E²S
ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY
3008 ANDERSON DRIVE, SUITE 102
RALEIGH, NC 27609
(919) 781-7798

February 7, 2023

Mr. Lance Richter
947 Harrington Rd.
Broadway, NC 27502

RE: Site Observations
Proposed Shed
947 Harrington Rd.
Broadway, NC

Dear Mr. Ritchter:

On January 23 and 27, 2023, a Professional Engineer with Engineering & Environmental Science Company (E^2S) visited the site to evaluate the soil support conditions for the building footings and concrete floor slab.

Based on the site observations, undisturbed virgin soils were present on the side of the building farthest from the gravel road, and up to 3.5 ft. of fill was present in the building foot print closest to the gravel road. The fill consisted of about 2.5 ft of reddish-brown silty sandy CLAY (CL) altering to a very wet, dark gray clayey SAND (SC) with some wood present. Due to the presence of softer fill, undercut and replacement with No. 57 stone was conducted. Figure 1 in Attachment A shows the location of the undercut and No. 57 stone placement.

One (1) soil density test was conducted on the upper CLAY fill soil. Figure 1 shows the location of the test, and Attachment B provides the density test results. At the location tested, the upper fill had a degree of compaction of 95.3% Standard Proctor Maximum Dry Density (ASTM-D-698).

Based on the site observations and soil density testing, suitable support for the building loads is provided.

We appreciate serving you on this project. Please contact me if you have any questions.

Sincerely,

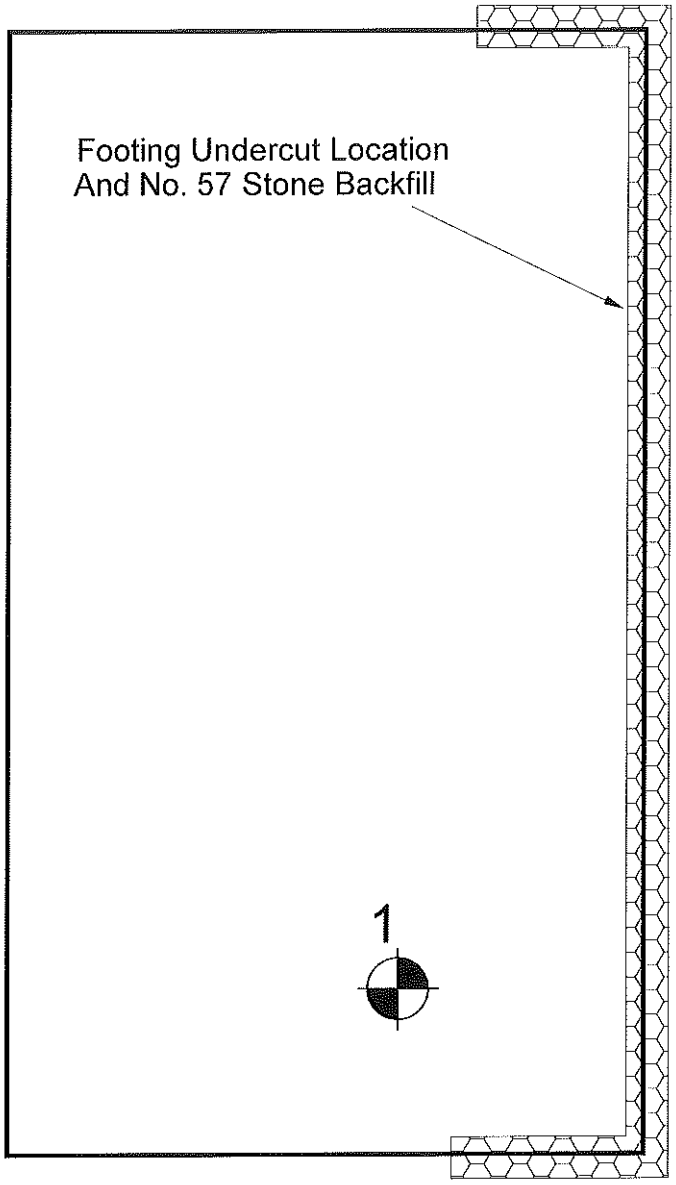
T. Patrick Shillington, P.E.
President

NORTH CAROLINA PROFESSIONAL SEAL 15472 ENGINEER T. PATRICK SHILLINGTON

TPS 02/07/23

Attachment A: Density Test Locations
Attachment B: Density Test Results

ATTACHMENT A: Density Test Locations



Gravel Road

1 Soil Density Test Location

ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY
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Site Observations
947 Harrington Rd
Broadway, NC

