

04/22/2025

Dream Finders Homes-Carolinas 2919 Breezewood Avenue Suite 400 Fayetteville, NC 28303

Attention : Blake Dickerhoff Chris Adams

RE: Daily Field Report for 04/18/2025 Lot 490 Colony at Lexington (CMT) Cameron, NC Building & Earth Project No : RD250299

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.

<ul> <li>Foundation Inspection</li> </ul>	Passed
<ul> <li>Project Management Review</li> </ul>	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 ASTMD6938, using values from the laboratory proctors. One(1) in-place field density test was 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



Rachael Heath



# **Field Observations Report**

Project Name:	Lot 490 Colony at Lexington (CMT) Cameron, NC	Project Number:	RD250299
Client Name:	Dream Finders Homes-Carolinas	Placement#:	FO-1
Contractor:	Dream Finders Homes-Carolinas	Technician:	Hernan Perdomo
Monitoring:	DCP		

#### 1: Foundation Inspection

Passed

We arrived onsite to evaluate the building pad area for this residential lot. We understand the residence has been designed to be supported on a monolithic slab foundation. Our evaluation as documented in this report includes:

- 1) A visual description of the residential lot
- 2) Comments on any improvements that 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 3 feet. Surface water runoff appears to drain Left.

Comments on Improvements:

The site has been stripped of surface cover and topsoil. It appears that 24 inches of topsoil has been removed from the building pad area.

Structural fill has been placed at the site to level the building pad. Based on our observations, we understand the pad has been filled according to the following:

Section-----Thickness of Fill Left Front-----24 inches of fill Left Rear-----24 inches of fill Center-----24 inches of fill Right Front-----24 inches of fill Right Rear-----24 inches of fill

## Measurements:

How far is the nearest slope from the edge of the foundation? No Slope

Footing Test:

Hand Rod Probing: Our representative performed hand rod probing of the surface of the building pad. Hand rod probing of the bearing material generally showed an average penetration of approximately 1 inches.

DCP Testing: Our representative performed Dynamic Cone Penetration (DCP) testing in general accordance with ASTM STP-399 at four representative locations to a depth of 36 inches. Our representative did not observe water within the DCP boreholes as noted below.

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

Test 1: [Front Center]

Rachael Heath Reviewed By

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Monitoring:	DCP		

-- Depth----"N"-----Soil Color---USCS------

---- FSG ----- 15 ----- Ligth Brown -----SC---------- -1' ----- 6.5 ----- Ligth Brown ----- SC ---------- -2' ----- 7.5 ----- Ligth Brown ----- SC -----

---- -3' ----- 7 ----- Dark grey ----- SC ------

Test 2: [Back Center] -- Depth----"N"-----Soil Color---USCS---------- FSG ----- 11 ----- Ligth Brown -----SC---------- -1' ----- T----- Ligth Brown ----- SC ----------- -2' ----- 8.5 ----- Ligth Brown ----- SC --------- -3' ----- 7 ----- Dark grey ----- SC ------

Soil Density Testing:

Soil density testing was performed using the sand cone method of compaction in general accordance with ASTM D1556. The results of our tests are attached as ST-1.

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.

### 2: **Project Management Review**

Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared building pad for this project. We understand that the structure will have a monolithic slab-on-grade floor system that will have foundations and a floor slab that will be supported by the newly placed structural fill soils. It appears that between .5 and 2 feet of structural fill soils have been placed to achieve the desired grades. The intent of our testing was to determine if the newly placed structural fill soils are adequate to provide a bearing capacity of 2,000 psf for the foundations, and have been compacted to 95% to support the floor slab for the new structure.

Our evaluation included hand rod probing, advancing hand auger borings with DCPs and performing a density test on the surface. Based upon our hand rod probing the newly placed soils are firm and resistant to significant penetration. Hand auger borings were then advanced at 2 selected location across the building envelope to determine the consistency of the below grade soils. 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 the results of this testing, the below grade soils that will support the foundations and floor slab are acceptable.

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. Based upon our tests results, the soils have been properly compacted at the surface.

Rachael Heath Reviewed By



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Contractor:	Dream Finders Homes-Carolinas	Technician:	Hernan Perdomo				
Monitoring:	DCP						

It is important to note that our testing was isolated to the upper 3 feet. As such, we are not able to comment upon the settlement characteristics of deeper soils. Additionally, 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.

Rachael Heath Reviewed By



### **Field Observations Report** Lot 490 Colony at Lexington (CMT) Project Name: Project Number: RD250299 Cameron, NC Client Name: **Dream Finders Homes-Carolinas** Placement#: FO-1 **Dream Finders Homes-Carolinas** Technician: Hernan Perdomo Contractor: Monitoring: DCP

Photographs							
Picture ID							
105254	<image/>						

Rachael Heath Reviewed By



Geotechnical, Environmental, and Materials Engineers

ST-1

Test Date: 04/18/2025 Field Technician: Hernan Perdomo Tests requested by: Christ

Results provided to: Christ

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				<b>Report of Field Den</b>	sity 1	lesting						
	Project			at Lexington (CMT)	Ambie	nt Tempe	rature:	60-8	0			
Project Number: RD250299					Ambient Temperature: 60-80 Weather: Sunny							
	roject Lo		meron, NC		W	/ind Cond		Breez				
Client: Dream Finders Homes-Carolinas			Resu	Its Provid	ed To:	Chris						
	Con	tractor: Dr	eam Finders	Homes-Carolinas	9	Superinte	ndent:	Chris	st			
Notes	s: 1	Test locati	on by techni	cian								
10101	2		by Techniciar									
	3	Fill/backfi	ll placed prio	r to technician arriving								
				Design & Specific	ation	Data						
											Moisture	
Area	a ID		Area	Description	Depth	n (ft) Te	t) Test Method		% Compactio			
FSG-	Blda	F	inished Subo	grade Soils -Building	0.0 - 2.0		ASTM D-698		95 %		Min 10.0	Max + 10.
100	blag			Laboratory Pr	I				5570		10.0	
								<u> </u>			Optim	um
Procte	or ID	Description of Material			USCS/A	JSCS/AASHTO		Maximum Dry Density (pcf)		Moisture		
1-pc	oint								118.9		onten 13.0	
1-pc	JIII			Density Test	Data		,		110.9		15.0	/0
[		IDs	Test	-	Prob		.	Dry	%	9	6	_
Test #	Area	Proctor	Туре	Location	Dept (in)	n (ft)		ity(pcf			action	Resul
1	FSG-Bldg	g 1-point	ASTMD6938	Finished Subgrade Soils -Building : Front Left Corner :			FSG 115.3		9.2	97	7%	PASS
I	Equipm	ent Used: 680	)60-Troxler343	30		Stand	dard Cou	nts:	Density:	2199	)	
	Last Ca	alibration: 00/	/00/0000						Moisture:	736		
	112-1	70 \\/_ (					6		4			
127 US	Highway	70 West					$\cap$	Λ	л.	1	,	

Rachael Heath Reviewed By