Observations made on this date.

• Foundation Inspection	Passed
• Project Management Review	Passed

ST-1 : In place field density testing was performed for Finished Subgrade Soils -Building. The field density testing was performed in general accordance with ASTMD1556 and ASTMD6938, using the results of field one-point as compared to the laboratory proctors. A total of 2 in-place field density tests were performed on this date. The testing results indicate that in-place compaction and moisture content at the location and depth tested meet or exceed the specified requirements outlined in the project plans and specifications. For additional details of our testing, please refer to the attached Field Density Test Report.

Closing

The testing and observations identified above have been reviewed by our project manager. If you have questions regarding this information, please do not hesitate to contact us.

Respectfully Submitted,
Building & Earth Sciences, LLP

Enclosures : FO-1, ST-1

NORTH CAROLINA PROFESSIONAL SEAL 024482 ENGINEER KURT A. MILLER

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Rachael Heath
Reviewed By

Field Observations Report

Project Name:	**Lot 9 Jones Creek (CMT) Lillington, NC**	Project Number:	**RD250481**
Client Name:	**A & G Residential**	Placement#:	**FO-1**
Contractor:	**A & G Residential**	Technician:	**Richard Stanek**
Monitoring:	**DCP**		

1 : Foundation Inspection Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared building pad for this project. The structure has a stem wall foundation, and the foundation walls have been backfilled to the slab grade using structural fill soils. It appears that between 1.5 and 2.5 feet of structural fill soils have been placed to achieve the slab grade. The intent of our testing was to determine if the newly placed structural fill soils have been compacted to 95% to support the floor slab and the interior lug footings.

Our evaluation included hand rod probing the entire area for consistency, performing hand auger borings with DCPs, and performing in place density tests to confirm compaction. Based upon our hand rod probing, the surface soils are firm and resistant to penetration. At selected locations, hand auger borings were advanced at 2 locations within the backfilled area. At 12-inch increments in the hand auger boring, to a depth of 3 feet, Dynamic Cone Penetrometer (DCP) Testing was performed in accordance with ASTM STP-399. With proper evaluation, DCP Testing can be correlated to both bearing capacity and percent compaction.

We arrived onsite to evaluate the building pad area for this residential lot. Our evaluation as documented in this report includes:

1) A visual description of the residential lot
2) Comments on any improvements that hat affect the foundations of the residence
3) Hand rod probing of the footing excavations
4) Performing Dynamic Cone Penetration (DCP) tests at representative locations
5) Soil Density tests on fill, if applicable.

Visual Description of the Lot:

The lot is relatively flat. Building locations are referenced from the street looking at the front of the residence. Maximum relief across the lot is approximately 1 foot. Surface water runoff appears to drain to the right.

Comments on Improvements:

Measurements:
1) How far is the nearest slope from the edge of the foundation? 5 feet

The following information provides the results of our hand auger borings and DCP testing:

Test 1: [Front Right Corner]

-- Depth----"N"------Soil Color---USCS--------
--- FSG ---- 9 ---- Red -- SM --------
--- -1' ------ 10.5 ----- Red ---- SM ---------
--- -2' ------ 10 ------ Dark Brown ----- SM -----
--- -3' ------ 3 ------ LIght Brown ----- CL ----- Wet

Test 2: [Back Left Corner]

-- Depth----"N"------Soil Color---USCS-------
--- FSG ---- 10 ---- Red -- SM --------
--- -1' ------ 15+ ----- Red ---- SM ---------
--- -2' ------ 15+ ----- Dark Brown ------ SM -----

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--- -3' ------ 2 ----- Light Brown ------ CL ----- Wet

Results:

Based on our observations and test results, the newly placed fill/existing soils appear to be suitable to provide support for the floor slab and footings, provided the floor slab has a loading of less than 150 pounds per square foot, and the footings have a design bearing capacity of 2,000, or less.

Recommendations:

To minimize the potential for future softening of the bearing materials due to water infiltration, the surface soils should be protected from construction traffic and inclement weather. The construction of the footings and structure should commence without delay. In the event that the subgrade soils become wet, or otherwise compromised from their current condition, should be observed and retested as necessary by Building and Earth Sciences.

