ADDRESS . : 39 HEATHERWOOD DR SUBDIV: OAKMONT PH 2 SECT 1 30LTS
TENANT, NBR: CONF#015079
CONTRACTOR : GML DEVELOPMENT INC PHONE : (919) 793-5237
OWNER . . : M & JM LLC PHONE :
PARCEL . . : 03-9589-01- -1021- -05-
APPL NUMBER: 16-50038347 CP NEW RESIDENTIAL (SFD)
DIRECTIONS : T/S: 03/29/2016 03:00 PM JBROCK ----
OAKMONT #173

STRUCTURE: 000 000 41.6X36.4 3BDR MONO W/ GARAGE & PORCH
FLOOD ZONE . . . . : FLOOD ZONE X
BEDROOMS . . . . . : 3000000.00 PROPOSED USE . . . . . : SFD
SEPTIC - EXISTING? . . . . : NEW TANK WATER SUPPLY . . . . . : COUNTY

PERMIT: CPSF 00 CP * SFD

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
P309 01	5/24/16	MR	R*PLUMB UNDER SLAB VRU #: 002820595
	5/24/16	AP	T/S: 05/24/2016 01:19 PM MREARIC
A814 01	6/01/16	TI	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 002823979
			T/S: 05/31/2016 02:17 PM JBROCK
B114 01	6/01/16	TI	R*BLDG MONO SLAB/TEMP SVC POLE TIME: 17:00 VRU #: 002823987
	"	AP-MR	T/S: 05/31/2016 02:17 PM JBROCK

COMMENTS AND NOTES

McKee Homes
101 Hay Street, 2nd Floor
Fayetteville, NC 28301

05/13/2016

Attention : Dave Potter

RE: Daily Field Report for 05/12/2016
Lot 173 Oakmont Subdivision (CMT) Lillington, NC
Building & Earth Project No : RD160214

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-2 : Field Observations made on this date.

• DCP and Auger	Passed
• Project Management Review	Passed

ST-2 : In place field density testing was performed for Finished Subgrade Soils -Building. The field density testing was performed in general accordance with ASTMD1556, 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-2, ST-2

NORTH CAROLINA PROFESSIONAL SEAL 024182 ENGINEER KURT A. MILLER

610 Spring Branch Road
Dunn, NC 28334
Phone 910-292-2085 Fax 910-292-2192
www.BuildingandEarth.com

Reviewed By

Field Observations Report

Project Name:	**Lot 173 Oakmont Subdivision (CMT) Lillington, NC**	Project Number:	**RD160214**
Client Name:	**McKee Homes**	Placement#:	**FO-2**
Contractor:	**McKee Homes**	Technician:	**Chris McCommons**
Monitoring:	**DCP**		

1 : DCP and Auger 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 stem wall foundation. Upon arrival, the contractor had not finished excavating the footings. 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 slopes downward from front to back. Building locations are referenced from the street looking at the front of the residence. Maximum relief across the lot is approximately 6 feet. Surface water runoff appears to drain towards the rear.

Comments on Improvements:

The site has been stripped but still appears to have a layer of organics that need attention. It appears that 12 inches of topsoil has been removed from the building pad area.

Structural fill (has not) been placed at the site to level the building pad. Based on our observations, we understand the pad has been cut or filled according to the following:

Section----------Thickness of Cut or Fill
Left Front----------48 inches of (cut)
Left Rear----------24 inches of (fill)
Center----------24 inches of (fill)
Right Front----------48 inches of (cut)
Right Rear----------24 inches of (fill)

Measurements:
1) What is the proposed depth of footing? 18 inches
2) What is the distance from the outside edge of footing to top edge of the nearest slope? 6 feet
3) What is the distance from the outside edge of footing to the outside edge (toe) of the nearest slope? 27 feet
4) What is the vertical height of the slope? 2.5 feet

Future Footing Tests

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 3 inches. Our representative did not observe standing water or evidence of standing water.