DATE: 02/07/23

FIGURE NO. 1

Attachment B: Density Tests Results

Summary of Density Test Results
Building Pad
947 Harrington Rd.
Broadway, NC

TEST NO.	DATE SAMPLED	LOCATION	SAMPLE DEPTH, FT.	(1)MAX LAB DRY DEN., PCF	(2)IN-PLACE WET DEN., PCF	(2)WATER CONTENT	(2)IN-PLACE DRY DEN.,PCF	PERCENT COMPACTION
1	01/27/23	See Drawing	0.5 ft.	113.7	128.1	18.2	108.3	95.3

(1) Standard Proctor (ASTM D-698)
(2) Tests were conducted by the Push Tube Method (ASTM D-2937)

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MOISTURE DENSITY RELATIONSHIP

Job No. _____ Date 01/31/23

Project Name and Location Proposed Shed

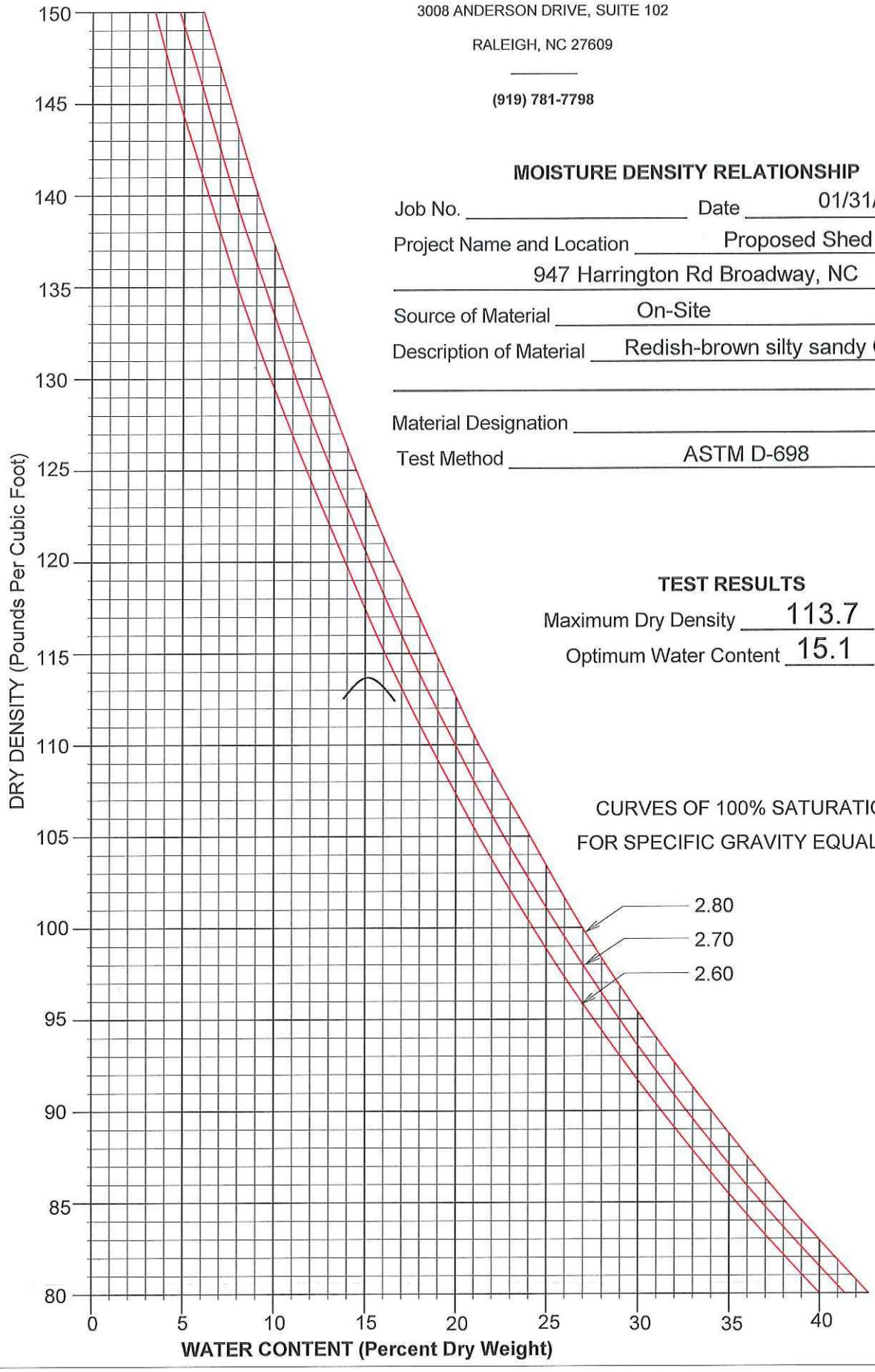
947 Harrington Rd Broadway, NC

Source of Material On-Site

Description of Material Redish-brown silty sandy CLAY (CL)

Material Designation _____

Test Method ASTM D-698



TEST RESULTS

Maximum Dry Density 113.7 PCF

Optimum Water Content 15.1 %