NC Registered Firm # F-1078

ECS Southeast, LLP
6151 Raeford Road
Suite A
Fayetteville, NC 28304
(910) 401-3288 [Phone]
(910) 323-0539 [Fax]

LETTER OF TRANSMITTAL

April 8, 2020
W.S. Wellons Realty
PO Box 766
Spring Lake, NC 28390

ATTN: Jason Wellons

RE: **Lot 5-29 Tupelo Rd**
ECS Job # **5190**

Permits:
Location: **Tupelo Rd**
Spring Lake, NC 28390

CC:

ENCL: Field Report # 1 4/7/2020

Matthew B. Olsen, P.E.
Office Manager, Principal

Ryan H. Parrish
Construction Materials Project Manager

NC Registered Engineering Firm # F-1078

ECS Southeast, LLP
6151 Raeford Road
Suite A
Fayetteville, NC 28304
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(910) 323-0539 [Fax]

FIELD REPORT

Project	**Lot 5-29 Tupelo Rd**
Location	**Spring Lake, NC**
Client	**W.S. Wellons Realty**
Contractor	**None Listed**

Project No.	**5190**
Report No.	**1**
Day & Date	**Tuesday 4/7/2020**
Weather	**60 °/ Sunny**
On-Site Time	**1.75**
Lab Time	**0.25**
Travel Time*	**1.00**
Total	**3.00**
Re Obs Time	**0.00**

Remarks

Trip Charges*		Tolls/Parking*	Mileage*	**35**	Time of	Arrival	Departure
Chargeable Items	**5000**					**8:00A**	**9:45A**

* Travel time and mileage will be billed in accordance with the contract.

Summary of Services Performed (field test data, locations, elevations & depths are estimates) & Individuals Contacted.

An ECS Representative arrived on-site, as requested, to observe:

1. The compaction of structural fill for the top 12 inches of the building pad. Please see the attached sketch.

Utilizing the (Nuclear Method (ASTM D 6938) to check the compaction of the soils at the areas and elevations tested, test results met or exceeded the project requirements of 98% of maximum dry density as determined in our laboratory using the Standard Proctor Method (ASTM D 698).

Areas tested were based on stakeouts or work limits provided by others and were not confirmed by the undersigned.

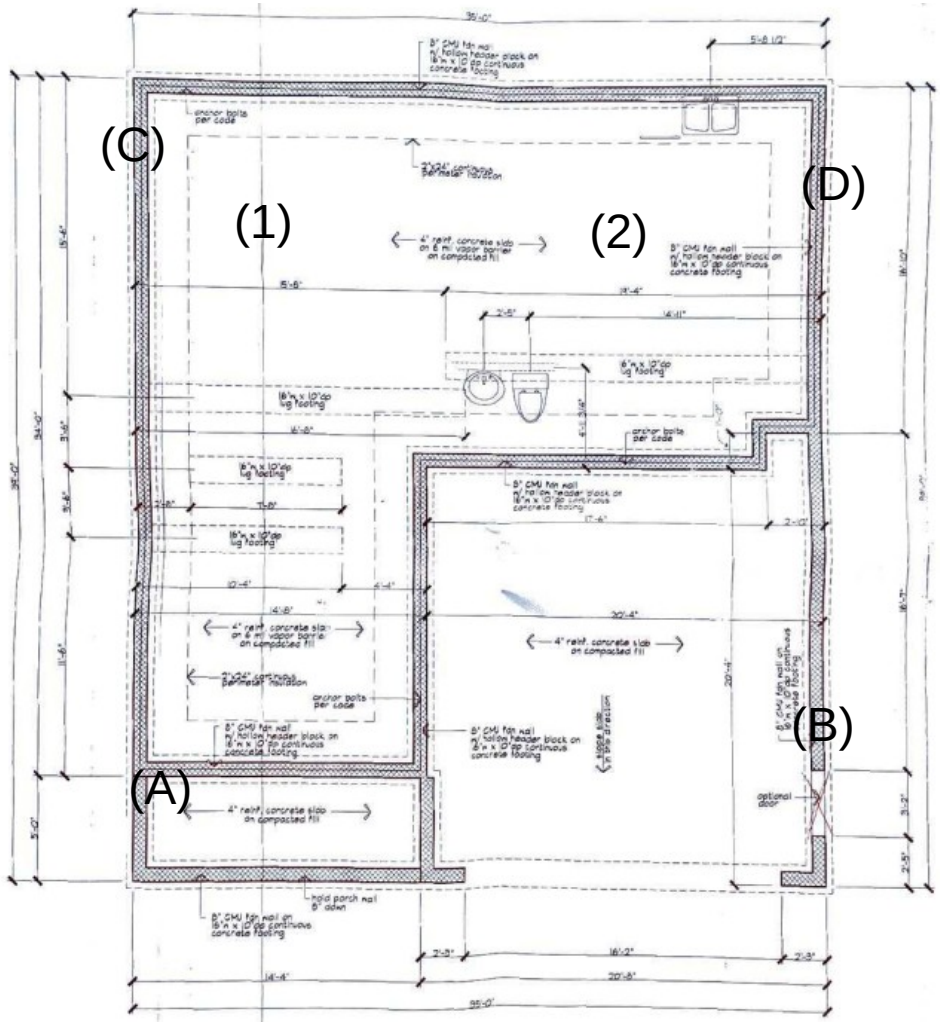
2. The bearing capacity of soils via hand auger/dcp method for subsurface soil conditions. Please see the attached sketch.