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Field Observations Report

Project Name:	**Lot 173 Oakmont Subdivision (CMT) Lillington, NC**	Project Number:	**RD160214**
Client Name:	**McKee Homes**	Placement#:	**FO-2**
Contractor:	**McKee Homes**	Technician:	**Chris McCommons**
Monitoring:	**DCP**		

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: [Adjacent to left center side]

-- Depth----"N"-----Soil Color---USCS-------Notes:
--- ESG -- 7 --- Orange Brown --- CL ------- Note 1: Water (not) encountered at 0.0 feet
--- -1' ---- 15 --- Orange Brown ----CL -------- Note 2: Water (not) encountered (at -1 feet)
--- -2' ---- 15 --- Orange Brown-----CL ----- Note 3: Water (not) encountered (at -2 feet)

Test 2: [Adjacent to right center side]

-- Depth----"N"-----Soil Color---USCS-------Notes:
--- ESG -- 15--- Orange Brown --- CL ------- Note 1: Water (not) encountered at 0.0 feet
--- -1' ---- 11 --- Orange Brown ----CL -------- Note 2: Water (not) encountered (at -1 feet)
--- -2' ---- 15 --- Tan----- SM ----- Note 3: Water (not) encountered (at -2 feet)

Test 3: [2.5 feet diagonal from the right rear corner]

-- Depth----"N"-----Soil Color---USCS-------Notes:
--- ESG -- 10--- Tan --- SM ------- Note 1: Water (not) encountered at 0.0 feet
--- -1' ---- 9 --- Orange Brown ----CL --------- Note 2: Water (not) encountered (at -1 feet)
--- -2' ---- 15 ---Tan----- SM ----- Note 3: Water (not) encountered (at -2 feet)

Test 4: [2.5 feet diagonal from the left rear corner]

-- Depth----"N"-----Soil Color---USCS-------Notes:
--- ESG -- 6.5 --- Orange Brown --- CL ------- Note 1: Water (not) encountered at 0.0 feet
--- -1' ---- 11--- Orange Brown ----CL --------- Note 2: Water (not) encountered (at -1 feet)
--- -2' ---- 15 --- Brown----- SM ----- Note 3: Water (not) encountered (at -2 feet)

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-2.

Results:

610 Spring Branch Road
Dunn, NC 28334
Phone 910-292-2085 Fax 910-292-2192
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Rachael Heath
Reviewed By

Field Observations Report

Project Name:	**Lot 173 Oakmont Subdivision (CMT) Lillington, NC**	Project Number:	**RD160214**
Client Name:	**McKee Homes**	Placement#:	**FO-2**
Contractor:	**McKee Homes**	Technician:	**Chris McCommons**
Monitoring:	**DCP**		

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.

2 : Project Management Review Passed

On this date, our representatives returned to the site for re-testing. Based upon our re-testing, the recommended repairs have been accomplished, and the building pad is now acceptable for the construction of the foundations.

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.

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Dunn, NC 28334
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Rachael Heath
Reviewed By

BUILDING & EARTH
Geotechnical, Environmental and Materials Engineers

ST-2

Test Date: 05/12/2016
Field Technician: Chris McCommons
Tests requested by: N/R
Results provided to: N/R

Report of Field Density Testing

Project Name:	Lot 173 Oakmont Subdivision (CMT) Lillington, NC	Ambient Temperature:	70-90
Project Number:	RD160214	Weather:	Clear
Project Location:	Lillington, NC	Wind Conditions:	Calm
Client:	McKee Homes	Results Provided To:	N/R
Contractor:	McKee Homes	Superintendant:	N/R

Notes:
1 Test location by technician
2 Elevation by Technician
3 Fill/backfill monitored by technician

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			123.0	11.0%

Density Test Data

Test #	IDs		Test Type	Location	Elev. (ft)	Dry Density(pcf)	% Moisture	% Compaction	Result
	Area	Proctor							
1	FSG-Bldg	1-point	ASTMD1556	Finished Subgrade Soils -Building : Lot 173-39 Heatherwood-Oakmont Subdivision 1.5 feet diagonal from right rear corner :	2 feet depth	126.2	13.1	100+	PASS

Equipment Used:
Last Calibration:
Standard Counts: Density:
Moisture:

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Rachael Heath
Reviewed By