

Dream Finders Homes-Carolinas 2919 Breezewood Avenue Suite 400 Fayetteville, NC 28303 07/24/2025

Attention : Blake Dickerhoff Chris Adams

**RE:** Daily Field Report for 07/21/2025

Lot 46 Magnolia Ridge (CMT) Lillington, NC Building & Earth Project No : RD250707

#### 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, using the results of field one-point as compared to 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

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Digitally signed by:

- Rachael Heath - 07/24/2025

- 07/24/202. - 08:51:52



### Field Observations Report

Project Name: Lot 46 Magnolia Ridge (CMT) Lillington, NC Project Number: RD250707

Client Name: **Dream Finders Homes-Carolinas** Placement#: FO-1

Contractor: **Dream Finders Homes-Carolinas** Technician: **Adam Buechler** 

Monitoring: **DCP** 

#### **Foundation Inspection**

Passed

Our technician was onsite to perform a shallow foundation inspection for Lot 15 at the center of the Garage and the center of the Patio. The foundation requires a bearing capacity of (ex. 2000 psf, 3000 psf) as (ex. stated in the project plans sheet S-100, Foundation Note 1; geotechnical report by (name of company) dated (date of report)). Excavations were complete upon our arrival onsite and the bearing soils appeared to be relatively flat and free of organic material and debris. Bearing soils appeared to consist mostly of dry, silty sand. No standing water was noted on the bearing surface. Hand rod probing was performed on 100% of the bearing surface with average penetration of approximately ~1" of depth inside the garage and ~1" inside the patio. Our representative performed Dynamic Cone Penetration (DCP) testing in general accordance with ASTM STP-399 (every 75 linear feet of the strip footing and/or at least 20% of isolated column footings) at two representative locations to a depth of 36 inches. Water was/was not observed within the DCP borehole(s) (if water was observed in borehole at what depth below BOF).

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

#### Test 1: Center of garage

| Depth"N"Soil ColorUSCSNotes  |
|--|
| FSG 8 Gray Silty sand Soils appeared to be dry of optimum moisture |
| 1' 12 Gray Silty sand Soils appeared to be dry of optimum moisture |
| 2' 9 Red Silty clay Soils appeared to be dry optimum moisture      |
| 3' 15+ Red Silty clay Soils appeared to be dry of optimum moisture |

#### Test 2: Center of patio

| Depth"N"Soil ColorUSCSNotes   |
|---|
| FSG 10 Gray Silty sand Soils appeared to be dry of optimum moisture |
| 1' 12 Gray Silty sand Soils appeared to be dry of optimum moisture  |
| 2' 14 Red Silty clay Soils appeared to be dry optimum moisture      |
| 3' Red Silty clay Soils appeared to be dry of optimum moisture      |

#### Results:

Based on our observations and test results, the required bearing capacity of (2,000 psf) is available at the location and elevations tested on this date.

To minimize the potential for future softening of the bearing materials due to water infiltration; reinforcing steel and concrete placement should be completed as soon as practically possible or concrete mud mat should be placed. Any water infiltration should be removed through gravity drainage and/or sump pits and pumping. Any foundations that meet bearing capacity requirement today and experience water infiltration before concrete placement, should be retested by Building & Earth Sciences.

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

Passed

Our client has authorized Building & Earth Sciences to perform an evaluation of the prepared garage and patio 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.

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# **Field Observations Report**

Project Name: Lot 46 Magnolia Ridge (CMT) Lillington, NC Project Number: RD250707

Client Name: Dream Finders Homes-Carolinas Placement#: FO-1

Contractor: **Dream Finders Homes-Carolinas** Technician: **Adam Buechler** 

Monitoring: **DCP** 

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 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.

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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# **Field Observations Report**

Project Name: Lot 46 Magnolia Ridge (CMT) Lillington, NC Project Number: RD250707

**Dream Finders Homes-Carolinas** FO-1 Client Name: Placement#:

Contractor: **Dream Finders Homes-Carolinas** Technician: **Adam Buechler** 

DCP Monitoring:

# **Photographs**





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ST-1

Test Date: 07/21/2025
Field Technician: Adam Buechler

Tests requested by: JT Results provided to: JT

# **Report of Field Density Testing**

Project Name: Lot 46 Magnolia Ridge (CMT) Lillington, NC

Ambient Temperature: >90

Project Number: RD250707

Weather: Sunny

Project Location: Lillington, NC

Wind Conditions: Calm Results Provided To: JT

Client: Dream Finders Homes-Carolinas Contractor: Dream Finders Homes-Carolinas

Superintendent: JT

Notes: 1 Test location by client

2 Elevation by Contractor

3 Fill/backfill placed prior to technician arriving

| Design & | & Spec | ificati | on Data |
|----------|--------|---------|---------|
|          |        |         |         |

| Area ID  | Area Description                  | Depth (ft) | Test Method | % Compaction | Moisture<br>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<br>Density (pcf) | Optimum<br>Moisture<br>Content (%) |
|------------|-------------------------|-------------|------------------------------|------------------------------------|
| 1-point    |                         |             | 120.7                        | 6.8%                               |

### **Density Test Data**

| Test # | IDs  |          | Test    | Location  | Probe<br>Depth  | h   Elev. | Dry  | %            | %        | Result     |        |
|--------|------|----------|---------|-----------|---|-----------|------|--------------|----------|------------|--------|
|        | J( " | Area     | Proctor | Туре      | Location  | (in)      | (ft) | Density(pcf) | Moisture | Compaction | Result |
|        | 1    | FSG-Bldg | 1-point | ASTMD1556 | Finished Subgrade Soils -Building :<br>Center of Lot<br>: |           | FSG  | 115.7        | 7.6      | 96%        | PASS   |

Equipment Used: Last Calibration: Standard Counts:

Density: Moisture:

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