A hand auger was used to advance the boreholes to different depths noted on the boring logs. Dynamic Cone Penetrometer (DCP) tests were performed in the hand auger boreholes by a 1.5 inch diameter cone driven into the soil by a 15 pound ring weight with a free fall of 20 inches. The number of blows required to drive the cone into the soil a distance of 1.75 inches is termed the DCP Value and is indicated for each test on the hand auger.

A total of 4 hand auger/DCP evaluations were performed. Soils appear to be suitable to support the design bearing capacity of 2000 psf.

By Cameron R Hall, --- Assistant Team Leader 1800

1088081



Cameron Hall 4-7-20 Lot 5 P# 5190 WO#56540	**Key** (#)= Foundation Evaluation (Letter) = DCP Location

Field Compaction Summary, ASTM ASTM D6938

Project No: 11026-V3 Project Name: Dulles Discovery Parking Garage A - sitework Date: 4/7/2020

ECS Mid-Atlantic, LLC

Client: The Peterson Companies

Contractor: Holder Construction Company

Technician: John Otwe

Test Method ASTM ASTM D6938			
Nuclear Gauge No. 39			
Make		Density Std	34852
Model		Moisture Std	7605
Ser. No.			

Sample No.	Description	Proctor Method	Uncorrected Max. Density	Uncorrected Optimum Moisture Content
DS4-1	Tan/Yellow Clayey SAND	ASTM D 698-12 Method A Standard	115.50	13.50

Test No.	Lot No.	Test Mode	Probe Depth (in.)	Station / Location	Lift / Elev	Sample No.	% Oversize	Corrected Max. Density	Corrected Optimum Moisture Content (%)	Wet Density (pcf)	Dry Density (pcf)	Moisture Content (%)	Percent Comp. (%)	P / F	Comments
1		DT	8	building pad	Subgrade	DS4-1	0.00	115.50	13.50	126.7	113.8	11.3	98.5	P	
2		DT	8	building pad	Subgrade	DS4-1	0.00	115.50	13.50	127.1	115.6	10.0	100.1	P	

Test Mode: DT = Direct Transmission BS = Back Scatter

WO: 1685880

NC Registered Firm # F-1078

Report of Spread Footing - Foundation Observations

Project: Lot 5-29 Tupelo Rd
Location: Tupelo Rd
Spring Lake - Harnett - NC - 28390
Contractor: None Listed

Project No.: 5190
Day/Date: 4/7/2020

Footing Number	Location	Size (W x H x L)		Footing Bottom Elevation		Description of Steel Placed	Description of Subgrade Material	Required Blow Counts	Design Bearing Pressure
		Design	Actual	Design **	Depth of Undercut (in)			# of Blows / Increment	
1	A	x x	x x	N/A	0		Orange Clayey SAND	6 7,9,9	2000
1	A	x x	x x	N/A	-1		Gray SAND	6 14,14,14	2000
1	A	x x	x x	N/A	-2		Gray SAND	6 8,9,10	2000
1	A	x x	x x	N/A	-3		Gray SAND	6 7,8,10	2000
2	B	x x	x x	N/A	0		Orange Clayay SAND	6 8,8,8	2000
2	B	x x	x x	N/A	-1		Gray SAND	6 12,12,14	2000
2	B	x x	x x	N/A	-2		Gray SAND	6 7,9,9	2000
2	B	x x	x x	N/A	-3		Gray SAND	6 8,9,9	2000
3	C	x x	x x	N/A	0		Orange Clayey SAND	6 8,10,8	2000
3	C	x x	x x	N/A	-1		Orange Clayey SAND	6 5,5,6	2000
3	C	x x	x x	N/A	-2		Gray SAND	6 7,14,14	2000

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3	C	x x	x x	N/A	-3		Gray SAND	6 12,12,14	2000
4	D	x x	x x	N/A	0		Orange Clayey SAND	6 8,8,1	2000
4	D	x x	x x	N/A	-1		Orange Clayey SAND	6 5,5,6	2000
4	D	x x	x x	N/A	-2		Orange Clayey SAND	6 5,6,6	2000
4	D	x x	x x	N/A	-3		Gray SAND	6 12,14,15	2000

*Unconfined Compressive Strength determined by calibrated penetrometer unless otherwise posted.

** SGE: Subgrade Eevation to be determined by surveyor.

Location:

By: Cameron R Hall

ECS Southeast, LLP

WO: 56540