We note that our testing was isolated to the upper 3 feet of the soil profile from the finished subgrade elevation as observed on this date. As such, we cannot be aware of any soil or groundwater conditions below this depth that could adversely affect the support of the new construction. If additional information is required, please contact our office.

We are also not aware of any geotechnical work that may have been performed prior to our arrival onsite. If a geotechnical report is available, please forward it to our office for review. If no report is available, our client accepts all liability for long and short term performance of the foundations.

2 : Project Management Review Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared building pad for this project. The structure has a stem wall foundation, and the foundation walls have been backfilled to the slab grade using structural fill soils. It appears that between 1.5 and 2.5 feet of structural fill soils have been placed to achieve the slab grade. The intent of our testing was to determine if the newly placed structural fill soils have been compacted to 95% to support the floor slab and the interior lug footings.

Our evaluation included hand rod probing the entire area for consistency, performing hand auger borings with DCPs, and performing in place density tests to confirm compaction. Based upon our hand rod probing, the surface soils are firm and resistant to penetration. At selected locations, hand auger borings were advanced at 2 locations within the backfilled area. At 12-inch increments in the hand auger boring, to a depth of 3 feet, Dynamic Cone Penetrometer (DCP) Testing was performed in accordance with ASTM STP-399. With proper evaluation, DCP Testing can be correlated to both bearing capacity and percent compaction. Based upon our testing, the soils below the surface have been compacted properly at the locations tested.

While on site, our representative also performed in place density testing to confirm compaction of the surface soils. Our testing was performed using the sand cone method in general accordance with ASTM D-1556. Our results were compared to an in-field proctor that was performed in general accordance with ASTM D-698.

Therefore based upon the results of our testing, the newly placed fill soils have been compacted adequately to provide support for the interior lug foundations and the floor slab. It is important to note that structural inspections were not within our scope of work for this project. As such, we are not able to comment on the construction of the foundation wall.

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Monitoring:	**DCP**		

Inclement weather (rain or snow), as well as construction traffic across the pad, can compromise the stability and support characteristics of the surface soils. If the surface soils become compromised, it will be necessary to return to the site for re-testing. This decision should be executed by your onsite Quality Control and Superintendents.

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Photographs

Picture ID	Site
107463	

Picture ID	Drainage
107464	

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BUILDING & EARTH
Geotechnical, Environmental, and Materials Engineers

ST-1

Test Date: 06/02/2025
Field Technician: Richard Stanek
Tests requested by: N/R
Results provided to: N/R

Report of Field Density Testing

Project Name:	Lot 9 Jones Creek (CMT) Lillington, NC	Ambient Temperature:	60-80
Project Number:	RD250481	Weather:	Sunny
Project Location:	Lillington, NC	Wind Conditions:	Calm
Client:	A & G Residential	Results Provided To:	N/R
Contractor:	A & G Residential	Superintendent:	N/R

Notes:
1 Test location by technician
2 Elevation by Technician
3 Fill/backfill placed prior to technician arriving

Design & Specification Data

Area ID	Area Description	Depth (ft)	Test Method	% Compaction	Moisture Range	
					Min	Max
FSG-Bldg	Finished Subgrade Soils -Building	0.0 - 2.0	ASTM D-698	95 %	- 10.0	+ 10.0

Laboratory Proctors

Proctor ID	Description of Material	USCS/AASHTO	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
1-point			112.8	12.4%

Density Test Data

Test #	IDs		Test Type	Location	Probe Depth (in)	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor								
1	FSG-Bldg	1-point	ASTMD1556	Finished Subgrade Soils -Building : Front right corner :		FSG	116.6	9.9	100+	PASS
2	FSG-Bldg	1-point	ASTMD6938	Finished Subgrade Soils -Building : Correlation Test :		For Information Only	108.5	10.2	96%	PASS

Equipment Used: 60150-Troxler3430
Last Calibration: 04/18/2025

Standard Counts: Density: 1920
Moisture: 683

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